



***Science Research Park Expansion Project  
UC San Diego Project Number/Job Number: 5533***

**Addendum No. 13 to the Program Environmental Impact Report  
for the University of California San Diego  
2018 Long Range Development Plan, La Jolla Campus**

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***September 2023***

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# 1 INTRODUCTION

## 1.1 PROJECT SUMMARY

The following project is addressed in this Addendum for consistency with the 2018 Long Range Development Plan (2018 LRDP) for the University of California, San Diego (UC San Diego), La Jolla Campus and the certified Program Environmental Impact Report (EIR) assessing the environmental impacts of implementing the plan (SCH No. 2016111019).

<b>Project name:</b>	Science Research Park Expansion Project
<b>Project location:</b>	University of California, San Diego
<b>Lead agency's name and address:</b>	The Regents of the University of California 1111 Franklin Street Oakland, California 94607
<b>Contact person:</b>	Lauren Lievers, Principal Environmental Planner UC San Diego Campus Planning
<b>Project sponsor's name and address:</b>	UC San Diego 9500 Gilman Drive, MC 0074 La Jolla, California 92093-0074
<b>Location of administrative record:</b>	UC San Diego Campus Planning 10280 North Torrey Pines Road, Torrey Pines Center South, Suite 460 La Jolla, California 92037
<b>Previously Certified 2018 LRDP Program EIR:</b>	<p>The 2018 LRDP is a comprehensive land use plan that guides physical development on campus to accommodate projected population increases and new program initiatives. The 2018 LRDP and its EIR are available at the following locations:</p> <ul style="list-style-type: none"><li>• UC San Diego Campus Planning in Torrey Pines Center South, Suite 460, 10280 North Torrey Pines Road, La Jolla, California</li><li>• Online at <a href="https://plandesignbuild.ucsd.edu/planning/lrdp/la-jolla.html#Environmental-Impact-Report">https://plandesignbuild.ucsd.edu/planning/lrdp/la-jolla.html#Environmental-Impact-Report</a></li></ul>

## 1.2 PURPOSE OF CONSISTENCY REVIEW

This document evaluates whether the Science Research Park Expansion Project (project) is within the scope of the 2018 LRDP EIR and whether it would trigger subsequent or supplemental environmental review under the California Environmental Quality Act (CEQA). This includes but is not limited to determining whether the project would result in new or substantially more severe environmental impacts in comparison to those disclosed in the environmental impact evaluation in the 2018 LRDP EIR. This document will also serve as an Addendum, as described in the CEQA determination below.

The 2018 LRDP is a comprehensive land use plan that guides physical development on campus to accommodate projected population increases and expanded and new program initiatives (UC San Diego 2018a). The 2018 LRDP EIR was prepared in accordance with CEQA Guidelines Section 15168 and California Public Resources Code (PRC) Section 21094 and analyzed the environmental impacts of the 2018 LRDP (UC San Diego 2018b). The 2018 LRDP EIR (Volume I) analyzes full implementation of uses and physical development proposed under the 2018 LRDP and identifies measures to mitigate the significant adverse and cumulative impacts.

This Addendum documents whether or not the site-specific development proposed by the project is within the scope of the 2018 LRDP EIR pursuant to CEQA Guidelines Section 15168(c), which states in pertinent part, “Later activities in the program must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared.” “Whether a later activity is within the scope of a program EIR is a factual question that the lead agency determines based on substantial evidence in the record. Factors that an agency may consider in making that determination include, but are not limited to, consistency of the later activity with the type of allowable land use, overall planned density and building intensity, geographic area analyzed for environmental impacts, and covered infrastructure, as described in the program EIR” (CEQA Guidelines Section 15168(c)(2)). Pursuant to Section 15168(c)(4), an agency should use “. . . a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were covered in the program EIR.” This Addendum also documents that none of the conditions described in CEQA Guidelines Section 15162 calling for the preparation of a subsequent EIR have occurred and an addendum to the 2018 LRDP EIR may be prepared (per CEQA Guidelines Section 15164).

## 1.3 CEQA DETERMINATION

UC San Diego previously prepared the 2018 LRDP EIR and on the basis of this evaluation and pursuant to the CEQA Guidelines:

- ☒ UC San Diego finds that the project WOULD NOT have new significant effects on the environment or a substantial increase in the severity of previously identified significant effects addressed by the 2018 LRDP EIR, no substantial changes have occurred with respect to the circumstances under which the project will be undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects, and no new information of substantial importance to the project has been identified as defined by CEQA Guidelines Section 15162(a)(3). However, minor technical changes or additions are necessary, and in accordance with Section 15164 of the CEQA Guidelines, an ADDENDUM has been prepared.
- ☐ UC San Diego finds that although the project WOULD include the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects, there will not be new or substantially increased significant effects in this case because new project-specific mitigation measures have been identified that would reduce the effects to a less than significant level. In accordance with Section 15162 of the CEQA Guidelines, a TIERED MITIGATED NEGATIVE DECLARATION has been prepared.
- ☐ UC San Diego finds that the project MAY have a new significant effect on the environment that was not adequately addressed in the previous EIR or a significant effect previously examined will be substantially more severe than shown in the previous EIR, and there may not be feasible mitigation which would reduce the new significant effect to a less than significant level. In accordance with Section 15162 of the CEQA Guidelines, a TIERED ENVIRONMENTAL IMPACT REPORT is required.

*Lauren Livers*

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Lauren Livers, Principal Environmental Planner

September 6, 2023

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Date

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## 2 PROJECT DESCRIPTION

### 2.1 REGIONAL LOCATION AND SETTING

The University of California, San Diego (UC San Diego), La Jolla Campus is located adjacent to the communities of La Jolla and University City, within the northwestern portion of the City of San Diego (refer to Figure 2-1 of the 2018 LRDP EIR).<sup>1</sup> UC San Diego's La Jolla Campus is generally composed of three distinct, but contiguous, geographical areas: the Scripps Institution of Oceanography (SIO) portion of the campus (178.7 acres), the western area of the campus (West Campus; 634.8 acres), and the eastern area of the campus (East Campus; 265.7 acres). The East and West Campuses are separated by Interstate 5 (I-5). The La Jolla del Sol housing complex (12 acres) is located approximately 0.3 mile southeast of these larger geographical areas and is not contiguous to the campus. Refer to Section 2.2 of the 2018 LRDP EIR for additional description on each of the campus areas. Also included in the 2018 LRDP EIR are the beach properties, consisting of the Audrey Geisel House and an adjacent coastal canyon and beachfront parcel (25.8 acres), and the Torrey Pines Gliderport, Torrey Pines Center, and Torrey Pines Court (41.0 acres). The 2018 LRDP EIR addresses campus properties that encompass a total of 1,158 acres in La Jolla, California (refer to Figure 2-2 of the 2018 LRDP EIR).

### 2.2 PROJECT SITE AND SETTING

The project site is approximately 14 acres located on UC San Diego's East Campus (Figure 1, Regional Location, and Figure 2, Project Location). The East Campus is separated from the West Campus by I-5 (refer to Figure 2-6 of the 2018 LRDP EIR) (UC San Diego 2018b). In addition to I-5 on the west, the approximate boundaries of the eastern area consist of Voigt Drive, Campus Point Drive, and Genesee Avenue to the north; privately owned condominiums along La Jolla Village Drive to the south; and to the east the site is bounded by City-owned Regents Road which is lined with educational, community, commercial and multi-family housing uses. East Campus is approximately 265.7 acres and contains approximately 5 million gross square feet (GSF) of building space. Many of UC San Diego's public-oriented facilities such as UC San Diego Health La Jolla and The Preuss School are located on East Campus. Topography is characterized by a mesa that covers the entire East Campus at elevations generally ranging from approximately 320 to 350 feet above mean sea level except for three finger canyons.

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<sup>1</sup> 2018 La Jolla Campus Long Range Development Plan Environmental Impact Report available at <https://plandesignbuild.ucsd.edu/planning/lrdp/la-jolla.html#Environmental-Impact-Report> (located under "Environmental Impact Report").

The approximately 14-acre project site is part of the larger 22.6-acre Science Research Park (SRP) located in the eastern-central area of East Campus (Figure 3, Campus Map Location). Existing tenants in the SRP include the La Jolla Institute for Immunology, Center for Novel Therapeutics, and surface parking facilities. The site is bounded by Regents Road to the east, Athena Circle to the south and west, and Health Sciences Drive/future-realigned Medical Center Drive to the north.

The land use designation for the project site in the 2018 LRDP is Science Research surrounded by Housing (Mesa Housing) to the south and a portion of the west, Academic Healthcare (Health Sciences East) and Community Oriented to the north and east, with Open Space Preserve (Ecological Reserve) to the west.

## 2.3 PROJECT BACKGROUND

The existing SRP provides an environment for corporate and academic partnerships to advance UC San Diego's research objectives, enhance commercialization, and provide students with real-world challenges and experiences that prepare them to contribute to the future workforce. There are two existing buildings in the SRP: the 145,000-square-foot La Jolla Institute for Immunology building (operational since 2006) and the 137,000-square-foot Center for Novel Therapeutics building (operational since 2019). The project proposes to develop approximately 14 acres of existing surface parking facilities and undeveloped/disturbed space within the 22.6-acre SRP to provide new life science and technology research space. The existing La Jolla Institute for Immunology and Center for Novel Therapeutics would remain on site in their current locations and are not a part of the proposed project. Uses surrounding the SRP include the East Campus Health Sciences Neighborhood (healthcare and clinical research) and the Mesa Housing Neighborhood (graduate student residential).

Originally acquired by UC San Diego in 1964 as part of a land grant from the Department of the Navy (Public Law 87-662 [76 STAT 546]), UC San Diego received approval from Congress in 1982 to amend the education-related deed restrictions for the SRP parcel to allow its development for "industrial scientific or technological research purposes." In 1988, a satellite medical center associated with the Health Sciences and School of Medicine (Thornton Hospital) was developed in the area of campus east of I-5.

The site has been envisioned as a science research park in campus plans since the 1980s (including the subsequent 1989, 2004, and 2018 LRDPs). In the ensuing years, medical treatment and research facilities have expanded as UC San Diego's reach and healthcare demand have grown, although the fully planned development of the SRP was not achieved. A Development Concept for SRP was first approved in 2002 to better define expectations as UC San Diego engaged third parties on site. The 2002 Development Concept is being

updated in 2023 in conjunction with approval of the project to reflect current programmatic objectives, site conditions and updated design guidelines.

The proposed project was planned for in the 2018 LRDP, which designated the SRP's land use as Science Research. Extensive internal and external outreach was conducted during development of the 2018 LRDP and the associated EIR process. Section 1.5 of the 2018 LRDP EIR includes a summary of the community and campus outreach effort conducted for the 2018 LRDP, of which the project is, in part, implementing.

Since adoption of the 2018 LRDP EIR, the UC San Diego has regularly updated internal stakeholders and external community members on progress of implementation of the 2018 LRDP. On February 3, 2023, UC San Diego hosted an open house for elected officials at the UC San Diego's Epstein Family Amphitheater during which current and upcoming campus development projects, including the proposed project, were presented to various elected officials and public agency staff of the San Diego region. Also, on February 27, 2023, UC San Diego held a public open house event to share the status of the campus' capital improvements program, including the proposed project. Members of surrounding communities were invited to learn about current and upcoming projects and discuss with UC San Diego staff. In addition, on March 22, 2023, UC San Diego attended an event at City of San Diego City Hall to discuss campus programs, growth, and development projects, including the proposed project, with City staff and elected officials. On July 27, 2023, a virtual UC San Diego Staff Town Hall was held where the project was presented in the context of ongoing campus development plan updates. The University's Campus/Community Planning Committee reviewed the SRP project on December 15, 2022, March 16, 2023, and July 20, 2023.

UC San Diego regularly works closely with the local community to provide updates on campus programs as well as implementation of projects tiering from the 2018 LRDP. On May 9, 2023, an informational presentation session with questions and answers on the proposed project was made to the University Community Planning Group, the City recognized planning group for University City and the community within which this project lies. The project was also discussed at focused meetings in May and June 2023 with the City of San Diego Planning Department to ensure that UC San Diego and the City are collaborating on the development, especially in the context of the University Community Plan Update which is underway and makes planning recommendations for the area adjacent to the project site. In addition, project information has been shared with the Chancellor's Community Advisory Board and various other stakeholders in the La Jolla and University City communities, including development of a project website with project background and information.

The general objectives of the SRP are to augment and enhance the instructional and research base of UC San Diego, more directly engage community and research partners, and establish a regenerative financial resource to support UC San Diego's mission. These objectives position UC San Diego for flexibility to meet changing campus and program requirements.

The 2018 LRDP's Science Research predominant land use allows research partnerships with entities whose activities are compatible with UC San Diego-based research programs, which typically entail collaboration with UC San Diego faculty and researchers. This includes, but is not limited to the following:

- **Intellectual generation:** Research, product development, prototype testing, and consulting, along with the offices, laboratories, or other facilities that support these activities
- **Fabrication and testing:** Production or assembly of prototypes and pilot facilities that are related to on-site research and development activities or the testing of production processes located elsewhere
- **Programs and services:** Provision of research-related services that support research programs within the SRP or the UC San Diego campus
- **Content and collaboration:** Tenants who reflect multiple industry sectors that support and enhance UC San Diego's academic programs
- Other ancillary uses that support the primary research
- Other compatible non-research uses
- Other associated or compatible uses within any given 2018 LRDP land use designation

## 2.4 PROJECT OBJECTIVES

UC San Diego has identified the following project-specific objectives for the project:

1. Complete buildout of the SRP consistent with the updated 2023 Development Concept for the SRP which provides that the project site is the optimal location for expansion of Science Research Park uses
2. Create a resource for the interaction among industrial and academic research activities that fosters corporate and academic partnerships and innovation in life science, technology, and other disciplines
3. Provide facilities that enhance the instructional and research base of the UC San Diego and support graduate fellowships, student training, collaborative industrial research projects, and the retention of top faculty and researchers
4. Redevelop existing surface parking lots with an efficient site design that optimizes use of developable space
5. Meet the requirements of Leadership in Energy and Environmental Design (LEED) Gold or better and help meet the UC San Diego's sustainability goals.

## 2.5 PROJECT FEATURES

### 2.5.1 Building Program

The project would construct three new buildings (excluding the parking structure square footage) and two parking structures (Figure 4, Site Plan). The project would include construction of 1,100,000 square feet of laboratory and office space across three new buildings. Each building would range from approximately 325,000 GSF to 400,000 GSF and include laboratory space, research support space, office space, and supporting retail and amenities. Table 1, Building Program Breakdown, provides a breakdown of the GSF proposed for each building.

**Table 1. Building Program Breakdown**

<b>Program</b>	<b>North Building (GSF)</b>	<b>South Building (GSF)</b>	<b>East Building (GSF)</b>
Lobby/Reception	1,000	1,000	1,000
Retail	2,500	11,500	1,000
Innovation Commons Area	10,000	—	—
Laboratory (60%)	196,900	167,500	238,800
Office/Shared Amenities	144,600	125,000	159,200
Research Support Space	20,000	20,000	—
<b>Total (GSF)</b>	<b>375,000</b>	<b>325,000</b>	<b>400,000</b>

**Notes:** GSF = gross square feet

The project would also include the construction of two new parking structures with approximately 3,120 parking spaces. The new facilities would be located adjacent to the two existing SRP buildings and clustered around pedestrian plazas and walkways.

### 2.5.2 Building Design

A discussion of the design of the North, South, and East Buildings is provided below.

#### **NORTH BUILDING**

The North Building would be approximately 375,000 GSF and eight stories high with an overall height of approximately 170 feet (top of mechanical screening) located on the northern edge of the SRP. It would serve as a gateway to the SRP from the Health Sciences East District to the north across Medical Center Drive (Figure 4).

The "L" shape of the building footprint would maximize available site area and reinforce the edge of the north-south pedestrian link (Innovation Walk). The loading dock, generators, and building services would be positioned between the proposed North Building and the existing La Jolla Institute for Allergy and Immunology Building. This

placement would minimize the visibility and acoustics of these program needs. An indentation in the facade massing along Medical Center Drive would provide a break in the building facade to create visual interest and variety. The building's materiality is intended to complement the massing design. Modular and gridded facade systems would be used to break down the overall scale and create carved-away zones to articulate floor levels and program spaces in the building. Transparent glazing would be implemented at the main entrance and public ground floor programs, like the Innovation Hall, to promote a sense of openness. The Innovation Hall would be located on the ground floor and is intended to be a welcoming and engaging space that puts science and research on display for the community. Vertical and horizontal fins, mullion profiles, and variations in the glazing types would serve as shading devices for solar heat gain reduction and glare control (Figures 5a and 5b, Building Renderings).

Specialized laboratory and utility equipment for the three buildings (North, South and East) would be located in mechanical penthouses and on rooftops. Each penthouse level would consist primarily of water-cooled chillers, electric boilers, air handlers, and pumps. The roof level above the penthouse would be primarily populated by cooling towers, combined fume/general exhaust fans, exhaust heat recovery units, or air source heat pumps.

## **SOUTH BUILDING**

The South Building would be approximately 325,000 GSF in size and nine stories high with an overall height of approximately 204 feet (top of mechanical screening), serving as a distinct marker for those arriving at the Athena Way entrance (Figure 4). It would be situated on the southern boundary of the SRP project site. The South Building would be positioned prominently along the north-south pedestrian link (Innovation Walk) between Mesa Housing and the Health Sciences Campus and would serve as an important destination along the east-west pedestrian corridor (Campus Mews).

The massing of the South Building would be composed of two primary elements: the base and the tower. The base would be conceived of solid and earthy materials, such as stone and masonry, and would be in harmony with the adjacent Campus Mews, which extends from the canyon to the west of the SRP. The ground floor would comprise the building's lobby and retail spaces, accessible from the Campus Mews on the northern side, and building services, such as the loading dock, on the southern side. A large set of stairs along Innovation Walk would connect ground floor public spaces to the elevated terrace level at the southern side of the building.

The tower portion of the South Building would employ simple massing features to enhance the experience of people both inside and outside the building. A slight bend in the tower's form would increase natural light in the Campus Mews while offering more optimal views of the mountains to the east and the ocean and sky to the west. The tower's extensive northern exposure would provide abundant but controlled natural light into the building. The tower would feature a combination of clear glazing, solid panels, fins, and frit patterns

to efficiently control solar heat gain and glare while providing a varied scale and pattern to the facade (Figures 5a and 5b).

## **EAST BUILDING**

The East Building would be approximately 400,000 GSF and nine stories tall with an overall height of approximately 200 feet (top of mechanical screening). It would be set at the eastern edge of SRP along Regents Road extending between Athena Way to Health Sciences Drive (Figure 4). This location sits at the eastern gateway to the SRP, where the building would create a strong identity for the campus as a hub for research and innovation.

The building's massing would be split vertically into two bars lengthwise, with the top shifted east over the volume below. Along its western side, the building's upper levels would be set back above the fourth floor, creating a scale that would relate well to the adjacent La Jolla Institute in the interior of the SRP. Along its eastern side, the building's upper levels would cantilever over the floors below to give the building a strong presence along Regents Road. At its northern and southern ends, the building would have different levels angled to optimize views. The ground-level lobby would be designed to engage with a large plaza to the south (Figures 5a and 5b). The building would include materials that are light responsive and change subtly with the environment around it.

The project would incorporate design features in the layout of the buildings' facades and within the site plan to reduce the number of bird strikes. To protect bird safety, trees would be located away from buildings to minimize the interaction of birds with building facades. Corridors between project buildings would allow for safe pathways in which birds can travel. The buildings' facades would be balanced with architectural features and other non-reflective glass surfaces.

### **2.5.3 Parking and Transportation Improvements**

A discussion of the project's parking and transportation improvements is provided below.

## **PARKING**

The project would construct two parking structures accommodating a total of approximately 3,120 parking spaces (Figure 4). In total, the project would also include long-term secured storage lockers for 132 bicycles or micromobility devices distributed throughout the parking structures and 40 short-term bicycle racks to accommodate 80 bicycles.

Parking Structure 1 would be eight above grade decks and a partial below grade ninth deck with an overall height of 122 feet and would accommodate ~1,760 parking spaces. It would be rectangular in shape with a notch in the southwestern corner and oriented in an east-west direction. Parking Structure 1's location in the southwestern corner of the project site would allow for two connections to Athena Circle. The main entrance would be at the



Campus Mews level by the South Building terrace and the bridge to Miramar Street. The second connection to Athena Circle would align with the existing entrance to the adjacent Mesa Housing parking structure. The parking structure would anchor the western end portion of the Campus Mews. Parking Structure 1 would designate 20 percent of total parking spaces for EV-installed spaces. In addition, Parking Structure 1 would provide long-term storage for an additional 64 bicycles/micromobility devices. A bicycle repair station would also be provided on the ground floor.

Parking Structure 2 would be six above grade decks with a partial seventh below grade deck and would accommodate ~1,360 parking spaces. It would be in an “L” shape, primarily oriented in a north–south direction, with overall height of approximately 102 feet. Its location at the southeastern corner of the development allows for two connections, one to Athena Circle and another to Miramar Road. The main automobile entrance is off Athena Circle. The second connection, which is a right-in only, is to Miramar Road. The main pedestrian entrance to the structure would be at the Campus Mews level right off Athena Circle. Parking Structure 2 would designate 20 percent of total parking spaces as EV-installed spaces. In addition, Parking Structure 2 would provide short-term racks for long-term storage spaces for 68 bicycles micromobility devices.

## **TRANSPORTATION IMPROVEMENTS**

Vehicular access to the project would be provided primarily via Athena Way, which connects from Regents Road to the east. Athena Circle would allow for vehicular circulation on the project site, including to the proposed parking structures. The project would improve the existing Athena Way and Athena Circle T-intersection creating a “swoop” intersection directing the flow of traffic to the east toward Athena Way and Regents Road. A separate left turn lane would be provided for traffic continuing onto Athena Circle. A raised landscaped median would also be added to separate traffic in each direction. Secondary access to enter Parking Structure 2 would come from Miramar Street. In addition, access to the site from the west is provided via Medical Center Drive.

In addition, the project has been designed to enhance the pedestrian and micromobility experience throughout the SRP. The project would provide a series of pedestrian pathways throughout the site connecting the proposed and existing buildings within the SRP and beyond to surrounding neighborhoods. The north–south Innovation Walk would connect Mesa Housing to the south to the SRP via a pedestrian bridge and further to the Health Sciences East district to the north via a pedestrian corridor through the project site. The Campus Mews is an east–west pedestrian corridor that would extend from the western edge of the site to Athena Circle.

The existing UC San Diego Blue Line Trolley light-rail service UC San Diego Health La Jolla transit stop is located approximately 1,500 feet (0.3 mile to the northwest) from the North Building. The existing UC San Diego Blue Line Trolley light-rail service Executive Drive Station transit stop is located approximately 2,500 feet (0.5 mile to the east) from the South and



West Buildings. The Main UCSD Campus, including East Campus are fully within a Transit Priority Area (TPA) (2018 LRDP EIR, Figure 3.14-4). Existing access from the project site currently exists, thus no modifications are planned for the transit stops as part of the project.

## 2.5.4 Utility and Service System Improvements

Utility improvements and extensions would be required to provide electricity, natural gas (for retail and research uses only), water, wastewater, telecommunications, and fire protection services for the project. Existing power lines and telecommunication lines serving the site are located on poles aboveground, while the remaining existing utilities are located underground connected to existing utility lines under roadways. Proposed project points of connection to existing utilities are shown on Figure 6, Utility Plan.

### **ELECTRICITY**

The project would purchase 100 percent clean electricity from San Diego Community Power that is delivered by San Diego Gas & Electric (SDG&E). Emergency and standby power would be provided by three on-site diesel engine generators (one generator at each building) and up to 12 smaller diesel (future) tenant standby generators. Both types of generators are designed for unforeseen power loss, with the primary difference being power load transfer times. Parking Structures 1 and 2 would be designed to be solar ready on the roof decks which would allow for ease of future solar panel installation. The project is anticipated to meet the exceptions to the California Building Code (CBC) standards that require new buildings to install solar panels and battery equipment prior to building occupancy. However, if during final building permit review, it is determined necessary to maintain CBC compliance, the project would also install solar panels and battery systems. Project buildings would be all-electric except for the kitchens associated with ancillary retail and specialized research equipment, with a goal of attaining LEED Platinum certification (LEED Gold would be achieved at a minimum). All purchased energy for the project would be from 100 percent clean sources pursuant to the UC Sustainable Practices Policy. The parking structures would be solar-ready in compliance with the current CBC requirements (California Code of Regulations Title 24, Part 6, Section 140.10). The project would comply with UC San Diego's Lighting Policy, which includes shielded fixtures and downward-facing lighting.

### **NATURAL GAS**

Natural gas lines would be provided in an accessible location under existing and proposed roadways and would only be used for future kitchen appliances in the retail space and some specialized equipment. More specifically, natural gas (i.e., methane [CH<sub>4</sub>]) is used for research purposes in scientific labs. Bunsen burners also offer unique heating characteristics which cannot be replicated by electric heating devices. For example, open flames from Bunsen burners are typically required to produce pipettes and related glassware and are required for certain types of chemical reactions and procedures, and

sterilization in some biology labs as well. Additionally, Bunsen burners can reach temperatures substantially greater than electric hot plates (~1500 C versus ~350 C), and consequently, electric heating plates cannot be used for certain chemical processes. Natural gas would not be used for space and water heating.

## **DOMESTIC WATER AND FIRE SUPPLY**

The project would install a new 8-inch domestic water main between the South Building and the La Jolla Institute for Immunology to connect the existing main within Athena Circle and a 12-inch water line between the North and East Buildings. The project would include separate domestic and fire water systems. Installation of the utility lines would involve trenching.

The following four new connections would be required to support the project:

- 8-inch domestic line from Athena Circle to serve both the North and East Buildings
- 8-inch domestic line from line from the new surface parking lot to serve the South Building
- 8-inch fire supply line from Athena Circle to serve both the North and East Buildings
- 8-inch fire supply line from the new surface parking lot to serve the South Building

## **WASTEWATER**

The project would install a 10-inch wastewater lateral to collect flows and connect to the existing sewer line within Athena Circle and Medical Center Drive. The proposed new sewer lines would be located throughout the site to serve the proposed buildings. The project would provide nine connection points. Two connections would be provided on the western side and one on the eastern side of the North Building; three connections would be provided to the South Building along the northern, western, and southern sides of the building; and three connections would be provided to the East Building along the western side.

## **FIRE PROTECTION**

UC San Diego does not have its own fire department and, therefore, relies on the City of San Diego Fire-Rescue Department to respond to all applicable emergencies. The nearest station (Fire Station 35) is at Eastgate Mall just east of the project site. In addition, the City of San Diego is currently constructing a new station at Genesee Avenue and North Torrey Pines Road. The project would be constructed of ignition-resistant materials and built to current building codes with state-of-the-art fire suppression infrastructure to lessen fire risk (24 CCR Part 9, Chapter 7). The UC San Diego Campus Fire Marshal and fire inspectors review all project design plans to ensure adequate continued emergency access at all times during construction and operation of projects and compliance with the CBC Title 14 and 24 building standards and campus fire, life, and safety protocol. A fire system, fire alarms, and fire access plan would be prepared in accordance with applicable regulations and state and nationally recognized standards. The facilities would also be constructed in compliance

with the University of California, Environment Health & Safety Laboratory Safety Design Guide. This Design Guide applies to all laboratory buildings, laboratory units, and laboratory work areas in which hazardous materials are used, handled, and stored. It also addresses biological safety and ionizing and nonionizing radiation.

## 2.5.5 Landscape/Hardscape Improvements and Stormwater Management

### **LANDSCAPE IMPROVEMENTS**

The landscape concept for the project includes landscaping improvements throughout the site (Figure 7, Landscape Plan). Landscape guidelines and campus plans emphasize a drought-tolerant and sustainable plant palette. Several different plant palettes are proposed to emphasize specific site context; including a “Coastal Native,” “San Diego Eclectic,” “Streetscape and Urban Plaza,” and “Urban Forest,” would generally be used throughout the site. Plant palettes on the western portion of the site, in proximity to the Open Space Preserve, would comply with Mitigation Measures (MM) Bio-3I, which provides for the selection of native plants. Reclaimed water would be used for irrigation.

### **HARDSCAPE IMPROVEMENTS**

The project would provide a series of pedestrian pathways. The north-south Innovation Walk would connect Mesa Housing to the Health Sciences Campus through the project site. The Campus Mews would provide an east-west pedestrian corridor that extends from the canyon to the west of SRP to Regents Road with a mixed composition of enhanced paving, seating and planting. Several patios are proposed adjacent to the buildings and would be equipped with outdoor seating areas to include the Innovation Commons Lawn and Events Area.

### **STORMWATER MANAGEMENT**

The project’s stormwater improvements would include a new underground storm drain system with a 12-inch storm drain line in the Mews, between the North and East Buildings, and south of the South Building. In addition, a short section of 24-inch storm drain would be constructed at the Athena Way/Athena Circle intersection. Seven small biofiltration basins are proposed throughout the project to treat a portion of the site. The rest of the site would be routed to new modular wetland units for water quality treatment and infiltration. In addition to water quality treatment, the project also proposes underground concrete vaults for peak flow detention and on-site infiltration. All project stormwater infrastructure would connect to UC San Diego infrastructure, including to an existing outfall to the canyon west of the project site.

All UC campuses are regulated under the Phase II Small MS4 General permit, and the La Jolla Campus is also regulated under the UC San Diego’s Storm Water Management Program.

Stormwater management measures to be incorporated into the project would be coordinated with UC San Diego Environment, Health & Safety, and Capital Program Management.

## 2.5.6 Project Construction

Construction is anticipated to begin as early as June 2024 and take approximately 90 to 120 months to complete (~2034). Construction would occur in distinct parts to provide a strategy to address the growing vehicular parking needs as more building area comes online as the site develops. Construction would generally start along the western half of the site and work toward Regents Road. Construction of each building and parking structure would include demolition of existing asphalt surfaces, grading, building foundation and structure construction, internal shell construction and architectural facades, and pavement and hardscape installation.

Phase 1A would include construction of the South Building and Parking Structure 1. Phase 1B would include construction of the North Building. Phase 2A would include construction of Parking Structure 2. Finally, Phase 2B would include construction of the East Building.

The project would generate approximately 110,700 cubic yards of export and 114,700 cubic yards of import of new soil. Construction activities would require typical construction equipment including but not limited to drill rigs, cranes, concrete trucks, fireproofing and plaster spray machines, material lifts, bobcats, loaders, skip loaders, and backhoes.

Site preparation work would include the removal of existing surface parking lots and associated landscaping. Some relocation and abandonment of below grade utilities would occur on the northern side of the site near the North Building and within City rights-of-way in Regents Road.

Construction staging would be within the fenced perimeters at the southeast corner of the project site. For the first 16 to 18 months of construction, there would be more limited parking on site during the construction of Parking Structure 1. In the unlikely event that all parking cannot be accommodated on site during the construction of Parking Structure 1, surplus parking may be provided off site for construction workers using shuttles in the immediate University City area. Parking is available in other areas of the Campus to make up for the temporary loss of surface parking at the site for existing employees during construction. Once Parking Structure 1 is completed all contractors would park on site. In addition, contractors would be instructed to enter the site from Regents Road, via Athena Way, to Athena Circle and into the parking structure and construction traffic would not use other campus roadways. Athena Way and Athena Circle may be intermittently closed during some phases of construction. No significant work would occur within the City's rights-of-way. Partial lane closures may be necessary one to several days at a time during SDG&E connection improvements within Athena Way and Regents Road.

A Construction Management Plan and Traffic Control Plan would be implemented during construction by the applicant in accordance with City standards (SDMC Section 129.0701 et seq.) and the Caltrans California Manual of Uniform Traffic Control Devices (2014 edition), and as a standard condition of approval.<sup>2</sup> These traffic management controls would include measures determined on the basis of site-specific conditions, including coordination with local emergency services, training for flagman for emergency vehicles traveling through the work zone, temporary lane separators that have sloping sides to facilitate crossover by emergency vehicles, and vehicle storage and staging areas for emergency vehicles. These measures would ensure that ingress and egress from the project site would not interfere with traffic flows and emergency access for areas surrounding the project.

The UC San Diego Design Guidelines require a Storm Water Pollution Prevention Plan<sup>3</sup> containing appropriate construction site erosion and sedimentation control best management practices (BMPs) would be implemented at the beginning of the project construction phase and adapted regularly during construction to reflect current conditions in the field and the weather, as discussed in the 2018 LRDP EIR. The Storm Water Pollution Prevention Plan would outline BMPs to be implemented during construction of the project. Erosion control BMPs would be implemented during construction, including physical stabilization through hydraulic mulch, soil binders, straw mulch, bonded fiber matrices, and/or erosion control blankets (i.e., rolled erosion control products); soil roughening of graded areas (through track walking, scarifying, sheepsfoot rolling, or imprinting) to slow runoff, enhance infiltration, and reduce erosion; and dust control through the application of water or other dust palliatives as necessary to prevent and alleviate dust nuisance. Sediment control BMPs during construction would include perimeter protection through silt fences, fiber rolls, gravel bag berms, sand bag barriers, and straw bale barriers; storm drain inlet protection, sediment capture through sediment traps, storm drain inlet protection, and sediment basins; velocity reduction through check dams, sediment basins, and/or outlet protection/velocity dissipation devices; and reduction in off-site sediment tracking through stabilized construction entrance/exit, construction road stabilization, and/or entrance/exit tire wash. The contractor would be responsible for implementing the project's erosion control plan.

## 2.5.7 Sustainability Features

The UC Sustainable Practices Policy covers 13 areas of sustainable practices: green building, clean energy, climate action, transportation, sustainable operations, zero waste, procurement, food services, water, healthcare, performance assessment, health and well-being, and diversity, equity, inclusion and justice. The UC Sustainable Practices Policy establishes guidelines and includes climate change goals for the campus.

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<sup>2</sup> <https://dot.ca.gov/programs/safety-programs/camutcd>

<sup>3</sup> RWQCB Order No. R9-2013-001 available at: [https://www.sandiego.gov/sites/default/files/order\\_r9-2013-0001.pdf](https://www.sandiego.gov/sites/default/files/order_r9-2013-0001.pdf).

The project would comply with the UC Sustainable Practices Policy and would include the following sustainability strategies:

- Project buildings would be LEED Gold with a goal of attaining LEED Platinum certification.
- All purchased electricity would be 100 percent clean electricity.
- Natural gas would not be used for space and water heating.
- Parking structures would comply with current CBC solar requirements (California Code of Regulations Title 24, Part 6, Section 140.10) and exceed Title 24 Energy Efficiency Standards by at least 20 percent.
- Building envelopes would be high performance (insulation, air-sealing, fenestration).
- Chillers would be high efficiency for simultaneous heating and cooling loads.
- Chillers would include heat recovery or air source heat pumps.
- Heating, ventilation, and air conditioning systems would include water-side economizing.
- Heating, ventilation, and air conditioning setbacks would include occupancy/vacancy in select program areas.
- Air change rate setbacks would be included in laboratories.
- Daylighting controls would be installed.
- Partially decoupled space conditioning and ventilation would be installed.
- Demand control ventilation would be installed in select program areas.
- Variable flow/velocity laboratory exhaust would be installed.

The project would include the following water saving measures:

- Low-flow plumbing fixtures would be installed.
- Reclaimed water would be used for landscape irrigation.

The project would include the following sustainable and alternative transportation measures:

- 20 percent of total parking spaces would be EV ready (i.e., would contain the necessary electrical connections for charging stations) and the project would install Level II EV chargers at 25 percent of those spaces.
- Short-term and long-term bicycle/micromobility storage would be provided for 132 bicycles or micromobility devices.
- Long-term bicycle/micromobility storage would be secure and lockable.
- Short-term bicycle/micromobility storage would include permanently anchored bicycle racks located within 200 feet of building entrances.
- A bicycle repair station would be provided on the ground floor of Parking Structure 1.

- The existing UC San Diego Blue Line Trolley light-rail service UC San Diego Health La Jolla transit stop is approximately 0.3 mile from the entrance to new North Building.
- The UC San Diego Blue Line Trolley light-rail service Executive Drive Station transit stop is approximately 0.5 mile from the entrances to new South and West Buildings.

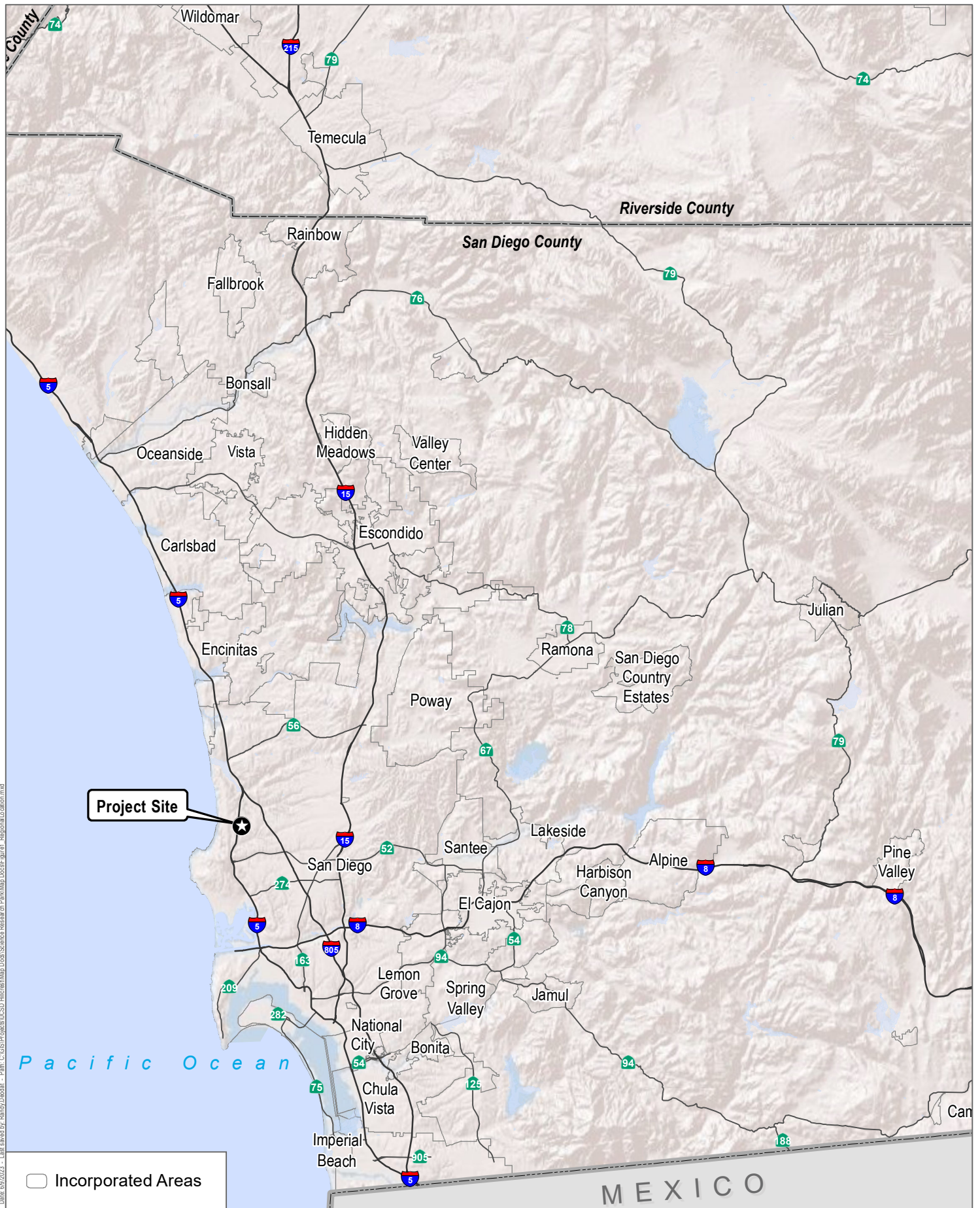
## 2.6 PROJECT APPROVAL/SCHEDULE

The project is anticipated to be constructed and occupied by 2034. As a public agency principally responsible for approving or carrying out the project, the UC is considered the lead agency under CEQA. The UC owns the land and would be responsible for approval of the overall project and individual tenant lease(s). The project directly implements the 2018 LRDP, which designated the SRP's land use as Science Research. The Addendum for this project would be considered by the UC Regents (or their delegate), and the project may be approved at the UC Regents (or their delegate's) discretion, and only if the UC Regents (or their delegate) determine that such approval complies with CEQA.

The developer would seek approval of a Right-of-Way Permit and Reclaimed Water Permit from the City of San Diego. A concurrent Traffic Control Plan, ultimately obtained by the general contractor, would also be required to execute the work within the right-of-way to allow for SDG&E tie-ins within Regents Road.

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Source: ESRI 2023.



**Harris & Associates**



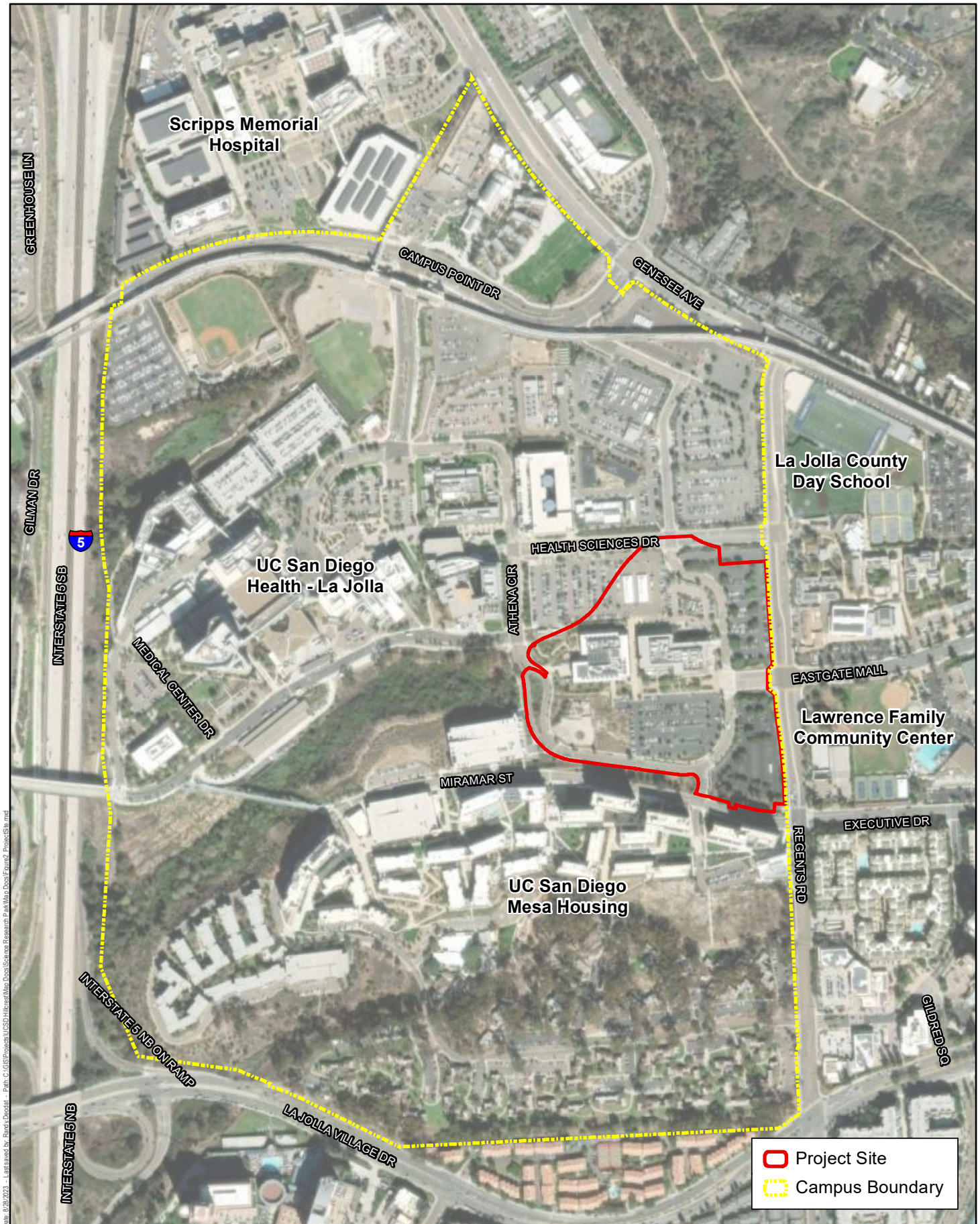
## Figure 1

Regional Location

UC San Diego Science Research Park Expansion

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Source: Maxar Imagery 2022.



**Harris & Associates**



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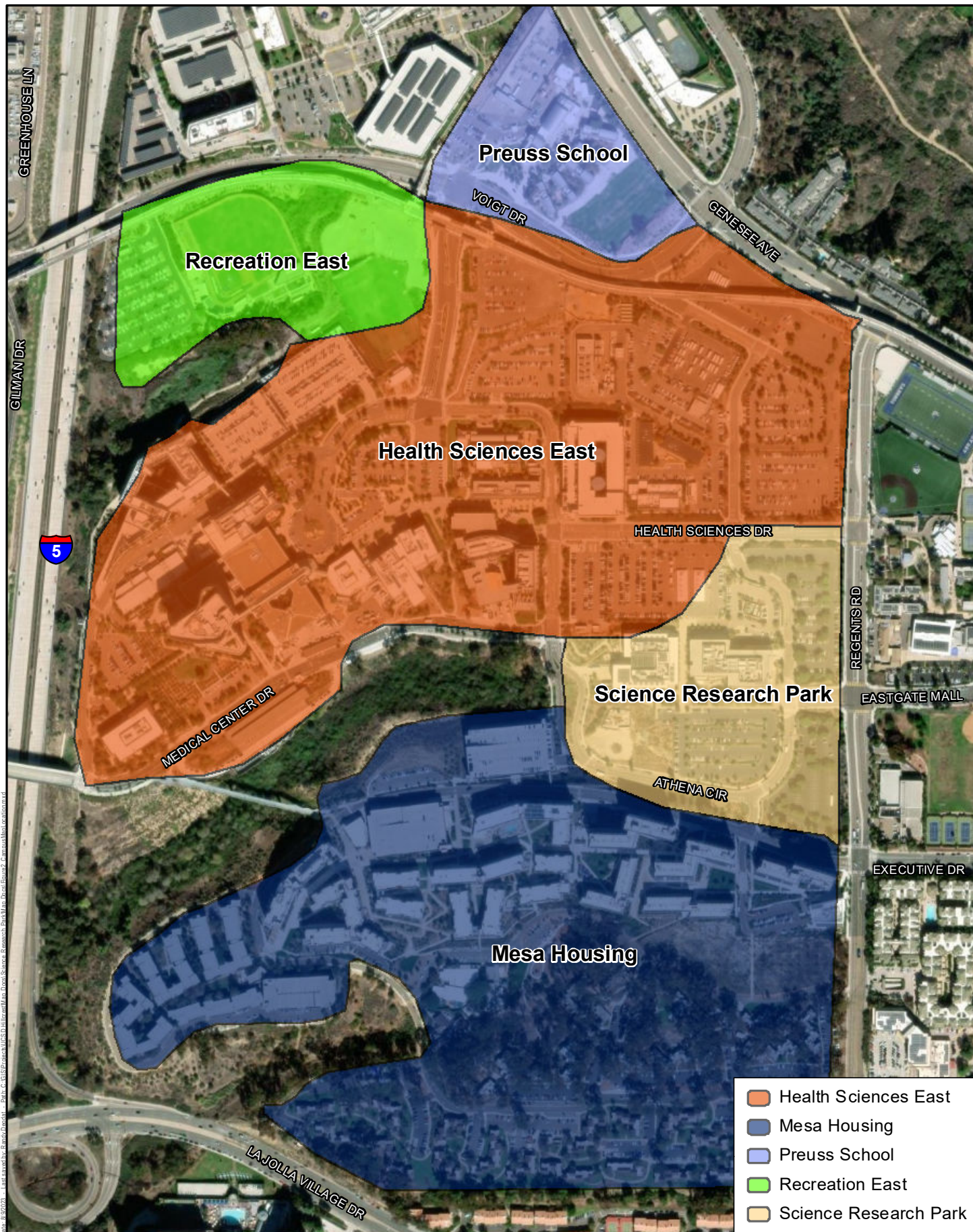
**Figure 2**

**Project Location**

UC San Diego Science Research Park Expansion

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**Harris & Associates**



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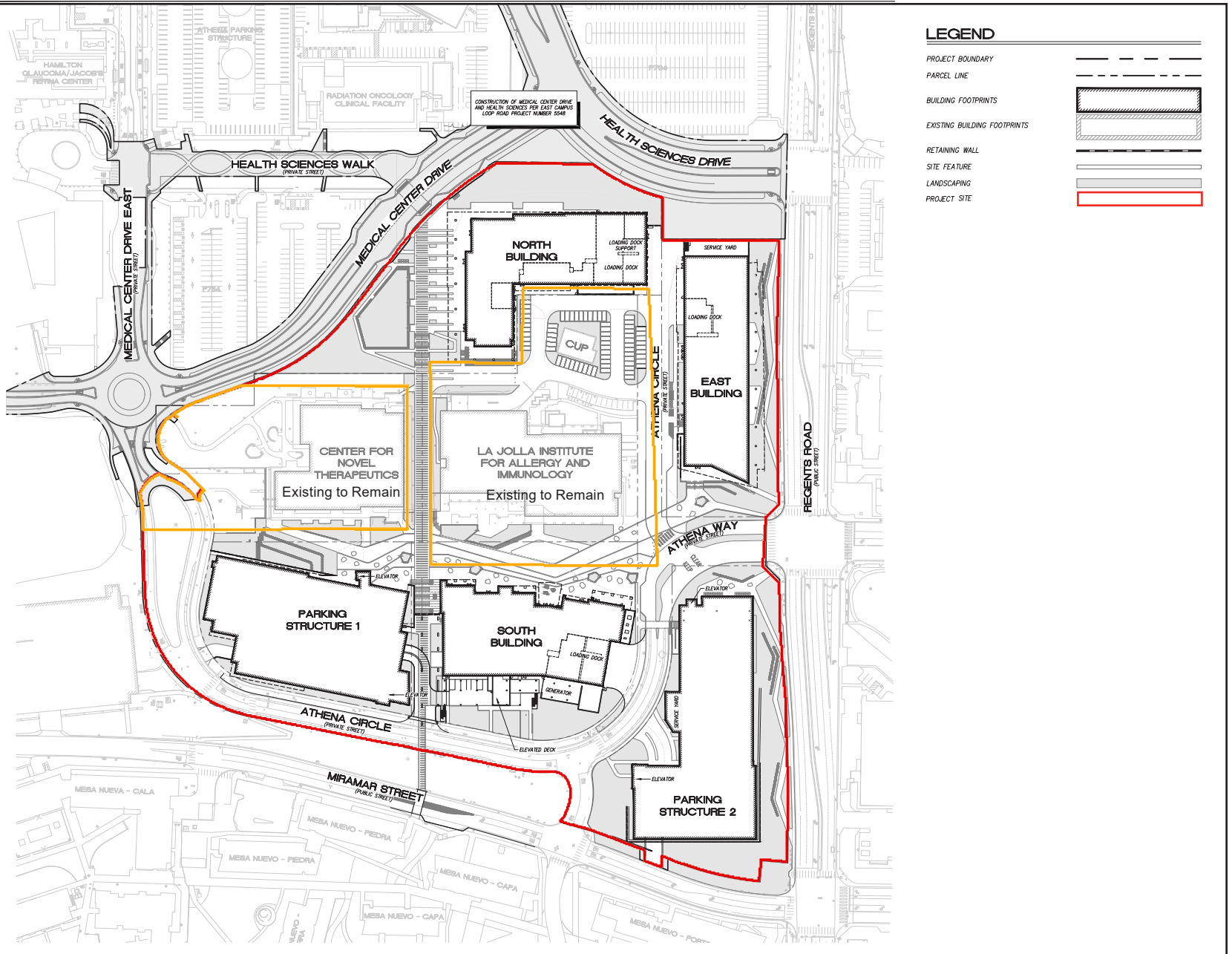
**Figure 3**

Campus Map Location

UC San Diego Science Research Park Expansion

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Source: Latitude 33 2023.



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0 180 360  
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**Figure 4**  
Site Plan

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North Building and Innovation Commons



East Building Looking North



Innovation Walk Looking South

Source: Wexford/ZGF Architects 2023.

**Figure 5a**  
Building Renderings

UC San Diego Science Research Park Expansion



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Campus Mews Looking East (South Building right, East Building Left)



South Building Looking South



Science Research Park Looking East

Source: Wexford/ZGF Architects 2023.



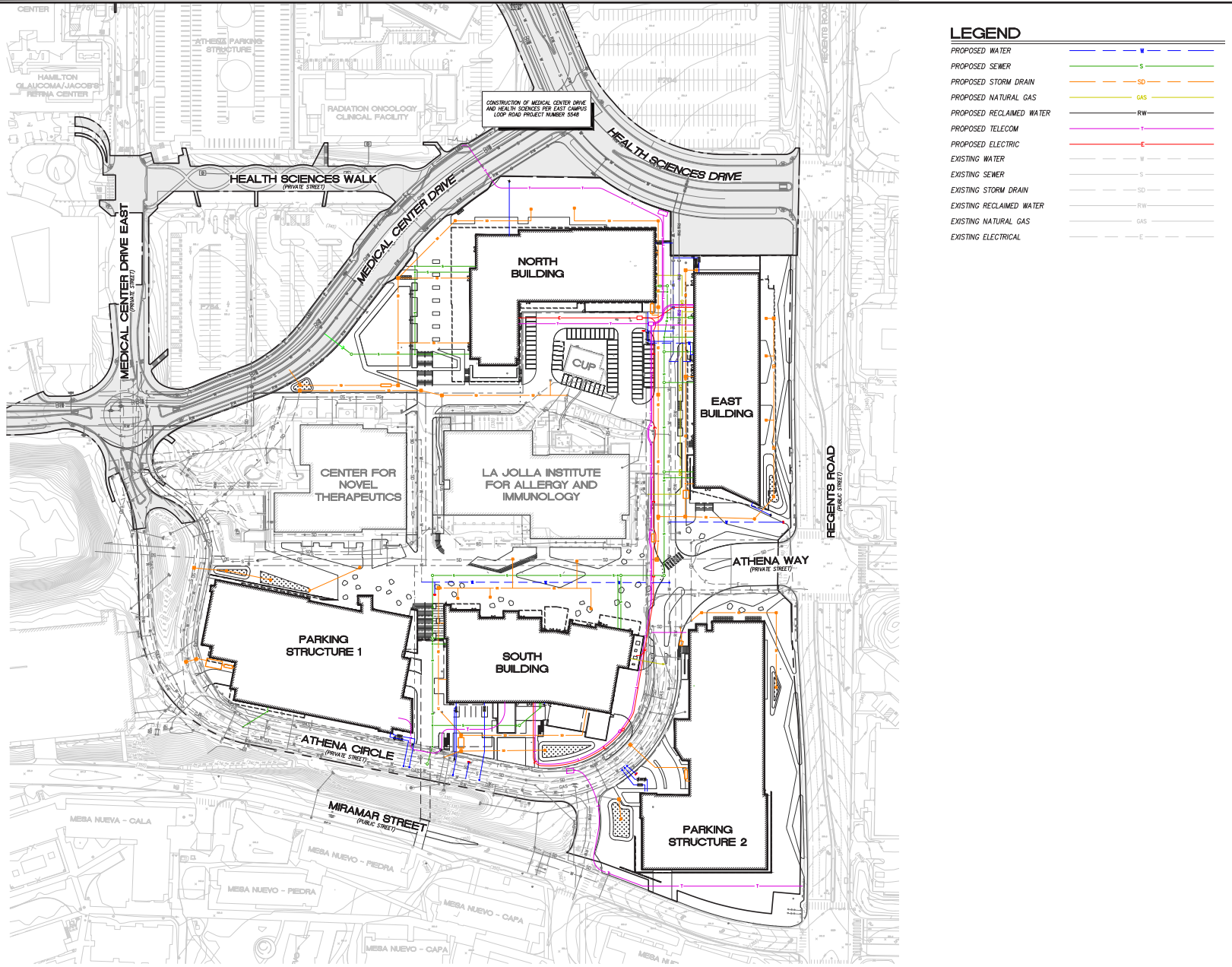
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**Figure 5b**  
Building Renderings

UC San Diego Science Research Park Expansion

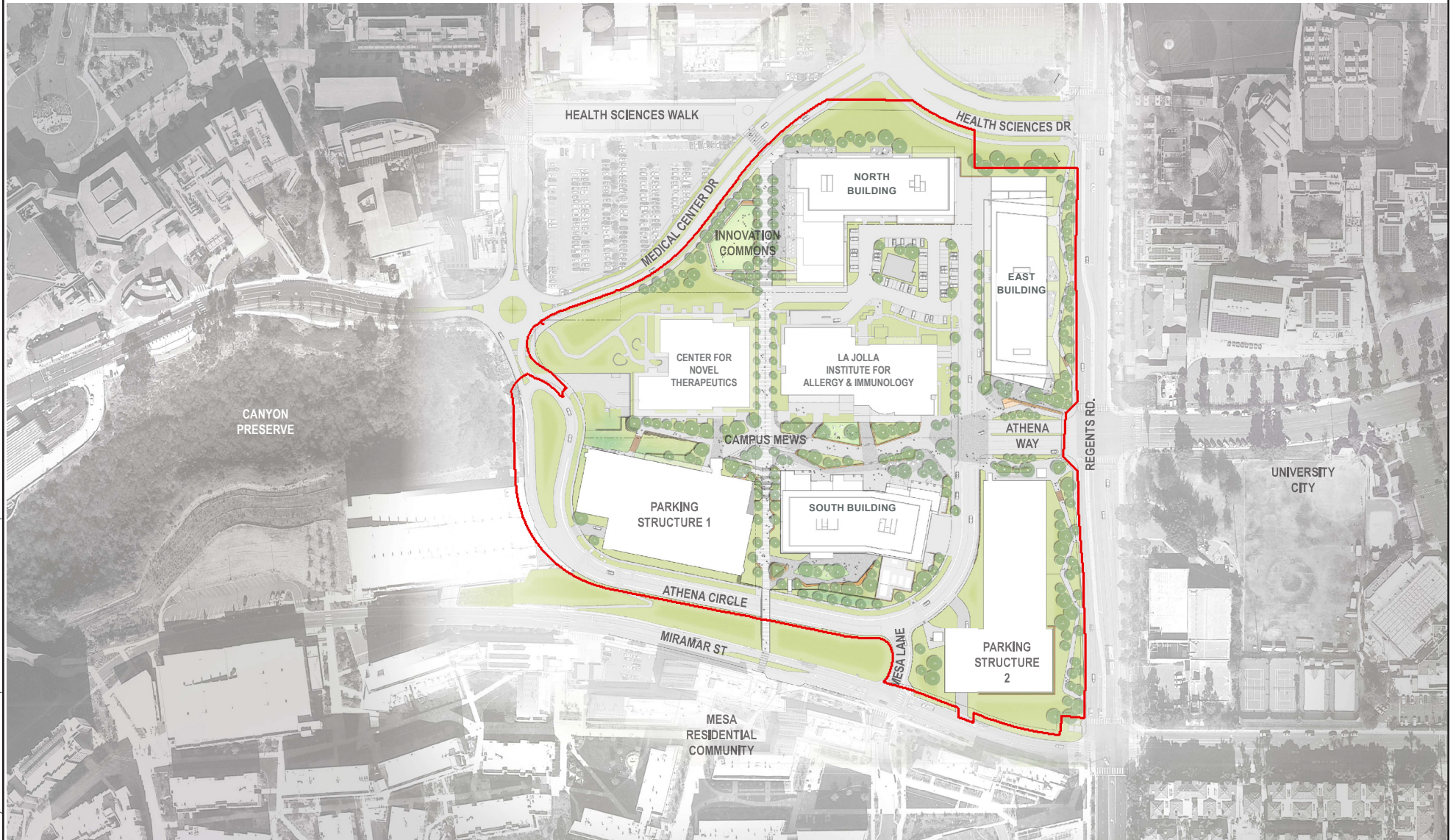
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Source: AO Architecture 2023.

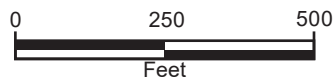
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Source: AO Architecture 2023.



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**Figure 7**

Landscape Plan



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### 3 CONSISTENCY WITH 2018 LRDP

To assist in determining whether the project is within the scope of the 2018 LRDP EIR, UC San Diego considers the following questions:

- Are the objectives of the project consistent with the objectives adopted for the 2018 LRDP?
- Are the changes to campus population associated with the project included within the scope of the 2018 LRDP's population projections?
- Is the proposed location of the project in an area designated for this type of use in the 2018 LRDP?
- Is the project included in the amount of the development projected in the 2018 LRDP?
- Are the project activities within the scope of the environmental analysis in the 2018 LRDP EIR?
- Have the conditions described in CEQA Guidelines Section 15162 calling for the preparation of a subsequent EIR occurred?

Sections 3.1 through 3.3 of this Addendum document the project's consistency with the objectives, population projections, land use designations, and development projections in the 2018 LRDP. However, an inconsistency alone does not mean that the project would result in new or substantially more severe impacts.

Section 4, Consistency with 2018 LRDP EIR, of this Addendum contains a detailed examination of environmental topics with the potential for significant impacts addressed in the 2018 LRDP EIR and documents whether or not the project is consistent with and within the scope of the environmental impact analysis of the 2018 LRDP EIR.

#### 3.1 2018 LRDP OBJECTIVES

Key objectives of the 2018 LRDP, as outlined in the plan, include expanding both academic and non-academic programs in support of the UC mission; establish two new undergraduate colleges; locate buildings in accordance with the established character, scale and design; co-locate and strengthen campus programs; activate and enliven the campus through mixed-use and transit-oriented development; redevelop the University Center into a town center; house approximately 65 percent of eligible students; provide faculty/staff affordable housing options; expand and enhance facilities for UC Health; expand multimodal connections and trip reduction programs; implement sustainable development practices; and be responsible stewards for the campus open space systems.

The project would support the following 2018 LRDP objectives:

1. Accommodate projected growth by providing approximately 8.9 million GSF of new facilities needed to expand academic and non-academic programs in support of the UC mission and its commitment to excellence in teaching, research, and public service.

The project would complete buildout of the SRP area consistent with the UC San Diego 2018 LRDP and the 2023 Development Concept Update for the Science Research Park. The project would provide 1,100,000 GSF of new academic research, office, support, and retail space that would provide lease opportunities for research companies, institutes, and/or government agencies that would engage in industrial, scientific, or technological research. These programs would contribute directly to the UC commitment to excellence in teaching, research, and public service.

2. Locate buildings on campus in accordance with the character, scale, and design goals expressed in the 1989 Master Plan, Neighborhood Planning Studies, previous LRDPs, and the 2018 LRDP's guiding principles and its required elements.

The SRP was envisioned in the 1989 UC San Diego Master Plan, relevant planning studies, and 1989 LRDP (and subsequent LRDPs). The project would complete the build out of the SRP. The project is consistent with the original vision, as well as with the 2018 LRDP land use designation for the site.

3. Site future development to allow for the co-location and strengthening of campus programs, facilities, and activities; to continue the exchange of ideas between academics and scientists; and to create synergy between shared resources and services.

The project would complete the buildout of the SRP, collocating buildings with existing research facilities, La Jolla Institute for Immunology and Center for Novel Therapeutics. Its location on campus is well-connected to graduate housing (Mesa Housing located to the south), and UC San Diego Health and Academic programs and Health Sciences East to the north and east. The project would provide a series of pedestrian pathways throughout the site. The north-south Innovation Walk would connect Mesa Housing to the south to the Health Sciences Campus to the north through the project site. The Campus Mews is an east-west pedestrian corridor that would extend from the canyon to Athena Circle.

4. Activate and enliven the campus through strategic mixed-use and transit-oriented development, improved public spaces, expanded campus services, and additional on-campus housing to facilitate a living-learning campus environment;

The project would provide connections across East Campus through a series of pedestrian pathways. The north-south Innovation Walk would connect Mesa Housing to the Health Sciences Campus through the project site. The Campus Mews would provide an east-west pedestrian corridor that extends from the canyon to the west of SRP to Regents Road.

Pedestrian circulation and entry into buildings would be guided through careful location of building entries and the use of arcades and colonnades along the Terraces and Walks. In addition, the project would be located within walking distance to two MidCoast Trolley (LRT) Blue Line stops: Executive Drive to the east, and UC San Diego Health to the north. The project includes public spaces such as the Innovation Commons Campus Mews (with retail and other active programming) and other community-oriented spaces.

11. Minimize environmental impacts through sustainable development practices related to campus planning, building siting, design, construction, and operations.

The project would minimize environmental impacts through sustainable development practices related to building siting and design. The project would be certified as LEED Gold at a minimum, with sustainability measures described in Section 2.5.7 such as water and energy-reducing features. Landscaping areas would use reclaimed water and be planted with native and drought-tolerant plants to promote native species and reduce water use.

## 3.2 2018 LRDP LAND USE

The Land Use Plan of the 2018 LRDP describes functional land use categories that reflect those activities that would be predominant in any given area of campus (Figure 2-3 in the 2018 LRDP EIR). Predominant uses are the primary programs, facilities, and activities in a general geographic area. Other support or ancillary uses are allowable within any given area defined by a predominant use.

The 2018 LRDP designates the project site as Science Research, defined as land and structures that are primarily intended to accommodate private- public research partnerships with entities whose activities are compatible with UC San Diego-based research programs typically entail collaboration with UC San Diego faculty and researchers. The 2018 LRDP EIR also assumed the development of 5,800 parking spaces. The project would construct three buildings that would provide lease opportunities for research companies, institutes, and/or government agencies that would engage in industrial, scientific or technological research. The project also includes two parking structures to support the development, which is a compatible use consistent with the LRDP. Therefore, it has been determined that the project is consistent with the land use categories in the 2018 LRDP.

## 3.3 2018 LRDP DEVELOPMENT SPACE

The 2018 LRDP provides capacity for approximately 8.9 million GSF of additional building space for academic, clinical, housing, administrative, and service programs. This projected net increase accounts for the potential removal (demolition) of approximately 1 million GSF of buildings that are beyond their useful life and/or are located in strategic redevelopment

areas. The total new campus building space is presented by geographic area on the UC San Diego La Jolla Campus as shown in Table 2, Total Campus Space Projections.

**Table 2. Total Campus Space Projections**

<b>Campus Location</b>	<b>Baseline Fall 2015 GSF<sup>1</sup></b>	<b>Summer 2023 (Actual) GSF</b>	<b>Summer 2023 Existing + Under Construction GSF</b>	<b>Projected Fall 2035 GSF</b>
West Campus	11,099,000	12,551,800	14,998,000	16,046,000
East Campus	3,075,300	5,011,900	5,211,900	9,358,300
Scripps Institution of Oceanography	1,018,000	1,018,000	1,018,000	2,011,000
Nearby Properties	471,000	471,000	471,000	471,000

The project would construct 1,100,000 GSF of new space (see Table 1 for additional information). No demolition of existing structures would occur. Consistent with CEQA Guidelines Section 15168(c)(2), the project would be consistent with overall planned density and building intensity analyzed in the 2018 LRDP EIR. Therefore, the project would be within the scope of the 2018 LRDP EIR.

The 2018 LRDP EIR also assumed that the East Campus would increase its developed area by approximately 1,115,019 GSF of science research uses; 217,072 GSF of outpatient/clinical uses, and 50,000 GSF of retail uses, plus the construction of a 300-room conference center. (DEIR p. 3.14-50.) Trip generation for the remaining use types (i.e., academic and office space uses) assumed the East Campus would build additional academic/office building space to support an additional 4,000 staff and residential space to house an additional 3,570 residents.

To date, only one building project has been approved in the East Campus under the 2018 LRDP: the Viterbi Family Vision Research Center Project. This project is currently under construction and will contain approximately 65,000 GSF of science research space, 3,000 GSF of retail space, 4,000 GSF of clinical space, and 28,000 of general support/office space (supporting approximately 250 new staff). The proposed project would add approximately 603,200 GSF of science research space, 15,000 GSF of retail space, 428,800 GSF of office/shared amenity space (supporting an estimated 204 non-research staff), and 50,000 GSF of support space and innovation commons to the East Campus. As such, with the proposed project, East Campus development would be within the scope of what was evaluated by the 2018 LRDP EIR. In total, the East Campus would still have capacity under the 2018 LRDP EIR to build 446,819 GSF of additional science research use, 213,072 GSF of additional outpatient/clinical use, 32,000 GSF of additional retail use, and office and academic space to support an additional 3,546 staff. Therefore, consistent with CEQA

Guidelines Section 15168(c)(2), the proposed project would be consistent with the type of allowable land use assumed in the 2018 LRDP EIR.

While the 2018 LRDP EIR made assumptions at the land use-level for evaluation purposes, the 2018 LRDP itself included overall development projections at the level of general campus location (i.e., East Campus). The 2018 LRDP assumed that almost 6.3 million GSF of net new development across all land uses would be constructed in the East Campus between 2015 and 2035. As shown in Table 2, the proposed project would not cause an exceedance of the total development assumptions for the East Campus. Rather, even with the proposed project, the East Campus would remain 4.1 million GSF below the total development planned by the 2018 LRDP and evaluated in the 2018 LRDP EIR. Therefore, the project would be within the scope of the 2018 LRDP.

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## 4 CONSISTENCY WITH 2018 LRDP EIR

The evaluation contained in this consistency review was conducted in accordance with Section 21094 of the California PRC. Pursuant to Sections 15162, 15164, and 15168 of the CEQA Guidelines, this Addendum documents that the project's effects have been adequately addressed in a prior (or earlier) programmatic analysis. The 2018 LRDP EIR is a Program EIR that comprehensively addressed the potential environmental effects of campus growth and development due to implementation of future projects and activities proposed under the 2018 LRDP EIR. Therefore, given the overall consistency of the proposed project with the 2018 LRDP EIR, preparation of an addendum is appropriate. As discussed in Section 3.3, the project would be consistent with overall planned density and building intensity analyzed in the 2018 LRDP EIR (CEQA Guidelines Section 15168(c)(2)). Therefore, the project would be within the scope of the 2018 LRDP EIR. Nevertheless, this Addendum also analyzes whether the project is within the scope of the individual resource areas analyzed in the 2018 LRDP EIR.

In January 2019 and following certification of the 2018 LRDP EIR, amendments and additions to Appendix G of the CEQA Guidelines went into effect. Because the Governor's Office of Planning and Research proposed these amendments and additions to Appendix G of the CEQA Guidelines in 2018, UC San Diego was able to anticipate the checklist changes during the preparation of the 2018 LRDP EIR and incorporate those concepts into the certified EIR. Therefore, while the 2018 LRDP EIR reflects the Appendix G checklist questions that were in effect at the time of EIR certification, the analysis contained therein reflect the context of and appropriately address the amended Appendix G that was approved in 2019. To address the amendments directly, this Addendum reflects the current Appendix G of the CEQA Guidelines and refers to sections of the 2018 LRDP EIR where relevant analysis can be found.

### 4.1 EVALUATION OF PROJECT ENVIRONMENTAL IMPACTS

#### 4.1.1 Checklist Explanation

On the basis of the tiering and subsequent review concepts identified in the CEQA Guidelines, UC San Diego has defined the following column headings in this Addendum. Both headings rely on the relevant analyses in the 2018 LRDP EIR:

- **Impacts Examined in 2018 LRDP EIR:** This column is checked where the potential impacts of the project were adequately examined in the certified 2018 LRDP EIR. Where applicable, mitigation measures identified in the 2018 LRDP EIR would mitigate the impacts of the project. All applicable mitigation measures from the 2018 LRDP are incorporated into the project as noted in Section 5, Applicable Mitigation Measures, of this Addendum. The project is consistent with the analysis evaluated in the 2018 LRDP EIR.

- **Impacts Not Examined in 2018 LRDP EIR:** If a column is checked in this section, this indicates potential effects of the project were not adequately evaluated in the certified 2018 LRDP EIR. However, as described in the supporting text, the potential effects of the project could result in (1) no impact in the category, (2) less than significant impact in the category, or (3) new or substantially more severe potentially significant impact. In the instance that (1) or (2) is checked, no additional CEQA documentation would be necessary. In the instance that (3) is checked, additional CEQA documentation would be necessary to further address the issue. All applicable mitigation measures (LRDP program and/or project-specific) would be incorporated into the project as noted in Section 5 of this Addendum.

#### 4.1.2 Environmental Topics Addressed

The following environmental resources, if checked below, would be potentially affected by this project and would involve at least one significant impact that substantially exceeds or is otherwise outside the scope of activities evaluated for potential environmental effects in the 2018 LRDP EIR, as discussed in Sections 4.1.3 through 4.1.20 of this Addendum. Agriculture and Forestry and Mineral Resources are discussed in Section 4.1 of the 2018 LRDP EIR under “Effects Not Found to be Significant.” As noted in those discussions, no potential for significant impacts to those topics would occur due to the lack of such resources on the UC San Diego La Jolla Campus. As such, those topics are not discussed in this Addendum.

If “None” is checked below, this project is deemed entirely consistent with and covered by the environmental analysis contained in the 2018 LRDP EIR.

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Aesthetics                             | <input type="checkbox"/> Air Quality                     | <input type="checkbox"/> Biological Resources               |
| <input type="checkbox"/> Cultural and Tribal Cultural Resources | <input type="checkbox"/> Energy                          | <input type="checkbox"/> Geology and Soils                  |
| <input type="checkbox"/> Greenhouse Gas Emissions               | <input type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Hydrology and Water Quality        |
| <input type="checkbox"/> Land Use and Planning                  | <input type="checkbox"/> Noise                           | <input type="checkbox"/> Population and Housing             |
| <input type="checkbox"/> Public Services                        | <input type="checkbox"/> Recreation                      | <input type="checkbox"/> Transportation/Traffic             |
| <input type="checkbox"/> Utilities and Service Systems          | <input type="checkbox"/> Wildfire                        | <input type="checkbox"/> Mandatory Findings of Significance |
| <input checked="" type="checkbox"/> None                        |  |   |



### 4.1.3 Aesthetics

Section 3.1 of the 2018 LRDP EIR evaluates the impacts of campus growth under the 2018 LRDP on aesthetics. The 2018 LRDP EIR concludes that implementation of future projects under the plan would result in potentially significant impacts to scenic vistas, visual character or quality and light or glare (Sections 3.1.3.1 through 3.1.3.3). No potential for significant impacts to scenic resources within the viewshed of the state scenic highway is identified (Section 3.1.5). MMs Aes-1 (scenic vistas), Aes-2A and Aes-2B (visual character/quality), and Aes-3 (night lighting) are identified in the mitigation framework of the 2018 LRDP EIR for projects that would contribute to these impacts. Implementation of the measures would reduce the future aesthetics impacts to less than significant levels, consistent with the 2018 LRDP.

Would the project...	Impact Examined in 2018 LRDP EIR	Impact Not Examined in 2018 LRDP EIR		
		No Impact	Less than Significant Impact	Potentially New or More Severe Significant Impact
a) Have a substantial adverse effect on a scenic vista?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The Main UC San Diego Campus, including East Campus, is fully within a TPA and meets the definition of an infill site (2018 LRDP EIR, Figure 3.14-4; Addendum Figure 2). The project's uses are also consistent with an employment center project, and the project has a Floor Area Ratio of ~1.8 [1,100,000 sf / (14 acres x 43,560 sq. ft. per acre)]. The project would be exempt from aesthetics analysis pursuant to California PRC Section

21099(d). Nevertheless, the analysis below further demonstrates that the project is within the scope of the 2018 LRDP EIR.

- a) As shown on Figure 3.1-2, Campus Visual Resources, of the 2018 LRDP EIR, the project site is not located within the viewshed of any Key Vantage Point (KVP) identified in the 2018 LRDP EIR. The project would not have the potential for a significant impact to views due to its absence from the visual sensitive zones on or immediately off campus identified on Figure 3.1.2 in the 2018 LRDP EIR. However, the project is located along a Perimeter Development Zone (PDZ), a 100-foot zone along the perimeter of campus representing a campus-community interface. The PDZ was established to identify the areas of campus where future development under the proposed 2018 LRDP would be most visible to the surrounding community. As required by MM Aes-2b, development within the PDZ is given special design considerations to ensure compatibility of site design and architecture and to avoid substantial impacts to scenic resources. In accordance with MM Aes-2B, the project has been reviewed by the Design Review Board and Campus Architect to ensure that the PDZ has been addressed along the eastern edge of the SRP project site. As a result, the East Building and Parking Structure 2 are set back from Regents Road by approximately 45-feet to provide a landscape and pedestrian area called the Regents Promenade. The Regents Promenade would create a uniquely planted landscape zone and pedestrian zone as a visual, human-scale buffer which is consistent with the PDZ requirements. High-quality architecture and materials of the structures within the PDZ would also render the project consistent with the intent of the PDZ. Therefore, the project would result in less than significant impacts consistent with the scenic vistas/views analysis and PDZ zone requirements evaluated in the 2018 LRDP EIR.
- b) Implementation of the project would not result in substantial damage to scenic resources within a state scenic highway because no such resources or roads exist on or adjacent to the UC San Diego La Jolla Campus. Therefore, the project would result in less than significant impacts, consistent with the scenic resources analysis evaluated in the 2018 LRDP EIR.
- c) The 2018 LRDP EIR disclosed that development on the East Campus could have potentially significant impacts to visual character immediately adjacent to the campus boundary, due to the redevelopment potential of numerous surface parking areas (2018 LRDP EIR page 3.1-33). However, the project is located within an urbanized area and would comply with the 2018 LRDP and Adopted Project Standards which are generally consistent with the UC San Diego Design Guidelines and UC policies to ensure high-quality architecture and consistency with other campus development.

As discussed above in subsection (a), the project is identified as being within a PDZ, which is focused on placement, architecture, massing and landscaping. The LRDP explains that projects within these zones are given special development and design consideration due

to the proximity of existing residential land uses and community character along these edges of campus. Projects in PDZs are reviewed by UC San Diego staff and committees as identified in 2018 LRDP EIR Section 3.1.3, Implementation Process Overview of the LRDP, to evaluate compatibility of site design and architecture to areas adjacent to the campus, and to preserve visually sensitive areas throughout campus.

The project would remove existing surface parking lots to construct the project. The project would be consistent with adjacent massing, and would utilize landscaping throughout the site, consistent with existing development. Because the project would comply with all applicable UC regulations governing scenic quality, the project would not have the potential for a significant impact related to degradation of the visual character of the site and its surroundings. In addition, the height of the buildings (up to 204 feet and nine stories) is consistent with the surrounding buildings and uses both on and off campus. For example, there are approximately 20 structures in the Mesa Nuevo East Graduate Housing complex located immediately south of the project site measuring 10–12 stories in height and up to 123 feet. Additionally, the further surrounding visual setting in the East Campus Health Sciences Neighborhood and University Community includes the nearby Jacobs Medical Center (approximately 200 feet tall), 15-story Marriott La Jolla building, and 16-story La Jolla Executive Tower building. The project design was reviewed and endorsed by the Design Review Board in August 2023 as required by 2018 LRDP MM Aes-2A. Therefore, the project would result in less than significant impacts following mitigation, consistent with the visual character and quality analysis evaluated in the 2018 LRDP EIR.

- d) Under existing conditions, the project site contains surface parking lots with numerous light polls. This existing lighting would be removed and replaced with light fixtures, including safety lighting, would be provided on pathways within the project including the Campus Mews and Innovation Walk. The project would comply with UC San Diego's Outdoor Lighting Policy, which includes shielded fixtures and downward-facing lighting. The Outdoor Lighting Policy includes lighting restrictions and standards (including shielded fixtures and downward-facing lighting) that reduce nighttime light pollution from campus facilities to minimally acceptable levels to support and advance local astronomical research, and to limit nuisance light and glare impacts to adjacent properties, while ensuring adequate lighting levels for safety and security. Building materials would be selected to appropriately reduce glare (e.g., "clear vision" glass to minimize glare and reflectivity) and light fixtures that would be downcast and would minimize light pollution or spill over would balance with security requirements.

The project would construct two parking structures that have the potential to result in vehicle headlights affecting nighttime views from nearby properties. The parking structure frames would be designed with special beams that block car lights from escaping the structure and minimize light spillover to adjacent uses. Parking Structure 2 would integrate with the adjacent landscaping along Regents Road by the use of short

retaining walls and climbing vines, which would further reduce the potential for nighttime light spillover. Furthermore, the adjacent residential structures south of the project site, are located on an elevated position, approximately 15 feet above ground level at the project site. Given the elevated position of adjacent residences, headlights would not have the potential to shine directly on sensitive uses, irrespective of the proposed screening at ground level.

Nevertheless, 2018 LRDP MM Aes-3 has been applied as part of the project planning and design process in order to further ensure the potential light and glare impact would be less than significant level, consistent with the light and glare analysis evaluated in the 2018 LRDP EIR.

#### 4.1.4 Air Quality

Section 3.2 of the 2018 LRDP EIR addresses the air quality effects of campus growth under the 2018 LRDP and concludes that its implementation would result in potentially significant impacts from construction and operational activities that could lead to a violation of air quality standards or contribute substantially to an existing or projected air quality violation (Section 3.2.3.2). Cumulatively significant impacts were identified due to a considerable net increase in criteria pollutants in a region that is in non-attainment (Section 3.2.3.3). Potentially significant construction-related emissions would cause exposure of sensitive receptors to toxic air contaminant (TAC) emissions (Section 3.2.3.5). Less than significant impacts were identified related to consistency with the Regional Air Quality Strategy (RAQS) and State Implementation Plan (SIP) and due to carbon monoxide hotspots (Sections 3.2.3.1 and 3.2.3.4). No potential for significant odors impacts was identified (Section 3.2.3.5).

The project would comply with the 2018 LRDP EIR MM AQ-2A (fugitive dust emissions) and AQ-2B (off-road construction emissions).

Would the project...	Impact Examined in 2018 LRDP EIR	Impact Not Examined in 2018 LRDP EIR		
		No Impact	Less than Significant Impact	Potentially New or More Severe Significant Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- a) The 2018 LRDP incorporates development strategies identified in the San Diego Association of Governments (SANDAG) Regional Transportation Plan and Sustainable Communities Strategy by integrating land use, housing, and transportation planning, which is consistent with the goals developed by SANDAG and the University land use assumed in the RAQS. The RAQS emissions assumptions do not include specific land use assumptions for the UC San Diego campus. The project is consistent with the 2018 LRDP land use designation of “science research,” as described in Section 3, Consistency with 2018 LRDP, of this Addendum, and does not propose to change land use types.

The project proposes to redevelop approximately 14 acres of existing surface parking with 1,100,000 square feet of laboratory/office space and 3,120 structured parking spaces within a TPA. These uses are consistent with the assumptions from the 2018 LRDP. As discussed in the VMT Assessment prepared by LLG (Appendix A), the project would result in a 6.2 percent decrease in VMT per employee compared to what was analyzed for the site in the 2018 LRDP.

Additionally, consistent with the 2018 LRDP analysis, the VMT per capita would be lower than the San Diego regional average. Additionally, the project would implement the applicable SANDAG Regional Transportation Plan strategies identified for the 2018 LRDP, including increased pedestrian and bicycle mobility, improved transit accessibility, transportation demand management strategies, and site improvements that support local and regional projects. As described above, the project would include new bicycle, pedestrian, and micromobility facilities, and is a walkable distance to transit facilities,

including two light-rail transit stations. Therefore, the project would result in less than significant impacts and is within the scope of the air quality management plan analysis evaluated in the 2018 LRDP EIR.

- b) Construction and operational emissions associated with the project are addressed separately below.

## PROJECT CONSTRUCTION

As discussed in the Air Quality Memorandum prepared by Harris & Associates for the project (2023), emissions from construction of the project were estimated using CalEEMod, Version 2022.1.1.13. The overall construction schedule is split into four phases (1A, 1B, 2A, and 2B). To represent a worst-case construction emissions estimate, this analysis assumed that the project would be constructed in five separate construction cycles (including demolition, grading, building construction, paving, and interior construction per cycle), one for each of the three buildings and two parking structures, with surface parking and other site improvements incorporated into these phases. Each building and parking structure would include demolition of existing asphalt surfaces, grading, building foundation and structure construction, internal shell construction and architectural coating, and pavement and hardscape installation. For the purposes of modeling, the total working days for each construction activity represents the sum of the working days estimated for that activity for each of the five construction cycles, including surface parking. This is conservative because it assumed a complete construction fleet would be on site for each construction activity for each cycle. However, construction activities would overlap, and it is likely that some of the same equipment fleet and workers would work on both cycles on the same day. Additionally, modeling is conservative because it assumes the default average engine tier for construction equipment. In reality, the project would be subject to MM AQ-2B, which requires use of equipment meeting Tier 4 Interim emissions standards. The default average fleet emissions factors assumed for project modeling were compared to the CalEEMod Tier 4 Interim emissions factors for two of the most common pieces of equipment anticipated for the project (dozers and loaders/backhoes) (CAPCOA 2022). Emissions factor assumptions show that NO<sub>x</sub> emissions may be reduced approximately 25 to 35 percent compared to the emissions calculated for the project, depending on construction year, as the construction equipment fleet becomes more efficient as older tier equipment is phased out. Emissions of PM<sub>10</sub> and PM<sub>2.5</sub> are estimated to be reduced 75 to 90 percent compared to default average fleet emissions. The proposed project would meet the requirements of MM AQ-2B, meaning the majority, if not entirety, of the construction fleet would be composed of Tier 4 Interim engines, with the exception that a limited number of Tier 3 equipment could be necessary on a case-by-case basis (such as if specialized equipment is not available locally with a Tier 4 engine), consistent with the discussion in the 2018 LRDP EIR. Because the number of necessary exceptions to meeting a Tier 4 fleet is subject to change throughout the life of construction,

emissions reductions for implementing the measure could not be accurately estimated at this time and a worst-case scenario in terms of equipment fleet was evaluated.

Modeling assumed a worst-case material movement of 110,700 cubic yard of soil export and 114,700 cubic yards of soil import. Based on assumptions from projects with similar conditions, modeling assumed that 50 percent of exported soil would require disposal at a facility 250 miles from the project site, and BMPs would include watering exposed surfaces twice daily. Modeling defaults were assumed for worker and vendor trips except interior construction and coating vendor trips. Modeling assumed 20 percent of building construction vendor trips for internal construction, consistent with the default assumption of architectural coating worker trips.

Construction assumptions are summarized in Table 3, Science Research Park Expansion Project Construction Assumptions. Estimated worst-case daily construction emissions are shown in Table 4, Estimated Construction Daily Maximum Air Pollutant Emissions for the Science Research Park Expansion Project (pounds/day).

**Table 3. Science Research Park Expansion Project Construction Assumptions**

Construction Activity	Total Working Days	Total Material Movement	Worker Trips per Day	Vendor Trips per Day
Demolition	180	5,095 tons	15	—
Grading	280	110,700 cubic yards of export/ 114,700 cubic yards of import	20	—
Building Construction	1,300	—	853	376
Paving	585	—	15	—
Interior Construction and Architectural Coating	600	—	171	76

**Source:** Appendix B.



**Table 4. Estimated Construction Daily Maximum Air Pollutant Emissions for the Science Research Park Expansion Project (pounds/day)**

Construction Phase	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Demolition	2.69	25.79	22.75	0.03	1.98	1.15
Grading	4.0	67.5	41.61	0.23	12.91	3.8
Building Construction	5.15	27.27	61.4	0.08	10.25	2.94
Paving	0.89	7.5	10.67	0.01	0.48	0.35
Interior Construction and Architectural Coating	10.14	9.66	15.84	0.03	2.16	0.69
Maximum Daily Emissions (Individual Phases)	10.14	67.5	61.4	0.23	12.91	3.8
Maximum Daily Emissions Overlap	20.28	135	122.8	0.46	25.82	7.6
2018 LRDP EIR	119.78	520.84	363.82	0.74	109.08	61.02
Thresholds of Significance	137	250	550	250	100	100
Significant or Beyond the Scope of the 2018 LRDP EIR?	No	No	No	No	No	No

**Source:** Appendix B.

**Notes:** Worst-case scenario for VOC emissions would occur during simultaneous interior construction, would occur during building construction for CO emissions, and would occur during simultaneous grading phases for the remaining pollutants. CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = particulate matter less than 10 microns; PM<sub>2.5</sub> = particulate matter less than 2.5 microns; SO<sub>2</sub> = sulfur dioxide; VOC = volatile organic compound

Emissions are summarized by construction activity in Table 4. As shown, the project would not exceed the City of San Diego thresholds for any pollutant and would not exceed the 2018 LRDP's assumptions. Therefore, the project would individually have a less than significant construction emissions impact. However, as with the 2018 LRDP, because construction could take place simultaneously with other campus construction, 2018 LRDP EIR MMs AQ-2A and AQ-2B would be implemented for the project, as required by the 2018 LRDP EIR. As discussed in Section 3.3, the project would be within the scope of overall development assumed in the 2018 LRDP EIR. Furthermore, since that analysis was prepared, the vehicular construction fleet has become more efficient as older tier construction equipment has been retired. The project would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects regarding emissions during construction.

## PROJECT OPERATION

The 2018 LRDP EIR identified significant impacts under the construction, operation, and simultaneous construction and operation scenarios. The emissions threshold was exceeded for NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> under construction.

The SRP project proposes development generally consistent with the development assumptions for East Campus in the 2018 LRDP EIR. Maximum daily operational



emissions were also modeled using CalEEMod, Version 2022.1.1.13. Daily VMT was provided by LLG (2023b). Annual VMT was calculated based on an average 260 working days per year. Modeling accounts for access to transit and bicycle infrastructure and proposed bicycle facilities. The buildings would be all-electric except for kitchens in the retail space and specialized laboratory equipment. Cooking accounts for approximately 6 percent of typical commercial natural gas use; therefore, 6 percent of the default calculated that natural gas was assumed (C2ES 2012). Emissions from proposed generators were calculated using the emissions factors from the 2018 LRDP EIR and usage assumptions and equipment specifications from the developer. A total of 15 generators were assumed to be tested for 30 minutes monthly. These include one emergency diesel generator for each of the three buildings, as required by CBC for safety lighting and ingress/egress during emergency power outages, plus 12 smaller tenant-owned and operated generators to provide power to sensitive research equipment during emergency power outages. Maximum daily project operational emissions are provided in Table 5, Operational Daily Maximum Air Pollutant Emissions for the Science Research Park Expansion Project. As shown in Table 5, the proposed project would not exceed the operational daily maximum significance threshold for any pollutant and would not exceed the 2018 LRDP's assumptions.

**Table 5. Operational Daily Maximum Air Pollutant Emissions for the Science Research Park Expansion Project**

Emissions Source	Maximum Daily Emissions (pounds/day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Mobile	35.3	14.9	154	0.32	11.6	2.22
Area	41.4	0.84	99.8	0.01	0.13	0.18
Energy	0.03	0.57	0.48	<0.01	0.04	0.04
Stationary (generators)	0.28	21.37	1.09	0	0.45	0.45
<b>Total Operational Emissions</b>	<b>77.01</b>	<b>37.68</b>	<b>255.37</b>	<b>0.33</b>	<b>12.22</b>	<b>2.89</b>
<b>2018 LRDP Buildout Emissions<sup>1</sup></b>	<b>265.17</b>	<b>746.24</b>	<b>1,890.11</b>	<b>30.46</b>	<b>849.59</b>	<b>293.35</b>
Thresholds of Significance	137	250	550	250	100	55
Significant or Beyond the Scope of the 2018 LRDP EIR?	No	No	No	No	No	No

**Source:** Appendix B.

**Notes:** <sup>1</sup>Total 2018 LRDP Emissions include development of the East Campus, including the project site. CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = particulate matter less than 10 microns; PM<sub>2.5</sub> = particulate matter less than 2.5 microns; SO<sub>2</sub> = sulfur dioxide; VOC = volatile organic compound

As discussed in Section 3.3, the project would be within the scope of overall development assumed in the 2018 LRDP EIR. Furthermore, since the 2018 LRDP EIR analysis was prepared, the vehicular fleet has become more efficient as older passenger and light duty vehicles are retired and replaced with modern more fuel-efficient fossil fuel powered vehicles and electric vehicles. The current CAFE standards for model years 2024-2026 require new passenger and light duty vehicles sold in the US

to average at least 40 miles per gallon (mpg). This is a nearly 43 percent increase from the previous standard of approximately 28 mpg. Current proposals are seeking to increase this to 49 mpg after 2026. Furthermore, the rate of electric vehicle adoption rate is occurring faster than anticipated in 2018. California has reached 1.5 million electric vehicle sales 2 years ahead of its planned 2025 target for the sales milestone (CEC 2023). At this time, approximately 21 percent of new car sales in California are electric vehicles (Electrek 2023).

## **SIMULTANEOUS PROJECT CONSTRUCTION AND OPERATION**

The 2018 LRDP EIR identified significant impacts under the construction, operation, and simultaneous construction and operation scenarios. The emissions threshold was exceeded for NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> under construction; PM<sub>10</sub> under operation; and PM<sub>10</sub> and PM<sub>2.5</sub> under simultaneous construction and operation scenarios. As described above, the proposed project would not exceed the construction or operational daily maximum significance threshold for any pollutant and would not exceed the 2018 LRDP's assumptions. Additionally, construction and operational emissions from project and other campus construction are anticipated to be reduced compared to 2018 LRDP modeling due to more stringent emissions standards and retirement of older vehicles.

Therefore, the project would not result in substantial changes from the previous analysis, and the project would individually have a less than significant emissions impact. Consistent with the 2018 LRDP EIR, it is assumed that emissions from campus-wide simultaneous construction and operation cannot be fully mitigated, and significant and unavoidable impacts related to construction, operation, and simultaneous construction and operation would continue to occur with project implementation. 2018 LRDP EIR MMs AQ-2A and AQ-2B would be implemented for the project.

The project would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects regarding simultaneous construction and operational emissions.

- c) A discussion of the projects impacts related to CO hotspots and TACs is below.

## **CO HOTSPOTS**

The City of San Diego has developed screening thresholds to analyze the potential impacts to the localized effect of CO, which the University has elected to use for its threshold of significance, per Section 3.2.3.2 of the 2018 LRDP EIR. Based on this screening threshold, a proposed project could cause a potential localized significant air quality impact if a potential development causes a four- or six-lane road to deteriorate to level of service E or worse. Additionally, the 2018 LRDP was compared to screening criteria related to traffic volumes from the Bay Area Air Quality Management District (BAAQMD) and SCAQMD to determine potential impacts. The potential for the 2018

LRDP to generate a CO hotspot was analyzed at the worst-case intersection of La Jolla Scenic Drive and La Jolla Village Drive with a maximum combined volume of 78,700 vehicles per day in 2035. Although the BAAQMD and SCAQMD screening analysis indicates that the 2018 LRDP would not result in a CO hotspot, the analysis conservatively modeled CO concentrations at the worst-case intersection of La Jolla Scenic Drive and La Jolla Village Drive for the 2018 LRDP future (2035) conditions. The results showed that 2018 LRDP future traffic conditions would not result in or contribute to any exceedances of the 1-hour or 8-hour CO standards during the AM peak periods, even considering conservative assumptions. Refer to Appendix B for further details.

While the project is still under the overall development allowed in the East Campus by the 2018 LRDP, it would put slightly more density than expected specifically in the Science Research Park neighborhood. The project would result in an incremental increase in vehicle trips associated with the 238 additional employees anticipated as a result of the increased density at this site compared to the 2018 LRDP (Appendix B). Even if all employees commuted to the site using this intersection (La Jolla Scenic Drive and La Jolla Village Drive) during the AM peak hour, these additional employees would result in an approximately 4 percent increase in intersection volume. As demonstrated in the 2018 LRDP EIR and described above, congestion from buildout under the 2018 LRDP would be well below CO standards. As such, this small increase in additional trips would not result in additional congestion that would significantly increase CO exposure. Additionally, as a result of improvements in technology and vehicle emissions standards, CO emissions factors are projected to decrease in future years. These improvements would reduce the concentration of CO emissions from the project. Therefore, the project would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects regarding CO hotspots.

## **TOXIC AIR CONTAMINANTS**

The project would also result in TAC emissions from construction, mobile sources, and on-site campus stationary sources, such as generators. As discussed in Section 3.3, the project would construct similar office/laboratory space to what was assumed in the 2018 LRDP EIR. The project proposes a total up to 15 diesel generators, which are anticipated to be tested for 30 minutes monthly. The 2018 LRDP EIR assumed that on-site generators would run approximately 20 minutes per day over 365 days, which is a much higher usage than is required and higher than the project plans to use. Maximum daily generator emissions are compared in Table 6, Science Research Park Expansion Project Generator Emissions Comparison to 2018 LRDP Generator Emissions.

**Table 6. Science Research Park Expansion Project Generator Emissions Comparison to 2018 LRDP Generator Emissions**

Emissions Source	Generator Run Time	PM <sub>10</sub>		PM <sub>2.5</sub>	
		Maximum Daily (pounds/day)	Annual (tons/year)	Maximum Daily (pounds/day)	Annual (tons/year)
2018 LRDP Generator Emissions Assumed for Project Site	20 minutes per day, every day	0.07	23.79	0.07	23.79
Proposed Project Generator Emissions	30 minutes on a given day, 12 total days per year	0.45	5.37	0.45	5.37

As shown in Table 6 the project would result in a negligible (less than 0.5 pound/day) increase in maximum daily PM<sub>10</sub> and PM<sub>2.5</sub> emissions, the pollutants of concern for the 2018 LRDP EIR Health Risk Assessment. Additionally, emissions are anticipated to occur only 12 days per year as required for testing, compared to daily under the 2018 LRDP EIR (Wexford Science + Technology 2023). As shown in Table 6, total annual particulate matter emissions would decrease compared to 2018 LRDP EIR emissions due to the reduced run time. Due to similar proposed lab space and reduced generator emissions, operational TAC emissions from the site would be reduced compared to those evaluated for the site in 2018 LRDP EIR.

As shown in Tables 4 and 5, the project would not result in new emissions from construction or mobile source emissions from operation that would result in a substantial increase in emissions compared to the 2018 LRDP. As described above, actual project operation emissions are not anticipated to result in any increase compared to calculated emissions for the 2018 LRDP. Consistent with 2018 LRDP implementation, further transportation programs and greenhouse gas emissions reduction strategies are identified for the UC San Diego campus per the sustainable transportation goals for the UC Sustainable Practices Policy, mobile source emissions are anticipated to decrease from current levels estimated for the project. In addition, the project includes project design features to reduce mobile emissions related to alternative transportation including providing new EV infrastructure and bicycle storage and is located less than 0.3 mile from the nearest light-rail transit stop (UC San Diego Health La Jolla transit stop). 2018 LRDP MMs AQ-2A and AQ-2B would be implemented to reduce construction-related health risk.

The project would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects regarding TAC emissions.

- d) The 2018 LRDP EIR acknowledged that development under the LRDP would include exhaust from diesel construction equipment, however that analysis concludes that odor impacts would be significant. Potential sources that may emit odors during construction of the SRP project would also include exhaust from diesel construction equipment. However, consistent with the 2018 LRDP analysis, because of the temporary nature of these emissions, the highly diffusive properties of diesel exhaust, odors from construction equipment would not affect a substantial amount of people. The project would use typical construction techniques, and the odors from off-road equipment and on-road vehicles would be typical of most construction sites and temporary in nature. In addition, project operation would not produce new sources of odor or other pollutants that would adversely affect a substantial number of people. The project would house specialized laboratory equipment; however, any operation and/or equipment that produces emissions would be appropriately outfitted with fume hoods and exhaust fans to disperse emissions. Air source heat pumps would also be provided in the building which generate emissions-free building heat instead of burning natural gas. As such, project operation would not produce new sources of odor or other pollutants that would adversely affect a substantial number of people. Therefore, the project would result in less than significant odor impacts and would be consistent with the air quality analysis evaluated in the 2018 LRDP EIR.

#### 4.1.5 Biological Resources

Section 3.3 of the 2018 LRDP EIR addresses the effects of campus growth and development under the 2018 LRDP on biological resources and concludes that its implementation would result in potentially significant impacts to sensitive biological resources, including candidate, sensitive, or special-status plant species (Section 3.3.3.1); sensitive wildlife species (Section 3.3.3.2); and sensitive vegetation communities (Section 3.3.3.3) and federally protected wetlands (Section 3.3.3.4). As part of these analyses, the 2018 LRDP EIR identified significant biological impacts associated with construction noise during breeding season. No potential for significant impacts to wildlife corridors or linkages and conflicts with local policies or ordinances, including any adopted Habitat Conservation Plans (Section 3.3.5).

The mitigation framework addresses all of the potentially significant impacts identified in Section 3.3.3 of the 2018 LRDP EIR. If a 2018 LRDP project would impact sensitive plants, the site would be surveyed for sensitive plants in accordance with MM Bio-1A, and if applicable, San Diego barrel cactus would be relocated in accordance with MM Bio-1B. For impacts to sensitive wildlife species, surveys for the species, construction noise attenuation, and agency consultation is required by MMs Bio-2A, Bio-2B, and Bio-2C and avian nest surveys and avoidance measures are required by MMs Bio-2D and Bio-2E. MMs Bio-3A and Bio-3B require project-level surveys for sensitive vegetation communities, while avoidance and compensatory mitigation is required by MMs Bio-3C and Bio-3D. Indirect construction impacts are addressed through the implementation of MMs Bio-3E and Bio-3F, and indirect operational impacts

require compliance with MMs Bio-3G through Bio-3M. Implementation of these measures would reduce future project-level impacts to less than significant levels.

Would the project...	Impact Examined in 2018 LRDP EIR	Impact Not Examined in 2018 LRDP EIR		
		No Impact	Less than Significant Impact	Potentially New or More Severe Significant Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



- a) The project site is developed, and the 2018 LRDP EIR defines it as Urban/Developed Land (refer to Figures 3.3-1, 3.3-2, and 3.3-3 in the 2018 LRDP EIR). The project site, the staging areas, and surrounding lands do not support habitat for special-status species. However, the project is located approximately 110 feet from an Open Space Preserve (specifically Ecological Reserve), located on the opposite side of Athena Circle, on the west side of the project site.

Landscaping on the western side of the project within 500 feet of the Open Space Preserve would comply with MM Bio-3I, MM Bio-3K, and MM Bio-3L, which limit the selection of the plant palette to native plants, avoidance of invasive species, implementation of the Integrated Pest Management Program, and installation of signage in areas adjacent to the Ecological Reserve. Permanent lighting would be shielded consistent with MM Bio-3J. Construction activities on the western portion of the site within 500 feet of the Open Space Preserve will comply with MM Bio-3E and Bio-3F which provides for fencing and monitoring to prevent disturbance of the Open Space Preserve.

Therefore the project is consistent with the biological resources analysis provided in the 2018 LRDP EIR. Additionally, landscaping included in the project would comply with MM Bio-3G, which requires inspection for shot hole borer (SHB) infestation. The project would require tree removal during construction and has the potential to impact nesting birds (including raptors) through direct removal of nesting habitat and through disturbance to nesting birds from substantial sources of noise generated at the commencement of construction during the breeding season. If construction activities commence between January 15 through July 31, pre-construction surveys will be performed pursuant to MM Bio-2D. Furthermore, the project will be prohibited from grubbing, trimming, or clearing of vegetation during the general avian breeding season (February 15 through August 31). However, if that is infeasible, pre-construction surveys will be prepared 7 days before, pursuant to MM Bio-2E. Under Bio-2E, if any active migratory bird nests are located vegetation clearing is halted until the young have fledged or the nest has failed. The project would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects regarding sensitive species as identified in the 2018 LRDP EIR.

- b, c) The project site is developed, as noted above under item (a), and does not contain riparian habitat or other sensitive natural communities. A natural canyon that contains sensitive upland and wetland habitat types and is part of the campus Open Space Preserve is located to the east of the site. The area is separated from the proposed project by a road and would not be directly impacted by the project. MM Bio-4 is not required as the project is not located immediately adjacent to any wetland and/riparian habitat. See Section 2.5.5, Landscape/Hardscape Improvements and Stormwater Management, of this document for a discussion on the stormwater management program that would ensure no downstream water quality or stormwater impacts to the natural canyon. No significant impacts to sensitive riparian or natural community

resources would occur and the project is consistent with the biological resources analysis provided in the 2018 LRDP EIR. The project would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects regarding riparian habitat or sensitive natural communities.

- d) Development of the project, which is located within an existing developed area, would not preclude wildlife movement or impact wildlife corridors or linkages as none exist on the campus. Therefore, the project is consistent with the biological resources analysis evaluated in the 2018 LRDP EIR.
- e) UC San Diego is a part of the UC, a constitutionally created unit of the State of California. As a state entity, the UC is not subject to municipal plans, policies, and regulations, such as County and City General Plans or local ordinances. Thus, the project would not result in any conflicts with any local policies protecting biological resources and is consistent with the biological resources analysis evaluated in the 2018 LRDP EIR.
- f) The project would not directly or indirectly affect resources preserved by the City of San Diego as part of its Multiple Species Conservation Plan (MSCP). Therefore, no impacts are anticipated to the City's MSCP or the Natural Community Conservation Plan (NCCP) Program, and the project is consistent with the biological resources analysis evaluated in the 2018 LRDP EIR.

#### 4.1.6 Cultural and Tribal Cultural Resources

Section 3.4 of the 2018 LRDP EIR addresses the effects of campus growth under the 2018 LRDP on archaeological and historical resources, including tribal cultural resources (TCRs), and concludes that its implementation would result in potentially significant impacts due to alterations of historical (built environment) resources that would cause a substantial adverse change in their significance (Section 3.4.3.1); land disturbance of recorded archaeological resources and unrecorded subsurface archaeological resources (Section 3.4.3.2); disturbance of human remains and of potential human remains in unrecorded subsurface sites (Section 3.4.3.4); and disturbance of TCRs (Section 3.4.3.5). Disturbance of geological formations containing paleontological (fossil) resources (Section 3.4.3.3) is discussed further in Section 4.1.8, Geology and Soils, of this Addendum.

The mitigation framework addresses all of the potentially significant impacts identified in Section 3.4.3 of the 2018 LRDP EIR. For impacts to historical resources, MM Cul-1A requires an analysis of historical resources and avoidance through compliance with the Secretary of the Interior's Standards for Rehabilitation; project redesign is required in accordance with MM Cul-1B; preparation of documentation is required by MM Cul-1C; and feasible relocation of historical resources is required through compliance with MM Cul-1D. Supplemental measures are also required for certain projects as described in MM Cul-1E through Cul-1G.

Demolition would be considered a significant and unavoidable historical resource impact of the 2018 LRDP implementation.

The mitigation framework requires the identification of archaeological resources in the area of potential effects (APE) and evaluation in accordance with MM Cul-2A; avoidance of impacted resources per MM Cul-2B; documentation and treatment is required by MM Cul-2C; unknown resources, including human remains, are treated in accordance with MM Cul-2D; and construction monitoring is required to comply with MM Cul-2E. Compliance with California Health and Safety Code Sections 7050.5 and 7052 and California PRC Section 5097.98 is required for inadvertent discoveries of human remains, as noted in MM Cul-2E. Implementation of these measures would reduce future project-level impacts to archaeological resources, including human remains, to less than significant levels.

If campus development would affect TCRs, UC San Diego would initiate tribal consultation and identify feasible avoidance and minimization measures in accordance with MM Cul-5A. If avoidance is not feasible, TCRs would be treated through construction monitoring in accordance with MM Cul-5B; any cultural materials would be returned to the Tribe per MM Cul-5C. Implementation of these measures would reduce future project-level impacts to TCRs to less than significant levels.

CULTURAL AND TRIBAL CULTURAL RESOURCES		Impact Not Examined in 2018 LRDP EIR		
Would the project...	Impact Examined in 2018 LRDP EIR	No Impact	Less than Significant Impact	Potentially New or More Severe Significant Impact
a) Cause a substantial adverse change in the significance of a historical resource as pursuant to §15064.5?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				

- a) Based on the inventory and analysis contained in the Historic Resources Report prepared for the 2018 LRDP EIR (ARG 2018), the project site contains no structures or facilities that are considered historical resources as identified in Figures 3.4-1a, 3.4-1b, and 3.4-1c in the 2018 LRDP EIR. The project site is not located in any of the historic districts defined on campus, and is not located within or adjacent to an historic landscape. Therefore, the project would not cause any changes to the significance of

historical resources due to removals or demolition and is consistent with the historical resources analysis evaluated in the 2018 LRDP EIR.

- b, c) Based on a review of the project's APE in accordance with MM Cul-2A and the inventory and analysis contained in the Archaeological Resources Report prepared for the 2018 LRDP EIR (AECOM 2018), the project site contains no known archaeological resources. The East Campus, except for several small natural canyons that are protected as Open Space Preserve, has been entirely developed and is considered to have relatively low sensitivity for unearthing archaeological resources. In addition, much of the project site is underlain by documented fill. Therefore, implementation of the project would result in less than significant impacts, consistent with the cultural resources analysis evaluated in the 2018 LRDP EIR.

The project site is not in an area of natural disposition and primarily consists of artificial fill. However, due to the potential for unknown archaeological resources and/or buried human remains to be encountered during project construction, monitoring by a qualified archaeologist would be conducted for all construction activities that would disturb native surface soils, in accordance with 2018 LRDP MM Cul-2D and MM Cul-2E. Archaeological monitoring above the minimum requirements of the 2018 LRDP EIR mitigation framework is already standard practice for all significant construction efforts on campus, regardless of location or known sensitivity. If human remains are inadvertently discovered, the campus would comply with California Health and Safety Code Sections 7050.5 and 7052 and California PRC Section 5097.98. Construction personnel will hold a preconstruction meeting, pursuant to MM Cul-2E which provides for monitoring for archaeological resources. If unknown archaeological resources are encountered, construction crews work is temporarily halted, pending review pursuant to the terms of MM Cul-2E. Compliance with the 2018 LRDP EIR mitigation framework would ensure the project would reduce its impact to a less than significant level and is consistent with the cultural resources analysis evaluated in the 2018 LRDP EIR.

- d) Assembly Bill (AB) 52 requires that CEQA lead agencies consult with California Native American Tribes that have requested such consultation, prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report, to identify and evaluate the significance of TCRs. The process for identification of TCRs on the UC San Diego campus consisted of the formal consultation process mandated by AB 52, as well as a Native American consultation and outreach program conducted for the 2018 LRDP EIR.

In January 2016, UC San Diego proactively contacted California Native American Tribes traditionally and culturally affiliated with the San Diego region to solicit their interest in being notified of proposed campus development projects as part of the planning process pursuant to AB 52. UC San Diego did not receive any responses as a result of this outreach attempt. However, UC San Diego was contacted independently by the San Luis Rey Band of Mission Indians, who expressed interest in receiving formal

notifications of proposed projects on campus. Accordingly, UC San Diego has been sending out formal consultation request letters to the San Luis Rey Band of Mission Indians on a project-by-project basis. Such a letter describing the 2018 LRDP and requesting a consultation was sent to the San Luis Rey Band of Mission Indians on December 9, 2016. Because no response was received within the requested 30 days, UC San Diego assumed that consultation was declined.

The 2018 LRDP EIR Notice of Preparation (NOP) dated November 3, 2016, was also sent to 13 Native American Tribes and the Native American Heritage Commission (NAHC) notifying them of the preparation of the 2018 LRDP EIR and soliciting input from them regarding potential environmental issues associated with implementing the 2018 LRDP. Although an NOP response letter was received from the NAHC, no response letters were received from the notified Tribes (refer to Appendix A to the 2018 LRDP EIR).

In February 2017, a Sacred Lands File (SLF) search was requested from the NAHC as part of the 2018 LRDP EIR preparation (refer to Appendix D to the 2018 LRDP EIR). The NAHC responded that sites had been identified on the project site and recommended contacting the Lipay Nation of Santa Ysabel for more information. Campus representatives then contacted the Tribe, which indicated there are several sites in the vicinity of UC San Diego that are considered sacred due to the known presence of human remains.

Because the project is consistent with the 2018 LRDP and is not located on or near the TCRs identified on campus through these prior consultation and communication efforts, less than significant impacts to TCRs are anticipated occur. The project is consistent with the cultural resources analysis evaluated in the 2018 LRDP EIR. No further AB 52 consultation is required through the Addendum process (California PRC Section 21080.3.1(b)). Though impacts to TCRs are not anticipated there is the potential for unknown discoveries, MM Cul-5B (Native American construction monitoring) will be implemented during construction of the proposed project during construction activities that would disturb native surface soils. Native American monitoring above the minimum requirements of the 2018 LRDP EIR is already standard practice for all significant construction efforts on campus, regardless of location or known sensitivity.

#### 4.1.7 Energy

Since the 2018 LRDP EIR was certified, the CEQA Guidelines were amended to provide new requirements to address a project's impacts on energy. While a separate section on Energy was not included in the 2018 LRDP EIR, applicable analyses and discussion to these new CEQA Guidelines questions are located in Section 3.15, Utilities, Service Systems, and Energy (specifically Section 3.15.3.6) of the 2018 LRDP EIR as well as Section 3.6, Greenhouse Gas Emissions. These analyses are referenced below as appropriate. No mitigation related to energy was required in the 2018 LRDP EIR.



ENERGY	Would the project...	Impact Examined in 2018 LRDP EIR	Impact Not Examined in 2018 LRDP EIR		
			No Impact	Less than Significant Impact	Potentially New or More Severe Significant Impact
	a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- a) During construction, the project would result in an increase in energy consumption through the combustion of fossil fuels in construction vehicles, worker commute vehicles, and construction equipment, and the use of electricity for temporary buildings, lighting, and other sources. Operation of the project would consume energy for building heating and cooling, refrigeration, lighting, electricity, and commercial equipment. New student, visitor, and faculty vehicle trips and fleet vehicle trips associated with the project would also be a source of energy consumption. However, the project would comply with the energy conservation strategies expressed in the UC Sustainable Practices Policy. The project would use electricity purchased from the San Diego Community Power program that is delivered by SDG&E (100 percent renewable). The project would also incorporate sustainability features listed in Section 2.5.7, Sustainability Features, of this Addendum, including achieving LEED Gold certification at a minimum, using drought-tolerant landscaping, and installing energy-efficient features and water saving measures. As noted under item (g) of the Transportation/Traffic discussion, the campus as a whole, including the project, would result in measurably lower VMT than regional and City averages, due in part to the project being located in a TPA, thus reducing energy usage associated with vehicle trips. The project's parking structures would comply with solar requirements contained in California Code of Regulations Title 24, Part 6, Section 140.10. The project would not result in wasteful, inefficient, or unnecessary use of energy and is consistent with the energy analysis evaluated in the 2018 LRDP EIR.
- b) Construction of the project would implement sustainability measures identified in Section 2.5.7 of this Addendum. Conformance with the UC Sustainable Practices Policy and other UC requirements related to energy reduction and carbon-free energy use would ensure that the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, the project would not result in any new significant

environmental effects or a substantial increase in the severity of previously identified significant effects regarding a conflict with an energy plan or policy.

#### 4.1.8 Geology and Soils

Section 3.5 of the 2018 LRDP EIR addresses the geology and soils effects of campus growth under the 2018 LRDP and concludes that implementation of future projects under the plan that comply with the applicable regulations related to geologic and soils hazards and result in less than significant impacts related to exposure to seismic-related hazards (Section 3.5.3.1), soil erosion and topsoil loss associated with ground disturbance (Section 3.5.3.2), unstable geologic or soil conditions (Section 3.5.3.3), and expansive soils (Section 3.5.3.4). The analysis determined there is no potential for a significant geology or soils impact related to use of septic tanks or alternative wastewater disposal systems (Section 3.5.5). No geology and soils mitigation is required in the 2018 LRDP EIR.

Section 3.4, Cultural and Tribal Cultural Resources, of the 2018 LRDP EIR addresses the effects of campus growth under the 2018 LRDP on paleontological resources and concludes that its implementation would result in potentially significant impacts to disturbance of geological formations containing paleontological (fossil) resources (Section 3.4.3.3). Paleontological monitoring is required in formations of high sensitivity, identification and evaluation, avoidance, documentation and treatment, and construction monitoring in accordance with MM Cul-3. Implementation of this measure would reduce future project-level impacts to less than significant levels.

<b>GEOLOGY AND SOILS</b>		Impact Not Examined in 2018 LRDP EIR		
Would the project...	Impact Examined in 2018 LRDP EIR	No Impact	Less than Significant Impact	Potentially New or More Severe Significant Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a) Although the campus contains seismic hazards, implementation of the project would not result in significant impacts because the UC San Diego campus and the surrounding area are not located within an Alquist-Priolo Earthquake Fault Zone. The project site would not be subject to surface fault rupture but could be subject to a severe level of				

seismic ground shaking. In addition, portions of the campus could be subject to earthquake-induced landslides.

A geotechnical evaluation was prepared in January 2023 for the project site (Appendix C). The site slopes gently with a few relatively minor slopes around the perimeter. There was no evidence of ancient landslides or slope instabilities identified in the literature review or observed during the site reconnaissance conducted for the geotechnical evaluation.

The potential for seismic-related liquefaction is considered very low on campus due to the types of soils and depths to groundwater. The project would comply with the CBC and the UC Policy on Seismic Safety, which require independent review of structural seismic design of both new construction and remodeling projects. Project compliance with these policies would avoid any potential for seismic hazards and the project is consistent with the geology and soils analysis evaluated in the 2018 LRDP EIR.

- b) Similar to other campus development, the project would comply with Adopted Project Standards are generally consistent with the UC San Diego Design Guidelines and UC policies, which include the incorporation of low impact development (LID) and erosion and sediment control BMPs, and UC San Diego's Stormwater Management Program and other regulatory requirements, as needed to minimize erosion and topsoil loss. Specifically, the project would comply with relevant National Pollutant Discharge Elimination System (NPDES) permits, including the General Permit for Storm Water Discharges associated with Construction Activity (General Construction Permit) and the General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (Phase II Small MS4 Permit), which require soil erosion control measures. Project compliance with these regulations during construction and operation would provide adequate protection against soil erosion during and after site construction. Therefore, the project is consistent with the geology and soils analysis evaluated in the 2018 LRDP EIR.
- c) As described above, the project site is considered geologically stable. The project would comply with the CBC and the UC Seismic Safety Policy which would address unstable soil and slope conditions, if needed. Project compliance with these regulations during construction and operation would ensure impacts would be less than significant. The project is consistent with the geology and soils analysis evaluated in the 2018 LRDP EIR.
- d) According to the project-specific geotechnical evaluation, near surface soils consist primarily of silty and clayey sand with very low to low expansion potential (Appendix C). As recommended in the geological investigation, additional testing would be conducted during grading to confirm that the upper 3 feet of fill placed beneath each structure consists of very low to low expansion material. If the fill is found to be expansive, corrective recommendations made by the subsequent investigation would be implemented. A 3rd party structural consultant would monitor the structural design and develop a design response based on the subsequent investigation. In addition, the

project would be required to comply with the CBC and the University of California Seismic Safety Policy. Project compliance with these regulations during construction and operation would ensure impacts would be less than significant. The project is consistent with the geology and soils analysis evaluated in the 2018 LRDP EIR.

- e) UC San Diego is provided sanitary sewer service by the City of San Diego and no septic tanks or alternative wastewater systems are anticipated to be associated with implementation of the 2018 LRDP, including the project. The project is consistent with the geology and soils analysis evaluated in the 2018 LRDP EIR.
- f) Based on the mapping and analysis contained in the 2018 LRDP EIR, the project site is not located within an area of high potential for paleontological resources. Therefore, implementation of the project would not cause impacts to unique paleontological resources and is consistent with the cultural resources analysis evaluated in the 2018 LRDP EIR.

#### 4.1.9 Greenhouse Gas Emissions

Section 3.6 of the 2018 LRDP EIR addresses potential impacts from greenhouse gas (GHG) emissions and climate change and determines that implementation of the 2018 LRDP would generate GHG emissions that may have a potentially significant cumulative impact on the environment during construction and operation (Section 3.6.3.1) even with the implementation of GHG Reduction Actions contained in the 2018 LRDP and described in Section 3.6.3.1 of the 2018 LRDP EIR. Despite the projected increase in GHG emissions over time, the campus would not conflict with UC policies and plans adopted for the purposes of reducing GHG emissions which are consistent with GHG reduction targets contained in Assembly Bill (AB) 32 and Senate Bill (SB) (32) (Section 3.6.3.2).

Implementation of programmatic measures identified in the 2018 LRDP EIR mitigation framework require the campus to decarbonize the cogeneration plant after 2032 (MM GHG-1A), install electric charging stations across the campus (MM GHG-1B), and conduct annual inventory updates and determine the need for and purchase of carbon credits (MM GHG-1C). Implementation of these measures would reduce campus-wide contributions to cumulative GHG emissions (and related climate change impacts) to less than significant levels. The 2018 LRDP EIR determined that no project-level mitigation measures are required for cumulative GHG emissions impacts.

<b>GREENHOUSE GAS EMISSIONS</b>		Impact Not Examined in 2018 LRDP EIR		
Would the project...	Impact Examined in 2018 LRDP EIR	No Impact	Less than Significant Impact	Potentially New or More Severe Significant Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose or reducing the emissions of greenhouse gases?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- a) Construction and operation of the project would result in GHG emissions from site preparation, construction vehicle trips, construction equipment, building energy use, water treatment/usage, solid waste disposal, and mobile sources (air and vehicle travel). Construction and operational GHG emissions associated with the project are addressed below.

## CONSTRUCTION

The 2018 LRDP EIR assumed that GHG construction emissions for East Campus would total 27,690 (14,608 + 13,090) MT CO<sub>2</sub>e (2018 LRDP EIR, Table 3.6-5 and 2018 LRDP Appendix G, Table 5) at buildout. GHG emissions from construction of the project were estimated using California Emissions Estimator Model (CalEEMod) Version 2022.1.1.13. As discussed in Section 4.1.4, Air Quality, of this Addendum, the project would be constructed in five separate construction cycles (including demolition, grading, building construction, paving, and interior construction per cycle), one cycle for each of the three buildings and two parking structures, with surface parking and other site improvements incorporated into these cycles. Each building and parking structure cycle of construction would include demolition of existing asphalt surfaces, grading, building foundation and structure construction, internal shell construction and architectural coating, and pavement and hardscape installation. Construction assumptions are summarized in Table 3, Science Research Park Expansion Project Construction Assumptions.

Using CalEEMod, project construction was calculated to result in total GHG emissions of 18,191 MT CO<sub>2</sub>e. This estimate represents a conservative, worst-case estimate. Actual emissions are anticipated to be lower as overlaps in construction phasing more efficiently use construction resources, and the amount of hazardous material requiring specialized disposal is determined. Emissions are summarized by construction activity in Table 7, Science Research Park Construction Greenhouse Gas Emissions.



**Table 7. Science Research Park Expansion Project Construction  
Greenhouse Gas Emissions**

<b>Emissions Source</b>	<b>Annual Emissions (MT CO<sub>2</sub>e)</b>
Demolition	345
Grading	4,475
Building Construction	11,616
Paving	437
Interior Construction and Architectural Coating	1,318
<b>Total Construction Emissions</b>	<b>18,191</b>
Amortized Construction Emissions	606

**Source:** Appendix D.

The 2018 LRDP conservatively averaged annual construction emissions and added these emissions to total operational emissions. However, because project-specific construction information is available for the project, construction emissions are amortized over the lifetime of the project, consistent with the South Coast Air Quality Management District guidance and the methodology used for 2019 LRDP EIR prepared for the UC San Diego Hillcrest Campus (LSA 2018). The most recent published guidance for GHG impacts from the Bay Area Air Quality Management District does not include construction emissions in a project's operational GHG analysis (BAAQMD 2023); therefore, the methodology used for the project remains conservative. Construction of the project results in an amortized contribution of 606 MT CO<sub>2</sub>e to annual emissions, which are added to operational emissions below.

## **OPERATION**

The project proposes development generally consistent with the land use assumptions for the East Campus in the 2018 LRDP EIR, which calls for the SRP. However, 2018 LRDP EIR modeling was not site-specific, and emissions per service population are not available for the project site. Therefore, the project is compared to the campus-wide emissions efficiency calculated in the 2018 LRDP EIR. Project annual operational emissions were modeled using CalEEMod. Daily VMT was provided by LLG (Appendix A). Annual VMT were calculated based on an average of 260 working days per year. Modeling accounts for access to transit and bicycle infrastructure and proposed bicycle facilities. Building electricity and indoor water demand was provided by the design team, and default electricity demand assumptions were used for the parking structures and parking lot. Modeling defaults for outdoor water use and solid waste generation are assumed. The building would be all-electric, except for kitchens and specialized equipment. Cooking accounts for approximately 6 percent of typical commercial natural gas use; therefore, 6 percent of the default natural gas emissions were assumed (Appendix D). GHG emissions from proposed generators were calculated using emissions factors from the 2018 LRDP EIR, and usage assumptions and equipment specifications were obtained from the design team. A total of 15 generators

were assumed to be tested for 30 minutes monthly. Additionally, an estimated service population of 3,083 people (new full-time employees) was assumed based on building size and land use type. Annual project operational emissions are provided in Table 8, Science Research Park Expansion Project Operational Greenhouse Gas Emissions.

**Table 8. Science Research Park Expansion Project  
Operational Greenhouse Gas Emissions**

<b>Emissions Source</b>	<b>Annual Emissions (MT CO<sub>2</sub>e)</b>
Mobile	3,499
Area	34
Energy	4,643
Water	97
Solid Waste	26
Refrigerants	5
Stationary Sources (Generators)	32
Amortized Construction Emissions	606
<b>Total Annual Emissions</b>	<b>8,942</b>
Service Population	3,083
<b>Emissions Per Service Population</b>	<b>2.9</b>

**Source:** Appendix D.

As show in Table 8, the project would result in annual emissions of 2.9 MT CO<sub>2</sub>e per service population. Emissions would exceed the 2.36 MT CO<sub>2</sub>e per service population threshold identified in the 2018 LRDP EIR but would be less than the 3.57 MT CO<sub>2</sub>e per service population calculated for campus buildout under the 2018 LRDP prior to mitigation. Therefore, project impacts would not exceed those identified in the 2018 LRDP EIR. The project would not hinder the ability of the campus to achieve 2.36 MT CO<sub>2</sub>e by 2035 with implementation of programmatic 2018 LRDP EIR MMs GHG-1A through GHG-1C. MM GHG-1A is decarbonization of the cogeneration plant. The project would not increase demand on the cogeneration plant and would not have an impact on implementation of this measure. MM GHG-1B is the expansion of EV charging stations. The project would implement this measure, as 20 percent of parking spaces would be EV ready. Measure GHG-1C is the purchase of carbon credits when UC San Diego determines that annual emissions do not meet the service population efficiency targets. Because the project is within assumed development density for the campus and does not exceed the calculated emission efficiency for campus buildout under the 2018 LRDP, it would not hinder the ability of the campus to implement this mitigation measure.

GHG emissions from construction and operation of the project would not exceed the per service population GHG emissions assumed for campus buildout in the 2018 LRDP EIR. Therefore, the project would not result in a new significant environmental effect or a substantial increase in the severity of a previously identified significant effect regarding GHG emissions. The project's impact would be less than significant with campus implementation of programmatic mitigation measures, the same as the impact

identified in the 2018 LRDP EIR. The project is consistent with the GHG analysis evaluated in the 2018 LRDP EIR.

- b) The UC Sustainable Practices Policy commits UC campuses to implementing actions intended to minimize the UC's impact on the environment. Sectors applicable to the 2018 LRDP included green building, clean energy, climate protection, sustainable water systems, recycling and waste management, and sustainable transportation. The 2018 LRDP was evaluated for policy consistency for each of these sectors.

Since adoption of the 2018 LRDP EIR, an updated Sustainability Practices Policy has been adopted that replaces the UC 2025 carbon neutrality goal with campus -specific emissions reduction and decarbonization goals stretching out to 2045. Consistent with the updated UC Sustainable Practices Policy, the campus will prepare an updated climate action plan or equivalent to establish and achieve the GHG emissions reduction and decarbonization goals by 2026. GHG emissions associated with the project are analyzed in the context of campus-wide GHG reduction goals described below.

The project would be designed and operated consistent with the applicable directives of the UC Sustainable Practices Policy, including green building, clean energy, sustainable water systems, recycling and waste management, and sustainable transportation. Regarding the specific sectors evaluated in the 2018 LRDP, the project is designed to exceed Title 24 energy performance requirements by 20 percent or more and would meet the requirements of LEED Gold (Green Building Sector) at a minimum.

The project would meet LEED Gold requirements and would be electrified with the exception only of retail cooking and specialized laboratory equipment, include energy-saving measures to meet required energy efficiency standards, including high efficiency laboratory equipment, heat recovery chillers, high efficiency building envelope, heat recovery systems, daylight controls, partially decoupled space conditioning and ventilation, demand control ventilation in select program areas, and variable flow laboratory exhaust systems (Clean Energy Sector). The campus already meets the UC Sustainable Practices Policy related to clean energy by generating more than 1 MW of renewable energy, and the climate protection goal for pre-2020 projects does not apply. The project's purchased electricity would be sourced from clean energy sources, as directed by the UC Sustainable Practices Policy. The parking structures would comply with current solar requirements in compliance with California Code of Regulations., Title 24, Part 6, Section 140.10. The proposed buildings would include low-flow plumbing fixtures and condensation reuse systems, and reclaimed water would be used for irrigation, consistent with sustainable water systems goals (Sustainable Water Systems Sector). The project would be subject to the UC San Diego Zero Waste Plan policies to reduce solid waste to the extent feasible for laboratory use (Recycling and Waste Management Sector). Finally, the project would provide new EV infrastructure and bicycle storage and is located less than 0.3 mile from the nearest light-rail transit stop (UC San Diego Health La Jolla transit stop) (Sustainable Transportation Sector).

UC San Diego GHG Reduction Actions A through C proposed as part of 2018 LRDP include using biogas for natural gas in cogeneration facilities, purchasing carbon neutral electricity, and reducing campus fleet emissions. The project would purchase renewable energy from San Diego Community Power, which is delivered by SDG&E and would not increase demand for on-campus energy generation compared to the 2018 LRDP EIR analysis. The project would not include any campus fleet vehicles or require an increase in campus fleet. The project would not impact implementation of UC San Diego GHG Reduction Actions A through C because it would not increase demand from campus cogeneration facilities, would purchase its own clean electricity, and would not add fleet vehicles. The project would be electrified to the extent feasible, including all-electric mechanical equipment, consistent with UC Sustainable Practices Policy requirements related to building electrification.

Therefore, the project would be consistent with 2018 LRDP commitments to implement the UC Sustainable Practices Policy and the UC San Diego GHG Reduction Actions. Consistent with the overall 2018 LRDP, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose or reducing the emissions of GHGs and is consistent with the GHG analysis evaluated in the 2018 LRDP EIR.

#### 4.1.10 Hazards and Hazardous Materials

Section 3.7 of the 2018 LRDP EIR addresses the hazards and hazardous materials effects of campus growth. The analysis acknowledged that implementation of the 2018 LRDP would lead to an increase in the number of laboratories, medical/research facilities, academic activities, and the expansion of other facilities such as building and vehicle maintenance that involve the use of hazardous materials, including chemicals radiological materials, and biohazardous materials. The 2018 LRDP EIR analysis determined that implementation of the 2018 LRDP would not result in a potentially significant impact related to the transport, use, and disposal of hazardous materials (Section 3.7.3.1 and 3.7.3.2); or pose a health risk to occupants of the school or the campus community (Section 3.7.3.3). The potential for significant hazards related to listed hazardous materials sites on the UC San Diego campus would exist due to the unknown potential for munitions debris or munitions and explosives of concern (MEC) associated with historical military training (Section 3.7.3.4). Aircraft operations and activities would not pose significant safety hazards (Section 3.7.3.5). Construction-related road closures or detours on the campus could impair or intervene with emergency response and result in potentially significant impacts (Section 3.7.3.6). Based on the analysis of wildfire hazards on campus, there would be less than significant potential for large-scale wildland fires (Section 3.7.3.7).

Under the 2018 LRDP, UC San Diego would continue to implement existing campus health and safety practices and comply with federal, state, and local regulations related to the use, transport, and disposal of hazardous materials which are detailed in the 2018 LRDP EIR, The 2018 LRDP EIR mitigation framework requires the assessment of hazardous materials

contamination on the project site and removal or remediation if a public health risk is identified (MMs Haz-4A and Haz-4B). MM Haz-4C requires construction activities to be halted if unknown contamination is encountered and implementation of remedial activities. Implementation of these measures during project-level planning and construction would reduce potential hazards from past contamination to less than significant levels. Compliance with MM Haz-6 would require contractors to notify the UC San Diego Campus Fire Marshal and the campus community of any required road closures to reduce emergency access/response impacts to less than significant levels.

**HAZARDS AND HAZARDOUS MATERIALS**

Would the project...	Impact Examined in 2018 LRDP EIR	Impact Not Examined in 2018 LRDP EIR		
		No Impact	Less than Significant Impact	Potentially New or More Severe Significant Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a, b) Adherence to existing regulations and compliance with campus safety standards mandated by applicable federal, state, UC San Diego, and local laws and regulations, would minimize the risks resulting from the routine transportation, use, storage, or disposal of hazardous materials or hazardous wastes and from accidental releases during project construction and operation. The project would also comply with the



University of California, Environment Health & Safety Laboratory Safety Design Guide<sup>4</sup> and the UCSD Laboratory Safety Manual.<sup>5</sup> This Design Guide applies to all laboratory buildings, laboratory units, and laboratory work areas in which hazardous materials are used, handled, and stored. It also addresses biological safety and ionizing and nonionizing radiation. The project is consistent with the hazards and hazardous materials analysis evaluated in the 2018 LRDP EIR.

- c) The project would involve the use or transport of hazardous materials during construction and operation. However, the campus would continue to comply with federal and state regulations pertaining to hazardous wastes and with existing campus programs, practices, and procedures that would ensure that risks associated with hazardous emissions or materials to existing or proposed primary or secondary schools located within one-quarter mile from the campus would remain less than significant through proper handling procedures, disposal practices, and/or cleanup procedures. Additional details on these regulatory requirements are included in the 2018 LRDP EIR Section 3.7. The project is consistent with the hazards and hazardous materials analysis evaluated in the 2018 LRDP EIR.
- d) The project site is located on a contaminated site pursuant to California Government Code Section 65962.5 (2018 LRDP EIR Impact 3.7-4). The project would have the potential to disturb known contamination sites associated with the former Camp Matthews training activities (Appendix E). Due to the project's site's location relative to historic training operations, the potential exists for unknown contamination from munitions debris to include total petroleum hydrocarbons, gasoline range organics, diesel range organics, oil range organics, metals, arsenic, lead, soluble lead, and polycyclic aromatic hydrocarbons. As discussed in the 2018 LRDP EIR, contractors would be required to follow the UC San Diego Soils Management Policy and Ammunitions Awareness Program in the event that munitions debris or MEC is inadvertently encountered. In accordance with MM Haz-4A, a Supplemental Phase II Environmental Site Assessment was prepared for the project site to conduct a screening of constraints to future development associated with contaminated/hazardous soil. The Supplemental Phase II Environmental Site Assessment detected total petroleum hydrocarbons, arsenic, copper and lead throughout the project site. In accordance with MM Haz-4B, the Supplemental Phase II Environmental Assessment provided recommendations for soil management which includes the preparation of a Soil Management Plan and Lead Compliance Plan to guide the contractor on appropriate soil handling and disposal protocol. A site-specific Health and Safety Plan would also be prepared in accordance

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<sup>4</sup> UC Environment, Health & Safety Laboratory Safety Design Guide: [https://www.ucop.edu/safety-and-loss-prevention/\\_files/lab-safety-design-manual-2007.pdf](https://www.ucop.edu/safety-and-loss-prevention/_files/lab-safety-design-manual-2007.pdf)

<sup>5</sup> UC San Diego Laboratory Safety Manual: <https://blink.ucsd.edu/safety/research-lab/laboratory/#Hazardous-materials-&-hazardous>

with UC requirements. Group Delta and UCSD Environmental Health and Safety would monitor the excavation, testing and soils management plan.

In addition, in the event that underground storage tanks (USTs) or undocumented areas of contamination are encountered during project construction, the contractor in collaboration with UC San Diego would stop work in compliance with MM Haz-4C to allow for the proper implementation of appropriate health and safety procedures, as required by applicable regulations. Compliance with the 2018 LRDP EIR mitigation framework would ensure the project would reduce its potentially significant impacts to less than significant levels and is consistent with the hazards and hazardous materials analysis evaluated in the 2018 LRDP EIR.

- e) UC San Diego is not located within any Aircraft Potential Zones (APZs) for MCAS Miramar and, thus, implementation of the project would not result in a significant aircraft safety hazard. With regard to the Torrey Pines Gliderport, its short-term use is not a safety hazard to the campus and surrounding area because the gliders do not take-off or land over UC San Diego structures. The project is consistent with the hazards and hazardous materials analysis evaluated in the 2018 LRDP EIR.
- f) Project construction would require the partial closure of Athena Way and Athena Circle during phases of construction. No significant work would occur within the City's rights-of-way. However, partial lane closures may be necessary during SDG&E connection improvements within Athena Way and Regents Road. A construction management plan and Traffic Control Plan would be developed and implemented during construction to ensure ingress and egress from the project site would not interfere with traffic flows and emergency access for areas surrounding the project. The project would not interfere with response times of emergency vehicles during project operation. As required by MM Haz-6, UC San Diego would require the construction contractor to notify the UC San Diego Campus Fire Marshal and community to prevent conflicts with emergency access or evacuation routes during construction. Furthermore, there are numerous secondary access roads in proximity to the project site, including Medical Center Drive, Health Sciences Drive, and Regents Road. Compliance with the 2018 LRDP EIR mitigation framework would ensure the project would reduce its potentially significant impacts to less than significant levels and is consistent with the hazards and hazardous materials analysis evaluated in the 2018 LRDP EIR.
- g) The project is located in a Very High Fire Hazard Zone. As described in Section 2.5.2, project design has been reviewed by the UC San Diego Campus Fire Marshal. Project design has taken into consideration proper setbacks and proximity of landscaping to buildings. In addition, landscaping plans include fire resistant tree species. The three new buildings would be equipped with emergency fire sprinkler systems in accordance with the CBC. The UC San Diego Campus Fire Marshal would be responsible for ensuring that adequate access is maintained on campus at all times and would meet regularly with the City of San Diego Deputy Fire Chief to maintain a site plan/access plan that would adequately serve the

campus. Furthermore MM- Bio-3E requires that equipment be available on site to extinguish fires during construction, along with personnel trained in the use of such equipment, and prohibits smoking adjacent to flammable vegetation. The project would result in less than significant wildfire impacts and is consistent with the hazards and hazardous materials analysis evaluated in the 2018 LRDP EIR.

#### 4.1.11 Hydrology and Water Quality

Section 3.8 of the 2018 LRDP EIR addresses the hydrology and water quality effects of campus growth under the 2018 LRDP and determined it would result in less than significant impacts related to the alteration of drainage patterns and potential water quality effects due to project compliance with applicable policies and regulations (i.e., UC San Diego's Design Guidelines, Sustainability Policies, Phase II Small MS4 Permit and additional Storm Water Management Program requirements [Sections 3.8.3.1 and 3.8.3.2]). No potential for seiches exists on campus, while less than significant risk associated with tsunamis would occur (Section 3.8.3.3). No potential exists for significant impacts related to the depletion of groundwater supplies and flooding (Section 3.8.5).

No mitigation is required for hydrology and water quality impacts as described in the 2018 LRDP EIR.

**HYDROLOGY AND WATER QUALITY**

Would the project...	Impact Examined in 2018 LRDP EIR	Impact Not Examined in 2018 LRDP EIR		
		No Impact	Less than Significant Impact	Potentially New or More Severe Significant Impact
a) Violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or groundwater quality?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) result in substantial erosion or siltation on- or off-site?				
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iii) create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff; or				
(iv) impede or redirect flood flows?				
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a, c) Construction of the project would not contribute substantial loads of sediment or other pollutants to stormwater runoff due to compliance with the NPDES state-wide General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activity (General Permit). As part of the General Permit, campus construction projects (including the project) managed by outside contractors that disturb over one acre must implement a Stormwater Pollution Prevention Plan (SWPPP), specifying BMPs to reduce				

the contribution of sediments, spilled and leaked liquids from construction equipment, and other construction-related pollutants to stormwater runoff. Measures would include a range of stormwater control BMPs: for example, installing erosion control such as silt fences, staked fiber rolls, and geofabric to prevent silt runoff to storm drains or waterways. Topsoil and backfill would be stockpiled, protected, and replaced at the conclusion of construction activities. Additional details on these regulatory requirements are included in Section 3.8 of the 2018 LRDP EIR. Compliance with the regulations would provide adequate protection from stormwater contamination and water quality protection from construction activities on campus. During construction, pre-, during-, and post-rain event inspections would be required, in addition to adaptive management of the SWPPP and BMPs to ensure no impact to the nearby natural canyon, which contains wetland habitat.

Development of the project would result in an overall increase in impervious surfaces and produce changes to site-specific stormwater infrastructure. During the project's planning and design phases, it underwent review by UC San Diego Campus Planning, Capital Program Management (CPM), and Design and Development Services (DDS) staff to ensure utility infrastructure would be appropriately considered.

A site-specific Drainage Study was prepared by Latitude 33 in March 2023 (Appendix F). Under the existing condition, the project site generally drains into five distinct drainage basins (Figure 8, Existing Site Drainage). Basin 1 consists of a portion of an existing parking lot that drains west toward existing infrastructure north of the existing Center for Novel Therapeutics building. Basin 2 consists of an undeveloped lot that also generally drains west toward existing infrastructure in Athena Road. Basin 3 consists of the northeastern portion of the site, a portion of Athena Circle and the adjacent parking lot which generally drains south toward the existing storm drain in Athena Way. Basin 4 consists of a parking lot located in the south-central portion of the site. This existing parking lot drains generally to the south toward Athena Circle. Finally, Basin 5 consists of the southeast parking lot at the corner of Regents Road and Miramar Street. This parking lot generally drains toward Athena Circle.

Post-construction site runoff would drain through proposed inlets and storm drains into seven small biofiltration basins and modular wetland systems for on-site infiltration, similar to existing drainage patterns (Figure 7). Runoff would then outlet to proposed detention vaults for peak flow detention. After peak flow detention, runoff would be conveyed via existing storm drains throughout the site. The new storm drainpipes, inlets, biofiltration basins, modular wetland systems, and detention vaults would reduce the overall flow rate of the project site post-construction as shown in Table 9, Existing and Proposed Operational Condition Hydrology.

**Table 9. Existing and Proposed Operational Condition Hydrology**

<b>Drainage Basin (POC)</b>	<b>Existing Condition 100-Year 6-Hour Event (CFS)</b>	<b>Proposed Condition 100-Year 6-Hour Event (CFS)</b>
1	9.36	5.87
2	2.40	8.56
3	21.84	22.34
4	15.81	5.06
5	14.31	4.69
<b>Total</b>	<b>63.72</b>	<b>46.52</b>

**Source:** Appendix F.

**Notes:** CFS = cubic feet per second; POC = point of connection

In addition, the project would be required to comply with Adopted Project Standards which are generally consistent with the UC San Diego Design Guidelines and UC policies and Storm Water Management Program and other regulatory requirements related to stormwater runoff. Campus development, including the project, is covered under the Phase II Small MS4 Permit, which requires management of long-term stormwater discharges and implementation of pollution protection measures. These management practices are enforced under the campus stormwater management program and ensure long-term protection related to stormwater pollution. In addition, a 3rd Party SWPPP Consultant would monitor during construction with UCSD Environmental Health and Safety. Therefore, the project would result in less than significant water quality impacts and is consistent with the hydrology/water quality analysis evaluated in the 2018 LRDP EIR.

- b) No removal of groundwater is proposed as the project site, similar to the rest of campus, would use potable and recycled water supplied by the City of San Diego Public Utilities Department via existing and future lines on UC San Diego's campus. Please refer to Section 4.1.18, Utilities and Service Systems, for a discussion of the project's water supply. The project would not result in impacts to groundwater resources and is consistent with the hydrology/water quality analysis evaluated in the 2018 LRDP EIR.
- d) The entire UC San Diego campus is outside the FEMA Mapped 100-year and 500-year flood hazard areas or any County-identified flood hazard areas. In addition, the project site is not within an area that contains risk from seiches because this phenomenon is typically associated with land-locked bodies of water and there are none in the project vicinity. The project is also not within Scripps Institute of Oceanography and therefore not located in a tsunami inundation area and not at risk for inundation by tsunamis. Thus, the project would not result in significant impacts related to potential pollutant release during floods, tsunamis, and seiches. The project is consistent with the hydrology/water quality analysis evaluated in the 2018 LRDP EIR.
- e) The proposed project would be required to comply with Adopted Project Standards, which are generally consistent with the UC San Diego Design Guidelines and UC policies,

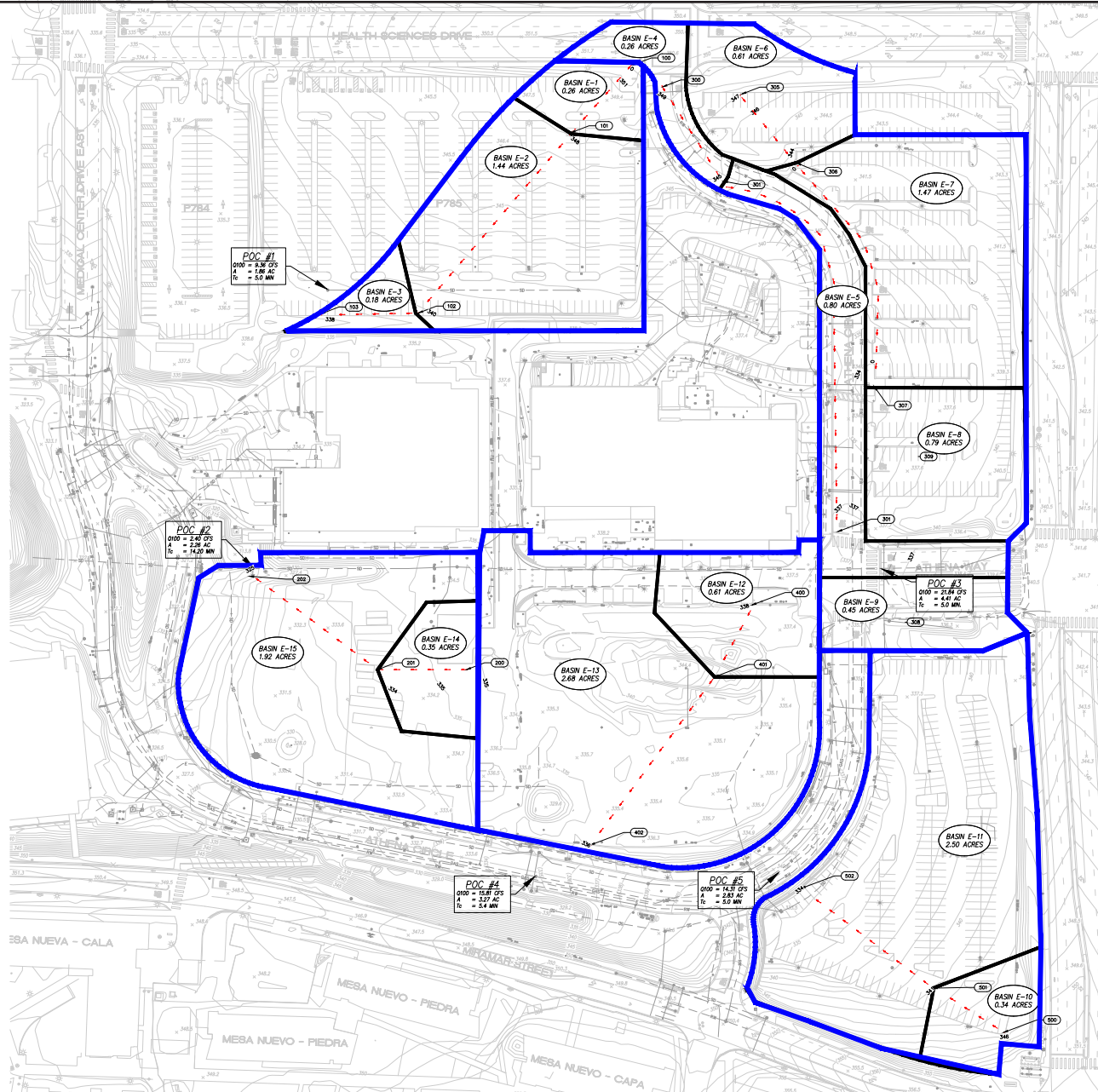


Storm Water Management Program, and other regulatory requirements related to stormwater runoff to minimize the potential for pollutants to enter receiving waters.

The proposed project would also integrate a number of stormwater BMPs to promote on-site treatment prior to being discharged. As described in Section 2.5.7, seven small biofiltration basins are proposed throughout the project to treat a portion of the site (refer to Figure 7). The rest of the site would be routed to modular wetland units for water quality treatment.

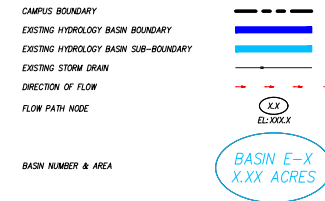
With the incorporation of the proposed water quality control BMPs and the continued implementation of Adopted Project Standards, Storm Water Management Program and other regulatory requirements, water quality impacts associated with changes in stormwater runoff would not conflict with or obstruct implementation of the Basin Plan. In addition, the project is not in an area governed by a sustainable groundwater management plan. Therefore, impacts would be less than significant, and the project is within the scope of the hydrology and water quality analysis evaluated in the 2018 LRDP EIR.

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POINT OF COMPLIANCE FLOW RATES		
POC #	AREA (AC)	EXISTING Q100 (CFS)
1	1.8	9.36
2	2.3	2.40
3	4.4	21.84
4	3.3	15.81
5	2.8	14.31
TOTAL	14.6	63.72

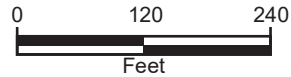
#### LEGEND



Source: Latitude 33 2023.



Harris & Associates



**Figure 8**

Existing Site Drainage

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## 4.1.12 Land Use and Planning

Section 3.9 of the 2018 LRDP EIR addresses the land use and planning effects of campus growth under the 2018 LRDP and determined that its implementation would not result in inconsistencies with applicable land use plans, policies, and regulations (Section 3.9.3.1). In addition, as noted in Section 3.9.5 of the 2018 LRDP EIR, there is no potential for significant impacts related to physically dividing an established community or conflict with an adopted Habitat Conservation Plan or NCCP Program.

No mitigation is required for land use and planning impacts as described in the 2018 LRDP EIR.

LAND USE AND PLANNING	Impact Examined in 2018 LRDP EIR	Impact Not Examined in 2018 LRDP EIR		
		No Impact	Less than Significant Impact	Potentially New or More Severe Significant Impact
Would the project...				
a) Physically divide an established community?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a) The project does not involve any development outside established campus properties or boundaries, and no incursion into, or division of, the surrounding communities would occur. Furthermore, the project would provide a series of pedestrian pathways throughout the site connecting the proposed and existing buildings within the SRP and beyond to surrounding neighborhoods. The north-south Innovation Walk would connect Mesa Housing on the south to the SRP via a pedestrian bridge, and the UCSD Health Sciences Campus on the north via a pedestrian corridor through the project site. The Campus Mews is an east-west pedestrian corridor that would extend from the western edge of the site to Athena Circle. The project would not result in an impact and is consistent with the land use analysis evaluated in the 2018 LRDP EIR.				
b) The project is consistent with the 2018 LRDP land use designation of "science research," and the permitted ancillary uses as described in Section 3 of this Addendum, and does not propose to change land use types. The project would complete buildout of the SRP area consistent with the UC San Diego 2018 LRDP and updated 2023 Development Concept for the Science Research Park. The project would not result in significant environmental impacts due to a conflict with a land use plan, policy, or regulation and is consistent with the land use analysis evaluated in the 2018 LRDP EIR.				

### 4.1.13 Noise

Section 3.10 of the 2018 LRDP EIR addresses the noise effects of campus growth under the 2018 LRDP. The 2018 LRDP assumed construction and operation of almost 6.3 million GSF of net new development on East Campus between 2015 and 2035. This included the use of stationary and mobile sources construction equipment, installation of HVAC and roof mounted mechanical equipment, and parking structures. The 2018 LRDP EIR concludes it would result in significant impacts due to noise-sensitive land uses (NSLUs) being exposed to noise levels in excess of applicable standards (Section 3.10.3.1); exposure of vibration-sensitive land uses to or the generation of excessive groundborne vibration or groundborne noise levels, including significant impacts from construction equipment (Section 3.10.3.2); permanent increases in ambient noise levels (Section 3.10.3.3); and temporary increases in ambient noise levels, including noise from emergency generators and construction equipment (Section 3.10.3.4). No potential for significant impacts from noise produced by a private, public, or public use airport (Section 3.10.5). The 2018 LRDP analysis was conservative because it assumed a flat featureless terrain, and therefore did not take credit for noise attenuation from intervening features and topography. The project site is in proximity to noise measurement location ST4-3 from the 2018 LRDP EIR, which was measured at 64.3 dBA Leq and 65.7 dBA CNEL and is still considered representative of noise levels in proximity to the project site.

The mitigation framework in the 2018 LRDP addresses these potentially significant impacts by evaluating whether screening distances can be observed to avoid the impact; requiring site-specific studies based on the type of noise source; and integrating source-specific controls into project designs to reduce noise levels at sensitive land uses as required by MM Noi-1A through Noi-1F. MM Noi-2A requires new vibration-sensitive uses near the trolley to prepare a vibration mitigation program identifying controls to reduce vibration effects and incorporation of those controls into project design. Certain construction projects are required to prepare and implement a construction vibration program to comply with MM Noi-2B. Implementation of these measures would reduce future project-level impacts from noise and vibration to less than significant levels.



NOISE	Impact Examined in 2018 LRDP EIR	Impact Not Examined in 2018 LRDP EIR		
		No Impact	Less than Significant Impact	Potentially New or More Severe Significant Impact
Would the project...				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- a) **Temporary Noise Increases:** The project's construction equipment is within the scope of the assumptions included in Table 3.10-12 of the 2018 LRDP EIR. According to the 2018 LRDP EIR, temporary noise impacts due to construction activities are anticipated to occur when NSLUs are located 150 feet or less from active construction. The closest sensitive receptors to the project site are the La Jolla Country Day School, located 110 feet east of the project site, and the Mesa Nuevo East Graduate Housing complex, located 170 feet south of the project site. Construction on the east side of the project site is anticipated to occur within 150 feet of La Jolla Country Day School, and would require heavy construction equipment, similar to what was anticipated in the 2018 LRDP EIR for new construction. Because the project would result in temporary noise impacts within the screening distance (150 feet) from an NSLU, it would implement 2018 LRDP EIR MM Noi-1F which requires integration of construction noise mitigation into contractor specifications for implementation during construction. This includes limits on the hours of operation, sound abatement on construction equipment, locating steady-state stationary construction equipment at least 150 feet from sensitive uses, and providing notice to adjacent uses. With implementation of MM Noi-1F, construction-related noise impacts would be less than significant and the project is within the scope of the noise analysis evaluated in the 2018 LRDP EIR.

**Permanent Noise Increase:** Implementation of the project would contribute to projected increases in traffic noise along local roadways; however, project-related traffic would not result in a substantial noise increase because the overall change in noise

levels would be less than 3 decibels (dB) which would be imperceptible to NSLUs adjacent to the roads (as shown in Table 3.10-11 in the 2018 LRDP EIR). Development of the project would be within the scope of what was assumed in 2018 LRDP. The doubling of a noise source usually results in a 3 dba increase. Therefore, this would require the doubling of project vehicle trips compared to 2018 LRDP EIR assumptions in order to increase traffic noise by 3 dBA compared to the 2018 LRDP assumptions for the site (Caltrans 2013). As discussed in Section 4.1.17, Transportation and Circulation, the project would result in an incremental increase in vehicle trips. The incremental increase would be substantially less than double and as such the project would not result in a noticeable increase in vehicle noise compared to the 2018 LRDP EIR. The project would also not involve the establishment of new NSLUs that would have the potential to be exposed to excessive noise levels. The project would construct new stationary noise sources, such as HVAC units, boilers, and ventilation from parking structures. These noise sources would not be constructed within the 100 feet (unshielded HVAC equipment) screening distance from the nearest NSLU (La Jolla Country Day School). The edge of Parking Structure 1 would be constructed approximately 210 feet from one of the residential structures in the Mesa Nuevo East Graduate Housing complex to the south. However, the project would comply with Noi-1C because no mechanical vents would be within 250 feet of the NSLU. These specific noise generating sources would be constructed away from the school, outside these screening distances. Therefore, less than significant noise impacts would occur due to project implementation and the project is consistent with the noise analysis evaluated in the 2018 LRDP EIR.

- b) The project would construct new laboratory and office space, which would establish new vibration-sensitive receptors on campus. As shown in Table 3.10-16 of the 2018 LRDP EIR, the project buildings are outside the vibration screening criteria distances for the UC San Diego Blue Line Trolley. Furthermore, CEQA focuses upon the impacts of the project on the environment, not the impacts of the environment on the project.

The project does not propose land uses that would generate substantial operational vibration, but would involve construction activities. No pile driving is anticipated for the proposed project; therefore, project construction would have the potential to result in the greatest vibration during vibratory roller use. Table 3.10-16 of the 2018 LRDP EIR provides screening distances for vibratory sources and associated vibration-sensitive receptors. If vibration sources are located within the screening distances for a given receptor, the project may result in a significant impact.

The screening distance for vibratory roller operation applicable to the nearest sensitive receptor (La Jolla Country Day School) is 60 feet. The La Jolla Country Day School is located approximately 110 feet from the project construction area, and would, therefore, not be within the screening distance for construction vibration exposure. Therefore, vibration impacts resulting from construction of the project would be less

than significant and the project is within the scope the noise analysis evaluated in the 2018 LRDP EIR.

- c) Because there are no private airstrips within 2 miles of the UC San Diego campus and the campus is not located within the 60 dBA CNEL contour of any airport, including MCAS Miramar and the Medical Center heliport operations; there is no potential for significant noise impacts from aircraft operations on the project site. Therefore, the project is consistent with the noise analysis evaluated in the 2018 LRDP EIR.

#### 4.1.14 Population and Housing

The 2018 LRDP determined that the campus population would increase to 65,600 by 2035. This included undergraduates, graduates, masters, and health science students, along with non-instructional and instructional faculty and staff. Employment associated with scientific and technological research was addressed in the 2018 LRDP through the regional population projections, including SANDAG's population projections for San Diego County and in the City of San Diego's General Plan, University Community Plan, and La Jolla Community Plan and Local Coastal Program Land Use Plan. The regional population was expected to increase by approximately 462,423 from 2015 through 2035 and reach 3.7 million.

Section 3.11 of the 2018 LRDP EIR addresses the population and housing effects of implementing the 2018 LRDP and concludes that plan implementation would result in the direct inducement of substantial population growth in the area (Section 3.11.3.1). However, the 2018 LRDP would not result in indirect inducement of substantial population growth due to the extension of roads or other infrastructure (Section 3.11.3.1). Less than significant impacts are identified for the temporary displacement of existing on-campus housing and people (Section 3.11.3.2). No feasible mitigation is available for direct inducement of substantial population growth in the area; therefore, the population-related impacts of the campus growth are unavoidable.

POPULATION AND HOUSING	Impact Examined in 2018 LRDP EIR	Impact Not Examined in 2018 LRDP EIR		
		No Impact	Less than Significant Impact	Potentially New or More Severe Significant Impact
Would the project...				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>a) The SRP Project would not introduce new students or faculty and would not contribute to an increase in the campus student or faculty population. Based on an analysis of similar uses from the applicant, the project would result in approximately 3,080 new full-time employees associated with, scientific research at full capacity. After the 2018 LRDP was approved, on July 10, 2020, SANDAG released its 6th Cycle Regional Housing Needs Assessment (RHNA).<sup>6</sup> The 6th Cycle covers an eight-year planning period (April 15, 2021 through April 15, 2029). The updated RHNA calls for the development of 171,685 housing units during this eight-year period. This was based on employment and population projections for the region which are anticipated to hit 3,620,329 by 2035 and 3,746,054 by 2050.<sup>7</sup> In response, local jurisdictions have updated their Housing Elements to plan for increased population and employment growth. The City of San Diego adopted its updated Housing Element on June 8, 2021, which provides plans for development of 108,036 units.<sup>8</sup> As discussed in Section 3.3 of this Addendum, the project and its associated employment are within the square footage identified in the 2018 LRDP, and would be within the regional growth projections. Impacts are therefore within the scope of the 2018 LRDP EIR.</p>				

<sup>6</sup> SANDAG 6th Cycle Regional Housing Needs Assessment: <https://www.sandag.org/-/media/SANDAG/Documents/PDF/projects-and-programs/regional-initiatives/housing-land-use/regional-housing-needs-assessment/6th-cycle-regional-housing-needs-assessment-plan-2020-07-10.pdf> Additionally information, and supporting documentation is available at: <https://www.sandag.org/projects-and-programs/regional-initiatives/housing-and-land-use/regional-housing-needs-assessment>

<sup>7</sup> SANDAG Estimates & Forecasts: <https://www.sandag.org/data-and-research/socioeconomics/estimates-and-forecasts> and SANDAG Regional Growth Forecast: <https://www.sandag.org/data-and-research/socioeconomics/-/media/285C8F0581204B40A918F53642B8473D.ashx>

<sup>8</sup> City of San Diego 2021 Housing Element: <https://www.sandiego.gov/planning/work/general-plan/housing-element>

In addition, no new roads would be extended into undeveloped areas as part of the project and any utility upgrades would be sized to accommodate projected campus growth as noted in Section 2, Project Description, of this Addendum. Therefore, the project would not be inconsistent with the population and housing analysis evaluated in the 2018 LRDP EIR. The project would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects regarding unplanned population growth.

- b) The project would not temporarily displace a substantial number of people on the campus or create a demand for new housing that cannot be accommodated locally. While the project would temporarily remove on-site parking, that parking would be temporarily provided at an off-site location, as discussed in Section 2.5.6. No potential for an impact would occur, consistent with the population and housing analysis evaluated in the 2018 LRDP EIR.

#### 4.1.15 Public Services

Section 3.12 of the 2018 LRDP EIR addresses the physical effects of providing public services to meet the needs of the campus growth under the 2018 LRDP and determines that less than significant environmental impacts would occur due to the need for additional fire protection facilities (Section 3.12.3.1), police protection facilities (Section 3.12.3.2), and public school facilities (Section 3.12.3.3). No mitigation is required for public services impacts as described in the 2018 LRDP EIR.

PUBLIC SERVICES	Impact Examined in 2018 LRDP EIR	Impact Not Examined in 2018 LRDP EIR		
		No Impact	Less than Significant Impact	Potentially New or More Severe Significant Impact
Would the project...				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Police protection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Schools?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Parks?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v) Other public facilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- a) Implementation of the project would contribute directly to the overall need for new fire and police protection and indirectly to the need for school, park, and other public facilities in the campus area, but not at a level that would require new facilities beyond those that exist or are already planned by the various service providers nor would any new facilities result in a significant physical impact to the environment.

The proposed project would comply with all applicable building and fire code requirements. As a result, the likelihood of a large fire exceeding the effective response capability of the San Diego Fire Department (SDFD) at the proposed project is extremely low. The proposed project does not include elements susceptible to fire hazards and would be unlikely to generate substantial demand for Emergency Management Services.

UC San Diego provides its own police service for the UC San Diego campus as well as other UC San Diego properties. Pursuant to California Education Code Section 67381, the UC San Diego Police Department and the San Diego Police Department (SDPD) have adopted and signed a written agreement that clarifies and affixes operational responsibilities for the investigation of violent and non-violent crimes occurring on UC San Diego property. Pursuant to the agreement UC San Diego Police Department is the primary reporting and investigating law enforcement agency for nearly all crimes occurring on campus and over all UC San Diego-administered properties up to 1-mile of



campus. Both UC San Diego Police Department and SDPD provide mutual aid assistance as appropriate, when requested. As a result, the SDPD rarely responds to on-campus calls for police services. The campus' low demand for SDPD police services reduces the need for new off-campus police facilities or expansions of existing facilities. The proposed project is not expected to generate the need for new on-campus police facilities or expansions of existing facilities as it is consistent with population and development projections of the 2018 LRDP. Therefore, the physical impacts of providing police protection to the proposed project would be less than significant.

The demand for kindergarten through 12th grade public education facilities generated by the UC San Diego campus population is associated primarily with married faculty and staff households. UC San Diego analysis concluded impacts to service ratios for public schools associated with implementation of the 2018 LRDP would be considered less than significant regarding off-campus grade school facilities. Further, the proposed project is not expected to generate a need for new public educational facilities as it would not providing housing.

Therefore, the project is consistent with the public services analysis evaluated in the 2018 LRDP EIR.

#### 4.1.16 Recreation

Section 3.13 of the 2018 LRDP EIR addresses the environmental effects associated with modifying recreational facilities to meet the needs of campus growth under the 2018 LRDP and concludes that despite the increase in usage of on- and off-campus recreational facilities, less than significant impacts would occur (Section 3.13.3.1). Any construction and expansion of recreational facilities would be addressed through compliance with the 2018 LRDP EIR mitigation framework, and less than significant impacts would occur (Section 3.13.3.2). No mitigation is required for recreation impacts as described in the 2018 LRDP EIR.

RECREATION	Impact Examined in 2018 LRDP EIR	Impact Not Examined in 2018 LRDP EIR		
		No Impact	Less than Significant Impact	Potentially New or More Severe Significant Impact
Would the project...				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- a) The increase in employment attributable to the project would contribute to increase demands for recreation facilities on and off campus. The 2018 LRDP anticipates the need for new recreation facilities and the campus would continue to manage and maintain its existing recreation facilities. The City of San Diego would continue to expand and maintain its off-campus recreation facilities in response to its own population growth, whose residents could include the new campus population associated with the project. Substantial physical deterioration in recreation facilities is, therefore, not expected to occur as a result of the project. Therefore, the project is consistent with the public services analysis evaluated in the 2018 LRDP EIR.
- b) Implementation of the project would not require the construction or expansion of recreational facilities but would contribute to the campus-wide need for new or expanded facilities. The environmental impacts associated with the development of new campus recreational facilities would be less than significant or would be mitigated to below a level of significance through the application of the mitigation framework in the 2018 LRDP EIR.

#### 4.1.17 Transportation and Circulation

Section 3.14 of the 2018 LRDP EIR addresses the transportation and traffic effects of campus growth under the 2018 LRDP. The 2018 LRDP EIR concludes that traffic associated with plan implementation would result in cumulatively significant impacts due to exceedances of level of service (LOS) criteria in the Near-Term (Year 2025) and Long-Term (Year 2035) Scenarios for intersections, street segments, freeway mainline segments, and freeway ramp meters in the area (Section 3.14.3.1). However, implementation of the 2018 LRDP would not cause substantial additional vehicle miles traveled (VMT) to exceed the

regional averages for applicable campus land uses; therefore, less than significant VMT impacts are identified (Section 3.14.3.2). In addition, implementation of the 2018 LRDP would not conflict with applicable policies, plans, or programs regarding safety or performance of public transit, bicycle, or pedestrian facilities and its impact would be less than significant (Section 3.14.3.3). There is no potential for significant impacts to air traffic patterns, conflicts with a congestion management plan, safety hazards due to a design feature or incompatible uses, or inadequate emergency access (Section 3.14.5).

The 2018 LRDP mitigation framework includes programmatic mitigation to reduce or minimize the LOS impacts of plan implementation, as described in Section 3.14.3.1 of the 2018 LRDP EIR. Specifically, the campus would implement MM Tra-1A-OPT2 by funding and installing the needed improvements at a subset of impacted intersections, and freeway ramp meters in phases over the next 5 years. UC San Diego has been working with the City of San Diego and Caltrans over the last couple of years to obtain the appropriate agreements and permits to implement these improvements. Despite these improvements, impacts would be cumulatively significant and unavoidable as described in Section 3.14.3.1 of the 2018 LRDP EIR. No project-level mitigation measures would be required for cumulative traffic impacts.

On September 27, 2013, SB 743 was signed into law, which changed the way that transportation impacts are analyzed under CEQA. The transportation impact assessment updates to the CEQA Guidelines required under SB 743 were approved on December 28, 2018, and were required to be implemented state wide by July 1, 2020. Under the new (i.e., current) CEQA transportation guidelines, LOS, or vehicle delay, is no longer considered an environmental impact under CEQA; and, VMT has been adopted as the most appropriate measure of transportation impacts under CEQA. Therefore, this Addendum addresses the project's consistency with the 2018 LRDP EIR's VMT analysis.

**TRANSPORTATION/TRAFFIC**

Would the project...	Impact Examined in 2018 LRDP EIR	Impact Not Examined in 2018 LRDP EIR		
		No Impact	Less than Significant Impact	Potentially New or More Severe Significant Impact
a) Conflict with an applicable plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- a) Implementation of the project would not conflict with applicable policies, plans, or programs regarding safety or performance of public transit, roadway, bicycle, or pedestrian facilities. The project has been designed to enhance the pedestrian, bicycle, and micromobility experience throughout the SRP. The project would provide a series of pedestrian pathways throughout the site connecting the proposed and existing buildings within the SRP and beyond to surrounding neighborhoods. The north-south Innovation Walk would connect Mesa Housing on the south to the SRP via a pedestrian bridge, and the UC San Diego Health Sciences Campus on the north via a pedestrian corridor through the project site. The Campus Mews is an east-west pedestrian corridor that would extend from the western edge of the site to Athena Circle. The project would also include long-term secured storage lockers for 132 bicycles or micromobility devices distributed throughout the parking structures and 40 short-term bicycle racks to accommodate 80 bicycles.

The existing UC San Diego Blue Line Trolley light-rail service UC San Diego Health La Jolla transit stop is located approximately 1,500 feet (0.3 mile to the northwest) from North Building. The existing UC San Diego Blue Line Trolley light-rail service Executive Drive Station transit stop is located approximately 2,500 feet (0.5 mile to the east) from the South and East Buildings. The project's service population would have access to these existing transit services. No new additions or modifications are planned for the transit stops as part of the project.

As noted in Section 3.14.3.2 of the 2018 LRDP EIR, UC San Diego continues to look for opportunities to close gaps in the bicycle/pedestrian network in and adjacent to campus and improve last-mile connections to campus trolley stations when feasible. Therefore, less than significant impacts would occur, and the project is within the scope of the transportation analysis evaluated in the 2018 LRDP EIR.

- b) CEQA Guidelines Section 15064.3 pertains to impacts associated with VMT. As part of the 2018 LRDP EIR, a six-tier analysis of VMT impacts was conducted in accordance with the concepts expressed in SB 743. As shown in that comprehensive analysis, the 2018 LRDP VMT per resident, VMT per employee, and VMT per capita would be measurably lower than the regional and City averages. In addition, employee access to the campus transportation demand management (TDM) program combined with the site's location within a TPA would lower auto dependency and VMT over time.

The project is located within a TPA, and is presumed to have a less than significant VMT impact. (CEQA Guidelines Section 15064.3(b)(1).)

Specifically, as discussed under Section 3.3 of this document, the 2018 LRDP EIR attributed approximately 1,115,019 GSF of science research, 217,072 GSF of clinical space, and 50,000 GSF of retail space specifically to East Campus. The Viterbi Family Vision Research Center Project, a 100,000 GSF science research, clinical, and retail building, was approved in 2022 and is currently under construction on the East Campus, to the west of the proposed project. No other science research use has been built on the East Campus since adoption of the 2018 LRDP.

As discussed in Section 3.3, the proposed project is within the overall development assumptions for East Campus. While the 2018 LRDP EIR made assumptions at the land use-level for evaluation purposes, the 2018 LRDP itself included overall development projections only at the level of general campus location (i.e., East Campus) and did not specify individual land use square footages. The project land use mix would increase the area's jobs/acre density and would result in a 6.2 percent reduction in the VMT for the project site compared to the 2018 LRDP EIR as it affects the trips and distances that people travel. In addition, the project site provides access to transit (within a half mile of multiple transit stops), bicycle infrastructure, and proposed bicycle facilities. Therefore, the project would be within the scope of the 2018 LRDP VMT analysis. The project would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects regarding VMT.

The project, including the proposed modifications, would involve temporary traffic during construction. Construction haul trips and workers commuting to the project site would result in a minor temporary VMT over the construction period. Most workers would primarily be employed from the local labor pool and would not be traveling long distances. Local workers would be using the regional transportation network regardless of project approval, therefore, VMT from local workers would remain the same as existing conditions.

A Traffic Control Plan (TCP) would be developed and implemented prior to beginning of project construction, consistent with encroachment permit requirements and as a standard condition of approval. The primary function of a TCP is to provide for the safe and effective movement of road users through or around temporary traffic control zones. The TCP, in this case, would institute construction traffic management controls in accordance with City standards<sup>9</sup> and the Caltrans California Manual of Uniform Traffic Control Devices (2014 edition).<sup>10</sup> These traffic management controls would include measures determined on the basis of site-specific conditions, including the use of construction signs, delineators, and partial lane closures. Partial lane closures may be necessary during infrastructure improvements within Athena Way and Regents Road. However, full lane closures are not anticipated. Furthermore, there are numerous detours in the surrounding area, including Health Sciences Drive and Regents Road. In the unlikely event the project site cannot accommodate all construction worker vehicles, shuttles would be provided for construction workers temporary parking for the short duration when on-site parking is not available. For all these reasons construction is not anticipated to change regional VMT during construction. As discussed in Section 3.3, the project's construction work is within the scope of the 2018 LRDP EIR.

Therefore, less than significant impacts would occur, and the project is consistent with the transportation analysis evaluated in the 2018 LRDP EIR.

- c) The project would improve the existing T-intersection of Athena Way and Athena Circle with a swoop intersection that would direct traffic flow toward Athena Way. Medical Center Drive would be realigned as part of a separately funded and approved project in the northwestern section of the site. Secondary access to enter Parking Structure 2 would come from Miramar Street. In addition, access to the site from the west is provided via Medical Center Drive. It would not result in a change in the campus circulation system or off-site circulation system nor would it substantially increase hazards due to design features or incompatible uses. Therefore, no impacts would occur, and the project is consistent with the transportation analysis evaluated in the 2018 LRDP EIR.
- d) Upon implementation of the project, the campus would amend the emergency access route map, as necessary, to ensure that adequate fire protection and emergency access is maintained on campus at all times, which would be reviewed and approved by the UC San Diego Campus Fire Marshal. Additionally, as discussed in subsection (a), the project would implement a TCP, including steps to ensure safe access during emergencies. Therefore, no impacts would occur, and the project is consistent with the transportation analysis evaluated in the 2018 LRDP EIR.

<sup>9</sup> City of San Diego Traffic Control Plan: <https://www.sandiego.gov/sites/default/files/ds269.pdf>

<sup>10</sup> <https://dot.ca.gov/programs/safety-programs/camutcd>



#### 4.1.18 Utilities and Service Systems

The 2018 LRDP EIR acknowledged that development associated with the proposed 2018 LRDP would require improvements and additions to expand the existing sewage service system and not overload the City's downstream infrastructure. This included the development of new sewer main on East Campus in the Science Research Park, including Athena Circle, and a new water supply main. Section 3.15 of the 2018 LRDP EIR addresses the physical effects of expanding the utility infrastructure and the energy demands associated with campus growth under the 2018 LRDP and concludes that less than significant impacts would occur related to wastewater treatment capacity (Section 3.15.3.1), new and expanded water and wastewater infrastructure (Section 3.15.3.2), new or expanded stormwater drainage facilities (Section 3.15.3.3), water supply availability (Section 3.15.3.4), and compliance with statutes and regulations related to solid waste management (Section 3.15.3.5). The 2018 LRDP EIR further determines that there is no potential for significant impacts related to solid waste disposal needs or the capacity of local infrastructure to impact the provision of solid waste services or impair the attainment of solid waste reduction goals. No mitigation is required for utilities, service systems, or energy impacts as described in the 2018 LRDP EIR.

<b>UTILITIES, SERVICE SYSTEMS AND ENERGY</b>		Impact Not Examined in 2018 LRDP EIR		
Would the project...	Impact Examined in 2018 LRDP EIR	No Impact	Less than Significant Impact	Potentially New or More Severe Significant Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities or expansion of existing facilities, the construction or relocation of which could cause significant environmental effects?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the providers existing commitments?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Generate solid waste in excess of State or local standards or the capacity of local infrastructure or negatively impact the provision of solid waste services or impair the attainment of solid waste reduction goals?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a) During the project planning and design phase for the project, UC San Diego Campus Planning, Facilities Management, and CPM staff conducted a review of the project's utility needs to verify that adequate infrastructure would be available to serve its domestic water, wastewater, stormwater, energy, and telecommunication needs. Additionally, as part of the site evaluation process and/or site feasibility study, the Campus Planner also consulted the Master Infrastructure Plan (MIP) and campus engineers to identify any capacity constraints and determine whether system improvements would be required to support the project. Following the internal utility infrastructure evaluation process, improvements to utility and service systems were incorporated into the proposed project, as described in Section 2.5.2. These improvements include the construction of a new 8-inch domestic water main between the South Building and the La Jolla Institute for				

Immunology to connect the existing main within Athena Circle and the construction of a new 10-inch wastewater lateral to collect flows and connect to the existing sewer line within Athena Circle and Medical Center Drive. In addition, the project includes construction of seven small biofiltration basins, a modular wetland system designed for water quality treatment, and a stormwater detention vault designed to decrease peak runoff volumes. The project may also require SDG&E connection improvements within Regents Road. The utility infrastructure improvements to be implemented with the project are assessed as part of the proposed project and analyzed throughout this Addendum. Furthermore, construction activities associated with this infrastructure would be required to comply with the applicable mitigation framework in the 2018 LRDP EIR, as discussed in this Addendum. Therefore, less than significant impacts would occur, and the project is consistent with the utilities and service systems analysis evaluated in the 2018 LRDP EIR.

- b) Implementation of the project would increase potable water usage on the campus, although not above levels anticipated in the City's Water Supply Assessment Report prepared for the 2018 LRDP. The project would meet a minimum rating of LEED Gold and include sustainability strategies to reduce water use. These strategies include installing low-flow plumbing fixtures, drought-tolerant landscaping, and a condensate reuse system. As discussed in Section 3.3, the project is within the overall development assumptions analyzed in the 2018 LRDP EIR and the 2018 LRDP Domestic Water Study. Landscape irrigation would utilize reclaimed water by connecting to the existing reclaimed water distribution system. Therefore, less than significant impacts would occur, and the project is within the scope of the utilities and service systems analysis evaluated in the 2018 LRDP EIR.
- c) Implementation of the project would increase the amount of on-campus building space, however this increase would be consistent with the development assumptions in the 2018 LRDP, as discussed in Section 3.3. Such increases would result in the generation and discharge of additional wastewater from the campus, which would require treatment at the Point Loma Wastewater Treatment Plant (PLWTP). However, the PLWTP would have more than adequate capacity to receive and treat wastewater from UC San Diego and existing commitments. Additionally, water conservation efforts implemented on campus, including the project, would further reduce flow rates from the campus. Therefore, less than significant impacts would occur, and the project is within the scope of the utilities and service systems analysis evaluated in the 2018 LRDP EIR.
- d) Implementation of the 2018 LRDP would not result in inadequate capacity of solid waste facilities in the region such that construction of a new landfill or expansion of an existing landfill would be necessary. As noted under item (e), the project would minimize its waste disposal needs and assist the state and local agencies in achieving their applicable solid waste management and diversion goals. No impacts would result,

and the project is consistent with the utilities and service systems analysis evaluated in the 2018 LRDP EIR.

- e) Project implementation would require demolition, clearing/grubbing, and grading activities that would produce excavated soils, green waste, asphalt/concrete, and other construction and demolition waste. Operations of the project would contribute additional non-recyclable/non-reusable waste which would be deposited at Miramar Landfill, after accounting for waste reduction and diversion. However, the project would comply with applicable waste reduction and diversion programs as part of the campus-wide effort to meet the UC Sustainable Practices Policy's zero waste goal. This includes the recycling of demolition materials. Therefore, the project would minimize its waste disposal needs and assist the state and local agencies in achieving their applicable solid waste management and diversion goals, resulting in less than significant impacts. The project is within the scope of the utilities and service systems analysis evaluated in the 2018 LRDP EIR.

#### 4.1.19 Wildfire

Since the 2018 LRDP EIR was certified, the CEQA Guidelines were amended to provide for more direct analysis of wildfire impacts. However, these issues were addressed in the 2018 LRDP EIR analysis. For example, the Hazards analysis, Section 3.7.3.6 addressed potential interference with emergency response plans and evacuation plans. Similarly, 2018 LRDP EIR Sections 3.3 and 3.7.3.7. discussed potential ignition sources with a potential to spark wildfires. This section of this Addendum addresses those new questions directly. Relevant information provided in the 2018 LRDP EIR along with new project-specific information is relied upon to make new impact determinations.

WILDFIRE	Would the project...	Impact Examined in 2018 LRDP EIR	Impact Not Examined in 2018 LRDP EIR		
			No Impact	Less than Significant Impact	Potentially New or More Severe Significant Impact
a)	Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b)	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c)	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d)	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
a)	<p>UC San Diego has an Emergency Operations Plan that addresses planned responses, instructions and procedures to various levels of human-made or natural emergency situations for all campus staff, students, and visitors. It provides information for building evacuation, emergency supplies, and related emergency contacts and information sources. Multiple emergency response regions are provided throughout the campus equipped to provide necessary supplies and trained personnel in the event of an emergency. The project would not result in any full roadway closures during construction. Partial lane closures may be necessary during SDG&amp;E connection improvements within Athena Way and Regents Road. Consistent with the 2018 LRDP, the project has been reviewed by the UC San Diego Campus Fire Marshal to ensure that adequate fire protection and emergency access is maintained on campus at all times. The project would also comply with the TCP, which would provide to emergency vehicle access throughout construction. As required by MM Haz-6, UC San Diego would require the construction contractor to notify the UC San Diego Campus Fire Marshal and community to prevent conflicts with emergency access or evacuation routes during construction. Implementation of MM Haz-6 would reduce impacts to a less than significant level. As also discussed in Section 3.3, the project would be within the 2018 LRDP's development assumptions for East Campus. Therefore, the project would not result in any new significant environmental effects.</p>				

- b) Landscape vegetation, vehicles, and small machinery could exacerbate wildfire risk and expose project occupants to wildfire pollutants. As described in Section 2.5.2, project design has been reviewed by the UC San Diego Campus Fire Marshal and would meet specific criteria for a fire water system. Project design has taken into consideration proper setbacks and proximity of landscaping to buildings. In addition, landscaping plans include fire resistant plant and tree species. The three new buildings would be equipped with emergency fire sprinkler systems in accordance with the CBC. Implementation of these fire protection measures, fuel management regulations, and compliance with associated regulations would ensure impacts to project occupants due to wildfire pollutants under the proposed project would be less than significant. Furthermore MM- Bio-3E requires that equipment be available on site to extinguish fires during construction, along with personnel trained in the use of such equipment, and prohibits smoking adjacent to flammable vegetation. As also discussed in Section 3.3, the project would be within the 2018 LRDP's development assumptions for East Campus. Therefore, the project would not result in any new significant environmental effects regarding exposure of project occupants to pollutant concentrations from a wildfire.
- c) Installation and/or maintenance associated with new infrastructure would be necessary for the project. However, this would not exacerbate fire risk due to its location within the campus where fire protection measures including fuel management zones and building review by the UC San Diego Campus Fire Marshal. Any temporary or ongoing impacts to the environment resulting from the installation and maintenance of infrastructure is part of ongoing operations and projected future development of the campus and therefore evaluated under the 2018 LRDP EIR. As discussed in Section 3.3, the project would be within the 2018 LRDP's development assumptions for East Campus. Therefore, the project would not result in any new significant environmental effects regarding installation or maintenance of associated infrastructure.
- d) As described in Section 4.1.8, Geology and Soils, the project would not be at risk of landslides and would therefore not be at a substantial risk of downslope or downstream flooding as a result of runoff, or post-fire slope instability. As described in Section 4.1.11, Hydrology and Water Quality, the proposed new storm drainpipes, inlets, biofiltration basins, modular wetland systems, and detention vaults would reduce the overall flow rate of the project site post-construction; however, it would not significantly alter the drainage of the site or off-site drainages.

In the event that the steep slopes near the project are burned, unstable soils could occur due to the lack of vegetation to anchor the hillside. UC San Diego would implement BMPs to stabilize slopes and prevent sediment movement exposure to off-site adjacent occupants. These BMPs would include the placement of fiber rolls, straw wattles, or sandbags on the affected slopes, as well as erosion control mats, to stabilize and protect the burned areas.



The project would implement post-construction BMPs in accordance with the project's Stormwater Management Plan to prevent impacts related to flooding or runoff. Therefore, the possibility of flooding or landslides as a result of running water down the slope would be greatly lessened. In addition, the project would result in the redevelopment of a developed/disturbed area and add additional fire protection measures, resulting in a less than significant impact. As discussed in Section 3.3, the project would be within the 2018 LRDP's development assumptions for East Campus. Therefore, the project would not result in any new significant environmental effects regarding downstream or down slope flooding.

#### 4.1.20 Mandatory Findings of Significance

	Impact Examined in 2018 LRDP EIR	Impact Not Examined in 2018 LRDP EIR		
		No Impact	Less than Significant Impact	Potentially New or More Severe Significant Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- a) All applicable mitigation measures identified in the 2018 LRDP EIR to avoid and reduce impacts have been integrated into the project and with the integration of these measures, the project would not substantially degrade the quality of the environment.

As described in Section 4.1.5, Biological Resources, the project would not significantly affect fish or wildlife habitat or species. The site is developed and mostly devoid of sensitive biological resources.

As described in Section 4.1.6, Cultural and Tribal Cultural Resources, no historic architectural resources were identified on the project site and the site is not within an area of archaeological sensitivity. However, measures have been integrated into the project would avoid disturbance, disruption, or destruction of inadvertent archaeological resource discoveries. Therefore, the project would not eliminate any examples of the major periods of California history or prehistory.

- b) The 2018 LRDP EIR identified significant and unavoidable cumulative impacts to air quality (construction, operational and TAC emissions), cultural resources (historical resources and TCRs), population and housing (physical effects of population growth), transportation/traffic (levels of service) and growth inducement (regional growth). As part of the 2018 LRDP EIR development program, the project would contribute to significant and unavoidable impacts related to air quality as described in this Addendum. Measures from the 2018 LRDP EIR would work to address these impacts, specifically MMs AQ-2A and AQ-2B. The project is within the overall scope of campus development evaluated in the 2018 LRDP EIR as noted in Section 3 of this document.

These impacts were also addressed in the Findings and Statement of Overriding Considerations adopted by the UC Regents in connection with its approval of the 2018 LRDP. No conditions have changed, and no new information has become available since certification of the 2018 LRDP EIR that would alter this previous analysis. No additional mitigation is available to reduce the project's contribution to these previously identified impacts.

- c) As described above, the project would incrementally contribute to cumulative air quality (TACs) that were identified as significant and unavoidable as well as cumulatively considerable in the 2018 LRDP EIR. The project's construction and operation emissions are within the scope of impacts examined in the 2018 LRDP EIR. These impacts were also addressed in the Findings and Statement of Overriding Considerations adopted by the UC Regents in connection with its approval of the 2018 LRDP.

Effects of the project would not result in substantial adverse effects on human beings beyond those analyzed in the 2018 LRDP EIR. No conditions have changed, and no new information has become available since certification of the 2018 LRDP EIR that would alter this analysis. No additional mitigation is available to reduce the project's contribution these impacts. Other impacts with the potential to affect human beings were determined to be less than significant.

## 5 APPLICABLE MITIGATION MEASURES

The following mitigation measures from the certified 2018 LRDP EIR Mitigation Monitoring and Reporting Program (MMRP) would be fully or partially applicable to the impacts associated with the project. No new significant impacts or increased severity in impacts that were not analyzed in the 2018 LRDP EIR have been identified; therefore, no additional project-specific mitigation is required. Whether listed here or in the 2018 LRDP Mitigation Monitoring and Report Program, the project would comply with all applicable Mitigation Measures adopted with the 2018 LRDP.

UC San Diego further finds that there are no mitigation measures or alternatives previously found not to be feasible which would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative. UC San Diego further finds that there are no mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR which would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

### 5.1 AESTHETICS

**Aes-2A:** Prior to project design approval, any proposed project that would have the potential to substantially degrade the visual character of the campus shall undergo design review by the UC San Diego Design Review Board to ensure that the design is consistent with the visual landscape and/or the character of the surrounding development. The design review process shall evaluate and incorporate, where appropriate, factors including but not necessarily limited to: building mass and form, building proportion, roof profile, architectural detail and fenestration, texture, color, type and quality of building materials, and landscaping.

**Aes-2B:** Projects within SIO and the PDZ shall be reviewed by the DRB, Campus Architect and other relevant campus committees at the conceptual design stage to ensure projects are designed to incorporate pedestrian scale features. Projects in SIO and the PDZ shall include the following design features along the facades of proposed structures facing the public realm, as applicable:

- i. Pedestrian-oriented architectural details and scale;
- ii. Proportional building mass, form, and roof profiles;
- iii. Building setbacks, fenestration, and visual reliefs;
- iv. Use of high-quality building materials;

- v. Welcoming and wayfinding elements;
- vi. Pedestrian connections and pathways;
- vii. Pedestrian furniture and signage;
- viii. Landscape buffers; and
- ix. Limited use of walls or pedestrian barriers.

**Aes-3:** Projects that include development or alteration of a parking area, parking structure, or road that could result in the prolonged or excessive repetitive exposure of residential areas or other light sensitive uses, to glare from vehicle headlights shall be designed to shield direct glare from such uses. If shielding cannot be implemented through design modifications during the conceptual design phase, then walls, landscaping, or other glare barriers shall be provided as appropriate to shield direct glare into the nearby light sensitive uses.

## 5.2 AIR QUALITY

### **AQ-2A: Implement Measures to Control PM Emissions Generated by Construction**

**Activities.** UC San Diego shall require by contract specification that contractors implement the following measures during all phases of construction of individual projects developed under the proposed 2018 LRDP:

- Water the grading areas a minimum of twice daily to minimize fugitive dust;
- Stabilize graded areas as quickly as possible to minimize fugitive dust;
- Apply chemical stabilizer or pave the last 100 feet of internal travel path within the construction site prior to public road entry;
- Install wheel washers adjacent to a paved apron prior to vehicle entry on public roads;
- Remove any visible track-out into traveled public streets via regular street sweeping;
- Wet wash the construction access point at the end of each workday if any vehicle travel on unpaved surfaces has occurred;
- Provide sufficient perimeter erosion control to prevent washout of silty material onto public roads;
- Cover haul trucks or maintain at least 12 inches of freeboard to reduce blow-off during hauling;
- Suspend all soil disturbance and travel on unpaved surfaces if winds exceed 25 mph;
- Cover/water onsite stockpiles of excavated material;
- Enforce a 15-mph speed limit on unpaved surfaces;

- On dry days, dirt and debris spilled onto paved surfaces shall be swept up immediately to reduce re-suspension of particulate matter caused by vehicle movement. Approach routes to construction sites shall be cleaned daily of construction-related dirt in dry weather;
- Disturbed areas shall be hydroseeded, landscaped, or developed as quickly as possible to reduce dust generation; and
- Limit the daily grading volumes/area to extent feasible.

**AQ-2B: Minimize Off-Road Construction Equipment Emissions.** UC San Diego shall require by contract specification that the construction contractor use off-road construction diesel engines that meet, at a minimum, the Tier 4 interim California Emissions Standards, unless such an engine is not available for a particular item of equipment. Tier 3 engines will be allowed on a project-by-project basis when the contractor has documented that no Tier 4 interim equipment or emissions equivalent retrofit equipment is available or feasible for the project.

## 5.3 BIOLOGICAL RESOURCES

**Bio-2D:** If project construction is scheduled to commence during the raptor nesting season (generally January 15 through July 31), preconstruction-construction surveys for raptor nests shall be performed by a qualified biologist within 500 feet of project construction activities no more than seven days prior to the initiation of construction. Construction activities within 500 feet of an identified active raptor nest shall not commence during the breeding season until a qualified biologist determines that the nest is no longer active and any young birds in the area have adequately fledged and are no longer reliant on the nest. Trees with inactive nests can be removed outside the breeding season without causing an impact.

**Bio-2E:** No grubbing, trimming, or clearing of vegetation (including brush management) from project sites shall occur during the general avian breeding season (February 15 through August 31). If grubbing, trimming, or clearing cannot feasibly occur outside of the general avian breeding season, a qualified biologist shall perform a preconstruction-construction nesting bird survey no more than seven days prior to the commencement of vegetation clearing or grubbing to determine if active bird nests are present in the affected areas. Should an active migratory bird nest be located, the project biologist shall direct vegetation clearing away from the nest until it has been determined by the project biologist that the young have fledged, or the nest has failed. If there are no nesting birds (includes nest building or other breeding/nesting behavior) within the survey area, clearing, grubbing, and grading shall be allowed to proceed.

**Bio-3E:** Prior to construction, a pre-construction meeting shall be held between the Project Manager, qualified biologist, Environmental Planner, and construction crews to ensure crews are informed of the sensitivity of habitats in the Open Space Preserve and adjacent undeveloped lands.

- i. Prior to commencement of clearing or grading activities, fencing (e.g., silt fencing, orange construction fencing, and/or chain-link fencing as determined by campus planning) shall be installed around the approved limits of disturbance to prevent errant disturbance of sensitive biological resources by construction vehicles or personnel. Installation of fencing to demarcate the approved limits of disturbance shall be verified by the project biologist prior to initiation of clearing or grading activities. All movement of construction contractors, including ingress and egress of equipment and personnel, shall be limited to designated construction zones. This fencing shall be removed upon completion of all construction activities.
- ii. No temporary storage or stockpiling of construction materials shall be allowed within the Ecological Reserve or Restoration Lands, and all staging areas for equipment and materials shall be located at least 50 feet from the edge of these areas. This prohibition shall not be applied to facilities that are planned to traverse Ecological Reserve or Restoration Lands (e.g., trails and utilities). Staging areas and construction sites in proximity to the Ecological Reserve or Restoration Lands shall be kept free of trash, refuse, and other waste; no waste dirt, rubble, or trash shall be deposited in these areas.
- iii. Equipment to extinguish small brush fires (e.g., from trucks or other vehicles) shall be present on site during all phases of project construction activities, along with personnel trained in the use of such equipment. Smoking shall be prohibited in construction areas adjacent to flammable vegetation.
- iv. Temporary night lighting shall not be used during construction unless determined to be absolutely necessary. If night lighting is necessary, lights shall be directed away from sensitive vegetation communities and shielded to minimize temporary lighting of the surrounding habitat.

**Bio-3F:** During project construction, a biological monitor shall visit the site weekly during site preparation and rough grading activities, and monthly following completion of rough grading, until construction is completed. During site visits, the monitor shall be responsible for ensuring that the construction activities and staging areas are restricted to the approved limits of work, and protective fencing is adequately maintained. The monitor shall be responsible for ensuring that the contractor adheres to the other provisions described above. The monitor, in cooperation with the on-site construction manager, shall have the authority to halt construction activities in the event that these provisions are not met. Monitors shall submit regular reports to the UC San Diego Campus Planning Office during construction documenting the implementation of construction measures Bio-3E.



**Bio-3G:** The following best management practices shall be implemented for each project that would remove or install tree species on UC San Diego that may be used as host trees by SHBs:

- i. Trees to be planted on UC San Diego shall be obtained from a reliable source and be free of sign of SHB infestation.
- ii. An education program for on-site workers responsible for tree installation shall be implemented. The program shall describe the signs of SHB infestation (e.g., sugary exudate on trunks or branches, and SHB entry/exit holes [approximately the size of the tip of a ballpoint pen]).
- iii. Sign of SHB infestation shall be reported to CDFW and UC Riverside's Eskalen Lab ([www.eskalenlab.ucr.edu](http://www.eskalenlab.ucr.edu)) by the UC San Diego Project Manager and/or the project biologist.
- iv. Trees with sign of SHB infestation shall be pruned or removed, as appropriate, and potential host materials shall be chipped to less than one inch prior to composting on site or transfer to a landfill.
- v. Equipment that is used to prune or remove SHB-infected trees shall be disinfected prior to additional use.
- vi. Biologists monitoring mitigation sites shall be knowledgeable regarding sign of SHB infestation.

**Bio-3I:** Landscaping adjacent to the Open Space Preserve shall comply with the following requirements to prevent the introduction of invasive species:

- i. Appropriate landscaping shall be selected based on the vegetation communities within the portion of the Open Space Preserve adjacent to the project. In areas supporting native (or disturbed native) vegetation communities, revegetation of impacted slopes shall be with appropriate native plant materials. In particular, where the Open Space Preserve is disturbed by construction of the Campus Meander, installation of native plants such as lemonadeberry, toyon, deerweed (*Acmispon glaber*), monkey flower (*Diplacus aurantiacus*), and sages (*Salvia spp.*) are recommended to make the Open Space Preserve more impenetrable to people while reinforcing the boundaries and edges of the Campus Meander (The Harrison Studio 1997).
- ii. Only non-invasive plant species shall be included in the landscape plans for projects (species not listed on the California Invasive Plant Inventory prepared by the Cal-IPC [2006]). A qualified landscape architect and/or qualified biologist shall review landscape plant palettes prior to implementation to ensure that no invasive species are included.
- iii. Any planting stock brought onto a project site adjacent to the Open Space Preserve for landscaping or habitat restoration shall be inspected to ensure it is free of pest species

that could invade natural areas, including but not limited to Argentine ants and South American fire ants. Inspections of planting stock for habitat restoration shall be by a qualified biologist, and inspections of planting stock for landscaping shall be the responsibility of qualified UC San Diego Project Manager or their designated assignee. Any planting stock found to be infested with such pests shall be quarantined, treated, or disposed of according to best management practices by qualified personnel, in a manner that precludes invasions into natural habitats.

**Bio-3J:** Permanent lighting within or adjacent to the Ecological Reserve and Restoration Lands shall be selectively placed, shielded, and directed to minimize potential impacts to sensitive species. In addition, lighting from buildings or parking lots/structures abutting the Ecological Reserve shall be shielded and/or screened by vegetation to the extent feasible.

**Bio- 3K:** The following best management practices shall be implemented by the campus along areas that interface with the Open Space Preserve to address runoff/water quality impacts from landscaping:

- i. Integrated Pest Management principles (University of California Integrated Pest Management Program) shall be implemented to the extent practicable for areas in and adjacent to the Open Space Preserve for chemical pesticides, herbicides, and fertilizers. Examples of such measures may include, but are not limited to, alternative weed/pest control measures (e.g., removal by hand) and proper application techniques (e.g., conformance to manufacturer specifications and legal requirements).
- ii. Irrigation for project landscaping shall be minimized and controlled in areas in and adjacent to the Open Space Preserve through efforts such as designing irrigation systems to match landscaping water needs, using sensor devices to prevent irrigation during and after precipitation, and using automatic flow reducers/shut-off valves that are triggered by a decrease in water pressure from broken sprinkler heads or pipes.

**Bio-3L:** Signage and fencing shall be installed along the edge of the Ecological Reserve to protect sensitive habitats from human disturbance with the following techniques:

- i. Projects adjacent to the Ecological Reserve shall install open space signage along the boundary of the reserve, indicating the presence of lands supporting sensitive habitat.
- ii. Projects adjacent to the Ecological Reserve shall install fencing or other visual/physical barriers (such as appropriate landscaping) to discourage human encroachment into the Open Space Preserve in areas where trespass is likely to occur (gradual slopes; areas of low, open vegetation; areas of previous disturbance, etc.).

## 5.4 CULTURAL AND TRIBAL CULTURAL RESOURCES

**Cul-2D:** Unknown Resources. For areas between recorded sites (“unknown resources”) the following shall apply:

- i. SIO. If a project is proposed in:
  - a. a previously developed site, the prior grading plans shall be viewed to determine if prior grading activity has removed two or more feet of soil.
    - If two or more feet of soil have been previously removed, no further work is required.
    - If not, a qualified archaeologist shall monitor grading activities during the removal of the top two to three feet of soil.
    - If the project site is within an area of natural deposition, then a qualified archaeologist shall monitor all grading activities.
  - b. a previously undeveloped area, a qualified archaeologist shall monitor grading activities during the removal of the top two to three feet of soil on mesas, cliffs, and other flat areas, and during all grading activities within areas of natural deposition.
- ii. West Campus and East Campus. If the project is proposed:
  - a. in an area of natural deposition and is adjacent to recorded sites, a qualified archaeologist shall monitor all grading activities.
  - b. on a mesa top in a previously developed site (including parking lots, utility corridors, eucalyptus grove reserve, recreation fields, ornamental landscaping) and if previously recorded sites are adjacent, the prior grading plans shall be viewed to determine if prior grading activity has removed two or more feet of soil. • If two or more feet of soil have been previously removed, no further work is required.
    - If not, a qualified archaeologist shall monitor grading activities during the removal of the top two to three feet of soil.
  - c. on a mesa top in an undeveloped area of the campus, a cultural survey shall be completed by a qualified archaeologist as part of the project-specific CEQA document (i.e., during schematic design).
    - If ground visibility is good and the survey is negative, no additional work is required.
    - If ground visibility is poor due to high grasses/brush, a CEQA mitigation measure shall be included requiring a subsequent survey after brush removal is completed to confirm survey results. If the second survey is negative, no additional work is required.

- d. In all cases, if cultural resources are located during survey/monitoring activities described above, recommendations of the UC San Diego-retained qualified archaeologist shall be implemented in accordance with measures Cul-2A, Cul-2B, and Cul-2C, as described above.
- e. In all cases, monitoring will cease if grading reaches underlying formational material (Lindavista [Very Old Paralic], Bay Point [Old Paralic], Scripps, Ardath Shale), regardless of how shallow or in what location it is found.
- f. All monitoring shall be conducted in accordance with measure Cul-2E.

**Cul-2E: Construction Monitoring.**

- i. Prior to beginning any work that requires monitoring:
  - a. a preconstruction meeting shall be held that includes the qualified archaeologist, Project Manager and/or Grading Contractor, and other appropriate personnel so the archaeologist can make comments and/or suggestions concerning the archaeological monitoring program to the Project Manager and/or Grading Contractor.
  - b. the qualified archaeologist shall (at that meeting or subsequently) submit to the Project Manager a copy of the site/grading plan (reduced to 11 x 17 inches) that identifies areas to be monitored as well as areas that may require delineation of grading limits.
  - c. the archaeologist shall also coordinate with the Project Manager on the construction schedule to identify when and where monitoring is to begin and including the start date for monitoring.
- ii. The qualified archaeologist shall be present during grading/excavation as detailed in Cul-2D and shall document such activity on a standardized form. A record of activity shall be sent to the Environmental Planner and Project Manager each month.
- iii. Discoveries
  - a. Discovery Process – In the event of a discovery, and when requested by the qualified archaeologist, or the Archaeological Principal Investigator (PI) if the archaeological monitor is not qualified as a PI, the Environmental Planner and Project Manager shall be contacted and shall divert, direct, or temporarily halt ground-disturbing activities in the area of discovery to allow for preliminary evaluation of potentially significant archaeological resources. The PI shall also immediately notify Campus Planning of such findings at the time of discovery.
  - b. Determination of Significance – The significance of the discovered resources shall be determined by the PI in consultation with Campus Planning and the Native

American Community, as appropriate. Campus Planning must concur with the evaluation before grading activities will be allowed to resume. For archaeological resources considered significant by the PI, a Research Design and Data Recovery Program shall be prepared, approved by Campus Planning, and carried out to mitigate impacts before ground-disturbing activities in the area of discovery will be allowed to resume.

- iv. If human remains are discovered, work shall halt in that area and the procedures detailed in the California Health and Safety Code (Section 7050.5) and the California PRC (Section 5097.98) and will be followed.
- v. Notification of Completion – The qualified archaeologist shall notify Campus Planning, as appropriate, in writing of the end date of monitoring.
- vi. Handling and Curation of Significant Artifacts and Letter of Acceptance.
  - a. The qualified archaeologist shall ensure that all significant cultural remains collected are cleaned, catalogued, and permanently curated with an appropriate institution; that a letter of acceptance from the curation institution has been submitted to Campus Planning; that all artifacts are analyzed to identify function and chronology as they relate to the history of the area; that faunal material is identified as to species; and that specialty studies are completed, as appropriate.
  - b. Curation of artifacts associated with the survey, testing, and/or data recovery for this project shall be completed in consultation with Campus Planning and the Native American representative, as applicable.
- vii. Final Results Reports (Monitoring and Research Design and Data Recovery Program) – Prior to completion of the project, two copies of the Final Results Report (even if no significant resources were found) and/or evaluation report, if applicable, which describe the results, analysis, and conclusions of the archaeological monitoring program (with appropriate graphics) shall be submitted to Campus Planning for approval. For significant archaeological resources encountered during monitoring, the Research Design and Data Recovery Program shall be included as part of the Final Results Report.
- viii. Recording Sites with State of California Department of Park and Recreation – The qualified archaeologist shall record (on the appropriate State of California Department of Park and Recreation forms-DPR 523 A/B) any significant or potentially significant resources encountered during the Archaeological Monitoring Program and submit such forms to the SCIC with the Final Results Report.

**Cul-5B: Monitoring.** Activities with the potential to cause a substantial adverse change to the significance of a TCR shall be monitored by a Native American tribal representative. Where the TCR is also considered a historical resource under CEQA, monitoring by a qualified archaeologist may also be required.

- i. Prior to any work that requires monitoring:
  - a. UC San Diego shall enter into a Tribal Monitoring Agreement with the tribe. This agreement will specify procedures for the proper treatment of any tribal cultural resources and/or Native American human remains discovered during the monitoring. The agreement will also specify the roles and authorities of the Native American monitors and other participants.
  - b. A preconstruction meeting shall be held that includes the tribal representative, archaeologist, Construction Manager and/or Grading Contractor, and other appropriate personnel so the tribal representative can make comments and/or suggestions concerning the Archaeological Monitoring Program to the Construction Manager and/or Grading Contractor.
- ii. Discoveries
  - a. Discovery Process – In the event of a discovery, the tribal representative, in consultation with the Construction Project Manager, may divert, direct, or temporarily halt ground-disturbing activities in the area of discovery to allow for preliminary evaluation of potentially significant tribal cultural resources. The tribal representative shall also immediately notify Campus Planning of such findings at the time of discovery.
  - b. Determination of Significance – The significance of the discovered resources shall be determined by the tribal representative in consultation with Campus Planning and the Native American Community, as appropriate. Campus Planning must concur with the evaluation before grading activities will be allowed to resume.
  - c. If human remains are discovered, work shall halt in that area and the procedures detailed in the California Health and Safety Code (Section 7050.5) and the California PRC (Section 5097.98) and will be followed.
- iii. Notification of Completion – The tribal representative shall notify Campus Planning, as appropriate, in writing of the end date of monitoring.



## 5.5 HAZARDS AND HAZARDOUS MATERIALS

**Haz-4A:** During project planning, EH&S shall be consulted in order to identify if any past contamination, USTs, ASTs, or other contamination could potentially occur in areas to be impacted. EH&S will consider the cases on file at the County of San Diego DEH and information on historical uses in the area to be impacted such as old maps and photos. If EH&S determines that there is limited potential for contamination to occur on site, no additional mitigation is necessary. If it is determined that contamination has potential to exist on a project site, Mitigation Measure Haz-4B shall be implemented.

**Haz-4B:** If contamination exists on a proposed project site and if it poses a risk to human health or the environment, actions shall be taken prior to any construction, pursuant to applicable regulations, to remove or otherwise remediate the contamination through appropriate measures such as natural attenuation, active remediation, and engineering controls. Assessment and remediation activities shall incorporate the following conditions:

- i. All assessment and remediation activities shall be conducted in accordance with a work plan that is approved by the regulatory agency having oversight of the activities.
- ii. It may be necessary to excavate existing soil within the project site, or to bring fill soils into the site from off-site locations. At sites that have been identified as being contaminated or where soil contamination is suspected, appropriate sampling and classification are required prior to disposal of excavated soil. Contaminated soil shall be properly disposed of at an approved off-site facility. Fill soils also shall be sampled to ensure that imported soil parameters are within acceptable levels.
- iii. Caution shall be taken during excavation activities near existing groundwater monitoring wells, so that they are not damaged. Existing groundwater monitoring wells may have to be abandoned and reinstalled if they are located in an area that is undergoing redevelopment.

**Haz-4C:** In the event that USTs, not identified in consultation with EH&S, or undocumented areas of contamination are encountered during construction or redevelopment activities, work shall be discontinued until appropriate health and safety procedures are implemented. Either the County of San Diego DEH or the San Diego RWQCB, depending on the nature of the contamination, must be notified regarding the contamination. Each agency and program within the respective agency has its own mechanism for initiating an investigation. The appropriate program (e.g., the DEH Local Oversight Program for tank release cases, the County of San Diego DEH Voluntary Assistance Program for non-tank release cases, the RWQCB for non-tank cases involving groundwater contamination) will be selected based on the nature of the contamination identified. The contamination remediation and removal activities will be conducted in accordance with pertinent regulatory guidelines, under the oversight of the appropriate regulatory agency.

**Haz-6:** In the event that the construction of a project requires a lane or roadway closure on campus, prior to construction the contractor and/or Project Manager shall ensure that the UC San Diego Fire Marshal and campus community at large are notified. If determined necessary by the UC San Diego Fire Marshal, local emergency services will be notified by the Fire Marshal of the closure.

## 5.6 NOISE

**Noi-1C:** If new or modified stationary noise sources (including, major HVAC systems, utility plants, ventilated parking structures, or similar facilities with noise-producing operating mechanical equipment) are proposed in the vicinity of NSLUs (existing and future) or NSLUs are proposed in the vicinity of existing stationary sources, the project shall incorporate the following screening distances between the NSLU and the stationary noise source to avoid potential noise impacts.

- i. Constructing new ventilated utility plants at least 500 feet from existing or proposed NSLU
- ii. Constructing new ventilated parking structures at least 250 feet from existing or proposed NSLU
- iii. Positioning new and renovated major outdoor HVAC equipment, not shielded by a noise-reducing barrier or other means, at least 100 feet from existing or proposed NSLU. Should the NSLU already be exposed to noise in excess of stated thresholds in Table 3.10-8, then the new or renovated stationary noise source(s) shall be evaluated in a preliminary noise assessment as noted in Noi-1D.

**Noi-1F:** If project construction activities resulting from implementation of the 2018 LRDP are proposed less than 150 feet of NSLU, or may involve the use of vibratory or impact-type pile drivers, impact-type equipment (including but not limited to: clam shovels, hydra break rams, hoe rams, and jackhammers), concrete saws, pavement scarifiers, sand blasters, or vibrating hoppers, mitigation shall be integrated into the project's construction specifications to minimize temporary noise caused by construction activities to less than significant levels:

- i. Require the construction contractor to work with proper administrative controls on equipment operation periods so as not to exceed a 12-hour average sound level of 75 dBA Leq at any NSLU between 7:00 a.m. and 7:00 p.m. Monday through Saturday.
- ii. Outfit construction equipment with properly maintained, manufacturer-approved or recommended sound abatement means on air intakes, combustion exhausts, heat dissipation vents, and the interior surfaces of engine hoods and power train enclosures.

- iii. Locate (to the extent practical) steady-state, continuously operating stationary construction equipment such as generators, pumps, and air compressors at least 150 feet from nearby NSLUs. If this screening distance cannot be achieved in the field, consider deployment of temporary noise walls or acoustical blankets/curtains that would block direct sound paths between the operating equipment and the receptor(s) of concern.
- iv. Position (to the extent practical) construction laydown and vehicle staging areas as far from NSLUs as feasible.
- v. Inform, whenever possible and preferably with at least a two week advanced notice, all neighboring NSLUs expected to be exposed to elevated noise levels that a construction project would commence.
- vi. Where NSLU are expected to be less than 100 feet away, schedule anticipated loud construction activities, which could involve impact-type equipment and processes such as pile driving, jackhammering, pavement breaking, compactors, etc., to not coincide with any finals week of classes and recognized holidays. Adjust hours or days of the construction activity to occur before or after these noise-sensitive periods of the UC San Diego academic year.

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## 6 REFERENCES

The primary sources of information for the project-level Addendum are the 2018 LRDP and its EIR, including all relevant technical studies and references noted in those documents, which are incorporated by reference herein. Additional project-specific information has been added to supplement the information in those primary references.

AECOM. 2018. Archaeological Resources Report for the 2018 UC San Diego Long Range Development Plan, San Diego County, California. Accessed September 2023. <https://plandesignbuild.ucsd.edu/planning/lrdp/la-jolla.html>.

ARG (Architectural Resources Group). 2018. Historic Resources Report for the 2018 UC San Diego Long Range Development Plan, San Diego County, California. October. Accessed September 2023. <https://plandesignbuild.ucsd.edu/planning/lrdp/la-jolla.html>.

BAAQMD (Bay Area Air Quality Management District). 2023. 2022 CEQA Guidelines. April 20. Accessed September 2023. <https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines>.

C2ES (Center for Climate and Energy Solutions). 2012. Natural Gas in Commercial Buildings. October.

Caltrans (California Department of Transportation). 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol. September. Accessed September 2023. <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf>.

CAPCOA (California Air Pollution Control Officers Association). 2022. California Emissions Estimator Model Version 2022.1 Users Guide. April. Accessed September 2023. [https://www.caleemod.com/documents/user-guide/01\\_User%20Guide.pdf](https://www.caleemod.com/documents/user-guide/01_User%20Guide.pdf).

CEC (California Energy Commission). 2023. New ZEV Sales in California. Accessed September 2023. <https://www.energy.ca.gov/data-reports/energy-almanac/zero-emission-vehicle-and-infrastructure-statistics/new-zev-sales>.

Electrek. 2023. "CA hits EV target ahead of schedule. It's not the first place to do so, and won't be the last." April 21. Accessed September 2023. <https://electrek.co/2023/04/21/ca-hits-ev-target-ahead-of-schedule-its-not-the-first-place-to-do-so-and-wont-be-the-last/>.

LSA (LSA Associates, Inc.). 2018. Greenhouse Gas Emissions Reduction Strategy – University of California, San Diego, Hillcrest Campus Long Range Development Plan EIR. June.

- Accessed September 2023. <https://plandesignbuild.ucsd.edu/planning/lrdp/la-jolla.html>.
- RWQCB (Regional Water Quality Control Board). 2021. Water Quality Control Plan for the San Diego Basin. Accessed September 2023.  
[https://www.waterboards.ca.gov/sandiego/water\\_issues/programs/basin\\_plan/](https://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/).
- UC San Diego (University of California, San Diego). 2018a. 2018 Long Range Development Plan La Jolla Campus University of California San Diego. Accessed September 2023.  
<https://plandesignbuild.ucsd.edu/planning/lrdp/la-jolla.html>.
- UC San Diego. 2018b. 2018 Long Range Development Plan La Jolla Campus University of California San Diego Final Environmental Impact Report (SCH No. 2016111019). November. Accessed September 2023.  
<https://plandesignbuild.ucsd.edu/planning/lrdp/la-jolla.html>.
- UC San Diego 2023. "SRP – Population & GSF Tables for LRDP Consistency Section." Email from Lauren Kahal Lievers (UC San Diego) to Kelsey Hawkins (Harris & Associates). July 5.
- Wexford Science + Technology. 2023. Personal communication via email from Joseph A. Reagan, Jr., Executive Vice President of Development, Wexford + Science and Technology, and Kelsey Hawkins, Project Manager, Harris and Associates, RE: USCD 5533 SRP – CEQA Tranche 2. April 5.



## **Appendix A. VMT Assessment**

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August 30, 2023

Diane Sandman  
Harris & Associates  
600 B Street, Suite #2000  
San Diego, CA 92101

LLG Reference: 3-23-3682

Subject: **5533 Science Research Park VMT Assessment**  
University of California, San Diego

Dear Diane:

Linscott, Law & Greenspan, Engineers (LLG) has prepared this transportation letter for the proposed Science Research Park, herein referred to as the Project. The purpose of this transportation letter is to summarize the results of the vehicle miles travelled (VMT) assessment for the Project. The following elements are included in this transportation letter:

- Project Description
- Vehicle Miles Traveled (VMT) Assessment
- Conclusion

**2018 UCSD LA JOLLA CAMPUS LONG RANGE DEVELOPMENT PLAN (LRDP)  
ENVIRONMENTAL IMPACT REPORT (EIR)**

The 2018 LRDP EIR utilized both vehicular Level of Service (LOS) and Vehicle Miles Traveled Methodology (VMT). The 2018 EIR transportation analysis assumed a total buildout of 1,115,019 gross square feet (GSF) of “Science Research” uses and 50,000 GSF of retail on the East Campus. Additionally, the transportation impact study explained that the main campuses, including East Campus, are fully within a Transit Priority Area which further supported the conclusion that VMT impacts were less than significant. (2018 LRDP EIR, Figure 3.14-4; CEQA Guidelines § 15064.3(b)(1).)

**PROJECT DESCRIPTION**

The approximately 14-acre Project site is located within the UC San Diego campus in the area bounded by Regents Road to the east, Miramar Street to the south and Health Sciences Drive/Future realigned Medical Center Drive to the north. The Project proposes 1,100,000 square feet of lab/office/retail space across three (3) buildings (15,000 sq. ft. of which is ancillary supporting retail). The Project also proposes two (2) parking structures and a surface parking lot containing 3,267 parking spaces. *Figure 1* shows the conceptual site plan.

**Engineers & Planners**

Traffic  
Transportation  
Parking

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### **VEHICLES MILES TRAVELED (VMT) ASSESSMENT**

In September 2013, the Governor's Office signed SB 743 into law, starting a process that fundamentally changes the way transportation impact analysis is conducted under CEQA. These changes include eliminating auto delay, level of service (LOS), and similar measurements of vehicular roadway capacity and traffic congestion as the basis for determining significant impacts. The justification for this paradigm shift is that Auto Delay/LOS impacts lead to improvements that increase roadway capacity and therefore induce more traffic and greenhouse gas emissions. The VMT standard for evaluating transportation impacts under CEQA became mandatory statewide on July 1, 2020.

VMT is defined as a measurement of miles traveled by vehicles within a specified region and for a specified time period. VMT is a measure of the use and efficiency of the transportation network. VMT is calculated based on individual vehicle trips generated and their associated trip lengths. VMT accounts for two-way (round trip) travel and is estimated for a typical weekday to measure transportation impacts.

According to the *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* published by the California Air Pollution Control Officers Association (CAPCOA), designing a project with increased density affects the trips and distances that people travel.

The UC San Diego Long Range Development Plan (LRDP) has analyzed 1,115,019 square feet (SF) of science research land use, 50,000 SF of retail, and 217,072 SF of outpatient/clinical uses. Since approval of the 2018 LRDP, UCSD has approved the 100,000 SF Viterbi Family Vision Research Center on the East Campus. As such, for the purposes of this VMT assessment, the baseline of 1,015,019 SF (1,115,019 SF – 100,000 SF = 1,015,019 SF) and the proposed 1,100,000 SF was utilized to estimate the densities (i.e., jobs/acre). By increasing a Project's density (i.e., the jobs per acre), the VMT is calculated to decrease by 6.2%. **Attachment A** details the calculations that demonstrate the effect of increasing the Project density on VMT.

### **CONCLUSION**

Based on the VMT assessment conducted for the Science Research Park and CAPCOA handbook, increasing a project's density reduces the VMT as it affects the trips and distances that people travel. Therefore, the Project would not have a VMT impact since the Project proposes to increase its density (i.e., increase the jobs per acre) beyond what was programmed in the LRDP. Please call if you have any questions.

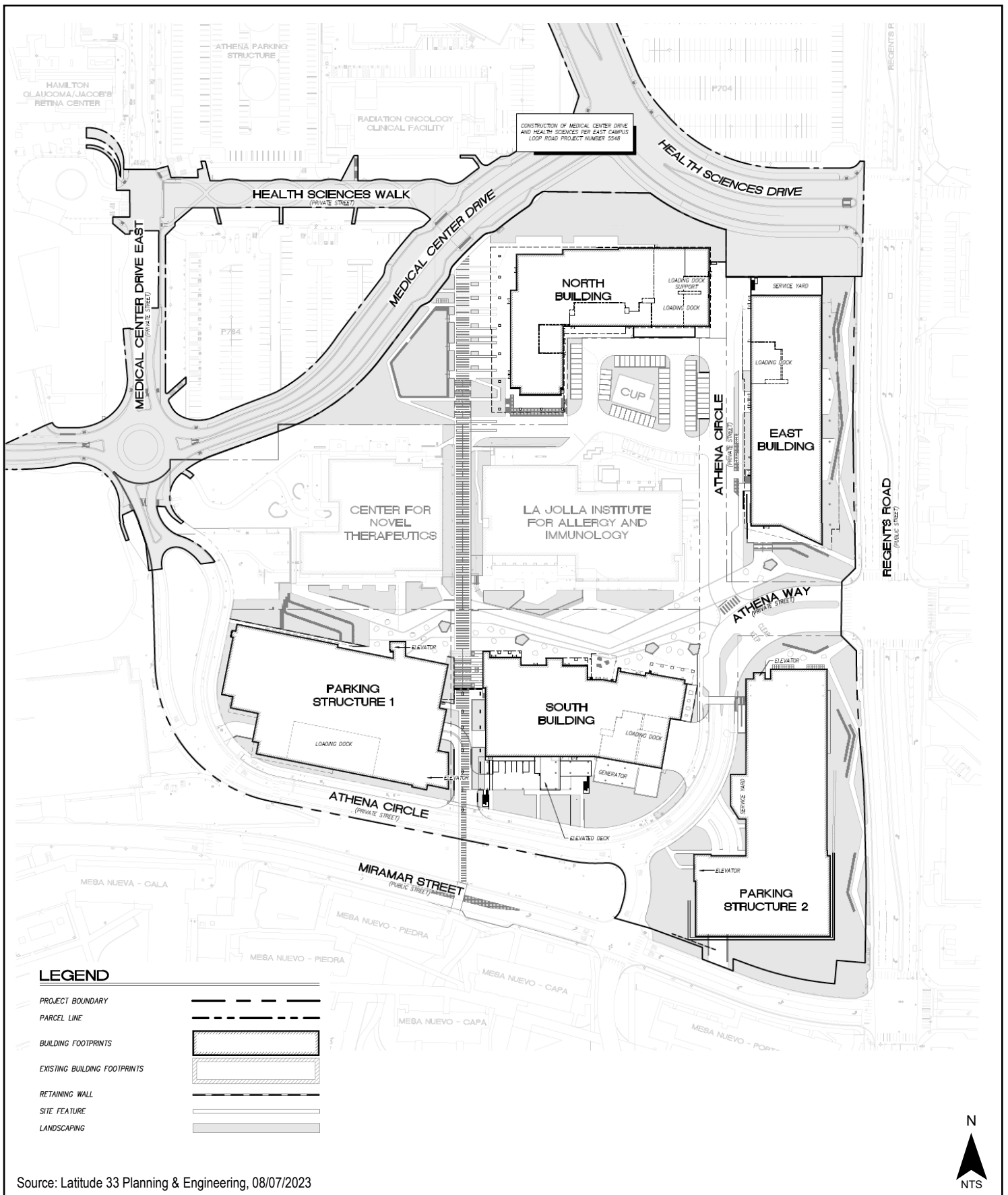
Sincerely,



K.C. Yellapu, PE, TE, PTOE  
Principal



Erika Carino, PE, RSP  
Transportation Engineer III



## ATTACHMENT A



***Project Level VMT Reduction Comparison***

Project Area	14 acres	(Source: Project Team)
East Campus Research Programmed	1,015,019 square feet	(Source: UCSD Staff 1,115,019-100,000)
Baseline	1,015,019 square feet	
Proposed	1,100,000 square feet	
Conversion	356.80 sf/employee	(Rate derived from the Applicant's building population estimates and square footage info)
Est. Baseline Employees	2,845 employees	(Estimated employees based on 1,015,019 SF)
Est. Proposed Employees	3,083 employees	(Applicant's Building Population Estimates)
Jobs per Acre_Baseline	203	
Jobs per Acre_Proposed	220	
VMT % Reduction_Baseline	64.1%	(Source: CAPCOA Equation)
VMT % Reduction_Proposed	70.1%	(Source: CAPCOA Equation)
VMT % Reduction	6.0%	(Proposed minus Baseline)
EMAILED BELOW		
Year 2035 VMT per Employee for LRDP	15.0 VMT per Employee	(Source: Long Range Development Plan)
Project VMT Assumed in LRDP	42,675.00 VMT	
Project VMT	46,245.00 VMT	
Project VMT with Reduction	43,493.42 VMT	



## **Appendix B. Air Quality Memorandum**

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# MEMORANDUM

**To:** Lauren Lievers, Senior Environmental Planner, University of California, San Diego  
**From:** Sharon Toland, Project Manager/Senior Technical Specialist, Harris & Associates  
**RE:** UC San Diego Science Research Park Expansion Project Air Quality Memorandum  
**Date:** September 5, 2023  
**CC:** Diane Sandman, Vice President, Environmental + Planning Consulting, and Kelsey Hawkins, Project Manager, Harris & Associates  
**Att:** 1, Model Outputs; 2, Generator Calculations

---

The Environmental Impact Report for the University of California, San Diego (UC San Diego), 2018 Long Range Development Plan (2018 LRDP) for the La Jolla Campus (2018 LRDP EIR) was certified in November 2018 (SCH No. 2016111019) (UC San Diego 2018). The 2018 LRDP EIR assumed that the East Campus would increase from 3,075,300 gross square feet (GSF) to 9,358,300 GSF at buildout (an increase of 6,283,000 GSF) (UC San Diego 2018, Table 2-3). The 2018 LRDP EIR also assumed the operation of 5,800 spaces in parking structures.

Following certification, the Science Research Park Expansion Project (project) proposes development in the East Campus area. The purpose of this memorandum is to compare development of the project to the 2018 LRDP to determine whether the potential impacts of the project are adequately addressed in the certified 2018 LRDP EIR. For each issue addressed in Section 3.2, Air Quality, of the 2018 LRDP EIR, the following analysis summarizes the air quality impacts of the 2018 LRDP, specifically in the East Campus area, if applicable, and provides a comparison to the potential impacts of the project.

## Project Description

The approximately 14-acre project site is located within the existing 22.6-acre Science Research Park on the East Campus bounded by Regents Road to the east, Miramar Street to the south, and Health Sciences Drive/future-realigned Medical Center Drive to the north. The project proposes to develop approximately 14 acres of existing surface parking with 1,100,000 square feet of laboratory/office space across three buildings ranging from 325,000 to 400,000 GSF each. Each building would include laboratory space, office space, and supporting retail and amenities. The project also includes construction of a small surface parking lot and two parking structures that would provide approximately 3,120 parking spaces. Surface parking would be provided for short-term parking, such as deliveries. The project would also realign Medical Center Drive in the northwest. Project design includes the following specific features to encourage the use of alternative transportation:

- Alternative transportation measures
  - 20 percent of total parking spaces would be electric vehicle ready (i.e., would contain the necessary electrical connections for charging stations), and the project would install Level II electric vehicle chargers at 25 percent of those spaces.
  - Short-term and long-term bicycle/micromobility storage would be provided for 132 bicycles or micromobility devices.
  - Long-term bicycle/micromobility storage would be secure and lockable.
  - Short-term bicycle/micromobility storage would include permanently anchored bicycle racks located within 200 feet of building entrances.



- A bicycle repair station would be provided on the ground floor of Parking Structure 1.
- The existing UC San Diego Blue Line trolley light-rail service UC San Diego Health La Jolla transit stop is approximately 0.3 mile from the entrance to new North Building.
- The existing UC San Diego Blue Line trolley light-rail service Executive Drive Station transit stop is approximately 0.5 mile from the entrances to new South and East Buildings.

## **Issue 1: Consistency with Applicable Air Quality Plan**

The applicable air quality plan for the San Diego County area is the Regional Air Quality Strategy (RAQS) developed and administered by San Diego County Air Pollution Control District with input from San Diego Association of Governments (SANDAG). The local RAQS, in combination with those from other California non-attainment areas, is submitted to California Air Resources Board, which developed the State Implementation Plan. Analysis under this issue was determined through the 2018 LRDP's consistency with population and employment growth assumptions in the RAQS and State Implementation Plan and consistency with any applicable measures in those plans.

### **Summary of 2018 Long Range Development Plan Environmental Impact Report Impacts**

Assumptions for land use development used in the RAQS are taken from local and regional planning documents. Emissions forecasts rely on projections of vehicle miles traveled (VMT) by the Metropolitan Planning Organizations, such as SANDAG, and population, employment, and land use projections made by local jurisdictions during development of the area and General Plans. The RAQS does not include assumptions for specific development on the UC San Diego campus. The 2018 LRDP land uses were determined to be generally consistent with the existing campus land use types. The 2018 LRDP EIR assumed that the East Campus would increase from 3,075,300 GSF to 9,358,300 GSF at buildout (an increase of 6,283,000 GSF) (UC San Diego 2018, Table 2-3). The 2018 LRDP EIR also assumed the operation of new parking structures.

Since the 2018 LRDP incorporated strategies identified in the SANDAG Regional Transportation Plan and Sustainable Communities Strategy by integrating land use, housing, and transportation planning, the 2018 LRDP was deemed consistent with the goals developed by SANDAG. In addition, implementation of the 2018 LRDP would result in lower VMT per capita and per employee than the San Diego regional averages. Because implementation of the 2018 LRDP would be consistent with the Smart Growth vision for the region and would result in less VMT than the regional average, implementation of the 2018 LRDP would not conflict with or obstruct implementation of the applicable air quality plan, and impacts were concluded to be less than significant and within the scope of the prior 2018 LRDP EIR analysis.

### **Science Research Park Expansion Project Consistency Evaluation**

The project is consistent with the 2018 LRDP land use designation of "science research" and does not propose to change land use types. As described previously, the RAQS emissions assumptions do not include specific land use assumptions for the campus. The project proposes to develop approximately 14 acres of existing surface parking with 1,100,000 square feet of laboratory/office space and 3,210 structured parking spaces within a Transit Priority Area. These uses are consistent with the assumptions from the 2018 LRDP EIR. As discussed in the VMT Assessment prepared by LLG (2023a), the project would result in a 6.2 percent decrease in VMT per employee compared to what was analyzed for the site in the 2018 LRDP. Additionally, consistent with the 2018 LRDP analysis, the VMT per capita would be lower than the San Diego regional average. Additionally, the project would implement the applicable SANDAG Regional Transportation Plan strategies identified for the 2018 LRDP, including increased pedestrian and bicycle mobility, improved transit accessibility, Transportation Demand Management strategies, and site improvements that support local and regional projects. As described previously, the project would include new bicycle, pedestrian, and micromobility facilities and would be a walkable distance to transit facilities, including two light rail transit stations. Therefore, the project would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects regarding consistency with an applicable air quality plan.



## Issues 2: Compliance with Air Quality Standards

UC San Diego uses screening level thresholds adopted by the City of San Diego to evaluate whether a violation would potentially occur. The applicable screening level thresholds are shown in Table 1, Applicable Regional Pollutant Emissions Screening Level Thresholds of Significance (pounds/day).

**Table 1. Applicable Regional Pollutant Emissions Screening Level Thresholds of Significance (pounds/day)**

VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	Lead
137	250	550	250	100	55	3.2

Source: UC San Diego 2018.

Notes: NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = particulate matter less than 10 microns; PM<sub>2.5</sub> = particulate matter less than 2.5 microns; SO<sub>2</sub> = sulfur dioxide; VOC = volatile organic compound

VOC threshold based on levels per the South Coast Air Quality Management District (SCAQMD) and the Monterey Bay Air Pollution Control District, which have similar federal and state attainment statuses as the City of San Diego. PM<sub>2.5</sub> threshold is from the SCAQMD.

## Summary of 2018 Long Range Development Plan Environmental Impact Report Impacts

The 2018 LRDP EIR evaluated impacts related to project construction, operation, and simultaneous construction and operation. These scenarios are summarized separately below.

### Construction

Construction emissions for the 2018 LRDP were calculated using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2, for two construction scenarios, the 2025 Scenario (2018 through 2025) and the 2035 Scenario (2025 through 2035). The project would not be operational before 2025; therefore, the 2035 Scenario is applicable to the project and summarized here. Construction emissions from implementation of the 2018 LRDP were evaluated assuming construction-generated emissions associated with the buildout of a plan should be evaluated assuming 25 percent of the total land uses would be constructed in a single year (i.e., 25 percent of 8.9 million GSF) (UC San Diego 2018, Appendix B, p. 27.). Construction emissions were estimated separately for the West Campus, East Campus, and Scripps Institution of Oceanography. However, since construction activities could occur at all three areas of campus at the same time, emissions from each location were combined to estimate maximum daily construction emissions across the whole campus and then compared to the thresholds of significance. Maximum daily construction emissions from implementation of the 2018 LRDP are shown in Table 2, 2018 LRDP Maximum Daily Construction Emissions (pounds/day). The previous analysis was conservative because exhaust emissions from the construction equipment fleet are expected to decrease over time as stricter standards take effect and as older, less efficient construction equipment is retired. As shown in Table 2, the 2018 LRDP EIR's construction-generated emissions of NO<sub>x</sub>, particulate matter less than 10 microns (PM<sub>10</sub>), and particulate matter less than 2.5 micron (PM<sub>2.5</sub>) would exceed applicable daily thresholds established by the City of San Diego, and impacts were determined to be potentially significant.

**Table 2. 2018 LRDP Maximum Daily Construction Emissions (pounds/day)**

	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Maximum Daily Construction Emissions (Year 2035 Scenario)	81.33	297.44	315.01	0.73	106.24	55.6
Thresholds of Significance	137	250	550	250	100	55
Significant?	No	Yes	No	No	Yes	Yes

Source: UC San Diego 2018.

Notes: NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = particulate matter less than 10 microns; PM<sub>2.5</sub> = particulate matter less than 2.5 microns; SO<sub>2</sub> = sulfur dioxide; VOC = volatile organic compound

### Operation

Operational emissions were estimated for future years 2025 and 2035 under the 2018 LRDP and were compared to existing conditions to determine the net increase in emissions that would result from 2018 LRDP implementation. As described above, the Year 2035 Scenario is the applicable scenario for the project. Operational

emissions were also modeled using CalEEMod, Version 2016.3.2, and included area sources such as use of consumer products, parking lot degreasers, fertilizers/pesticides, and cleaning supplies; mobile sources including commute trips by students, faculty, and staff, as well as vehicle trips within the campus from UC San Diego's vehicle fleet; and stationary sources from additional emergency generators, research laboratory operations, Biomedical Science Building crematory, and the Environmental Management Facility. The net change in emissions that would occur under the Year 2035 Scenario is summarized in Table 3, 2018 LRDP 2035 Scenario Operational Emissions (pounds/day). Some pollutants were anticipated to decrease compared to existing conditions even though substantial growth would occur due to federal and state regulations related to advancements in engine technology and fleet turnover that would reduce mobile (vehicle) emissions over time. As shown in Table 3, the 2018 LRDP was determined to result in a potentially significant operational impact related to PM<sub>10</sub> emissions.

**Table 3. 2018 LRDP 2035 Scenario Operational Emissions (pounds/day)**

	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Total Daily Operation Emissions</b>	<b>265.17</b>	<b>746.24</b>	<b>1,890.11</b>	<b>30.46</b>	<b>849.59</b>	<b>293.35</b>
<b>Total Existing Emissions</b>	<b>330.80</b>	<b>1,378.14</b>	<b>3,817.39</b>	<b>32.39</b>	<b>713.79</b>	<b>246.10</b>
Net Change	-65.62	-631.90	-1,927.28	-1.93	135.8	47.26
Thresholds of Significance	137	250	550	250	100	55
Significant?	No	No	No	No	<b>Yes</b>	No

**Source:** UC San Diego 2018.

**Notes:** NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = particulate matter less than 10 microns; PM<sub>2.5</sub> = particulate matter less than 2.5 microns; SO<sub>2</sub> = sulfur dioxide; VOC = volatile organic compound

### **Simultaneous Construction and Operation**

Construction and operational emissions were assumed to overlap as projects under the 2018 LRDP become operational while other projects are under construction. This scenario included maximum construction emissions from the Year 2035 Scenario and Year 2025 operational emissions and was determined to be the worst-case scenario. Net operational emissions including overlapping construction and operational emissions are shown in Table 4, 2018 LRDP Maximum Daily Overlapping Unmitigated Construction and Operational Emissions (pounds/day). As shown in Table 4, simultaneous construction and operation was determined to result in a significant impact from PM<sub>10</sub> and PM<sub>2.5</sub> emissions.

**Table 4. 2018 LRDP Maximum Daily Overlapping Unmitigated Construction and Operational Emissions (pounds/day)**

Emissions Source	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Maximum Daily Construction Emissions	81.33	297.44	315.01	0.73	106.24	55.60
2025 Net Operational Emissions	-2.71	-595.89	-1,379.64	-1.67	23.23	4.49
Overlapping Emissions	78.62	-298.45	-1,064.63	-0.94	129.46	60.09
Thresholds of Significance	137	250	550	250	100	55
Significant?	No	No	No	No	<b>Yes</b>	<b>Yes</b>

**Source:** UC San Diego 2018.

**Notes:** NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = particulate matter less than 10 microns; PM<sub>2.5</sub> = particulate matter less than 2.5 microns; SO<sub>2</sub> = sulfur dioxide; VOC = volatile organic compound

### **Summary**

The 2018 LRDP EIR identified significant impacts under the construction, operation, and simultaneous construction and operation scenarios. The emissions threshold was exceeded for NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> under construction; PM<sub>10</sub> under operation; and PM<sub>10</sub> and PM<sub>2.5</sub> under simultaneous construction and operation scenarios. Mitigation

Measures AQ-2A and AQ-2B were identified to mitigate construction emissions and overlapping construction and operational emissions. However, it was determined that Mitigation Measure AQ-2B could not be guaranteed to be implemented in full due to limited availability of labor and equipment, and construction impacts and simultaneous construction and operation impacts were determined to be significant and unavoidable. Therefore, impacts in the 2018 LRDP EIR were assumed to be significant and unavoidable.

Regarding operation, the 2018 LRDP EIR determined that no feasible mitigation measures were available to mitigate PM<sub>10</sub> impacts from mobile sources emissions. The 2018 LRDP EIR found that implementation of campus sustainability efforts would reduce VMT, specifically Transportation Demand Management efforts and access to transit service. Reducing vehicle use would reduce associated PM<sub>10</sub> emissions from brake and tire wear sources, but UC San Diego could not demonstrate with certainty that emissions would be reduced to below the significance threshold. Therefore, impacts from all three scenarios (construction, operation, and simultaneous construction and operation) were determined to be significant and unavoidable.

**AQ-2A: Implement Measures to Control PM Emissions Generated by Construction Activities.** UC San Diego shall require by contract specification that contractors implement the following measures during all phases of construction of individual projects developed under the proposed 2018 LRDP:

- Water the grading areas a minimum of twice daily to minimize fugitive dust;
- Stabilize graded areas as quickly as possible to minimize fugitive dust;
- Apply chemical stabilizer or pave the last 100 feet of internal travel path within the construction site prior to public road entry;
- Install wheel washers adjacent to a paved apron prior to vehicle entry on public roads;
- Remove any visible track-out into traveled public streets via regular street sweeping;
- Wet wash the construction access point at the end of each workday if any vehicle travel on unpaved surfaces has occurred;
- Provide sufficient perimeter erosion control to prevent washout of silty material onto public roads;
- Cover haul trucks or maintain at least 12 inches of freeboard to reduce blow-off during hauling;
- Suspend all soil disturbance and travel on unpaved surfaces if winds exceed 25 mph [miles per hour];
- Cover/water onsite stockpiles of excavated material;
- Enforce a 15-mph speed limit on unpaved surfaces;
- On dry days, dirt and debris spilled onto paved surfaces shall be swept up immediately to reduce re-suspension of particulate matter caused by vehicle movement. Approach routes to construction sites shall be cleaned daily of construction-related dirt in dry weather;
- Disturbed areas shall be hydroseeded, landscaped, or developed as quickly as possible to reduce dust generation; and
- Limit the daily grading volumes/area, to extent feasible.

**AQ-2B: Minimize Off-Road Construction Equipment Emissions.** UC San Diego shall require by contract specification that the construction contractor use off-road construction diesel engines that meet, at a minimum, the Tier 4 interim California Emissions Standards, unless such an engine is not available for a particular item of equipment. Tier 3 engines will be allowed on a project-by-project basis when the contractor has documented that no Tier 4 interim equipment or emissions equivalent retrofit equipment is available or feasible for the project.

## Science Research Park Expansion Project Consistency Evaluation

Construction and operational emissions associated with the project are addressed separately below.

### Construction

Emissions from construction of the project were estimated using CalEEMod, Version 2022.1.1.13, based on construction schedule and material movement estimates provided by the developer (Attachment 1, Model Outputs). The overall construction schedule is split into four phases (1A, 1B, 2A, and 2B). To represent a worst-

case construction emissions estimate, this analysis assumed that the project would be constructed in five separate construction cycles (including demolition, grading, building construction, paving, and interior construction per cycle), one for each of the three buildings and two parking structures, with other site and landscape improvements incorporated into these phases. Each building and parking structure would include demolition of existing asphalt surfaces, grading, building foundation and structure construction, internal shell construction and architectural coating, and pavement and hardscape installation. For the purposes of modeling, the total working days for each construction activity represent the sum of the working days estimated for that activity for each of the five construction phases, including surface parking. This is conservative because it assumed a complete construction fleet would be on site for each construction activity for each phase. However, phases may overlap, in which case some of the equipment fleet and workers would work on more than one phase on the same day. Additionally, modeling is conservative because it assumes the default average engine tier for construction equipment. In reality, the project would be subject to Mitigation Measure AQ-2B, which requires the use of equipment meeting Tier 4 Interim emissions standards. The default average fleet emissions factors assumed for project modeling were compared to the CalEEMod Tier 4 Interim emissions factors for two of the most common pieces of equipment anticipated for the project (dozers and loaders/backhoes) (CAPCOA 2022). Emissions factor assumptions show that, depending on the construction year, NO<sub>x</sub> emissions may be reduced approximately 25 to 35 percent compared to the emissions calculated for the project, as the construction equipment fleet becomes more efficient as older tier equipment is phased out. PM<sub>10</sub> and PM<sub>2.5</sub> emissions are estimated to be reduced 75 to 90 percent compared to default average fleet emissions. The proposed project would meet the requirements of MM AQ-2B, meaning the majority, if not entirety, of the construction fleet would comprise of Tier 4 Interim engines, with the exception that a limited number of Tier 3 equipment could be necessary on a case-by-case basis (such as if specialized equipment is not available locally with a Tier 4 engine), consistent with the discussion in the 2018 LRDP EIR. Because the number of necessary exceptions to meeting a Tier 4 fleet is subject to change throughout the life of construction, emissions reductions for implementing the measure could not be accurately estimated at this time and a worst-case scenario in terms of equipment fleet was evaluated.

Modeling assumed a worst-case material movement of 110,700 cubic yard of soil export and 114,700 cubic yards of soil import. Based on assumptions from projects with similar conditions, modeling assumed that 50 percent of exported soil would require disposal at a facility 250 miles from the project site, and best management practices would include watering exposed surfaces twice daily. Modeling defaults were assumed for worker and vendor trips except interior construction and coating vendor trips. Modeling assumed 20 percent of building construction vendor trips for internal construction, consistent with the default assumption of architectural coating worker trips.

Construction assumptions are summarized in Table 5, Science Research Park Expansion Project Construction Assumptions. Estimated worst-case daily construction emissions are shown in Table 6, Estimated Construction Daily Maximum Air Pollutant Emissions for the Science Research Park Expansion Project (pounds/day).

**Table 5. Science Research Park Expansion Project Construction Assumptions**

Construction Activity	Total Working Days	Total Material Movement	Worker Trips per Day	Vendor Trips per Day
Demolition	180	5,095 tons	15	—
Grading	280	110,700 cubic yards of export/ 114,700 cubic yards of import	20	—
Building Construction	1,300	—	853	376
Paving	585	—	15	—
Interior Construction and Architectural Coating	600	—	171	76

Source: Attachment 1.

**Table 6. Estimated Construction Daily Maximum Air Pollutant Emissions for the Science Research Park Expansion Project (pounds/day)**

Construction Phase	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Demolition	2.69	25.79	22.75	0.03	1.98	1.15
Grading	4.0	67.5	41.61	0.23	12.91	3.8
Building Construction	5.15	27.27	61.4	0.08	10.25	2.94
Paving	0.89	7.5	10.67	0.01	0.48	0.35
Interior Construction and Architectural Coating	10.14	9.66	15.84	0.03	2.16	0.69
Maximum Daily Emissions (Individual Phases)	10.14	67.5	61.4	0.23	12.91	3.8
Maximum Daily Emissions Overlap	20.28	135	122.8	0.46	25.82	7.6
2018 LRDP EIR	119.78	520.84	363.82	0.74	109.08	61.02
Thresholds of Significance	137	250	550	250	100	100
Significant or Beyond the Scope of the 2018 LRDP EIR?	No	No	No	No	No	No

**Source:** Attachment 1.

**Notes:** Worst-case scenario for VOC emissions would occur during simultaneous interior construction, would occur during building construction for CO emissions, and would occur during simultaneous grading phases for the remaining pollutants. CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = particulate matter less than 10 microns; PM<sub>2.5</sub> = particulate matter less than 2.5 microns; SO<sub>2</sub> = sulfur dioxide; VOC = volatile organic compound

Emissions are summarized by construction activity in Table 6. As shown, the project would not exceed the City of San Diego thresholds shown in Table 1 for any pollutant, and would not exceed the 2018 LRDP's assumptions. Therefore, the project would individually have a less than significant construction emissions impact. However, as with the 2018 LRDP, because construction could take place simultaneously with other campus construction, 2018 LRDP EIR Mitigation Measures AQ-2A and AQ-2B would still be implemented for the project, as required by the 2018 LRDP EIR. The project would be within the scope of overall development assumed in the 2018 LRDP EIR. Furthermore, since that analysis was prepared, the vehicular construction fleet has become more efficient as older tier construction equipment has been retired. The project would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects regarding emissions during construction.

### **Operation**

The project proposes development generally consistent with the development assumptions for the East Campus in the 2018 LRDP EIR. Maximum daily operational emissions were also modeled using CalEEMod, Version 2022.1.1.13. Daily VMT was provided by LLG (2023b). Annual VMT was calculated based on an average 260 working days per year. Modeling accounts for access to transit and bicycle infrastructure and proposed bicycle facilities. The buildings would be all-electric except for kitchens in the retail space and specialized laboratory equipment. Cooking accounts for approximately 6 percent of typical commercial natural gas use; therefore, 6 percent of the default calculated that natural gas was assumed (C2ES 2012). Emissions from proposed generators were calculated using the emissions factors from the 2018 LRDP EIR and usage assumptions and equipment specifications from the developer. A total of 15 generators were assumed to be tested for 30 minutes monthly. These include one emergency diesel generator for each of the three buildings, as required by the California Building Code for safety lighting and ingress/egress during emergency power outages, plus 12 smaller tenant-owned and operated generators to provide power to sensitive research equipment during emergency power outages. Maximum daily project operational emissions are provided in Table 7, Operational Daily Maximum Air Pollutant Emissions for the Science Research Park Expansion

Project. As shown in Table 7, the proposed project would not exceed the operational daily maximum significance threshold for any pollutant.

**Table 7. Operational Daily Maximum Air Pollutant Emissions for the  
Science Research Park Expansion Project**

Emissions Source	Maximum Daily Emissions (pounds/day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Mobile	35.3	14.9	154	0.32	11.6	2.22
Area	41.4	0.84	99.8	0.01	0.13	0.18
Energy	0.03	0.57	0.48	<0.01	0.04	0.04
Stationary (generators)	0.28	21.37	1.09	0	0.45	0.45
<b>Total Operational Emissions</b>	<b>77.01</b>	<b>37.68</b>	<b>255.37</b>	<b>0.33</b>	<b>12.22</b>	<b>2.89</b>
<b>2018 LRDP Buildout Emissions</b>	<b>265.17</b>	<b>746.24</b>	<b>1,890.11</b>	<b>30.46</b>	<b>849.59</b>	<b>293.35</b>
Thresholds of Significance	137	250	550	250	100	55
Significant or Beyond the Scope of the 2018 LRDP EIR?	No	No	No	No	No	No

**Sources:** Attachments 1 and 2.

**Notes:** Worst-case scenario for VOC emissions would occur during simultaneous interior construction, would occur during building construction for CO emissions, and would occur during simultaneous grading phases for the remaining pollutants. CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = particulate matter less than 10 microns; PM<sub>2.5</sub> = particulate matter less than 2.5 microns; SO<sub>2</sub> = sulfur dioxide; VOC = volatile organic compound

As discussed, the project would be within the scope of overall development assumed in the 2018 LRDP EIR. Furthermore, since the 2018 LRDP EIR analysis was prepared, the vehicular fleet has become more efficient as older passenger and light duty vehicles are retired and replaced with modern more fuel efficient fossil fuel powered vehicles and electric vehicles. The current CAFE standards for model years 2024-2026 require new passenger and light duty vehicles sold in the US to average at least 40 miles per gallon (mpg). This is nearly 43 percent increase from the previous standard of approximately 28 mpg. Current proposals are seeking to increase this to 49 mpg after 2026. Furthermore, the rate of electric vehicle adoption rate is occurring faster than anticipated in 2018. California has reached 1.5 million electric vehicle sales 2 years ahead of its planned 2025 target for the sales milestone (CEC 2023). At this time, approximately 21 percent of new car sales in California are electric vehicles (Electrek).

### **Simultaneous Construction and Operation**

Project emissions would not exceed applicable screening levels thresholds for construction or operation (refer to Tables 6 and 7) and would not exceed the 2018 LRDP's assumptions. Additionally, construction and operational emissions from project and other campus construction are anticipated to be reduced compared to 2018 LRDP modeling due to more stringent emissions standards and retirement of older vehicles.

Therefore, the project would not result in substantial changes from the previous analysis, and the project would individually have a less than significant emissions impact. Consistent with the 2018 LRDP EIR, it is assumed that emissions from campus-wide simultaneous construction and operation cannot be fully mitigated, and significant and unavoidable impacts related to construction, operation, and simultaneous construction and operation would continue to occur with project implementation. 2018 LRDP EIR MMs AQ-2A and AQ-2B would be implemented for the project. The project would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects regarding simultaneous construction and operational emissions.



## Issues 3: Cumulative Increases in Criteria Pollutant Emissions

### Summary of 2018 Long Range Development Plan Environmental Impact Report Impacts

As discussed in Issue 2, the 2018 LRDP EIR determined that the net increase in emissions over existing conditions would result in the generation of criteria air pollutant emissions that exceed the thresholds for construction and operational activities. Projects that would not exceed the thresholds of significance would not contribute a considerable amount of criteria air pollutant emissions to the region's emissions profile and would not impede attainment and maintenance of ambient air quality standards. However, because implementation of the 2018 LRDP would exceed the project-level air quality significance thresholds for PM<sub>10</sub> in the 2035 Scenario, a criteria pollutant for which the project region is in non-attainment, long-term operational emissions associated with implementation of the 2018 LRDP would be cumulatively considerable. In addition, as shown in Issue 2, construction activities could also violate the NO<sub>x</sub> air quality significance threshold even with mitigation because, at the time of 2018 LRDP EIR preparation, UC San Diego determined that it would not be able to implement Mitigation Measure AQ-2B in full due to the San Diego region currently experiencing an extremely competitive construction market with limited labor and equipment resources.

Because implementation of the 2018 LRDP would exceed the project-level air quality significance threshold for PM<sub>10</sub> and NO<sub>x</sub> emissions, construction and operational emissions associated with the 2018 LRDP would be cumulatively considerable. Beyond the implementation of Mitigation Measures AQ-2A and AQ-2B, no feasible mitigation measures were determined to exist to reduce the project's cumulatively significant impact to regional air quality. Therefore, impacts related to a cumulatively considerable net increase of criteria pollutants were determined to be significant and unavoidable.

### Science Research Park Expansion Project Consistency Evaluation

As demonstrated in Tables 6 and 7, the project would not result in the generation of criteria air pollutant emissions that would exceed the thresholds for construction or operation. Therefore, the project would not result in a new potential violation. However, the project would be part of cumulative campus development, including the potential for construction of the project to overlap with construction elsewhere on campus. Mitigation Measures AQ-2A and AQ-2B would continue to be required. Therefore, the project would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects related to cumulative increases in emissions.

## Issue 4: Carbon Monoxide Hotspots

The City of San Diego has developed screening thresholds to analyze the potential impacts to the localized effect of CO, which the University has elected to use for its threshold of significance, per Section 3.2.3.2 of the 2018 LRDP EIR. Based on this screening threshold, a proposed project could cause a potential localized significant air quality impact if a potential development causes a four- or six-lane road to deteriorate to level of service E or worse. Additionally, the 2018 LRDP was compared to screening criteria related to traffic volumes from the Bay Area Air Quality Management District (BAAQMD) and SCAQMD to determine potential impacts.

### Summary of 2018 Long Range Development Plan Environmental Impact Report Impacts

The potential for the 2018 LRDP to generate a CO hotspot was analyzed at the worst-case intersection of La Jolla Scenic Drive and La Jolla Village Drive with a maximum combined volume of 78,700 vehicles per day in 2035. The peak-hour volume at any point during the day is typically 10 percent of the daily volume, which would not exceed the BAAQMD CEQA Guidelines screening threshold of 44,000 vehicles per hour or SCAQMD screening threshold of more than 31,600 vehicles per hour (BAAQMD 2023). Although the BAAQMD and SCAQMD screening analysis indicates that the 2018 LRDP would not result in a CO hotspot, the analysis conservatively modeled CO concentrations at the worst-case intersection of La Jolla Scenic Drive and La Jolla Village Drive for the 2018 LRDP future (2035) conditions using CALINE4. This intersection would have a traffic volume of 6,412 during the AM peak hours in Year 2035 with 2018 LRDP implementation. The results showed that 2018 LRDP future traffic conditions would not result in or contribute to any exceedances of the 1-hour or 8-hour CO standards during the AM peak



periods, even considering conservative assumptions, as shown in Table 8, 2018 LRDP EIR Carbon Monoxide Concentrations. Therefore, no localized CO impacts would occur, and impacts would be less than significant.

**Table 8. 2018 LRDP EIR Carbon Monoxide Concentrations**

Intersection	Period	1-Hour CO Concentration (ppm)	8-Hour CO Concentration (ppm)
La Jolla Village Drive/La Jolla Scenic Drive	AM	6.5	5.2
Federal CO standards		35	9
State CO standards		20	9
Exceed Federal/State Standards		No	No

**Source:** UC San Diego 2018.

**Notes:** CO = carbon monoxide; ppm = parts per million

## Science Research Park Expansion Project Consistency Evaluation

While the project is still under the overall development allowed in the East Campus by the 2018 LRDP, it would put slightly more density than expected specifically in the Science Research Park neighborhood. The project would result in an incremental increase in vehicle trips associated with the approximately 238 additional employees anticipated as a result of the increased density at this site compared to the 2018 LRDP (LLG 2023a). Even if all employees commuted to the site using this intersection during the AM peak hour, these additional employees would result in an approximately 4 percent increase in intersection volume. As shown in Table 8, congestion as a result of buildout under the 2018 LRDP would be well below CO standards. As such, this small increase in additional trips would not result in additional congestion that would significantly increase CO exposure. Additionally, as a result of improvements in technology and vehicle emissions standards, CO emissions factors are also projected to decrease in future years. These improvements would also reduce the concentration of CO emissions from the project. Therefore, the project would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects regarding CO hotspots.

## Issue 5: Toxic Air Contaminant Emissions

Based on San Diego County Air Pollution Control District Rule 1200, implementation of the 2018 LRDP may have a significant impact if implementation of the 2018 LRDP would expose sensitive receptors to toxic air contaminant (TAC) emissions that (1) result in a cancer risk greater than 10 cancer cases per 1 million people exposed in a lifetime, or (2) for acute or chronic effects, result in concentrations of TAC emissions with a hazard index of 1 or greater.

### Summary of 2018 Long Range Development Plan Environmental Impact Report Impacts

The evaluation of health risks from the impact of TAC emissions, represented by PM<sub>2.5</sub> emissions from implementation of the 2018 LRDP, was performed for (1) construction activities and their effects on nearby receptors and (2) the exposure to TACs for receptors from mobile sources and on-campus stationary sources, such as emergency generators, boilers, turbines, and the crematory. Because the construction and operational sources would emit at the same time, excess lifetime cancer risks were estimated for both construction and operational emissions associated with the implementation of the 2018 LRDP. The greatest potential for TAC emissions resulting from 2018 LRDP construction would originate from diesel PM emissions associated with heavy equipment operations. A Health Risk Assessment was conducted for the different types of receptors, including off-campus and on-campus residents, off-campus and on-campus workers, and sensitive receptors, which include schools, daycare facilities, clinics, and hospitals.

During the Years 2018 through 2035, cancer risk associated with implementation of the 2018 LRDP (construction, traffic, and new stationary sources) was estimated separately from the cancer risk associated with the existing operations to calculate a net change to compare to the threshold (10 in 1 million). Implementation of the 2018 LRDP would not exceed the threshold for on-campus residents and workers but would exceed the thresholds for off-campus residents and workers and off-campus and on-campus sensitive receptors. Impacts were primarily

attributable to construction emissions and operational mobile source emissions. Thus, the 2018 LRDP was determined to have the potential to expose sensitive receptors to TAC emissions.

Implementation of Mitigation Measure AQ-2B, which would require the use Tier 4 Interim construction equipment, would be required to reduce the construction-related health risk associated with implementation of the 2018 LRDP. However, the extent to which Mitigation Measure AQ-2B would be implemented may vary, and it is unlikely that UC San Diego would be able to meet Mitigation Measure AQ-2B in full on all projects. Even with full implementation of Mitigation Measure AQ-2B, the potential would exist that a significant TAC impact would still occur at numerous receptors because impacts would be largely attributable to mobile source emissions and, to a lesser extent, construction activities in proximity to the receptor locations. Therefore, impacts were determined to be significant and unavoidable.

### Science Research Park Expansion Project Consistency Evaluation

The project would also result in TAC emissions from construction, mobile sources, and on-site campus stationary sources, such as generators. The project would construct similar office/laboratory space to what was assumed in the 2018 LRDP EIR. The project proposes a total up to 15 diesel generators, which are anticipated to be tested for 30 minutes monthly. The 2018 LRDP EIR assumed that on-site generators would run approximately 20 minutes per day over 365 days, which is a much higher usage than is required and higher than the project plans to use. Maximum daily generator emissions are compared in Table 9, Generator Emissions Comparison. As shown in Table 9, the project would result in a negligible (less than 0.5 pound/day) increase in maximum daily PM<sub>10</sub> and PM<sub>2.5</sub> emissions, the pollutants of concern for the Health Risk Assessment. Additionally, emissions are anticipated to occur only 12 days per year as required for testing, compared to daily under the 2018 LRDP EIR (Wexford Science + Technology 2023). As shown in Table 9, total annual particulate matter emissions would decrease compared to 2018 LRDP EIR emissions due to the reduced run time. Due to similar proposed lab space and reduced generator emissions, operational TAC emissions from the site would be reduced compared to those evaluated for the site in 2018 LRDP EIR.

**Table 9. Generator Emissions Comparison**

Emissions Source	Generator Run Time	PM <sub>10</sub>		PM <sub>2.5</sub>	
		Maximum Daily (pounds/day)	Annual (tons/year)	Maximum Daily (pounds/day)	Annual (tons/year)
2018 LRDP Generator Emissions Assumed for Project Site	20 minutes per day, every day	0.07	23.79	0.07	23.79
Proposed Project Generator Emissions	30 minutes on a given day, 12 total days per year	0.45	5.37	0.45	5.37

**Source:** Attachment 2.

**Notes:** PM<sub>10</sub> = particulate matter less than 10 microns; PM<sub>2.5</sub> = particulate matter less than 2.5 microns

As shown in Tables 6 and 7, the project would not result in new emissions from construction or mobile source emissions from operation that would result in a substantial increase in emissions compared to the 2018 LRDP. As described previously, actual project operational emissions are not anticipated to result in any increase compared to calculated emissions for the 2018 LRDP. Consistent with 2018 LRDP implementation, further transportation programs and greenhouse gas emissions reduction strategies are identified for the UC San Diego campus per the Sustainable Transportation goals for the UC Sustainable Practices Policy, mobile source emissions are anticipated to decrease from current levels estimated for the project. In addition, the project includes several project design features to reduce mobile emissions, specifically related to alternative transportation including providing new electric vehicle infrastructure and bicycle storage and is located less than 0.3 mile from the nearest light-rail transit stop (UC San Diego Health La Jolla transit stop). Mitigation Measures AQ-2A and AQ-2B would continue to be required to reduce the construction-related health risk. The project would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects regarding TAC emissions.



## Summary of Air Quality Impacts

Impacts related to air quality from construction and operation of the project would be similar to those identified in the 2018 LRDP EIR. The project would not result in additional emissions, CO hotspots, or TAC emissions that were not previously addressed, and no new significant impacts would occur compared to those in the 2018 LRDP EIR. Therefore, the project would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects related to air quality.

## References

- BAAQMD (Bay Area Air Quality Management District). 2023. 2022 CEQA Guidelines. April 20.
- C2ES (Center for Climate and Energy Solutions). 2012. Natural Gas in Commercial Buildings. October.
- CEC (California Energy Commission). 2023. New ZEV Sales in California. Accessed September 2023. <https://www.energy.ca.gov/data-reports/energy-almanac/zero-emission-vehicle-and-infrastructure-statistics/new-zev-sales>.
- CAPCOA (California Air Pollution Control Officers Association). 2022. California Emissions Estimator Model Version 2022.1 Users Guide. April.
- Electrek. 2023. "CA hits EV target ahead of schedule. It's not the first place to do so, and won't be the last." April 21. Accessed September 2023. <https://electrek.co/2023/04/21/ca-hits-ev-target-ahead-of-schedule-its-not-the-first-place-to-do-so-and-wont-be-the-last/>
- LLG (Linscott, Law & Greenspan, Engineers). 2023a. VMT Assessment.
- LLG. 2023b. "RE: SRP." Email with Harris & Associates. May 11.
- UC San Diego (University of California, San Diego). 2018. 2018 Long Range Development Plan La Jolla Campus University of California San Diego Final Environmental Impact Report (SCH No. 2016111019). November.
- Wexford Science + Technology. 2023. Personal communication via email from Joseph A. Reagan, Jr., Executive Vice President of Development, Wexford + Science and Technology, and Kelsey Hawkins, Project Manager, Harris and Associates, RE: USCD 5533 SRP – CEQA Tranche 2. April 5.

## **Attachment 1. Model Outputs**

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# UC San Diego Science Research Park Detailed Report

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5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

5.18.2.2. Mitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data



# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	UC San Diego Science Research Park
Construction Start Date	1/18/2024
Operational Year	2030
Lead Agency	University of California
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	19.8
Location	32.8763253398794, -117.21956578741151
County	San Diego
City	San Diego
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6908
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.13

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
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Research & Development	1,100	1000sqft	6.00	1,100,000	195,345	—	—	Buildings 1-3
Enclosed Parking Structure	1,194	1000sqft	6.00	1,194,000	0.00	—	—	Parking Structures 1-2
Parking Lot	146	Space	1.50	0.00	0.00	—	—	Surface parking

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Transportation	T-3	Provide Transit-Oriented Development
Transportation	T-10	Provide End-of-Trip Bicycle Facilities
Transportation	T-14*	Provide Electric Vehicle Charging Infrastructure
Transportation	T-33*	Locate Project near Bike Path/Bike Lane
Transportation	T-34*	Provide Bike Parking
Water	W-4	Require Low-Flow Water Fixtures

\* Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

## 2. Emissions Summary

### 2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	14.5	121	126	0.35	3.64	21.5	25.1	3.40	5.91	9.32	—	58,402	58,402	2.72	6.20	120	60,437
Mit.	14.5	121	126	0.35	3.64	21.5	25.1	3.40	5.91	9.32	—	58,402	58,402	2.72	6.20	120	60,437
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	14.4	122	121	0.35	3.64	21.5	25.1	3.40	5.91	9.32	—	57,929	57,929	2.76	6.20	3.10	59,848
Mit.	14.4	122	121	0.35	3.64	21.5	25.1	3.40	5.91	9.32	—	57,929	57,929	2.76	6.20	3.10	59,848
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.2	73.2	74.9	0.22	2.12	13.5	15.6	1.99	3.70	5.69	—	36,026	36,026	1.71	3.85	33.0	37,248
Mit.	10.2	73.2	74.9	0.22	2.12	13.5	15.6	1.99	3.70	5.69	—	36,026	36,026	1.71	3.85	33.0	37,248
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.86	13.4	13.7	0.04	0.39	2.46	2.85	0.36	0.68	1.04	—	5,965	5,965	0.28	0.64	5.47	6,167
Mit.	1.86	13.4	13.7	0.04	0.39	2.46	2.85	0.36	0.68	1.04	—	5,965	5,965	0.28	0.64	5.47	6,167
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	137	250	550	250	—	—	100	—	—	55.0	—	—	—	—	—	—	—
Unmit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Mit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	137	250	550	250	—	—	100	—	—	55.0	—	—	—	—	—	—	—
Unmit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Mit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

## 2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	11.9	121	126	0.35	3.64	21.5	25.1	3.40	5.91	9.32	—	58,402	58,402	2.72	6.20	120	60,437
2025	5.84	33.1	69.1	0.10	0.91	9.75	10.7	0.84	2.39	3.23	—	21,559	21,559	0.96	1.65	55.3	22,130
2026	5.32	31.3	66.0	0.10	0.83	9.75	10.6	0.77	2.39	3.16	—	21,216	21,216	0.89	1.65	50.8	21,781
2027	14.5	32.6	69.1	0.12	0.76	11.6	12.3	0.71	2.83	3.49	—	24,140	24,140	1.00	1.89	54.6	24,784
2028	14.3	31.1	66.6	0.12	0.64	11.6	12.2	0.60	2.83	3.43	—	23,701	23,701	0.72	1.89	49.1	24,333
2029	10.1	8.84	14.9	0.03	0.20	1.93	2.13	0.17	0.47	0.64	—	4,754	4,754	0.15	0.31	7.34	4,858
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	11.8	122	121	0.35	3.64	21.5	25.1	3.40	5.91	9.32	—	57,929	57,929	2.76	6.20	3.10	59,848
2025	9.44	96.2	104	0.33	2.64	20.7	23.3	2.48	5.79	8.27	—	54,527	54,527	2.65	5.92	2.98	56,360
2026	5.27	32.1	61.7	0.10	0.83	9.75	10.6	0.77	2.39	3.16	—	20,773	20,773	0.91	1.67	1.32	21,295
2027	14.4	33.7	64.1	0.12	0.76	11.6	12.3	0.71	2.83	3.49	—	23,627	23,627	1.06	1.92	1.41	24,226
2028	14.2	31.9	61.8	0.12	0.64	11.6	12.2	0.60	2.83	3.43	—	23,199	23,199	0.74	1.89	1.27	23,783
2029	14.1	30.4	59.4	0.12	0.60	11.6	12.2	0.49	2.83	3.32	—	22,747	22,747	0.74	1.82	1.14	23,309
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	7.18	73.2	74.9	0.22	2.12	13.5	15.6	1.99	3.70	5.69	—	36,026	36,026	1.71	3.85	33.0	37,248
2025	4.58	33.4	51.3	0.11	0.89	8.67	9.56	0.83	2.24	3.07	—	20,447	20,447	0.96	1.90	21.3	21,057
2026	3.74	22.8	44.3	0.07	0.59	6.88	7.47	0.55	1.68	2.23	—	14,884	14,884	0.65	1.19	15.7	15,272
2027	5.55	21.4	42.0	0.07	0.48	7.26	7.73	0.45	1.78	2.22	—	15,077	15,077	0.66	1.20	15.0	15,466
2028	10.2	22.8	44.5	0.08	0.46	8.17	8.63	0.43	2.00	2.43	—	16,668	16,668	0.53	1.36	15.2	17,101
2029	7.14	6.73	10.9	0.02	0.15	1.53	1.68	0.13	0.37	0.50	—	3,655	3,655	0.12	0.25	2.54	3,734

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.31	13.4	13.7	0.04	0.39	2.46	2.85	0.36	0.68	1.04	—	5,965	5,965	0.28	0.64	5.47	6,167
2025	0.84	6.10	9.35	0.02	0.16	1.58	1.74	0.15	0.41	0.56	—	3,385	3,385	0.16	0.31	3.53	3,486
2026	0.68	4.16	8.08	0.01	0.11	1.26	1.36	0.10	0.31	0.41	—	2,464	2,464	0.11	0.20	2.60	2,528
2027	1.01	3.90	7.67	0.01	0.09	1.32	1.41	0.08	0.32	0.41	—	2,496	2,496	0.11	0.20	2.48	2,561
2028	1.86	4.16	8.13	0.02	0.08	1.49	1.58	0.08	0.37	0.44	—	2,760	2,760	0.09	0.22	2.51	2,831
2029	1.30	1.23	1.99	< 0.005	0.03	0.28	0.31	0.02	0.07	0.09	—	605	605	0.02	0.04	0.42	618

## 2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	11.9	121	126	0.35	3.64	21.5	25.1	3.40	5.91	9.32	—	58,402	58,402	2.72	6.20	120	60,437
2025	5.84	33.1	69.1	0.10	0.91	9.75	10.7	0.84	2.39	3.23	—	21,559	21,559	0.96	1.65	55.3	22,130
2026	5.32	31.3	66.0	0.10	0.83	9.75	10.6	0.77	2.39	3.16	—	21,216	21,216	0.89	1.65	50.8	21,781
2027	14.5	32.6	69.1	0.12	0.76	11.6	12.3	0.71	2.83	3.49	—	24,140	24,140	1.00	1.89	54.6	24,784
2028	14.3	31.1	66.6	0.12	0.64	11.6	12.2	0.60	2.83	3.43	—	23,701	23,701	0.72	1.89	49.1	24,333
2029	10.1	8.84	14.9	0.03	0.20	1.93	2.13	0.17	0.47	0.64	—	4,754	4,754	0.15	0.31	7.34	4,858
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	11.8	122	121	0.35	3.64	21.5	25.1	3.40	5.91	9.32	—	57,929	57,929	2.76	6.20	3.10	59,848
2025	9.44	96.2	104	0.33	2.64	20.7	23.3	2.48	5.79	8.27	—	54,527	54,527	2.65	5.92	2.98	56,360
2026	5.27	32.1	61.7	0.10	0.83	9.75	10.6	0.77	2.39	3.16	—	20,773	20,773	0.91	1.67	1.32	21,295
2027	14.4	33.7	64.1	0.12	0.76	11.6	12.3	0.71	2.83	3.49	—	23,627	23,627	1.06	1.92	1.41	24,226
2028	14.2	31.9	61.8	0.12	0.64	11.6	12.2	0.60	2.83	3.43	—	23,199	23,199	0.74	1.89	1.27	23,783
2029	14.1	30.4	59.4	0.12	0.60	11.6	12.2	0.49	2.83	3.32	—	22,747	22,747	0.74	1.82	1.14	23,309

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	7.18	73.2	74.9	0.22	2.12	13.5	15.6	1.99	3.70	5.69	—	36,026	36,026	1.71	3.85	33.0	37,248
2025	4.58	33.4	51.3	0.11	0.89	8.67	9.56	0.83	2.24	3.07	—	20,447	20,447	0.96	1.90	21.3	21,057
2026	3.74	22.8	44.3	0.07	0.59	6.88	7.47	0.55	1.68	2.23	—	14,884	14,884	0.65	1.19	15.7	15,272
2027	5.55	21.4	42.0	0.07	0.48	7.26	7.73	0.45	1.78	2.22	—	15,077	15,077	0.66	1.20	15.0	15,466
2028	10.2	22.8	44.5	0.08	0.46	8.17	8.63	0.43	2.00	2.43	—	16,668	16,668	0.53	1.36	15.2	17,101
2029	7.14	6.73	10.9	0.02	0.15	1.53	1.68	0.13	0.37	0.50	—	3,655	3,655	0.12	0.25	2.54	3,734
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.31	13.4	13.7	0.04	0.39	2.46	2.85	0.36	0.68	1.04	—	5,965	5,965	0.28	0.64	5.47	6,167
2025	0.84	6.10	9.35	0.02	0.16	1.58	1.74	0.15	0.41	0.56	—	3,385	3,385	0.16	0.31	3.53	3,486
2026	0.68	4.16	8.08	0.01	0.11	1.26	1.36	0.10	0.31	0.41	—	2,464	2,464	0.11	0.20	2.60	2,528
2027	1.01	3.90	7.67	0.01	0.09	1.32	1.41	0.08	0.32	0.41	—	2,496	2,496	0.11	0.20	2.48	2,561
2028	1.86	4.16	8.13	0.02	0.08	1.49	1.58	0.08	0.37	0.44	—	2,760	2,760	0.09	0.22	2.51	2,831
2029	1.30	1.23	1.99	< 0.005	0.03	0.28	0.31	0.02	0.07	0.09	—	605	605	0.02	0.04	0.42	618

## 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	76.7	16.3	254	0.33	0.41	11.3	11.7	0.44	2.00	2.44	153	60,996	61,148	23.1	2.53	97.2	62,578
Mit.	72.3	14.5	235	0.29	0.38	9.92	10.3	0.41	1.75	2.16	142	56,891	57,033	21.8	2.30	88.6	58,352
% Reduced	6%	11%	8%	12%	7%	13%	12%	6%	13%	11%	7%	7%	7%	6%	9%	9%	7%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	59.7	17.0	157	0.31	0.28	11.3	11.6	0.26	2.00	2.26	153	59,210	59,363	23.3	2.64	29.9	60,761
Mit.	55.3	14.9	138	0.27	0.25	9.92	10.2	0.23	1.75	1.98	142	55,277	55,419	21.9	2.39	29.7	56,711
% Reduced	7%	12%	12%	12%	11%	13%	12%	10%	13%	12%	7%	7%	7%	6%	9%	1%	7%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	58.8	13.1	165	0.24	0.28	8.53	8.81	0.29	1.50	1.80	153	51,818	51,970	22.7	2.19	50.6	53,241
Mit.	55.6	11.6	151	0.21	0.26	7.46	7.72	0.27	1.32	1.59	142	48,835	48,977	21.4	2.00	47.7	50,156
% Reduced	5%	12%	9%	12%	8%	13%	12%	7%	13%	12%	7%	6%	6%	6%	9%	6%	6%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.7	2.39	30.2	0.04	0.05	1.56	1.61	0.05	0.27	0.33	25.3	8,579	8,604	3.76	0.36	8.37	8,815
Mit.	10.1	2.12	27.6	0.04	0.05	1.36	1.41	0.05	0.24	0.29	23.5	8,085	8,109	3.54	0.33	7.90	8,304
% Reduced	5%	12%	9%	12%	8%	13%	12%	7%	13%	12%	7%	6%	6%	6%	9%	6%	6%
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	137	250	550	249	—	—	100	—	—	55.0	—	—	—	—	—	—	—
Unmit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Mit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	137	250	550	249	—	—	100	—	—	55.0	—	—	—	—	—	—	—
Unmit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Mit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

## 2.5. Operations Emissions by Sector, Unmitigated



## Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	35.3	14.9	154	0.32	0.23	11.3	11.6	0.22	2.00	2.22	—	32,679	32,679	2.20	1.62	69.1	33,287
Area	41.4	0.84	99.8	0.01	0.13	—	0.13	0.18	—	0.18	—	410	410	0.02	< 0.005	—	412
Energy	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	27,721	27,721	5.32	0.64	—	28,045
Water	—	—	—	—	—	—	—	—	—	—	108	185	293	11.1	0.27	—	649
Waste	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Total	76.7	16.3	254	0.33	0.41	11.3	11.7	0.44	2.00	2.44	153	60,996	61,148	23.1	2.53	97.2	62,578
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	34.6	16.4	157	0.31	0.23	11.3	11.6	0.22	2.00	2.22	—	31,304	31,304	2.43	1.73	1.79	31,882
Area	25.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	27,721	27,721	5.32	0.64	—	28,045
Water	—	—	—	—	—	—	—	—	—	—	108	185	293	11.1	0.27	—	649
Waste	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Total	59.7	17.0	157	0.31	0.28	11.3	11.6	0.26	2.00	2.26	153	59,210	59,363	23.3	2.64	29.9	60,761
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	25.7	12.1	116	0.23	0.18	8.53	8.70	0.16	1.50	1.67	—	23,709	23,709	1.78	1.28	22.4	24,158
Area	33.1	0.41	49.2	< 0.005	0.07	—	0.07	0.09	—	0.09	—	202	202	0.01	< 0.005	—	203
Energy	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	27,721	27,721	5.32	0.64	—	28,045
Water	—	—	—	—	—	—	—	—	—	—	108	185	293	11.1	0.27	—	649
Waste	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Total	58.8	13.1	165	0.24	0.28	8.53	8.81	0.29	1.50	1.80	153	51,818	51,970	22.7	2.19	50.6	53,241
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.68	2.21	21.1	0.04	0.03	1.56	1.59	0.03	0.27	0.30	—	3,925	3,925	0.29	0.21	3.72	4,000
Area	6.04	0.08	8.98	< 0.005	0.01	—	0.01	0.02	—	0.02	—	33.5	33.5	< 0.005	< 0.005	—	33.6
Energy	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	4,590	4,590	0.88	0.11	—	4,643
Water	—	—	—	—	—	—	—	—	—	—	17.8	30.6	48.5	1.83	0.04	—	107
Waste	—	—	—	—	—	—	—	—	—	—	7.46	0.00	7.46	0.75	0.00	—	26.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.65	4.65
Total	10.7	2.39	30.2	0.04	0.05	1.56	1.61	0.05	0.27	0.33	25.3	8,579	8,604	3.76	0.36	8.37	8,815

## 2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	30.9	13.1	135	0.28	0.20	9.92	10.1	0.19	1.75	1.94	—	28,592	28,592	1.92	1.42	60.4	29,124
Area	41.4	0.84	99.8	0.01	0.13	—	0.13	0.18	—	0.18	—	410	410	0.02	< 0.005	—	412
Energy	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	27,721	27,721	5.32	0.64	—	28,045
Water	—	—	—	—	—	—	—	—	—	—	97.1	168	265	9.99	0.24	—	586
Waste	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Total	72.3	14.5	235	0.29	0.38	9.92	10.3	0.41	1.75	2.16	142	56,891	57,033	21.8	2.30	88.6	58,352
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	30.3	14.4	137	0.27	0.20	9.92	10.1	0.19	1.75	1.94	—	27,388	27,388	2.12	1.51	1.57	27,894
Area	25.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Energy	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	27,721	27,721	5.32	0.64	—	28,045
Water	—	—	—	—	—	—	—	—	—	—	97.1	168	265	9.99	0.24	—	586
Waste	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Total	55.3	14.9	138	0.27	0.25	9.92	10.2	0.23	1.75	1.98	142	55,277	55,419	21.9	2.39	29.7	56,711
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	22.5	10.6	101	0.20	0.15	7.46	7.61	0.14	1.32	1.46	—	20,744	20,744	1.55	1.12	19.6	21,137
Area	33.1	0.41	49.2	< 0.005	0.07	—	0.07	0.09	—	0.09	—	202	202	0.01	< 0.005	—	203
Energy	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	27,721	27,721	5.32	0.64	—	28,045
Water	—	—	—	—	—	—	—	—	—	—	97.1	168	265	9.99	0.24	—	586
Waste	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Total	55.6	11.6	151	0.21	0.26	7.46	7.72	0.27	1.32	1.59	142	48,835	48,977	21.4	2.00	47.7	50,156
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.10	1.94	18.5	0.04	0.03	1.36	1.39	0.03	0.24	0.27	—	3,434	3,434	0.26	0.19	3.25	3,499
Area	6.04	0.08	8.98	< 0.005	0.01	—	0.01	0.02	—	0.02	—	33.5	33.5	< 0.005	< 0.005	—	33.6
Energy	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	4,590	4,590	0.88	0.11	—	4,643
Water	—	—	—	—	—	—	—	—	—	—	16.1	27.7	43.8	1.65	0.04	—	97.0
Waste	—	—	—	—	—	—	—	—	—	—	7.46	0.00	7.46	0.75	0.00	—	26.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.65	4.65
Total	10.1	2.12	27.6	0.04	0.05	1.36	1.41	0.05	0.24	0.29	23.5	8,085	8,109	3.54	0.33	7.90	8,304

### 3. Construction Emissions Details

#### 3.1. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	0.45	0.45	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	0.18	0.18	< 0.005	0.02	0.02	—	5.29	5.29	< 0.005	< 0.005	< 0.005	5.58
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	0.45	0.45	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	0.18	0.18	< 0.005	0.02	0.02	—	5.34	5.34	< 0.005	< 0.005	< 0.005	5.62
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.29	12.3	10.7	0.02	0.52	—	0.52	0.48	—	0.48	—	1,689	1,689	0.07	0.01	—	1,695
Demolition	—	—	—	—	—	0.22	0.22	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.02	0.01	< 0.005	< 0.005	0.09	0.09	< 0.005	0.01	0.01	—	2.62	2.62	< 0.005	< 0.005	< 0.005	2.76
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	2.24	1.96	< 0.005	0.10	—	0.10	0.09	—	0.09	—	280	280	0.01	< 0.005	—	281
Demolition	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—

Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	0.43	0.43	< 0.005	< 0.005	< 0.005	0.46
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.74	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	145	145	0.01	0.01	0.58	147
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.81	0.29	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	602	602	0.03	0.10	1.29	633
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.65	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	137	137	0.01	0.01	0.02	139
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.84	0.29	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	602	602	0.03	0.10	0.03	632
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.32	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	68.2	68.2	< 0.005	< 0.005	0.12	69.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.41	0.14	< 0.005	0.01	0.07	0.08	0.01	0.02	0.03	—	297	297	0.02	0.05	0.28	312
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.3	11.3	< 0.005	< 0.005	0.02	11.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.08	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	49.1	49.1	< 0.005	0.01	0.05	51.6

### 3.2. Demolition (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	0.45	0.45	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	0.18	0.18	< 0.005	0.02	0.02	—	5.29	5.29	< 0.005	< 0.005	< 0.005	5.58
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	0.45	0.45	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	0.18	0.18	< 0.005	0.02	0.02	—	5.34	5.34	< 0.005	< 0.005	< 0.005	5.62
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.29	12.3	10.7	0.02	0.52	—	0.52	0.48	—	0.48	—	1,689	1,689	0.07	0.01	—	1,695
Demolition	—	—	—	—	—	0.22	0.22	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.02	0.01	< 0.005	< 0.005	0.09	0.09	< 0.005	0.01	0.01	—	2.62	2.62	< 0.005	< 0.005	< 0.005	2.76
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	2.24	1.96	< 0.005	0.10	—	0.10	0.09	—	0.09	—	280	280	0.01	< 0.005	—	281
Demolition	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	0.43	0.43	< 0.005	< 0.005	< 0.005	0.46
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.74	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	145	145	0.01	0.01	0.58	147
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.81	0.29	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	602	602	0.03	0.10	1.29	633
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.65	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	137	137	0.01	0.01	0.02	139
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.84	0.29	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	602	602	0.03	0.10	0.03	632
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.32	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	68.2	68.2	< 0.005	< 0.005	0.12	69.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.41	0.14	< 0.005	0.01	0.07	0.08	0.01	0.02	0.03	—	297	297	0.02	0.05	0.28	312
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.3	11.3	< 0.005	< 0.005	0.02	11.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.08	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	49.1	49.1	< 0.005	0.01	0.05	51.6

### 3.3. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Off-Road Equipment	3.52	34.3	30.2	0.06	1.45	—	1.45	1.33	—	1.33	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	3.61	3.61	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	0.18	0.18	< 0.005	0.02	0.02	—	5.29	5.29	< 0.005	< 0.005	< 0.005	5.58
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.52	34.3	30.2	0.06	1.45	—	1.45	1.33	—	1.33	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	3.61	3.61	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	0.18	0.18	< 0.005	0.02	0.02	—	5.34	5.34	< 0.005	< 0.005	< 0.005	5.62
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.11	20.6	18.1	0.04	0.87	—	0.87	0.80	—	0.80	—	3,964	3,964	0.16	0.03	—	3,978
Dust From Material Movement	—	—	—	—	—	2.17	2.17	—	0.86	0.86	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.02	0.01	< 0.005	< 0.005	0.11	0.11	< 0.005	0.01	0.01	—	3.19	3.19	< 0.005	< 0.005	< 0.005	3.36
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39	3.76	3.31	0.01	0.16	—	0.16	0.15	—	0.15	—	656	656	0.03	0.01	—	659
Dust From Material Movement	—	—	—	—	—	0.40	0.40	—	0.16	0.16	—	—	—	—	—	—	—

Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	0.53	0.53	< 0.005	< 0.005	< 0.005	0.56
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.99	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	194	194	0.01	0.01	0.78	197
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.40	33.1	10.4	0.17	0.50	7.00	7.50	0.50	1.92	2.41	—	27,194	27,194	1.38	4.35	59.5	28,585
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.87	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	183	183	0.01	0.01	0.02	185
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.39	34.2	10.4	0.17	0.50	7.00	7.50	0.50	1.92	2.41	—	27,196	27,196	1.38	4.35	1.54	28,530
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.53	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	111	111	0.01	< 0.005	0.20	112
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.24	20.6	6.24	0.10	0.30	4.16	4.46	0.30	1.14	1.44	—	16,338	16,338	0.83	2.62	15.4	17,154
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.3	18.3	< 0.005	< 0.005	0.03	18.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	3.76	1.14	0.02	0.05	0.76	0.81	0.05	0.21	0.26	—	2,705	2,705	0.14	0.43	2.56	2,840

### 3.4. Grading (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.52	34.3	30.2	0.06	1.45	—	1.45	1.33	—	1.33	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	3.61	3.61	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	0.18	0.18	< 0.005	0.02	0.02	—	5.29	5.29	< 0.005	< 0.005	< 0.005	5.58
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.52	34.3	30.2	0.06	1.45	—	1.45	1.33	—	1.33	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	3.61	3.61	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	0.18	0.18	< 0.005	0.02	0.02	—	5.34	5.34	< 0.005	< 0.005	< 0.005	5.62
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.11	20.6	18.1	0.04	0.87	—	0.87	0.80	—	0.80	—	3,964	3,964	0.16	0.03	—	3,978
Dust From Material Movement	—	—	—	—	—	2.17	2.17	—	0.86	0.86	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.02	0.01	< 0.005	< 0.005	0.11	0.11	< 0.005	0.01	0.01	—	3.19	3.19	< 0.005	< 0.005	< 0.005	3.36
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39	3.76	3.31	0.01	0.16	—	0.16	0.15	—	0.15	—	656	656	0.03	0.01	—	659

Dust From Material Movement	—	—	—	—	—	0.40	0.40	—	0.16	0.16	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	0.53	0.53	< 0.005	< 0.005	< 0.005	0.56
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.99	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	194	194	0.01	0.01	0.78	197
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.40	33.1	10.4	0.17	0.50	7.00	7.50	0.50	1.92	2.41	—	27,194	27,194	1.38	4.35	59.5	28,585
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.87	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	183	183	0.01	0.01	0.02	185
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.39	34.2	10.4	0.17	0.50	7.00	7.50	0.50	1.92	2.41	—	27,196	27,196	1.38	4.35	1.54	28,530
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.53	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	111	111	0.01	< 0.005	0.20	112
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.24	20.6	6.24	0.10	0.30	4.16	4.46	0.30	1.14	1.44	—	16,338	16,338	0.83	2.62	15.4	17,154
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.3	18.3	< 0.005	< 0.005	0.03	18.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	3.76	1.14	0.02	0.05	0.76	0.81	0.05	0.21	0.26	—	2,705	2,705	0.14	0.43	2.56	2,840

### 3.5. Grading (2025) - Unmitigated

## Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	3.61	3.61	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	0.18	0.18	< 0.005	0.02	0.02	—	5.25	5.25	< 0.005	< 0.005	< 0.005	5.53
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.53	4.94	4.71	0.01	0.21	—	0.21	0.19	—	0.19	—	1,098	1,098	0.04	0.01	—	1,101
Dust From Material Movement	—	—	—	—	—	0.60	0.60	—	0.24	0.24	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	< 0.005	—	0.87	0.87	< 0.005	< 0.005	< 0.005	0.92
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.90	0.86	< 0.005	0.04	—	0.04	0.03	—	0.03	—	182	182	0.01	< 0.005	—	182
Dust From Material Movement	—	—	—	—	—	0.11	0.11	—	0.04	0.04	—	—	—	—	—	—	—

Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	0.14	0.14	< 0.005	< 0.005	< 0.005	0.15
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.81	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	179	179	0.01	0.01	0.02	182
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.39	32.5	10.4	0.17	0.50	7.00	7.50	0.50	1.92	2.41	—	26,638	26,638	1.38	4.19	1.53	27,923
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	30.1	30.1	< 0.005	< 0.005	0.05	30.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.07	5.43	1.73	0.03	0.08	1.15	1.24	0.08	0.32	0.40	—	4,431	4,431	0.23	0.70	4.23	4,648
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.98	4.98	< 0.005	< 0.005	0.01	5.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.99	0.32	0.01	0.02	0.21	0.23	0.02	0.06	0.07	—	734	734	0.04	0.12	0.70	770

### 3.6. Grading (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	3.61	3.61	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	0.18	0.18	< 0.005	0.02	0.02	—	5.25	5.25	< 0.005	< 0.005	< 0.005	5.53
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.53	4.94	4.71	0.01	0.21	—	0.21	0.19	—	0.19	—	1,098	1,098	0.04	0.01	—	1,101
Dust From Material Movement	—	—	—	—	—	0.60	0.60	—	0.24	0.24	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	< 0.005	—	0.87	0.87	< 0.005	< 0.005	< 0.005	0.92
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.90	0.86	< 0.005	0.04	—	0.04	0.03	—	0.03	—	182	182	0.01	< 0.005	—	182
Dust From Material Movement	—	—	—	—	—	0.11	0.11	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	0.14	0.14	< 0.005	< 0.005	< 0.005	0.15
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.81	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	179	179	0.01	0.01	0.02	182
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.39	32.5	10.4	0.17	0.50	7.00	7.50	0.50	1.92	2.41	—	26,638	26,638	1.38	4.19	1.53	27,923
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	30.1	30.1	< 0.005	< 0.005	0.05	30.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.07	5.43	1.73	0.03	0.08	1.15	1.24	0.08	0.32	0.40	—	4,431	4,431	0.23	0.70	4.23	4,648
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.98	4.98	< 0.005	< 0.005	0.01	5.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.99	0.32	0.01	0.02	0.21	0.23	0.02	0.06	0.07	—	734	734	0.04	0.12	0.70	770

### 3.7. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	7.66	8.96	0.02	0.34	—	0.34	0.31	—	0.31	—	1,638	1,638	0.07	0.01	—	1,643
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.40	1.63	< 0.005	0.06	—	0.06	0.06	—	0.06	—	271	271	0.01	< 0.005	—	272
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.57	2.87	42.2	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	8,258	8,258	0.38	0.30	33.2	8,390
Vendor	0.38	13.2	6.10	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,578	9,578	0.42	1.33	24.6	10,010
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.54	3.17	36.9	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,796	7,796	0.41	0.30	0.86	7,897
Vendor	0.36	13.7	6.28	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,583	9,583	0.42	1.33	0.64	9,990
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.38	2.15	25.6	0.00	0.00	4.87	4.87	0.00	1.14	1.14	—	5,373	5,373	0.28	0.21	9.74	5,451
Vendor	0.25	9.32	4.23	0.04	0.09	1.63	1.71	0.09	0.45	0.54	—	6,543	6,543	0.28	0.91	7.23	6,828

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.43	0.39	4.67	0.00	0.00	0.89	0.89	0.00	0.21	0.21	—	889	889	0.05	0.03	1.61	902
Vendor	0.05	1.70	0.77	0.01	0.02	0.30	0.31	0.02	0.08	0.10	—	1,083	1,083	0.05	0.15	1.20	1,130
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.8. Building Construction (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	7.66	8.96	0.02	0.34	—	0.34	0.31	—	0.31	—	1,638	1,638	0.07	0.01	—	1,643
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.15	1.40	1.63	< 0.005	0.06	—	0.06	0.06	—	0.06	—	271	271	0.01	< 0.005	—	272
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.57	2.87	42.2	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	8,258	8,258	0.38	0.30	33.2	8,390
Vendor	0.38	13.2	6.10	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,578	9,578	0.42	1.33	24.6	10,010
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.54	3.17	36.9	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,796	7,796	0.41	0.30	0.86	7,897
Vendor	0.36	13.7	6.28	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,583	9,583	0.42	1.33	0.64	9,990
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.38	2.15	25.6	0.00	0.00	4.87	4.87	0.00	1.14	1.14	—	5,373	5,373	0.28	0.21	9.74	5,451
Vendor	0.25	9.32	4.23	0.04	0.09	1.63	1.71	0.09	0.45	0.54	—	6,543	6,543	0.28	0.91	7.23	6,828
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.43	0.39	4.67	0.00	0.00	0.89	0.89	0.00	0.21	0.21	—	889	889	0.05	0.03	1.61	902
Vendor	0.05	1.70	0.77	0.01	0.02	0.30	0.31	0.02	0.08	0.10	—	1,083	1,083	0.05	0.15	1.20	1,130
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.9. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	7.46	9.31	0.02	0.31	—	0.31	0.28	—	0.28	—	1,713	1,713	0.07	0.01	—	1,719
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.36	1.70	< 0.005	0.06	—	0.06	0.05	—	0.05	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.44	2.61	39.5	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	8,098	8,098	0.38	0.28	30.4	8,221
Vendor	0.38	12.5	5.81	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,410	9,410	0.42	1.33	24.4	9,841
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.39	2.91	34.6	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,647	7,647	0.41	0.30	0.79	7,747
Vendor	0.36	13.0	5.99	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,415	9,415	0.42	1.33	0.63	9,823
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.39	2.07	25.1	0.00	0.00	5.09	5.09	0.00	1.19	1.19	—	5,511	5,511	0.28	0.21	9.36	5,591
Vendor	0.27	9.22	4.21	0.05	0.09	1.70	1.79	0.09	0.47	0.56	—	6,723	6,723	0.30	0.95	7.56	7,021
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.44	0.38	4.58	0.00	0.00	0.93	0.93	0.00	0.22	0.22	—	912	912	0.05	0.04	1.55	926
Vendor	0.05	1.68	0.77	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,113	1,113	0.05	0.16	1.25	1,162
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.10. Building Construction (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	7.46	9.31	0.02	0.31	—	0.31	0.28	—	0.28	—	1,713	1,713	0.07	0.01	—	1,719
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.36	1.70	< 0.005	0.06	—	0.06	0.05	—	0.05	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.44	2.61	39.5	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	8,098	8,098	0.38	0.28	30.4	8,221
Vendor	0.38	12.5	5.81	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,410	9,410	0.42	1.33	24.4	9,841
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.39	2.91	34.6	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,647	7,647	0.41	0.30	0.79	7,747
Vendor	0.36	13.0	5.99	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,415	9,415	0.42	1.33	0.63	9,823
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.39	2.07	25.1	0.00	0.00	5.09	5.09	0.00	1.19	1.19	—	5,511	5,511	0.28	0.21	9.36	5,591
Vendor	0.27	9.22	4.21	0.05	0.09	1.70	1.79	0.09	0.47	0.56	—	6,723	6,723	0.30	0.95	7.56	7,021



Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.44	0.38	4.58	0.00	0.00	0.93	0.93	0.00	0.22	0.22	—	912	912	0.05	0.04	1.55	926
Vendor	0.05	1.68	0.77	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,113	1,113	0.05	0.16	1.25	1,162
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.11. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	7.04	9.26	0.02	0.27	—	0.27	0.25	—	0.25	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.14	1.28	1.69	< 0.005	0.05	—	0.05	0.05	—	0.05	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.08	2.37	36.9	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,933	7,933	0.38	0.28	27.8	8,054
Vendor	0.32	11.9	5.60	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,236	9,236	0.35	1.33	22.5	9,664
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.05	2.67	32.5	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,492	7,492	0.39	0.30	0.72	7,592
Vendor	0.30	12.4	5.69	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,242	9,242	0.35	1.33	0.59	9,648
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.15	1.89	23.5	0.00	0.00	5.09	5.09	0.00	1.19	1.19	—	5,399	5,399	0.28	0.21	8.56	5,479
Vendor	0.22	8.77	4.01	0.05	0.09	1.70	1.79	0.09	0.47	0.56	—	6,599	6,599	0.25	0.95	6.98	6,896
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.35	4.28	0.00	0.00	0.93	0.93	0.00	0.22	0.22	—	894	894	0.05	0.04	1.42	907
Vendor	0.04	1.60	0.73	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,093	1,093	0.04	0.16	1.16	1,142
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.12. Building Construction (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	7.04	9.26	0.02	0.27	—	0.27	0.25	—	0.25	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.28	1.69	< 0.005	0.05	—	0.05	0.05	—	0.05	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.08	2.37	36.9	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,933	7,933	0.38	0.28	27.8	8,054
Vendor	0.32	11.9	5.60	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,236	9,236	0.35	1.33	22.5	9,664
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.05	2.67	32.5	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,492	7,492	0.39	0.30	0.72	7,592
Vendor	0.30	12.4	5.69	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,242	9,242	0.35	1.33	0.59	9,648
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.15	1.89	23.5	0.00	0.00	5.09	5.09	0.00	1.19	1.19	—	5,399	5,399	0.28	0.21	8.56	5,479
Vendor	0.22	8.77	4.01	0.05	0.09	1.70	1.79	0.09	0.47	0.56	—	6,599	6,599	0.25	0.95	6.98	6,896
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.35	4.28	0.00	0.00	0.93	0.93	0.00	0.22	0.22	—	894	894	0.05	0.04	1.42	907
Vendor	0.04	1.60	0.73	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,093	1,093	0.04	0.16	1.16	1,142
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.13. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74	6.71	9.24	0.02	0.24	—	0.24	0.22	—	0.22	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.22	1.69	< 0.005	0.04	—	0.04	0.04	—	0.04	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.01	2.10	35.0	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,799	7,799	0.36	0.28	25.3	7,917
Vendor	0.32	11.4	5.38	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,040	9,040	0.34	1.27	20.2	9,446
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.93	2.63	30.7	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,366	7,366	0.39	0.30	0.65	7,466
Vendor	0.29	11.8	5.47	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,046	9,046	0.35	1.27	0.52	9,433
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.08	1.86	22.2	0.00	0.00	5.09	5.09	0.00	1.19	1.19	—	5,308	5,308	0.27	0.20	7.80	5,383
Vendor	0.21	8.38	3.90	0.05	0.09	1.70	1.79	0.09	0.47	0.56	—	6,459	6,459	0.25	0.91	6.23	6,741

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.34	4.05	0.00	0.00	0.93	0.93	0.00	0.22	0.22	—	879	879	0.04	0.03	1.29	891
Vendor	0.04	1.53	0.71	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,069	1,069	0.04	0.15	1.03	1,116
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.14. Building Construction (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74	6.71	9.24	0.02	0.24	—	0.24	0.22	—	0.22	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.13	1.22	1.69	< 0.005	0.04	—	0.04	0.04	—	0.04	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.01	2.10	35.0	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,799	7,799	0.36	0.28	25.3	7,917
Vendor	0.32	11.4	5.38	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,040	9,040	0.34	1.27	20.2	9,446
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.93	2.63	30.7	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,366	7,366	0.39	0.30	0.65	7,466
Vendor	0.29	11.8	5.47	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,046	9,046	0.35	1.27	0.52	9,433
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.08	1.86	22.2	0.00	0.00	5.09	5.09	0.00	1.19	1.19	—	5,308	5,308	0.27	0.20	7.80	5,383
Vendor	0.21	8.38	3.90	0.05	0.09	1.70	1.79	0.09	0.47	0.56	—	6,459	6,459	0.25	0.91	6.23	6,741
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.34	4.05	0.00	0.00	0.93	0.93	0.00	0.22	0.22	—	879	879	0.04	0.03	1.29	891
Vendor	0.04	1.53	0.71	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,069	1,069	0.04	0.15	1.03	1,116
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.15. Building Construction (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.71	6.39	9.26	0.02	0.22	—	0.22	0.20	—	0.20	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.17	1.69	< 0.005	0.04	—	0.04	0.04	—	0.04	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.92	2.08	33.1	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,660	7,660	0.13	0.28	22.9	7,770
Vendor	0.31	10.8	5.16	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	8,813	8,813	0.34	1.27	18.0	9,217
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00



Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.88	2.39	29.0	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,235	7,235	0.15	0.28	0.59	7,323
Vendor	0.29	11.2	5.31	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	8,819	8,819	0.34	1.27	0.47	9,206
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.03	1.69	21.0	0.00	0.00	5.10	5.10	0.00	1.20	1.20	—	5,228	5,228	0.11	0.20	7.08	5,298
Vendor	0.21	7.99	3.75	0.05	0.09	1.71	1.80	0.09	0.47	0.56	—	6,314	6,314	0.24	0.91	5.56	6,596
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.37	0.31	3.84	0.00	0.00	0.93	0.93	0.00	0.22	0.22	—	866	866	0.02	0.03	1.17	877
Vendor	0.04	1.46	0.68	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,045	1,045	0.04	0.15	0.92	1,092
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.16. Building Construction (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.71	6.39	9.26	0.02	0.22	—	0.22	0.20	—	0.20	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.17	1.69	< 0.005	0.04	—	0.04	0.04	—	0.04	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.92	2.08	33.1	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,660	7,660	0.13	0.28	22.9	7,770
Vendor	0.31	10.8	5.16	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	8,813	8,813	0.34	1.27	18.0	9,217
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.88	2.39	29.0	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,235	7,235	0.15	0.28	0.59	7,323
Vendor	0.29	11.2	5.31	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	8,819	8,819	0.34	1.27	0.47	9,206
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.03	1.69	21.0	0.00	0.00	5.10	5.10	0.00	1.20	1.20	—	5,228	5,228	0.11	0.20	7.08	5,298
Vendor	0.21	7.99	3.75	0.05	0.09	1.71	1.80	0.09	0.47	0.56	—	6,314	6,314	0.24	0.91	5.56	6,596

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.37	0.31	3.84	0.00	0.00	0.93	0.93	0.00	0.22	0.22	—	866	866	0.02	0.03	1.17	877
Vendor	0.04	1.46	0.68	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,045	1,045	0.04	0.15	0.92	1,092
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.17. Building Construction (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.97	8.58	12.9	0.02	0.28	—	0.28	0.25	—	0.25	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.17	0.25	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	46.9	46.9	< 0.005	< 0.005	—	47.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.77	7.77	< 0.005	< 0.005	—	7.79
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.76	2.12	27.2	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,111	7,111	0.15	0.28	0.53	7,199
Vendor	0.28	10.7	5.09	0.06	0.13	2.41	2.53	0.06	0.66	0.73	—	8,567	8,567	0.34	1.20	0.41	8,935
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.54	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	140	140	< 0.005	0.01	0.17	142
Vendor	0.01	0.21	0.10	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	168	168	0.01	0.02	0.13	175
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	23.2	23.2	< 0.005	< 0.005	0.03	23.6
Vendor	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	27.7	27.7	< 0.005	< 0.005	0.02	29.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.18. Building Construction (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.97	8.58	12.9	0.02	0.28	—	0.28	0.25	—	0.25	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.17	0.25	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	46.9	46.9	< 0.005	< 0.005	—	47.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.77	7.77	< 0.005	< 0.005	—	7.79
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.76	2.12	27.2	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,111	7,111	0.15	0.28	0.53	7,199
Vendor	0.28	10.7	5.09	0.06	0.13	2.41	2.53	0.06	0.66	0.73	—	8,567	8,567	0.34	1.20	0.41	8,935
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.54	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	140	140	< 0.005	0.01	0.17	142
Vendor	0.01	0.21	0.10	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	168	168	0.01	0.02	0.13	175
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	23.2	23.2	< 0.005	< 0.005	0.03	23.6

Vendor	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	27.7	27.7	< 0.005	< 0.005	0.02	29.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.19. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46	4.26	5.70	0.01	0.20	—	0.20	0.18	—	0.18	—	864	864	0.04	0.01	—	867
Paving	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.08	0.78	1.04	< 0.005	0.04	—	0.04	0.03	—	0.03	—	143	143	0.01	< 0.005	—	143
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.69	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	142	142	0.01	< 0.005	0.53	144
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.61	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	134	134	0.01	0.01	0.01	136
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.35	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	77.5	77.5	< 0.005	< 0.005	0.13	78.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.8	12.8	< 0.005	< 0.005	0.02	13.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.20. Paving (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46	4.26	5.70	0.01	0.20	—	0.20	0.18	—	0.18	—	864	864	0.04	0.01	—	867
Paving	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.78	1.04	< 0.005	0.04	—	0.04	0.03	—	0.03	—	143	143	0.01	< 0.005	—	143
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.69	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	142	142	0.01	< 0.005	0.53	144
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.61	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	134	134	0.01	0.01	0.01	136
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.35	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	77.5	77.5	< 0.005	< 0.005	0.13	78.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.8	12.8	< 0.005	< 0.005	0.02	13.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.21. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	5.08	7.10	0.01	0.23	—	0.23	0.21	—	0.21	—	1,079	1,079	0.04	0.01	—	1,083
Paving	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.93	1.30	< 0.005	0.04	—	0.04	0.04	—	0.04	—	179	179	0.01	< 0.005	—	179
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.65	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	139	139	0.01	< 0.005	0.49	142
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.57	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	132	132	0.01	0.01	0.01	133
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.41	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	94.9	94.9	< 0.005	< 0.005	0.15	96.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.7	15.7	< 0.005	< 0.005	0.02	15.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.22. Paving (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	5.08	7.10	0.01	0.23	—	0.23	0.21	—	0.21	—	1,079	1,079	0.04	0.01	—	1,083
Paving	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.93	1.30	< 0.005	0.04	—	0.04	0.04	—	0.04	—	179	179	0.01	< 0.005	—	179
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.65	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	139	139	0.01	< 0.005	0.49	142
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.57	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	132	132	0.01	0.01	0.01	133

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.41	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	94.9	94.9	< 0.005	< 0.005	0.15	96.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.7	15.7	< 0.005	< 0.005	0.02	15.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.23. Paving (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	2.20	3.16	< 0.005	0.09	—	0.09	0.09	—	0.09	—	479	479	0.02	< 0.005	—	481
Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.40	0.58	< 0.005	0.02	—	0.02	0.02	—	0.02	—	79.3	79.3	< 0.005	< 0.005	—	79.6
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.61	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	137	137	0.01	< 0.005	0.44	139
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.54	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	129	129	0.01	0.01	0.01	131
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.17	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	41.4	41.4	< 0.005	< 0.005	0.06	42.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.86	6.86	< 0.005	< 0.005	0.01	6.95
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.24. Paving (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	2.20	3.16	< 0.005	0.09	—	0.09	0.09	—	0.09	—	479	479	0.02	< 0.005	—	481
Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.40	0.58	< 0.005	0.02	—	0.02	0.02	—	0.02	—	79.3	79.3	< 0.005	< 0.005	—	79.6
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.61	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	137	137	0.01	< 0.005	0.44	139
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.54	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	129	129	0.01	0.01	0.01	131
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.17	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	41.4	41.4	< 0.005	< 0.005	0.06	42.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.86	6.86	< 0.005	< 0.005	0.01	6.95
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00



### 3.25. Architectural Coating (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	6.93	7.75	0.02	0.21	—	0.21	0.19	—	0.19	—	1,518	1,518	0.06	0.01	—	1,523
Architectural Coatings	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	6.93	7.75	0.02	0.21	—	0.21	0.19	—	0.19	—	1,518	1,518	0.06	0.01	—	1,523
Architectural Coatings	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	1.55	1.73	< 0.005	0.05	—	0.05	0.04	—	0.04	—	339	339	0.01	< 0.005	—	340
Architectural Coatings	1.94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.28	0.32	< 0.005	0.01	—	0.01	0.01	—	0.01	—	56.1	56.1	< 0.005	< 0.005	—	56.2
Architectural Coatings	0.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.60	0.42	7.00	0.00	0.00	1.44	1.44	0.00	0.34	0.34	—	1,560	1,560	0.07	0.06	5.06	1,583
Vendor	0.06	2.31	1.09	0.01	0.03	0.49	0.51	0.03	0.13	0.16	—	1,827	1,827	0.07	0.26	4.08	1,909
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.59	0.53	6.15	0.00	0.00	1.44	1.44	0.00	0.34	0.34	—	1,473	1,473	0.08	0.06	0.13	1,493
Vendor	0.06	2.39	1.11	0.01	0.03	0.49	0.51	0.03	0.13	0.16	—	1,828	1,828	0.07	0.26	0.11	1,907
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	1.39	0.00	0.00	0.32	0.32	0.00	0.07	0.07	—	332	332	0.02	0.01	0.49	336
Vendor	0.01	0.53	0.25	< 0.005	0.01	0.11	0.11	0.01	0.03	0.04	—	408	408	0.02	0.06	0.39	426
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.25	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	54.9	54.9	< 0.005	< 0.005	0.08	55.7
Vendor	< 0.005	0.10	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	67.5	67.5	< 0.005	0.01	0.07	70.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.26. Architectural Coating (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	6.93	7.75	0.02	0.21	—	0.21	0.19	—	0.19	—	1,518	1,518	0.06	0.01	—	1,523
Architectural Coatings	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	6.93	7.75	0.02	0.21	—	0.21	0.19	—	0.19	—	1,518	1,518	0.06	0.01	—	1,523
Architectural Coatings	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	1.55	1.73	< 0.005	0.05	—	0.05	0.04	—	0.04	—	339	339	0.01	< 0.005	—	340
Architectural Coatings	1.94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.28	0.32	< 0.005	0.01	—	0.01	0.01	—	0.01	—	56.1	56.1	< 0.005	< 0.005	—	56.2
Architectural Coatings	0.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.60	0.42	7.00	0.00	0.00	1.44	1.44	0.00	0.34	0.34	—	1,560	1,560	0.07	0.06	5.06	1,583
Vendor	0.06	2.31	1.09	0.01	0.03	0.49	0.51	0.03	0.13	0.16	—	1,827	1,827	0.07	0.26	4.08	1,909
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.59	0.53	6.15	0.00	0.00	1.44	1.44	0.00	0.34	0.34	—	1,473	1,473	0.08	0.06	0.13	1,493
Vendor	0.06	2.39	1.11	0.01	0.03	0.49	0.51	0.03	0.13	0.16	—	1,828	1,828	0.07	0.26	0.11	1,907
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	1.39	0.00	0.00	0.32	0.32	0.00	0.07	0.07	—	332	332	0.02	0.01	0.49	336
Vendor	0.01	0.53	0.25	< 0.005	0.01	0.11	0.11	0.01	0.03	0.04	—	408	408	0.02	0.06	0.39	426
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.25	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	54.9	54.9	< 0.005	< 0.005	0.08	55.7
Vendor	< 0.005	0.10	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	67.5	67.5	< 0.005	0.01	0.07	70.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

## 3.27. Architectural Coating (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.75	6.62	7.73	0.02	0.19	—	0.19	0.17	—	0.17	—	1,518	1,518	0.06	0.01	—	1,523
Architectural Coatings	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.75	6.62	7.73	0.02	0.19	—	0.19	0.17	—	0.17	—	1,518	1,518	0.06	0.01	—	1,523
Architectural Coatings	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	4.74	5.54	0.01	0.14	—	0.14	0.12	—	0.12	—	1,087	1,087	0.04	0.01	—	1,091
Architectural Coatings	6.23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.87	1.01	< 0.005	0.02	—	0.02	0.02	—	0.02	—	180	180	0.01	< 0.005	—	181
Architectural Coatings	1.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.58	0.42	6.62	0.00	0.00	1.44	1.44	0.00	0.34	0.34	—	1,532	1,532	0.03	0.06	4.58	1,554
Vendor	0.06	2.19	1.04	0.01	0.03	0.49	0.51	0.03	0.13	0.16	—	1,781	1,781	0.07	0.26	3.64	1,863
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.58	0.48	5.79	0.00	0.00	1.44	1.44	0.00	0.34	0.34	—	1,447	1,447	0.03	0.06	0.12	1,465
Vendor	0.06	2.27	1.07	0.01	0.03	0.49	0.51	0.03	0.13	0.16	—	1,783	1,783	0.07	0.26	0.09	1,861
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.41	0.34	4.20	0.00	0.00	1.02	1.02	0.00	0.24	0.24	—	1,046	1,046	0.02	0.04	1.42	1,060
Vendor	0.04	1.61	0.76	0.01	0.02	0.34	0.36	0.02	0.10	0.11	—	1,276	1,276	0.05	0.18	1.12	1,333
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.77	0.00	0.00	0.19	0.19	0.00	0.04	0.04	—	173	173	< 0.005	0.01	0.23	175
Vendor	0.01	0.29	0.14	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	211	211	0.01	0.03	0.19	221
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.28. Architectural Coating (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.75	6.62	7.73	0.02	0.19	—	0.19	0.17	—	0.17	—	1,518	1,518	0.06	0.01	—	1,523
Architectu ral Coatings	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.75	6.62	7.73	0.02	0.19	—	0.19	0.17	—	0.17	—	1,518	1,518	0.06	0.01	—	1,523
Architectu ral Coatings	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	4.74	5.54	0.01	0.14	—	0.14	0.12	—	0.12	—	1,087	1,087	0.04	0.01	—	1,091
Architectu ral Coatings	6.23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.87	1.01	< 0.005	0.02	—	0.02	0.02	—	0.02	—	180	180	0.01	< 0.005	—	181
Architectural Coatings	1.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.58	0.42	6.62	0.00	0.00	1.44	1.44	0.00	0.34	0.34	—	1,532	1,532	0.03	0.06	4.58	1,554
Vendor	0.06	2.19	1.04	0.01	0.03	0.49	0.51	0.03	0.13	0.16	—	1,781	1,781	0.07	0.26	3.64	1,863
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.58	0.48	5.79	0.00	0.00	1.44	1.44	0.00	0.34	0.34	—	1,447	1,447	0.03	0.06	0.12	1,465
Vendor	0.06	2.27	1.07	0.01	0.03	0.49	0.51	0.03	0.13	0.16	—	1,783	1,783	0.07	0.26	0.09	1,861
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.41	0.34	4.20	0.00	0.00	1.02	1.02	0.00	0.24	0.24	—	1,046	1,046	0.02	0.04	1.42	1,060
Vendor	0.04	1.61	0.76	0.01	0.02	0.34	0.36	0.02	0.10	0.11	—	1,276	1,276	0.05	0.18	1.12	1,333
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.77	0.00	0.00	0.19	0.19	0.00	0.04	0.04	—	173	173	< 0.005	0.01	0.23	175
Vendor	0.01	0.29	0.14	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	211	211	0.01	0.03	0.19	221
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00



## 3.29. Architectural Coating (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.39	7.68	0.02	0.17	—	0.17	0.16	—	0.16	—	1,518	1,518	0.06	0.01	—	1,523
Architectural Coatings	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.39	7.68	0.02	0.17	—	0.17	0.16	—	0.16	—	1,518	1,518	0.06	0.01	—	1,523
Architectural Coatings	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51	4.50	5.41	0.01	0.12	—	0.12	0.11	—	0.11	—	1,069	1,069	0.04	0.01	—	1,073
Architectural Coatings	6.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.82	0.99	< 0.005	0.02	—	0.02	0.02	—	0.02	—	177	177	0.01	< 0.005	—	178
Architectural Coatings	1.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.56	0.37	6.24	0.00	0.00	1.44	1.44	0.00	0.34	0.34	—	1,506	1,506	0.02	0.06	4.12	1,527
Vendor	0.06	2.08	1.01	0.01	0.03	0.49	0.51	0.01	0.13	0.15	—	1,730	1,730	0.07	0.24	3.22	1,808
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.55	0.42	5.44	0.00	0.00	1.44	1.44	0.00	0.34	0.34	—	1,422	1,422	0.03	0.06	0.11	1,440
Vendor	0.06	2.17	1.03	0.01	0.03	0.49	0.51	0.01	0.13	0.15	—	1,732	1,732	0.07	0.24	0.08	1,806
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.30	3.89	0.00	0.00	1.00	1.00	0.00	0.24	0.24	—	1,011	1,011	0.02	0.04	1.25	1,024
Vendor	0.04	1.51	0.72	0.01	0.02	0.34	0.36	0.01	0.09	0.10	—	1,219	1,219	0.05	0.17	0.98	1,273
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.05	0.71	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	167	167	< 0.005	0.01	0.21	170
Vendor	0.01	0.28	0.13	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	202	202	0.01	0.03	0.16	211
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

## 3.30. Architectural Coating (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.39	7.68	0.02	0.17	—	0.17	0.16	—	0.16	—	1,518	1,518	0.06	0.01	—	1,523
Architectural Coatings	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.39	7.68	0.02	0.17	—	0.17	0.16	—	0.16	—	1,518	1,518	0.06	0.01	—	1,523
Architectural Coatings	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51	4.50	5.41	0.01	0.12	—	0.12	0.11	—	0.11	—	1,069	1,069	0.04	0.01	—	1,073
Architectural Coatings	6.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.82	0.99	< 0.005	0.02	—	0.02	0.02	—	0.02	—	177	177	0.01	< 0.005	—	178
Architectural Coatings	1.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.56	0.37	6.24	0.00	0.00	1.44	1.44	0.00	0.34	0.34	—	1,506	1,506	0.02	0.06	4.12	1,527
Vendor	0.06	2.08	1.01	0.01	0.03	0.49	0.51	0.01	0.13	0.15	—	1,730	1,730	0.07	0.24	3.22	1,808
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.55	0.42	5.44	0.00	0.00	1.44	1.44	0.00	0.34	0.34	—	1,422	1,422	0.03	0.06	0.11	1,440
Vendor	0.06	2.17	1.03	0.01	0.03	0.49	0.51	0.01	0.13	0.15	—	1,732	1,732	0.07	0.24	0.08	1,806
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.30	3.89	0.00	0.00	1.00	1.00	0.00	0.24	0.24	—	1,011	1,011	0.02	0.04	1.25	1,024
Vendor	0.04	1.51	0.72	0.01	0.02	0.34	0.36	0.01	0.09	0.10	—	1,219	1,219	0.05	0.17	0.98	1,273
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.05	0.71	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	167	167	< 0.005	0.01	0.21	170
Vendor	0.01	0.28	0.13	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	202	202	0.01	0.03	0.16	211
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

## 4. Operations Emissions Details

### 4.1. Mobile Emissions by Land Use

#### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	35.3	14.9	154	0.32	0.23	11.3	11.6	0.22	2.00	2.22	—	32,679	32,679	2.20	1.62	69.1	33,287
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	35.3	14.9	154	0.32	0.23	11.3	11.6	0.22	2.00	2.22	—	32,679	32,679	2.20	1.62	69.1	33,287
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	34.6	16.4	157	0.31	0.23	11.3	11.6	0.22	2.00	2.22	—	31,304	31,304	2.43	1.73	1.79	31,882
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	34.6	16.4	157	0.31	0.23	11.3	11.6	0.22	2.00	2.22	—	31,304	31,304	2.43	1.73	1.79	31,882
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Research & Development	4.68	2.21	21.1	0.04	0.03	1.56	1.59	0.03	0.27	0.30	—	3,925	3,925	0.29	0.21	3.72	4,000
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.68	2.21	21.1	0.04	0.03	1.56	1.59	0.03	0.27	0.30	—	3,925	3,925	0.29	0.21	3.72	4,000

#### 4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	30.9	13.1	135	0.28	0.20	9.92	10.1	0.19	1.75	1.94	—	28,592	28,592	1.92	1.42	60.4	29,124
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	30.9	13.1	135	0.28	0.20	9.92	10.1	0.19	1.75	1.94	—	28,592	28,592	1.92	1.42	60.4	29,124
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	30.3	14.4	137	0.27	0.20	9.92	10.1	0.19	1.75	1.94	—	27,388	27,388	2.12	1.51	1.57	27,894
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	30.3	14.4	137	0.27	0.20	9.92	10.1	0.19	1.75	1.94	—	27,388	27,388	2.12	1.51	1.57	27,894
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	4.10	1.94	18.5	0.04	0.03	1.36	1.39	0.03	0.24	0.27	—	3,434	3,434	0.26	0.19	3.25	3,499
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.10	1.94	18.5	0.04	0.03	1.36	1.39	0.03	0.24	0.27	—	3,434	3,434	0.26	0.19	3.25	3,499

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	—	25,074	25,074	4.88	0.59	—	25,372
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	1,943	1,943	0.38	0.05	—	1,966
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	26.6	26.6	0.01	< 0.005	—	26.9
Total	—	—	—	—	—	—	—	—	—	—	—	27,044	27,044	5.26	0.64	—	27,365

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	—	25,074	25,074	4.88	0.59	—	25,372
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	1,943	1,943	0.38	0.05	—	1,966
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	26.6	26.6	0.01	< 0.005	—	26.9
Total	—	—	—	—	—	—	—	—	—	—	—	27,044	27,044	5.26	0.64	—	27,365
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	—	4,151	4,151	0.81	0.10	—	4,201
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	322	322	0.06	0.01	—	326
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	4.40	4.40	< 0.005	< 0.005	—	4.46
Total	—	—	—	—	—	—	—	—	—	—	—	4,477	4,477	0.87	0.11	—	4,531

#### 4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	—	25,074	25,074	4.88	0.59	—	25,372



Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	1,943	1,943	0.38	0.05	—	1,966
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	26.6	26.6	0.01	< 0.005	—	26.9
Total	—	—	—	—	—	—	—	—	—	—	—	27,044	27,044	5.26	0.64	—	27,365
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	—	25,074	25,074	4.88	0.59	—	25,372
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	1,943	1,943	0.38	0.05	—	1,966
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	26.6	26.6	0.01	< 0.005	—	26.9
Total	—	—	—	—	—	—	—	—	—	—	—	27,044	27,044	5.26	0.64	—	27,365
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	—	4,151	4,151	0.81	0.10	—	4,201
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	322	322	0.06	0.01	—	326
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	4.40	4.40	< 0.005	< 0.005	—	4.46
Total	—	—	—	—	—	—	—	—	—	—	—	4,477	4,477	0.87	0.11	—	4,531

#### 4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	677	677	0.06	< 0.005	—	679
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	677	677	0.06	< 0.005	—	679
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	677	677	0.06	< 0.005	—	679
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	677	677	0.06	< 0.005	—	679
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	112	112	0.01	< 0.005	—	112
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	112	112	0.01	< 0.005	—	112

## 4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	677	677	0.06	< 0.005	—	679
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	677	677	0.06	< 0.005	—	679
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	677	677	0.06	< 0.005	—	679
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	677	677	0.06	< 0.005	—	679
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	112	112	0.01	< 0.005	—	112
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	112	112	0.01	< 0.005	—	112

### 4.3. Area Emissions by Source

#### 4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	23.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscaping Equipment	16.4	0.84	99.8	0.01	0.13	—	0.13	0.18	—	0.18	—	410	410	0.02	< 0.005	—	412
Total	41.4	0.84	99.8	0.01	0.13	—	0.13	0.18	—	0.18	—	410	410	0.02	< 0.005	—	412
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	23.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	25.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.48	0.08	8.98	< 0.005	0.01	—	0.01	0.02	—	0.02	—	33.5	33.5	< 0.005	< 0.005	—	33.6
Total	6.04	0.08	8.98	< 0.005	0.01	—	0.01	0.02	—	0.02	—	33.5	33.5	< 0.005	< 0.005	—	33.6

#### 4.3.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	23.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	16.4	0.84	99.8	0.01	0.13	—	0.13	0.18	—	0.18	—	410	410	0.02	< 0.005	—	412
Total	41.4	0.84	99.8	0.01	0.13	—	0.13	0.18	—	0.18	—	410	410	0.02	< 0.005	—	412
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer	23.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	25.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.48	0.08	8.98	< 0.005	0.01	—	0.01	0.02	—	0.02	—	33.5	33.5	< 0.005	< 0.005	—	33.6
Total	6.04	0.08	8.98	< 0.005	0.01	—	0.01	0.02	—	0.02	—	33.5	33.5	< 0.005	< 0.005	—	33.6

## 4.4. Water Emissions by Land Use

### 4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	108	185	293	11.1	0.27	—	649
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	108	185	293	11.1	0.27	—	649
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	108	185	293	11.1	0.27	—	649
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	108	185	293	11.1	0.27	—	649
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	17.8	30.6	48.5	1.83	0.04	—	107
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	17.8	30.6	48.5	1.83	0.04	—	107

#### 4.4.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Research & Development	—	—	—	—	—	—	—	—	—	—	97.1	168	265	9.99	0.24	—	586
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	97.1	168	265	9.99	0.24	—	586
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	97.1	168	265	9.99	0.24	—	586
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	97.1	168	265	9.99	0.24	—	586
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	16.1	27.7	43.8	1.65	0.04	—	97.0
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	16.1	27.7	43.8	1.65	0.04	—	97.0

#### 4.5. Waste Emissions by Land Use



## 4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	7.46	0.00	7.46	0.75	0.00	—	26.1
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	7.46	0.00	7.46	0.75	0.00	—	26.1

#### 4.5.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Research & Development	—	—	—	—	—	—	—	—	—	—	7.46	0.00	7.46	0.75	0.00	—	26.1
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	7.46	0.00	7.46	0.75	0.00	—	26.1

## 4.6. Refrigerant Emissions by Land Use

### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.65	4.65

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.65	4.65
-------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	------	------

#### 4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.65	4.65
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.65	4.65

#### 4.7. Offroad Emissions By Equipment Type

##### 4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------------	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.8. Stationary Emissions By Equipment Type

#### 4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme nt Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.9. User Defined Emissions By Equipment Type

## 4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 4.10. Soil Carbon Accumulation By Vegetation Type

### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



## 4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/18/2024	9/25/2024	5.00	180	Demo of existing structures/parking
Grading	Grading	02/29/2024	3/26/2025	5.00	280	grade site
Building Construction	Building Construction	01/18/2024	1/10/2029	5.00	1,300	3 buildings, 2 parking structures, 1 lot
Paving	Paving	03/15/2025	6/11/2027	5.00	585	hardscape, flatwork, access work
Architectural Coating	Architectural Coating	09/09/2027	12/26/2029	5.00	600	coat structures

### 5.2. Off-Road Equipment

#### 5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40

Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Architectural Coating	Aerial Lifts	Diesel	Average	1.00	6.00	46.0	0.31
Architectural Coating	Cranes	Diesel	Average	1.00	6.00	367	0.29
Architectural Coating	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Architectural Coating	Generator Sets	Diesel	Average	1.00	6.00	14.0	0.74
Architectural Coating	Welders	Diesel	Average	1.00	6.00	46.0	0.45
Architectural Coating	Concrete/Industrial Saws	Diesel	Average	1.00	6.00	33.0	0.73

### 5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Architectural Coating	Aerial Lifts	Diesel	Average	1.00	6.00	46.0	0.31
Architectural Coating	Cranes	Diesel	Average	1.00	6.00	367	0.29
Architectural Coating	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Architectural Coating	Generator Sets	Diesel	Average	1.00	6.00	14.0	0.74
Architectural Coating	Welders	Diesel	Average	1.00	6.00	46.0	0.45
Architectural Coating	Concrete/Industrial Saws	Diesel	Average	1.00	6.00	33.0	0.73

## 5.3. Construction Vehicles

### 5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	12.0	LDA,LDT1,LDT2
Demolition	Vendor	—	7.63	HHDT,MHDT
Demolition	Hauling	8.21	20.0	HHDT
Demolition	Onsite truck	2.00	0.25	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	12.0	LDA,LDT1,LDT2
Grading	Vendor	—	7.63	HHDT,MHDT
Grading	Hauling	101	75.0	HHDT
Grading	Onsite truck	2.00	0.25	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	853	12.0	LDA,LDT1,LDT2
Building Construction	Vendor	376	7.63	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	12.0	LDA,LDT1,LDT2
Paving	Vendor	—	7.63	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	171	12.0	LDA,LDT1,LDT2
Architectural Coating	Vendor	76.0	7.63	HHDT,MHDT

Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

### 5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	12.0	LDA,LDT1,LDT2
Demolition	Vendor	—	7.63	HHDT,MHDT
Demolition	Hauling	8.21	20.0	HHDT
Demolition	Onsite truck	2.00	0.25	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	12.0	LDA,LDT1,LDT2
Grading	Vendor	—	7.63	HHDT,MHDT
Grading	Hauling	101	75.0	HHDT
Grading	Onsite truck	2.00	0.25	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	853	12.0	LDA,LDT1,LDT2
Building Construction	Vendor	376	7.63	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	12.0	LDA,LDT1,LDT2
Paving	Vendor	—	7.63	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	171	12.0	LDA,LDT1,LDT2



Architectural Coating	Vendor	76.0	7.63	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

## 5.4. Vehicles

### 5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

## 5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	1,661,761	551,307	19,602

## 5.6. Dust Mitigation

### 5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	5,905	—
Grading	114,700	110,700	858	0.00	—
Paving	0.00	0.00	0.00	0.00	7.50

### 5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
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Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

## 5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Research & Development	0.00	0%
Enclosed Parking Structure	6.00	100%
Parking Lot	1.50	100%

## 5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	540	0.03	< 0.005
2025	0.00	540	0.03	< 0.005
2026	0.00	45.1	0.03	< 0.005
2027	0.00	45.1	0.03	< 0.005
2028	0.00	45.1	0.03	< 0.005
2029	0.00	45.1	0.03	< 0.005

## 5.9. Operational Mobile Sources

### 5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Research & Development	12,386	2,090	1,221	3,401,852	41,122	6,939	4,054	11,294,260
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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### 5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Research & Development	10,837	1,829	1,068	2,976,375	35,979	6,071	3,547	9,881,663
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## 5.10. Operational Area Sources

### 5.10.1. Hearths

#### 5.10.1.1. Unmitigated

#### 5.10.1.2. Mitigated

### 5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	1,661,761	551,307	19,602

### 5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

## 5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

## 5.11. Operational Energy Consumption

## 5.11.1. Unmitigated

## Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Research & Development	53,951,608	170	0.0330	0.0040	2,113,519
Enclosed Parking Structure	4,180,709	170	0.0330	0.0040	0.00
Parking Lot	57,238	170	0.0330	0.0040	0.00

## 5.11.2. Mitigated

## Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Research & Development	53,951,608	170	0.0330	0.0040	2,113,519
Enclosed Parking Structure	4,180,709	170	0.0330	0.0040	0.00
Parking Lot	57,238	170	0.0330	0.0040	0.00

## 5.12. Operational Water and Wastewater Consumption

## 5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Research & Development	56,210,000	2,919,268

Enclosed Parking Structure	0.00	0.00
Parking Lot	0.00	0.00

#### 5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Research & Development	50,673,315	2,919,268
Enclosed Parking Structure	0.00	0.00
Parking Lot	0.00	0.00

### 5.13. Operational Waste Generation

#### 5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Research & Development	83.6	—
Enclosed Parking Structure	0.00	—
Parking Lot	0.00	—

#### 5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Research & Development	83.6	—
Enclosed Parking Structure	0.00	—
Parking Lot	0.00	—

### 5.14. Operational Refrigeration and Air Conditioning Equipment

#### 5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Research & Development	Household refrigerators and/or freezers	R-134a	1,430	0.45	0.60	0.00	1.00
Research & Development	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

#### 5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Research & Development	Household refrigerators and/or freezers	R-134a	1,430	0.45	0.60	0.00	1.00
Research & Development	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

### 5.15. Operational Off-Road Equipment

#### 5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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#### 5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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### 5.16. Stationary Sources

#### 5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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#### 5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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## 5.17. User Defined

Equipment Type	Fuel Type
—	—

## 5.18. Vegetation

### 5.18.1. Land Use Change

#### 5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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#### 5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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### 5.18.1. Biomass Cover Type

#### 5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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#### 5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres
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### 5.18.2. Sequestration

## 5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	11.3	annual days of extreme heat
Extreme Precipitation	2.45	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	1.34	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about  $\frac{3}{4}$  an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

### 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
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Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

### 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

## 6.4. Climate Risk Reduction Measures

# 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	42.6
AQ-PM	45.8
AQ-DPM	92.2
Drinking Water	29.0
Lead Risk Housing	57.6
Pesticides	0.00
Toxic Releases	22.4
Traffic	77.2
Effect Indicators	—
CleanUp Sites	37.6
Groundwater	55.6
Haz Waste Facilities/Generators	96.5
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	0.06
Cardio-vascular	0.04
Low Birth Weights	7.17
Socioeconomic Factor Indicators	—

Education	9.73
Housing	90.7
Linguistic	63.3
Poverty	82.5
Unemployment	9.72

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	—
Employed	—
Median HI	—
Education	—
Bachelor's or higher	—
High school enrollment	—
Preschool enrollment	—
Transportation	—
Auto Access	—
Active commuting	—
Social	—
2-parent households	—
Voting	—
Neighborhood	—
Alcohol availability	—
Park access	—
Retail density	—

Supermarket access	—
Tree canopy	—
Housing	—
Homeownership	—
Housing habitability	—
Low-inc homeowner severe housing cost burden	—
Low-inc renter severe housing cost burden	—
Uncrowded housing	—
Health Outcomes	—
Insured adults	—
Arthritis	99.9
Asthma ER Admissions	96.7
High Blood Pressure	99.9
Cancer (excluding skin)	99.8
Asthma	55.1
Coronary Heart Disease	99.9
Chronic Obstructive Pulmonary Disease	99.7
Diagnosed Diabetes	99.9
Life Expectancy at Birth	0.0
Cognitively Disabled	91.4
Physically Disabled	98.4
Heart Attack ER Admissions	98.1
Mental Health Not Good	63.6
Chronic Kidney Disease	99.9
Obesity	99.8
Pedestrian Injuries	0.0
Physical Health Not Good	99.8

Stroke	99.9
Health Risk Behaviors	—
Binge Drinking	2.6
Current Smoker	82.0
No Leisure Time for Physical Activity	94.0
Climate Change Exposures	—
Wildfire Risk	44.0
SLR Inundation Area	0.0
Children	6.0
Elderly	98.4
English Speaking	0.0
Foreign-born	0.0
Outdoor Workers	92.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	61.3
Traffic Density	0.0
Traffic Access	87.4
Other Indices	—
Hardship	0.0
Other Decision Support	—
2016 Voting	0.0

### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	25.0
Healthy Places Index Score for Project Location (b)	—
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No

Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

## 7.4. Health & Equity Measures

No Health & Equity Measures selected.

## 7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

## 7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

# 8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Per applicant's schedule for total working days
Operations: Energy Use	Revised to match applicant assumptions for the three new buildings. Default for parking. Assume mostly electric per UC policy. Assume 6% of default natural gas to represent kitchens
Operations: Water and Waste Water	Per applicant Tranche 2
Land Use	Adjusted to reflect actual size of project site
Construction: Dust From Material Movement	Provided in 4.27.23 memo
Construction: Trips and VMT	assumed 2 water trucks for demo/grading. Haul trip length of 75 assumes 50% of material is hazardous and exported to landfill 250 miles away
Operations: Vehicle Data	Revised based on LLG VMT Memo
Construction: Off-Road Equipment	Added equipment to coating to reflect core/shell construction

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## **Attachment 2. Generator Calculations**

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2018 LRDP EIR

Number of Generators	Brake Horsepower (BHP)	Brake kilowatts (BkW)	Potential Daily Hrs. Operated (Hrs/Engine)	Load Factor	Max Daily Emissions (lbs/day)										Annual Criteria (lbs/year) (LRDP Assumed 365 days. Assume 12 days/monthly testing for SRP)						Annual GHG Emissions (MT CO2e/year)
					PM10	PM2.5	ROG	NOx	CO	CO2	CH4	CO2e	PM10	PM2.5	ROG	NOx	CO				
4	1500	1118.5	0.3	0.73	0.0869	0.0869	0.4056	7.5317	7.5317	3.33	0.21	9.25	31.7	31.7	148.0	2749.1	2749.1	1.53			
3	1500	1118.5	0.3	0.73	0.06517959	0.06517959	0.304171421	5.648897826	5.648897826	2.50	0.16	6.94	23.8	23.8	111.0	2061.8	2061.8	1.15			
Emissions Factors					0.03 g/bhp-hr		0.14 g/bhp-hr		2.6 g/bhp-hr		1.15 CO2 g/hp-hr*		*Not reported in LRDP EIR Appendix. Based on 365 days of operation, consistent with CO2e						*EFs were		
											0.073 CH4 g/hp-hr*										

Conversion Factors  
0.002205 lbs/g  
0.000454 MT/lbs  
2.204621 lbs/kg  
28 CH4 GWP

Life Safety Generators

3	3634		0.5	100	0.329701	0.329701	0.0562178	6.9577807	0.380297	5859.8821			4.0	4.0	0.7	83.5	4.6	31.90
Emissions Factors					99.7	17	2104	115	1772									
					g/hr	g/hr	g/hr	g/hr	kg/hr									

Assume 100% load factor

Optional Loads - Diesel

2	671		0.5	0.8	0.011834	0.011834	0.0118344	0.236688		1.360956	0.0863911	3.7799074	0.142	0.142	0.142	2.840	0.000	0.021
Emissions Factors					0.01	0.01	0.01	0.2	NA	Assume 2018 LRDP EFs								
10	402		0.5	0.8	0.106351	0.106351	0.2127017	14.180116	0.7090058	4.0767833	0.2587871	11.322822	1.28	1.28	2.55	170.16	8.51	0.06
Emissions Factors					0.03	0.03	0.06	4	0.2	Assume 2018 LRDP EFs								
					g/hp-hr	g/hp-hr	g/hp-hr	g/hp-hr	g/hp-hr									

80% Load Factor based on power rating in spec sheet

Summary Comparison	Max Daily (lbs/day)					Annual Criteria (lbs/year)					GHG (MT/yr)	
	PM10	PM2.5	ROG	NOx	CO	PM10	PM2.5	ROG	NOx	CO	CO2e	
2018 LRDP EIR 3 Generators	0.07	0.07	0.30	5.65	5.65	23.79	23.79	111.02	2061.85	2061.85	1.15	
SRP Total	0.45	0.45	0.28	21.37	1.09	5.37	5.37	3.37	256.50	13.07	31.98	

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## **Appendix C. Geotechnical Evaluation**

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# **GROUP**



# **DELTA**

**REPORT OF GEOTECHNICAL INVESTIGATION  
UCSD SCIENCE RESEARCH PARK DEVELOPMENT  
LA JOLLA, CALIFORNIA**

Prepared for

**WEXFORD SCIENCE + TECHNOLOGY**  
Facilities Design and Construction  
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Prepared by

**GROUP DELTA CONSULTANTS, INC.**  
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San Diego, California 92126

Project No. SD754  
January 19, 2023



# GROUP DELTA

January 19, 2023

Wexford Science + Technology  
1090 King George Post Road, Suite 604  
Edison, New Jersey 08837

Attention: Mr. Rosalio Arellanes

**SUBJECT:      REPORT OF GEOTECHNICAL INVESTIGATION**  
**UCSD Science Research Park Development**  
**La Jolla, California**

Mr. Arellanes:

We are pleased to submit this Report of Geotechnical Investigation for the planned Science Research Park development at the University of California, San Diego. Specific conclusions regarding the geotechnical conditions at the site, the findings from all of our exploratory borings and laboratory tests, and geotechnical recommendations for grading, foundations, retaining walls, pavements and utilities are provided in the following report.

We appreciate this opportunity to be of professional service. Feel free to contact the office with any questions or comments, or if you need anything else.

## **GROUP DELTA CONSULTANTS**

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## 1.0 INTRODUCTION

The following report summarizes the findings of our geotechnical investigation for the proposed Science Research Park development on the University of California San Diego campus. The general location of the site is shown in Figure 1A. This geotechnical investigation included both 56 new exploratory borings, as well as 15 borings that we previously completed for UCSD at the site, as shown on the Site Vicinity Plan, Figure 1B. The general layout of the planned development is shown on the Proposed Development, Figure 2. The locations of the 71 borings that we have completed in the site vicinity are shown on the Exploration Plans, Figures 3A and 3B.

The purpose of this investigation was to characterize the geotechnical conditions at the site, and to provide general geotechnical recommendations for grading and the design of the proposed building foundations, slabs, site improvements, retaining walls, pavements and subsurface utilities. The geotechnical recommendations provided herein are based on the findings of several phases of subsurface explorations, laboratory tests and analyses, as well as our previous experience with similar geologic conditions in the site vicinity.

### 1.1 Scope of Services

This report was prepared in general accordance with the provisions of the referenced proposals (GDC, 2022ab). In summary, we provided the following scope of services.

- A geologic reconnaissance of the surface characteristics of the site and a review of the relevant reports referenced in Section 8.0.
- A subsurface exploration of the site including a total of 71 exploratory borings at the approximate locations shown on the Exploration Plans, Figures 3A and 3B. Boring Records are provided in Appendix A.
- Geotechnical testing of samples collected from the borings including sieve analysis, Atterberg Limits, Expansion Index, corrosivity, maximum density, shear strength, R-Value and consolidation. The laboratory test results are presented in Appendix B.
- Engineering analysis of the field and laboratory data to help develop geotechnical recommendations for site preparation, remedial earthwork, foundation, pavement and retaining wall design, soil reactivity, and site drainage and moisture protection.
- Preparation of this report summarizing our findings and conclusions, and providing geotechnical recommendations for the planned development.

## 1.2 Site Description

The subject site consists of the planned Science Research Park (SRP) development on the campus of the University of California San Diego (UCSD). The general location of the site is shown on the Site Location Map, Figure 1A. The site vicinity is shown in more detail in Figure 1B. The site is located south of Health Science Drive, west of Regents Road, north of Miramar Street and east of Medical Center Drive. Site access is provided by Athena Circle. We understand that Medical Center Drive will ultimately be realigned by UCSD to form the northwest property boundary for the SRP.

Most of the planned development is located in areas that are currently being used for parking at the UCSD Center for Novel Therapeutics and the La Jolla Institute for Allergy and Immunology. These parking lots are generally paved with flexible asphalt concrete pavements, surrounded by typical concrete curbs and gutters with various irrigated landscaping areas. The southwest portion of the site is not paved but is instead covered with gravel, and contains a fenced construction yard that is currently being used to store materials. The parking lot located immediately west of this unpaved area was constructed more recently than the three other lots, and includes various recent BMP drainage improvements such as bioretention swales without concrete curbs and gutters. Another bioswale was constructed several years ago between Athena Circle and Miramar Street.

In general, the site slopes down gently to the south and west. Relatively minor 2:1 (horizontal to vertical) cut and fill slopes separate the sheet graded parking lots from the surrounding streets. Most of these slopes vary from only 5 to 10-feet in maximum height, with the exception of the approximately 20-foot high fill slope that ascends from Athena Circle to Miramar Street along the southern edge of the site. Elevations on site vary from a high of about 350 feet above mean sea level (MSL) near the intersection between Athena Circle and Health Sciences Drive, to a low of about 320 feet MSL along Athena Circle near the existing Neuvo West Parking Garage (UCSD, 2018).

## 1.3 Proposed Development

Detailed drawings showing the planned structures are not yet available. Based on our project team meetings, we understand that the development will likely include construction of three 10-story steel framed research buildings (Buildings 1, 2 and 3), as well as two 8 to 9-story reinforced concrete parking garages (Parking Structures 1 and 2). No basements are anticipated. In addition, a variety of associated subsurface utility infrastructure, exterior flatwork and pavement areas, landscaping and drainage improvements will also be constructed. The preliminary layout of the proposed Science Research Park is shown on the Proposed Development, Figure 2 (Wexford, 2023).

We anticipate that site development will be conducted in phases over several years, and will begin with demolition of existing landscaping, parking lots, sidewalks and other surface improvements for each phase of development. Remedial earthwork and typical cut and fill grading will then be used to attain plan grades. A variety of existing subsurface utilities will be removed and relocated throughout the site. Once each of the structures are built, the surrounding parking and flatwork areas will be constructed. Various new drainage improvements are also being considered.

## 2.0 FIELD AND LABORATORY INVESTIGATION

The initial phase of our field investigation for this project included six exploratory borings completed between October 13<sup>th</sup> and 14<sup>th</sup>, 2022. The supplemental phase of field exploration described herein included another 50 borings completed between December 12<sup>th</sup> and 22<sup>nd</sup>, 2022. Group Delta Consultants personnel also completed several previous field investigations in the site vicinity between June 27<sup>th</sup> of 2014 and March 17<sup>th</sup>, 2017. These previous field investigations included 15 additional exploratory borings and two field infiltration tests. Most of the borings we have completed on site varied from about 5 to 20 feet in depth, although the maximum depth of exploration was 56½ feet below grade. The approximate locations of the 71 exploratory borings are shown on the Exploration Plans, Figures 3A and 3B. Boring Records are provided in Appendix A.

Various soil samples were collected from all of the borings for laboratory testing and analysis. The laboratory testing program included gradation and hydrometer analyses and Atterberg Limits to aid in material classification using the Unified Soil Classification System (USCS). Index tests were also conducted to help evaluate the soil expansion potential and corrosivity. The maximum dry densities and optimum moisture contents of selected soil samples were also determined, along with the in-situ dry unit weights and moisture contents. Direct shear tests were conducted to help evaluate the shear strength of the fill soils. Consolidation tests were conducted to help estimate the potential for settlement of the undocumented fill under the anticipated building foundation loads. In addition, R-Value tests were conducted to aid in pavement section analysis and design. The geotechnical laboratory test results are presented in Appendix B. Additional environmental test results are provided in the referenced Preliminary Phase II ESA (GDC, 2022c).

### 2.1 Infiltration Testing

As part of the previous field investigations that we completed in the site vicinity, two double ring infiltration tests were conducted for the bioretention basins located between Athena Circle and Miramar Street (GDC, 2017b). The approximate infiltration test locations are shown in Figure 3B as Borings I-17-01 and I-17-02. These previous infiltration tests indicated factored vertical infiltration rates ranging from 0.2 to 2.6 inches per hour (including the recommended Safety Factor of 2.0).

Note that a minimum factored infiltration rate of 0.50 inches per hour is commonly considered the lower limit for effective implementation of “full infiltration” measures, whereas a rate between 0.05 and 0.50 inches per hour indicates “partial infiltration.” By comparison, a factored infiltration rate less than 0.05 inches per hour is indicative of a “No Infiltration” condition per the City of San Diego Best Management Practice (BMP) design guidelines. Site specific field infiltration testing may be conducted once the precise BMP locations are determined to better evaluate the infiltration conditions. Typically, the field infiltration tests would be located within 50-feet of the planned BMP improvements. Details of the planned BMP improvements are not yet available.

### 3.0 GEOLOGY AND SUBSURFACE CONDITIONS

The site is located within the coastal plain section of the Peninsular Ranges geomorphic province of southern California. The coastal plain generally consists of subdued landforms underlain by marine sedimentary formations. The entire site is underlain at depth by the Eocene-age Scripps Formation (Map Symbol - Tsc) which is covered by a relatively thin layer of Pleistocene-age Very Old Paralic Deposits (Qvop<sub>10</sub>) around the site perimeter, as shown on the Local Geologic Map, Figure 4. Most of the site is covered with undocumented fill. Undocumented fill is material that has no record of geotechnical testing and observation during placement and compaction. Undocumented fill is considered potentially compressible and unsuitable for the direct support of new foundation loads. The geologic materials observed during our subsurface investigation are described below.

#### 3.1 Scripps Formation

The Eocene-age Scripps Formation underlies the entire site at depth. As observed in the borings, the Scripps Formation most commonly consists of a light yellow and gray-brown silty sandstone with occasional interbeds of sandy siltstone and claystone. Soil generated by excavations within the Scripps Formation typically classify as silty sand (Unified Soil Classification SM) as shown in the Borings Records in Appendix A. The sandstone is typically fine-grained, with some moderately or strongly cemented material. The occasional sandy siltstone and claystone beds are moderately indurated. The corrected Standard Penetration Test (SPT) blow counts ( $N_{60}$ ) within the formation were typically well above 50, which is indicative of a very dense condition.

Laboratory tests and our previous experience indicates that sandstone and siltstone beds within the Scripps Formation have a very low to low expansion potential based on common criteria. These materials also typically have a negligible soluble sulfate content. Direct shear tests suggest that the sandstone of the Scripps Formation typically has a shear strength exceeding  $32^\circ$  with 200 lb/ft<sup>2</sup> cohesion. The siltstone of the formation is estimated to have a drained strength of about  $28^\circ$  with 200 lb/ft<sup>2</sup> cohesion. Our experience indicates that the claystone has a drained shear strength of about  $25^\circ$  with 200 lb/ft<sup>2</sup> cohesion.

#### 3.2 Very Old Paralic Deposits

Although not directly observed in the borings we have completed at the subject site, Very Old Paralic Deposits (early to middle Pleistocene) were previously encountered in borings we advanced for UCSD both north and south of the site. The Very Old Paralic Deposits overlie the Scripps Formation, with the geologic contact typically at an elevation of approximately 345 feet MSL in this portion of the campus. The Very Old Paralic Deposits most commonly consist of reddish brown silty or clayey sand (SM or SC) with occasional fine gravel. Thin beds of silty sand with gravel are often observed directly above the geologic contact with the Scripps Formation. The Very Old Paralic Deposits are dense to very dense, with corrected SPT blow counts ( $N_{60}$ ) typically above 30. Laboratory tests indicate that the Very Old Paralic Deposits have a low expansion potential and *negligible* soluble sulfate content based on common criteria.

### 3.3 Fill

The southern portion of the site is underlain by a natural canyon drainage that was infilled and regraded on numerous occasions. Historic topographic surveys by the USGS from 1929, 1953, 1967 and 1977 indicate that several access roads were previously constructed across the canyon and then removed at a later date. Aerial photographs also indicate that several detention basins were previously excavated and later backfilled in both the northern and southern portions of the site. The site was also used as a Naval training facility (Camp Matthews) during World War II, and numerous target ranges once covered the area.

The northern portion of the site is underlain by relatively shallow undocumented fill soils ranging from a few feet to 29 feet in depth at the recent boring locations. By comparison, we encountered up to about 53 feet of undocumented fill in Borings B-26 and B-28 in the southern portion of the site (where the buried canyon is located). The approximate depths of fill (Df) encountered in each of the borings completed at the site are summarized on the Local Geologic Map, Figure 4. The as-graded fill depths below the planned building slabs-on-grade may be estimated by subtracting the existing grade from the planned grade, and adding the result to the fill depths shown in Figure 4.

The fill generally consisted of clayey or silty sand (SC or SM) with a trace of fine gravel. The fill contained a few zones of sandy lean clay (CL). The corrected SPT blow counts ( $N_{60}$ ) for 96 samples of the sandy fill varied from 6 to 49 and averaged 28. This indicates that the undocumented fill is generally medium dense in consistency, although some loose zones do exist. The in-situ dry unit weight of the fill samples we tested varied from about 94 to 129 lb/ft<sup>3</sup> and averaged 114 lb/ft<sup>3</sup>. The moisture content of the fill varied from 3.2 to 25.3 percent and averaged 12.1 percent. Direct shear tests suggest that the sandy fill has an ultimate shear strength exceeding 30° with 300 lb/ft<sup>2</sup> cohesion (see Figure B-5.10). Consolidation tests indicate that the fill is mildly over-consolidated with a recompression index ranging from about 0.012 to 0.019 (in strain domain) and a coefficient of consolidation ranging from about 0.08 to 0.18 in<sup>2</sup>/min (see Figures B-7.1 to B-7.4 in Appendix B). Laboratory tests indicate that the sandy fill has a very low to low expansion potential ( $EI < 30$ ) and negligible soluble sulfate content based on commonly accepted criteria (see Figures B-2 and B-3).

### 3.4 Groundwater

Groundwater was not encountered in the 71 borings included in Appendix A. Moderate seepage was encountered at an elevation of about 256 feet MSL beneath the Student Housing Pedestrian Bridge, which is located roughly 1,200 feet west of the subject site. However, that groundwater was limited in volume, and appeared to be perched within the canyon alluvium. Our previous experience in the site vicinity suggests that the local groundwater table is likely to be located more than 100 feet below site grades throughout the site. It should be noted that changes in rainfall, excessive irrigation practices, or site drainage issues may produce seepage or locally perched groundwater conditions at any location within the fill soil or formational units underlying the site. Such seepage conditions are difficult to predict and are typically mitigated if and where they occur.

## 4.0 GEOLOGIC HAZARDS

The subject site is not located within an area previously known for significant geologic hazards. Evidence of past landslides, liquefaction or active faulting at the site was not encountered in our geotechnical investigation or literature review. The main geologic hazards at the site will be associated with the potential for strong ground motion due to a seismic event on the active Rose Canyon fault zone. The strong ground shaking hazard is typically mitigated through structural design of the buildings per the applicable provisions of the current California Building Code. Each of the potential geologic hazards is described in more detail below.

### 4.1 Ground Rupture

Ground rupture is the result of movement on an active fault reaching the surface. An “active fault” is defined as a fault which has shown evidence of displacement during the Holocene time (within the last 11,000 years). The site is not located within a State of California Alquist-Priolo Earthquake Fault Zone, and no indications of Holocene-active faulting were found during our investigation or literature review. The nearest known active faults are located within the Rose Canyon fault zone, about 2.1 miles (3½ kilometers) west of the site, as shown on the Regional Fault Map, Figure 5A.

Two potentially active faults have been mapped by others in the southeast portion of the site, as shown on the Local Fault Map, Figure 5B. A “potentially active” fault is one which shows evidence of displacement during the Quaternary Period (within the last 1.6 million years). Potentially active faults typically do not require structural setbacks and are not considered to present a significant risk for ground rupture. In our opinion, the potential for active faulting and ground rupture to adversely impact the planned development is remote.

### 4.2 Seismicity

The site is located at latitude 32.8768° north and longitude 117.2202° west. Based on average Standard Penetration Test (SPT) values within the upper 100-feet of the profile, Buildings 1 and 3 in the northern portion of the site are situated in a 2022 California Building Code (CBC) Site Class C. This assumes that all existing fill beneath the buildings in the northern portion of the site will be excavated and replaced as compacted fill per our recommendations. By comparison, the average SPT blow count method indicates that Building 2 and Parking Structures 1 and 2 in the southern portion of the site are situated in a 2022 CBC Site Class D. The approximate location of the transition between Site Classes C and D is shown on the Local Geologic Map, Figure 4.

The MCE level Site Modified Peak Ground Accelerations ( $PGA_M$ ) from the 2022 California Building Code (CBC) for Site Classes C and D are 0.655g and 0.600g, respectively. The site modified Design level PGA for Site Classes C and D may be taken as  $PGA_M/1.5$  or 0.437g and 0.400g, respectively. The 2022 CBC acceleration response spectra for Site Classes C and D are plotted in Tables 1 and 2, respectively. Note that the  $S_{M1}$  and  $S_{D1}$  values for Site Class D were increased by 50 percent as required by Supplement 3 of ASCE 7-16 and the requirements of the 2022 CBC (see Table 2).



### **4.3 Liquefaction and Dynamic Settlement**

Liquefaction involves the sudden loss in strength of a saturated, cohesionless soil (sand and non-plastic silts) caused by the build-up of pore water pressure during cyclic loading, such as that produced by an earthquake. This increase in pore water pressure can temporarily transform the soil into a fluid mass, resulting in sand boils, settlement and lateral ground deformations. Typically, liquefaction occurs in areas where there are loose to medium dense sands and silts, and where the depth to groundwater is less than 50 feet from the ground surface. In summary, three simultaneous conditions are required for liquefaction:

- Historic high groundwater within 50 feet of the ground surface
- Liquefiable soils such as loose to medium dense sands
- Strong shaking, such as that caused by an earthquake

The regional groundwater table is located more than 50 feet below the existing site grades. Although deep fill soils do exist in the southern portion of the site, we have recommended that the three planned buildings in that area be supported by deep pile foundations bearing in the dense Scripps Formation. Given the absence of shallow groundwater, the recommended remedial earthwork, the use of deep foundations for structures founded over deep fill, and the high density of the underlying Scripps Formation, the potential for liquefaction and dynamic settlement to adversely affect the planned development is considered to be low.

### **4.4 Landslides and Slope Instability**

Evidence of ancient landslides or slope instabilities was not observed during our literature review or site reconnaissance. The site slopes gently with a few relatively minor slopes around the perimeter. Provided that our geotechnical recommendations are implemented during construction, that temporary slopes comply with Cal-OSHA requirements, and that shoring is used for vertical excavations, it is our opinion that slope instability should not adversely impact the development.

### **4.5 Tsunamis, Seiches and Flooding**

The site is located about 1.7 miles east of the Pacific Ocean. Previous studies suggest that a 500-year tsunami within the Pacific Ocean may result in a water surface runup of about 13 feet above tidal elevations along the coast of La Jolla (U.S. Army, 1974). Available topographic data indicates that the site is located more than 320 feet above mean sea level. Given the relatively high elevation of the site, the potential for damage due to a tsunami is considered remote. The site is not located below any lakes or confined bodies of water. Consequently, the potential for earthquake induced flooding is considered negligible. The site is not located within a FEMA 100-year flood zone.



## 5.0 CONCLUSIONS

The proposed development appears to be feasible from a geotechnical perspective, provided that appropriate measures are implemented during design development and earthwork construction. Several geotechnical conditions will need to be addressed.

- Buildings 1 and 3 will be situated over a relatively shallow depth of undocumented fill over the Scripps Formation. All existing undocumented fill should be excavated and replaced as compacted fill beneath these two building pads. The cut portions of the building pads should also be over-excavated so that the buildings are supported by a relatively uniform depth of compacted fill. Conventional shallow reinforced concrete foundations may be used to support these buildings (see Sections 6.4.1 and 6.4.2).
- Building 2 and Parking Structures 1 and 2 will be situated over as much as 45 to 53-feet of undocumented fill in some areas. Excavation and compaction of the fill is a potential alternative for these buildings. However, we anticipate that deep pile foundations will likely be used to support these buildings instead. For pile supported structures, the upper 3-feet of the soil placed within the building pad areas should consist of low expansion compacted fill ( $EI < 30$ ). All piles should be embedded at least 5-feet into Scripps Formation.
- The granular (sandy) on-site soils may be suitable for reuse in compacted fills, once any deleterious materials are removed. Some excavations within the Scripps Formation may generate large blocks of strongly cemented material that may require extra effort to break down to a size suitable for incorporation into structural compacted fill. Concrete debris generated by the planned demolition operations may be crushed to less than one-inch in maximum dimension and reused as Crushed Miscellaneous Base within the new pavement sections or sidewalk areas. A two-sack sand-cement slurry may also be used in lieu of structural compacted fill in areas with poor access for compaction equipment.
- Laboratory tests indicate that the near surface soils at the site primarily consist of silty and clayey sand (SM and SC) with a very low to low expansion potential. However, it should be noted that some expansive clay soils may also exist at the site. Additional testing should be conducted by Group Delta Consultants during grading to confirm that the upper 3 feet of fill placed beneath each structure consists of very low to low expansion material ( $EI < 30$ ).
- The potential for active faulting, liquefaction and seismic settlement, or floods to adversely impact the development is remote. Other hazards that may impact site development include strong ground shaking from an earthquake on a nearby active fault. This hazard may be mitigated by structural design in accordance with the applicable building code.
- Laboratory tests indicate that the on-site fill and formational materials generally present a *negligible* potential for sulfate attack. However, these soils are corrosive to buried metals. Typical corrosion control measures should be incorporated into the design.

## **6.0 RECOMMENDATIONS**

The remainder of this report presents recommendations for earthwork construction and the design of the proposed improvements. These recommendations are based on empirical and analytical methods typical of the standards of practice in southern California. If these recommendations do not cover a specific feature of the project, please contact our office for revisions or amendments.

### **6.1 Plan Review**

We recommend that the grading and foundation plans be reviewed by Group Delta Consultants prior to construction. We anticipate that substantial changes in the development may occur from the preliminary design concepts used for this investigation. Such changes may require additional geotechnical evaluation, which may result in substantial modifications to the remedial grading and foundation recommendations provided in this report.

### **6.2 Excavation and Grading Observation**

Foundation and grading excavations should be observed by the project geotechnical consultant. During grading, the geotechnical engineer's representative should provide observation and testing services continuously. Such observations are considered essential to identify field conditions that differ from those anticipated by this investigation, to adjust designs to the actual field conditions, and to determine that the remedial grading is accomplished in general accordance with the recommendations presented in this report. The recommendations provided in this report are contingent upon Group Delta Consultants providing these services. Our personnel should perform sufficient testing of fill and backfill during grading and improvement operations to support our professional opinion as to compliance with the compaction recommendations.

### **6.3 Earthwork**

Grading and earthwork should be conducted in general accordance with the requirements of the current California Building Code, as well as the standard earthwork specifications for the campus. Soil reuse, export and disposal should be conducted in accordance with UCSD Site Development Guidelines. The following recommendations are provided regarding specific aspects of the proposed earthwork. These recommendations should be considered preliminary and subject to revision based on the conditions observed by the geotechnical consultant during grading.

#### **6.3.1 Site Preparation**

General site preparation should begin with the removal of deleterious materials from the site. Deleterious materials include existing structures, retaining walls, foundations, concrete slabs, asphalt concrete pavements, vegetation and demolition debris. Existing subsurface utilities that will be abandoned should be removed and the excavations backfilled and compacted as described in Section 6.3.4. Alternatively, abandoned pipes may be grouted with a two-sack sand-cement slurry under the observation of the project geotechnical consultant.

We suggest that the general contractor establish a crushing operation to help dispose of the bulk of Portland cement concrete debris generated by demolition of any existing foundations, concrete sidewalks and pavements. All concrete debris may be crushed down to less than 1-inch in maximum dimension, and then placed as a structural compacted fill. Efforts should be made to remove the reinforcing steel prior to crushing the concrete. It has been our experience that properly crushed concrete will often meet the gradation and quality criteria from Section 200-2.4 of the Standard Specifications for Public Works Construction for use as Crushed Miscellaneous Base (CMB) within new pavement sections. The CMB may also be suitable for use as wall backfill, or as a very low expansion select fill for placement beneath new concrete slabs-on-grade. Note that UCSD environmental policy prohibits the reuse of asphalt concrete in structural compacted fill.

### 6.3.2 Improvement Areas

At least two feet of compacted fill with an Expansion Index of 30 or less is recommended beneath all new concrete sidewalks and exterior flatwork areas. To accomplish this objective, the upper 12-inches of soil below slab subgrade should be excavated, and the exposed subgrade observed and tested by Group Delta. If soil with an Expansion Index above 30 is encountered, the expansive soil should be excavated and replaced with a very low expansion material. The exposed subgrade should then be scarified 12 inches, brought to optimum moisture, and compacted as described in Section 6.3.4. Compaction should be conducted immediately prior to placing concrete or base.

### 6.3.3 Building Areas

There are several geotechnical constraints within the proposed building areas, including the presence of potentially compressible undocumented fill, transitions between cut and fill beneath new building foundations and slabs, and the presence of expansive soil. The depth of fill encountered at each boring location is shown in Figure 4. The structures located in the southern portion of the site (Building 2 and Parking Structures 1 and 2) will be situated over both cut/fill transitions and deep undocumented fill. We anticipate that deep pile foundations will likely be used to support these structures. For pile supported structures, the upper three feet of fill soil beneath the slab subgrade elevations should be excavated and replaced as a uniformly compacted low expansion fill (EI<30), as described in Section 6.3.4. Additional remedial excavation depths may be warranted based on the conditions observed by the geotechnical consultant during grading. The anticipated remedial grading and foundation type for each structure is summarized below.

Building ID (see Figure 2)	Fill Depth [ft] (see Figure 4)	Remedial Earthwork	Foundation Type (Section)
Building 1	0 to 11	Recompact Fill and Over-Excavate (Figure 6A)	Shallow (6.4.1)
Building 2	25 to 45	Grade Pad and Cap with 3 Feet Soil (EI<30)	Use Piles (6.4.3)
Building 3	4½ to 29	Recompact Fill and Over-Excavate (Figure 6A)	Shallow (6.4.1)
Parking Structure 1	0 to 53	Grade Pad and Cap with 3 Feet Soil (EI<30)	Use Piles (6.4.3)
Parking Structure 2	0 to 46	Grade Pad and Cap with 3 Feet Soil (EI<30)	Use Piles (6.4.3)

For those structures that will be situated over relatively shallow fill or shallow cut/fill transitions (Buildings 1 and 3), remedial excavations may be conducted to excavate and recompact all existing fill within 10-feet of the building foundation perimeters. The building pads should be over-excavated to a depth of  $H/2$ , where  $H$  is the maximum fill depth beneath each building as determined by the geotechnical consultant during remedial grading. The over-excavation should be at least 3-feet deep and need not extend more than 10 feet below slab subgrade elevations, as shown on the Over-Excavation Details, Figure 6A. The stockpiled soil that is free of deleterious materials and contaminated soil may then be replaced as uniformly compacted fill to the planned finish pad grades. The upper three feet of fill soil placed beneath all structures should consist of low expansion fill soil ( $EL < 30$ ). Much of the on-site soil meets this criterion (see Figure B-2).

#### **6.3.4 Fill Compaction**

All fill and backfill should be placed at slightly above optimum moisture content using equipment that is capable of producing a uniformly compacted product. The minimum recommended relative compaction is 90 percent of the maximum dry density at slightly above optimum moisture content per ASTM D1557. Sufficient observation and testing should be performed by the geotechnical consultant so that an opinion can be rendered as to the compaction achieved. Rocks or concrete fragments greater than 6 inches in maximum dimension should not be used in compacted fill. Excavations within the Scripps Formation may generate large blocks of strongly cemented material that may require extra effort to break down to a size suitable for incorporation into compacted fill.

Imported fill sources should be observed prior to hauling onto the site to determine the suitability for use. In general, imported fill materials should consist of granular soil with less than 35 percent passing the No. 200 sieve based on ASTM C136 and an Expansion Index less than 30 based on ASTM D4829. Samples of the import should be tested by the geotechnical consultant in order to evaluate the suitability of these soils for their proposed use. During grading operations, soil types may be encountered by the contractor that do not appear to conform to those discussed within this report. The geotechnical consultant should be notified to evaluate the suitability of these soils.

A two-sack sand and cement slurry may be used as an alternative to compacted fill soil in confined areas that are difficult to access with typical compaction equipment. A minimum 28-day compressive strength of 100 psi is recommended for the two-sack sand and cement slurry. Note that a 3-sack slurry with a minimum 28-day strength of 300 psi may also be used in selected areas. Samples of the slurry should be fabricated and tested for compressive strength during construction.

#### **6.3.5 Subgrade Stabilization**

All excavation bottoms should be firm and unyielding prior to placing fill. In areas of saturated or “pumping” subgrade, a geogrid such as Tensar BX-1200 or Terragrid RX1200 may be placed directly on the excavation bottom, and then covered with at least 12 inches of minus  $\frac{3}{4}$ -inch aggregate base. Once the excavation is firm enough to attain the required compaction within the base, the remainder of the excavation may be backfilled using either compacted soil or aggregate base.

### 6.3.6 Surface Drainage

Foundation and slab performance depends greatly on how well surface runoff drains from the site. The ground surface should be graded so that water flows rapidly away from the structure and top of slope without ponding. The surface gradient needed to achieve this may depend on the prevailing landscaping. Planters should be built so that water will not seep into the foundation, slab, or pavement areas. If roof drains are used, the drainage should be channeled by pipe to storm drains, or discharged at least 10 feet from buildings. Irrigation should be limited to the minimum needed to sustain landscaping. Excessive irrigation, surface water, water line breaks, or rainfall may cause perched groundwater to develop within the underlying soil.

### 6.3.7 Storm Water Management

We anticipate that various bioretention basins, swales or dry wells may be used to promote on-site infiltration for storm water Best Management Practice (BMP) at the site. Details of the planned storm water BMPs are not yet available. In order to help determine the feasibility of on-site infiltration, the infiltration rate of the soil should be determined at the approximate location of the proposed basins, swales or dry wells. The infiltration rates would typically be estimated by the geotechnical consultant using either the borehole percolation test or a double ring infiltrometer.

In order to provide meaningful results, the infiltration tests should be conducted at approximately the same depth and within the same material as the base of the proposed BMP. A double ring infiltrometer is the preferred method for determining the vertical infiltration rate for a bioretention basin or swale design, since it measures the vertical infiltration rate directly (assuming that the invert elevation of the basin is readily available for testing). For use in the design of a dry well, the borehole percolation test would provide a more accurate estimate of the horizontal infiltration rate, since it more closely emulates the dry well exfiltration regime.

### 6.3.8 Temporary Excavations

Temporary excavations may be needed to construct the planned improvements. All excavations should conform to Cal-OSHA guidelines. In general, we recommend that temporary excavations be inclined no steeper than 1:1 for heights up to 30-feet. Vertical excavations should be shored. Based on the findings of our subsurface investigation, the following OSHA Soil Types may be assumed for temporary slope design.

Geologic Unit	Cal/OSHA Soil Type
Undocumented Fill	Type B
Very Old Paralac Deposits	Type B
Scripps Formation	Type A <sup>1</sup>

1. Not subject to vibration, with no fracturing, fissuring or dip into the excavation.

The design, construction and monitoring of temporary slopes is the responsibility of the contractor. The contractor should have a competent person evaluate the geologic conditions encountered during excavation to determine permissible temporary slope inclinations required by Cal-OSHA.

### **6.3.9 Slope Stability**

Detailed grading plans for the proposed development are not yet available. However, we anticipate that various cut and fill slopes may be constructed at the site. We recommend that permanent cut and fill slopes be inclined no steeper than 2:1 (horizontal to vertical) for heights up to 30 feet. Our analyses indicate that 2:1 slopes composed of the on-site soils will possess adequate factors of safety against both deep-seated static and seismic failures for heights of 30-feet or more. Higher slopes should be evaluated by the project geotechnical consultant on a case-by case basis.

All slopes may be susceptible to surficial slope instability and erosion given substantial wetting of the slope face. Surficial slope stability may be enhanced by providing proper site drainage. The site should be graded so that water from the surrounding areas is not able to flow over the top of slopes. Diversion structures should be provided where necessary. Slopes should be planted with vegetation that will increase the surficial stability. Ice plant is generally not recommended. Vegetation should include woody plants, along with ground cover. Irrigation should be limited to the minimum needed to support the landscaping. Plants may be adapted for growth in semi-arid climates with little or no irrigation. A landscape architect should be consulted to develop a planting palette suitable for stabilization.

## **6.4 Foundation Recommendations**

The foundations for the new buildings should be designed by the project structural engineer using the following geotechnical parameters. These are only minimum criteria, and should not be considered a structural design, or to preclude more restrictive criteria of governing agencies or the structural engineer. The following recommendations should be considered preliminary, and subject to revision based on the conditions observed by the geotechnical consultant during grading.

### **6.4.1 Shallow Foundations**

The following design parameters are considered appropriate for the Building 1 and 3 foundations which will bear on a relatively uniform depth of compacted fill prepared in accordance with the recommendations in Section 6.3.3 and Figure 6A. The bearing soils are assumed to have a very low to low expansion potential ( $EI < 50$ ). Typical shallow foundation details are provided in Figure 6B.

Allowable Bearing:	3,000 lbs/ft <sup>2</sup> (allow a $\frac{1}{3}$ increase for short-term wind or seismic loads). The allowable bearing may be increased by 500 lbs/ft <sup>2</sup> per foot increase in width, and by 1,000 lbs/ft <sup>2</sup> for each additional foot of depth, up to a maximum value of 6,000 lbs/ft <sup>2</sup> (see below).
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Minimum Footing Width:	18 inches (see also Figure 6B).
Minimum Footing Depth:	24 inches below lowest adjacent soil grade.
Minimum Reinforcement:	Per structural engineer (two No. 4 bars at both top and bottom in continuous footings).

#### 6.4.2 Mat Foundations

We anticipate that mat foundations may be used to support some structures. The mats would likely be designed by the structural engineer using the modulus of subgrade reaction ( $k_s$ ) concept. The modulus of subgrade reaction is an idealized parameter that may be used to model soil-structure interaction for a specific foundation configuration. The subgrade modulus ( $k_s$ ) is defined as:

$$k_s \equiv q_o / \Delta H$$

where:  $q_o \sim$  the applied bearing pressure [psi]  
 $\Delta H \sim$  the associated soil displacement [in]

It should be noted that the displacement associated with a given bearing pressure will vary depending on the foundation dimensions and the total applied load, as well as the underlying fill soil conditions. Consequently, the subgrade modulus is not constant and will vary with changes in the foundation dimensions. For preliminary foundation design purposes, a unit coefficient of vertical subgrade reaction of 150 pci may be assumed for an idealized 1 ft<sup>2</sup> loaded area ( $k_1$ ).

The approximate modulus of subgrade reaction ( $k_B$ ) for larger foundations bearing either on formation or a shallow depth of compacted fill may be estimated using the following equation:

$$k_B = k_1 [(B + 1)/2B]^2$$

where:  $k_B$  = the modulus of subgrade reaction for a foundation of width 'B' [pci]  
 $k_1$  = the unit modulus of subgrade reaction for a 1 ft<sup>2</sup> area [150 pci]  
 $B$  = minimum foundation dimension [feet]

#### 6.4.3 Deep Foundations

Cast-in-drilled-hole (CIDH) piles may be used to support Building 2 and Parking Structures 1 and 2, which will be situated over relatively deep undocumented fill in the southern portion of the site. The approximate depth of the undocumented fill ( $D_f$ ) at each of the boring locations is summarized on the Local Geologic Map, Figure 4. For preliminary pile analysis, we assumed that pile supported structures will be underlain by between 10 and 50 feet of undocumented fill. Allowable axial capacity charts for 2 to 4-foot diameter CIDH piles are provided in Figures 7A to 7C. The allowable capacities include Safety Factors of 2.0 and 3.0 on skin friction and end bearing, respectively.



All piles should be embedded at least 5-feet into competent Scripps Formation, as determined by the geotechnical consultant during construction. For our axial capacity analyses, each pile was assumed to be spaced at least 4 pile diameters such that group effects could be neglected. The allowable capacities do include end bearing, and the Contractor should be prepared to provide a thorough cleaning of the pile excavation bottoms. Groundwater was not encountered in any of the borings, and wet pile construction methods should not be needed. Concrete should be tremied into the pile excavations with a maximum drop height of 5 feet. Alternative pile design parameters for use in a Load and Resistance Factor Design (LRFD) may be provided upon request.

#### **6.4.4 Settlement**

Provided that remedial grading is conducted as recommended in Section 6.3, total and differential settlements of structures founded on conventional shallow foundations over compacted fill are not expected to exceed one inch and  $\frac{3}{4}$ -inch in 40 feet, respectively. By comparison, we estimate that CIDH piles loaded to the allowable axial capacities presented in Figures 7A to 7C will experience less than  $\frac{1}{2}$ -inch of total settlement due to the allowable axial loads.

#### **6.4.5 Lateral Resistance**

Lateral loads against the structures may be resisted by friction between the bottoms of footings and slabs and the soil, and passive pressure from the portion of vertical foundation members embedded into compacted fill or formational materials. A coefficient of friction of 0.30 and a passive pressure of 350 psf per foot of depth may be used. The allowable friction and passive pressures incorporate Safety Factors of about 1.5 and 2.0 or more, respectively.

Preliminary LPILE analyses were conducted for single 2, 3 and 4-foot diameter CIDH piles. For the lateral analyses, the piles were assumed to be spaced far enough apart such that group effects could be neglected. The CIDH piles were assumed to be 20 to 40-feet long for the LPILE analyses, with the pile tips embedded 5-feet into dense Scripps Formation to help maintain pile tip fixity. The piles were assumed to be composed of 4,000 psi reinforced concrete with at least 1½ percent steel reinforcement. The piles were assumed to be loaded to the allowable axial capacities provided in Figures 7A to 7C. Both free-head and fixed-head conditions were evaluated for  $\frac{1}{2}$ -inch and 1-inch of lateral displacement at the pile head. The results of the LPILE analyses are presented graphically in Figures 8A through 8C. Additional LPILE analyses may be provided as the design development progresses and the actual pile locations, loads, sizes and reinforcements are known.

#### **6.4.6 Slope Setback**

As a minimum, all foundations should be setback from any descending slope at least 8 feet. The setback should be measured horizontally from the outside bottom edge of the footing to the slope face. The horizontal setback may be reduced by deepening the foundation to achieve the recommended setback distance projected from the footing bottom to the face of the slope.



In general, all slopes are susceptible to creep, whether the slopes are natural or man-made. Slope creep is the very slow, down-slope movement of the near surface soil along the slope face. The degree and depth of the movement is influenced by soil type and the moisture conditions. This movement is typical in slopes and is not considered a hazard. However, it may affect improvements built on or near the slope top. We recommend that settlement-sensitive improvements such as concrete slabs not be located within 5 feet of the tops of any slopes at the site.

#### 6.4.7 Seismic Design

The site is located at latitude 32.8768° north and longitude 117.2202° west as shown in Figure 1A. Structures should be designed in general accordance with the seismic provisions of the 2022 California Building Code (CBC) for Seismic Design Category D. Based on the conditions encountered in the subsurface explorations throughout the site, portions of the site may classify as either Site Class C (Soft Rock) or Site Class D (Stiff Soil) in accordance with ASCE 7-16 and the 2022 CBC.

Seismic design parameters for the proposed structures are provided in the table below, based on the geotechnical conditions summarized in Section 6.3.3. Note that the as-graded seismic design values may vary depending on the geologic conditions observed during grading of the site. The seismic design parameters tabulated below were developed using the referenced OSHPD online Seismic Design Maps Tool (OSHPD, 2023). The recommended 2022 CBC Design and MCE<sub>G</sub> spectra for Site Class C and D are also plotted in Tables 1 and 2, respectively.

Seismic Design Parameter	General Procedure Spectrum (Section 11.4 of ASCE 7-16)	General Procedure Spectrum (Section 11.4 of ASCE 7-16)
Building ID (see Figure 2)	Buildings 1 and 3	Building 2 and Parking Structures 1 and 2
Site Class	C (Soft Rock)	D (Stiff Soil)
Site Latitude	32.8768	32.8768
Site Longitude	-117.2202	-117.2202
$S_s$ (g)	1.210	1.210
$S_1$ (g)	0.426	0.426
$F_a$	1.200	1.016
$F_v$	1.500	1.874
$T_s$ (sec)	0.440	0.974
$T_L$ (sec)	8.000	8.000
$S_{MS}$ (g)	1.452	1.229
$S_{M1}$ (g)	0.639	1.197
$S_{DS}$ (g)	0.968	0.820
$S_{D1}$ (g)	0.426	0.798
$PGA_M$	0.655	0.600

## **6.5 On-Grade Slabs**

Building slabs should be at least 5 inches thick and should be reinforced with at least No. 3 bars on 18-inch centers, each way. Slab thickness, control joints, and reinforcement should be designed by the structural engineer and should conform to the requirements of the current CBC. If the subgrade modulus concept is used for design, we recommend a unit modulus of subgrade reaction ( $k_1$ ) of 150 pounds per cubic inch (pci) to reflect granular compacted fill beneath the slabs-on-grade.

The surficial soils at the site predominately consist of granular silty and clayey sand (SM and SC) with a very low to low expansion potential ( $El < 50$ ). However, some expansive clays may also exist on site. It should be reiterated that 2 to 3 feet of granular compacted fill soil with an Expansion Index less than 30 is recommended beneath concrete sidewalks and building slabs, respectively.

### **6.5.1 Moisture Protection for Slabs**

Moisture protection should comply with requirements of the current CBC, the American Concrete Institute (ACI 302.1R-15) and the desired functionality of the interior ground level spaces. The Architect typically specifies an appropriate level of moisture protection considering allowable moisture transmission rates for the flooring or other functionality considerations. Moisture protection may be a "Vapor Retarder" or "Vapor Barrier" that use membranes with a thickness of 10 and 15 mil or more, respectively. ACI 302.1R-15 provides a flow chart to determine when and where these membranes should be used. Note that the CBC specifies a Capillary Break, as defined and installed per the California Green Building Standards, with a Vapor Retarder.

### **6.5.2 Exterior Slabs**

Exterior slabs and sidewalks should be at least 4 inches thick. Crack control joints should be placed on a maximum spacing of 10-foot centers, each way, for slabs, and on 5-foot centers for sidewalks. The potential for differential movements across the control joints may be reduced by using steel reinforcement. Typical reinforcement for exterior slabs would consist of 6x6 W2.9/W2.9 welded wire fabric placed securely at mid-height of the slab.

### **6.5.3 Expansive Soils**

The soils we observed throughout the site primarily consisted of fine to medium grained silty and clayey sand (SM and SC). Laboratory tests and our previous experience suggests that these materials typically have a very low to low expansion potential ( $El < 50$ ), based on commonly accepted criteria. The Expansion Index test results are presented in Figure B-2.

#### 6.5.4 Reactive Soils

In order to assess the sulfate exposure of concrete in contact with the site soils, samples were tested for water-soluble sulfate content, as shown in Figure B-3. The test results indicate that the on-site soils typically have a *negligible* potential for sulfate attack based on commonly accepted criteria. The sulfate content of the finish grade soils should be confirmed during fine grading.

In order to assess the reactivity of the site soils with buried metals, the pH, resistivity and chloride content were also determined (see Figure B-3). These test results suggest that the on-site soils may be *corrosive* to buried metals. Typical corrosion control measures should be incorporated into design, such as providing minimum clearances between reinforcing steel and soil, or sacrificial anodes for buried metal structures. It is the responsibility of the design team to confirm that proper corrosion control measures are incorporated into the design and implemented during construction. A corrosion consultant may be contacted for specific recommendations.

#### 6.6 Earth-Retaining Structures

Backfilling retaining walls with expansive soil can increase lateral pressures well beyond normal active or at-rest pressures. We recommend that retaining walls be backfilled with granular soil that has an Expansion Index of 30 or less ( $EI < 30$ ). Testing suggests that most of the on-site soil may meet this criterion (see Figure B-2). Retaining wall backfill should be compacted to at least 90 percent relative compaction based on ASTM D1557. Backfill should not be placed until the walls have achieved adequate strength. Heavy compaction equipment, which could cause distress to the walls, should not be used. For general wall design, an allowable bearing capacity of 2,000 lbs/ft<sup>2</sup>, a coefficient of friction of 0.30, and a passive pressure of 350 psf per foot of depth is recommended.

##### 6.6.1 Cantilever Walls

Cantilever retaining walls with level granular backfill may be designed using an active earth pressure approximated by an equivalent fluid pressure of 35 lbs/ft<sup>3</sup>. The active pressure should be used for walls free to yield at the top at least ½ percent of the wall height. Subterranean walls (such as basement walls) that are restrained so that such movement is not permitted should be designed for an at-rest equivalent fluid pressure of 60 lbs/ft<sup>3</sup>. Any surcharges located within a 1:1 plane extending back and up from the base of the retaining wall should be accounted for in the design.

Retaining walls situated adjacent to vehicular traffic areas may be designed to resist a uniform lateral surcharge pressure of 100 lb/ft<sup>2</sup>, resulting from an assumed 300 lb/ft<sup>2</sup> traffic surcharge acting behind the wall. The lateral pressures acting on yielding and restrained retaining walls are depicted in Figures 9A and 9B. Note that these pressures do not include groundwater pressures. All retaining walls should contain adequate backdrains to relieve hydrostatic pressures. Typical retaining wall drainage details are provided in Figure 9C.

## 6.6.2 Seismic Wall Loads

Per the provisions of the 2022 California Building Code (CBC), seismic design is required for all earth retaining structures over 6 feet in height. Basement walls may also require seismic design. The site modified  $MCE_G$  level peak ground acceleration ( $PGA_M$ ) varies from 0.600 to 0.655g, as shown in Tables 1 and 2. Design level loads are traditionally used for seismic design of retaining walls ( $PGA_M/1.5 \sim 0.437g$ ), as described in Section 1803.5.12 of the 2022 CBC. A fraction of the Design level peak ground acceleration is typically used for pseudo-static seismic wall design to account for yielding of the walls. We have provided seismic retaining wall design parameters based on a pseudo-static seismic load of 0.28g, corresponding to 1 to 2 inches of seismic deformation. The recommended seismic increment of 29 lb/ft<sup>3</sup> for yielding walls is shown in the attached Figure 9A.

## 6.7 Pavement Design

For all pavement areas, upper 12 inches of subgrade soil should be scarified immediately prior to constructing the pavements, brought to optimum moisture, and compacted to at least 95 percent of the maximum density per ASTM D1557. Aggregate base should also be compacted to 95 percent relative compaction. Aggregate base should conform to the Standard Specifications for Public Works Construction (SSPWC), Section 200-2. Asphalt concrete should conform to Section 400-4 of the SSPWC and should be compacted to 91 and 97 percent of the Rice density per ASTM D2041.

### 6.7.1 Asphalt Concrete

In order to aid in preliminary pavement section design, R-Value tests were conducted on soil samples collected from throughout the site. The testing was conducted in general accordance with CTM 301. The test results are presented in Figures B-6.1 to B-6.12. The R-Values for the 12 samples we tested varied from 9 to 51 and averaged 22. The final pavement section designs should be based on R-Value testing of the actual pavement subgrade soils collected during fine grading.

Asphalt concrete pavement design was conducted in general accordance with the Caltrans Design Method. We anticipate that a Traffic Index ranging from 5.0 to 9.5 may apply to new pavement areas. The project civil engineer should review the assumed Traffic Indices to determine if and where they apply to the various new pavements proposed on site. Assuming a design R-Value of 20 and the assumed range of Traffic Indices, the following pavement sections would apply.

PAVEMENT TYPE	TRAFFIC INDEX	ASPHALT SECTION	BASE SECTION
Passenger Car Parking	5.0	3 Inches	7 Inches
Light Truck Traffic Areas	6.0	4 Inches	8 Inches
Heavy Truck Traffic Areas	7.0	4 Inches	12 Inches
Heavy Bus Traffic Areas	8.0	5 Inches	14 Inches
Fire Truck Access Areas	9.5	6 Inches	17 Inches



## 6.7.2 Portland Cement Concrete

Concrete pavement design was conducted in general accordance with the simplified design procedure of the Portland Cement Association. This methodology is based on a 20-year design life. For design, it was assumed that aggregate interlock would be used for load transfer across control joints. The concrete was assumed to have a minimum flexural strength of 600 psi. The flexural strength of the concrete should be confirmed during construction by testing per ASTM C78. The subgrade materials were assumed to provide “low” support, based on the R-Value tests.

Using these assumptions and the same Traffic Indices presented previously, we recommend that the PCC pavement sections at the site consist of at least 6 inches of concrete placed over 6 inches of compacted aggregate base. For heavy truck traffic areas (Traffic Index of 7.0), 7 inches of concrete over 6 inches of aggregate base is recommended. Additional concrete pavement section alternatives for higher Traffic Indices may be provided upon request.

Crack control joints should be constructed for all PCC pavements on a maximum spacing of 10 feet, each way. Concentrated truck traffic areas, such as trash truck aprons and loading docks, should be reinforced with number 4 bars on 18-inch centers, each way.

## 6.7.3 Interlocking Concrete Pavers

We anticipate that interlocking concrete paver blocks may be used in some portions of the site. Interlocking concrete paver block design was developed using Technical Specification No. 4 of the Interlocking Concrete Pavement Institute (ICPI). For preliminary design purposes, we have assumed that the paver blocks will have a minimum nominal thickness of 80 mm. The 80 mm concrete paver blocks were assumed to be equivalent to 3-inches of asphalt concrete. Based on a typical subgrade R-Value of 20, the following preliminary paver block pavement sections would apply.

PAVEMENT TYPE	TRAFFIC INDEX	PAVER SECTION	BASE SECTION
Passenger Car Parking	5.0	80 mm	7 Inches
Light Truck Traffic Areas	6.0	80 mm	10 Inches
Heavy Truck Traffic Areas	7.0	80 mm	14 Inches

The paver blocks should be installed in general accordance with the product manufacturer’s recommendations. Once the aggregate base has been compacted, and the concrete edge restraints are in place, bedding sand should be screeded in an even layer over the base. The bedding sand should be at least  $\frac{3}{4}$  inch thick but should not exceed  $1\frac{1}{2}$  inches in thickness. The use of more than  $1\frac{1}{2}$  inches of bedding sand may result in undesirable settlement of the paver blocks over time. The paver blocks should be placed over the bedding sand and vibrated into place using a high frequency plate compactor. The joint sand should be swept over the pavers into the joints and compacted. Typically, 4 to 6 passes with a compactor would be used to seat the interlocking paver blocks.

The bedding sand should conform to the gradation requirements for ASTM C33. ICPI specifications indicate that the bedding sand should be "...as hard as practically available." We recommend that bedding sand be used with a durability exceeding 30 when tested in general accordance with ASTM D3744. A separate joint sand should be used which is finer than the bedding sand, and which conforms to the gradation requirements of ASTM C144.

## **6.8 Pipelines**

The planned addition may include various pipelines such as water, storm drain and sewer systems. Geotechnical aspects of pipeline design include lateral earth pressures for thrust blocks, modulus of soil reaction, and pipe bedding. Each of these parameters is discussed separately below.

### **6.8.1 Thrust Blocks**

Lateral resistance for thrust blocks may be determined by a passive pressure value of 350 lbs/ft<sup>2</sup> per foot of embedment, assuming a triangular distribution. This value may be used for thrust blocks embedded into compacted fill soils as well as the formational materials.

### **6.8.2 Modulus of Soil Reaction**

The modulus of soil reaction ( $E'$ ) is used to characterize the stiffness of soil backfill placed along the sides of buried flexible pipelines. For the purpose of evaluating deflection due to the load associated with trench backfill over the pipe, a value of 2,000 lbs/in<sup>2</sup> is recommended for the general conditions, assuming granular bedding material is placed around the pipe.

### **6.8.3 Pipe Bedding**

Typical pipe bedding as specified in the *Standard Specifications for Public Works Construction* may be used. As a minimum, we recommend that pipes be supported on at least 4 inches of granular bedding material such as minus ¾-inch crushed rock or disintegrated granite. Where pipeline or trench excavations exceed a 15 percent gradient, we do not recommend that open graded rock be used for bedding or backfill because of the potential for piping and internal erosion. For sloping utilities, we recommend that coarse sand or sand-cement slurry be used for the bedding and pipe zone. The slurry should consist of a 2-sack mix having a slump no greater than 5 inches.

### **6.8.4 Filter Fabric Separator**

It has been our experience that soil may migrate into the void spaces within an open graded gravel over time. A ¾-inch Minus Crushed Rock may have 50 percent void space or more, creating the potential for migration of a large volume of soil into the gravel voids. This migration of soil may take several years to occur, and is generally recognized only when surface manifestations develop, such as settlement of the pavement around a manhole or over a utility trench. It is our understanding that the UCSD Inspection and Civil Engineering staff have recognized similar damage associated with gravel used for storm drain improvements throughout the UCSD campus.

In order to reduce the potential for distress to settlement sensitive improvements at the site, UCSD typically requires that a filter fabric separator (such as Mirafi 140N or an approved similar product) be placed between the soil and any open graded gravel used around pipes and manholes that are constructed within roadways, or beneath areas finished with concrete flatwork or pavers.

## 7.0 LIMITATIONS

This report was prepared using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable geotechnical consultants practicing in similar localities. No warranty, express or implied, is made as to the conclusions and professional opinions included in this report.

The findings of this report are valid as of the present date. However, changes in the condition of a property can occur with the passage of time, whether due to natural processes or the work of man on this or adjacent properties. In addition, changes in applicable or appropriate standards of practice may occur from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and should not be relied upon after a period of three years.

## 8.0 REFERENCES

- American Society for Testing and Materials (2021). *Annual Book of ASTM Standards, Section 4, Construction, Volume 04.08 Soil and Rock (I); Volume 04.09 Soil and Rock (II); Geosynthetics*, ASTM, West Conshohocken, PA, Compact Disk.
- APWA (2019). *Standard Specifications for Public Works Construction, Section 200-2.2, Untreated Base Materials, Section 400-4, Asphalt Concrete*: BNI.
- California Department of Conservation, Division of Mines and Geology (1992). *Fault Rupture Hazard Zones in California, Alquist-Priolo Special Studies Zone Act of 1972*: California Division of Mines and Geology, Special Publication 42.
- California Department of Conservation, Division of Mines and Geology (1993). *The Rose Canyon Fault Zone, Southern California*, CDMG OFR 93-02.
- City of San Diego (2008). *Seismic Safety Study, Geologic Hazards and Faults*, City of San Diego Development Services Department, Grid Tile 30.
- Group Delta Consultants (2014). *Report of Geotechnical Investigation, Graduate and Professional Students & Mixed-Use Housing – East Campus, University of California, San Diego #4864*, Project No. SD393, September 15.
- Group Delta Consultants (2016a). *Report of Geotechnical Investigation, Athena Way Improvements (UCSD Project No. 4924), La Jolla, CA*, Project No. SD487, June 15.



Group Delta Consultants (2016b). *Report of Geotechnical Investigation, Nuevo West Development UCSD Project No. 5053, La Jolla, CA, Project No. SD476, July 6.*

Group Delta Consultants (2017a). *Report of Geotechnical Investigation, Miramar Street and Athena Circle, UCSD Project No. 5099, La Jolla, CA, Project No. SD524, April 5.*

Group Delta Consultants (2017b). *Report of Geotechnical Investigation, Student Housing Pedestrian Bridge, UCSD Project No. 5079, La Jolla, CA, Project No. SD514, September 1.*

Group Delta Consultants (2022a). *Proposal for Preliminary Geotechnical Investigation, UC San Diego Science Research Park, La Jolla, CA, Proposal No. SD22-072, September 23.*

Group Delta Consultants (2022b). *Proposal for Supplemental Investigation, UC San Diego Science Research Park, La Jolla, CA, Proposal No. SD22-072R, October 12.*

Group Delta Consultants (2022c). *Revised Preliminary Phase II Environmental Site Assessment (ESA), UC San Diego Science Research Park, La Jolla, CA, Project No. SD754, November 2.*

Hillman Consulting (2022). *Phase I Environmental Site Assessment, Science Research Park, San Diego, California 92037, Project No. C3-9227, October 6.*

International Conference of Building Officials (2022). *2022 California Building Code.*

Jennings, C. W. (1994). *Fault Activity Map of California and Adjacent Areas with Locations and Ages of Recent Volcanic Eruptions: CDMG Geologic Data Map Series, Map No. 6.*

Kennedy, M. P., and Tan, S. S. (2005). *Geologic Map of the San Diego 30'x60' Quadrangle, California: California Geologic Survey, Scale 1:100,000.*

Structural Engineers Association of California and Office of Statewide Health Planning and Development (OSHPD, 2023). *Seismic Design Maps Tool, January 6.*

University of California, San Diego (2018). *Topographic Survey for: Subsurface Utility Exhibit.*

United States Geological Survey (1929, 1953, 1967, 1977, 1994, 2021). *Topographic Maps for the: Del Mar Quadrangle, 7.5 Minute Series.*

United States Geological Survey (2022). *Unified Hazard Tool, Dynamic Conterminous U.S. Model (V4.1.1), from <https://earthquake.usgs.gov/hazards/interactive/>*

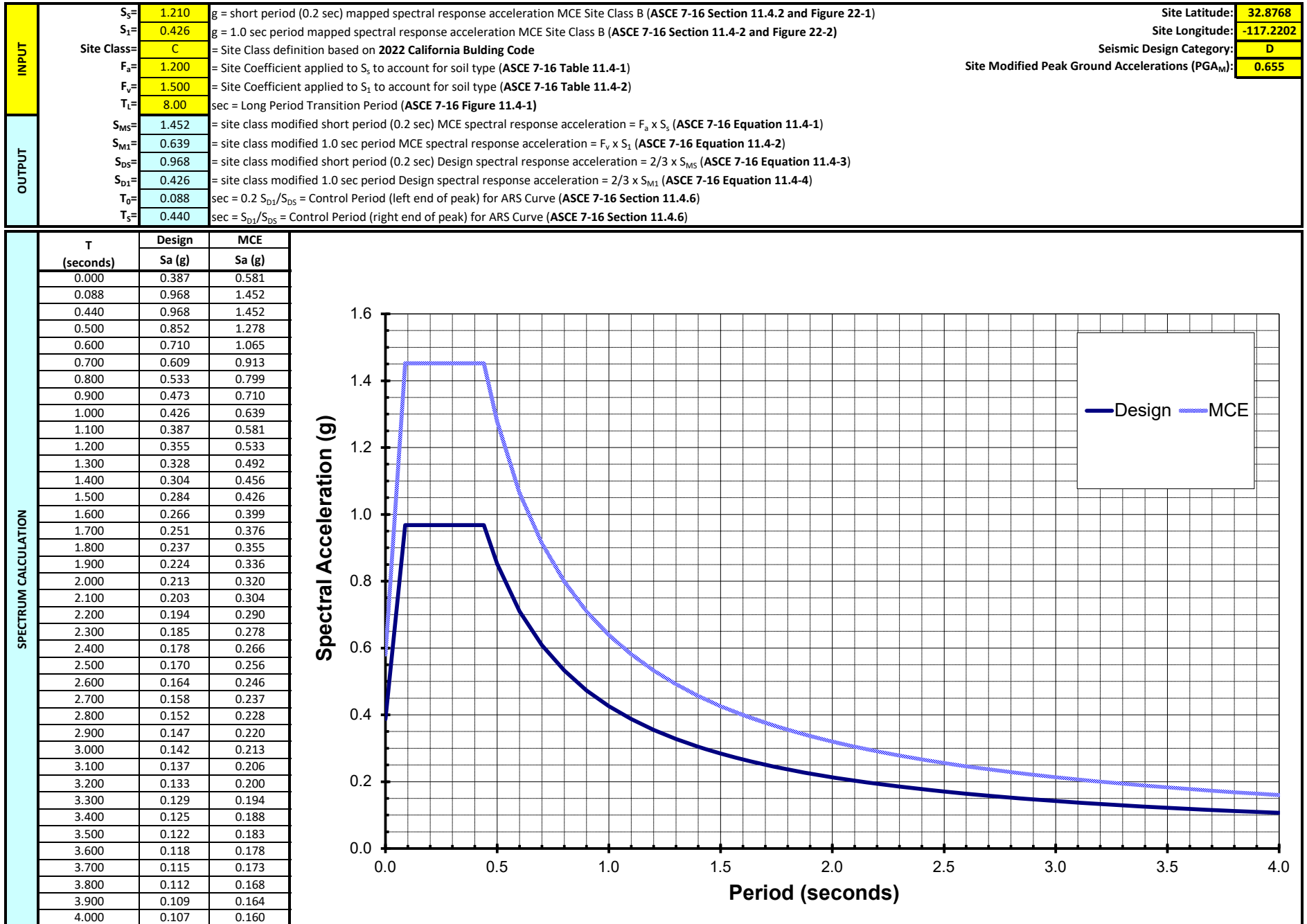
U. S. Army Engineer Waterways Experiment Station (1974). *Tsunami Prediction for Pacific Coastal Communities, Hydraulics Laboratory, Vicksburg, Mississippi.*



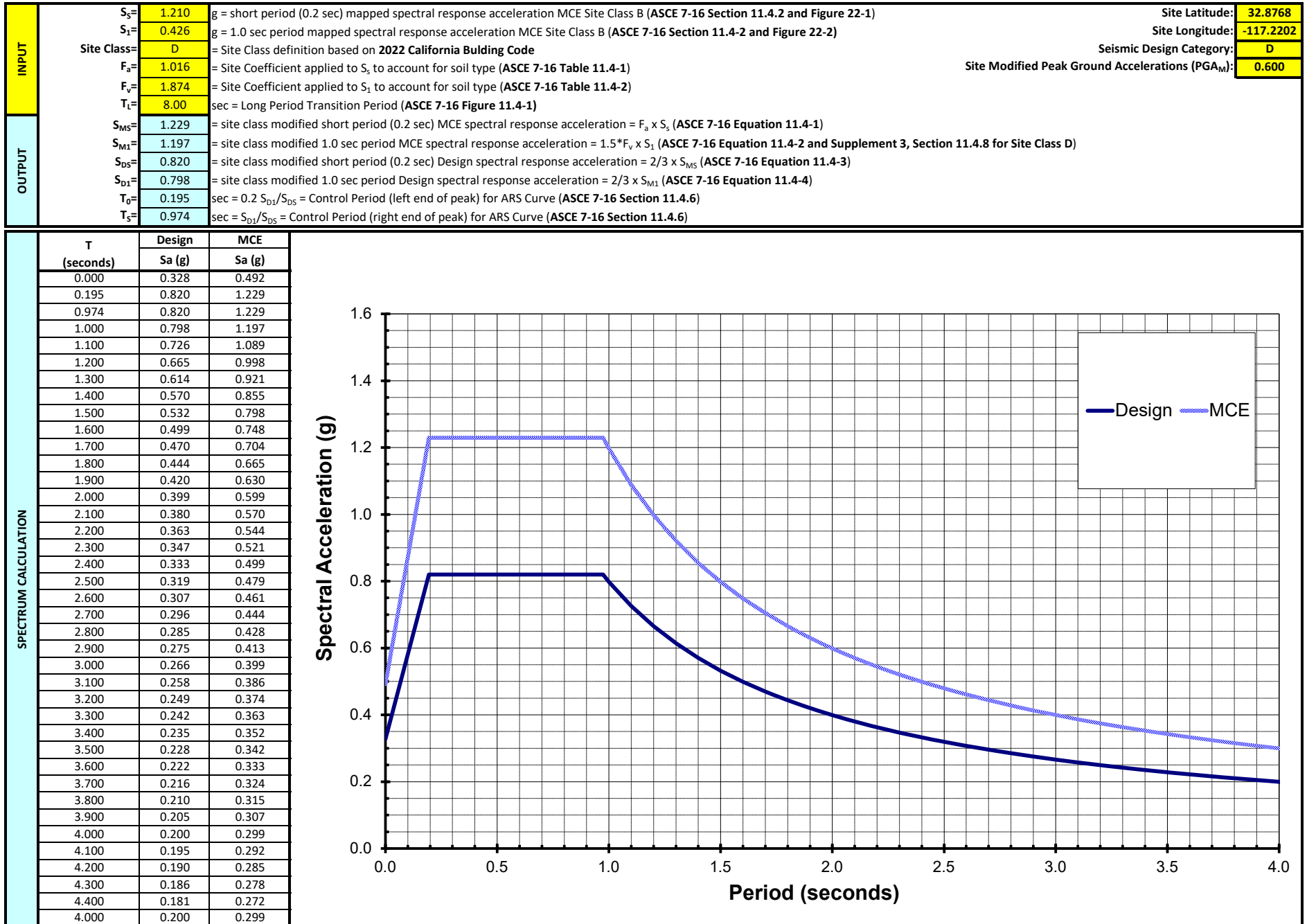
## ***TABLES***

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**TABLE 1 - 2022 CBC ACCELERATION RESPONSE SPECTRA (SITE CLASS C)**



**TABLE 2 - 2022 CBC ACCELERATION RESPONSE SPECTRA (SITE CLASS D)**



**NOTE:** This spectrum has been modified by a factor of 1.5 on  $S_{M1}$  and  $S_{D1}$  per the requirements of Section 11.4.8 of Supplement 3 of ASCE 7-16, and the requirements of the 2022 CBC.

## ***FIGURES***

---





NO SCALE



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Wexford Science + Technology




PROJECT NUMBER  
SD754  
DOCUMENT NUMBER  
22-0116  
FIGURE NUMBER  
1A

**SITE LOCATION MAP**





**EXPLANATION:**

- B-50**  Approximate locations of the 50 supplemental borings.
- A-22-06**  Approximate locations of the 6 preliminary borings.
- A-17-03**  Approximate locations of the 15 previous borings.

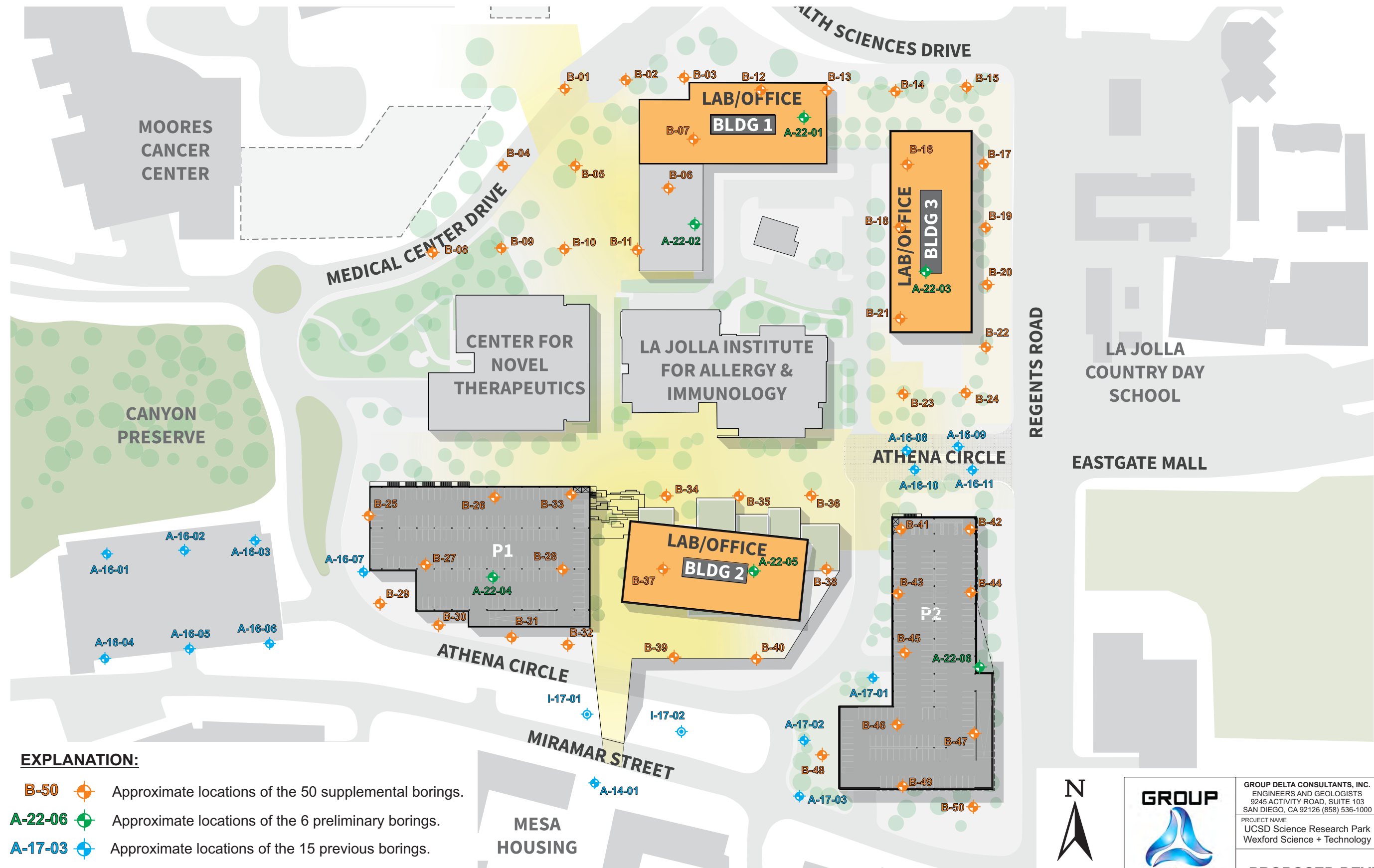


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FIGURE NUMBER  
1B

**SITE VICINITY PLAN**





**EXPLANATION:**

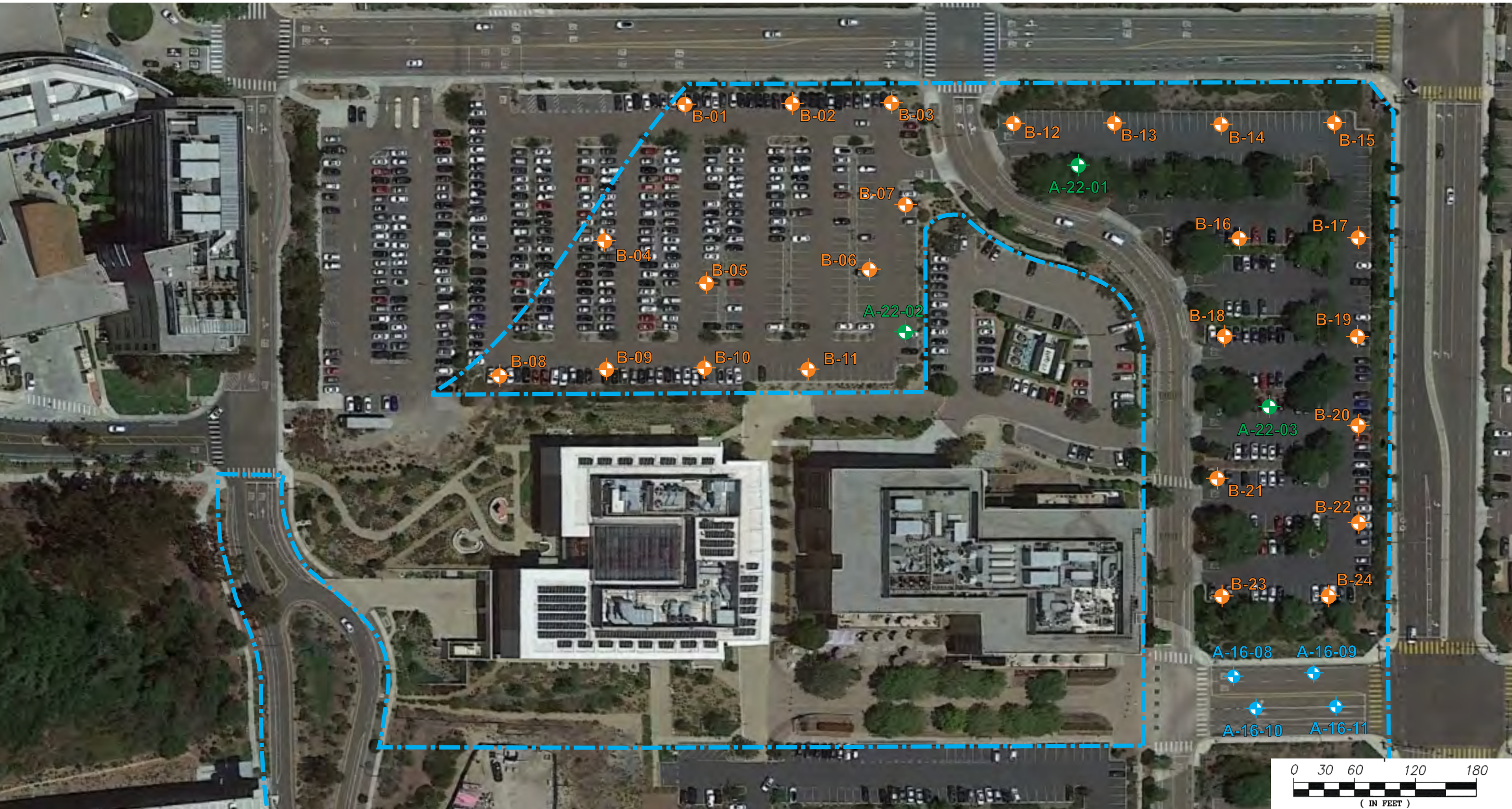
- B-50** Approximate locations of the 50 supplemental borings.
- A-22-06** Approximate locations of the 6 preliminary borings.
- A-17-03** Approximate locations of the 15 previous borings.

**REFERENCE:** Wexford Science + Technology (2022). *Preliminary Ground Level Floor Plan - Elevation 335'*, April 8.






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	DOCUMENT NUMBER 22-0116
	FIGURE NUMBER 2
PROJECT NAME UCSD Science Research Park Wexford Science + Technology	
PROPOSED DEVELOPMENT	





**EXPLANATION:**

- B-50**  Approximate locations of the 50 supplemental borings conducted for design of the UC San Diego Science Research Park (GDC, 2022).
- A-22-06**  Approximate locations of the 6 exploratory borings conducted for the preliminary UC San Diego Science Research Park study (GDC, 2022).
- A-17-03**  Approximate locations of the 15 exploratory borings we previously completed in the site vicinity (GDC, 2014, 2016, 2017).



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FIGURE NUMBER  
**3A**

**EXPLORATION PLAN**





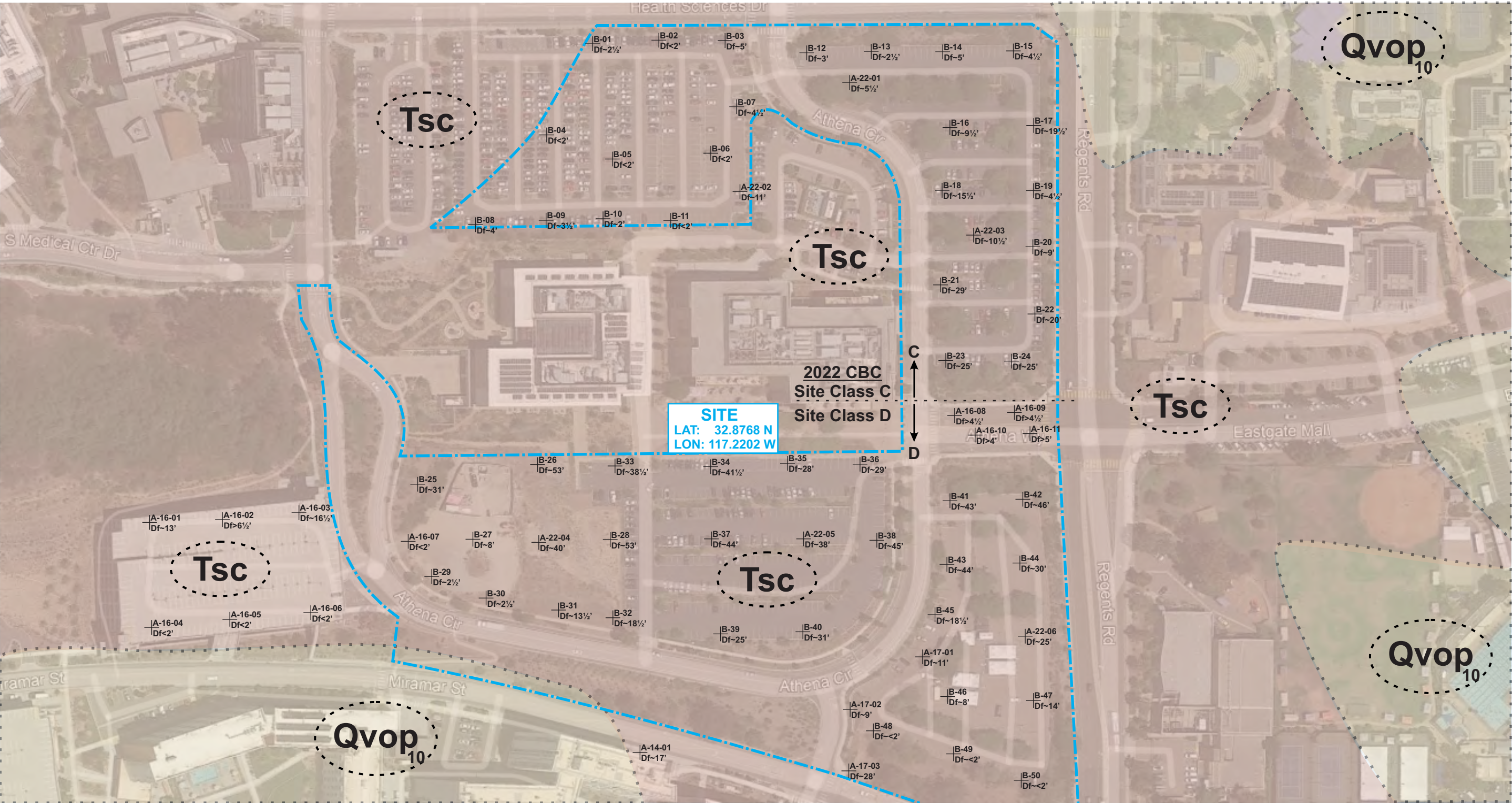
**EXPLANATION:**

- B-50** Approximate locations of the 50 supplemental borings conducted for design of the UC San Diego Science Research Park (GDC, 2022).
- A-22-06** Approximate locations of the 6 exploratory borings conducted for the preliminary UC San Diego Science Research Park study (GDC, 2022).
- A-17-03** Approximate locations of the 15 exploratory borings we previously completed in the site vicinity (GDC, 2014, 2016, 2017).



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	DOCUMENT NUMBER <b>22-0116</b>
	FIGURE NUMBER <b>3B</b>
<b>EXPLORATION PLAN</b>	





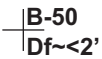
**EXPLANATION:**



**Very old paralic deposits, Unit 10 (middle to early Pleistocene)** — Mostly poorly sorted, moderately permeable, reddish-brown, interfingering strandline, beach, estuarine and colluvial deposits of siltstone, sandstone and conglomerate (circled where buried).



**Scripps Formation (middle Eocene)** — Mostly pale yellowish and gray-brown, medium-grained sandstone containing occasional cobble-conglomerate interbeds (circled where buried by undocumented fill).



**Boring Identification with Depth of Fill (Df)** — The 50 supplemental, 6 preliminary and 15 previous boring locations are shown, along with the Depth of Fill (Df) in feet for each boring (see Figures 3A and 3B for precise locations).



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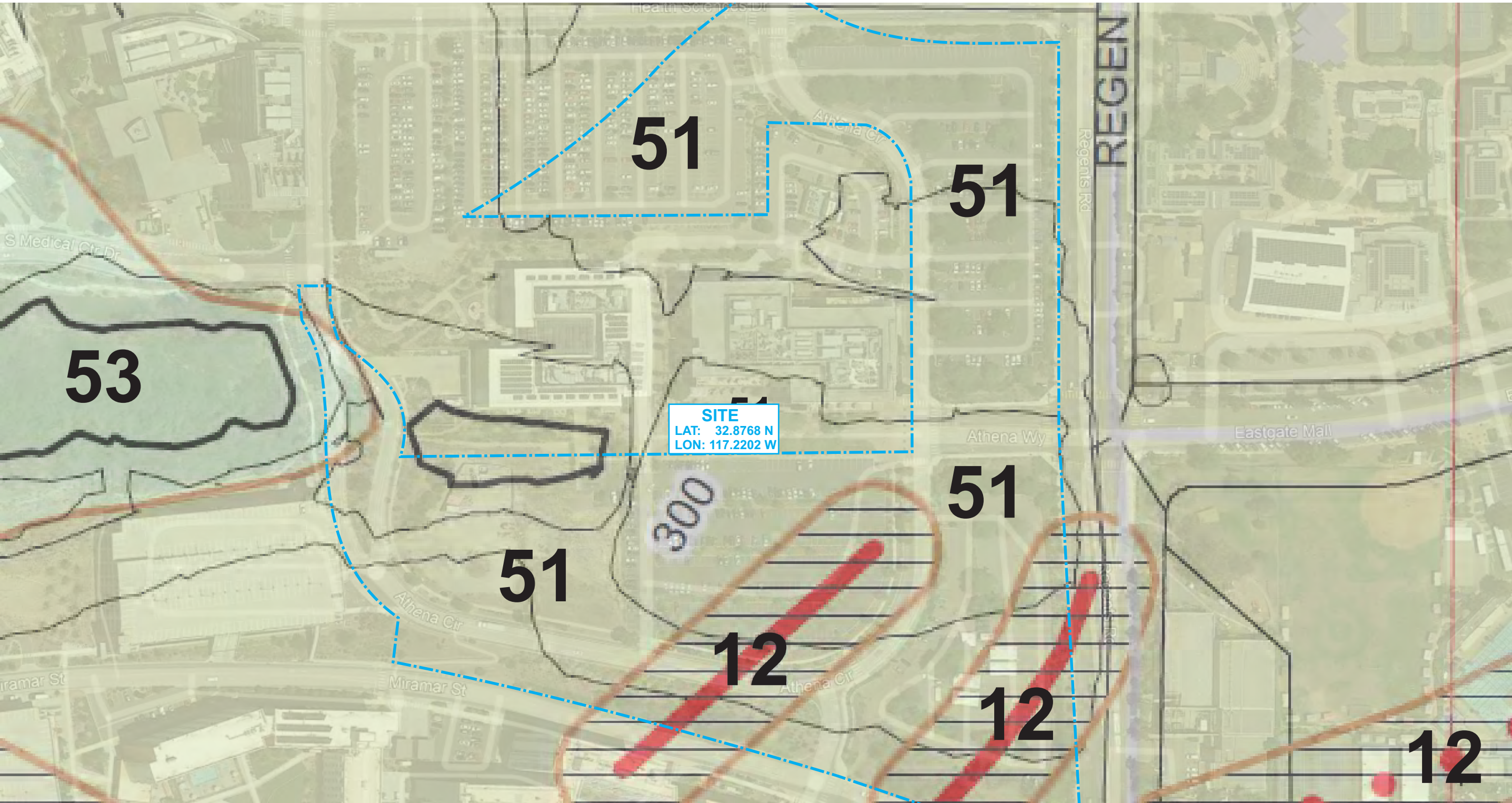
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DOCUMENT NUMBER  
22-0116  
FIGURE NUMBER  
4

**LOCAL GEOLOGIC MAP**









**EXPLANATION:**

**FAULT ZONES**

- 12 Potentially Active,  
Inactive, Presumed Inactive, or Activity Unknown

**FAULTS**

- Fault  
Inferred Fault  
Concealed Fault

**OTHER TERRAIN**

- 51 Level mesas -- underlain by terrace deposits and bedrock  
nominal risk  
53 Level or sloping terrain, unfavorable geologic structure,  
Low to moderate risk



NO SCALE



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DOCUMENT NUMBER  
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FIGURE NUMBER  
5B

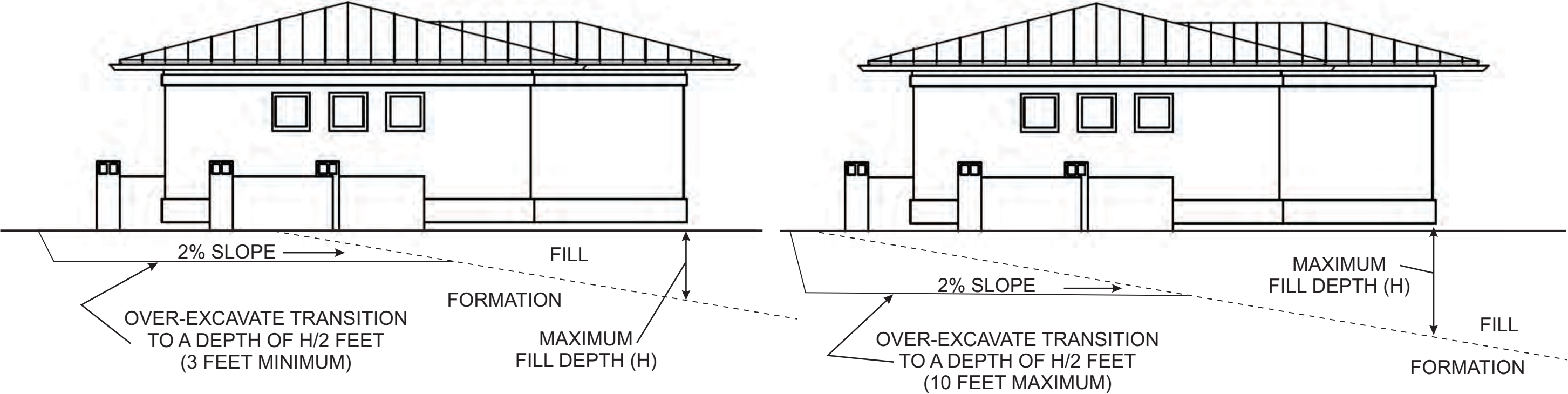
**LOCAL FAULT MAP**

**REFERENCE:** City of San Diego (2008). *Seismic Safety Study, Geologic Hazards and Faults*, Grid 34, dated April 3, 2008.



# TYPICAL CUT/FILL TRANSITION

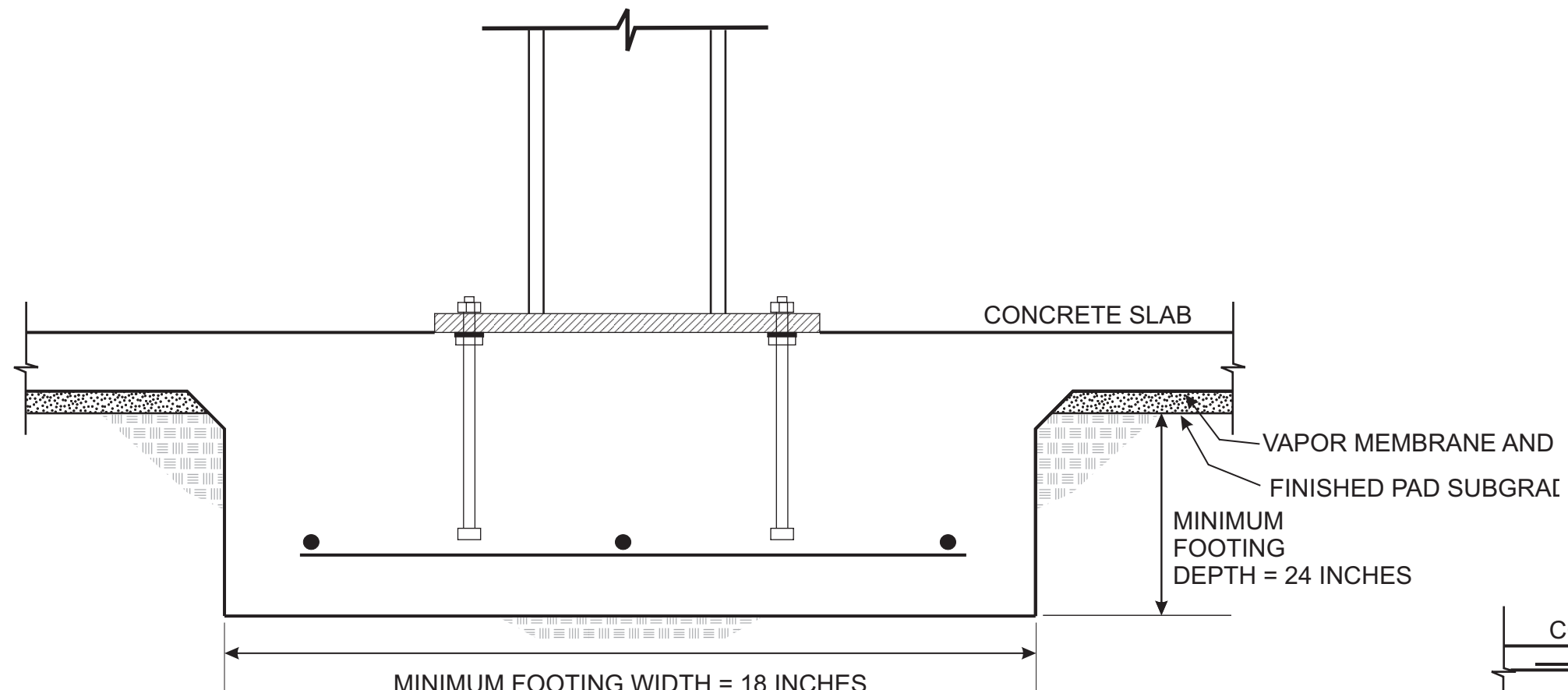
# TYPICAL DEEP FILL TRANSITION



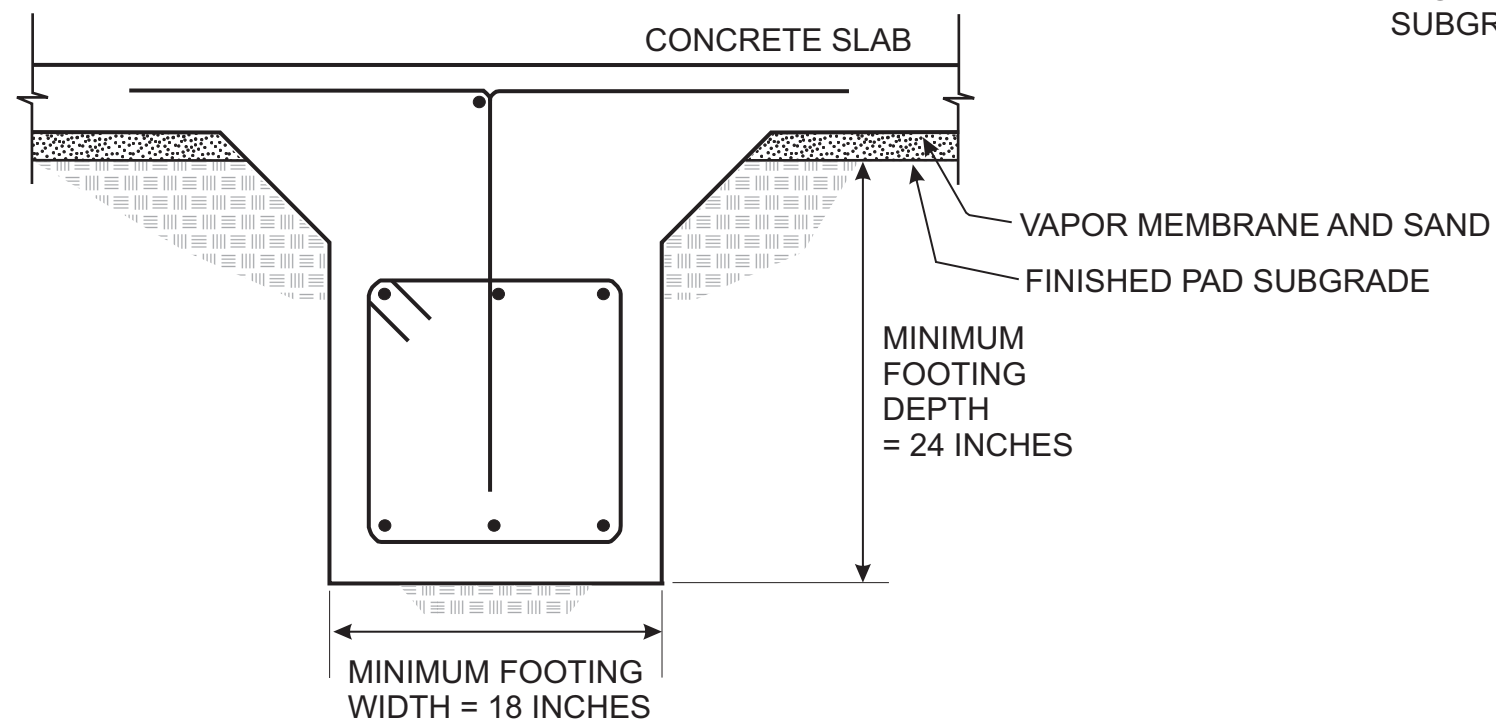
## NOTES

- 1) Structures should not cross cut/fill nor deep fill transitions, due to the potential for adverse differential movement.
- 2) For building pads underlain by both cut/fill and deep fill transitions, the cut portion of the pads should be over-excavated to a depth of  $H/2$ , where  $H$  is equal to the greatest depth of fill beneath the building.
- 3) The over-excavation should extend at least 3 feet below finish pad grade, per the recommendations in this report.
- 4) Over-excavations should extend at least 10 feet beyond the perimeters of the building foundations, including any isolated column footings.

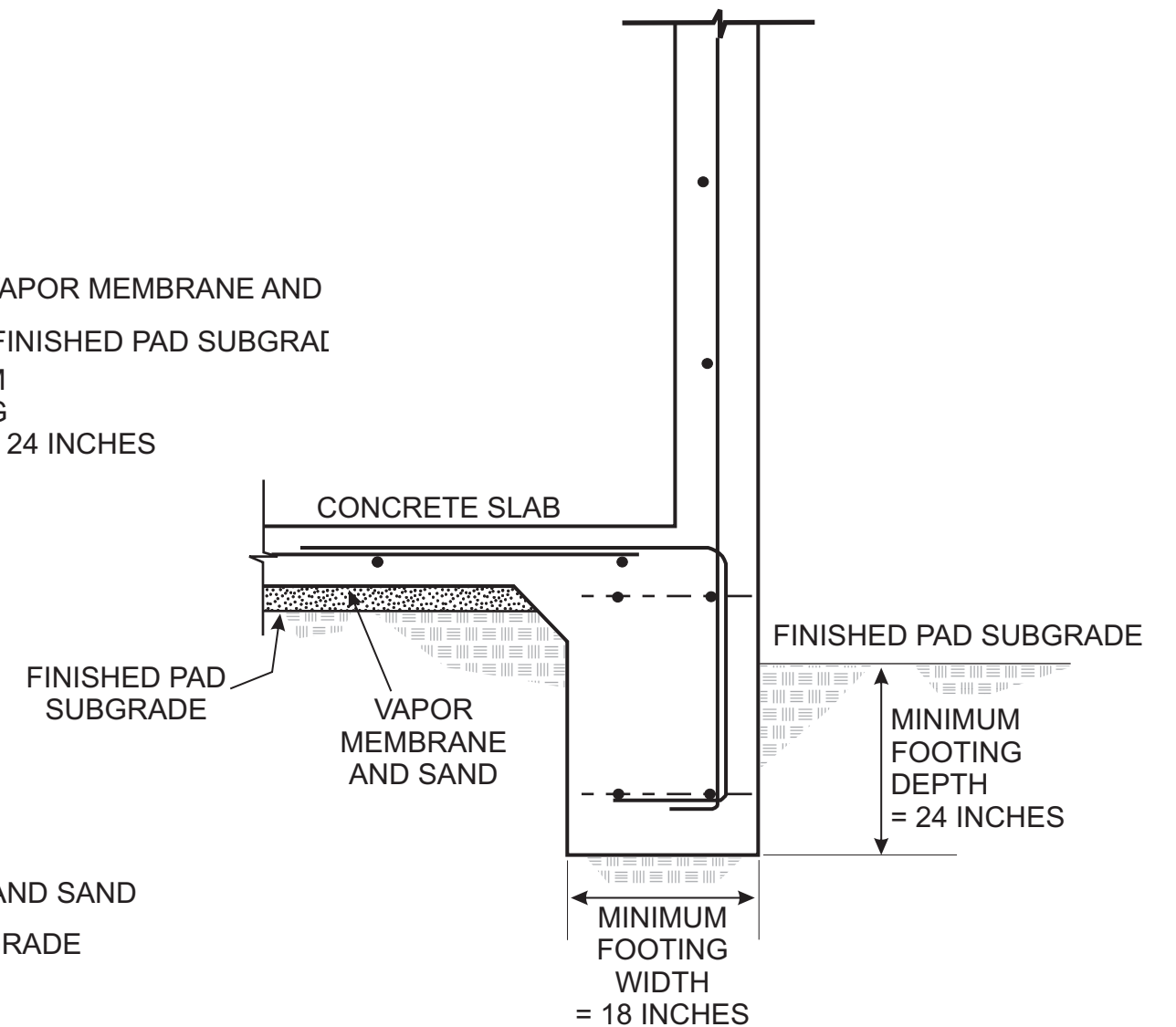
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	PROJECT NAME	PROJECT NUMBER
	UCSD Science Research Park Wexford Science + Technology	SD754
		DOCUMENT NUMBER
		22-0116
		FIGURE NUMBER
		6A
<b>OVER-EXCAVATION DETAILS</b>		



**SQUARE FOOTING**



**INTERIOR CONTINUOUS FOOTING**



**EXTERIOR CONTINUOUS FOOTING**



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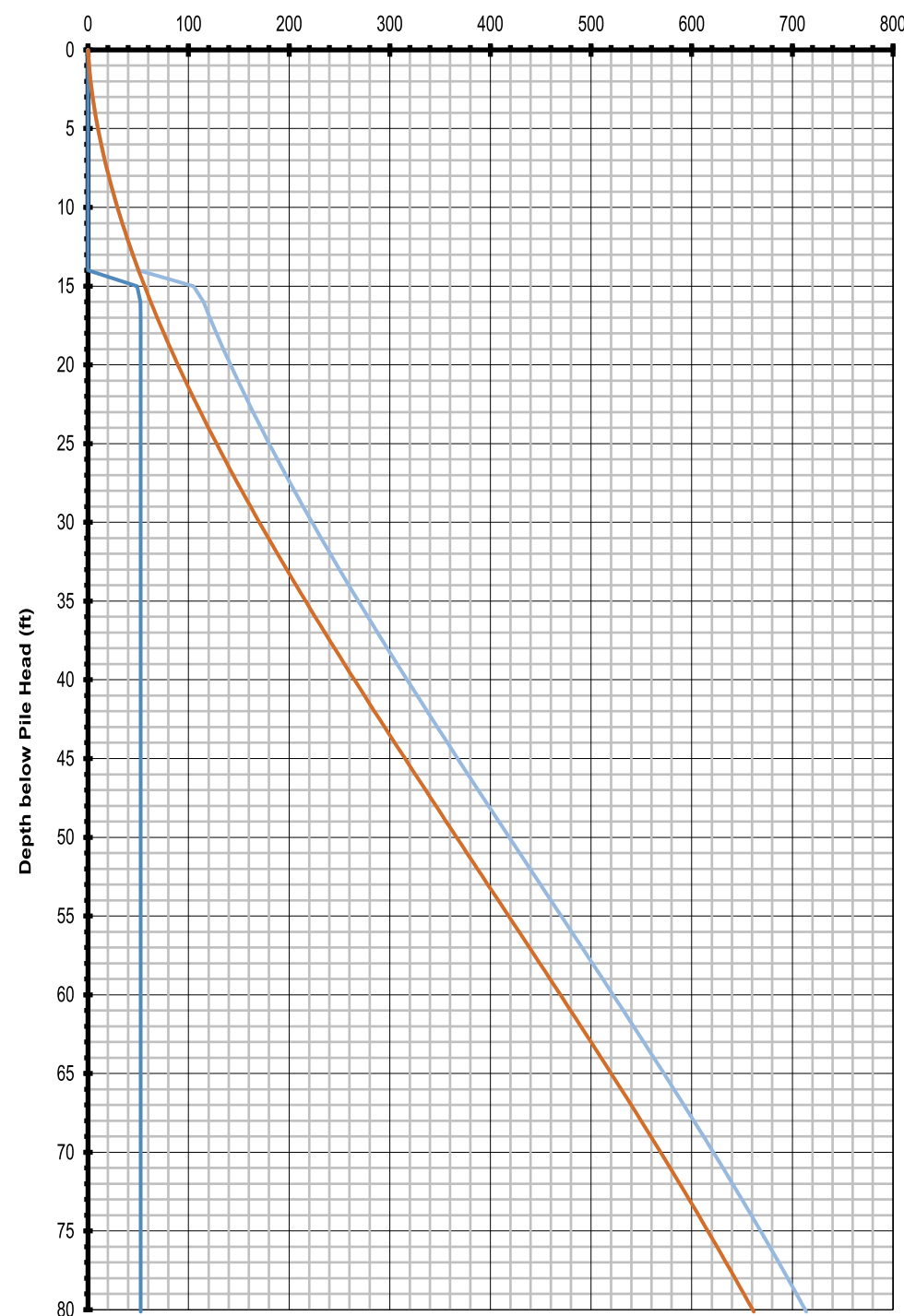
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DOCUMENT NUMBER  
**22-0116**

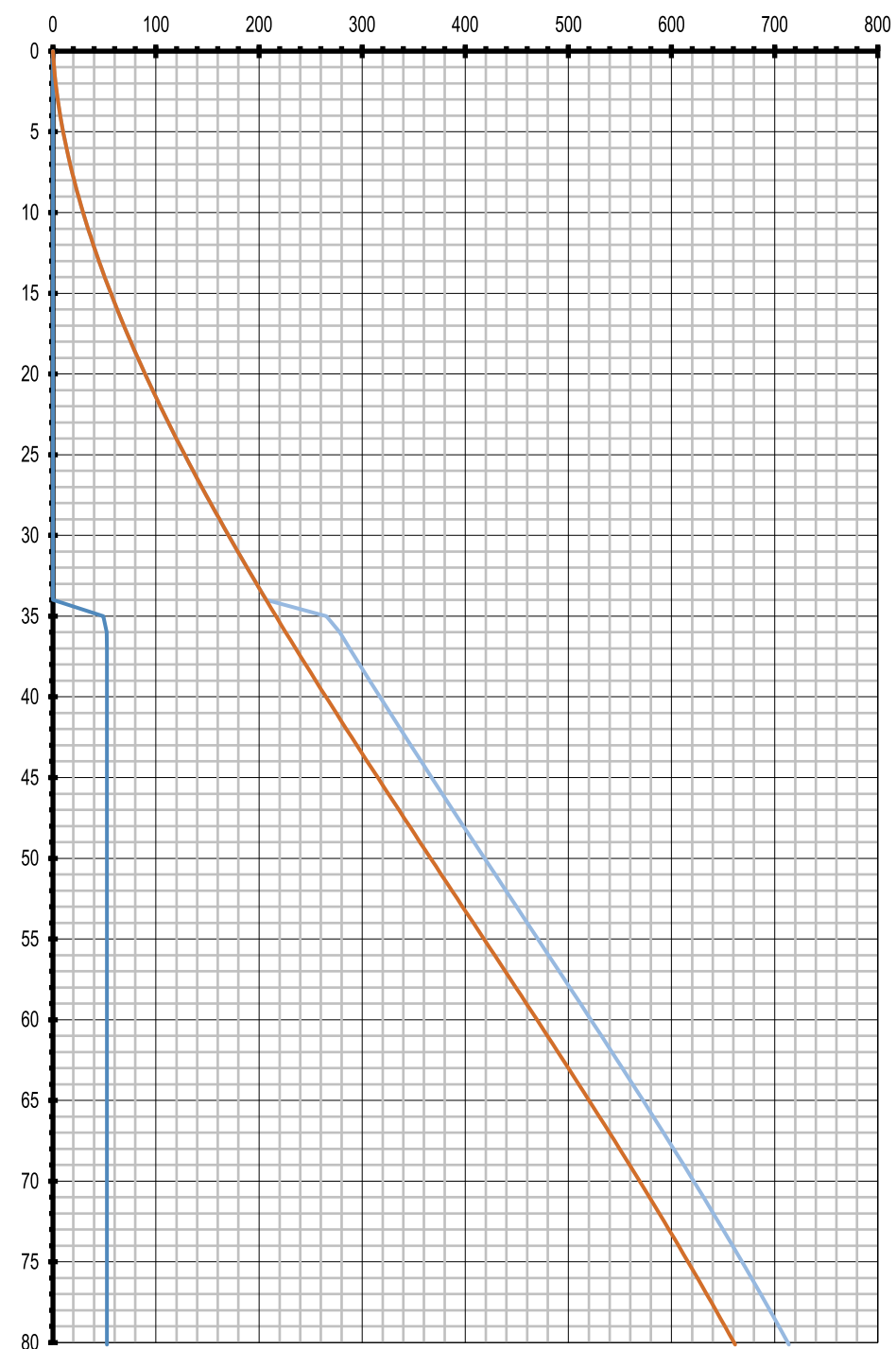
FIGURE NUMBER  
**6B**

**SHALLOW FOUNDATIONS**

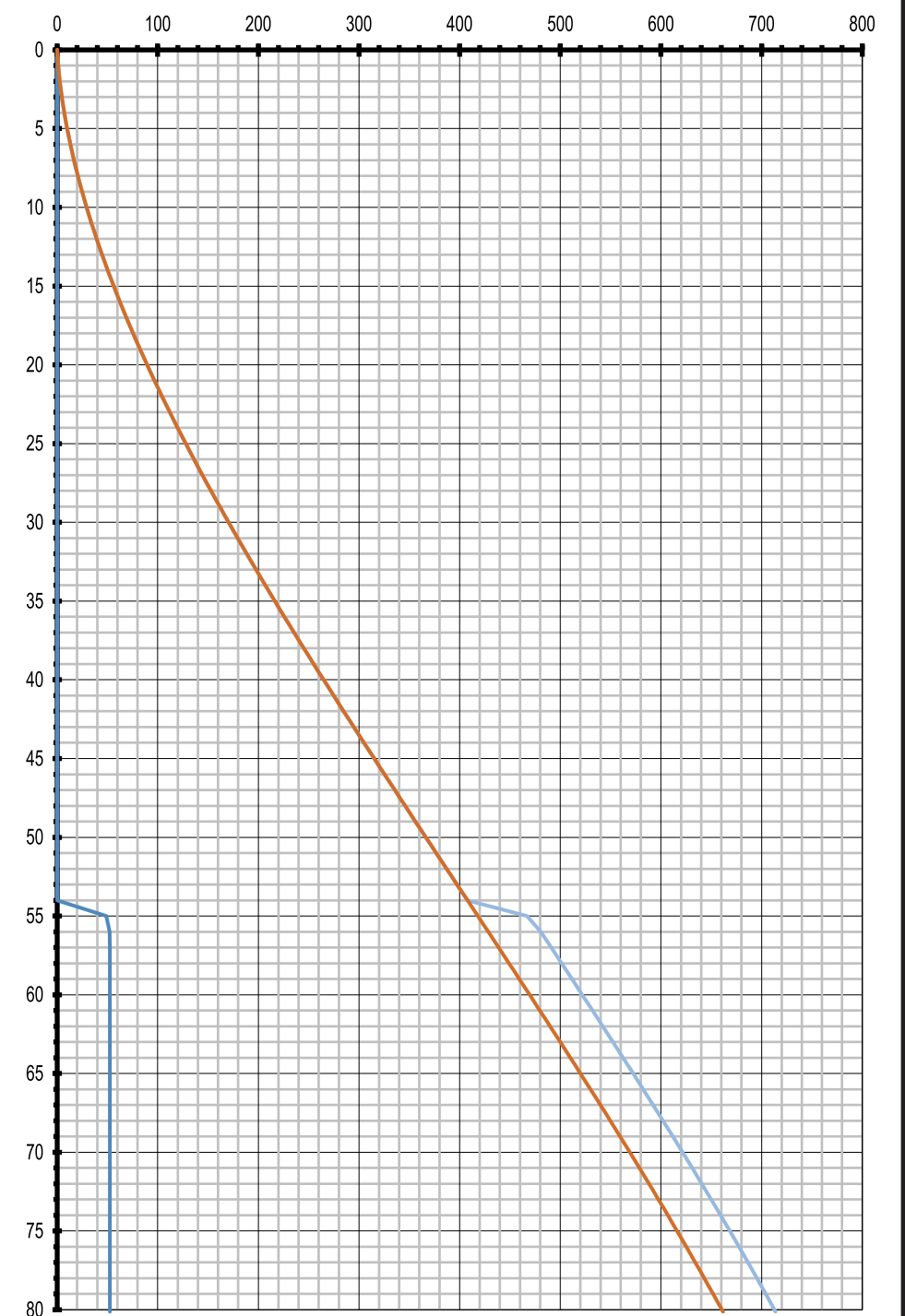
**ALLOWABLE CAPACITY [KIPS]  
(10' FILL AT PILE LOCATION)**



**ALLOWABLE CAPACITY [KIPS]  
(30' FILL AT PILE LOCATION)**



**ALLOWABLE CAPACITY [KIPS]  
(50' FILL AT PILE LOCATION)**



**NOTES:**

- 1) Pile excavation bottoms should be cleared of all loose soil.
- 2) Piles should be embedded at least 5' into undisturbed Scripps Formation.

— Total Allowable Resistance (ASD)    — Allowable End Bearing (FS-3)    — Allowable Skin Friction (FS-2)

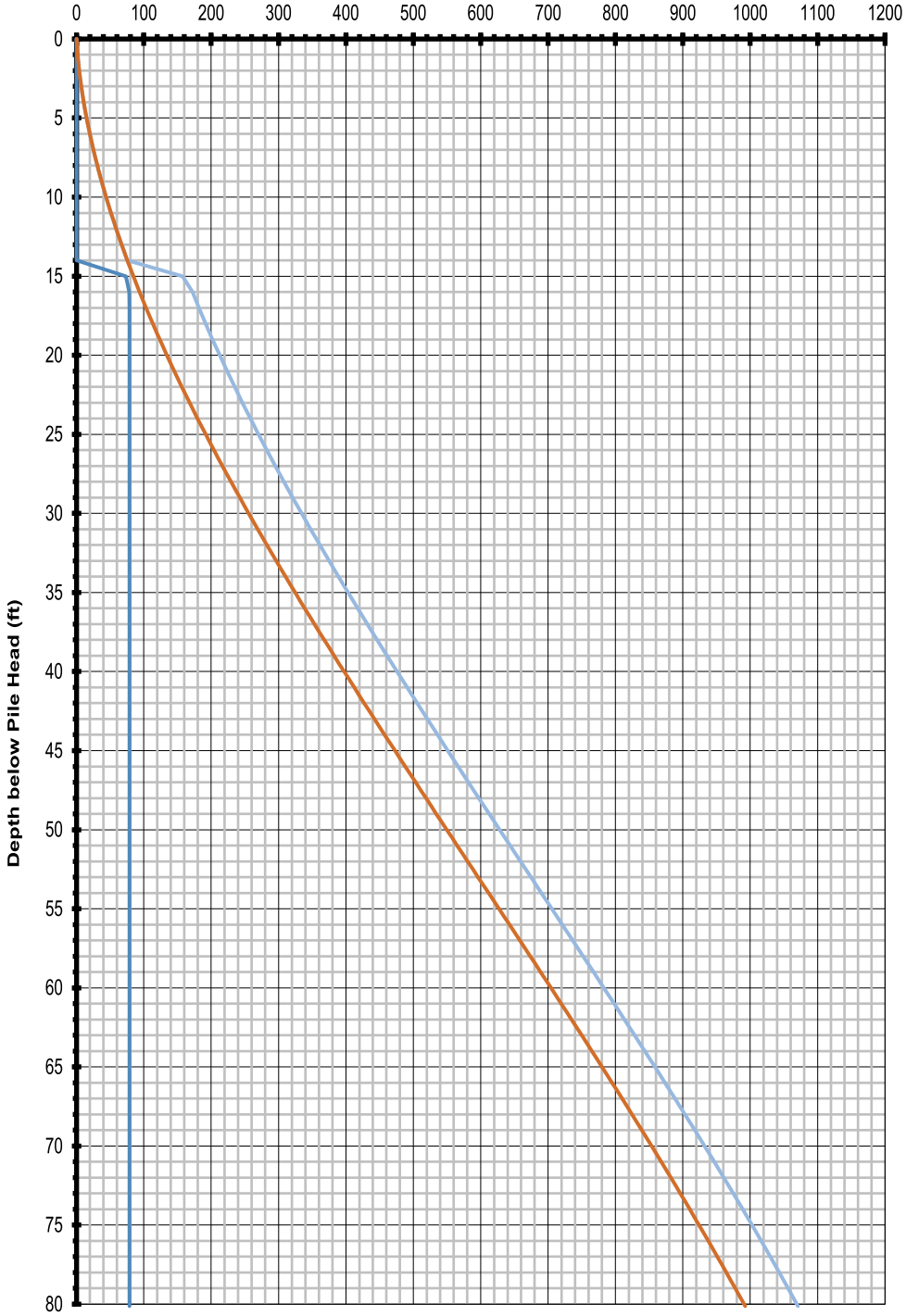


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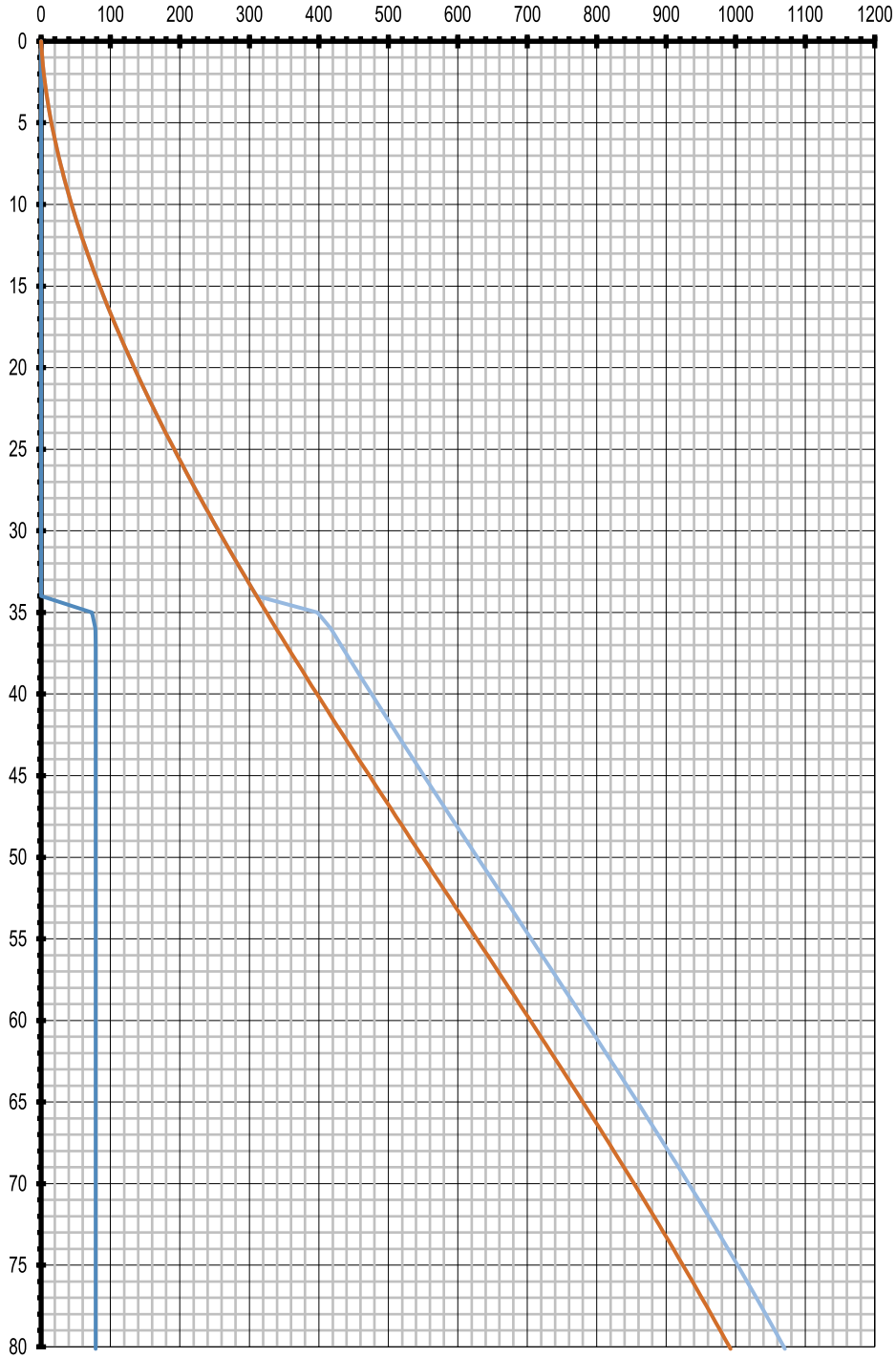
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**SD754**  
DOCUMENT NUMBER  
**22-0116**  
FIGURE NUMBER  
**7A**

**AXIAL CAPACITY (2' CIDH)**

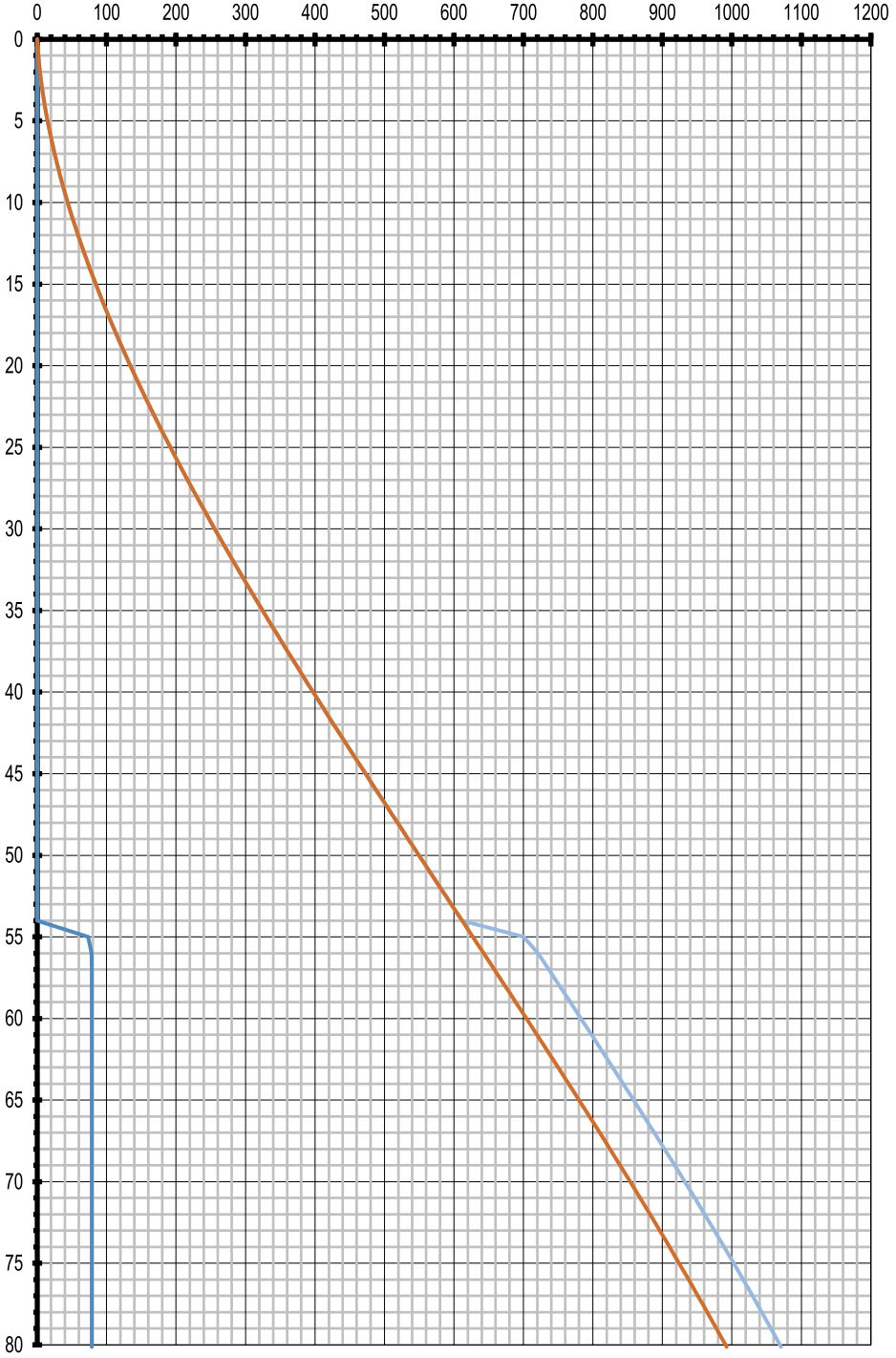
ALLOWABLE CAPACITY [KIPS]  
(10' FILL AT PILE LOCATION)



ALLOWABLE CAPACITY [KIPS]  
(30' FILL AT PILE LOCATION)



ALLOWABLE CAPACITY [KIPS]  
(50' FILL AT PILE LOCATION)



**NOTES:**

- 1) Pile excavation bottoms should be cleared of all loose soil.
- 2) Piles should be embedded at least 5' into undisturbed Scripps Formation.

— Total Allowable Resistance (ASD) — Allowable End Bearing (FS-3) — Allowable Skin Friction (FS-2)



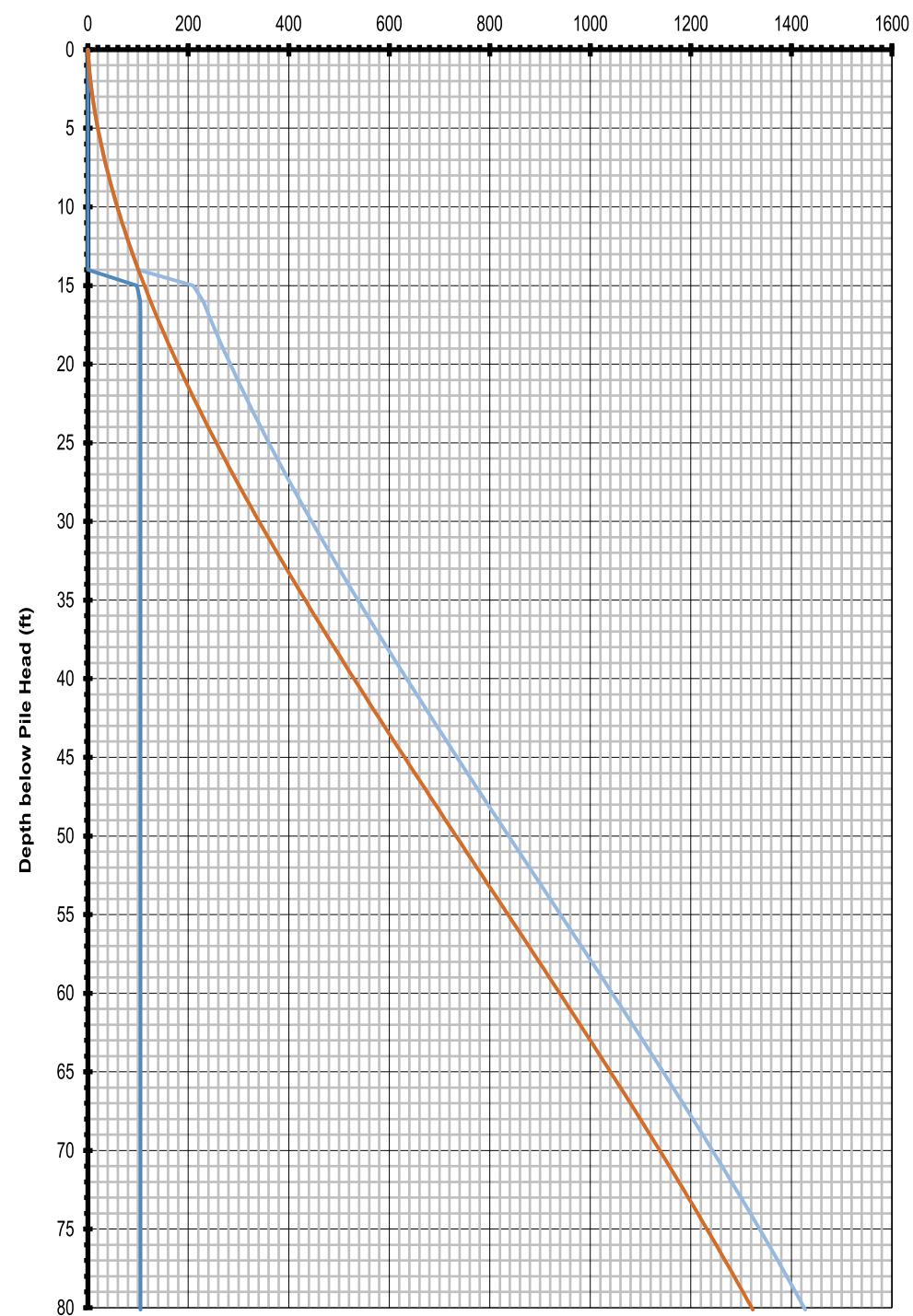
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**7B**

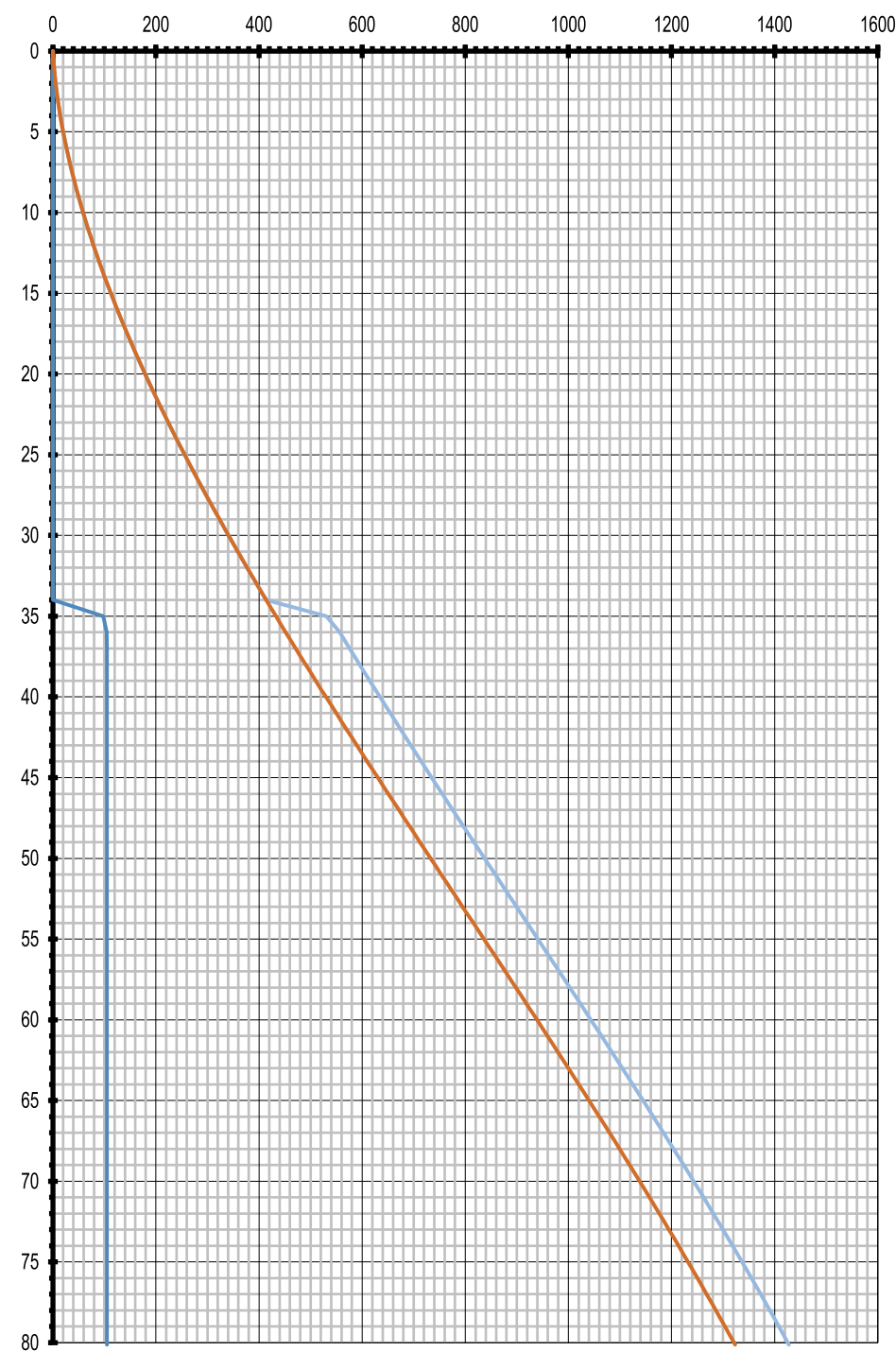
**AXIAL CAPACITY (3' CIDH)**



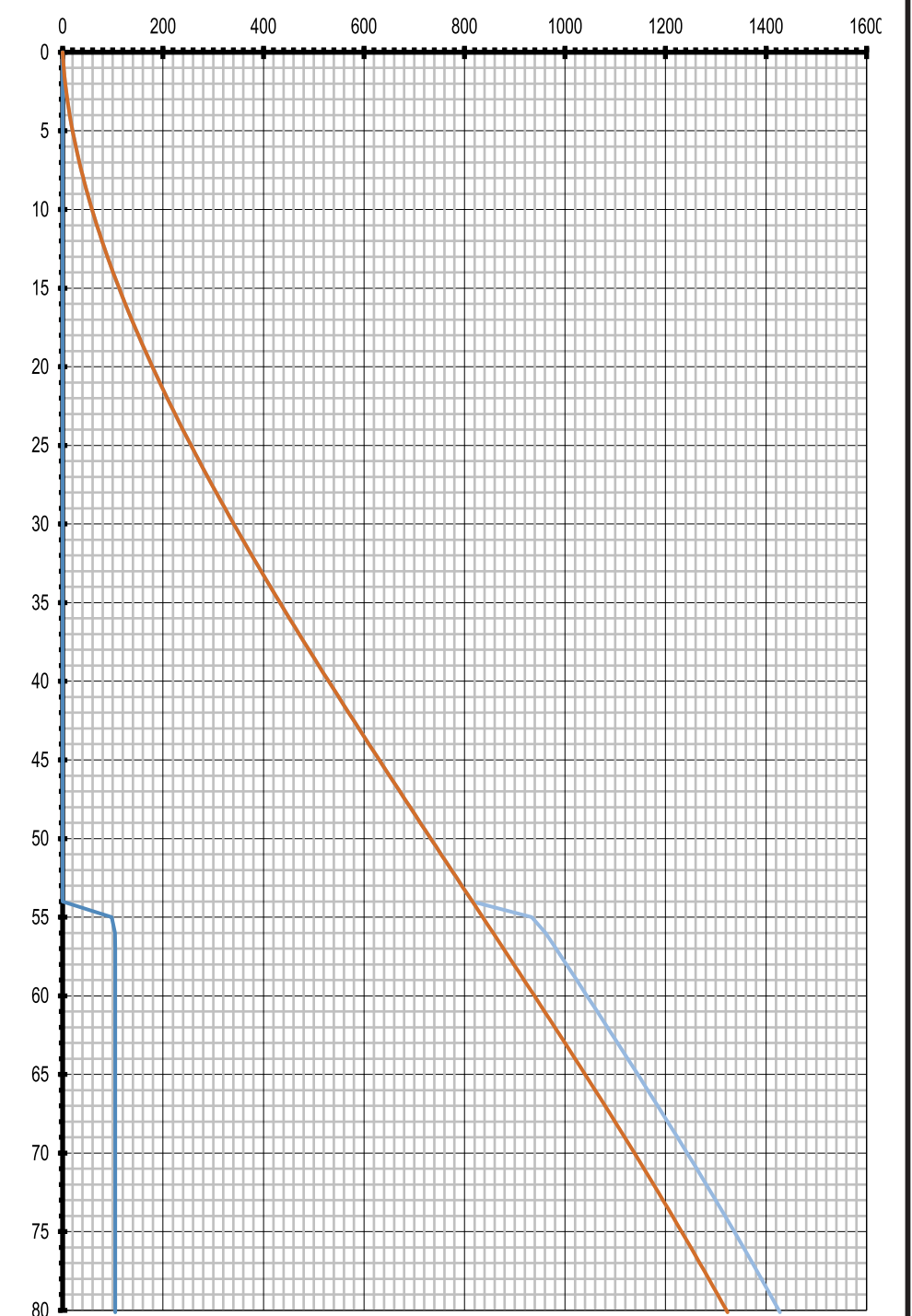
**ALLOWABLE CAPACITY [KIPS]**  
**(10' FILL AT PILE LOCATION)**



**ALLOWABLE CAPACITY [KIPS]**  
**(30' FILL AT PILE LOCATION)**



**ALLOWABLE CAPACITY [KIPS]**  
**(50' FILL AT PILE LOCATION)**



**NOTES:**

- 1) Pile excavation bottoms should be cleared of all loose soil.
- 2) Piles should be embedded at least 5' into undisturbed Scripps Formation.

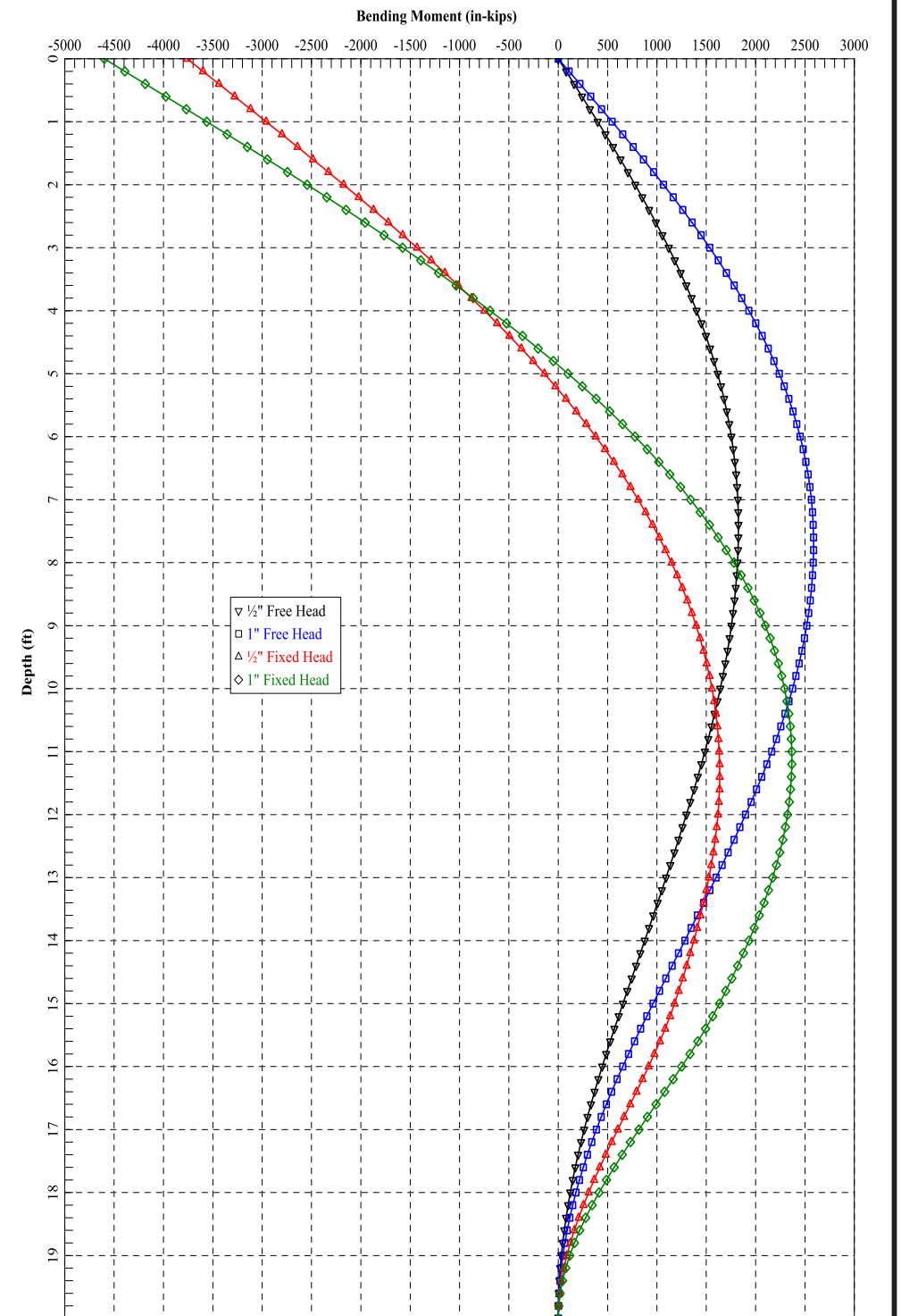
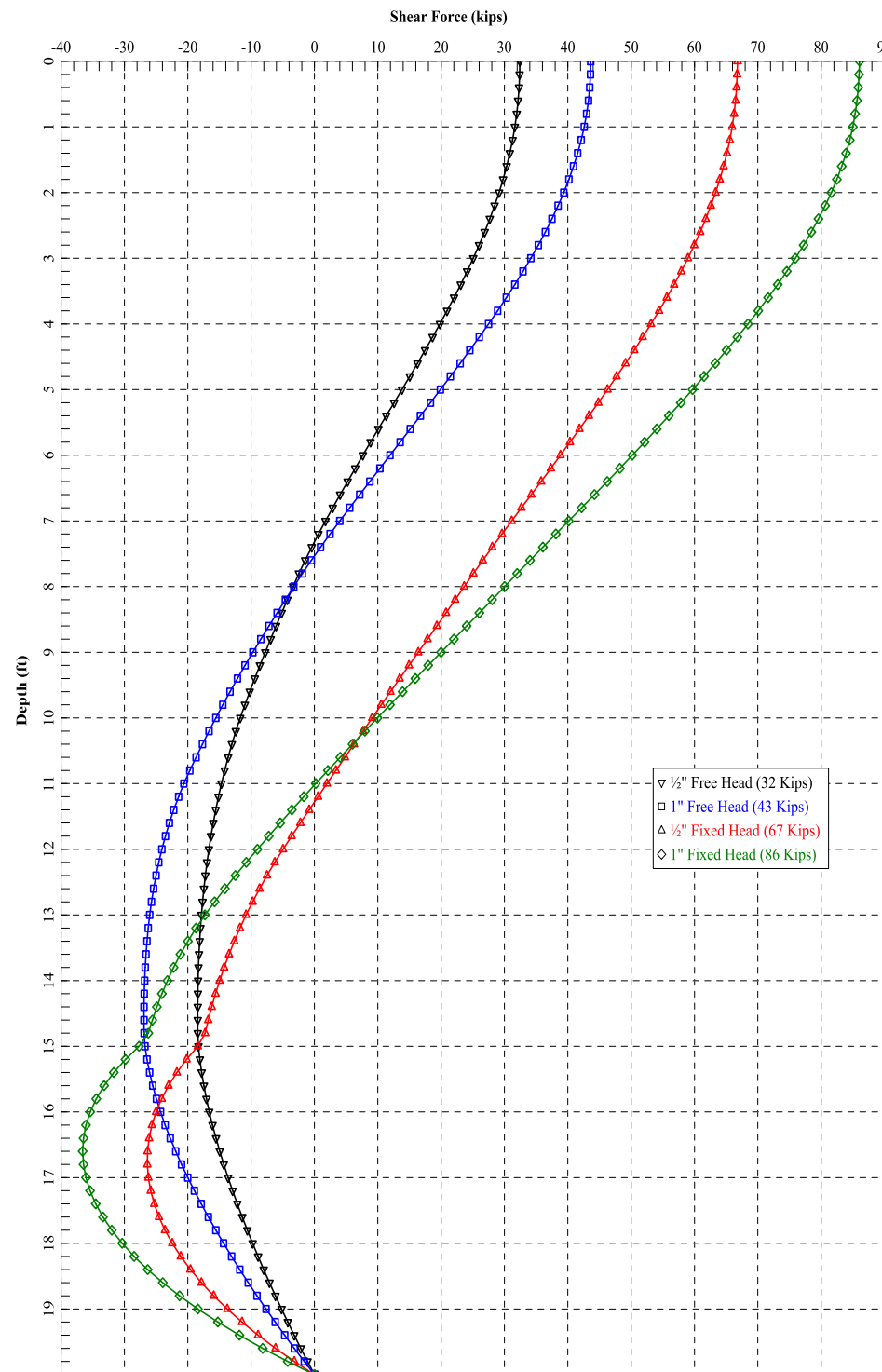
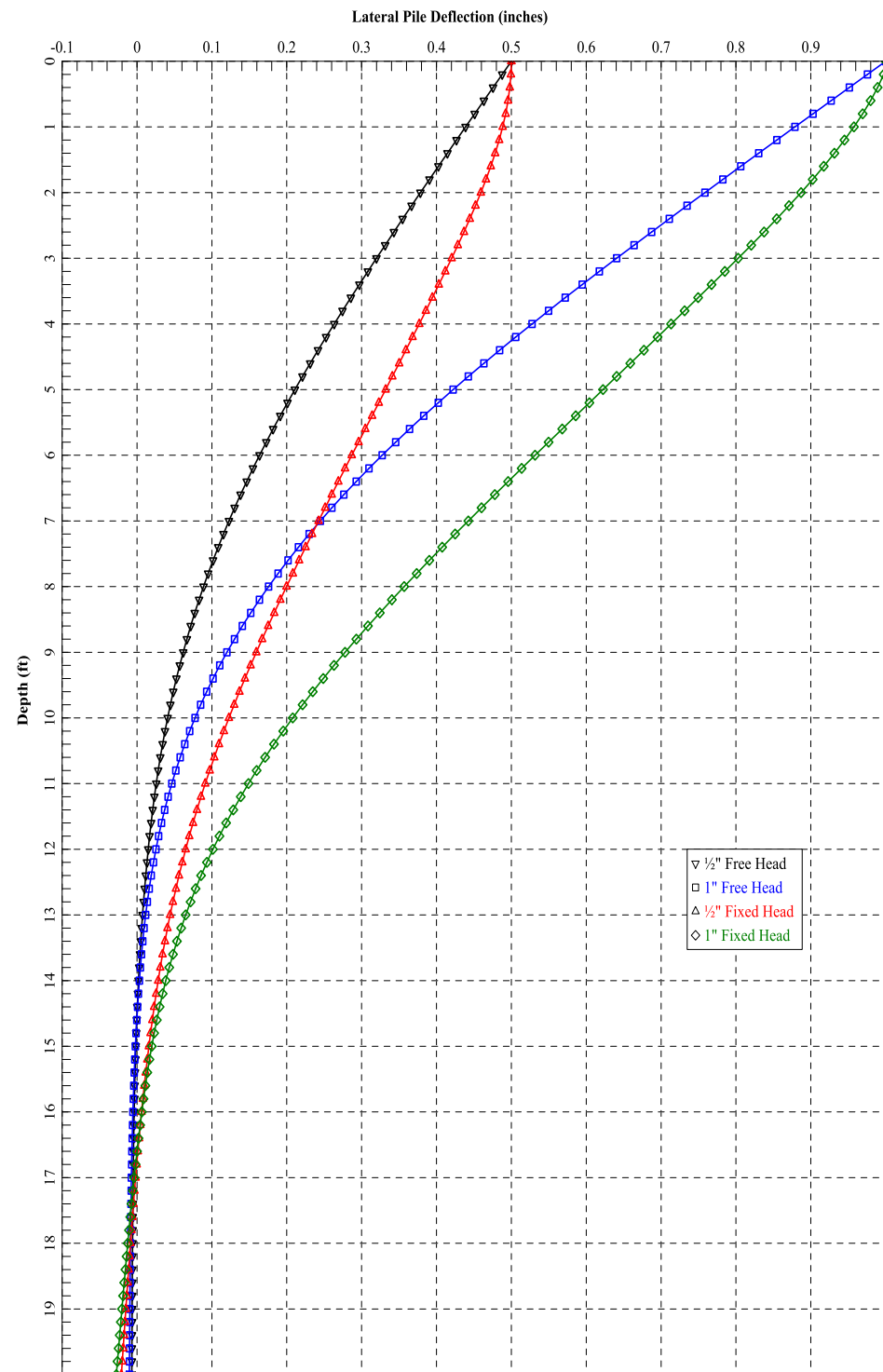
— Total Allowable Resistance (ASD) — Allowable End Bearing (FS-3) — Allowable Skin Friction (FS-2)



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FIGURE NUMBER  
**7C**

**AXIAL CAPACITY (4' CIDH)**



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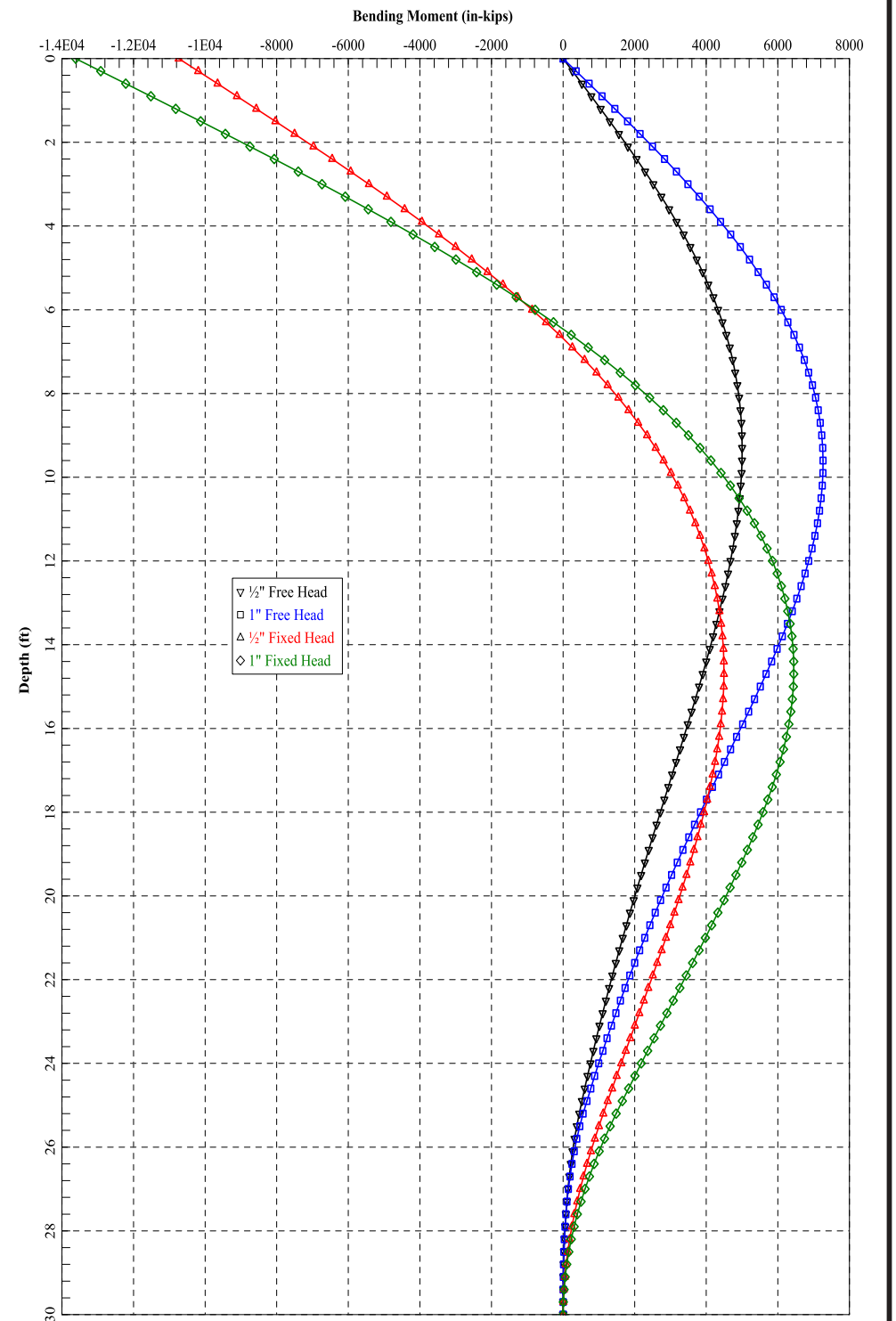
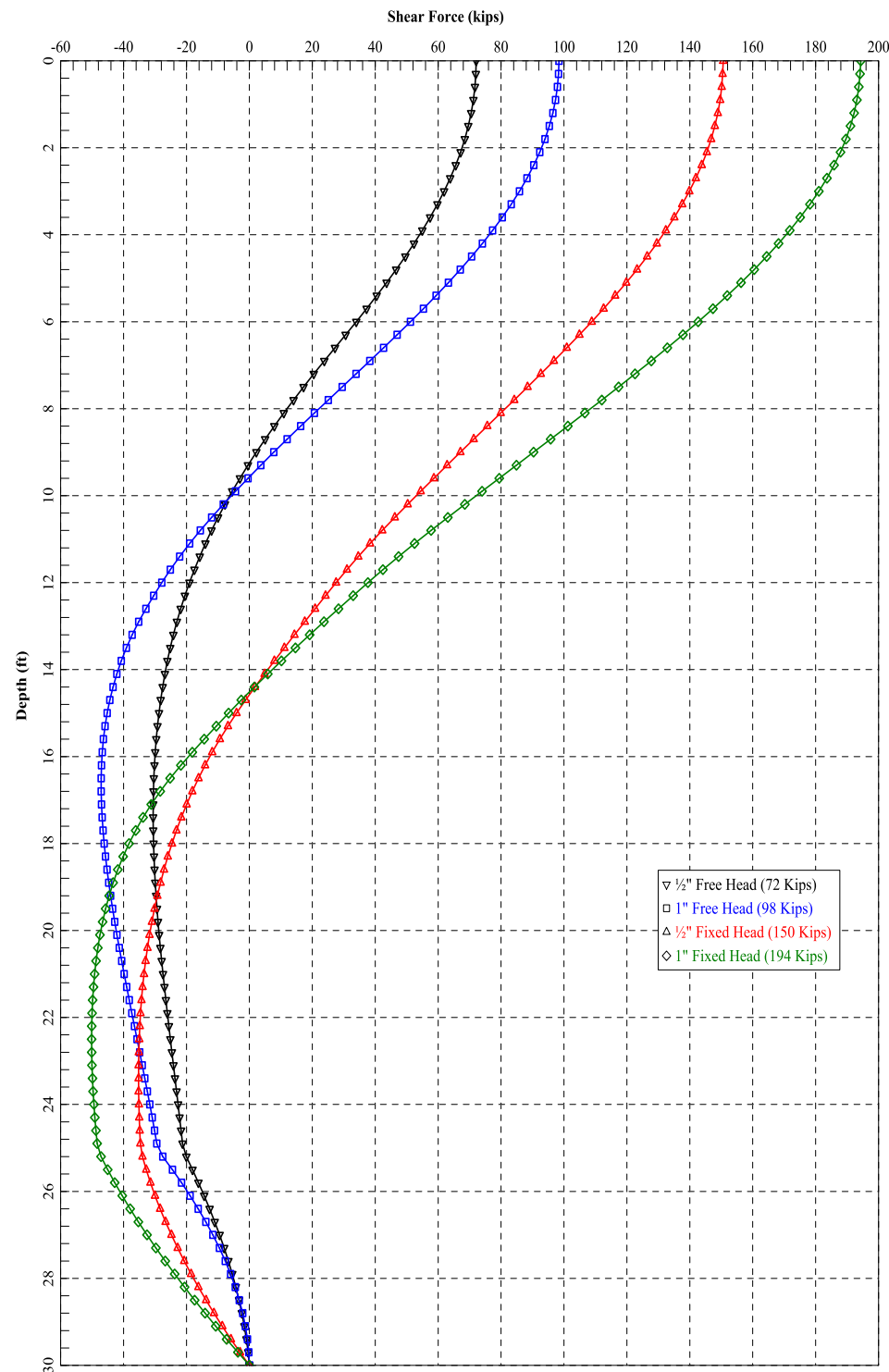
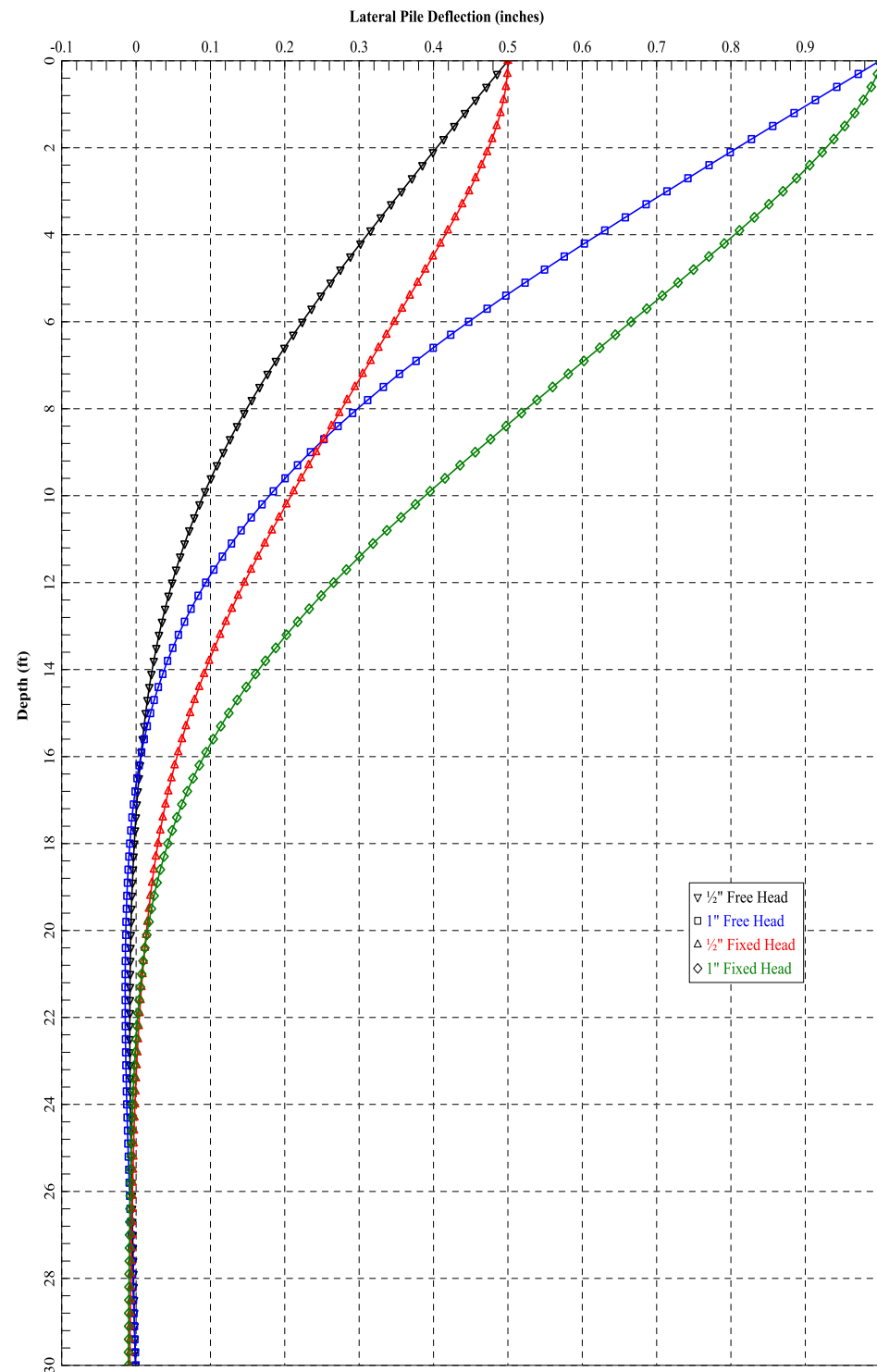
PROJECT NAME  
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DOCUMENT NUMBER  
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FIGURE NUMBER  
8A

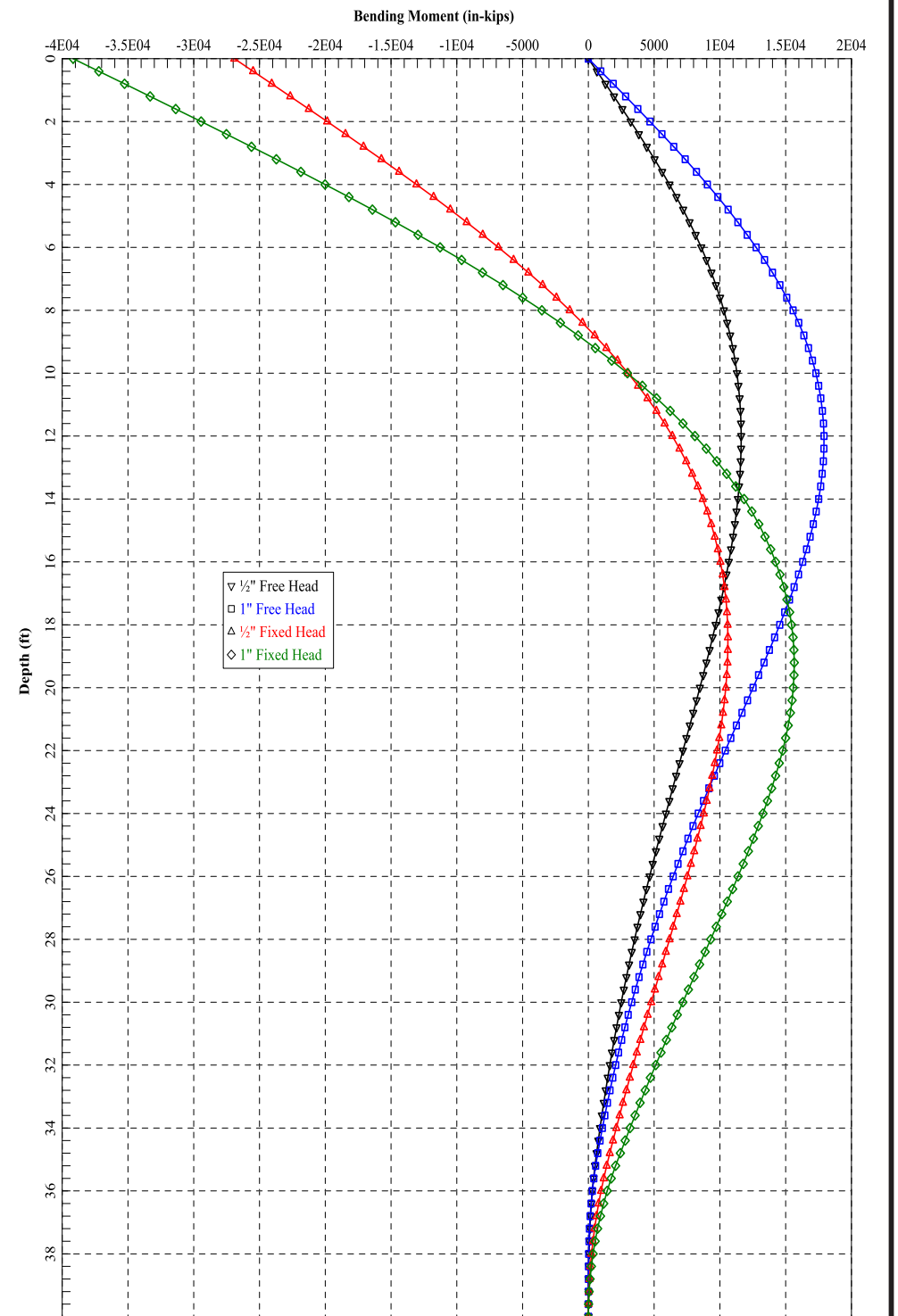
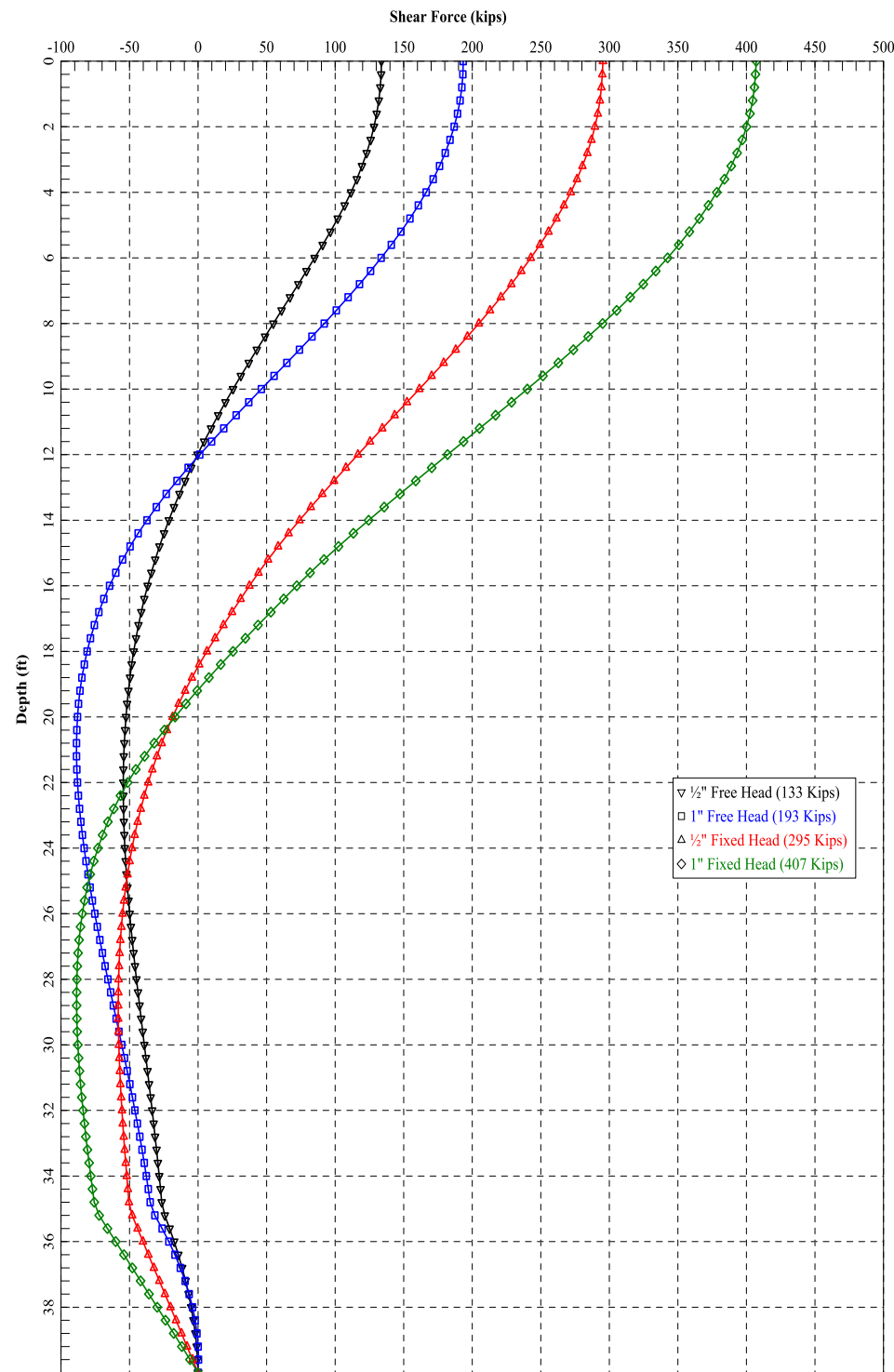
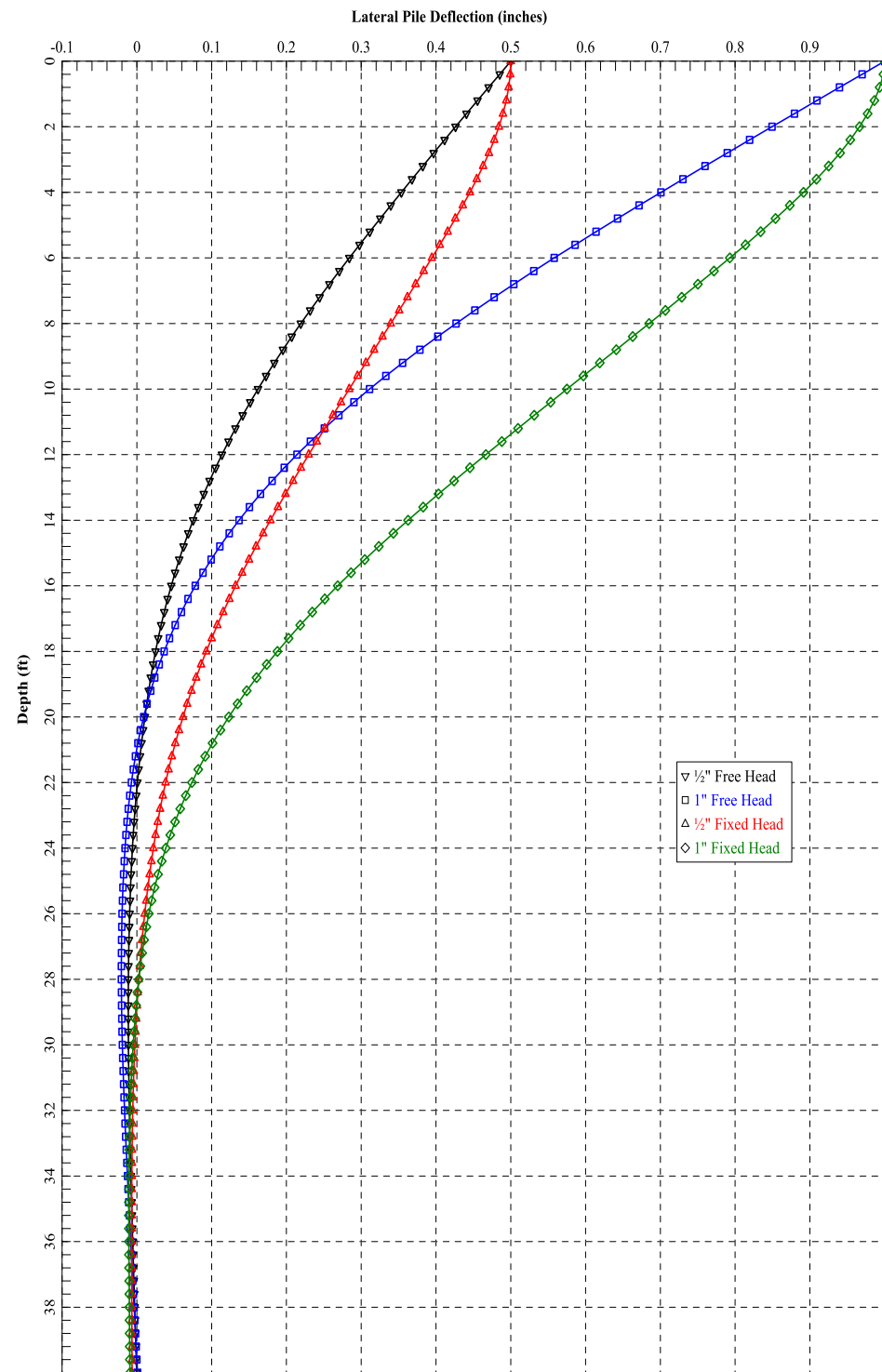
LATERAL CAPACITY (2' CIDH)



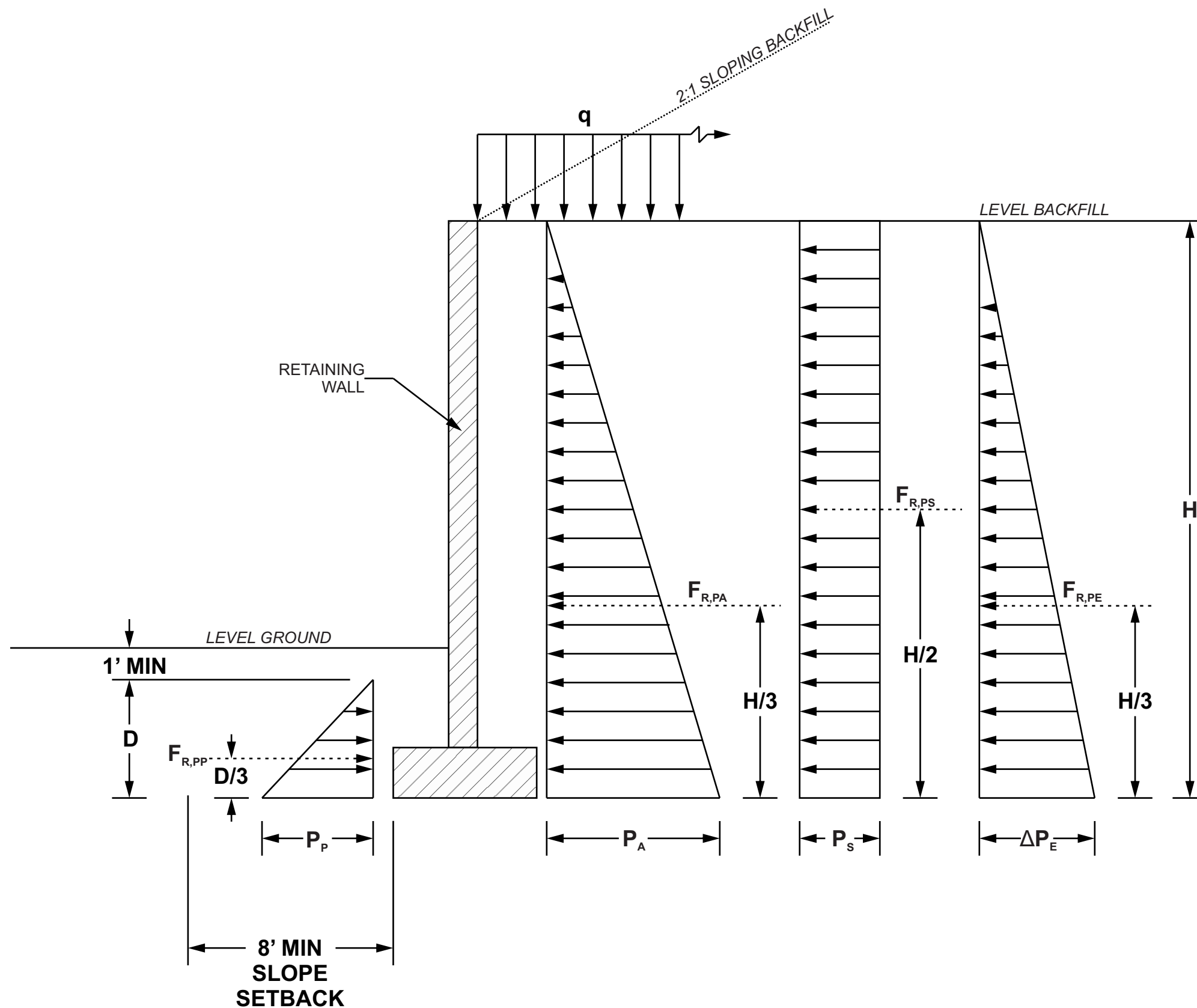
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LATERAL CAPACITY (3' CIDH)



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	DOCUMENT NUMBER <b>22-0116</b>
	FIGURE NUMBER <b>8C</b>
<b>LATERAL CAPACITY (4' CIDH)</b>	



#### NOTES:

- PASSIVE PRESSURES MAY BE INCREASED BY  $\frac{1}{3}$  DURING SEISMIC LOADING. THE UPPER 12 INCHES OF MATERIAL NOT PROTECTED BY CONCRETE SLABS OR PAVEMENTS SHOULD NOT BE INCLUDED IN THE ESTIMATION OF PASSIVE RESISTANCE.
- ASSUMES NO HYDROSTATIC PRESSURE. A WALL BACK DRAIN SHOULD BE INSTALLED AS RECOMMENDED IN THE *WALL DRAINAGE DETAIL* FIGURE.
- SURCHARGES FROM CONSTRUCTION EQUIPMENT, EXCAVATED SOIL, TRAFFIC LOADING OR OTHER UNIFORM LOADING ABOVE THE WALL SHOULD BE CALCULATED USING THE SURCHARGE LATERAL EARTH PRESSURE,  $P_s$ . POINT LOADS OR OTHER SURCHARGES CAN BE EVALUATED UPON REQUEST.
- SEISMIC INCREMENT LATERAL EARTH PRESSURE ( $\Delta P_E$ ) IS BASED ON A DESIGN-LEVEL PEAK GROUND ACCELERATION OF 0.437g. SEISMIC INCREMENT SHOULD BE APPLIED TO WALLS SIX FEET OR GREATER IN HEIGHT.
- 'H' AND 'D' ARE MEASURED IN FEET.
- PRESSURES ASSUME GRANULAR AND NON-EXPANSIVE SOIL MATERIALS COMPACTED AS RECOMMENDED IN THE GEOTECHNICAL REPORT.

#### LATERAL EARTH PRESSURES

LATERAL EARTH PRESSURE TYPE	EQUIVALENT FLUID PRESSURE (PCF)	
	LEVEL BACKFILL	2:1 SLOPING BACKFILL
ACTIVE, $P_A$		
COMPACTED FILL OR FORMATION	35	55
SEISMIC INCREMENT, $\Delta P_E^*$	29	
PASSIVE, $P_p^{**}$	350	
SURCHARGE, $P_s$	0.3q	

\*SEISMIC PRESSURE,  $P_{AE} = P_A + \Delta P_E$

\*\*PASSIVE RESISTANCE VERSUS DISPLACEMENT CURVES CAN BE PROVIDED UPON REQUEST.



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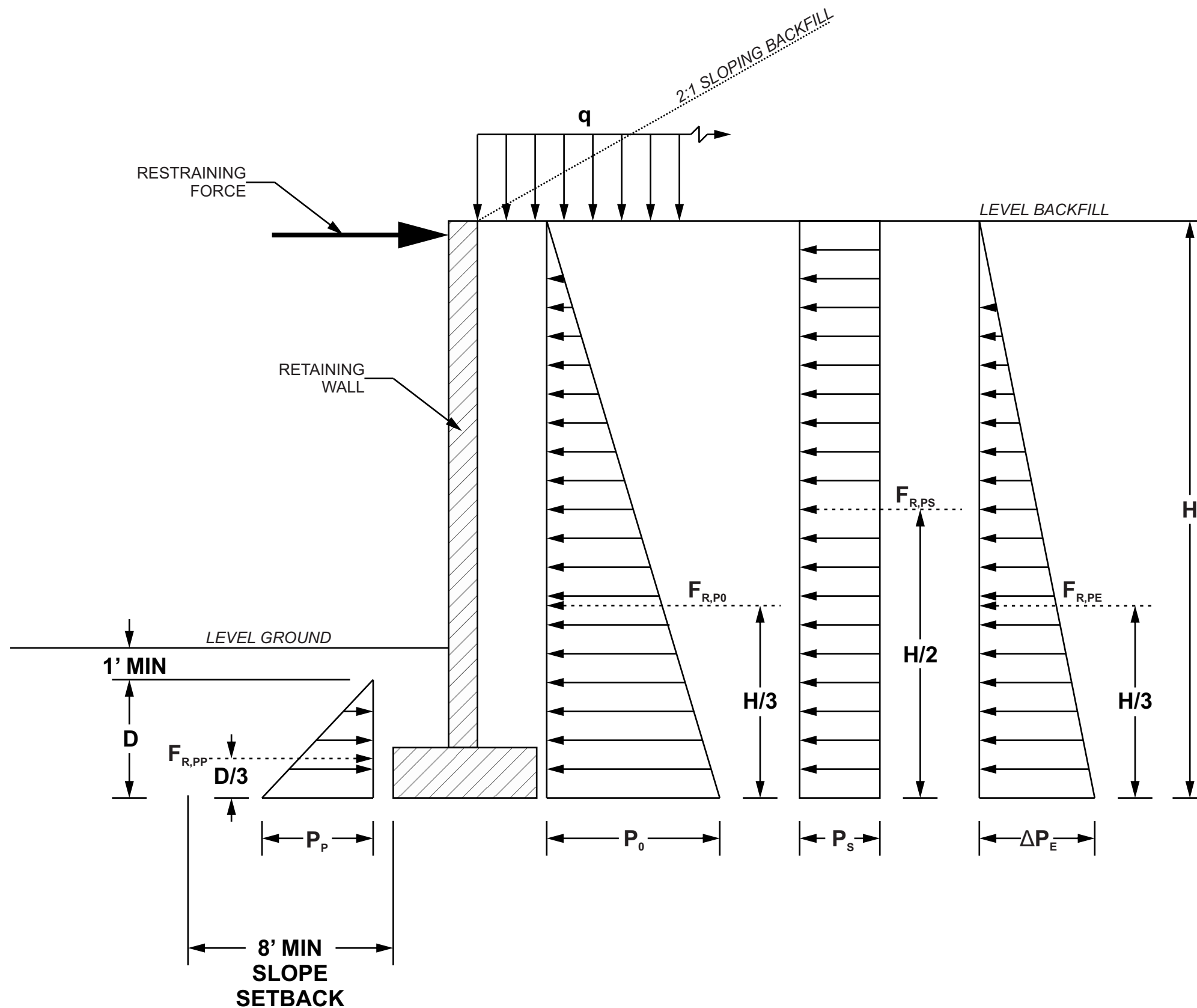
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**22-0116**

FIGURE NUMBER  
**9A**

**LATERAL EARTH PRESSURES  
FOR YIELDING RETAINING WALLS**





#### NOTES:

- PASSIVE PRESSURES MAY BE INCREASED BY  $\frac{1}{3}$  DURING SEISMIC LOADING. THE UPPER 12 INCHES OF MATERIAL NOT PROTECTED BY CONCRETE SLABS OR PAVEMENTS SHOULD NOT BE INCLUDED IN THE ESTIMATION OF PASSIVE RESISTANCE.
- ASSUMES NO HYDROSTATIC PRESSURE. A WALL BACK DRAIN SHOULD BE INSTALLED AS RECOMMENDED IN THE *WALL DRAINAGE DETAIL* FIGURE.
- SURCHARGES FROM CONSTRUCTION EQUIPMENT, EXCAVATED SOIL, TRAFFIC LOADING OR OTHER UNIFORM LOADING ABOVE THE WALL SHOULD BE CALCULATED USING THE SURCHARGE LATERAL EARTH PRESSURE,  $P_s$ . POINT LOADS OR OTHER SURCHARGES CAN BE EVALUATED UPON REQUEST.
- SEISMIC INCREMENT LATERAL EARTH PRESSURE ( $\Delta P_E$ ) IS BASED ON A DESIGN-LEVEL PEAK GROUND ACCELERATION OF 0.437g. SEISMIC INCREMENT SHOULD BE APPLIED TO WALLS SIX FEET OR GREATER IN HEIGHT.
- 'H' AND 'D' ARE MEASURED IN FEET.
- PRESSURES ASSUME GRANULAR AND NON-EXPANSIVE SOIL MATERIALS COMPACTED AS RECOMMENDED IN THE GEOTECHNICAL REPORT.

#### LATERAL EARTH PRESSURES

LATERAL EARTH PRESSURE TYPE	EQUIVALENT FLUID PRESSURE (PCF)	
	LEVEL BACKFILL	2:1 SLOPING BACKFILL
AT-REST, $P_0$		
COMPACTED FILL OR FORMATION	60	80
SEISMIC INCREMENT, $\Delta P_E^*$	(SEE FIGURE 9A)	
PASSIVE, $P_p^{**}$	350	
SURCHARGE, $P_s$	0.5q	

\*SEISMIC PRESSURE,  $P_{AE} = P_A + \Delta P_E$  (SEE FIGURE 9A)

\*\*PASSIVE RESISTANCE VERSUS DISPLACEMENT CURVES CAN BE PROVIDED UPON REQUEST.



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PROJECT NAME  
UCSD Science Research Park  
Wexford Science + Technology

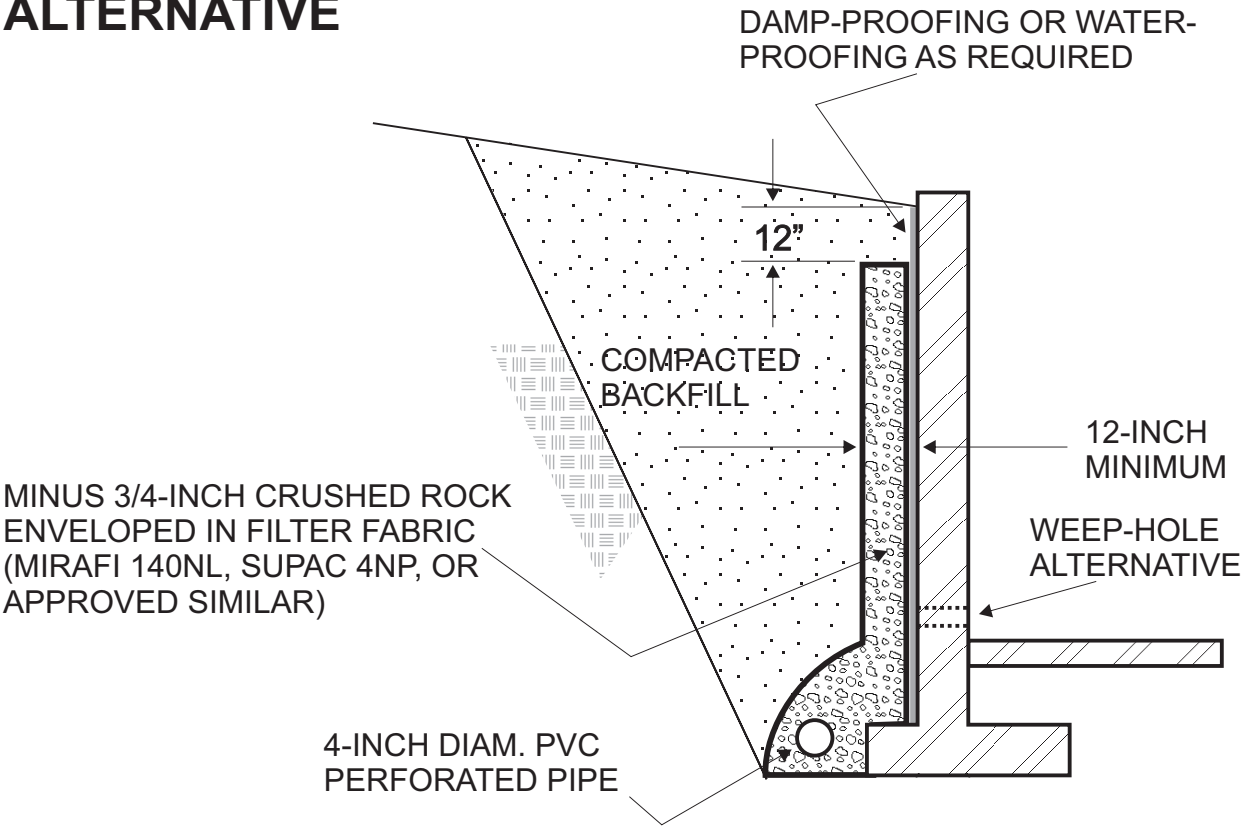
PROJECT NUMBER  
SD754

DOCUMENT NUMBER  
22-0116

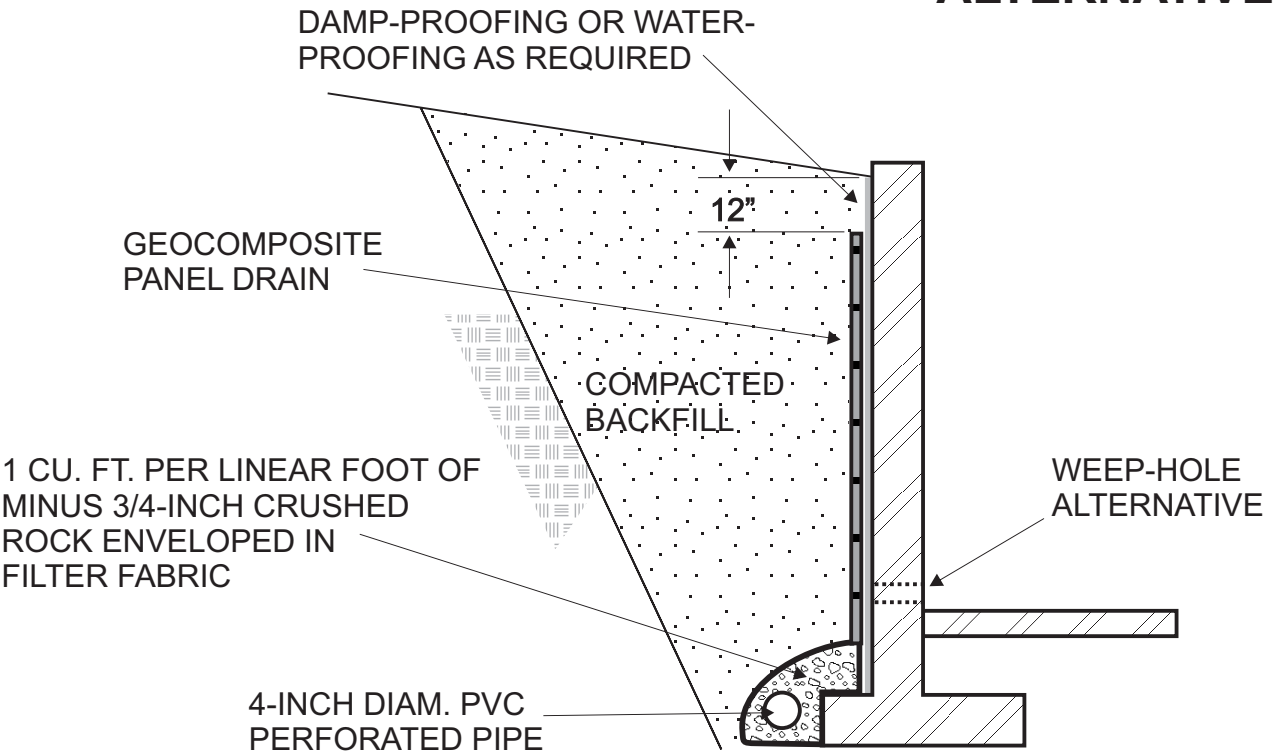
FIGURE NUMBER  
9B

**LATERAL EARTH PRESSURES  
FOR BRACED RETAINING WALLS**

# ROCK AND FABRIC ALTERNATIVE



# PANEL DRAIN ALTERNATIVE



## NOTES

- 1) Perforated pipe should outlet through a solid pipe to a free gravity outfall. Perforated pipe and outlet pipe should have a fall of at least 1%.
- 2) As an alternative to the perforated pipe and outlet, weep-holes may be constructed. Weep-holes should be at least 2 inches in diameter, spaced no greater than 8 feet, and be located just above grade at the bottom of wall.
- 3) Filter fabric should consist of Mirafi 140N, Supac 5NP, Amoco 4599, or similar approved fabric. Filter fabric should be overlapped at least 6-inches.
- 4) Geocomposite panel drain should consist of Miradrain 6000, J-DRain 400, Supac DS-15, or approved similar product.

	<b>GROUP DELTA CONSULTANTS, INC.</b> ENGINEERS AND GEOLOGISTS 9245 ACTIVITY ROAD, SUITE 103 SAN DIEGO, CA 92126 (858) 536-1000	
	PROJECT NAME UCSD Science Research Park Wexford Science + Technology	PROJECT NUMBER <b>SD754</b> DOCUMENT NUMBER <b>22-0116</b> FIGURE NUMBER <b>9C</b>
	<b>WALL DRAINAGE DETAILS</b>	

***APPENDIX A***  
***FIELD EXPLORATION***

---



## APPENDIX A

### FIELD EXPLORATION

The initial phase of field exploration included a visual reconnaissance of the site and the drilling of 6 exploratory borings between October 13<sup>th</sup> and 14<sup>th</sup>, 2022. These borings were drilled by Tri-County Drilling using their Deidrick D120HT truck mounted drill rig with an 8-inch diameter hollow stem flight auger. A supplemental investigation was conducted between December 12<sup>th</sup> and 22<sup>nd</sup> which included 50 additional borings completed by Pacific Drilling using their Marl M10 (Yeti) drill rig with a 6-inch hollow stem flight auger. Another 15 explorations we previously completed at the site are also included in this appendix. The maximum depth of exploration was about 56½ feet below surrounding grades. The approximate boring locations are shown on the Exploration Plans, Figures 3A and 3B. Boring logs are provided in Figures A-1 to A-71, after the Boring Record Legends.

Disturbed soil samples were collected from the borings using a 2-inch outside diameter Standard Penetration Test (SPT) sampler. Less disturbed samples were collected using a 3-inch outside diameter ring lined sampler (a modified California sampler). Various automatic hammers with Energy Transfer Ratio (ETR) ranging from about 83 to 92 percent were used to collect most of the drive samples, while a standard Cat-Head was used for others (ETR~60%). For each sample, the number of blows needed to drive the sampler 12 inches was recorded on the logs. The field blow counts (N) were normalized to approximate a standard 60 percent ETR as shown on the logs (N<sub>60</sub>). Bulk samples were also collected from the borings at selected intervals. A summary of the borings included in this appendix is provided in the table below.

Boring ID	Date Drilled	Latitude	Longitude	Ground Surface Elevation [FT]	Exploration Depth [FT]	Figure No.
B-01	12/20/22	32.878479°	-117.220815°	346	5	A-1
B-02	12/20/22	32.878482°	-117.220454°	348	5	A-2
B-03	12/20/22	32.878487°	-117.220147°	349	11½	A-3
B-04	12/22/22	32.878105°	-117.221066°	343	5	A-4
B-05	12/22/22	32.878003°	-117.220724°	345	5	A-5
B-06	12/19/22	32.878027°	-117.220230°	345	6	A-6
B-07	12/19/22	32.878218°	-117.220093°	347	6½	A-7
B-08	12/22/22	32.877738°	-117.221387°	338	6½	A-8
B-09	12/22/22	32.877752°	-117.221058°	339½	6	A-9
B-10	12/22/22	32.877755°	-117.220727°	340½	5	A-10
B-11	12/19/22	32.877760°	-117.220403°	341	6	A-11
B-12	12/12/22	32.878438°	-117.219756°	347½	6½	A-12
B-13	12/12/22	32.878440°	-117.219439°	345½	6½	A-13
B-14	12/12/22	32.878445°	-117.219083°	344½	11½	A-14
B-15	12/12/22	32.878440°	-117.218732°	346	11½	A-15
B-16	12/12/22	32.878132°	-117.219079°	342	16	A-16
B-17	12/12/22	32.878131°	-117.218648°	343	26	A-17
B-18	12/14/22	32.877866°	-117.219083°	338	21½	A-18
B-19	12/12/22	32.877874°	-117.218637°	341	11½	A-19
B-20	12/13/22	32.877640°	-117.218634°	340	16	A-20



## APPENDIX A

### FIELD EXPLORATION (Continued)

Boring ID	Date Drilled	Latitude	Longitude	Ground Surface Elevation [FT]	Exploration Depth [FT]	Figure No.
B-21	12/21/22	32.877476°	-117.219075°	334	30½	A-21
B-22	12/13/22	32.877367°	-117.218628°	340	25½	A-22
B-23	12/14/22	32.877179°	-117.219065°	337½	31½	A-23
B-24	12/13/22	32.877174°	-117.218728°	340½	31	A-24
B-25	12/22/22	32.876655°	-117.221699°	324½	36	A-25
B-26	12/21/22	32.876711°	-117.221073°	334	55½	A-26
B-27	12/22/22	32.876450°	-117.221421°	331	11½	A-27
B-28	12/21/22	32.876437°	-117.220732°	335	56½	A-28
B-29	12/20/22	32.876278°	-117.221636°	328	6½	A-29
B-30	12/20/22	32.876177°	-117.221336°	330	6	A-30
B-31	12/20/22	32.876120°	-117.220988°	332½	16½	A-31
B-32	12/20/22	32.876086°	-117.220712°	334½	26	A-32
B-33	12/19/22	32.876727°	-117.220683°	338	41	A-33
B-34	12/20/22	32.876733°	-117.220210°	336	46½	A-34
B-35	12/16/22	32.876738°	-117.219844°	337	31	A-35
B-36	12/19/22	32.876744°	-117.219490°	337	31½	A-36
B-37	12/16/22	32.876422°	-117.220221°	336	50½	A-37
B-38	12/16/22	32.876439°	-117.219404°	336	50½	A-38
B-39	12/15/22	32.876039°	-117.220164°	335½	31	A-39
B-40	12/15/22	32.876037°	-117.219773°	336	36½	A-40
B-41	12/19/22	32.876587°	-117.219050°	336½	46	A-41
B-42	12/13/22	32.876598°	-117.218697°	340½	56	A-42
B-43	12/15/22	32.876327°	-117.219061°	336	51	A-43
B-44	12/14/22	32.876330°	-117.218699°	340	40½	A-44
B-45	12/14/22	32.876099°	-117.219111°	336	26½	A-45
B-46	12/15/22	32.875776°	-117.219076°	337	16	A-46
B-47	12/14/22	32.875718°	-117.218677°	341½	21	A-47
B-48	12/14/22	32.875636°	-117.219419°	335½	6½	A-48
B-49	12/14/22	32.875530°	-117.219037°	340	5½	A-49
B-50	12/15/22	32.875432°	-117.218677°	344	6½	A-50
A-22-01	10/13/22	32.878329°	-117.219583°	345	11½	A-51
A-22-02	10/13/22	32.877846°	-117.220102°	343	16½	A-52
A-22-03	10/13/22	32.877678°	-117.218916°	343	16½	A-53
A-22-04	10/14/22	32.876400°	-117.221106°	334	46	A-54
A-22-05	10/14/22	32.876423°	-117.219790°	337	46½	A-55
A-22-06	10/13/22	32.876031°	-117.218667°	340	26½	A-56
A-17-01	03/17/17	32.875944°	-117.219185°	334½	21½	A-57
A-17-02	03/17/17	32.875690°	-117.219525°	335	16	A-58
A-17-03	03/17/17	32.875459°	-117.219543°	354	31½	A-59
A-16-01	04/20/16	32.876471°	-117.222991°	334	20½	A-60
A-16-02	04/20/16	32.876489°	-117.222642°	329	6½	A-61
A-16-03	04/20/16	32.876531°	-117.222275°	327	20½	A-62
A-16-04	04/20/16	32.876056°	-117.222939°	336	6	A-63



## APPENDIX A

### FIELD EXPLORATION (Continued)

Boring ID	Date Drilled	Latitude	Longitude	Ground Surface Elevation [FT]	Exploration Depth [FT]	Figure No.
A-16-05	04/20/16	32.876100°	-117.222583°	332	6	A-64
A-16-06	04/20/16	32.876120°	-117.222210°	331	20½	A-65
A-16-07	04/20/16	32.876413°	-117.221733°	329	6½	A-66
A-16-08	06/07/16	32.876942°	-117.219026°	336½	4½	A-67
A-16-09	06/07/16	32.876954°	-117.218761°	338½	4½	A-68
A-16-10	06/07/16	32.876856°	-117.218959°	337	4	A-69
A-16-11	06/07/16	32.876866°	-117.218709°	340½	5	A-70
A-14-01	06/27/14	32.875538°	-117.220577°	350	20½	A-71

The boring locations were determined by visually estimating, pacing and taping distances from landmarks shown on the Exploration Plans. The locations shown should not be considered more accurate than is implied by the method of measurement used and the scale of the map. The lines designating the interface between differing soil materials on the logs may be abrupt or gradational. Further, soil conditions at locations between the excavations may be substantially different from those at the specific locations we explored. It should be noted that the passage of time may also result in changes in the soil conditions reported in the logs.

## SOIL IDENTIFICATION AND DESCRIPTION SEQUENCE

Sequence	Identification Components	Refer to Section		Required	Optional
		Field	Lab		
1	Group Name	2.5.2	3.2.2	●	
2	Group Symbol	2.5.2	3.2.2	●	
	<b>Description Components</b>				
3	Consistency of Cohesive Soil	2.5.3	3.2.3	●	
4	Apparent Density of Cohesionless Soil	2.5.4		●	
5	Color	2.5.5		●	
6	Moisture	2.5.6		●	
7	Percent or Proportion of Soil	2.5.7	3.2.4	●	○
	Particle Size	2.5.8	2.5.8	●	○
	Particle Angularity	2.5.9			○
	Particle Shape	2.5.10			○
8	Plasticity (for fine-grained soil)	2.5.11	3.2.5		○
9	Dry Strength (for fine-grained soil)	2.5.12			○
10	Dilatency (for fine-grained soil)	2.5.13			○
11	Toughness (for fine-grained soil)	2.5.14			○
12	Structure	2.5.15			○
13	Cementation	2.5.16		●	
14	Percent of Cobbles and Boulders	2.5.17		●	
	Description of Cobbles and Boulders	2.5.18		●	
15	Consistency Field Test Result	2.5.3		●	
16	Additional Comments	2.5.19			○

**Describe the soil using descriptive terms in the order shown**

### Minimum Required Sequence:

USCS Group Name (Group Symbol); Consistency or Density; Color; Moisture; Percent or Proportion of Soil; Particle Size; Plasticity (optional).

○ = optional for non-Caltrans projects

### Where applicable:

Cementation; % cobbles & boulders;  
Description of cobbles & boulders;  
Consistency field test result

## HOLE IDENTIFICATION

Holes are identified using the following convention:

*H – YY – NNN*

Where:

*H*: Hole Type Code

*YY*: 2-digit year

*NNN*: 3-digit number (001-999)

### Hole Type Code and Description

Hole Type Code	Description
A	Auger boring (hollow or solid stem, bucket)
R	Rotary drilled boring (conventional)
RC	Rotary core (self-cased wire-line, continuously-sampled)
RW	Rotary core (self-cased wire-line, not continuously sampled)
P	Rotary percussion boring (Air)
HD	Hand driven (1-inch soil tube)
HA	Hand auger
D	Driven (dynamic cone penetrometer)
CPT	Cone Penetration Test
O	Other (note on LOTB)

### Description Sequence Examples:

SANDY lean CLAY (CL); very stiff; yellowish brown; moist; mostly fines; some SAND, from fine to medium; few gravels; medium plasticity; PP=2.75.

Well-graded SAND with SILT and GRAVEL and COBBLES (SW-SM); dense; brown; moist; mostly SAND, from fine to coarse; some fine GRAVEL; few fines; weak cementation; 10% GRANITE COBBLES; 3 to 6 inches; hard; subrounded.

Clayey SAND (SC); medium dense, light brown; wet; mostly fine sand; little fines; low plasticity.

REFERENCE: Caltrans Soil and Rock Logging, Classification, and Presentation Manual (2010).



Project No. SD754

UCSD Science Research Park  
Wexford Science + Technology

**BORING RECORD LEGEND #1**



GROUP SYMBOLS AND NAMES				FIELD AND LABORATORY TESTING	
Graphic / Symbol	Group Names	Graphic / Symbol	Group Names		
	GW Well-graded GRAVEL Well-graded GRAVEL with SAND		CL Lean CLAY Lean CLAY with SAND Lean CLAY with GRAVEL SANDY lean CLAY SANDY lean CLAY with GRAVEL GRAVELLY lean CLAY GRAVELLY lean CLAY with SAND	C	Consolidation (ASTM D 2435)
	GP Poorly graded GRAVEL Poorly graded GRAVEL with SAND		CL-ML SILTY CLAY SILTY CLAY with SAND SILTY CLAY with GRAVEL SANDY SILTY CLAY SANDY SILTY CLAY with GRAVEL GRAVELLY SILTY CLAY GRAVELLY SILTY CLAY with SAND	CL	Collapse Potential (ASTM D 5333)
	GW-GM Well-graded GRAVEL with SILT Well-graded GRAVEL with SILT and SAND		ML SILT SILT with SAND SILT with GRAVEL SANDY SILT SANDY SILT with GRAVEL GRAVELLY SILT GRAVELLY SILT with SAND	CP	Compaction Curve (CTM 216)
	GW-GC Well-graded GRAVEL with CLAY (or SILTY CLAY) Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		OL ORGANIC lean CLAY ORGANIC lean CLAY with SAND ORGANIC lean CLAY with GRAVEL SANDY ORGANIC lean CLAY SANDY ORGANIC lean CLAY with GRAVEL GRAVELLY ORGANIC lean CLAY GRAVELLY ORGANIC lean CLAY with SAND	CR	Corrosion, Sulfates, Chlorides (CTM 643; CTM 417; CTM 422)
	GP-GM Poorly graded GRAVEL with SILT Poorly graded GRAVEL with SILT and SAND		OL ORGANIC SILT ORGANIC SILT with SAND ORGANIC SILT with GRAVEL SANDY ORGANIC SILT SANDY ORGANIC SILT with GRAVEL GRAVELLY ORGANIC SILT GRAVELLY ORGANIC SILT with SAND	CU	Consolidated Undrained Triaxial (ASTM D 4767)
	GP-GC Poorly graded GRAVEL with CLAY (or SILTY CLAY) Poorly graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		MH Elastic SILT Elastic SILT with SAND Elastic SILT with GRAVEL SANDY elastic SILT SANDY elastic SILT with GRAVEL GRAVELLY elastic SILT GRAVELLY elastic SILT with SAND	DS	Direct Shear (ASTM D 3080)
	GM Silty GRAVEL Silty GRAVEL with SAND		OH ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND	EI	Expansion Index (ASTM D 4829)
	GC Clayey GRAVEL Clayey GRAVEL with SAND		OH ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY elastic ELASTIC SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND	M	Moisture Content (ASTM D 2216)
	GC-GM Silty, Clayey GRAVEL Silty, Clayey GRAVEL with SAND		OL/OH ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND	OC	Organic Content (ASTM D 2974)
	SW Well-graded SAND Well-graded SAND with GRAVEL		CH Fat CLAY Fat CLAY with SAND Fat CLAY with GRAVEL SANDY fat CLAY SANDY fat CLAY with GRAVEL GRAVELLY fat CLAY GRAVELLY fat CLAY with SAND	P	Permeability (CTM 220)
	SP Poorly graded SAND Poorly graded SAND with GRAVEL		CH SANDY fat CLAY SANDY fat CLAY with GRAVEL GRAVELLY fat CLAY GRAVELLY fat CLAY with SAND	PA	Particle Size Analysis (ASTM D 422)
	SW-SM Well-graded SAND with SILT Well-graded SAND with SILT and GRAVEL		MH SANDY elastic SILT SANDY elastic SILT with GRAVEL GRAVELLY elastic SILT GRAVELLY elastic SILT with SAND	PI	Liquid Limit, Plastic Limit, Plasticity Index (AASHTO T 89, AASHTO T 90)
	SW-SC Well-graded SAND with CLAY (or SILTY CLAY) Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		OH ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND	PL	Point Load Index (ASTM D 5731)
	SP-SM Poorly graded SAND with SILT Poorly graded SAND with SILT and GRAVEL		OH ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY elastic ELASTIC SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND	PM	Pressure Meter
	SP-SC Poorly graded SAND with CLAY (or SILTY CLAY) Poorly graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		OL/OH ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND	R	R-Value (CTM 301)
	SM Silty SAND Silty SAND with GRAVEL			SE	Sand Equivalent (CTM 217)
	SC Clayey SAND Clayey SAND with GRAVEL			SG	Specific Gravity (AASHTO T 100)
	SC-SM Silty, Clayey SAND Silty, Clayey SAND with GRAVEL			SL	Shrinkage Limit (ASTM D 427)
	PT PEAT			SW	Swell Potential (ASTM D 4546)
				UC	Unconfined Compression - Soil (ASTM D 2166) Unconfined Compression - Rock (ASTM D 2938)
				UU	Unconsolidated Undrained Triaxial (ASTM D 2850)
				UW	Unit Weight (ASTM D 4767)
DRILLING METHOD SYMBOLS				SAMPLER GRAPHIC SYMBOLS	
	Auger Drilling		Rotary Drilling		Standard Penetration Test (SPT)
	Dynamic Cone or Hand Driven		Diamond Core		Standard California Sampler
					Modified California Sampler (2.4" ID, 3" OD)
					Shelby Tube
					Piston Sampler
					NX Rock Core
					HQ Rock Core
					Bulk Sample
					Other (see remarks)
WATER LEVEL SYMBOLS				DEFINITIONS FOR CHANGE IN MATERIAL	
	First Water Level Reading (during drilling)			Term	Definition
	Static Water Level Reading (after drilling, date)			Material Change	Change in material is observed in the sample or core and the location of change can be accurately located.
				Estimated Material Change	Change in material cannot be accurately located either because the change is gradational or because of limitations of the drilling and sampling methods.
				Soil / Rock Boundary	Material changes from soil characteristics to rock characteristics.
REFERENCE: Caltrans Soil and Rock Logging, Classification, and Presentation Manual (2010).					
GROUP DELTA				Project No. SD754	
				UCSD Science Research Park Wexford Science + Technology	
				BORING RECORD LEGEND #2	



CONSISTENCY OF COHESIVE SOILS				
Description	Shear Strength (tsf)	Pocket Penetrometer, PP Measurement (tsf)	Torvane, TV, Measurement (tsf)	Vane Shear, VS, Measurement (tsf)
Very Soft	Less than 0.12	Less than 0.25	Less than 0.12	Less than 0.12
Soft	0.12 - 0.25	0.25 - 0.5	0.12 - 0.25	0.12 - 0.25
Medium Stiff	0.25 - 0.5	0.5 - 1	0.25 - 0.5	0.25 - 0.5
Stiff	0.5 - 1	1 - 2	0.5 - 1	0.5 - 1
Very Stiff	1 - 2	2 - 4	1 - 2	1 - 2
Hard	Greater than 2	Greater than 4	Greater than 2	Greater than 2

APPARENT DENSITY OF COHESIONLESS SOILS	
Description	SPT $N_{60}$ (blows / 12 inches)
Very Loose	0 - 5
Loose	5 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	Greater than 50

MOISTURE	
Description	Criteria
Dry	No discernable moisture
Moist	Moisture present, but no free water
Wet	Visible free water

PERCENT OR PROPORTION OF SOILS	
Description	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5 - 10%
Little	15 - 25%
Some	30 - 45%
Mostly	50 - 100%

PARTICLE SIZE		
Description	Size (in)	
Boulder	Greater than 12	
Cobble	3 - 12	
Gravel	Coarse	3/4 - 3
	Fine	1/5 - 3/4
Sand	Coarse	1/16 - 1/5
	Medium	1/64 - 1/16
	Fine	1/300 - 1/64
Silt and Clay	Less than 1/300	

CEMENTATION	
Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

#### Plasticity

Description	Criteria
Nonplastic	A 1/8-in. thread cannot be rolled at any water content.
Low	The thread can barely be rolled and the lump cannot be formed when drier than the plastic limit.
Medium	The thread is easy to roll and not much time is required to reach the plastic limit. The thread cannot be rerolled after reaching the plastic limit. The lump crumbles when drier than the plastic limit.
High	It takes considerable time rolling and kneading to reach the plastic limit. The thread can be rerolled several times after reaching the plastic limit. The lump can be formed without crumbling when drier than the plastic limit.

**REFERENCE: Caltrans Soil and Rock Logging, Classification, and Presentation Manual (2010), with the exception of consistency of cohesive soils vs.  $N_{60}$ .**

CONSISTENCY OF COHESIVE SOILS	
Description	SPT $N_{60}$ (blows/12 inches)
Very Soft	0 - 2
Soft	2 - 4
Medium Stiff	4 - 8
Stiff	8 - 15
Very Stiff	15 - 30
Hard	Greater than 30

Ref: Peck, Hansen, and Thornburn, 1974,  
"Foundation Engineering," Second Edition.

**Note:** Only to be used (with caution) when pocket penetrometer or other data on undrained shear strength are unavailable.  
Not allowed by Caltrans Soil and Rock Logging and Classification Manual, 2010.



Project No. SD754

UCSD Science Research Park  
Wexford Science + Technology

**BORING RECORD LEGEND #3**

### LEGEND OF ROCK MATERIALS



IGNEOUS ROCK



SEDIMENTARY ROCK



METAMORPHIC ROCK

### BEDDING SPACING

Description	Thickness/Spacing
Massive	Greater than 10 ft
Very Thickly Bedded	3 ft - 10 ft
Thickly Bedded	1 ft - 3 ft
Moderately Bedded	4 in - 1 ft
Thinly Bedded	1 in - 4 in
Very Thinly Bedded	1/4 in - 1 in
Laminated	Less than 1/4 in

### WEATHERING DESCRIPTORS FOR INTACT ROCK

	Diagnostic Features					
Description	Chemical Weathering-Discoloration-Oxidation		Mechanical Weathering and Grain Boundary Conditions	Texture and Leaching		General Characteristics
	Body of Rock	Fracture Surfaces		Texture	Leaching	
Fresh	No discoloration, not oxidized	No discoloration or oxidation	No separation, intact (tight)	No change	No leaching	Hammer rings when crystalline rocks are struck.
Slightly Weathered	Discoloration or oxidation is limited to surface of, or short distance from, fractures; some feldspar crystals are dull	Minor to complete discoloration or oxidation of most surfaces	No visible separation, intact (tight)	Preserved	Minor leaching of some soluble minerals	Hammer rings when crystalline rocks are struck. Body of rock not weakened.
Moderately Weathered	Discoloration or oxidation extends from fractures usually throughout; Fe-Mg minerals are "rusty"; feldspar crystals are "cloudy"	All fracture surfaces are discolored or oxidized	Partial separation of boundaries visible	Generally preserved	Soluble minerals may be mostly leached	Hammer does not ring when rock is struck. Body of rock is slightly weakened.
Intensely Weathered	Discoloration or oxidation throughout; all feldspars and Fe-Mg minerals are altered to clay to some extent; or chemical alteration produces in situ disaggregation, grain boundary conditions	All fracture surfaces are discolored or oxidized; surfaces friable	Partial separation, rock is friable; in semi-arid conditions, granitics are disaggregated	Texture altered by chemical disintegration (hydration, argillation)	Leaching of soluble minerals may be complete	Dull sound when struck with hammer; usually can be broken with moderate to heavy manual pressure or by light hammer blow without reference to planes of weakness such as incipient or hairline fractures or veinlets. Rock is significantly weakened.
Decomposed	Discolored or oxidized throughout, but resistant minerals such as quartz may be unaltered; all feldspars and Fe-Mg minerals are completely altered to clay		Complete separation of grain boundaries (disaggregated)	Resembles a soil; partial or complete remnant rock structure may be preserved; leaching of soluble minerals usually complete		Can be granulated by hand. Resistant minerals such as quartz may be present as "stringers" or "dikes".

### PERCENT CORE RECOVERY (REC)

$$\frac{\sum \text{Length of the recovered core pieces (in.)}}{\text{Total length of core run (in.)}} \times 100$$

### ROCK QUALITY DESIGNATION (RQD)

$$\frac{\sum \text{Length of intact core pieces} \geq 4 \text{ in.}}{\text{Total length of core run (in.)}} \times 100$$

RQD\* indicates soundness criteria not met.

### ROCK HARDNESS

Description	Criteria
Extremely Hard	Cannot be scratched with a pocketknife or sharp pick. Can only be chipped with repeated heavy hammer blows
Very Hard	Cannot be scratched with a pocketknife or sharp pick. Breaks with repeated heavy hammer blows.
Hard	Can be scratched with a pocketknife or sharp pick with difficulty (heavy pressure). Breaks with heavy hammer blows.
Moderately Hard	Can be scratched with a pocketknife or sharp pick with light or moderate pressure. Breaks with moderate hammer blows
Moderately Soft	Can be grooved 1/16 in. deep with a pocketknife or sharp pick with moderate or heavy pressure. Breaks with light hammer blow or heavy manual pressure.
Soft	Can be grooved or gouged easily with a pocketknife or sharp pick with light pressure, can be scratched with fingernail. Breaks with light to moderate manual pressure.
Very Soft	Can be readily indented, grooved or gouged with fingernail, or carved with a pocketknife. Breaks with light manual pressure.

### FRACTURE DENSITY

Description	Observed Fracture Density
Unfractured	No fractures
Very Slightly Fractured	Core lengths greater than 3 ft.
Slightly Fractured	Core lengths mostly from 1 to 3 ft.
Moderately Fractured	Core lengths mostly 4 in. to 1 ft.
Intensely Fractured	Core lengths mostly from 1 to 4 in.
Very Intensely Fractured	Mostly chips and fragments.

**REFERENCE** Caltrans Soil and Rock Logging, Classification, and Presentation Manual (2010).

**GROUP**



**DELTA**

Project No. SD754

UCSD Science Research Park  
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**BORING RECORD LEGEND #4**

<b>BORING RECORD</b>				PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A				BORING <b>B-01</b>																							
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle								START 12/20/2022				FINISH 12/20/2022				SHEET NO. 1 of 1																			
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger						LOGGED BY CRJ				CHECKED BY MAF																			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6				TOTAL DEPTH (ft) 5				GROUND ELEV (ft) 346				DEPTH/ELEV. GROUNDWATER (ft) N/A / na																	
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N																													
DEPTH (feet)		ELEVATION (feet)		SAMPLE TYPE		SAMPLE NO.		PENETRATION RESISTANCE (BLOWS / 6 IN)		BLOW/FT "N"		N <sub>60</sub>		MOISTURE (%)		DRY DENSITY (pcf)		OTHER TESTS		DEPTH (feet)		GRAPHIC LOG		DESCRIPTION AND CLASSIFICATION											
5		345		B-1		S-2		8 20 31		51		78						EPA		5				<b>PAVEMENT:</b> 5-inches asphalt concrete over 4½-inches aggregate base. <b>FILL:</b> SILTY SAND (SM); medium dense; dark yellowish brown (10YR 4/6), moist; mostly fine to medium SAND; some fines; low plasticity. <b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light yellowish brown (10YR 6/4); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; low plasticity; iron oxide stains).											
10		340																		10				Total Depth: 5 feet No groundwater encountered * Rock Description; (Soil Description)											
15		335																		15															
20		330																		20															
		325																																	
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126												THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.												<b>FIGURE</b>  <b>A-1</b>											



<b>BORING RECORD</b>				PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A				BORING <b>B-02</b>																													
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle								START 12/20/2022				FINISH 12/20/2022				SHEET NO. 1 of 1																									
DRILLING COMPANY Pacific Drilling Company								DRILLING METHOD Hollow Stem Auger								LOGGED BY CRJ				CHECKED BY MAF																					
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig								BORING DIA. (in) 6				TOTAL DEPTH (ft) 5				GROUND ELEV (ft) 348				DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na																					
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)								NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N																																	
DEPTH (feet)		ELEVATION (feet)		SAMPLE TYPE		SAMPLE NO.		PENETRATION RESISTANCE (BLOWS / 6 IN)		BLOW/FT "N"		N <sub>60</sub>		MOISTURE (%)		DRY DENSITY (pcf)		OTHER TESTS		DEPTH (feet)		GRAPHIC LOG		DESCRIPTION AND CLASSIFICATION																	
5		345		B-1 R-2		9 28 60		88		90		19.8		106		EPA		5				<b>PAVEMENT:</b> 4-inches asphalt concrete over 4½-inches aggregate base.  <b>SCRIPPS FORMATION (Tsc):</b> * Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 5/4); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; nonplastic; weakly cemented; iron oxide stains).																			
												Total Depth: 5 feet No groundwater encountered * Rock Description; (Soil Description)																													
10		340																10																							
15		335																15																							
20		330																20																							
25		325																25																							
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126																						THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.										<b>FIGURE</b>  <b>A-2</b>									



<b>BORING RECORD</b>				PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A				BORING <b>B-04</b>																							
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle								START 12/22/2022				FINISH 12/22/2022				SHEET NO. 1 of 1																			
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger						LOGGED BY CRJ				CHECKED BY MAF																			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6				TOTAL DEPTH (ft) 5				GROUND ELEV (ft) 343				DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na																	
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N																													
DEPTH (feet)		ELEVATION (feet)		SAMPLE TYPE		SAMPLE NO.		PENETRATION RESISTANCE (BLOWS / 6 IN)		BLOW/FT "N"		N <sub>60</sub>		MOISTURE (%)		DRY DENSITY (pcf)		OTHER TESTS		DEPTH (feet)		GRAPHIC LOG		DESCRIPTION AND CLASSIFICATION											
5		340				B-1 R-2		25 60		85		87		8.9		118		PA R EPA		5				<b>PAVEMENT:</b> 5-inches asphalt concrete over 4-inches aggregate base.  <b>SCRIPPS FORMATION (Tsc):</b> * Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 7/6); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; trace GRAVEL; nonplastic; slightly micaceous).  (2% Gravel; 60% Sand; 38% Fines)											
		10		335																				Total Depth: 5 feet No groundwater encountered * Rock Description; (Soil Description)											
330				325																														320	
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126														THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.										<b>FIGURE</b>  <b>A-4</b>											

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-05</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/22/2022		FINISH 12/22/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 5		GROUND ELEV (ft) 345		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
5	340		B-1 S-2	13 17 21	38	58			EPA	5		<b>PAVEMENT:</b> 5-inches asphalt concrete over 4½-inches aggregate base.  <b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; dark yellowish brown (10YR 4/6); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic).  Total Depth: 5 feet No groundwater encountered * Rock Description; (Soil Description)	
10	335									10			
15	330									15			
20	325									20			

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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2)\GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-06</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/19/2022		FINISH 12/19/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 6		GROUND ELEV (ft) 345		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1									<b>PAVEMENT:</b> 5-inches asphalt concrete over 4½-inches aggregate base.  <b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 5/6); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; nonplastic; weakly cemented; iron oxide stains).  Sample was highly disturbed.	
			R-2	10 50 (5")	100+	100+	7.7	---	EPA				
5	340		S-3	20 50	70	100+				5			
10	335									10		Total Depth: 6 feet No groundwater encountered * Rock Description; (Soil Description)	
15	330									15			
20	325									20			







**GROUP DELTA CONSULTANTS, INC.**  
 9245 Activity Road, Suite 103  
 San Diego, California 92126

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**FIGURE**  
  
**A-6**



GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2)\GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-08</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/22/2022		FINISH 12/22/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 6.5		GROUND ELEV (ft) 338		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1									<b>PAVEMENT:</b> 5-inches asphalt concrete over 4½-inches aggregate base.	
	335		R-2	9 15 20	35	36	12.6	116	EPA			<b>FILL:</b> CLAYEY SAND (SC); medium dense to dense; dark grayish brown (10YR 4/2), moist; mostly fine to medium SAND; some fines; low plasticity. Contains asphalt concrete fragments and vegetative debris.	
5			S-3	20 27 41	68	100+				5		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; very pale yellow (10YR 7/4); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic).	
	330											Total Depth: 6½ feet No groundwater encountered * Rock Description; (Soil Description)	
10										10			
	325												
15										15			
	320												
20										20			
	315												

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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2)\GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-09</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/22/2022		FINISH 12/22/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 6		GROUND ELEV (ft) 339.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1									<b>PAVEMENT:</b> 5-inches asphalt concrete over 4½-inches aggregate base.	
			S-2	13 12 11	23	35			EPA			<b>FILL:</b> SILTY SAND (SM); medium dense to dense; very dark gray (10YR 3/1); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.	
5	335		R-3	20 50	70	71	18.1	105		5		<b>SCRIPPS FORMATION (Tsc):</b> * Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 5/8) and brown (10YR 5/3); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to coarse SAND; little fines; nonplastic; iron oxide).	
10	330									10		Total Depth: 6 feet No groundwater encountered * Rock Description; (Soil Description)	
15	325									15			
20	320									20			
	315												

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GDC\_LOG\_BORING\_MM\_X\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23








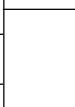
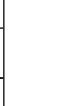
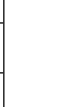
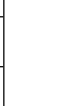
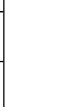
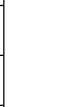
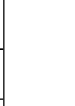
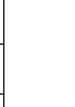
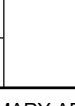
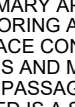
BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-10</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/22/2022		FINISH 12/22/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 5		GROUND ELEV (ft) 340.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
340			B-1	20								<b>PAVEMENT:</b> 4½-inches asphalt concrete over 5-inches aggregate base. <b>FILL:</b> CLAYEY SAND (SC); medium dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; low plasticity. <b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light and dark yellowish brown (10YR 6/4 and 10YR 4/6); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to coarse SAND; little fines; nonplastic; slightly micaceous; iron oxide stains).	
			R-2	42	92	94	19.1	108	EPA				
5	335			50						5		Total Depth: 5 feet No groundwater encountered * Rock Description; (Soil Description)	
10	330									10			
15	325									15			
20	320									20			

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-10</b>
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<b>BORING RECORD</b>				PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A				BORING <b>B-11</b>									
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle								START 12/19/2022				FINISH 12/19/2022				SHEET NO. 1 of 1					
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger						LOGGED BY CRJ				CHECKED BY MAF					
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6				TOTAL DEPTH (ft) 6				GROUND ELEV (ft) 341				DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N															
<div> <div>DEPTH (feet)</div> <div>ELEVATION (feet)</div> <div>SAMPLE TYPE</div> <div>SAMPLE NO.</div> <div>PENETRATION RESISTANCE (BLOWS / 6 IN)</div> <div>BLOW/FT "N"</div> <div>N<sub>60</sub></div> <div>MOISTURE (%)</div> <div>DRY DENSITY (pcf)</div> <div>OTHER TESTS</div> <div>DEPTH (feet)</div> <div>GRAPHIC LOG</div> <div>DESCRIPTION AND CLASSIFICATION</div> </div>																					
<div> <div>340</div> <div>340</div> <div></div> <div>B-1</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>PAVEMENT: 4½-inches asphalt concrete over 5-inches aggregate base.</div> </div>																					
<div> <div></div> <div></div> <div></div> <div>S-2</div> <div>11 25 31</div> <div>56</div> <div>86</div> <div></div> <div></div> <div>EPA</div> <div></div> <div></div> <div>SCRIPPS FORMATION (Tsc):* Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 5/6); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; nonplastic; weakly cemented; iron oxide stains).</div> </div>																					
<div> <div>5</div> <div></div> <div></div> <div>R-3</div> <div>32 50 (5")</div> <div>92</div> <div>94</div> <div>11.7</div> <div>112</div> <div></div> <div></div> <div>Total Depth: 6 feet No groundwater encountered * Rock Description; (Soil Description)</div> </div>																					
<div> <div>335</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>																					
<div> <div>10</div> <div>330</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>																					
<div> <div>15</div> <div>325</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>																					
<div> <div>20</div> <div>320</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>																					
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.				<b>FIGURE</b>  <b>A-11</b>							

[illegible]

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2)\GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-13</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/12/2022		FINISH 12/12/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 6.5		GROUND ELEV (ft) 345.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
	345		B-1									<b>PAVEMENT:</b> 4-inches asphalt concrete over 4-inches aggregate base. <b>FILL:</b> SILTY SAND (SM); medium dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; trace GRAVEL; nonplastic.	
			R-2	16 23 50	73	75	7.1	106	EPA PA				
5	340		S-3	18 31 40	71	100+						<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; grayish brown (10YR 5/2); moderately weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; little fines; few GRAVEL; nonplastic; weakly cemented; slightly micaceous; trace iron oxide stains). (7% Gravel; 65% Sand; 28% Fines)	
												Total Depth: 6½ feet No groundwater encountered * Rock Description; (Soil Description)	
10	335												
15	330												
20	325												
													
													
													
													
													
													
													
													

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-13</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2) GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-14</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/12/2022		FINISH 12/12/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 11.5		GROUND ELEV (ft) 344.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1									<b>PAVEMENT:</b> 4-inches asphalt concrete over 4-inches aggregate base.	
			S-2	5 6 6	12	18			EPA			<b>FILL:</b> SILTY SAND (SM); medium dense; yellowish brown (10YR 5/4); moist; mostly fine SAND; some fines; trace GRAVEL; nonplastic.	
5	340		R-3	8 17 34	51	52	11.3	104		5		<b>SCRIPPS FORMATION (Tsc):</b> * Poorly-indurated SANDSTONE; medium grained; grayish brown (10YR 5/2); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic; trace iron oxide stains).	
10	335		S-4	6 23 36	59	90				10		Little to some fines; weakly cemented.	
15	330									15		Total Depth: 11½ feet No groundwater encountered * Rock Description; (Soil Description)	
20	325									20			
	320												

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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2)\GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-15</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/12/2022		FINISH 12/12/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 11.5		GROUND ELEV (ft) 346		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
	345		B-1									<b>PAVEMENT:</b> 4-inches asphalt concrete over 4-inches aggregate base.	
			R-2	10 16 23	39	40	9.4	119	EPA			<b>FILL:</b> SILTY SAND (SM); medium dense to dense; brown (10YR 5/3); moist; mostly fine SAND; some fines; trace GRAVEL; nonplastic.  Mottled coloration.	
5			S-3	6 12 22	34	52				5		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light yellowish brown (10YR 6/4); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; little fines; nonplastic; trace iron oxide stains).	
	340												
10			R-4	16 39 45	84	86	---	---		10		Little to some fines.	
	335												
												Total Depth: 11½ feet No groundwater encountered * Rock Description; (Soil Description)	
15										15			
	330												
20										20			
	325												

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-15</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-16</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/12/2022		FINISH 12/12/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 16		GROUND ELEV (ft) 342		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1						PA PI CR EI EPA			<b>PAVEMENT:</b> 4-inches asphalt concrete over 4-inches aggregate base.	
	340		S-2	8 7 11	18	28						<b>FILL:</b> CLAYEY SAND (SC); medium dense; dark yellowish brown (10YR 4/4); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity. (2% Gravel; 58% Sand; 40% Fines) (LL~27; PL~13; PI~14)	
5			R-3	9 15 21	36	37	13.0	116	EPA	5		LEAN CLAY WITH SAND (CL); stiff; gray (10YR 5/1); moist; mostly fines; little fine SAND; medium plasticity.	
	335											SILTY SAND (SM); dense; mottled dark gray (10YR 5/3) and brown (10YR 4/1); moist; mostly fine SAND; some fines; nonplastic.	
10			S-4	7 10 21	31	47				10		<b>SCRIPPS FORMATION (Tsc):</b> * Poorly-indurated SANDSTONE; medium grained; gray (10YR 5/1); intensely weathered; very soft; (SILTY SAND (SM); dense to very dense; moist; mostly fine SAND; little fines; nonplastic; trace iron oxide stains).	
	330												
15			R-5	26 50 (3")	100	100+	---	---		15			
	325											Total Depth: 16 feet No groundwater encountered * Rock Description; (Soil Description)	
20										20			
	320												

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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2)\GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-17</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/12/2022		FINISH 12/12/2022		SHEET NO. 1 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 26		GROUND ELEV (ft) 343		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1									<b>PAVEMENT:</b> 4-inches asphalt concrete over 4-inches aggregate base.	
	340		S-2	5 9 11	20	31			EPA			<b>FILL:</b> SILTY SAND (SM); medium dense to dense; brown (10YR 5/4); moist; mostly fine SAND; some fines; nonplastic.	
5			R-3	13 21 32	53	54	12.3	109	EPA	5		SILTY SAND (SM); very dense; pale brown (10YR 6/3); moist; mostly fine SAND; little to some fines; low plasticity; iron oxide stains.	
	335												
10			S-4	7 7 8	15	23			EPA	10		SILTY SAND (SM); medium dense; brown (10YR 4/3); moist; mostly fine SAND; some fines; nonplastic.	
	330												
15			R-5	7 9 15	24	24	15.5	104	EPA	15		Same.	
	325												
20			S-6	22 32 46	78	100+				20		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; gray (10YR 5/1); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; little to some fines; nonplastic; iron oxide stains).	
	320												

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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

<b>BORING RECORD</b>							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-17</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/12/2022		FINISH 12/12/2022		SHEET NO. 2 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 26		GROUND ELEV (ft) 343		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			R-7	23 60	83	85	---	---				<b>SCRIPPS FORMATION (Tsc):</b> * Poorly-indurated SANDSTONE; medium grained; gray (10YR 5/1); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; little to some fines; nonplastic; iron oxide stains).	
315													
30										30		Total Depth: 26 feet No groundwater encountered * Rock Description; (Soil Description)	
310													
35										35			
305													
40										40			
300													
45										45			
295													
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.		FIGURE  A-17 b	





GDC\_LOG\_BORING\_MM\_X\_SOIL\_SD\_SD754\_LOGS (PHASE 2) GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING B-18	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/14/2022		FINISH 12/14/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 21.5		GROUND ELEV (ft) 338		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1										
	335		S-2	4 4 5	9	14			EPA			<b>PAVEMENT:</b> 3-inches asphalt concrete over 4-inches aggregate base.	
5			R-3	6 12 16	28	29	10.7	113	EPA	5		<b>FILL:</b> SILTY SAND (SM); medium dense; yellowish brown (10YR 5/6); moist; mostly fine to medium SAND; some fines; trace GRAVEL; nonplastic.	
	330											Mottled yellowish brown (10YR 5/6) and pale yellowish brown (10YR 6/2).	
10			S-4	8 10 8	18	28			EPA	10		Trace iron oxide stains.	
	325												
15			R-5	12 20 38	58	59	12.7	118		15		Dark grayish brown (10YR 4/2)	
	320											<b>SCRIPPS FORMATION (Tsc):</b> * Poorly-indurated SANDSTONE; medium grained; pale brown (10YR 6/3); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; little fines; nonplastic; trace of iron oxide stains).	
20			S-6	23 37 75	100+	100+				20			
	315											Total Depth: 21½ feet No groundwater encountered * Rock Description; (Soil Description)	

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9245 Activity Road, Suite 103  
San Diego, California 92126

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.

**FIGURE**  
**A-18**













<b>BORING RECORD</b>				PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A				BORING <b>B-19</b>									
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle								START 12/12/2022				FINISH 12/12/2022				SHEET NO. 1 of 1					
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger						LOGGED BY SRN				CHECKED BY MAF					
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6				TOTAL DEPTH (ft) 11.5				GROUND ELEV (ft) 341				DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N															
<div> <div>DEPTH (feet)</div> <div>ELEVATION (feet)</div> <div>SAMPLE TYPE</div> <div>SAMPLE NO.</div> <div>PENETRATION RESISTANCE (BLOWS / 6 IN)</div> <div>BLOW/FT "N"</div> <div>N<sub>60</sub></div> <div>MOISTURE (%)</div> <div>DRY DENSITY (pcf)</div> <div>OTHER TESTS</div> <div>DEPTH (feet)</div> <div>GRAPHIC LOG</div> <div>DESCRIPTION AND CLASSIFICATION</div> </div>																					
<div> <div>340</div> <div></div> <div>B-1</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>																					
<div> <div>340</div> <div></div> <div>S-2</div> <div>8 10 19</div> <div>29</div> <div>44</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>																					
<div> <div>335</div> <div></div> <div>R-3</div> <div>36 60</div> <div>96</div> <div>98</div> <div>16.5</div> <div>104</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>																					
<div> <div>330</div> <div></div> <div>S-4</div> <div>10 21 36</div> <div>57</div> <div>87</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>																					
<div> <div>325</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>																					
<div> <div>320</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>																					
<div> <div>PAVEMENT:</div> <div>4-inches asphalt concrete over 4-inches aggregate base.</div> </div>																					
<div> <div>FILL:</div> <div>SILTY SAND (SM); medium dense; yellowish brown (10YR 5/4); moist; mostly fine to medium SAND; some fines; trace GRAVEL; nonplastic.</div> <div>(3% Gravel; 64% Sand; 33% Fines)</div> </div>																					
<div> <div>SCRIPPS FORMATION (Tsc):</div> <div>* Poorly-indurated SANDSTONE; medium grained; gray (10YR 6/1); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; some fines; nonplastic; trace iron oxide stains).</div> </div>																					
<div> <div>Trace iron oxide stains.</div> </div>																					
<div> <div>Total Depth: 11½ feet</div> <div>No groundwater encountered</div> <div>* Rock Description; (Soil Description)</div> </div>																					
<div> <div>GROUP DELTA CONSULTANTS, INC.</div> <div>9245 Activity Road, Suite 103</div> <div>San Diego, California 92126</div> </div>																					
<div> <div>THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.</div> </div>																					
<div> <div>FIGURE</div> <div>A-19</div> </div>																					

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2)\GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-20</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/13/2022		FINISH 12/13/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 16		GROUND ELEV (ft) 340		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1									<b>PAVEMENT:</b> 3-inches asphalt concrete over 4-inches aggregate base.	
			R-2	14 15 16	31	32	9.7	117	EPA			<b>FILL:</b> SILTY SAND (SM); medium dense to dense; dark grayish brown (10YR 3/6); moist; mostly fine to medium SAND; some fines; low plasticity.	
5	335		S-3	9 14 14	28	43			EPA	5			
10	330		R-4	22 60	82	84	10.7	105		10		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; yellowish gray (5Y 8/1); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; nonplastic).	
15	325		S-5	25 50	75	100+				15			
20	320									20		Total Depth: 16 feet No groundwater encountered * Rock Description; (Soil Description)	

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-20</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING B-21		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/21/2022		FINISH 12/21/2022		SHEET NO. 1 of 2	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger					LOGGED BY CRJ		CHECKED BY MAF		
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 30.5		GROUND ELEV (ft) 334		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
			B-1									<b>PAVEMENT:</b> 4-inches asphalt concrete over 4½-inches aggregate base.			
			R-2	7 14 23	37	38	8.5	123	EPA			<b>FILL:</b> CLAYEY SAND (SC); medium dense to dense; dark brown (10YR 3/3); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.  Contains some brick fragments and demolition debris.			
5	330		S-3	6 10 6	16	24			EPA	5		Interlayered with SILTY SAND (SM); yellowish brown (10YR 5/6).			
	325														
10			R-4	11 11 10	21	21	12.9	114	EPA	10		Interlayered CLAYEY SAND (SC) and SILTY SAND (SM); dark yellowish brown (10YR 4/6) and brown (10YR 5/3); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.			
	320														
15			S-5	12 15 14	29	44			EPA	15		SILTY SAND (SM); dense; yellowish brown (10YR 5/6) to dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; little fines; trace GRAVEL; low plasticity.			
	315														
20			R-6	11 16 23	39	40	13.7	113	EPA	20					
	310														
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE  A-21 a		

<b>BORING RECORD</b>				PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A				BORING <b>B-21</b>																													
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle								START 12/21/2022				FINISH 12/21/2022				SHEET NO. 2 of 2																									
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger						LOGGED BY CRJ				CHECKED BY MAF																									
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6				TOTAL DEPTH (ft) 30.5				GROUND ELEV (ft) 334				DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na																							
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N																																			
DEPTH (feet)		ELEVATION (feet)		SAMPLE TYPE		SAMPLE NO.		PENETRATION RESISTANCE (BLOWS / 6 IN)		BLOW/FT "N"		N <sub>60</sub>		MOISTURE (%)		DRY DENSITY (pcf)		OTHER TESTS		DEPTH (feet)		GRAPHIC LOG		DESCRIPTION AND CLASSIFICATION																	
305		X		S-7		8 7 10		17		26						EPA				30				<b>FILL:</b> POORLY GRADED SAND WITH SILT (SP-SM); medium dense; yellowish brown (10YR 5/6); moist; mostly fine to medium SAND; few to little fines; nonplastic.																	
																								<b>SCRIPPS FORMATION (Tsc):</b> * Poorly-indurated SANDSTONE; medium grained; very light brown (10YR 8/1); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic; slightly micaceous; iron oxide stains).																	
30		X		R-8		50 (6")		100		100+		---		---						30				Total Depth: 30½ feet No groundwater encountered * Rock Description; (Soil Description)																	
300																																									
35																																									
295																																									
40																																									
290																																									
45																																									
285																																									
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126														THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.														<b>FIGURE</b>  A-21 b													


GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754A\_LOGS (PHASE 2) GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-22</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/13/2022		FINISH 12/13/2022		SHEET NO. 1 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 25.5		GROUND ELEV (ft) 340		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1									<b>PAVEMENT:</b> 3-inches asphalt concrete over 4-inches aggregate base.	
			S-2	5 8 11	19	29			EPA			<b>FILL:</b> SILTY SAND (SM); medium dense; dark yellowish brown (10YR 4/4); moist; mostly fine to medium SAND; some fines; low plasticity.	
5	335		R-3	18 41 22	63	64	10.4	115	EPA	5		SILTY SAND (SM); very dense; dark yellowish brown (10YR 4/4); moist; mostly fine to medium SAND; little fines; nonplastic.	
10	330		S-4	6 9 10	19	29			EPA	10		SILTY SAND (SM); medium dense; dark yellowish brown (10YR 4/4); moist; mostly fine SAND; some fines; low plasticity.	
15	325		R-5	7 10 15	25	26	14.4	114	EPA	15		CLAYEY SAND (SC); medium dense; dark reddish brown (10R 3/4); moist; mostly fine to coarse SAND; some fines; low to medium plasticity.	
20	320		S-6	16 26 40	66	100+				20		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light yellowish gray (5Y 8/1); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; nonplastic; iron oxide stains).	

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-22 a</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2)\GPJ GDCLOG.GDT 1/6/23

<b>BORING RECORD</b>							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-22</b>		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle									START 12/13/2022		FINISH 12/13/2022		SHEET NO. 2 of 2	
DRILLING COMPANY Pacific Drilling Company							DRILLING METHOD Hollow Stem Auger				LOGGED BY SRN		CHECKED BY MAF	
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig							BORING DIA. (in) 6		TOTAL DEPTH (ft) 25.5		GROUND ELEV (ft) 340		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na	
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)							NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
30	310		R-7	50 (6")	100	100+	---	---		30		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light yellowish gray (5Y 8/1); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; nonplastic; slightly micaceous).  Total Depth: 25½ feet No groundwater encountered * Rock Description; (Soil Description)		
35	305									35				
40	300									40				
45	295									45				
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE A-22 b	














<b>BORING RECORD</b>				PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A				BORING <b>B-23</b>							
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle								START 12/14/2022				FINISH 12/14/2022				SHEET NO. 1 of 2			
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger						LOGGED BY SRN				CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 31.5		GROUND ELEV (ft) 337.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na							
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N													
<div> <div>DEPTH (feet)</div> <div>ELEVATION (feet)</div> <div>SAMPLE TYPE</div> <div>SAMPLE NO.</div> <div>PENETRATION RESISTANCE (BLOWS / 6 IN)</div> <div>BLOW/FT "N"</div> <div>N<sub>60</sub></div> <div>MOISTURE (%)</div> <div>DRY DENSITY (pcf)</div> <div>OTHER TESTS</div> <div>DEPTH (feet)</div> <div>GRAPHIC LOG</div> <div>DESCRIPTION AND CLASSIFICATION</div> </div>																			
<div> <div>335</div> <div>B-1</div> <div>5</div> <div>16</div> <div>13</div> <div>29</div> <div>29</div> <div>9.2</div> <div>108</div> <div>EPA</div> <div>5</div> <div>PA EI</div> <div>PAVEMENT: 3-inches asphalt concrete over 4-inches aggregate base.</div> </div>																			
<div> <div>330</div> <div>R-2</div> <div>4</div> <div>7</div> <div>9</div> <div>16</div> <div>24</div> <div>10.9</div> <div>120</div> <div>EPA</div> <div>10</div> <div>FILL: CLAYEY SAND (SC); medium dense; yellowish brown (10YR 5/6) mottled with gray (10YR 6/1); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.  (1% Gravel; 61% Sand; 38% Fines)</div> </div>																			
<div> <div>325</div> <div>S-3</div> <div>9</div> <div>11</div> <div>13</div> <div>24</div> <div>24</div> <div>10.9</div> <div>120</div> <div>EPA</div> <div>15</div> <div>SANDY LEAN CLAY (CL); stiff; very dark grayish brown (10YR 3/2); moist; mostly fines; some fine SAND; medium plasticity.</div> </div>																			
<div> <div>320</div> <div>R-4</div> <div>8</div> <div>12</div> <div>16</div> <div>28</div> <div>29</div> <div>10.8</div> <div>117</div> <div>EPA</div> <div>20</div> <div>SILTY SAND (SM); medium dense; yellowish brown (10YR 5/4); moist; mostly fine to medium SAND; little fines; trace GRAVEL; nonplastic.</div> </div>																			
<div> <div>315</div> <div>S-5</div> <div>4</div> <div>4</div> <div>5</div> <div>9</div> <div>14</div> <div>10.8</div> <div>117</div> <div>EPA</div> <div>25</div> <div></div> </div>																			
<div> <div>310</div> <div>R-6</div> <div>8</div> <div>12</div> <div>16</div> <div>28</div> <div>29</div> <div>10.8</div> <div>117</div> <div>EPA</div> <div>30</div> <div></div> </div>																			
<div> <div>305</div> <div>S-6</div> <div>4</div> <div>4</div> <div>5</div> <div>9</div> <div>14</div> <div>10.8</div> <div>117</div> <div>EPA</div> <div>35</div> <div></div> </div>																			
<div> <div>300</div> <div>R-7</div> <div>8</div> <div>12</div> <div>16</div> <div>28</div> <div>29</div> <div>10.8</div> <div>117</div> <div>EPA</div> <div>40</div> <div></div> </div>																			
<div> <div>295</div> <div>S-7</div> <div>4</div> <div>4</div> <div>5</div> <div>9</div> <div>14</div> <div>10.8</div> <div>117</div> <div>EPA</div> <div>45</div> <div></div> </div>																			
<div> <div>290</div> <div>R-8</div> <div>8</div> <div>12</div> <div>16</div> <div>28</div> <div>29</div> <div>10.8</div> <div>117</div> <div>EPA</div> <div>50</div> <div></div> </div>																			
<div> <div>285</div> <div>S-8</div> <div>4</div> <div>4</div> <div>5</div> <div>9</div> <div>14</div> <div>10.8</div> <div>117</div> <div>EPA</div> <div>55</div> <div></div> </div>																			
<div> <div>280</div> <div>R-9</div> <div>8</div> <div>12</div> <div>16</div> <div>28</div> <div>29</div> <div>10.8</div> <div>117</div> <div>EPA</div> <div>60</div> <div></div> </div>																			
<div> <div>275</div> <div>S-9</div> <div>4</div> <div>4</div> <div>5</div> <div>9</div> <div>14</div> <div>10.8</div> <div>117</div> <div>EPA</div> <div>65</div> <div></div> </div>																			
<div> <div>270</div> <div>R-10</div> <div>8</div> <div>12</div> <div>16</div> <div>28</div> <div>29</div> <div>10.8</div> <div>117</div> <div>EPA</div> <div>70</div> <div></div> </div>																			
<div> <div>265</div> <div>S-10</div> <div>4</div> <div>4</div> <div>5</div> <div>9</div> <div>14</div> <div>10.8</div> <div>117</div> <div>EPA</div> <div>75</div> <div></div> </div>																			
<div> <div>260</div> <div>R-11</div> <div>8</div> <div>12</div> <div>16</div> <div>28</div> <div>29</div> <div>10.8</div> <div>117</div> <div>EPA</div> <div>80</div> <div></div> </div>																			
<div> <div>255</div> <div>S-11</div> <div>4</div> <div>4</div> <div>5</div> <div>9</div> <div>14</div> <div>10.8</div> <div>117</div> <div>EPA</div> <div>85</div> <div></div> </div>																			
<div> <div>250</div> <div>R-12</div> <div>8</div> <div>12</div> <div>16</div> <div>28</div> <div>29</div> <div>10.8</div> <div>117</div> <div>EPA</div> <div>90</div> <div></div> </div>																			
<div> <div>245</div> <div>S-12</div> <div>4</div> <div>4</div> <div>5</div> <div>9</div> <div>14</div> <div>10.8</div> <div>117</div> <div>EPA</div> <div>95</div> <div></div> </div>																			
<div> <div>240</div> <div>R-13</div> <div>8</div> <div>12</div> <div>16</div> <div>28</div> <div>29</div> <div>10.8</div> <div>117</div> <div>EPA</div> <div>100</div> <div></div> </div>																			
<div> <div>235</div> <div>S-13</div> <div>4</div> <div>4</div> <div>5</div> <div>9</div> <div>14</div> <div>10.8</div> <div>117</div> <div>EPA</div> <div>105</div> <div></div> </div>																			
<div> <div>230</div> <div>R-14</div> <div>8</div> <div>12</div> <div>16</div> <div>28</div> <div>29</div> <div>10.8</div> <div>117</div> <div>EPA</div> <div>110</div> <div></div> </div>																			
<div> <div>225</div> <div>S-14</div> <div>4</div> <div>4</div> <div>5</div> <div>9</div> <div>14</div> <div>10.8</div> <div>117</div> <div>EPA</div> <div>115</div> <div></div> </div>																			
<div> <div>220</div> <div>R-15</div> <div>8</div> <div>12</div> <div>16</div> <div>28</div> <div>29</div> <div>10.8</div> <div>117</div> <div>EPA</div> <div>120</div> <div></div> </div>																			
<div> <div>215</div> <div>S-15</div> <div>4</div> <div>4</div> <div>5</div> <div>9</div> <div>14</div> <div>10.8</div> <div>117</div> <div>EPA</div> <div>125</div> <div></div> </div>																			
<div> <div>210</div> <div>R-16</div> <div>8</div> <div>12</div> <div>16</div> <div>28</div> <div>29</div> <div>10.8</div> <div>117</div> <div>EPA</div> <div>130</div> <div></div> </div>																			
<div> <div>205</div> <div>S-16</div> <div>4</div> <div>4</div> <div>5</div> <div>9</div> <div>14</div> <div>10.8</div> <div>117</div> <div>EPA</div> <div>135</div> <div></div> </div>																			
<div> <div>200</div> <div>R-17</div> <div>8</div> <div>12</div></div>																			

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-23</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/14/2022		FINISH 12/14/2022		SHEET NO. 2 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 31.5		GROUND ELEV (ft) 337.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
310			S-7	28 42 100	100+	100+						<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; pale brown (10YR 6/3); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; little fines; nonplastic; trace of iron oxide stains).  Light grayish brown (10YR 7/2); trace iron oxide stains.	
30			R-8	16 42 100	100+	100+	---	---		30			
305												Total Depth: 31½ feet No groundwater encountered * Rock Description; (Soil Description)	
35										35			
300													
40										40			
295													
45													
290													

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-23 b</b>
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GDC\_LOG\_BORING\_MM\_X\_SOIL\_SD\_SD754\_LOGS (PHASE 2) GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING B-24		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/13/2022		FINISH 12/13/2022		SHEET NO. 1 of 2	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 31		GROUND ELEV (ft) 340.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
5	340		B-1						PA			<b>PAVEMENT:</b> 3-inches asphalt concrete over 4-inches aggregate base.			
			R-2	11 11 22	33	34	10.4	120	EPA			<b>FILL:</b> SILTY SAND (SM); medium dense to dense; dark yellowish brown (10YR 4/4); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.  (3% Gravel; 57% Sand; 40% Fines)			
															
			S-3	8 9 10	19	29			EPA	5		Dark reddish brown (10R 3/4).			
10	335														
	330		R-4	7 10 14	24	24	11.9	118	EPA	10		Moderate olive brown (5Y 4/4).			
15	325		S-5	9 11 13	24	37			EPA	15		CLAYEY SAND (SC); medium dense to dense; moderate olive brown (5Y 4/4); moist; mostly fine to medium SAND; some fines; low to medium plasticity.  Several brick fragments observed in sampler.			
20	320		R-6	12 12 15	27	28	8.1	116	EPA	20		Rubble and brick fragments observed in sampler.			
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE  A-24 a		

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2)\GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-24</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/13/2022		FINISH 12/13/2022		SHEET NO. 2 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 31		GROUND ELEV (ft) 340.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
	315		S-7	27 35 75	100+	100+						<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light yellowish gray (10YR 6/2); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; nonplastic; iron oxide stains).	
30	310		R-8	40 50 (3")	100+	100+	---	---		30			
35	305									35		Total Depth: 31 feet No groundwater encountered * Rock Description; (Soil Description)	
40	300									40			
45	295									45			

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  A-24 b
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2)\GPJ GDCLOG.GDT 1/6/23


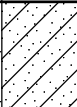
























BORING RECORD						PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING B-25		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle								START 12/22/2022		FINISH 12/22/2022		SHEET NO. 1 of 2		
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY CRJ		CHECKED BY MAF		
DRILLING EQUIPMENT Limited Access Track Mounted Rig (Fraste)						BORING DIA. (in) 6		TOTAL DEPTH (ft) 36		GROUND ELEV (ft) 324.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 83%, N <sub>60</sub> ~ 83/60 * N ~ 1.38 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
5	320		B-1						PA EI			<b>FILL:</b> SILTY SAND (SM); medium dense to dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; few GRAVEL; low plasticity.  (4% Gravel; 60% Sand; 36% Fines)		
			R-2	22 24 43	67	62	9.2	120	EPA					
			S-3	9 9 12	21	29			EPA	5				
10	315		R-4	14 15 18	33	30	16.3	111	EPA C	10		CLAYEY SAND (SC); dense; yellowish brown (10YR 5/8); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.		
			S-5	23 13 15	28	39			EPA	15				
20	305		R-6	13 10 18	28	26	9.3	120	EPA	20		SILTY SAND (SM); medium dense to dense; black (10YR 2/1); moist; mostly fine to medium SAND; little fines; trace GRAVEL; low plasticity.  Contains some vegetative debris.		
	300													
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE  A-25 a	

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-25</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/22/2022		FINISH 12/22/2022		SHEET NO. 2 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Limited Access Track Mounted Rig (Fraste)					BORING DIA. (in) 6		TOTAL DEPTH (ft) 36		GROUND ELEV (ft) 324.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 83%, N <sub>60</sub> ~ 83/60 * N ~ 1.38 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			S-7	18 12 11	23	32			EPA			<b>FILL:</b> SILTY SAND (SM); dense; dark grayish brown (10YR 4/2); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.  Contains some vegetative debris.	
30	295		R-8	28 15 60	75	69	8.4	101	EPA	30		Very dense; dark grayish brown (10YR 3/2).	
35	290		S-9	33 60	93	100+				35		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light yellow brown (10YR 6/4); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic; trace iron oxide stains; slightly micaceous).	
40	285									40		Total Depth: 36 feet No groundwater encountered * Rock Description; (Soil Description)	
45	280									45			
	275												

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-25 b</b>
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GDC\_LOG\_BORING\_MM\_X\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING B-26	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/21/2022		FINISH 12/21/2022		SHEET NO. 1 of 3		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 55.5		GROUND ELEV (ft) 334		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1						PA EI CP			<b>FILL:</b> CLAYEY SAND (SC); medium dense to dense; dark brown (10YR 3/3); moist; mostly fine to medium SAND; some fines; few GRAVEL; low plasticity.	
			S-2	12 9 12	21	32			EPA			(6% Gravel; 55% Sand; 39% Fines)	
5	330		R-3	16 20 28	48	49	7.5	117	EPA	5		Dark yellowish brown (10YR 4/6).	
													
													
10	325		S-4	4 6 6	12	18			EPA	10		SILTY SAND (SM); medium dense to dense; dark yellowish brown (10YR 3/6); moist; mostly fine to medium SAND; some fines; low plasticity.	
													
15	320		R-5	18 20 24	44	45	11.1	119	EPA	15		Dense; dark grayish brown (10YR 3/2); mostly fine to coarse SAND; trace GRAVEL.	
													
20	315		S-6	13 14 13	27	41			EPA	20		Dark yellowish brown (10YR 4/4); mostly fine to medium SAND.	
													
													
	310											CLAYEY SAND (SC); dense; dark grayish brown (10YR 4/2); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.	

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-26 a</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754 LOGS (PHASE 2) GPJ GDCLOG.GDT 1/6/23

BORING RECORD						PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING B-26		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle								START 12/21/2022		FINISH 12/21/2022		SHEET NO. 2 of 3		
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY CRJ		CHECKED BY MAF		
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 55.5		GROUND ELEV (ft) 334		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
30	305		R-7	50 (6")	100	100+	---	---	EPA	30		<b>FILL:</b> CLAYEY SAND (SC); very dense; dark grayish brown (10YR 4/2); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.  Gravel in sampler (inflated blow counts). Entire sample used for environmental testing.		
			S-8	20 25 17	42	64			EPA					
35	300		R-9	22 32 41	73	74	10.2	120	EPA	35		SILTY SAND (SM); dense to very dense; dark grayish brown (10YR 4/2); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.		
			S-10	11 13 14	27	41			EPA					
45	295		R-11	17 25 42	67	68	10.3	125	EPA	45		CLAYEY SAND (SC); dense to very dense; dark yellowish brown (10YR 3/4); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.		
	285													
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE  A-26 b	



<b>BORING RECORD</b>				PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A				BORING <b>B-27</b>																																																																																																																																																																																															
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle								START 12/22/2022				FINISH 12/22/2022				SHEET NO. 1 of 1																																																																																																																																																																																											
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger						LOGGED BY CRJ				CHECKED BY MAF																																																																																																																																																																																											
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6				TOTAL DEPTH (ft) 11.5				GROUND ELEV (ft) 331				DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na																																																																																																																																																																																									
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N																																																																																																																																																																																																					
<table border="1"> <thead> <tr> <th>DEPTH (feet)</th> <th>ELEVATION (feet)</th> <th>SAMPLE TYPE</th> <th>SAMPLE NO.</th> <th>PENETRATION RESISTANCE (BLOWS / 6 IN)</th> <th>BLOW/FT "N"</th> <th>N<sub>60</sub></th> <th>MOISTURE (%)</th> <th>DRY DENSITY (pcf)</th> <th>OTHER TESTS</th> <th>DEPTH (feet)</th> <th>GRAPHIC LOG</th> <th>DESCRIPTION AND CLASSIFICATION</th> </tr> </thead> <tbody> <tr> <td></td> <td>330</td> <td></td> <td>B-1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>S-2</td> <td>11 11 30</td> <td>41</td> <td>63</td> <td></td> <td></td> <td>EPA</td> <td></td> <td></td> <td></td> </tr> <tr> <td>5</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>325</td> <td></td> <td>R-3</td> <td>12 12 26</td> <td>38</td> <td>39</td> <td>16.3</td> <td>113</td> <td>EPA</td> <td>5</td> <td></td> <td><b>FILL:</b> SILTY SAND (SM); medium dense to dense; dark yellowish brown (10YR 4/6); moist; mostly fine SAND; some fines; trace GRAVEL; low plasticity.  Mottled dark yellowish brown (10YR 4/6) and very pale brown (10YR 7/3).</td> </tr> <tr> <td></td> <td></td> <td></td> <td>S-4</td> <td>13 20 27</td> <td>47</td> <td>72</td> <td></td> <td></td> <td></td> <td>10</td> <td></td> <td><b>SCRIPPS FORMATION (Tsc):</b>* Poorly-indurated SANDSTONE; medium grained; yellow to yellowish brown (10YR 5/4); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; low plasticity; trace iron oxide stains).</td> </tr> <tr> <td></td> <td>320</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>15</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>15</td> <td></td> <td></td> </tr> <tr> <td></td> <td>315</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>20</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>20</td> <td></td> <td></td> </tr> <tr> <td></td> <td>310</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>																		DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		330		B-1													S-2	11 11 30	41	63			EPA				5														325		R-3	12 12 26	38	39	16.3	113	EPA	5		<b>FILL:</b> SILTY SAND (SM); medium dense to dense; dark yellowish brown (10YR 4/6); moist; mostly fine SAND; some fines; trace GRAVEL; low plasticity.  Mottled dark yellowish brown (10YR 4/6) and very pale brown (10YR 7/3).				S-4	13 20 27	47	72				10		<b>SCRIPPS FORMATION (Tsc):</b> * Poorly-indurated SANDSTONE; medium grained; yellow to yellowish brown (10YR 5/4); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; low plasticity; trace iron oxide stains).		320																									15										15				315																									20										20				310																									<p>Total Depth: 11½ feet No groundwater encountered * Rock Description; (Soil Description)</p>			
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<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.				<b>FIGURE</b>  <b>A-27</b>																																																																																																																																																																																													

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2)\GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-28</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/21/2022		FINISH 12/21/2022		SHEET NO. 1 of 3		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 56.5		GROUND ELEV (ft) 335		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1										
			R-2	19 30 20	50	51	6.1	118	EPA			<b>FILL:</b> SILTY SAND (SM); dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.	
5	330		S-3	8 12 12	24	37			EPA	5		Yellowish brown (10YR 5/4).	
10	325		R-4	20 21 37	58	59	10.0	121	EPA DS	10		CLAYEY SAND (SC); medium dense to dense; brown (10YR 4/4); moist; mostly fine to coarse SAND; some fines; trace GRAVEL; low plasticity.	
15	320		S-5	8 8 9	17	26			EPA	15		Medium dense; dark yellowish brown (10YR 4/4); mostly fine to medium SAND.	
20	315		R-6	28 35 75	100+	100+	---	---	EPA	20		SILTY SAND (SM); dense to very dense; dark yellowish brown (10YR 4/4); moist; mostly fine to medium SAND; some fines; low plasticity.  Trace GRAVEL (likley inflated blow counts). Entire sample used for environmental testing.	

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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2)\GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-28</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/21/2022		FINISH 12/21/2022		SHEET NO. 2 of 3		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 56.5		GROUND ELEV (ft) 335		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			S-7	10 11 13	24	37			EPA			<b>FILL:</b> CLAYEY SAND (SC); dense to very dense; very dark grayish brown (10YR 3/2); moist; mostly fine to medium SAND; some fines; low plasticity.	
30	305		R-8	14 22 40	62	63	13.6	121	EPA	30			
35	300		S-9	10 10 13	23	35			EPA	35			Dense; dark yellowish brown (10YR 4/6).  Contains asphalt concrete fragments and vegetative debris.
40	295		R-10	13 27 36	63	64	14.9	113	EPA	40			Very dense; dark grayish brown (10YR 4/2).
45	290		S-11	10 12 13	25	38			EPA	45		Dense; dark yellowish brown (10YR 4/6).	

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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-28</b>		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/21/2022		FINISH 12/21/2022		SHEET NO. 3 of 3			
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF				
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 56.5		GROUND ELEV (ft) 335		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
			R-12	20 24 24	48	49	15.1	114	EPA			<b>FILL:</b> CLAYEY SAND (SC); dense; mottled black (10YR 2/2) abd dark grayish brown (10YR 4/2); moist; mostly fine to medium SAND; some fines; low plasticity.		
55	280		S-13	28 43 100	100+	100+				55		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 5/6); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic; iron oxide stains).		
60	275									60		Total Depth: 56½ feet No groundwater encountered * Rock Description; (Soil Description)		
65	270									65				
70	265									70				
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			<b>FIGURE</b>  <b>A-28 c</b>	

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2)\GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-29</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/20/2022		FINISH 12/20/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 6.5		GROUND ELEV (ft) 328		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1									<b>FILL:</b> SILTY SAND (SM); medium dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; low plasticity. Trace vegetative debris.	
	325		R-2	5 22 75	97	99	19.6	108	EPA				<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; dark yellowish brown (10YR 4/6); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; low plasticity). Yellowish brown (10YR 6/6).
5			S-3	23 29 36	65	99				5			
	320											Total Depth: 6½ feet No groundwater encountered * Rock Description; (Soil Description)	
10										10			
	315												
15										15			
	310												
20										20			
	305												

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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-30</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/20/2022		FINISH 12/20/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 6		GROUND ELEV (ft) 330		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1						PA			<b>FILL:</b> SILTY SAND (SM); medium dense; yellowish brown (10YR 5/4); moist; mostly fine to medium SAND; some fines; low plasticity. Trace vegetative debris. (0% Gravel; 69% Sand; 31% Fines)	
			S-2	6 14 28	42	64			EPA			<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; dark yellowish brown (10YR 5/4) grades to light yellowish brown (10YR 6/4); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; low plasticity; iron oxide stains; slightly micaceous).	
5	325		R-3	35 60	95	97	8.2	108		5			
												Total Depth: 6 feet No groundwater encountered * Rock Description; (Soil Description)	
10	320									10			
15	315									15			
20	310									20			

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-30</b>
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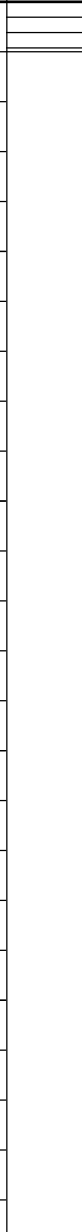
GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2)\GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-31</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/20/2022		FINISH 12/20/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 16.5		GROUND ELEV (ft) 332.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1										
	330		R-2	14 33 31	64	65	7.5	125	EPA			<b>FILL:</b> SILTY SAND (SM); dense to very dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; little GRAVEL; low plasticity.	
5			S-3	12 13 12	25	38			EPA	5		Dense; yellowish brown (10YR 6/6); trace GRAVEL.	
	325												
10			R-4	31 36 50	86	88	9.3	123	EPA	10		Very dense; dark yellowish brown (10YR 3/3); increased moisture content; mostly fine to coarse grained SAND; some fines; trace GRAVEL; low plasticity; trace vegetative debris.	
	320												
15			S-5	36 24 25	49	75				15		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 6/6); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; low plasticity).	
	315											Total Depth: 16½ feet No groundwater encountered * Rock Description; (Soil Description)	
20										20			
	310												














<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-31</b>
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<b>BORING RECORD</b>				PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A				BORING <b>B-32</b>																																																																																																									
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle								START 12/20/2022				FINISH 12/20/2022				SHEET NO. 1 of 2																																																																																																					
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger						LOGGED BY CRJ				CHECKED BY MAF																																																																																																					
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 26		GROUND ELEV (ft) 334.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na																																																																																																									
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N																																																																																																															
<table border="1"> <thead> <tr> <th>DEPTH (feet)</th> <th>ELEVATION (feet)</th> <th>SAMPLE TYPE</th> <th>SAMPLE NO.</th> <th>PENETRATION RESISTANCE (BLOWS / 6 IN)</th> <th>BLOW/FT "N"</th> <th>N<sub>60</sub></th> <th>MOISTURE (%)</th> <th>DRY DENSITY (pcf)</th> <th>OTHER TESTS</th> <th>DEPTH (feet)</th> <th>GRAPHIC LOG</th> <th colspan="2">DESCRIPTION AND CLASSIFICATION</th> </tr> </thead> <tbody> <tr> <td rowspan="3">5</td> <td rowspan="3">330</td> <td></td> <td>B-1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td rowspan="3"></td> <td colspan="2" rowspan="3"><b>FILL:</b> SILTY SAND (SM); dense to very dense; light brown (10YR 5/4); moist; mostly fine to medium SAND; some fines; low plasticity.</td> </tr> <tr> <td></td> <td>S-2</td> <td>8 14 17</td> <td>31</td> <td>47</td> <td></td> <td></td> <td>EPA</td> </tr> <tr> <td></td> <td>R-3</td> <td>22 36 39</td> <td>75</td> <td>77</td> <td>8.2</td> <td>125</td> <td>EPA</td> <td rowspan="3"></td> <td colspan="2" rowspan="3">Dark yellowish brown (10YR 4/6); trace GRAVEL.</td> </tr> <tr> <td rowspan="2">10</td> <td rowspan="2">325</td> <td></td> <td>S-4</td> <td>11 11 10</td> <td>21</td> <td>32</td> <td></td> <td></td> <td>EPA</td> <td rowspan="2"></td> <td colspan="2" rowspan="2">CLAYEY SAND (SC); dense; yellowish brown (10YR 4/4); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.</td> </tr> <tr> <td></td> <td>R-5</td> <td>17 60</td> <td>77</td> <td>79</td> <td>22.3</td> <td>103</td> <td>EPA PA</td> <td rowspan="2"></td> <td colspan="2" rowspan="2">SILT WITH SAND (ML); very dense; yellowish brown (10YR 5/4), moist; mostly fines; some fine SAND; low plasticity.  (0% Gravel; 25% Sand; 75% Fines)</td> </tr> <tr> <td>20</td> <td>315</td> <td></td> <td>S-6</td> <td>17 19 19</td> <td>38</td> <td>58</td> <td></td> <td></td> <td></td> <td></td> <td colspan="2" rowspan="2"><b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; pale and dark brown (10YR 7/3 to 10YR 3/3); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; low plasticity; iron oxide stains).</td> </tr> <tr> <td></td> <td>310</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>														DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		5	330		B-1									<b>FILL:</b> SILTY SAND (SM); dense to very dense; light brown (10YR 5/4); moist; mostly fine to medium SAND; some fines; low plasticity.			S-2	8 14 17	31	47			EPA		R-3	22 36 39	75	77	8.2	125	EPA		Dark yellowish brown (10YR 4/6); trace GRAVEL.		10	325		S-4	11 11 10	21	32			EPA		CLAYEY SAND (SC); dense; yellowish brown (10YR 4/4); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.			R-5	17 60	77	79	22.3	103	EPA PA		SILT WITH SAND (ML); very dense; yellowish brown (10YR 5/4), moist; mostly fines; some fine SAND; low plasticity.  (0% Gravel; 25% Sand; 75% Fines)		20	315		S-6	17 19 19	38	58					<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; pale and dark brown (10YR 7/3 to 10YR 3/3); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; low plasticity; iron oxide stains).			310											<p>THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.</p>				<p>FIGURE  A-32 a</p>			
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION																																																																																																									
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<p><b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126</p>																																																																																																																					

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

<b>BORING RECORD</b>							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-32</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle								START 12/20/2022		FINISH 12/20/2022		SHEET NO. 2 of 2	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY CRJ		CHECKED BY MAF	
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 26		GROUND ELEV (ft) 334.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na	
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			R-7	25 50 (4")	100	100+	---	---				<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; pale and dark brown (10YR 7/3 to 10YR 3/3); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; low plasticity).  Total Depth: 26 feet No groundwater encountered * Rock Description; (Soil Description)	
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126						THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.						<b>FIGURE</b>  A-32 b	

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2)\GPJ GDCLOG.GDT 1/6/23

















BORING RECORD							PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING B-33		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/19/2022		FINISH 12/19/2022		SHEET NO. 1 of 2	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger					LOGGED BY CRJ		CHECKED BY MAF		
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 41		GROUND ELEV (ft) 338		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
5	335		B-1	6 9 12	21	21	13.2	115	PA CR EI EPA DS	5		PAVEMENT: 4½-inches asphalt concrete over 5½-inches aggregate base.			
			R-2									FILL: CLAYEY SAND (SC); medium dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.  (2% Gravel; 61% Sand; 37% Fines)			
			S-3												
		10	330		R-4	3 6 8	14	21		EPA	10		CLAYEY SAND (SC); dense to very dense; dark yellowish brown (10YR 4/6); moist; mostly fine to coarse SAND; some fines; trace GRAVEL; low plasticity.		
					R-4	7 21 30	51	52	20.4	96			EPA		
		15	325		S-5	11 12 13	25	38		EPA	15				
	S-5			11 12 13	25	38		EPA							
20	320		R-6	12 24 28	52	53	14.5	118	EPA	20		SILTY SAND (SM); very dense; dark yellowish brown (10YR 3/4); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.			
			R-6	12 24 28	52	53	14.5	118	EPA						
	315														
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE  A-33 a		

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2) GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-33</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/19/2022		FINISH 12/19/2022		SHEET NO. 2 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 41		GROUND ELEV (ft) 338		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			S-7	12 14 16	30	46			EPA			<b>FILL:</b> CLAYEY SAND (SC); dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; low plasticity.  Fragments of asphalt concrete and debris.	
30			R-8	18 26 38	64	65	10.4	116	EPA PA	30		(0% Gravel; 71% Sand; 29% Fines)  SANDY LEAN CLAY (CL); hard; dark yellowish brown (10YR 3/4); moist; mostly fines; some fine to medium SAND; trace GRAVEL; low plasticity. Contains some vegetative debris.	
35			S-9	8 8 22	30	46			EPA	35		CLAYEY SAND (SC); dense; dark grayish brown (10YR 3/1); moist; mostly fine to medium SAND; some fines; low plasticity.	
40			R-10	44 60	100+	100+	---	---		40		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light yellowish brown (10YR 6/4); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic; trace iron oxide stains; slightly micaceous).	
295												Total Depth: 41 feet No groundwater encountered * Rock Description; (Soil Description)	
45										45			
290													

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-33 b</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2) GPJ GDCLOG.GDT 1/6/23

BORING RECORD						PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING B-34			
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/20/2022		FINISH 12/20/2022		SHEET NO. 1 of 2	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 46.5		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
	335		B-1									<b>PAVEMENT:</b> 3-inches asphalt concrete over 4½-inches aggregate base.			
			R-2	9 14 13	27	28	10.9	118	EPA			<b>FILL:</b> SILTY SAND (SM); medium dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; low plasticity. Trace GRAVEL.			
5			S-3	6 6 5	11	17			EPA	5		CLAYEY SAND (SC); medium dense; dark yellowish brown (10YR 3/4); moist; mostly fine to medium SAND; some fines; low plasticity.			
	330														
10			R-4	7 13 25	38	39	11.5	119	EPA	10		Dense; yellowish brown (10YR 4/3); trace GRAVEL.			
	325														
15			S-5	8 10 12	22	34			EPA	15		Contains asphalt concrete debris; angular gravel to 4 inches in maximum dimension.			
	320														
20			R-6	13 25 49	74	75	10.5	121	EPA	20		SILTY SAND (SM); dense to very dense; dark grayish brown (10YR 3/2); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.  Contains asphalt concrete and plastic debris.			
	315														
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE  A-34 a		

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2) GPJ GDCLOG.GDT 1/6/23




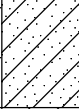



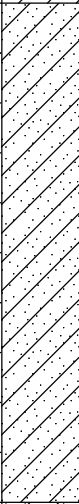

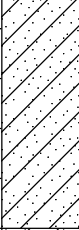

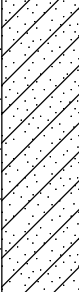
BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-34</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/20/2022		FINISH 12/20/2022		SHEET NO. 2 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 46.5		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
310			S-7	11 19 13	32	49			EPA			<b>FILL:</b> SILTY SAND (SM); dense to very dense; dark grayish brown (10YR 3/2); moist; mostly fine to medium SAND; some fines; low plasticity.  Contains some vegetative debris.	
30			R-8	9 23 46	79	81	11.5	121	EPA	30			
305													
35			S-9	7 9 20	29	44			EPA	35		CLAYEY SAND (SC); dense to very dense; dark grayish brown (10YR 5/2); moist; mostly fine to medium SAND; some fines; low plasticity.  Contains vegetative debris.	
300													
40			R-10	12 28 60	88	90	13.3	120	EPA	40			
295													
45			S-11	28 41 50	91	100+				45		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light and dark yellowish brown (10YR 6/4 and 10YR 4/6); intensely weathered; very soft; (POORLY GRADED SAND WITH SILT (SP-SM); very dense; moist; mostly fine to medium SAND; few to little fines; nonplastic; iron oxide stains).	
290													
												Total Depth: 46½ feet No groundwater encountered * Rock Description; (Soil Description)	

**GROUP DELTA CONSULTANTS, INC.**  
9245 Activity Road, Suite 103  
San Diego, California 92126

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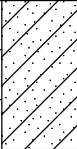


**FIGURE**  
**A-34 b**

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2) GPJ GDCLOG.GDT 1/6/23

BORING RECORD						PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A			BORING B-35		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/16/2022		FINISH 12/16/2022		SHEET NO. 1 of 2	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger					LOGGED BY CRJ		CHECKED BY MAF		
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 31		GROUND ELEV (ft) 337		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
			B-1									<b>PAVEMENT:</b> 4-inches asphalt concrete over 5-inches aggregate base.			
	335		R-2	7 11 11	22	22	9.6	107	EPA			<b>FILL:</b> CLAYEY SAND (SC); medium dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; low plasticity.			
5			S-3	8 6 6	12	18			PA CR EI EPA	5		SANDY LEAN CLAY (CL); stiff; dark yellowish brown (10YR 4/6); moist; mostly fines; some fine to medium SAND; low plasticity.  (1% Gravel; 37% Sand; 62% Fines)			
	330														
10			R-4	8 11 24	35	36	16.6	111	EPA	10		CLAYEY SAND (SC); dense; dark grayish brown (5YR 3/2); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity. Contains some asphalt concrete fragments.			
	325														
15			S-5	8 8 14	22	34			EPA	15					
	320														
20			R-6	13 22 34	56	57	11.4	120	EPA	20		CLAYEY SAND (SC); very dense; dark grayish brown (5YR 3/2); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.			
	315														
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE  A-35 a		



GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2)\GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-35</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/16/2022		FINISH 12/16/2022		SHEET NO. 2 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 31		GROUND ELEV (ft) 337		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
310			S-7	12 12 11	23	35			EPA			<b>FILL:</b> CLAYEY SAND (SC); very dense; dark grayish brown (5YR 3/2); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.	
30			R-8	30 50 (3")	100+	100+	---	---		30		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light yellowish brown (10YR 6/4); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; little fines; nonplastic; iron-oxide stains).	
305												Total Depth: 31 feet No groundwater encountered * Rock Description; (Soil Description)	
35										35			
300													
40										40			
295													
45										45			
290													

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-35 b</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2)\GPJ GDCLOG.GDT 1/6/23














BORING RECORD						PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING B-36		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle								START 12/19/2022		FINISH 12/19/2022		SHEET NO. 1 of 2		
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY CRJ		CHECKED BY MAF		
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 31.5		GROUND ELEV (ft) 337		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
			B-1									PAVEMENT: 4-inches asphalt concrete over 5-inches aggregate base.		
335			S-2	4 7 6	13	20			EPA			FILL: CLAYEY SAND (SC); medium dense; dark grayish brown (10YR 4/2); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.		
5			R-3	4 6 9	15	15	14.5	114	EPA C	5		Dark brown (10YR 3/3).		
330												SANDY LEAN CLAY (CL); hard; dark yellowish brown (10YR 3/4); moist; mostly fines; some fine SAND; low to medium plasticity.		
10			S-4	9 12 14	26	40			EPA	10				
325												CLAYEY SAND (SC); dense; dark yellowish brown (10YR 3/4); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.		
15			R-5	10 12 18	30	31	12.6	115	EPA	15		Brick fragments and demolition debris.		
320												Very dark grayish brown (10YR 3/2).		
20			S-6	7 11 15	26	40			EPA	20				
315														
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE  A-36 a	

GDC\_LOG\_BORING\_MM\_X\_SOIL\_SD\_SD754\_LOGS (PHASE 2) GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-36</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/19/2022		FINISH 12/19/2022		SHEET NO. 2 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 31.5		GROUND ELEV (ft) 337		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
310			R-7	37 60	97	99	14.0	105	EPA			<b>FILL:</b> CLAYEY SAND (SC); very dense; very dark grayish brown (10YR 3/2); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.	
30			S-8	31 34 50	84	100+				30		<b>SCRIPPS FORMATION (Tsc):</b> * Poorly-indurated SANDSTONE; fine grained; light yellowish brown (10YR 6/4); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; some fines; nonplastic; iron-oxide stains).	
305												Total Depth: 31½ feet No groundwater encountered * Rock Description; (Soil Description)	
35										35			
300													
40										40			
295													
45										45			
290													

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-36 b</b>
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GDC\_LOG\_BORING\_MM\_X\_SOIL\_SD\_SD754\_LOGS (PHASE 2) GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING B-37		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/16/2022		FINISH 12/16/2022		SHEET NO. 1 of 3	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 50.5		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
	335		B-1									<b>PAVEMENT:</b> 4-inches asphalt concrete over 4-inches aggregate base.			
			S-2	3 7 9	16	24			EPA			<b>FILL:</b> SILTY SAND (SM); medium dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; low plasticity.			
5															
	330		R-3	7 9 14	23	23	11.2	120	EPA C	5		SANDY LEAN CLAY (CL); very stiff; dark yellowish brown (10YR 4/6); moist; mostly fines; some fine to medium SAND; trace GRAVEL; low plasticity.			
10			S-4	10 15 18	33	50			EPA	10		Light yellowish brown (10YR 6/4); hard.			
	325														
			R-5	12 22 31	53	54	10.4	115	EPA DS	15		CLAYEY SAND (SC); dense to very dense; mottled dark grayish brown (10YR 3/2) and yellowish brown (10YR 3/6); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.			
15															
	320														
			S-6	7 11 11	22	34			EPA	20					
20															
	315														
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE  A-37 a		

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2) GPJ GDCLOG.GDT 1/6/23

BORING RECORD				PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING B-37		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle						START 12/16/2022		FINISH 12/16/2022		SHEET NO. 2 of 3		
DRILLING COMPANY Pacific Drilling Company				DRILLING METHOD Hollow Stem Auger				LOGGED BY CRJ		CHECKED BY MAF		
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig				BORING DIA. (in) 6		TOTAL DEPTH (ft) 50.5		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)				NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
310			R-7	12 19 36	55	56	12.1	119	EPA			<b>FILL:</b> CLAYEY SAND (SC); very dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.  Contains asphalt concrete fragments and debris.
30			S-8	12 14 21	35	54			EPA	30		Very difficult drilling starting at 33 feet - likely due to increased GRAVEL content.
35			R-9	25 50	100+	100+	---	---	EPA	35		GRAVEL in sampler inflated blow counts. Entire sample used for environmental testing.
40			S-10	11 15 15	30	46			EPA	40		CLAYEY SAND (SC); dense; mottled dark yellowish brown (10YR 3/2) and very dark brown (10YR 2/2); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.
45			R-11	16 18 30	48	49	---	---	EPA	45		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; very dark grayish brown (10YR 3/2); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic).












<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-37 b</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2) GPJ GDCLOG.GDT 1/6/23

BORING RECORD										PROJECT NAME UCSD Science Research Park		PROJECT NUMBER SD754A		BORING B-38	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/15/2022		FINISH 12/16/2022		SHEET NO. 1 of 3	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 50.5		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
	335		B-1									PAVEMENT: 4-inches asphalt concrete over 4-inches aggregate base.			
			S-2	9 8 9	17	26			EPA			FILL: CLAYEY SAND (SC); medium dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; low plasticity.			
5															
	330		R-3	13 14 4	18	18	11.2	118	EPA	5		SILTY SAND (SM); medium dense to dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; low plasticity.			
10															
	325		S-4	6 7 14	21	32			EPA	10		Contains asphalt concrete fragments and debris.			
15															
	320		R-5	16 10 21	31	32	3.2	129	EPA	15		CLAYEY SAND (SC); dense; very dark grayish brown (10YR 3/2); moist; mostly fine to medium SAND; some fines; low plasticity.			
20															
	315		S-6	6 8 7	15	23			EPA	20		SANDY LEAN CLAY (CL); very stiff; dark grayish brown (10YR 3/2); moist; mostly fines; some fine to medium SAND; low to medium plasticity.			
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE  A-38 a		

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2) GPJ GDCLOG.GDT 1/6/23

BORING RECORD						PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING B-38			
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/15/2022		FINISH 12/16/2022		SHEET NO. 2 of 3	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 50.5		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
	310		R-7	12 16 22	38	39	11.6	113	EPA			FILL: CLAYEY SAND (SC); dense; very dark grayish brown (10YR 3/2); moist; mostly fine to medium SAND; some fines; low plasticity.			
30	305		S-8	12 15 16	31	47			EPA	30		Dark yellowish brown (10YR 3/6).			
35	300		R-9	14 21 31	52	53	10.2	120	EPA	35		SILTY SAND (SM); very dense; light yellowish brown (10YR 6/4); moist; mostly fine to medium SAND; some fines; nonplastic.			
40	295		S-10	12 16 19	35	54			EPA	40		CLAYEY SAND (SC); very dense; mottled dark yellowish brown (10YR 3/2) and gray (10YR 6/1); moist; mostly fine to medium SAND; some fines; low plasticity.			
45	290		R-11	50 (3")	100+	100+	---	---		45		No sample recovery.			
												SCRIPPS FORMATION (Tsc):* Poorly-indurated SILTSTONE; medium grained; very pale brown (10YR 8/1); intensely weathered; very soft; (SANDY SILT (ML); very dense; moist; mostly fines; little fine SAND; low plasticity; strongly cemented).			
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE  A-38 b		





<b>BORING RECORD</b>				PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A				BORING <b>B-38</b>					
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle								START 12/15/2022				FINISH 12/16/2022				SHEET NO. 3 of 3	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger						LOGGED BY CRJ				CHECKED BY MAF	
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 50.5		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na					
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N											
<div> <div>DEPTH (feet)</div> <div>ELEVATION (feet)</div> <div>SAMPLE TYPE</div> <div>SAMPLE NO.</div> <div>PENETRATION RESISTANCE (BLOWS / 6 IN)</div> <div>BLOW/FT "N"</div> <div>N<sub>60</sub></div> <div>MOISTURE (%)</div> <div>DRY DENSITY (pcf)</div> <div>OTHER TESTS</div> <div>DEPTH (feet)</div> <div>GRAPHIC LOG</div> <div>DESCRIPTION AND CLASSIFICATION</div> </div>																	
<div> <div>285</div> <div>55</div> <div>280</div> <div>60</div> <div>275</div> <div>65</div> <div>270</div> <div>70</div> <div>265</div> </div> <div> <div>X</div> <div>S-12</div> <div>50 (5")</div> <div>100+</div> <div>100+</div> </div> <div> <div>SCRIPPS FORMATION (T<sub>sc</sub>):* Poorly-indurated SANDSTONE; medium grained; light yellowish brown (10YR 6/4); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; nonplastic; iron oxide stains).</div> <div>Total Depth: 50½ feet No groundwater encountered * Rock Description; (Soil Description)</div> </div>																	
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.				<b>FIGURE</b>  <b>A-38 c</b>			

3GDC LOG BORING MMX SOIL SD SD754 LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2) GPJ GDCLOG.GDT 1/6/23

























BORING RECORD						PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING <b>B-39</b>		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle								START 12/15/2022		FINISH 12/15/2022		SHEET NO. 1 of 2		
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY CRJ		CHECKED BY MAF		
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 31		GROUND ELEV (ft) 335.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
	335		B-1						PA R			<b>PAVEMENT:</b> 4-inches asphalt concrete over 5-inches aggregate base.		
			S-2	5 7 7	14	21			EPA			<b>FILL:</b> CLAYEY SAND (SC); medium dense; mottled dark yellowish brown (10YR 3/4) and very pale brown (10YR 2/3); moist; mostly fine to medium SAND; some fines; few GRAVEL; low plasticity.  (7% Gravel; 43% Sand; 50% Fines)		
5	330		R-3	6 9 13	22	22	11.1	111	EPA	5		Dark yellowish brown (10YR 7/3).		
			S-4	10 15 15	30	46			EPA	10		SILTY SAND (SM); dense; dark yellowish brown (10YR 7/3); moist; mostly fine to medium SAND; some fines; nonplastic.		
15	320		R-5	8 16 25	41	42	13.0	116	EPA	15		Dark yellowish brown (10YR 3/6).		
20	315		S-6	10 12 13	25	38			EPA	20				
GROUP DELTA CONSULTANTS, INC.										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE A-39 a	
9245 Activity Road, Suite 103 San Diego, California 92126														

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2)\GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-39</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/15/2022		FINISH 12/15/2022		SHEET NO. 2 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 31		GROUND ELEV (ft) 335.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
310			R-7	16 49 150	100+	100+	---	---				<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light brownish gray (10YR 6/2) and brownish yellow (10YR 6/8); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic).	
30	305		S-8	23 50 (4")	100+	100+							Total Depth: 31 feet No groundwater encountered * Rock Description; (Soil Description)
35	300												
40	295												
45	290												

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-39 b</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2) GPJ GDCLOG.GDT 1/6/23








BORING RECORD							PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING <b>B-40</b>		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/15/2022		FINISH 12/15/2022		SHEET NO. 1 of 2	
DRILLING COMPANY Pacific Drilling Company							DRILLING METHOD Hollow Stem Auger				LOGGED BY CRJ		CHECKED BY MAF		
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig							BORING DIA. (in) 6		TOTAL DEPTH (ft) 36.5		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)							NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
	335		B-1									<b>PAVEMENT:</b> 4-inches asphalt concrete over 4½-inches aggregate base.			
			R-2	9 11 11	22	22	13.2	111	EPA			<b>FILL:</b> CLAYEY SAND (SC); medium dense; very dark grayish brown (10YR 3/2); moist; mostly fine to medium SAND; some fines; low plasticity.			
5										5					
	330		S-3	7 8 7	15	23			EPA						
															
10										10					
	325		R-4	7 13 11	24	24	11.0	116	EPA			Increased SAND content; little fines.			
															
15			S-5	10 13 13	26	40			EPA	15		SILTY SAND (SM); dense; dark grayish brown (10YR 4/2); moist; mostly fine to medium SAND; some fines; nonplastic.			
															
20			R-6	14 15 25	40	41	10.1	113	EPA	20		Same.			
	315														
GROUP DELTA CONSULTANTS, INC.										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE  A-40 a		
9245 Activity Road, Suite 103 San Diego, California 92126															

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-40</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/15/2022		FINISH 12/15/2022		SHEET NO. 2 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 36.5		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
310			S-7	14 13 11	24	37			EPA			<b>FILL:</b> SILTY SAND (SM); dense; dark yellowish brown (10YR 3/6); moist; mostly fine to medium SAND; little fines; nonplastic.	
30	305		R-8	12 13 24	37	38	21.8	105	EPA	30		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; mottled light brownish gray (10YR 6/2) and brownish yellow (10YR 6/8); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic).	
35	300		S-9	31 38 100	100+	100+				35		Total Depth: 36½ feet No groundwater encountered * Rock Description; (Soil Description)	
40	295									40			
45	290									45			

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-40 b</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2) GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING B-41		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/19/2022		FINISH 12/19/2022		SHEET NO. 1 of 2	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 46		GROUND ELEV (ft) 336.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
												PAVEMENT: 4-inches asphalt concrete over 4½-inches aggregate base.			
	335		B-1												
			R-2	4 4 6	10	10	6.0	113	EPA			FILL: CLAYEY SAND (SC); loose to medium dense; dark brown (10YR 4/3); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.			
5															
			S-3	5 6 8	14	21			EPA	5		Brown (10YR 5/4).			
	330														
10			R-4	15 19 24	43	44	12.5	118	EPA	10		CLAYEY SAND (SC); medium dense to dense; dark brown (10YR 4/3); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.			
	325														
15			S-5	8 9 10	19	29			EPA	15		Yellowish brown (10YR 4/3).			
	320														
20			R-6	8 12 18	30	31	12.6	118	EPA	20		Dark brown (10YR 3/4).			
	315														
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE  A-41 a		

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2) GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-41</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/19/2022		FINISH 12/19/2022		SHEET NO. 2 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 46		GROUND ELEV (ft) 336.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
310			S-7	14 12 19	31	47			EPA			<b>FILL:</b> CLAYEY SAND (SC); dense; dark brown (10YR 3/3); moist; mostly fine to medium SAND; little fines; trace GRAVEL; low plasticity.	
30	305		R-8	13 20 22	42	43	25.3	106	EPA	30			
35	300		S-9	9 14 13	27	41			EPA	35		SILTY SAND (SM); dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; low plasticity. Contains asphalt concrete debris.	
40	295		R-10	10 15 30	45	46	15.9	111	EPA	40		CLAYEY SAND (SC); dense; mottled dark grayish brown (10YR 3/3); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.  Contains vegetative debris.	
45	290		S-11	25 50	100	100+				45		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light grayish brown (10YR 6/2); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; some fines; nonplastic; iron oxide stains).	
												Total Depth: 46 feet No groundwater encountered * Rock Description; (Soil Description)	











<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-41 b</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2) GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING <b>B-42</b>		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/13/2022		FINISH 12/13/2022		SHEET NO. 1 of 3	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 56		GROUND ELEV (ft) 340.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
	340	[Pattern]	B-1						PA CR EI		[Pattern]	<b>PAVEMENT:</b> 4-inches asphalt concrete over 4-inches aggregate base.			
		[Pattern]	S-2	5 15 18	33	50			EPA		[Pattern]	<b>FILL:</b> SILTY SAND (SM); medium dense to very dense; dark reddish brown (10R 3/4); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.  (4% Gravel; 60% Sand; 36% Fines)			
5	335	[Pattern]	R-3	11 22 29	51	52	8.3	122	EPA	5	[Pattern]				
		[Pattern]	S-4	8 9 10	19	29			EPA	10	[Pattern]	Moderate olive brown (5Y 4/4); medium dense.			
		[Pattern]	R-5	6 11 23	34	35	16.6	112	EPA DS	15	[Pattern]	CLAYEY SAND (SC); medium dense to dense; dark yellowish brown (10YR 3/4); moist; mostly fine to coarse SAND; some fines; low plasticity.			
		[Pattern]	S-6	7 8 7	15	23			EPA	20	[Pattern]				
	320	[Pattern]									[Pattern]				
GROUP DELTA CONSULTANTS, INC.										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE  A-42 a		
9245 Activity Road, Suite 103 San Diego, California 92126															



GDC\_LOG\_BORING\_MM\_X\_SOIL\_SD\_SD754\_LOGS (PHASE 2) GPJ GDCLOG.GDT 1/6/23

BORING RECORD						PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING B-42			
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/13/2022		FINISH 12/13/2022		SHEET NO. 2 of 3	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 56		GROUND ELEV (ft) 340.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
	315		R-7	10 16 33	49	50	10.2	122	EPA			<b>FILL:</b> CLAYEY SAND (SC); dense to very dense; dark yellowish brown (10YR 3/4); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.			
30	310		S-8	10 13 17	30	46			EPA	30		Hard drilling due to gravel from 30 to 33 feet.			
35	305		R-9	17 23 28	51	52	14.1	107	EPA PA C	35		(1% Gravel; 49% Sand; 50% Fines)			
40	300		S-10	8 8 15	23	35			EPA	40		SANDY LEAN CLAY (CL); hard; dark gray (10YR 4/1); moist; mostly fines; some fine to medium SAND; trace GRAVEL; low to medium plasticity.			
45	295		R-11	50 (4")	100+	100+	---	---	EPA	45		Golf ball fragments in drilling spoils.  Large cobble fragment in sampler shoe.			
												<b>SCRIPPS FORMATION (Tsc):</b> * Poorly-indurated SANDSTONE; medium grained; dark yellowish brown (10YR 4/3); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; trace GRAVEL; nonplastic).			
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.				FIGURE  A-42 b	


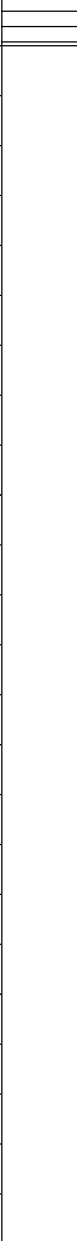
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<b>BORING RECORD</b>				PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A				BORING <b>B-43</b>									
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle								START 12/15/2022				FINISH 12/15/2022				SHEET NO. 1 of 3					
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger						LOGGED BY CRJ				CHECKED BY MAF					
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6				TOTAL DEPTH (ft) 51				GROUND ELEV (ft) 336				DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N															
<div> <div>DEPTH (feet)</div> <div>ELEVATION (feet)</div> <div>SAMPLE TYPE</div> <div>SAMPLE NO.</div> <div>PENETRATION RESISTANCE (BLOWS / 6 IN)</div> <div>BLOW/FT "N"</div> <div>N<sub>60</sub></div> <div>MOISTURE (%)</div> <div>DRY DENSITY (pcf)</div> <div>OTHER TESTS</div> <div>DEPTH (feet)</div> <div>GRAPHIC LOG</div> <div>DESCRIPTION AND CLASSIFICATION</div> </div>																					
<div> <div>335</div> <div></div> <div></div> <div>B-1</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>PAVEMENT: 4-inches asphalt concrete over 4-inches aggregate base.</div> </div>																					
<div> <div>5</div> <div>330</div> <div></div> <div>R-2</div> <div>9 13 15</div> <div>28</div> <div>29</div> <div>6.0</div> <div>109</div> <div>EPA</div> <div>5</div> <div></div> <div>FILL: CLAYEY SAND (SC); medium dense to dense; dark yellowish brown (10R 4/6); moist; mostly fine to medium SAND; some fines; low plasticity.</div> </div>																					
<div> <div></div> <div></div> <div></div> <div>S-3</div> <div>8 8 11</div> <div>19</div> <div>29</div> <div></div> <div></div> <div>EPA</div> <div></div> <div></div> <div></div> </div>																					
<div> <div>10</div> <div></div> <div></div> <div>R-4</div> <div>12 17 32</div> <div>49</div> <div>50</div> <div>9.7</div> <div>119</div> <div>EPA</div> <div>10</div> <div></div> <div>Dense.</div> </div>																					
<div> <div></div> <div></div> <div></div> <div>S-5</div> <div>7 10 11</div> <div>21</div> <div>32</div> <div></div> <div></div> <div>EPA</div> <div>15</div> <div></div> <div>SILTY SAND (SM); dense; dark yellowish brown (10R 3/6); moist; mostly fine to medium SAND; some fines; low plasticity.</div> </div>																					
<div> <div>20</div> <div>315</div> <div></div> <div>R-6</div> <div>8 11 18</div> <div>29</div> <div>30</div> <div>15.6</div> <div>116</div> <div>EPA</div> <div>20</div> <div></div> <div>CLAYEY SAND (SC); dense; mottled dark yellowish brown (10YR 3/6) and very dark gray (10YR 3/1); moist; mostly fine to medium SAND; some fines; low plasticity.</div> </div>																					
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.				<b>FIGURE</b>  A-43 a							













BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-43</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/15/2022		FINISH 12/15/2022		SHEET NO. 2 of 3		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 51		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
	310		S-7	10 11 14	25	38			EPA			<b>FILL:</b> CLAYEY SAND (SC); dense; mottled dark yellowish brown (10YR 3/6) and very pale brown (10YR 8/3); moist; mostly fine to medium SAND; some fines; low plasticity.	
30	305		R-8	12 17 23	40	41	16.2	110	EPA PA DS	30		SILTY SAND (SM); very dense; mottled yellowish brown (10YR 5/8) and light gray (10YR 7/2); moist; mostly fine SAND; some fines; trace GRAVEL; nonplastic.  (1% Gravel; 60% Sand; 29% Fines)	
35	300		S-9	10 15 17	32	49			EPA	35			
40	295		R-10	13 17 21	39	40	11.3	116	EPA	40		CLAYEY SAND (SC); dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; low plasticity.	
45	290		S-11	23 50	100+	100+				45		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 6/6) and pale brown (10YR 6/3); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic).	

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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2)\GPJ GDCLOG.GDT 1/6/23

<b>BORING RECORD</b>							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-43</b>		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle									START 12/15/2022		FINISH 12/15/2022		SHEET NO. 3 of 3	
DRILLING COMPANY Pacific Drilling Company							DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF		
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig							BORING DIA. (in) 6		TOTAL DEPTH (ft) 51		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na	
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)							NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
	285		R-12	20 50 (5")	100+	100+	---	---				<b>SCRIPPS FORMATION (Tsc):</b> * Poorly-indurated SANDSTONE; medium grained; pale yellow (5Y 8/2); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; nonplastic; iron oxide stains).  Total Depth: 51 feet No groundwater encountered * Rock Description; (Soil Description)		
55										55				
	280													
60										60				
	275													
65										65				
	270													
70										70				
	265													
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			<b>FIGURE</b>  A-43 c	

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2)\GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-44</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/14/2022		FINISH 12/14/2022		SHEET NO. 1 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 40.5		GROUND ELEV (ft) 340		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1									<b>PAVEMENT:</b> 3½-inches asphalt concrete over 4½-inches aggregate base.	
5	335		S-2	10 10 10	20	31			EPA	5		<b>FILL:</b> CLAYEY SAND (SC); medium dense to dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.	
			R-3	11 12 18	30	31	12.5	120	EPA				
10	330		S-4	8 8 11	19	29			EPA	10		Dark yellowish brown (10YR 4/6) mottled with yellowish gray (5Y 8/1).	
15	325		R-5	15 25 15	40	41	9.1	112	EPA	15		SILTY SAND (SM); dense to very dense; yellowish brown (10YR 5/4); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.	
20	320		S-6	14 15 20	35	54			EPA	20			

















<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-44 a</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2) GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-44</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/14/2022		FINISH 12/14/2022		SHEET NO. 2 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 40.5		GROUND ELEV (ft) 340		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
30	310		R-7	50 (3")	100+	---	---	---	EPA	30		<b>FILL:</b> CLAYEY SAND (SC); very dense; dark yellowish brown (10YR 4/2); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low to medium plasticity.  Gravel in sampler inflated the blow counts. Entire sample used for environmental testing.	
35	305		S-8	23 19 20	39	60				35		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; pale brown (5YR 5/2) grades into pale yellow brown (10YR 6/2); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; little fines; nonplastic; trace iron oxide stains; slightly micaceous).	
40	300		R-10	43 50	93	100+				40		Total Depth: 40½ feet No groundwater encountered * Rock Description; (Soil Description)	
45	295			50 (5")	100+	100+	---	---		45			

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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2) GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-45</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/14/2022		FINISH 12/15/2022		SHEET NO. 1 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 26.5		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
	335		B-1									<b>PAVEMENT:</b> 4-inches asphalt concrete over 4-inches aggregate base.	
			S-2	4 4 5	9	14			EPA PA PI EI			<b>FILL:</b> SANDY LEAN CLAY (CL); stiff; dark yellowish brown (10YR 3/6); moist; mostly fines; some fine to medium SAND; medium plasticity.	
5			R-3	1 1 4	5	5	12.5	119	EPA	5		CLAYEY SAND (SC); loose to medium dense; dark yellowish brown (10YR 4/6); moist to wet; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity. (2% Gravel; 59% Sand; 39% Fines)  (LL~17; PL~13; PI~4)  Increased density with depth.	
	330												
10			R-4	13 27 32	59	60	10.4	113	EPA	10		Stopped drilling for the evening on 12/14/22. Resumed drilling in the morning on 12/15/22.	
	325												
15			S-5	7 9 12	21	32			EPA	15		SILTY SAND (SM); medium dense to dense; very dark gray (10YR 3/1); moist; mostly fine to medium SAND; some fines; nonplastic.	
	320												
20			R-6	37 50 (4")	100+	100+	---	---		20		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 6/6) and pale brown (10YR 6/3); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic).	
	315												


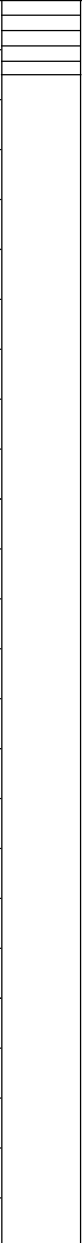
**GROUP DELTA CONSULTANTS, INC.**  
9245 Activity Road, Suite 103  
San Diego, California 92126

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.

**FIGURE**  
**A-45 a**



GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2)\GPJ GDCLOG.GDT 1/6/23

<b>BORING RECORD</b>							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-45</b>		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle									START 12/14/2022		FINISH 12/15/2022		SHEET NO. 2 of 2	
DRILLING COMPANY Pacific Drilling Company							DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF		
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig							BORING DIA. (in) 6		TOTAL DEPTH (ft) 26.5		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na	
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)							NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
	310		S-7	24 32 50	82	100+						<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 6/6) and pale brown (10YR 6/3); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic).  Total Depth: 26½ feet No groundwater encountered * Rock Description; (Soil Description)		
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126							THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.					<b>FIGURE</b>  A-45 b		

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2) GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-46</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/15/2022		FINISH 12/15/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 16		GROUND ELEV (ft) 337		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
												<b>PAVEMENT:</b> 4-inches asphalt concrete over 3½-inches aggregate base.	
335			B-1										
			S-2	6 12 11	23	35			EPA			<b>FILL:</b> CLAYEY SAND (SC); medium dense to dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; low plasticity.	
5			R-3	16 18 30	48	49	10.6	111	EPA	5		Dense.	
330													
			S-4	27 33 60	93	100+				10		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 5/6) and Pale brown (10YR 6/3); intensely weathered; very soft; (SILTY SAND (SM)); very dense; moist; mostly fine to medium SAND; little fines; nonplastic).	
325													
15			R-5	42 50 (4")	100+	100+	---	---		15			
320												Total Depth: 16 feet No groundwater encountered * Rock Description; (Soil Description)	
20										20			
315													

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-46</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2)\GPJ GDCLOG.GDT 1/6/23







BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-47</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/14/2022		FINISH 12/14/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 21		GROUND ELEV (ft) 341.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1									<b>PAVEMENT:</b> 4-inches asphalt concrete over 4½-inches aggregate base.	
			R-2	5 10 12	22	22	12.5	104	EPA			<b>FILL:</b> CLAYEY SAND (SC); medium dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.	
5			S-3	9 10 11	21	32			EPA	5		Dense; mottled with gray (10YR 6/1).	
			R-4	7 13 14	27	28	11.6	110	EPA	10		Dark grayish brown (10YR 4/2). Sample contains several brick fragments.	
			S-5	26 50 (5")	100+	100+				15		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; pale brown (10YR 6/3); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; little fines; nonplastic; trace iron oxide stains; slightly micaceous).	
			R-6	26 50 (4")	100+	100+	---	---		20			
												Total Depth: 21 feet No groundwater encountered * Rock Description; (Soil Description)	

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**FIGURE**  
**A-47**

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

<b>BORING RECORD</b>							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-48</b>		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle								START 12/14/2022		FINISH 12/14/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY CRJ		CHECKED BY MAF		
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 6.5		GROUND ELEV (ft) 335.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
	335		B-1						PA R			<b>PAVEMENT:</b> 4-inches asphalt concrete over 3 1/2-inches aggregate base.		
			R-2	32 50 (4")	100+	100+	6.0	109	EPA			<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; pale brown (10YR 6/3); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; nonplastic; trace iron oxide stains).  (1% Gravel; 67% Sand; 32% Fines)		
5	330		S-3	24 31 40	71	100+				5				
												Total Depth: 6 1/2 feet No groundwater encountered * Rock Description; (Soil Description)		
10	325									10				
15	320									15				
20	315									20				
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			<b>FIGURE</b>  A-48	

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2)\GPJ GDCLOG.GDT 1/6/23







BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-49</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/14/2022		FINISH 12/14/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 5.5		GROUND ELEV (ft) 340		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1									<b>PAVEMENT:</b> 3-inches asphalt concrete over 3-inches aggregate base.	
			S-2	19 29 34	63	96			EPA			<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; pale brown (10YR 6/3); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; little fines; nonplastic; trace iron oxide stains).	
5	335		R-3	50 (6")	100	100+	---	---		5		Very pale brown (10YR 7/4).	
10	330									10		Total Depth: 5½ feet No groundwater encountered * Rock Description; (Soil Description)	
15	325									15			
20	320									20			

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**FIGURE**  
**A-49**

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2)\GPJ GDCLOG.GDT 1/6/23

<b>BORING RECORD</b>							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-50</b>		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle									START 12/15/2022		FINISH 12/15/2022		SHEET NO. 1 of 1	
DRILLING COMPANY Pacific Drilling Company							DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF		
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig							BORING DIA. (in) 6		TOTAL DEPTH (ft) 6.5		GROUND ELEV (ft) 344		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na	
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)							NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
			B-1						PA EI			<b>PAVEMENT:</b> 4-inches asphalt concrete over 3½-inches aggregate base.		
	340		R-2	20 23 60	83	85	7.1	113	EPA			<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 6/6); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; nonplastic).  (1% Gravel; 54% Sand; 45% Fines)		
5			S-3	22 28 36	64	98				5				
	335											Total Depth: 6½ feet No groundwater encountered * Rock Description; (Soil Description)		
10										10				
	330													
15										15				
	325													
20										20				
	320													
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			<b>FIGURE</b>  A-50	

GDC\_LOG\_BORING\_MM\_X\_SOIL\_SD\_SD754\_LOGS.GPJ GDCLOG.GDT 10/26/22


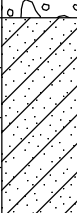





BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING A-22-01	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 10/13/2022		FINISH 10/13/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Tri-County Drilling, Inc.					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Diedrich D-120 All Terrain Truck Mounted Rig					BORING DIA. (in) 8		TOTAL DEPTH (ft) 11.5		GROUND ELEV (ft) 345		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 81%, N <sub>60</sub> ~ 81/60 * N ~ 1.35 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
5	340		B-1	19 60	79	71	12.5	101	EPA PA CR	5		<p><b>PAVEMENT:</b> 3-inches asphalt concrete over 5-inches aggregate base.</p> <p><b>FILL:</b> SILTY SAND (SM); medium dense; light yellowish brown (10YR 6/4), moist; mostly fine to medium SAND; some fines; trace GRAVEL; nonplastic. (3% Gravel; 65% Sand; 32% Fines)</p>	
10	335		R-2	7 12 31	43	58			EPA DS	10		<p><b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; very pale brown (10YR 7/3); moderately weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; little to some fines; nonplastic; iron-oxide stains).</p>	
15	330		S-3							15		<p>Total Depth: 11½ feet No groundwater encountered * Rock Description; (Soil Description)</p>	
20	325									20			

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**FIGURE**  
**A-51**






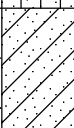

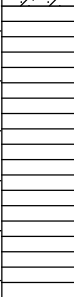
GDC\_LOG\_BORING\_MM\_X\_SOIL\_SD\_SD754\_LOGS.GPJ GDCLOG.GDT 10/26/22

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING A-22-02	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 10/13/2022		FINISH 10/13/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Tri-County Drilling, Inc.					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Diedrich D-120 All Terrain Truck Mounted Rig					BORING DIA. (in) 8		TOTAL DEPTH (ft) 16.5		GROUND ELEV (ft) 343		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 81%, N <sub>60</sub> ~ 81/60 * N ~ 1.35 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
												<b>PAVEMENT:</b> 3-inches asphalt concrete over 5-inches aggregate base.	
5	340		B-1						EPA PA PI EI	5		<b>FILL:</b> CLAYEY SAND (SC); medium dense; light olive brown (2.5Y 5/3), moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.  (2% Gravel; 57% Sand; 41% Fines)  (LL~27; PL~12; PI~15)  Dark grayish brown (2.5Y 4/2)	
10	335		S-2	6 7 9	16	22			EPA				
10			R-3	8 19 36	55	50	13.9	116	EPA	10			
	330											<b>SCRIPPS FORMATION (Tsc):</b> * Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 5/5); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic; weakly cemented).	
15			S-4	18 34 38	72	97				15		Iron oxide stains.	
	325											Total Depth: 16½ feet No groundwater encountered * Rock Description; (Soil Description)	
20										20			
	320												

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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS.GPJ GDCLOG.GDT 10/26/22


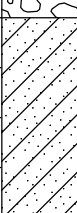







BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING A-22-03	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 10/13/2022		FINISH 10/13/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Tri-County Drilling, Inc.					DRILLING METHOD Hollow Stem Auger				LOGGED BY SRN		CHECKED BY MAF		
DRILLING EQUIPMENT Diedrich D-120 All Terrain Truck Mounted Rig					BORING DIA. (in) 8		TOTAL DEPTH (ft) 16.5		GROUND ELEV (ft) 343		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 81%, N <sub>60</sub> ~ 81/60 * N ~ 1.35 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
												<b>PAVEMENT:</b> 3-inches asphalt concrete over 5-inches aggregate base.	
5	340		B-1						EPA PA	5		<b>FILL:</b> SILTY SAND (SM); medium dense; light yellowish brown (2.5Y 6/3); moist; mostly fine to medium SAND; some fines; trace GRAVEL; nonplastic.  (2% Gravel; 68% Sand; 30% Fines)	
			S-2	10 8 9	17	23			EPA				
	335		B-3										
10			R-4	11 24 75	99	89	11.5	108	EPA	10		CLAYEY SAND (SC); medium dense; dark gray (10YR 4/1); moist; mostly fine SAND; some fines; medium plasticity.	
	330											<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 5/4); moderately weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; little to some fines; nonplastic; iron-oxide stains).	
15			S-5	10 13 14	27	36				15		Dense; trace GRAVEL.	
	325											Total Depth: 16½ feet No groundwater encountered * Rock Description; (Soil Description)	
	320												

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**FIGURE**  
**A-53**

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS.GPJ GDCLOG.GDT 10/26/22

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING A-22-04	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 10/14/2022		FINISH 10/14/2022		SHEET NO. 1 of 2		
DRILLING COMPANY Tri-County Drilling, Inc.					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Diedrich D-120 All Terrain Truck Mounted Rig					BORING DIA. (in) 8		TOTAL DEPTH (ft) 46		GROUND ELEV (ft) 334		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 81%, N <sub>60</sub> ~ 81/60 * N ~ 1.35 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
												<b>FILL:</b> 9-inches of open graded GRAVEL (GP)	
5	330		B-1						EPA PA EI	5		<b>FILL:</b> CLAYEY SAND (SC); medium dense; dark brown (7.5YR 3/2), moist; mostly fine to medium SAND; some fines; few GRAVEL; low to medium plasticity.  (8% Gravel; 49% Sand; 43% Fines)	
			S-2	7 7 7	14	19			EPA			Mottled gray (10YR 5/12) and brown (10YR 4/3).	
10	325		R-3	9 13 30	43	39	13.3	113	EPA	10		SILTY SAND (SM); dense; dark gray (10YR 4/1), moist; mostly fine to medium SAND; some fines; few GRAVEL and concrete fragments; nonplastic.	
15	320		S-4	6 7 9	16	22			EPA	15		Mottled dark gray (10YR 4/1) and yellowish brown (10YR 5/4).	
20	315		R-5	9 11 14	25	23	14.0	115	EPA	20		CLAYEY SAND (SC); medium dense; mottled gray and yellow brown, moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.	
	310												















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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS.GPJ GDCLOG.GDT 10/26/22

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING A-22-04		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 10/14/2022		FINISH 10/14/2022		SHEET NO. 2 of 2			
DRILLING COMPANY Tri-County Drilling, Inc.							DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF		
DRILLING EQUIPMENT Diedrich D-120 All Terrain Truck Mounted Rig							BORING DIA. (in) 8		TOTAL DEPTH (ft) 46		GROUND ELEV (ft) 334		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na	
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)							NOTES ETR ~ 81%, N <sub>60</sub> ~ 81/60 * N ~ 1.35 * N							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
			S-6	8 10 9	19	26			EPA			<b>FILL:</b> SITLY SAND (SM); medium dense; grayish brown (2.5Y 5/2), moist; mostly fine SAND; some fines; few GRAVEL; nonplastic.		
30	305		R-7	9 16 18	34	31	12.7	117	EPA	30		Dense.		
35	300		S-8	4 4 6	10	14			EPA	35		CLAYEY SAND (SC); medium dense; dark gray (10YR 4/1), moist; mostly fine to medium SAND; some fines; trace GRAVEL; low to medium plasticity.		
40	295		R-9	20 47 150	100+	100+	13.2	103		40		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 5/6); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic; iron-oxide stains).		
45	290		S-10	29 60	89	100+				45		Light gray (10YR 6/1); iron oxide stains.		
	285											Total Depth: 46 feet No groundwater encountered * Rock Description; (Soil Description)		

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GDC\_LOG\_BORING\_MM\_X\_SOIL\_SD\_SD754\_LOGS.GPJ GDCLOG.GDT 10/26/22






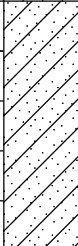





BORING RECORD							PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754		BORING <b>A-22-05</b>		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 10/14/2022		FINISH 10/14/2022		SHEET NO. 1 of 2	
DRILLING COMPANY Tri-County Drilling, Inc.							DRILLING METHOD Hollow Stem Auger				LOGGED BY SRN		CHECKED BY MAF		
DRILLING EQUIPMENT Diedrich D-120 All Terrain Truck Mounted Rig							BORING DIA. (in) 8		TOTAL DEPTH (ft) 46.5		GROUND ELEV (ft) 337		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)							NOTES ETR ~ 81%, N <sub>60</sub> ~ 81/60 * N ~ 1.35 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
	335		B-1						EPA CR R			<b>PAVEMENT:</b> 4-inches asphalt concrete over 18-inches gravel placed over geogrid.			
5			S-2	2 3 6	9	12			EPA	5		<b>FILL:</b> CLAYEY SAND (SC); medium dense; yellowish brown (10YR 5/4), moist; mostly fine SAND; some fines; trace GRAVEL; low plasticity. Contains fragments of asphalt concrete and brick.			
	330														
10			R-3	5 17 29	46	41	13.3	117	EPA	10		Asphalt concrete fragment in sampler (inflated blow counts).			
	325														
15			S-4	6 6 9	15	20			EPA	15		Strong brown (7.5YR 5/6), mostly fine to medium SAND; little fines.			
	320														
20			R-5	6 11 16	27	24	10.4	115	EPA DS	20		Dark gray (10YR 4/1); trace GRAVEL.			
	315														
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			<b>FIGURE</b>  <b>A-55 a</b>		

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS.GPJ GDCLOG.GDT 10/26/22


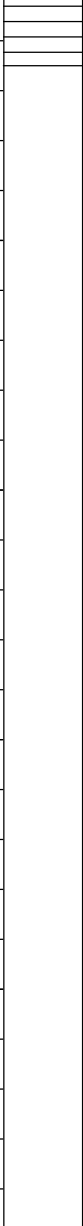
BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING A-22-05	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 10/14/2022		FINISH 10/14/2022		SHEET NO. 2 of 2		
DRILLING COMPANY Tri-County Drilling, Inc.					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Diedrich D-120 All Terrain Truck Mounted Rig					BORING DIA. (in) 8		TOTAL DEPTH (ft) 46.5		GROUND ELEV (ft) 337		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 81%, N <sub>60</sub> ~ 81/60 * N ~ 1.35 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
310			S-6	5 9 18	27	36			EPA PA PI			<b>FILL:</b> SANDY LEAN CLAY (CL); hard; mottled gray (10YR 5/1) and dark yellowish brown (10YR 3/4), moist; mostly fines; some fine SAND; trace asphalt fragments; medium plasticity.  (0% Gravel; 44% Sand; 56% Fines)  (LL~30; PL~13; PI~17)	
30			R-7	4 9 9	18	16	10.7	94	EPA	30		CLAYEY SAND (SC); medium dense; mottled yellowish brown (10YR 5/4) and very dark gray (10YR 3/1), moist; mostly fine to medium SAND; some fines; trace fine GRAVEL; low plasticity. Filter fabric at 31 feet.	
35			S-8	7 8 10	18	24			EPA	35			
40			S-9	9 10 13	23	31				40		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; pale brown (2.5Y 7/3); intensely weathered; very soft; (SILTY SAND (SM); dense; moist; mostly fine to medium SAND; some fines; nonplastic)	
45			R-10	14 45 150	100+	100+	19.5	101		45		Very dense; weakly cemented; iron oxide stains.	
290												Total Depth: 46½ feet No groundwater encountered * Rock Description; (Soil Description)	

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GDC\_LOG\_BORING\_MM\_X\_SOIL\_SD\_SD754\_LOGS.GPJ GDCLOG.GDT 10/26/22

BORING RECORD										PROJECT NAME UCSD Science Research Park		PROJECT NUMBER SD754		BORING A-22-06	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 10/13/2022		FINISH 10/13/2022		SHEET NO. 1 of 2	
DRILLING COMPANY Tri-County Drilling, Inc.						DRILLING METHOD Hollow Stem Auger				LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Diedrich D-120 All Terrain Truck Mounted Rig						BORING DIA. (in) 8		TOTAL DEPTH (ft) 26.5		GROUND ELEV (ft) 340		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 81%, N <sub>60</sub> ~ 81/60 * N ~ 1.35 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
5	335		B-1	6 7 8	15	20			EPA PA EI	5		<b>PAVEMENT:</b> 3-inches asphalt concrete over 3-inches aggregate base.			
			S-2							5		<b>FILL:</b> CLAYEY SAND (SC); medium dense; brown (7.5YR 5/4) moist; mostly fine to coarse SAND; some fines; trace GRAVEL; asphalt fragments; low plasticity.  (2% Gravel; 70% Sand; 28% Fines)  More asphalt concrete fragments.			
10	330		R-3	7 11 16	27	24	12.2	108	EPA	10		SILTY SAND (SM); medium dense; grayish brown (2.5Y 5/2), moist; mostly fine SAND; some fines; trace fine GRAVEL and asphalt fragments; nonplastic.			
			S-4	7 13 15						15		CLAYEY SAND (SC); medium dense; olive brown (2.5Y 4/3) moist; mostly fine to medium SAND; some fines; few GRAVEL; trace roots and vegetative debris; low plasticity.			
20	320		R-5	50 (2")	100+	100+	---	---	EPA	20		SILTY SAND (SM); medium dense; very dark gray (2.5Y 3/1), moist; mostly fine SAND; little to some fines; trace GRAVEL; nonplastic; black stains.			
												20		Mottled very dark gray (2.5Y 3/1) and yellowish brown (10YR 6/4). Sampler refusal on COBBLE or GRAVEL.	
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE  A-56 a		

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS.GPJ GDCLOG.GDT 10/26/22





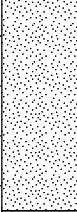

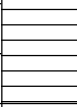
BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING A-22-06		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 10/13/2022		FINISH 10/13/2022		SHEET NO. 2 of 2			
DRILLING COMPANY Tri-County Drilling, Inc.							DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF		
DRILLING EQUIPMENT Diedrich D-120 All Terrain Truck Mounted Rig							BORING DIA. (in) 8		TOTAL DEPTH (ft) 26.5		GROUND ELEV (ft) 340		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na	
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)							NOTES ETR ~ 81%, N <sub>60</sub> ~ 81/60 * N ~ 1.35 * N							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
			S-6	18 34 43	77	100+						<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light yellowish brown (10YR 6/4); thinly bedded; intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; little fines; nonplastic; iron-oxide stains).		
30	310									30		Total Depth: 26½ feet No groundwater encountered * Rock Description; (Soil Description)		
35	305									35				
40	300									40				
45	295									45				

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  A-56 b
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[illegible]









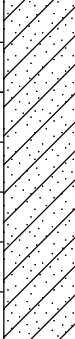


GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD524\_LOGS.GPJ GDCLOG.GDT 10/21/22

BORING RECORD							PROJECT NAME UCSD Science Reserach Park			PROJECT NUMBER SD754		BORING A-17-02		
SITE LOCATION North of Miramar Street, Southeast of Athena Circle							START 3/17/2017		FINISH 3/17/2017		SHEET NO. 1 of 1			
DRILLING COMPANY Pacific Drilling							DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF		
DRILLING EQUIPMENT Tracked Rig (Fraste)							BORING DIA. (in) 6		TOTAL DEPTH (ft) 16		GROUND ELEV (ft) 335		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na	
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)							NOTES ETR ~ 83%, N <sub>60</sub> ~ 83/60 * N ~ 1.38 * N							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
												<b>PAVEMENT:</b> 4-inch asphalt concrete, 1-inch base.		
5	330		B-1						PA R	5		<b>FILL:</b> CLAYEY SAND (SC); medium dense to dense; dark yellowish brown; moist; mostly fine SAND; some fines; trace GRAVEL; low plasticity.  (3% Gravel; 61% Sand; 36% Fines)  Contains some plastic fragments.		
			R-2	16 21 45	66	61	4.3	115	DS					
10	325		S-3	25 36 43	79	109				10		<b>SCRIPPS FORMATION:</b> SILTY SANDSTONE (SM); very dense; orange and grayish brown; moist; mostly fine SAND; little fines; nonplastic; weakly cemented.		
15	320		R-4	19 60	79	73	11.6	103		15		<b>SILTSTONE WITH SAND (ML);</b> very dense; light gray and orange; moist; mostly fines; little fine SAND; low plasticity; moderately cemented.		
20	315									20		Total Depth: 16 feet No groundwater encountered		

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-58</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD524\_LOGS.GPJ GDCLOG.GDT 10/21/22

BORING RECORD							PROJECT NAME UCSD Science Reserach Park			PROJECT NUMBER SD754		BORING A-17-03		
SITE LOCATION North of Miramar Street, Southeast of Athena Circle							START 3/17/2017		FINISH 3/17/2017		SHEET NO. 1 of 2			
DRILLING COMPANY Pacific Drilling							DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF		
DRILLING EQUIPMENT Tracked Rig (Fraste)							BORING DIA. (in) 6		TOTAL DEPTH (ft) 31.5		GROUND ELEV (ft) 354		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na	
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)							NOTES ETR ~ 83%, N <sub>60</sub> ~ 83/60 * N ~ 1.38 * N							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
												<b>PAVEMENT:</b> 5-inch asphalt concrete, 1½-inch base.		
5	350		B-1							5		<b>FILL:</b> CLAYEY SAND (SC); medium dense; dark brown; moist; mostly fine SAND; some fines; few GRAVEL; low plasticity.  (5% Gravel; 60% Sand; 35% Fines)  (LL~29; PL~12; PI~17)		
			R-2	5 7 8	15	14	17.8	102	DS					
10	345		S-3	10 12 16	28	39				10		CLAYEY SAND WITH GRAVEL (SC); dense; gray and yellow brown; moist; mostly fine to medium SAND; some fines; little subangular GRAVEL; low plasticity.		
15	340		R-4	25 30 44	74	68	7.8	120		15				
20	335		S-5	7 11 17	28	39				20		CLAYEY SAND (SC); dense; gray; moist; mostly fine to medium SAND; some fines; low plasticity.		
	330													




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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD524\_LOGS.GPJ GDCLOG.GDT 10/21/22







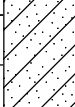

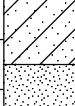

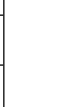
BORING RECORD							PROJECT NAME UCSD Science Reserach Park			PROJECT NUMBER SD754		BORING <b>A-17-03</b>		
SITE LOCATION North of Miramar Street, Southeast of Athena Circle							START 3/17/2017		FINISH 3/17/2017		SHEET NO. 2 of 2			
DRILLING COMPANY Pacific Drilling							DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF		
DRILLING EQUIPMENT Tracked Rig (Fraste)							BORING DIA. (in) 6		TOTAL DEPTH (ft) 31.5		GROUND ELEV (ft) 354		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na	
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)							NOTES ETR ~ 83%, N <sub>60</sub> ~ 83/60 * N ~ 1.38 * N							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
			S-6	2 2 2	4	6						<b>FILL:</b> POORLY GRADED SAND (SP); loose; gray and orange; moist; mostly fine SAND; trace fines; nonplastic.		
30	325		R-7	28 44 50/2"	194	178	25.3	98		30		<b>SCRIPPS FORMATION:</b> SANDY SILTSTONE (ML); very dense; light gray; moist; mostly fines; some fine SAND; low plasticity; moderately cemented.		
35	320									35		Total Depth: 31½ feet No groundwater encountered		
40	315									40				
45	310									45				
	305													
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			<b>FIGURE</b>  <b>A-59 b</b>	

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD476 LOGS.GPJ GDCLOG.GDT 9/28/22

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING A-16-01		
SITE LOCATION Nuevo West Parking Garage on Athena Circle							START 4/20/2016		FINISH 4/20/2016		SHEET NO. 1 of 1			
DRILLING COMPANY Pacific Drilling							DRILLING METHOD Flight Auger			LOGGED BY TSL		CHECKED BY MAF		
DRILLING EQUIPMENT Limited Access (Mini-Mole)							BORING DIA. (in) 6		TOTAL DEPTH (ft) 20.5		GROUND ELEV (ft) 334		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na	
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Cat-Head)							NOTES ETR ~ 60%, N <sub>60</sub> ~ 60/60 * N ~ 1.00 * N							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
			B-1						PA CR EI			<b>PAVEMENT:</b> 3-inches asphalt concrete over 5-inches aggregate base.		
5	330		R-2	9 17 23	40	27	10.1	112	EPA	5		<b>FILL:</b> CLAYEY SAND (SC); medium dense; mottled orange brown, light gray and olive gray; moist; mostly fine to medium SAND; some fines; trace to few GRAVEL; low plasticity.  (3% Gravel; 65% Sand; 32% Fines)  Contains layer of gravel and cobble.		
10	325		S-3	33 50 (6")	100	100	---	---	EPA	10		Contains crushed asphalt concrete.		
15	320		R-4	4 8 12	20	13	13.7	112	EPA	15		<b>SCRIPPS FORMATION:</b> SILTY SANDSTONE (SM); very dense; yellowish and grayish brown; moist; mostly fine SAND; little fines; few GRAVEL; nonplastic.		
20	315		S-5	30 50 (4")	150	150	---	---		20		SANDY SILTSTONE (ML); very dense; light brown; moist; mostly fines; some fine SAND; low plasticity.		
	310		R-6	50 (4")	150	100	18.5	105				Total Depth: 20½ feet No groundwater encountered		
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			<b>FIGURE</b>  <b>A-60</b>	

<b>BORING RECORD</b>				PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754				BORING <b>A-16-02</b>																											
SITE LOCATION Nuevo West Parking Garage on Athena Circle								START 4/20/2016				FINISH 4/20/2016				SHEET NO. 1 of 1																							
DRILLING COMPANY Pacific Drilling								DRILLING METHOD Flight Auger								LOGGED BY TSL				CHECKED BY MAF																			
DRILLING EQUIPMENT Limited Access (Mini-Mole)								BORING DIA. (in) 6				TOTAL DEPTH (ft) 6.5				GROUND ELEV (ft) 329				DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na																			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Cat-Head)								NOTES ETR ~ 60%, N <sub>60</sub> ~ 60/60 * N ~ 1.00 * N																															
DEPTH (feet)		ELEVATION (feet)		SAMPLE TYPE		SAMPLE NO.		PENETRATION RESISTANCE (BLOWS / 6 IN)		BLOW/FT "N"		N <sub>60</sub>		MOISTURE (%)		DRY DENSITY (pcf)		OTHER TESTS		DEPTH (feet)		GRAPHIC LOG		DESCRIPTION AND CLASSIFICATION															
5		325				R-1		3 5 6		11		7		---		---		EPA		5						<b>PAVEMENT:</b> 3-inches asphalt concrete over 5-inches aggregate base.  <b>FILL:</b> CLAYEY SAND (SC); loose to medium dense; reddish brown; moist; mostly fine to medium SAND; little fines; few GRAVEL; low plasticity.													
		320		S-2		7 7 8		15		15		---		---		EPA		Total Depth: 6½ feet No groundwater encountered																					
10		315																																					
15		310																																					
20		305																																					
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126																				THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.										<b>FIGURE</b>  <b>A-61</b>									




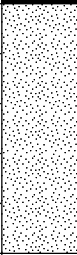
GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD476\_LOGS.GPJ GDCLOG.GDT 9/28/22

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING A-16-03	
SITE LOCATION Nuevo West Parking Garage on Athena Circle							START 4/20/2016		FINISH 4/20/2016		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling					DRILLING METHOD Flight Auger			LOGGED BY TSL		CHECKED BY MAF			
DRILLING EQUIPMENT Limited Access (Mini-Mole)					BORING DIA. (in) 6		TOTAL DEPTH (ft) 20.5		GROUND ELEV (ft) 327		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Cat-Head)					NOTES ETR ~ 60%, N <sub>60</sub> ~ 60/60 * N ~ 1.00 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
	325		B-1						R-31			<b>FILL:</b> SILTY SAND (SM); medium dense; light gray brown; moist; mostly fine SAND; some fines; nonplastic.	
			S-2	6 10 13	23	23	---	---	EPA				
5			R-3	50 (4")	150	100	---	---	EPA	5		CLAYEY SAND WITH GRAVEL (SC); medium dense; dark gray; moist; mostly fine to medium SAND; some fines; few to little subangular GRAVEL; low plasticity.	
	320												
10			S-4	7 9 11	20	13	---	---	EPA	10		CLAYEY SAND (SC); medium dense; light brown; moist; mostly fine to medium SAND; some fines; low plasticity.	
	315												
15			R-5	50 (6")	100	67	---	---	EPA	15		Sampler bouncing on cobble, no soil recovered.	
	310												
20			S-6	50 (6")	100	100	---	---		20		<b>SCRIPPS FORMATION:</b> SILTY SANDSTONE (SM); very dense; light gray; moist; mostly fine to medium SAND; little fines; nonplastic.	
	305												
												Total Depth: 20½ feet No groundwater encountered	

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

<b>BORING RECORD</b>				PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754				BORING <b>A-16-04</b>																					
SITE LOCATION Nuevo West Parking Garage on Athena Circle								START 4/20/2016				FINISH 4/20/2016				SHEET NO. 1 of 1																	
DRILLING COMPANY Pacific Drilling								DRILLING METHOD Flight Auger								LOGGED BY TSL				CHECKED BY MAF													
DRILLING EQUIPMENT Limited Access (Mini-Mole)								BORING DIA. (in) 6				TOTAL DEPTH (ft) 6				GROUND ELEV (ft) 336				DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na													
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Cat-Head)								NOTES ETR ~ 60%, N <sub>60</sub> ~ 60/60 * N ~ 1.00 * N																									
DEPTH (feet)		ELEVATION (feet)		SAMPLE TYPE		SAMPLE NO.		PENETRATION RESISTANCE (BLOWS / 6 IN)		BLOW/FT "N"		N <sub>60</sub>		MOISTURE (%)		DRY DENSITY (pcf)		OTHER TESTS		DEPTH (feet)		GRAPHIC LOG		DESCRIPTION AND CLASSIFICATION									
335				R-1		50 (6")		100		67		---		---		EPA		5				<b>PAVEMENT:</b> 3-inches asphalt concrete over 5-inches aggregate base.											
																						<b>SCRIPPS FORMATION:</b> SILTY SANDSTONE (SM); very dense; light orangish brown; moist; mostly fine to medium SAND; little fines; nonplastic.											
5				S-2		20 50 (6")		100		100		---		---		EPA		5				SANDY SILTSTONE (ML); very dense; light gray; moist; mostly fines; some fine SAND; few GRAVEL; low plasticity.											
330				S-2		20 50 (6")		100		100		---		---		EPA		5				Total Depth: 6 feet No groundwater encountered											
10																																	
325																																	
15																																	
320																																	
20																																	
315																																	

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD476 LOGS.GPJ GDCLOG.GDT 9/28/22

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING <b>A-16-05</b>		
SITE LOCATION Nuevo West Parking Garage on Athena Circle							START 4/20/2016		FINISH 4/20/2016		SHEET NO. 1 of 1			
DRILLING COMPANY Pacific Drilling							DRILLING METHOD Flight Auger			LOGGED BY TSL		CHECKED BY MAF		
DRILLING EQUIPMENT Limited Access (Mini-Mole)							BORING DIA. (in) 6		TOTAL DEPTH (ft) 6		GROUND ELEV (ft) 332		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na	
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Cat-Head)							NOTES ETR ~ 60%, N <sub>60</sub> ~ 60/60 * N ~ 1.00 * N							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
												<b>PAVEMENT:</b> 3-inches asphalt concrete over 5-inches aggregate base.		
330			B-1	50 (6")	100	100	---	---	EPA			<b>SCRIPPS FORMATION:</b> SILTY SANDSTONE (SM); very dense; light gray and orangish brown; moist; mostly fine to medium SAND; little fines; nonplastic.		
5			R-3	50 (1")	600	400	---	---	EPA	5		Cobble stuck in sampler.		
325												Total Depth: 6 feet No groundwater encountered		
10										10				
320														
15										15				
315														
20										20				
310														
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			<b>FIGURE</b>  <b>A-64</b>	



GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD476 LOGS.GPJ GDCLOG.GDT 9/28/22

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING <b>A-16-06</b>		
SITE LOCATION Nuevo West Parking Garage on Athena Circle							START 4/20/2016		FINISH 4/20/2016		SHEET NO. 1 of 1			
DRILLING COMPANY Pacific Drilling							DRILLING METHOD Flight Auger			LOGGED BY TSL		CHECKED BY MAF		
DRILLING EQUIPMENT Limited Access (Mini-Mole)							BORING DIA. (in) 6		TOTAL DEPTH (ft) 20.5		GROUND ELEV (ft) 331		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na	
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Cat-Head)							NOTES ETR ~ 60%, N <sub>60</sub> ~ 60/60 * N ~ 1.00 * N							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
	330											<b>PAVEMENT:</b> 3-inches asphalt concrete over 5-inches aggregate base.		
			R-1	50 (6")	100	67	7.1	97	EPA			<b>SCRIPPS FORMATION:</b> SILTY SANDSTONE (SM); very dense; light yellow to reddish brown; moist; mostly fine to medium SAND; little fines; nonplastic.		
5			S-2	33 50	100	100	---	---	EPA	5				
	325													
10			R-3	50 (6")	100	67	8.6	100		10				
	320													
15			S-4	50 (5")	120	120	---	---		15		SILTSTONE (ML); very dense; light gray; moist; mostly fines; few fine SAND; low plasticity; moderately to strongly indurated.		
	315													
20			R-5	50 (4")	150	100	15.4	105		20				
	310													
												Total Depth: 20½ feet No groundwater encountered		
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			<b>FIGURE</b>  <b>A-65</b>	

<b>BORING RECORD</b>				<b>PROJECT NAME</b> UCSD Science Research Park				<b>PROJECT NUMBER</b> SD754				<b>BORING</b> <b>A-16-07</b>																					
<b>SITE LOCATION</b> Nuevo West Parking Garage on Athena Circle								<b>START</b> 4/20/2016				<b>FINISH</b> 4/20/2016				<b>SHEET NO.</b> 1 of 1																	
<b>DRILLING COMPANY</b> Pacific Drilling								<b>DRILLING METHOD</b> Flight Auger								<b>LOGGED BY</b> TSL				<b>CHECKED BY</b> MAF													
<b>DRILLING EQUIPMENT</b> Limited Access (Mini-Mole)								<b>BORING DIA. (in)</b> 6				<b>TOTAL DEPTH (ft)</b> 6.5				<b>GROUND ELEV (ft)</b> 329				<b>DEPTH/ELEV. GROUNDWATER (ft)</b> N/A / na													
<b>SAMPLING METHOD</b> Hammer: 140 lbs., Drop: 30 in. (Cat-Head)								<b>NOTES</b> ETR ~ 60%, N <sub>60</sub> ~ 60/60 * N ~ 1.00 * N																									
DEPTH (feet)		ELEVATION (feet)		SAMPLE TYPE		SAMPLE NO.		PENETRATION RESISTANCE (BLOWS / 6 IN)		BLOW/FT "N"		N <sub>60</sub>		MOISTURE (%)		DRY DENSITY (pcf)		OTHER TESTS		DEPTH (feet)		GRAPHIC LOG		DESCRIPTION AND CLASSIFICATION									
						R-1		50 (5")		120		80		---		---		EPA						<b>FILL:</b> CLAYEY SAND (SC); medium dense; light orange brown; moist; mostly fine SAND; some fines; low plasticity.									
325																								<b>SCRIPPS FORMATION:</b> SILTSTONE (ML); very dense; gray; moist; mostly fines; trace fine sand; low plasticity; moderately to strongly indurated.									
5						S-2		21 23 60		83		83		---		---		EPA		5				SILTY SANDSTONE (SM); very dense; light gray and orange brown; moist; mostly fine sand; some fines; low plasticity.									
																								Total Depth: 6½ feet No groundwater encountered									
320																																	
10																																	
315																																	
15																																	
310																																	
20																																	
305																																	

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San Diego, California 92126


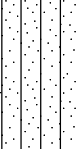


THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.

FIGURE

A-66





[illegible]

GDC\_LOG\_BORING\_MM\_X\_SOIL\_SD\_SD487 LOGS.GPJ GDCLOG.GDT 9/28/22

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING <b>A-16-09</b>		
SITE LOCATION Athena Way Development							START 6/7/2016		FINISH 6/7/2016		SHEET NO. 1 of 1			
DRILLING COMPANY Tri-County							DRILLING METHOD Test Pit			LOGGED BY TSL		CHECKED BY MAF		
DRILLING EQUIPMENT Backhoe							BORING DIA. (in) 18		TOTAL DEPTH (ft) 4.5		GROUND ELEV (ft) 338.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na	
SAMPLING METHOD Shovel							NOTES Moisture and density determined using nuclear gauge.							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
							12.2	122				<b>FILL:</b> Cemented gravel and sand mixture.		
												SILTY SAND (SM); dense; moderately brown; moist; mostly fine to medium SAND; little fines; nonplastic.		
							11.8	104				SILTY SAND (SM); medium dense to dense; reddish brown; moist; mostly fine to medium SAND; little to some fines; low plasticity.		
5	335		B-1						PA R CP	5		Total Depth: 4.5 feet No groundwater encountered		
	330													

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-68</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD487 LOGS.GPJ GDCLOG.GDT 9/28/22

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING <b>A-16-10</b>	
SITE LOCATION Athena Way Development							START 6/7/2016		FINISH 6/7/2016		SHEET NO. 1 of 1		
DRILLING COMPANY Tri-County						DRILLING METHOD Test Pit			LOGGED BY TSL		CHECKED BY MAF		
DRILLING EQUIPMENT Backhoe						BORING DIA. (in) 18		TOTAL DEPTH (ft) 4		GROUND ELEV (ft) 337		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na	
SAMPLING METHOD Shovel						NOTES Moisture and density determined using nuclear gauge.							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
												<b>FILL:</b> Cemented gravel and sand mixture.	
							12.5	115				SILTY SAND (SM); dense; moderately brown; moist; mostly fine to medium SAND; little fines; nonplastic.	
	335		B-1						PA R			SILTY SAND (SM); medium dense to dense; reddish brown; moist; mostly fine to medium SAND; little to some fines; low plasticity.	
5										5		Total Depth: 4 feet No groundwater encountered	
	330												

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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD519\_LOGS.GPJ GDCLOG.GDT 9/28/22

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING A-14-01		
SITE LOCATION Southwest of Regents Road and Miramar Street							START 6/27/2014		FINISH 6/27/2014		SHEET NO. 1 of 1			
DRILLING COMPANY Pacific Drilling							DRILLING METHOD Hollow Stem Auger			LOGGED BY TSL		CHECKED BY MAF		
DRILLING EQUIPMENT Truck Rig (Wolverine)							BORING DIA. (in) 8		TOTAL DEPTH (ft) 20.5		GROUND ELEV (ft) 350		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na	
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)							NOTES ETR ~ 80%, N <sub>60</sub> ~ 80/60 * N ~ 1.33 * N							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
			B-1									<b>FILL:</b> SILTY SAND (SM); medium dense; reddish brown; moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.  (1% Gravel; 64% Sand; 35% Fines)		
			R-2	6 10 12	22	20	10.7	118	PA CR EI R EPA					
5	345		S-3	6 9 13	21	28	---	---	EPA	5				
10	340		R-4	9 23 29	52	46	9.7	128	EPA	10		<b>CLAYEY SAND (SC);</b> medium dense to dense; dark gray; moist; mostly fine to medium SAND; some fines; low plasticity.		
15	335		S-5	14 7 13	20	27	---	---	EPA	15				
20	330		R-6	50 (6")	100	89	8.5	---	EPA	20		<b>SCRIPPS FORMATION:</b> SILTY SANDSTONE (SM); very dense; yellowish brown; moist; mostly fine SAND; some fines; nonplastic; weakly cemented.		
														Total Depth: 20½ feet No groundwater encountered

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-71</b>
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***APPENDIX B***  
***LABORATORY TESTING***

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## APPENDIX B

### LABORATORY TESTING

Laboratory testing was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locality. No warranty, express or implied, is made as to the correctness or serviceability of the test results, or the conclusions derived from these tests. Where a specific laboratory test method has been referenced, the reference only applies to the specified laboratory test method, which has been used only as a guidance document for the general performance of the test and not as a "Test Standard". A brief description of the various tests performed for this project follows.

**Classification:** Soils were visually classified according to the Unified Soil Classification System as established by the American Society of Civil Engineers per ASTM D2487. The soil classifications are shown on the boring logs in Appendix A.

**Particle Size Analysis:** Particle size analyses were performed in accordance with ASTM D422 and were used to supplement visual soil classifications. The gradation test results for the samples we recently collected from the site are shown in Figures B-1.1 to B-1.22. Additional gradation analyses for previous samples collected in the site vicinity are shown in Figures B-1.23 to B-1.37.

**Atterberg Limits:** ASTM D4318 was used to determine the Liquid Limits (LL), Plastic Limits (PL), and Plasticity Indices (PI) of soil samples. The test results are shown in selected Figures B-1.1 to B-1.37.

**Expansion Index:** The expansion potentials of selected soil samples were estimated in general accordance with ASTM D4829. The test results are summarized in Figure B-2, along with common criteria for evaluating the expansion potential based on the expansion index.

**pH and Resistivity:** To assess the potential for reactivity with buried metals, selected soil samples were tested for pH and minimum resistivity using Caltrans test method 643. The corrosivity test results are summarized in Figure B-3.

**Sulfate Content:** To assess the potential for reactivity with concrete, selected soil samples were tested for water soluble sulfate. The sulfate was extracted from the soil under vacuum using a 10:1 (water to dry soil) dilution ratio, and then tested for water soluble sulfate using ASTM D516. These test results are also shown in Figure B-3, along with criteria for evaluating soluble sulfate content.

**Chloride Content:** Soil samples were also tested for water soluble chloride. The chloride was extracted from the soil under vacuum using a 10:1 (water to dry soil) dilution ratio as described above. The extracted solutions were then tested for water soluble chloride using a calibrated ion specific electronic probe. These test results are also shown in Figure B-3.

## APPENDIX B

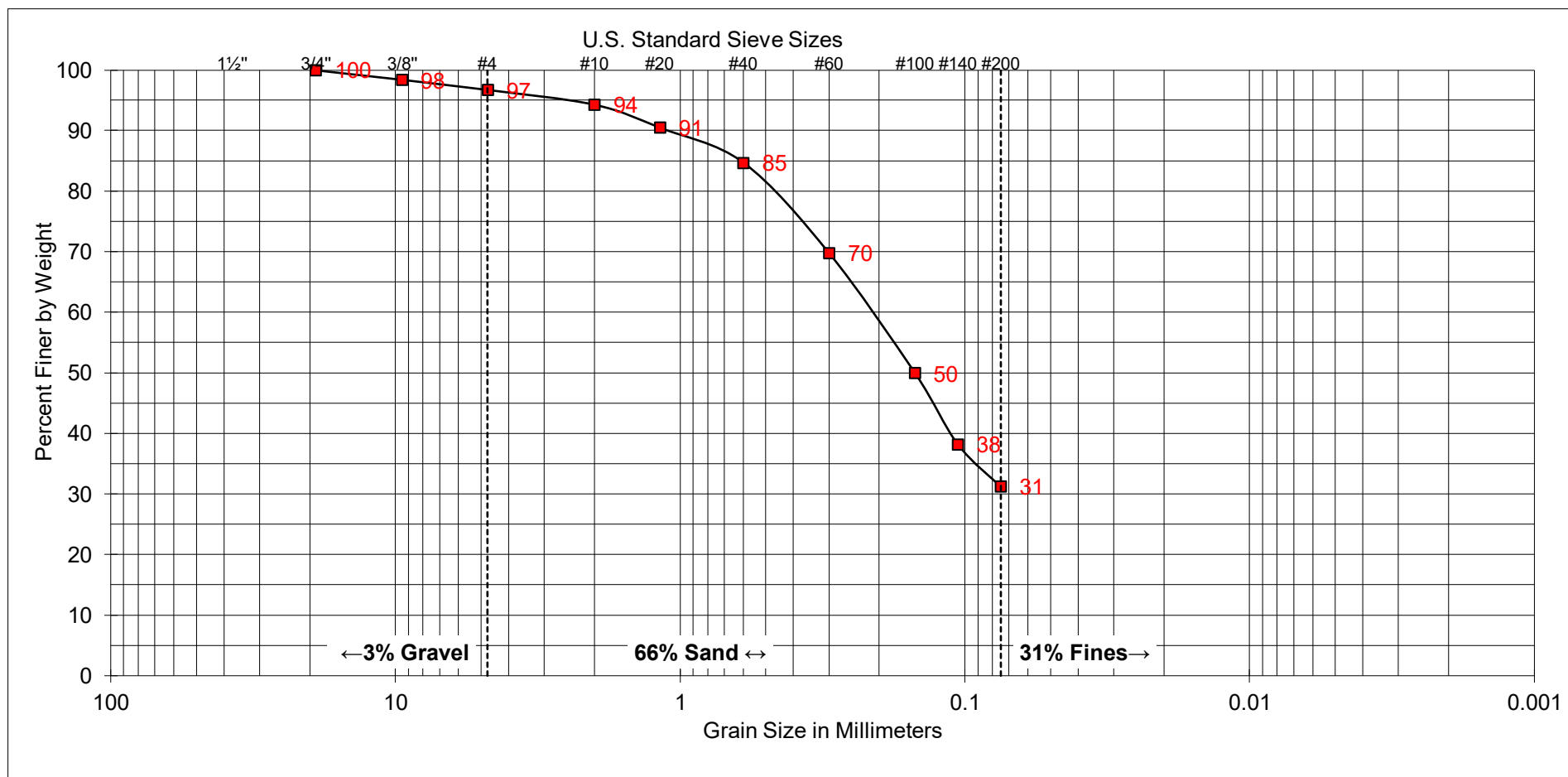
### LABORATORY TESTING (Continued)

**Maximum Density/Optimum Moisture:** The maximum density and optimum moisture of selected soil samples were determined using ASTM D1557. The test results are summarized in B-4. For samples with more than 10 percent plus ¾-inch material (gravel), the maximum densities and optimum moistures may be corrected using ASTM D4718 as a guideline.

**Direct Shear:** The shear strengths of selected samples of the on-site soils were assessed using direct shear testing performed in general accordance with ASTM D3080. The direct shear test results are summarized in Figures B-5.1 through B-5.9. A summary of the direct shear tests conducted on the granular on-site fill soils is provided in Figure B-5.10.

**R-Value:** R-Value tests were performed on selected samples of the subgrade soils collected from the previous borings in the site vicinity. The R-Value tests were conducted in general accordance with CTM 301. The test results are provided in Figures B-6.1a through B-6.12b.

**Consolidation:** The one-dimensional consolidation properties of selected clayey soil samples were evaluated in general accordance with ASTM D4546 (Method A). The samples were inundated with water under a nominal seating load, and then subjected to controlled stress increments while restrained laterally and drained axially. The results are presented in Figures B-7.1 through B-7.4.



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
EXPLORATION ID:	B-3
SAMPLE DEPTH:	1' - 5'

UNIFIED SOIL CLASSIFICATION:	SM
DESCRIPTION:	SILTY SAND

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



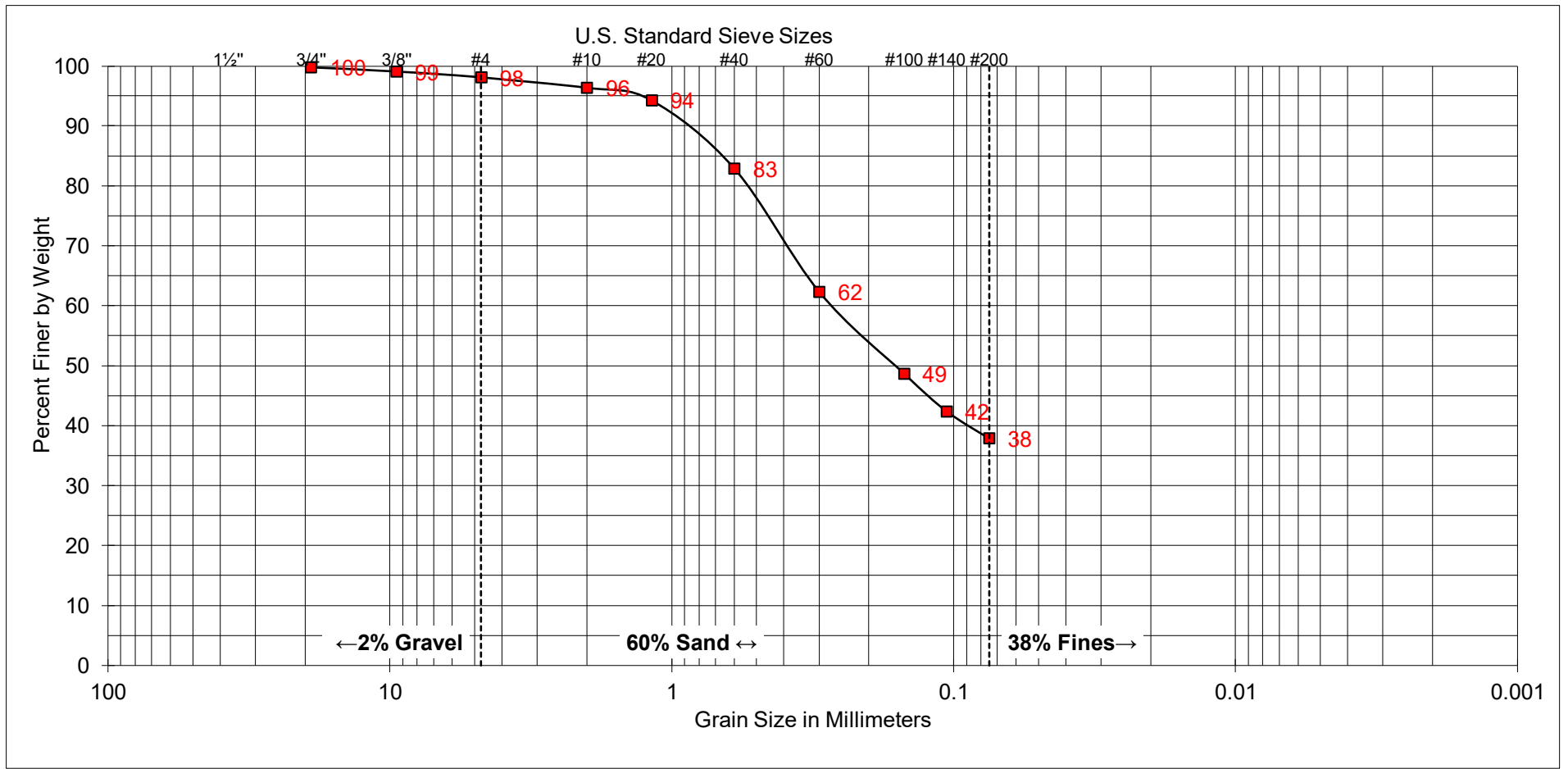
**GROUP DELTA**

## SOIL CLASSIFICATION

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Project No. SD754A

**FIGURE B-1.1**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
EXPLORATION ID:	B-4
SAMPLE DEPTH:	1' - 5'

<b>UNIFIED SOIL CLASSIFICATION:</b>	SM
<b>DESCRIPTION:</b>	SILTY SAND

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



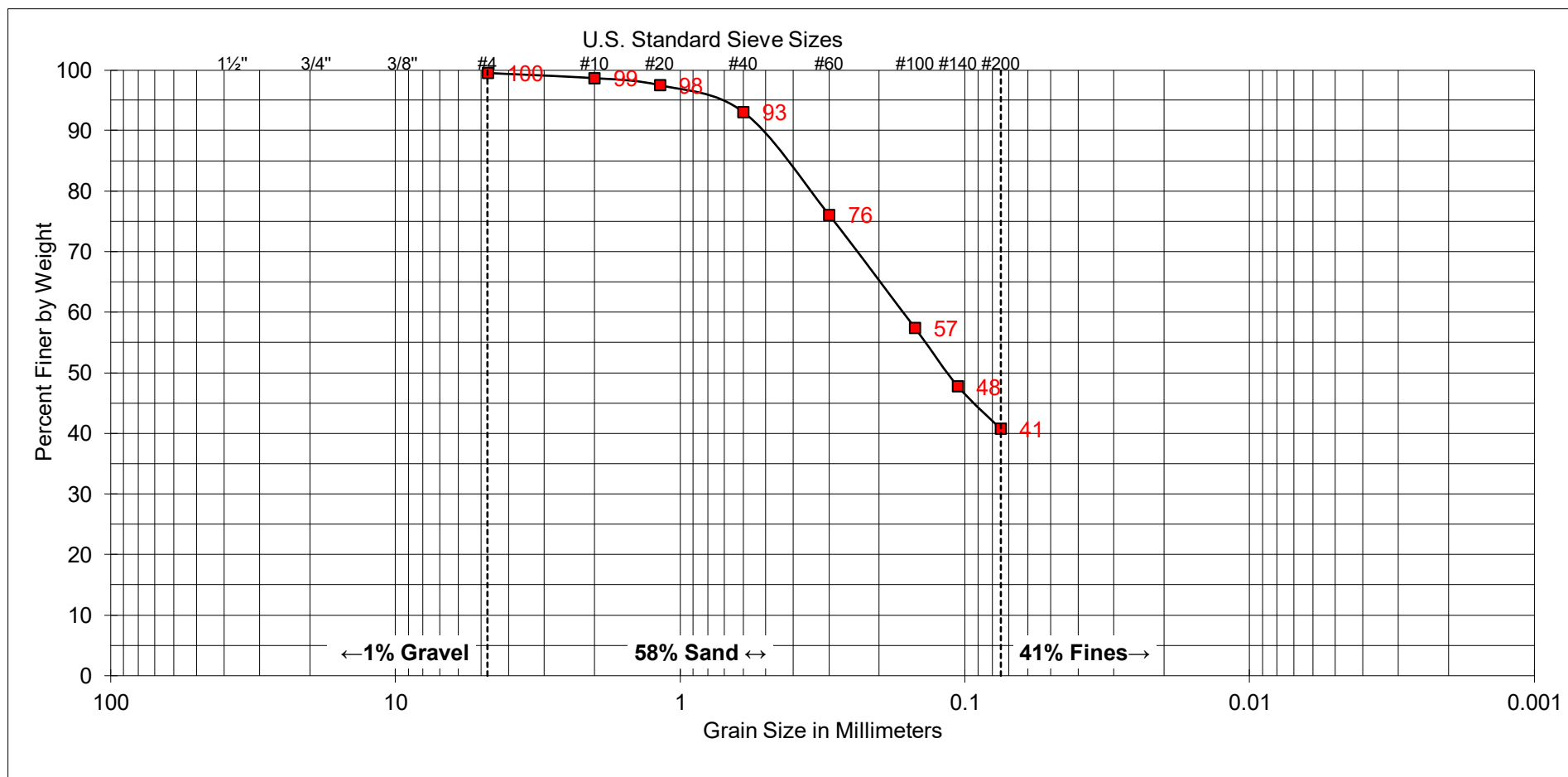
**GROUP DELTA**

## SOIL CLASSIFICATION

Document No. 22-0116

Project No. SD754A

**FIGURE B-1.2**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
EXPLORATION ID:	B-7
SAMPLE DEPTH:	1' - 5'

UNIFIED SOIL CLASSIFICATION:	SM
DESCRIPTION:	SILTY SAND

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



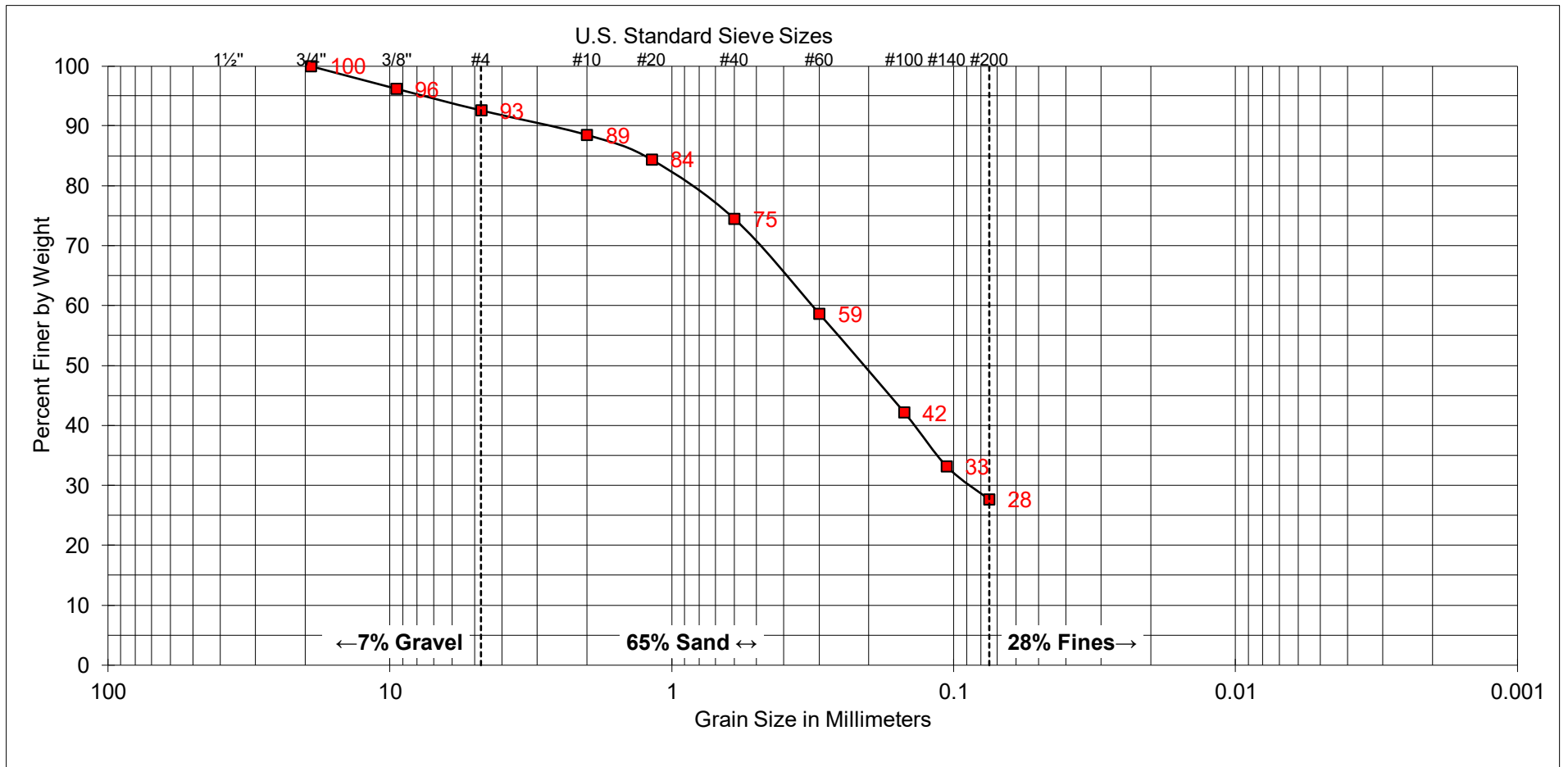
**GROUP DELTA**

## SOIL CLASSIFICATION

Document No. 22-0116

Project No. SD754A

**FIGURE B-1.3**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
EXPLORATION ID:	B-13
SAMPLE DEPTH:	1' - 5'

UNIFIED SOIL CLASSIFICATION:	SM
DESCRIPTION:	SILTY SAND

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



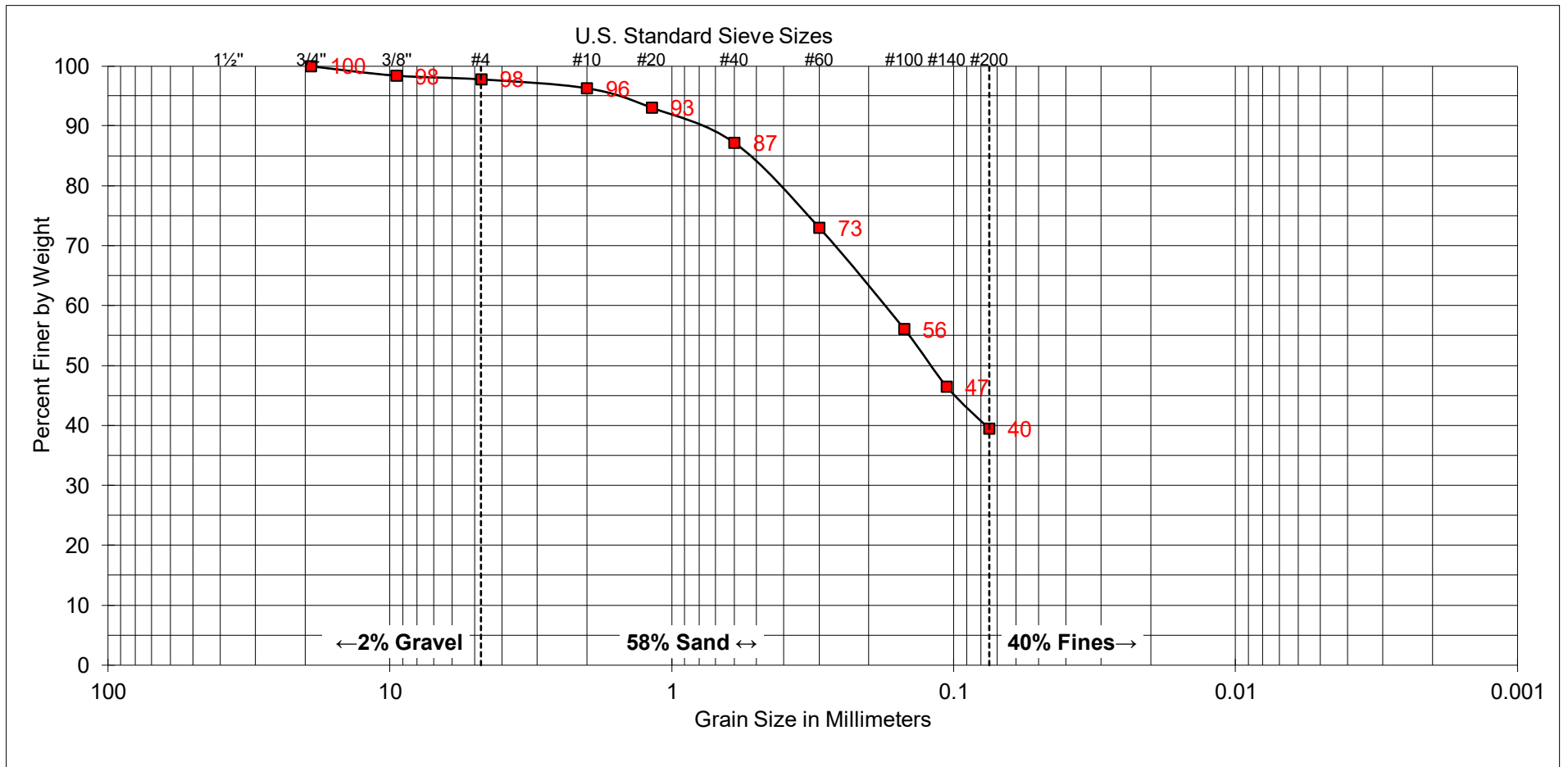
**GROUP DELTA**

## SOIL CLASSIFICATION

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Project No. SD754A

**FIGURE B-1.4**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
EXPLORATION ID:	B-16
SAMPLE DEPTH:	1' - 5'

UNIFIED SOIL CLASSIFICATION:	SC
DESCRIPTION:	CLAYEY SAND

ATTERBERG LIMITS
LIQUID LIMIT: 27
PLASTIC LIMIT: 13
PLASTICITY INDEX: 14



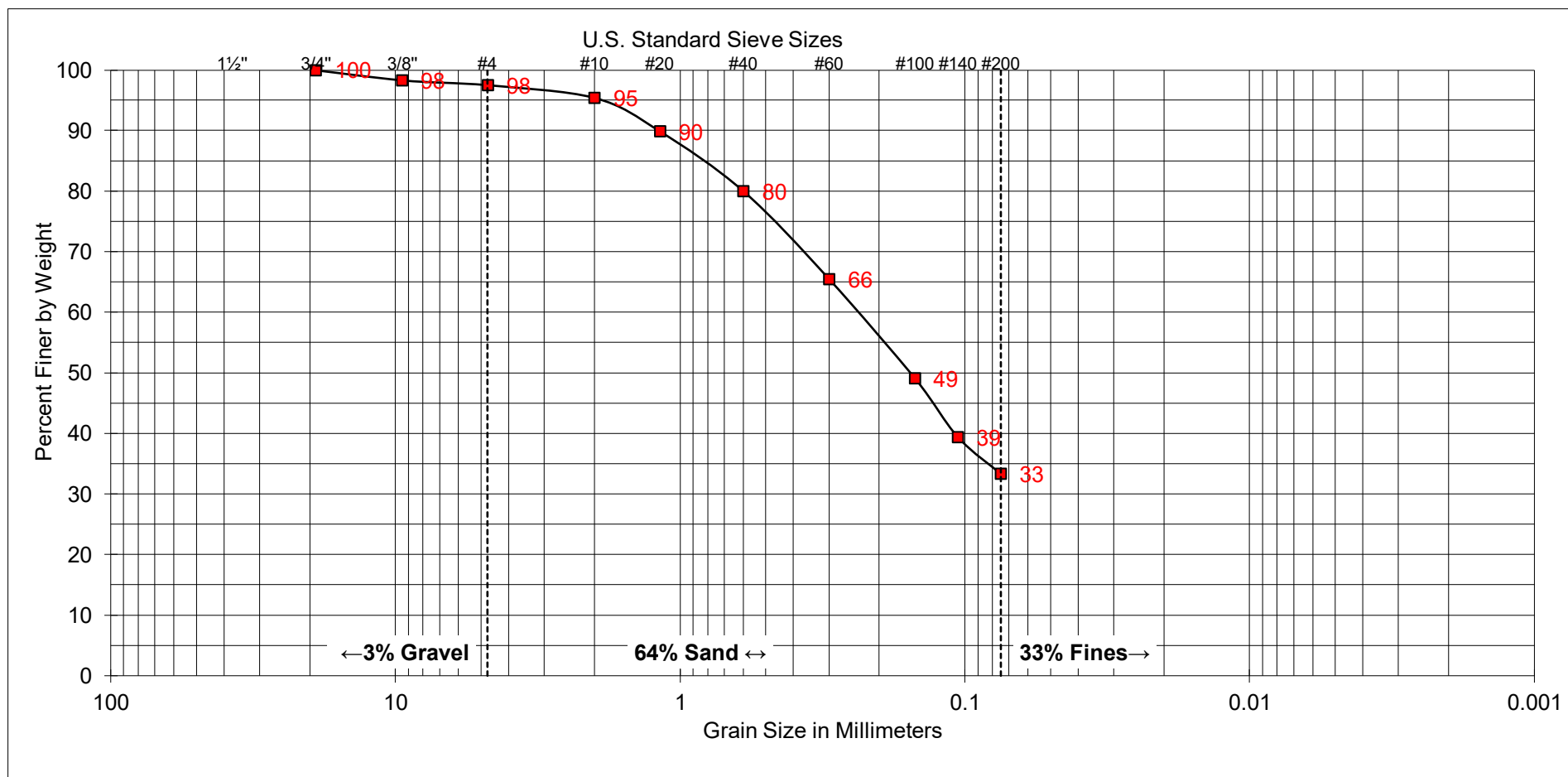
**GROUP DELTA**

## SOIL CLASSIFICATION

Document No. 22-0116

Project No. SD754A

**FIGURE B-1.5**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
EXPLORATION ID:	B-19
SAMPLE DEPTH:	1' - 5'

UNIFIED SOIL CLASSIFICATION:	SM
DESCRIPTION:	SILTY SAND

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



**GROUP DELTA**

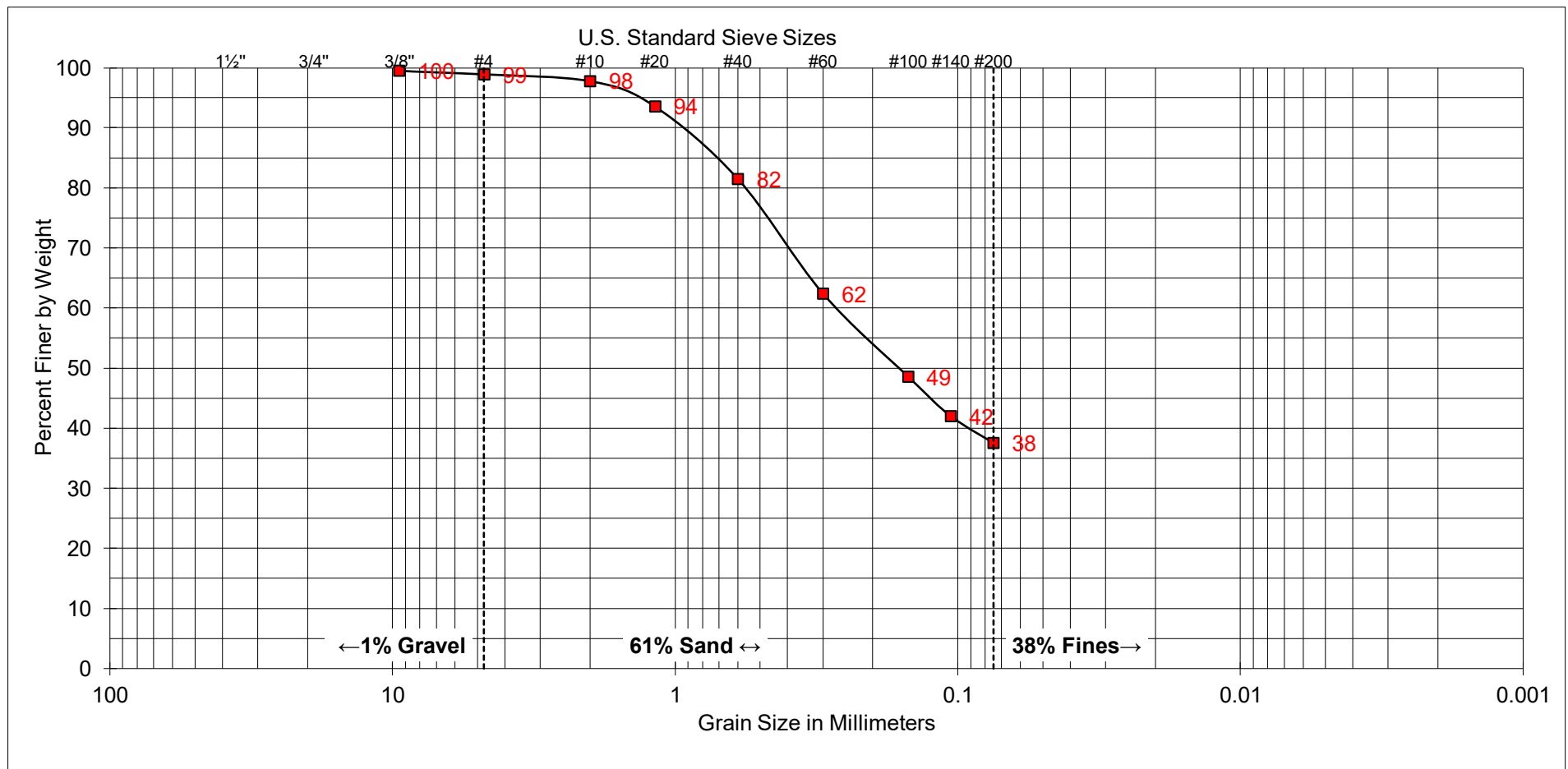
## SOIL CLASSIFICATION

Document No. 22-0116

Project No. SD754A

**FIGURE B-1.6**





COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
EXPLORATION ID:	B-23
SAMPLE DEPTH:	1' - 5'

<b>UNIFIED SOIL CLASSIFICATION:</b>	SC
<b>DESCRIPTION:</b>	CLAYEY SAND

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



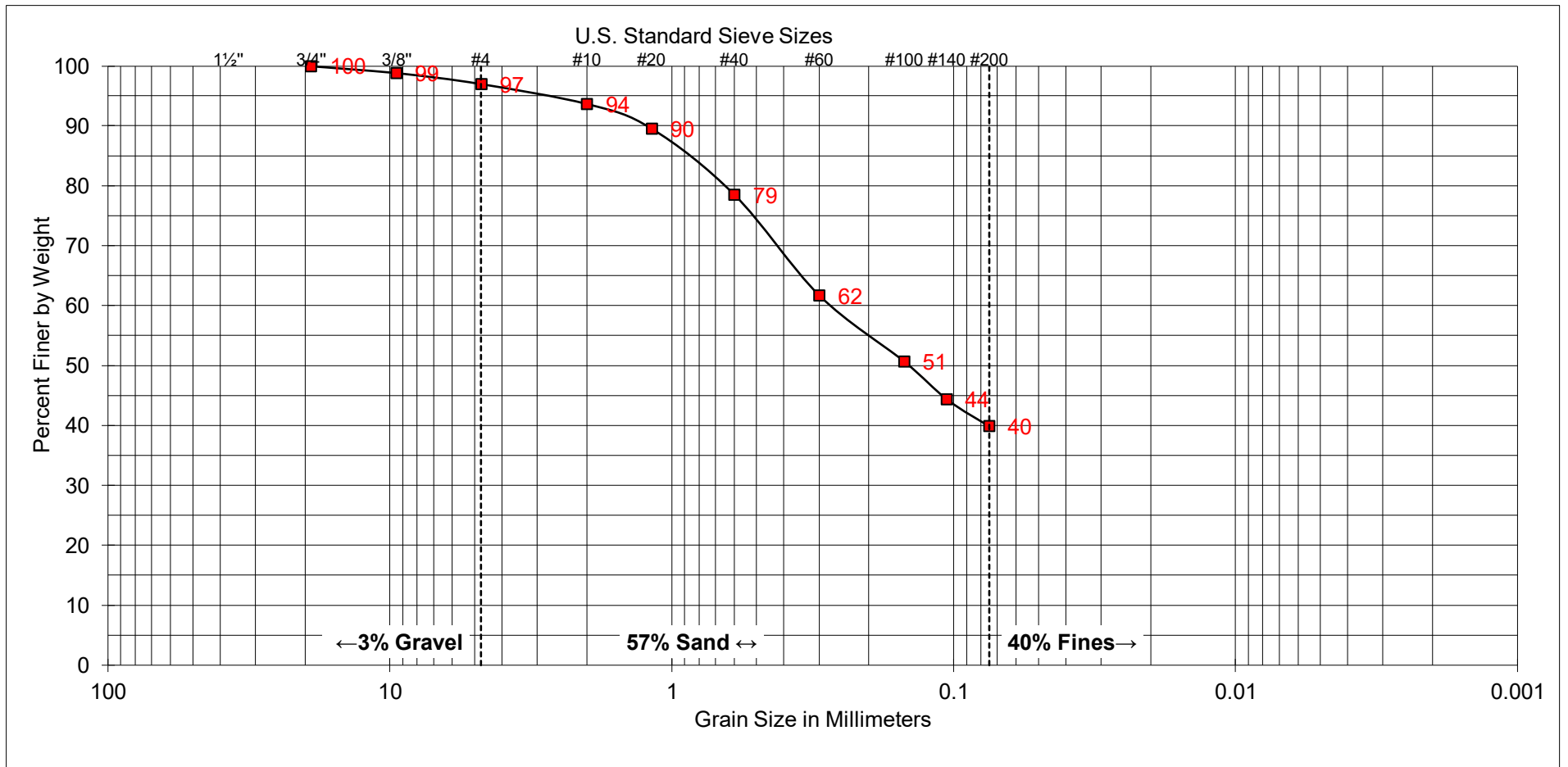
**GROUP DELTA**

**SOIL CLASSIFICATION**

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Project No. SD754A

**FIGURE B-1.7**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
EXPLORATION ID:	B-24
SAMPLE DEPTH:	1' - 5'

<b>UNIFIED SOIL CLASSIFICATION:</b>	SM
<b>DESCRIPTION:</b>	SILTY SAND

ATTERBERG LIMITS	
LIQUID LIMIT:	---
PLASTIC LIMIT:	---
PLASTICITY INDEX:	---



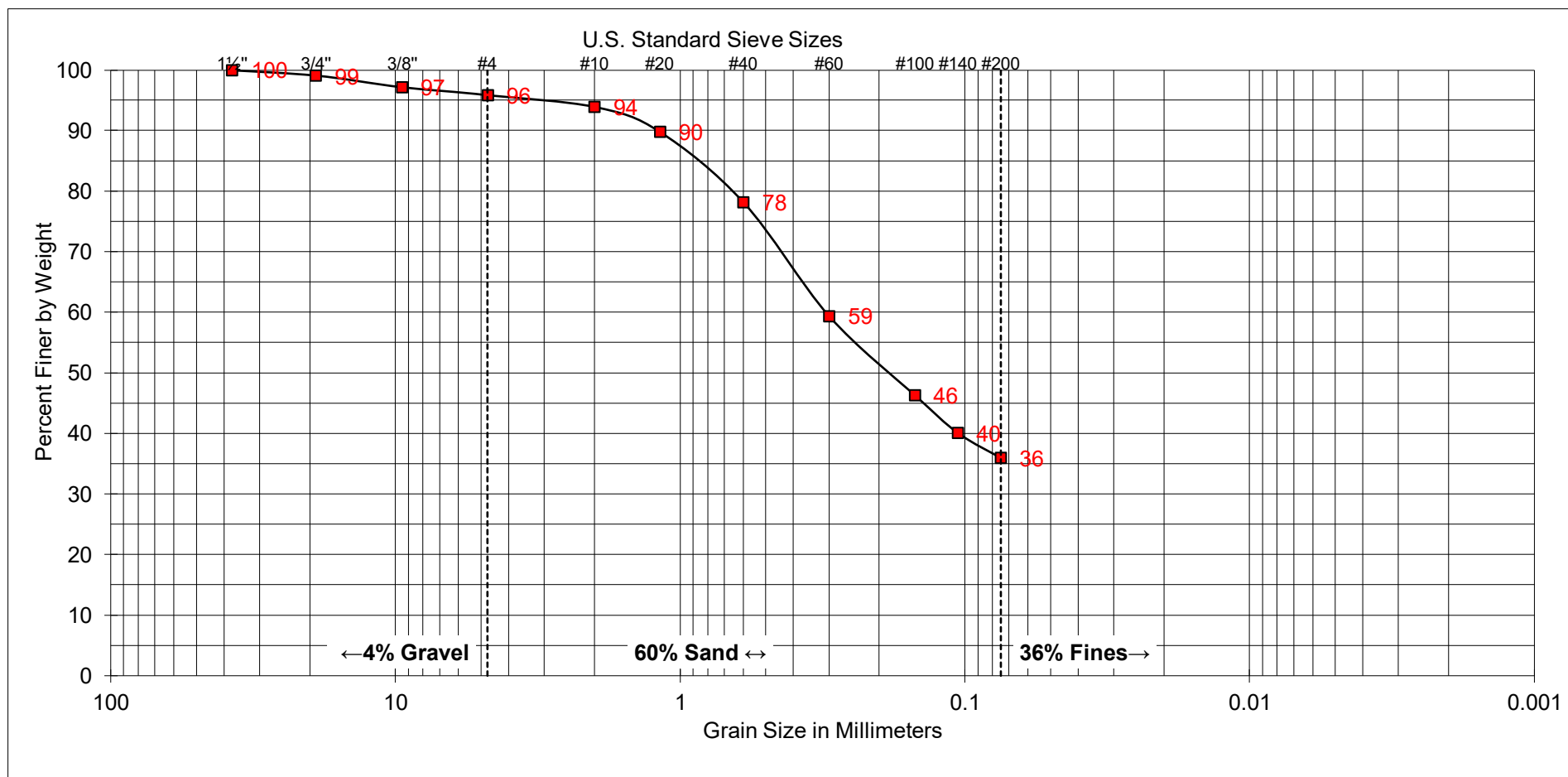
**GROUP DELTA**

**SOIL CLASSIFICATION**

Document No. 22-0116

Project No. SD754A

**FIGURE B-1.8**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
EXPLORATION ID:	B-25
SAMPLE DEPTH:	0' - 5'

UNIFIED SOIL CLASSIFICATION:	SM
DESCRIPTION:	SILTY SAND

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



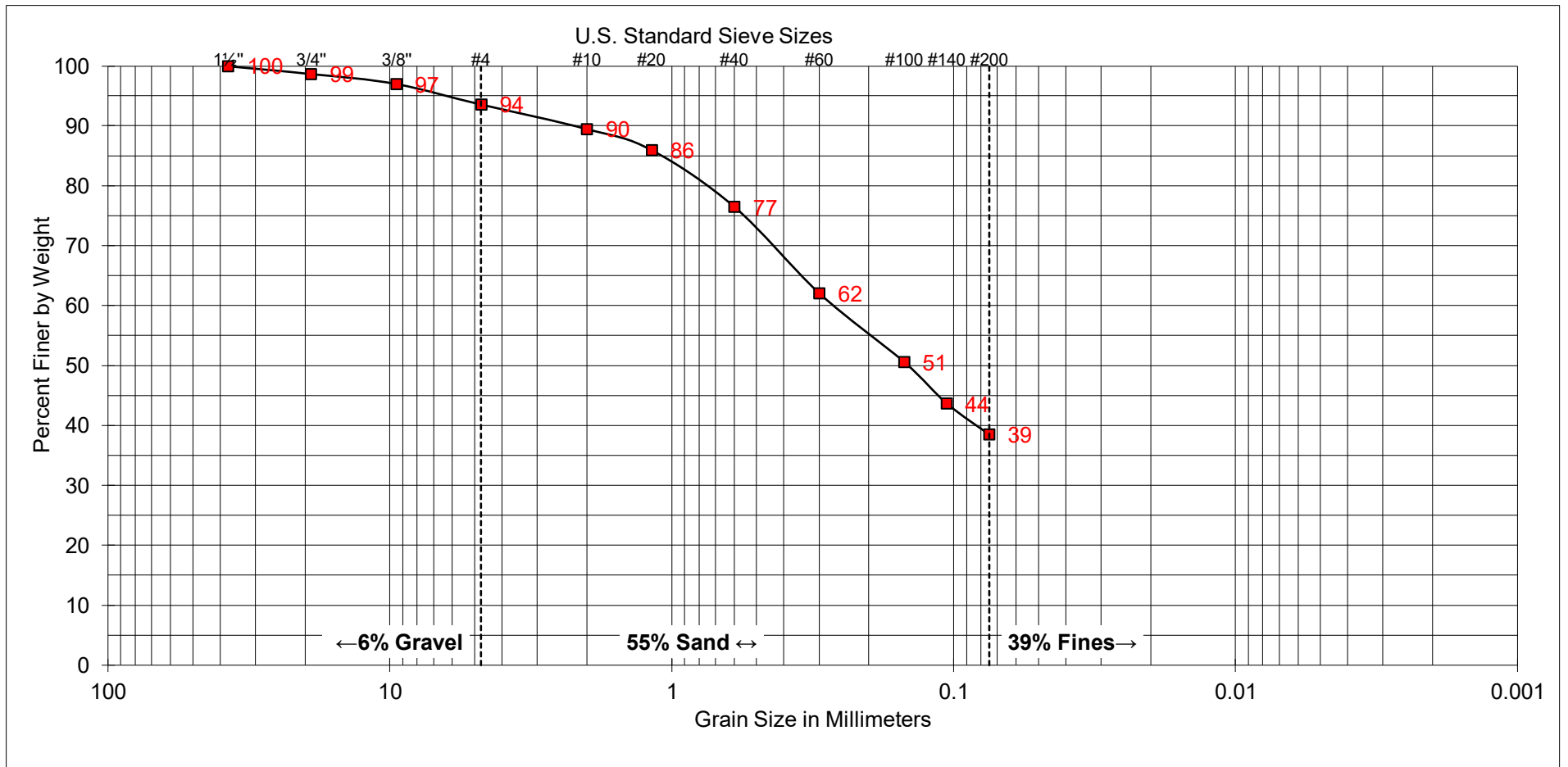
**GROUP DELTA**

## SOIL CLASSIFICATION

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Project No. SD754A

**FIGURE B-1.9**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
EXPLORATION ID:	B-26
SAMPLE DEPTH:	0' - 5'

UNIFIED SOIL CLASSIFICATION:	SC
DESCRIPTION:	CLAYEY SAND

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



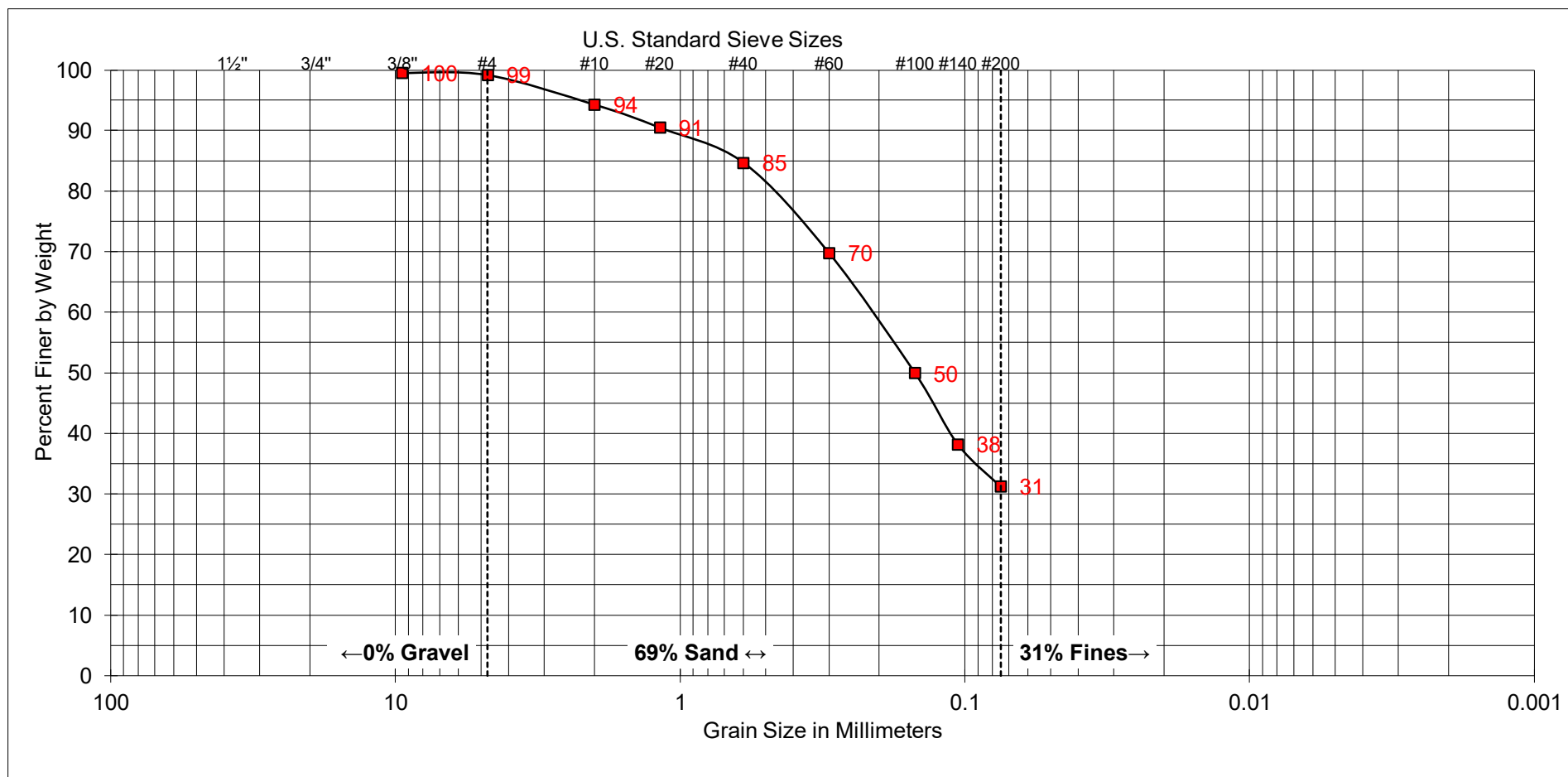
**GROUP DELTA**

**SOIL CLASSIFICATION**

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Project No. SD754A

**FIGURE B-1.10**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
EXPLORATION ID:	B-30
SAMPLE DEPTH:	0' - 5'

UNIFIED SOIL CLASSIFICATION:	SM
DESCRIPTION:	SILTY SAND

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



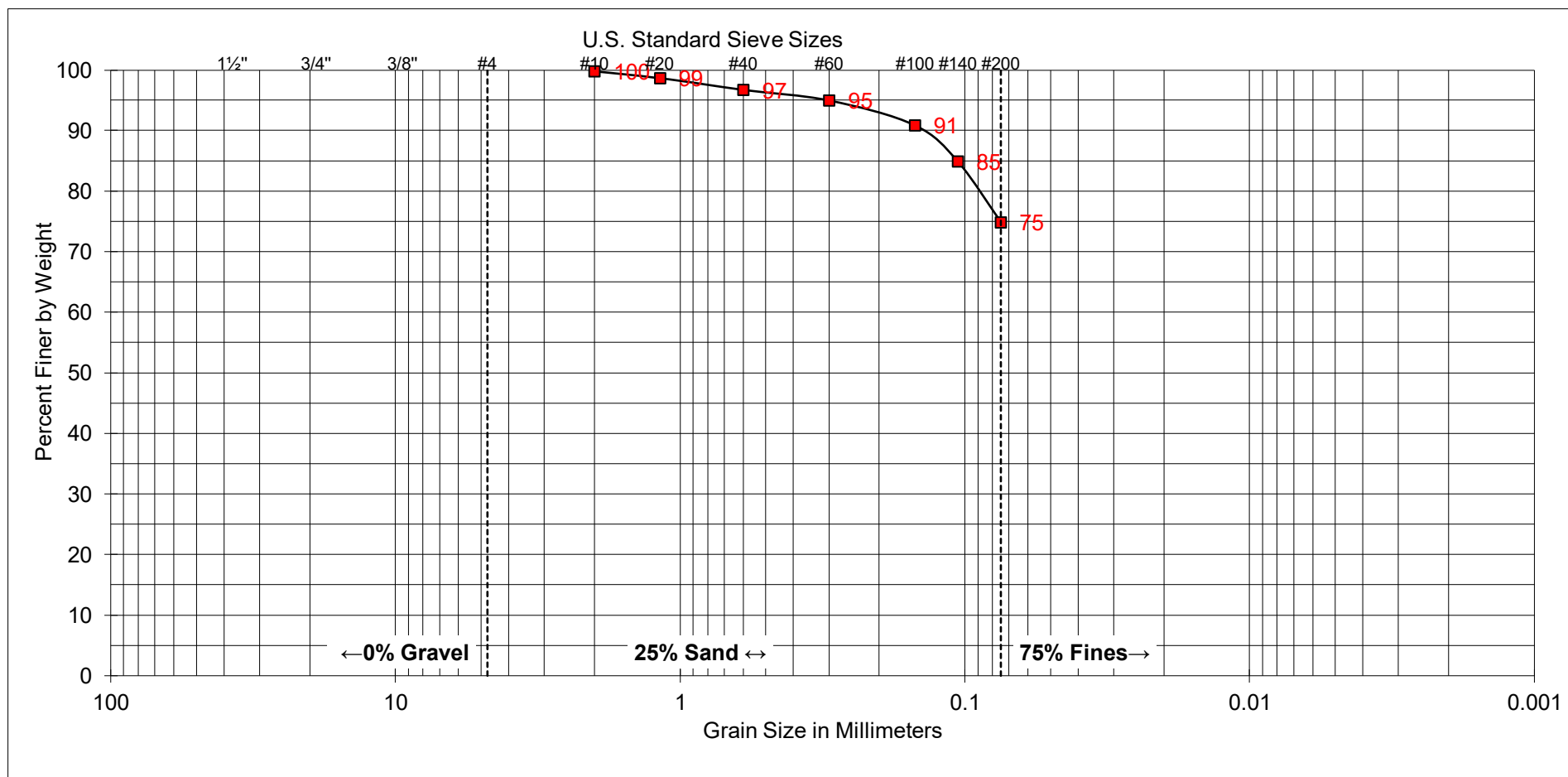
**GROUP DELTA**

**SOIL CLASSIFICATION**

Document No. 22-0116

Project No. SD754A

**FIGURE B-1.11**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
EXPLORATION ID:	B-32
SAMPLE DEPTH:	15' - 16½'

UNIFIED SOIL CLASSIFICATION:	ML
DESCRIPTION:	SILT WITH SAND

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



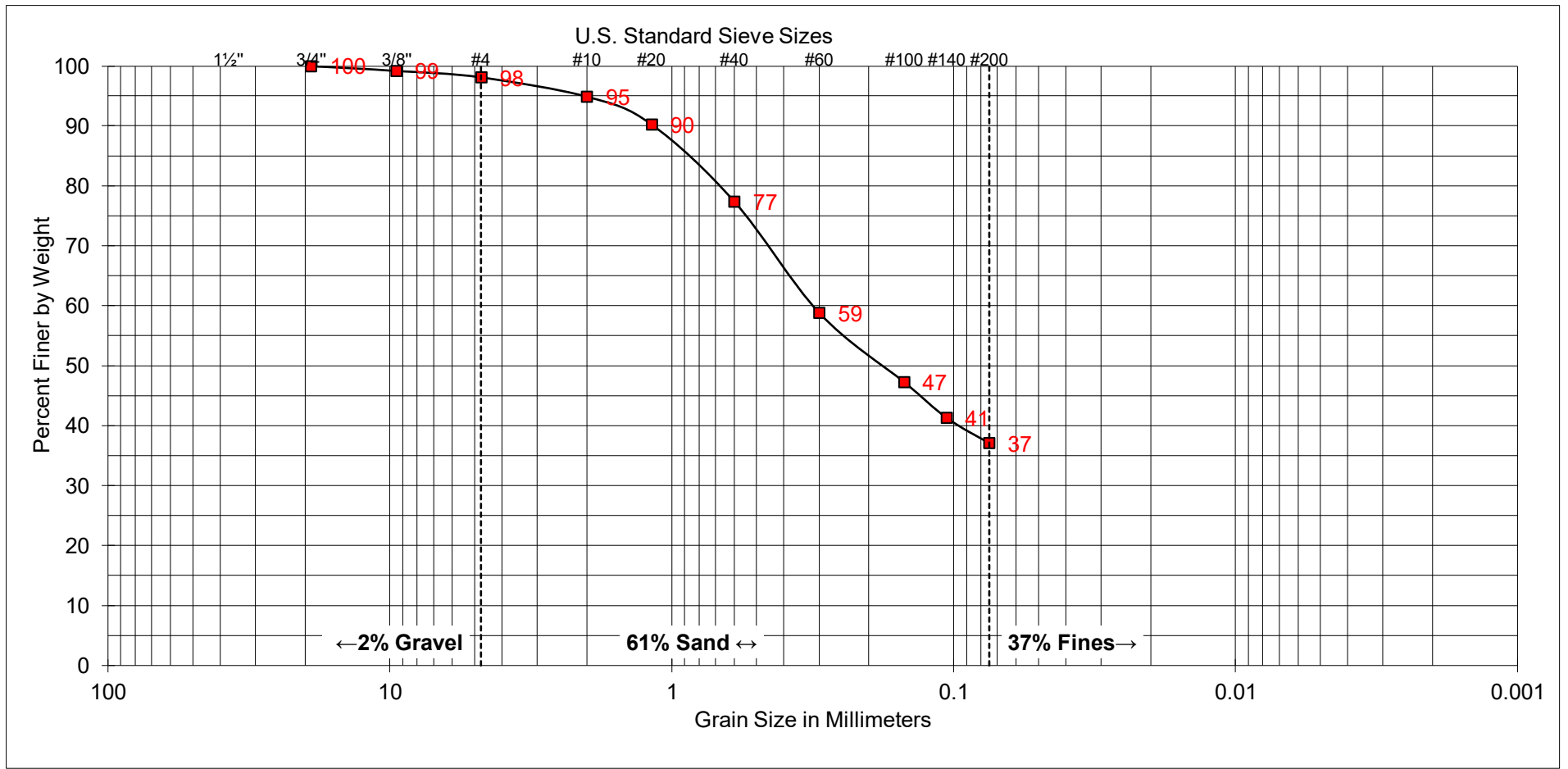
**GROUP DELTA**

**SOIL CLASSIFICATION**

Document No. 22-0116

Project No. SD754A

**FIGURE B-1.12**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
EXPLORATION ID:	B-33
SAMPLE DEPTH:	1' - 5'

<b>UNIFIED SOIL CLASSIFICATION:</b>	SC
<b>DESCRIPTION:</b>	CLAYEY SAND

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



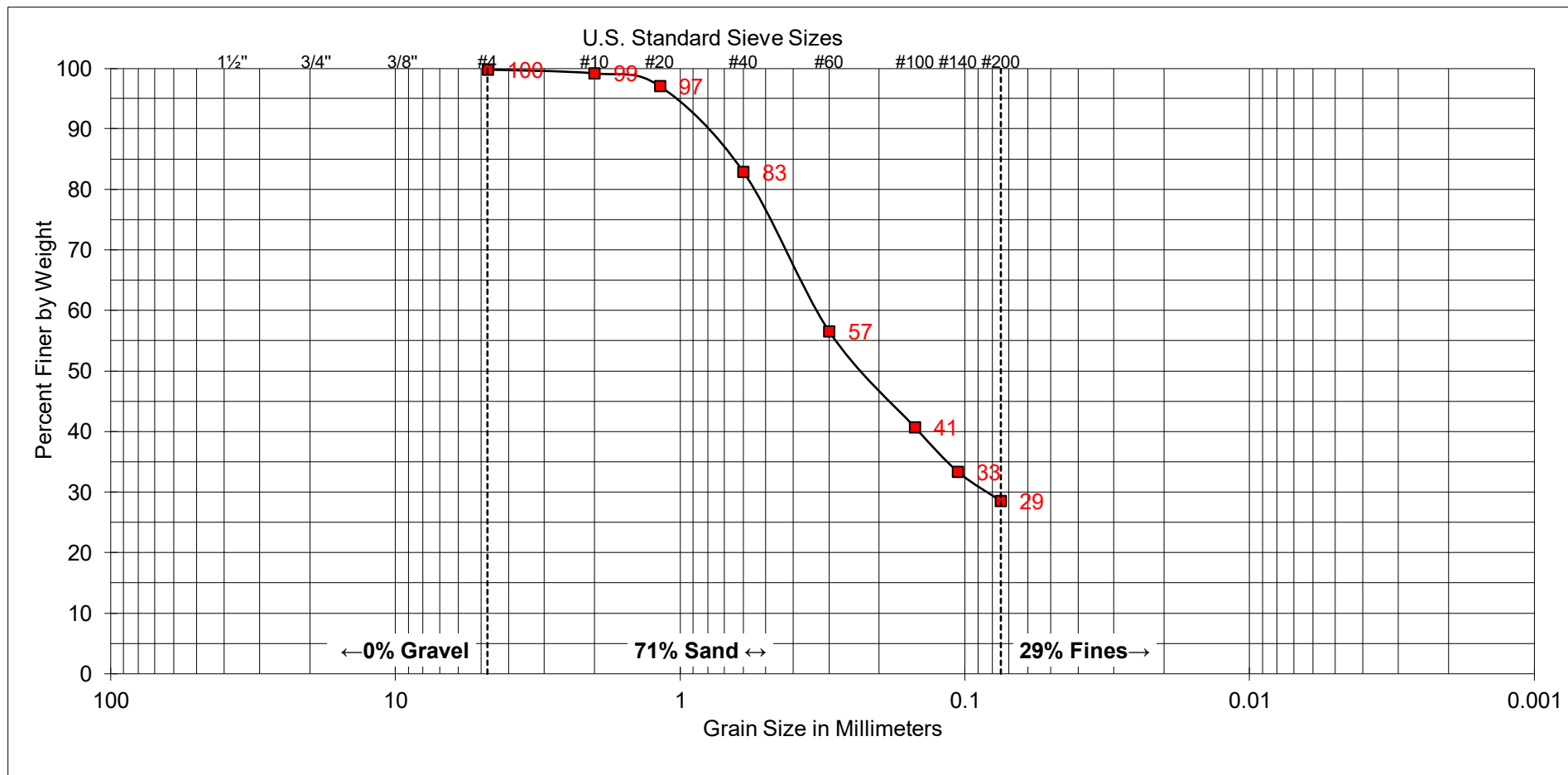
**GROUP DELTA**

## SOIL CLASSIFICATION

Document No. 22-0116

Project No. SD754A

**FIGURE B-1.13**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
EXPLORATION ID:	B-33
SAMPLE DEPTH:	30' - 31½'

UNIFIED SOIL CLASSIFICATION:	SC
DESCRIPTION:	CLAYEY SAND

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



**GROUP DELTA**

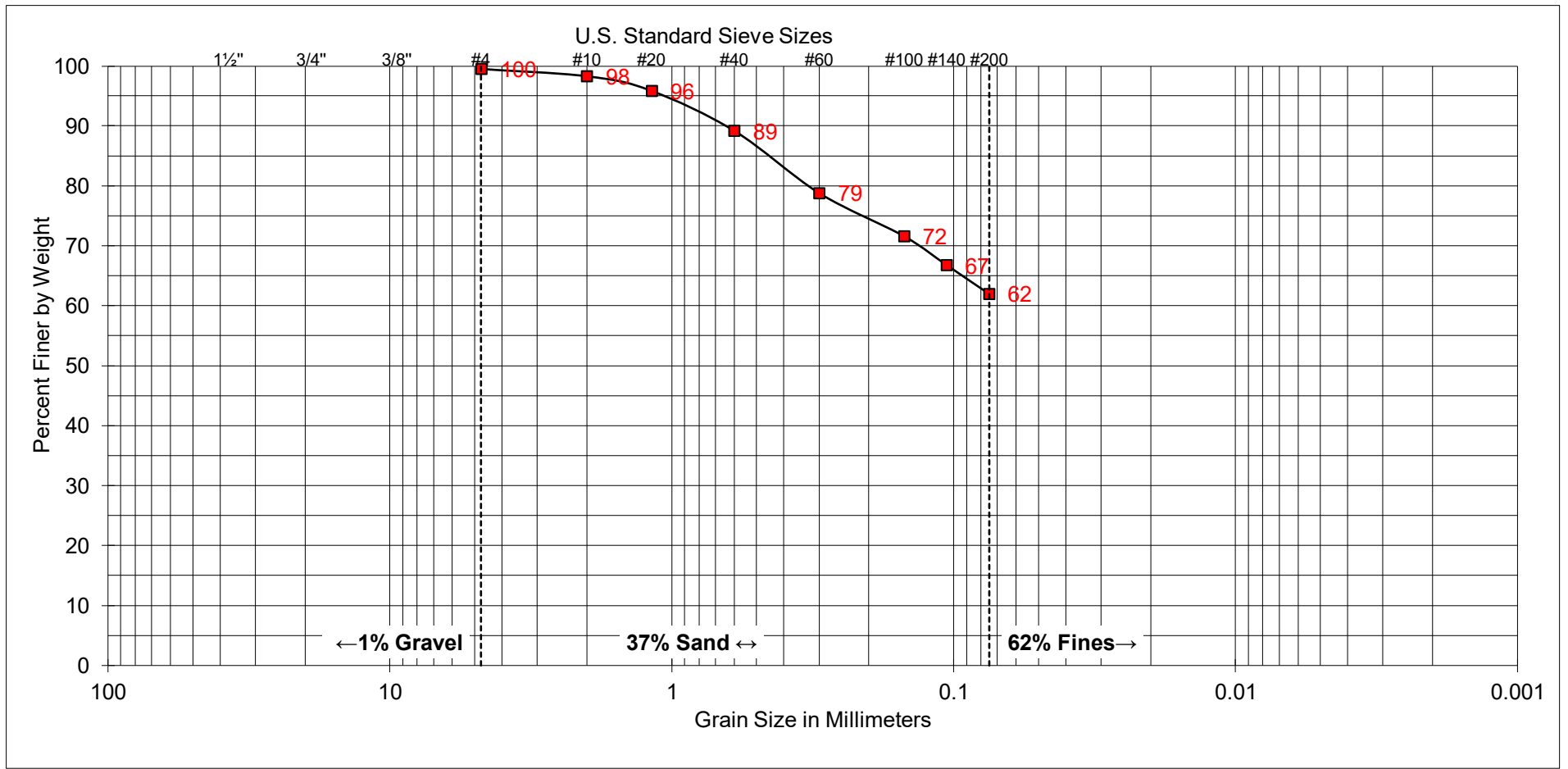
**SOIL CLASSIFICATION**

Document No. 22-0116

Project No. SD754A

**FIGURE B-1.14**





COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
EXPLORATION ID:	B-35
SAMPLE DEPTH:	1' - 5'

UNIFIED SOIL CLASSIFICATION:	CL
DESCRIPTION:	SANDY LEAN CLAY

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



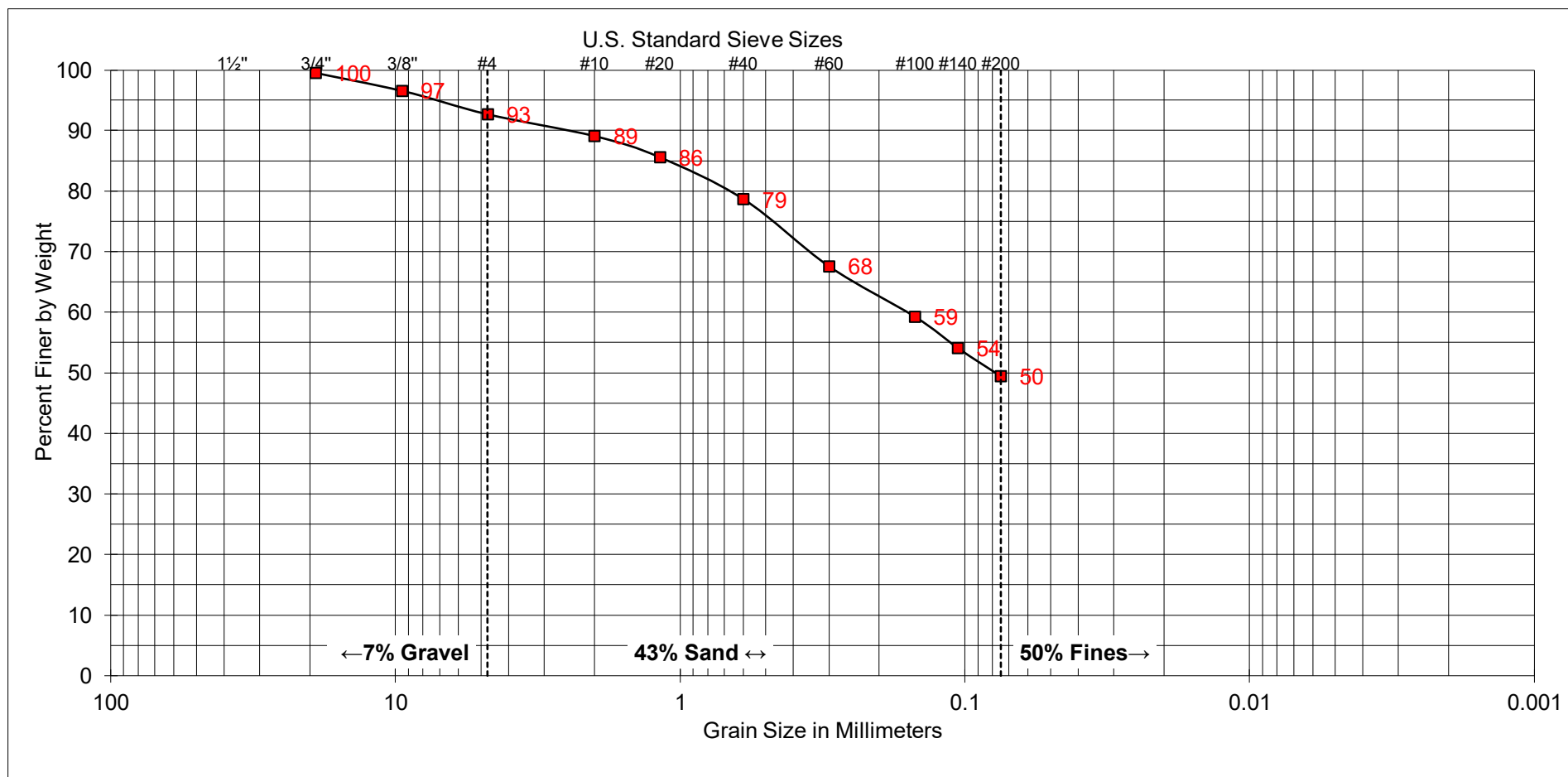
**GROUP DELTA**

**SOIL CLASSIFICATION**

Document No. 22-0116

Project No. SD754A

**FIGURE B-1.15**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
EXPLORATION ID:	B-39
SAMPLE DEPTH:	1' - 5'

UNIFIED SOIL CLASSIFICATION:	SC
DESCRIPTION:	CLAYEY SAND

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



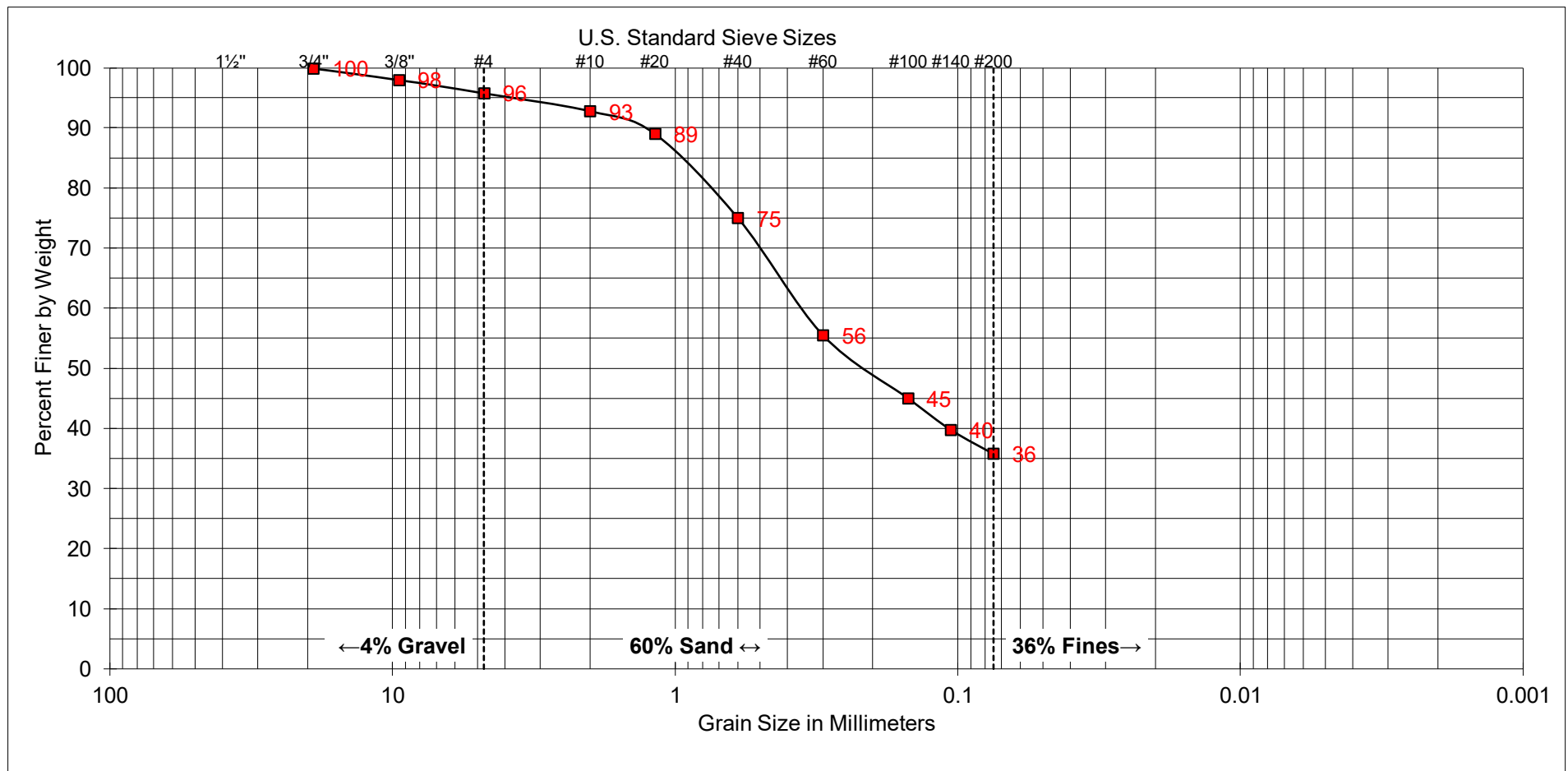
**GROUP DELTA**

**SOIL CLASSIFICATION**

Document No. 22-0116

Project No. SD754A

**FIGURE B-1.16**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
EXPLORATION ID:	B-42
SAMPLE DEPTH:	1' - 5'

<b>UNIFIED SOIL CLASSIFICATION:</b>	SM
<b>DESCRIPTION:</b>	SILTY SAND

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



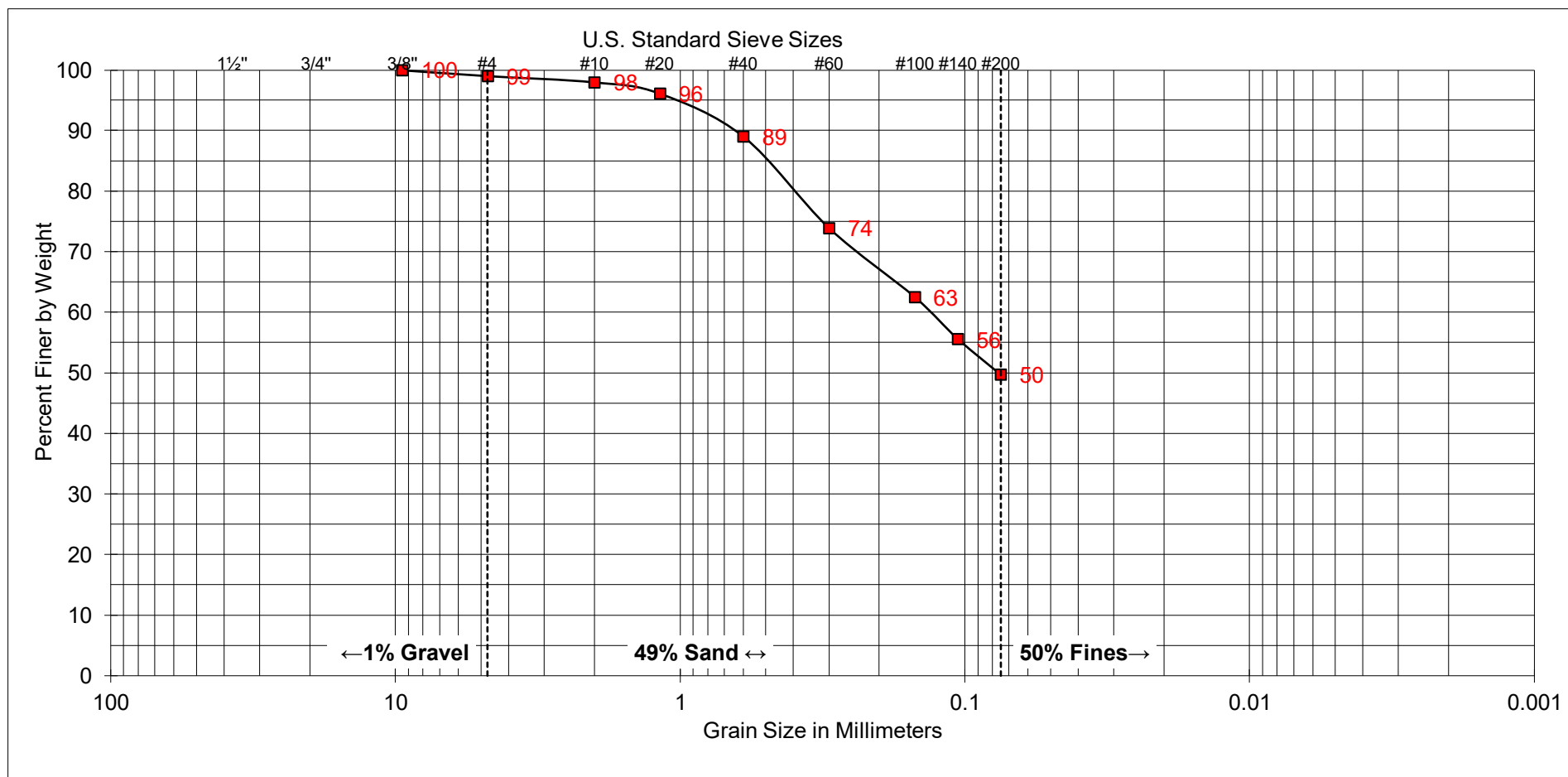
**GROUP DELTA**

**SOIL CLASSIFICATION**

Document No. 22-0116

Project No. SD754A

**FIGURE B-1.17**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
EXPLORATION ID:	B-42
SAMPLE DEPTH:	35' - 36½'

UNIFIED SOIL CLASSIFICATION:	SC
DESCRIPTION:	CLAYEY SAND

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



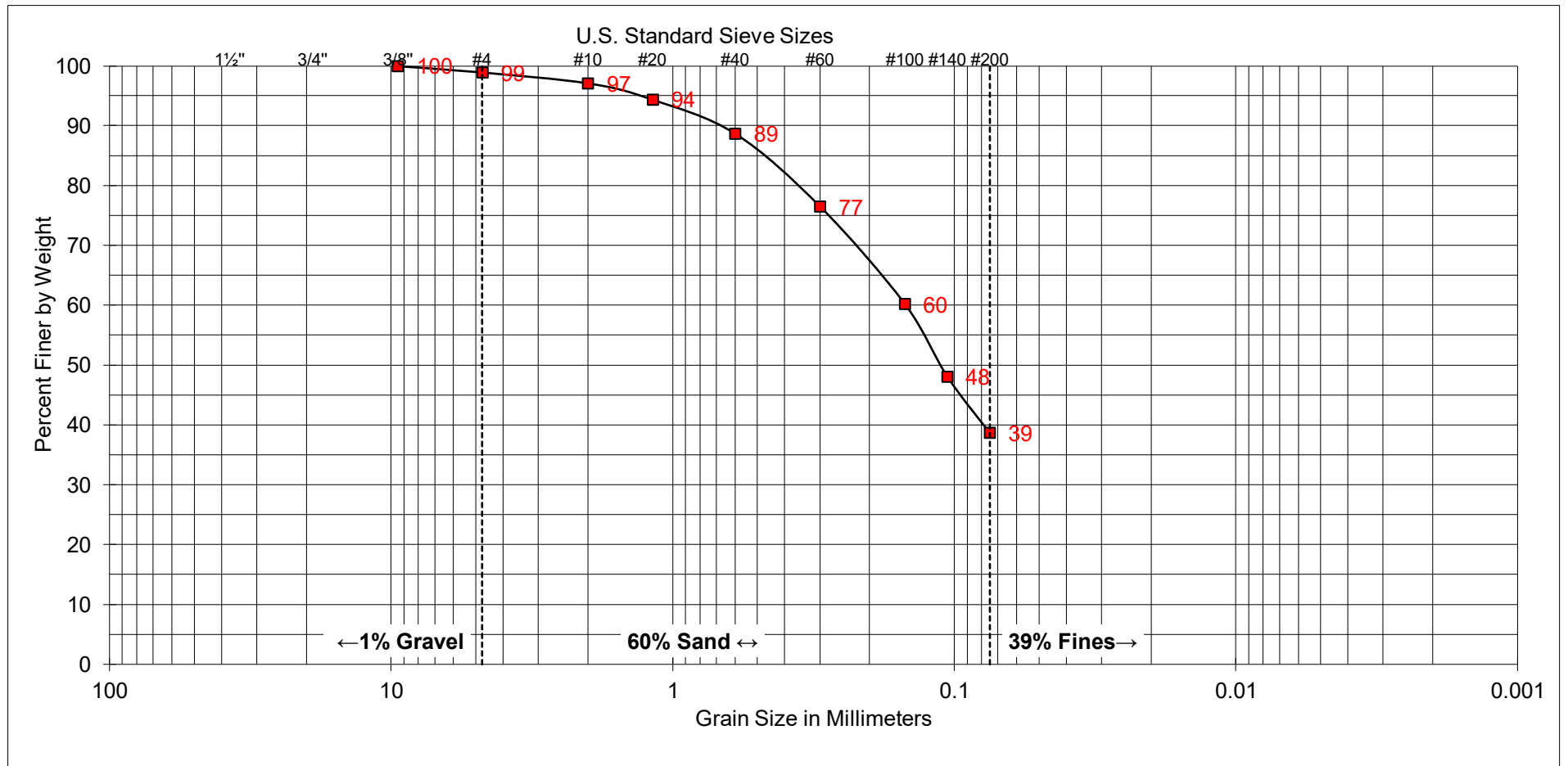
**GROUP DELTA**

**SOIL CLASSIFICATION**

Document No. 22-0116

Project No. SD754A

**FIGURE B-1.18**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
EXPLORATION ID:	B-43
SAMPLE DEPTH:	30' - 31½'

<b>UNIFIED SOIL CLASSIFICATION:</b>	SM
<b>DESCRIPTION:</b>	SILTY SAND

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



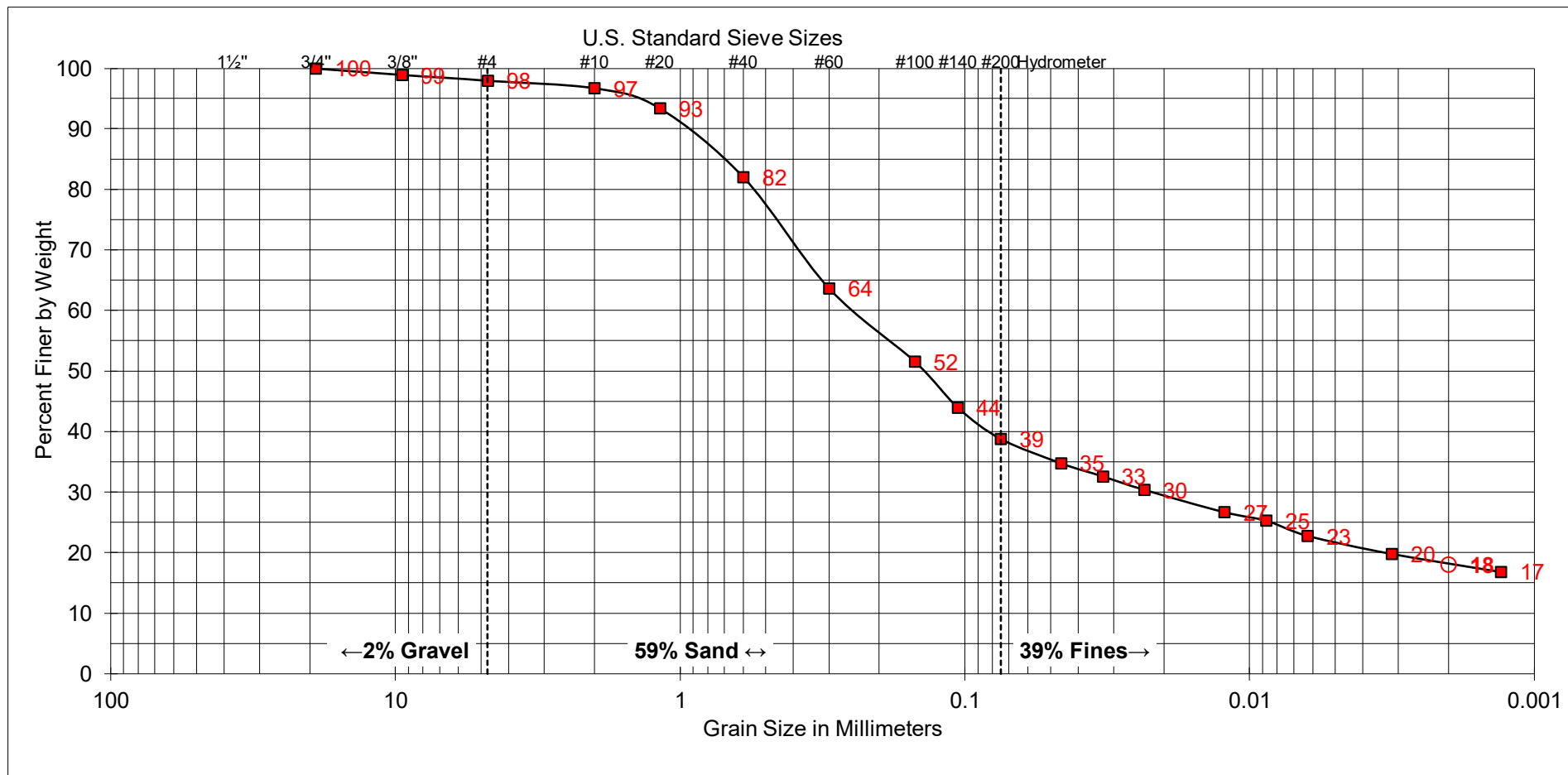
**GROUP DELTA**

## SOIL CLASSIFICATION

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**FIGURE B-1.19**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
EXPLORATION ID:	B-45
SAMPLE DEPTH:	1' - 5'

<b>UNIFIED SOIL CLASSIFICATION:</b>	SC
<b>DESCRIPTION:</b>	CLAYEY SAND

ATTERBERG LIMITS	
LIQUID LIMIT:	17
PLASTIC LIMIT:	13
PLASTICITY INDEX:	4



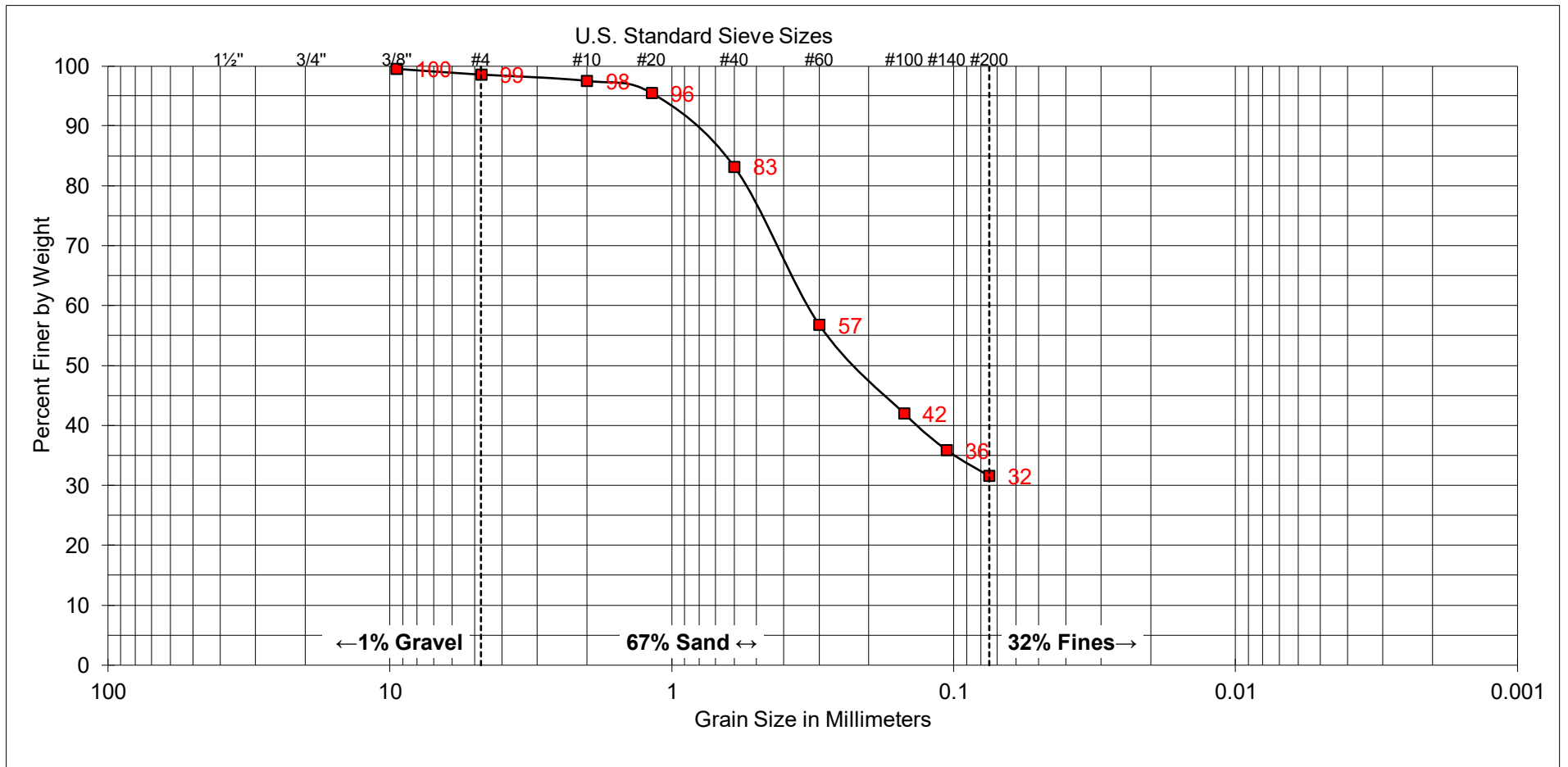
**GROUP DELTA**

**SOIL CLASSIFICATION**

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Project No. SD754A

**FIGURE B-1.20**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
EXPLORATION ID:	B-48
SAMPLE DEPTH:	1' - 4'

UNIFIED SOIL CLASSIFICATION:	SM
DESCRIPTION:	SILTY SAND

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



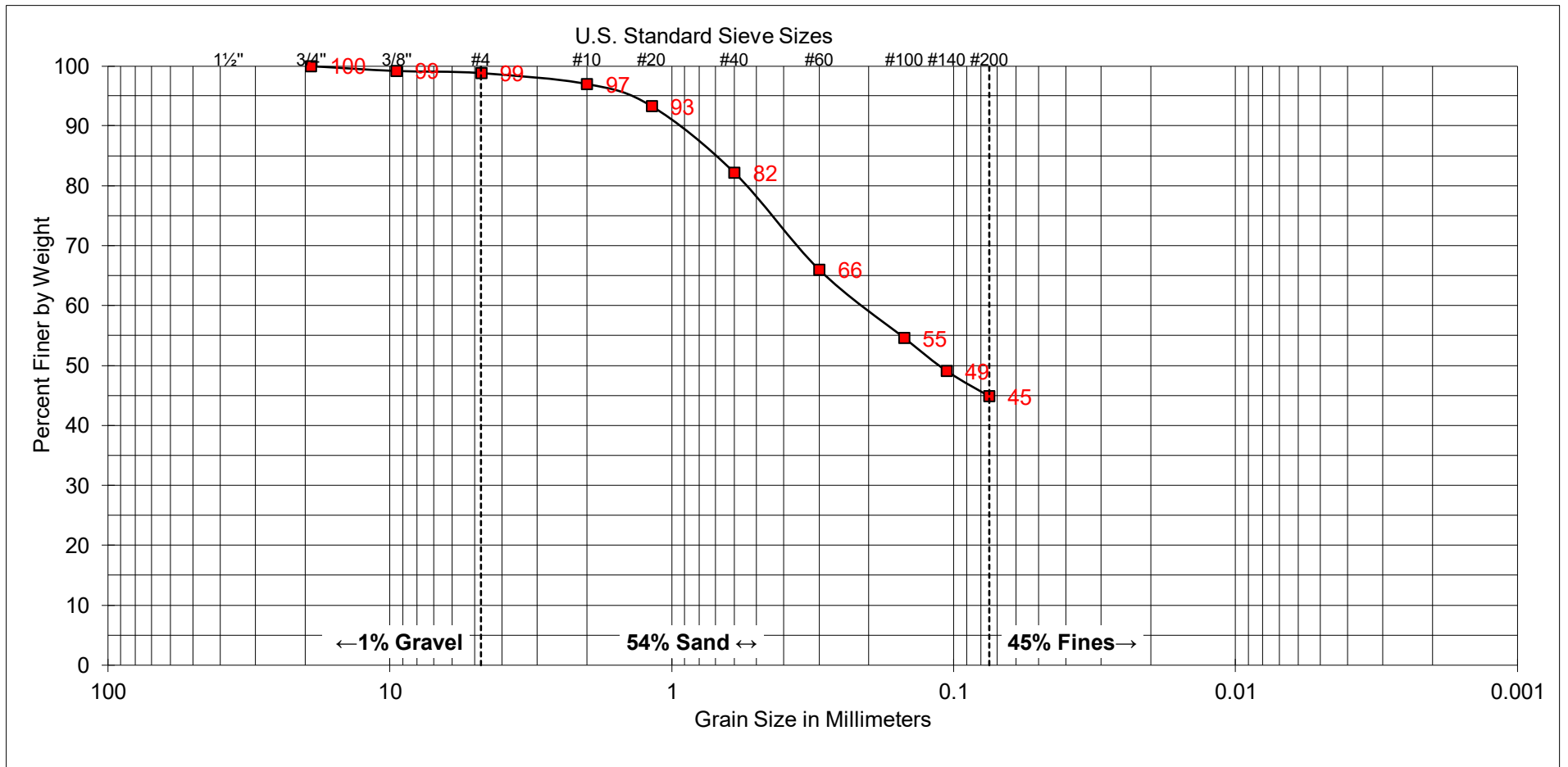
**GROUP DELTA**

**SOIL CLASSIFICATION**

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Project No. SD754A

**FIGURE B-1.21**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
EXPLORATION ID:	B-50
SAMPLE DEPTH:	1' - 5'

<b>UNIFIED SOIL CLASSIFICATION:</b>	SM
<b>DESCRIPTION:</b>	SILTY SAND

ATTERBERG LIMITS	
LIQUID LIMIT:	---
PLASTIC LIMIT:	---
PLASTICITY INDEX:	---



**GROUP DELTA**

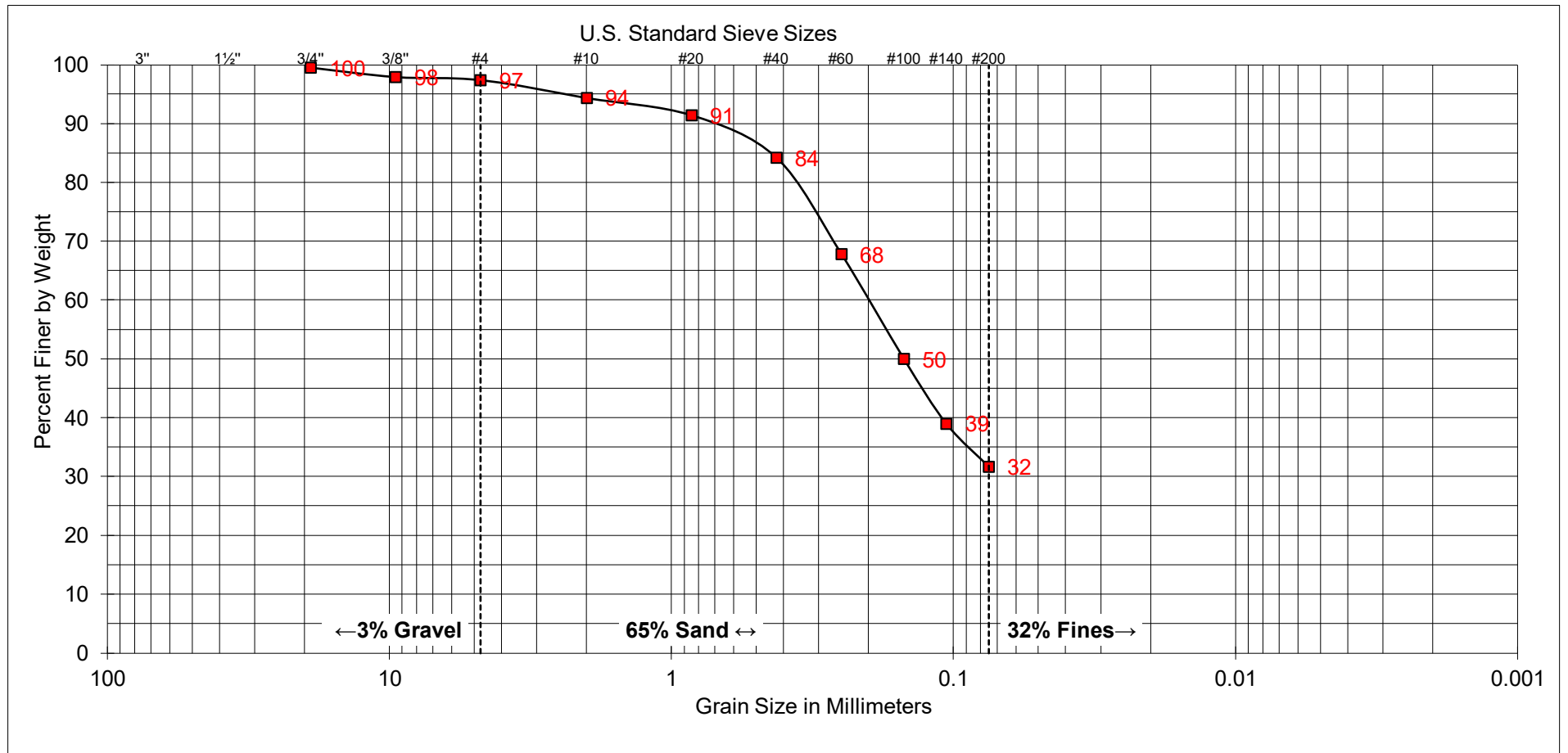
**SOIL CLASSIFICATION**

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Project No. SD754A

**FIGURE B-1.22**





COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
BORING NO:	A-22-01
SAMPLE DEPTH:	1' - 5'

UNIFIED SOIL CLASSIFICATION:	SM
DESCRIPTION:	SILTY SAND

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



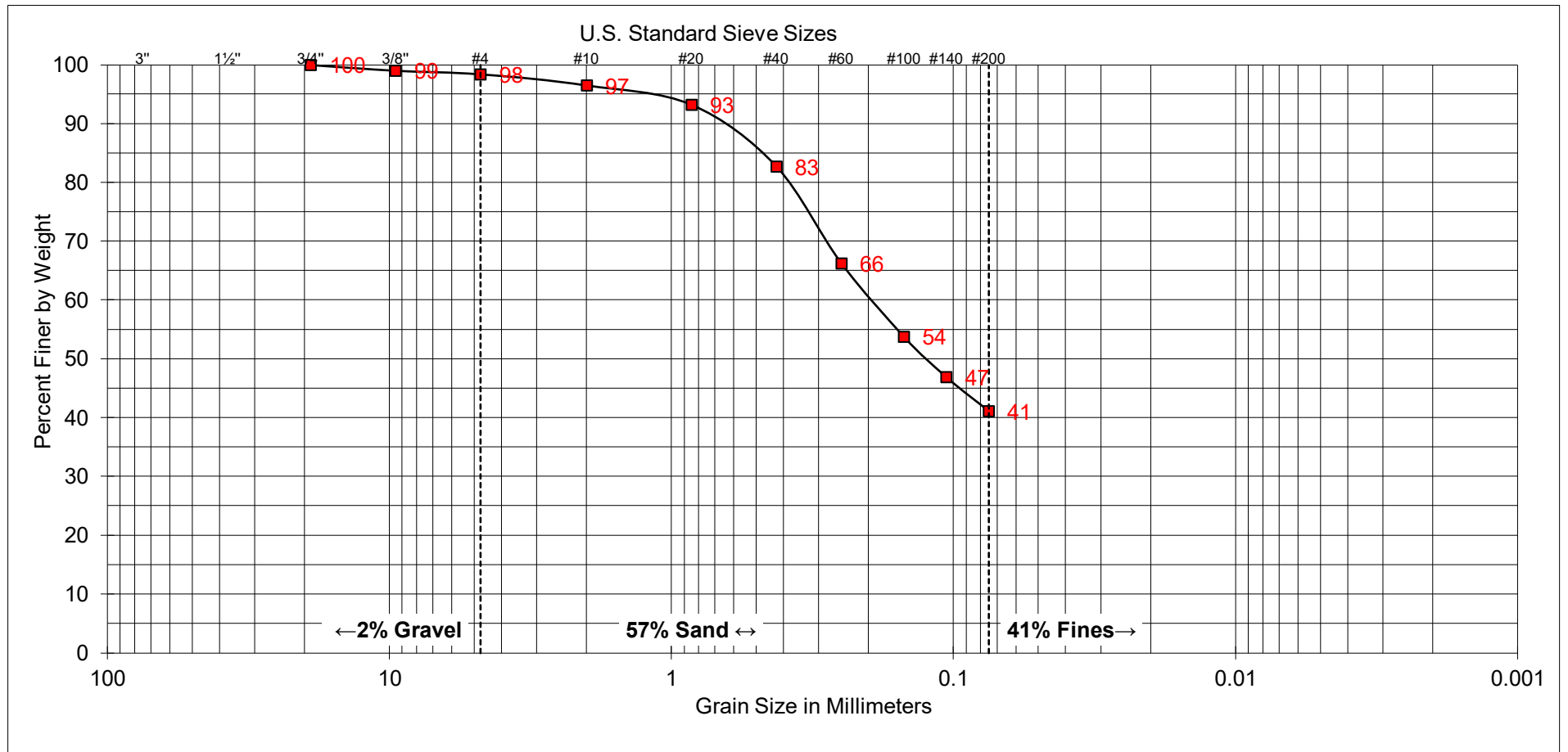
**GROUP DELTA**

**SOIL CLASSIFICATION**

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Project No. SD754

**FIGURE B-1.23**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
BORING NO:	A-22-02
SAMPLE DEPTH:	1' - 5'

UNIFIED SOIL CLASSIFICATION:	SC
DESCRIPTION:	CLAYEY SAND

ATTERBERG LIMITS
LIQUID LIMIT: 27
PLASTIC LIMIT: 12
PLASTICITY INDEX: 15



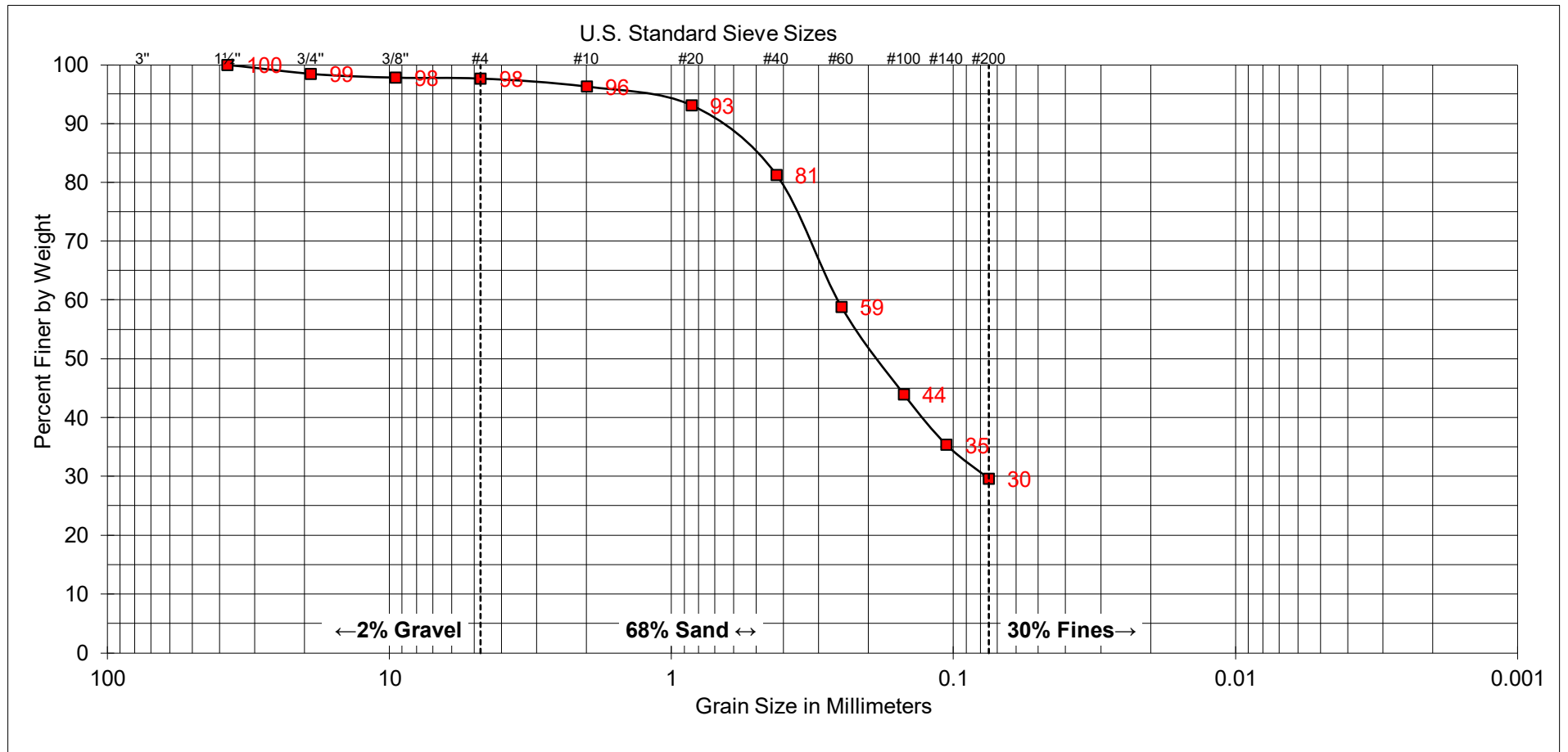
**GROUP DELTA**

**SOIL CLASSIFICATION**

Document No. 22-0116

Project No. SD754

**FIGURE B-1.24**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
BORING NO:	A-22-03
SAMPLE DEPTH:	1' - 5'

UNIFIED SOIL CLASSIFICATION:	SM
DESCRIPTION:	SILTY SAND

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



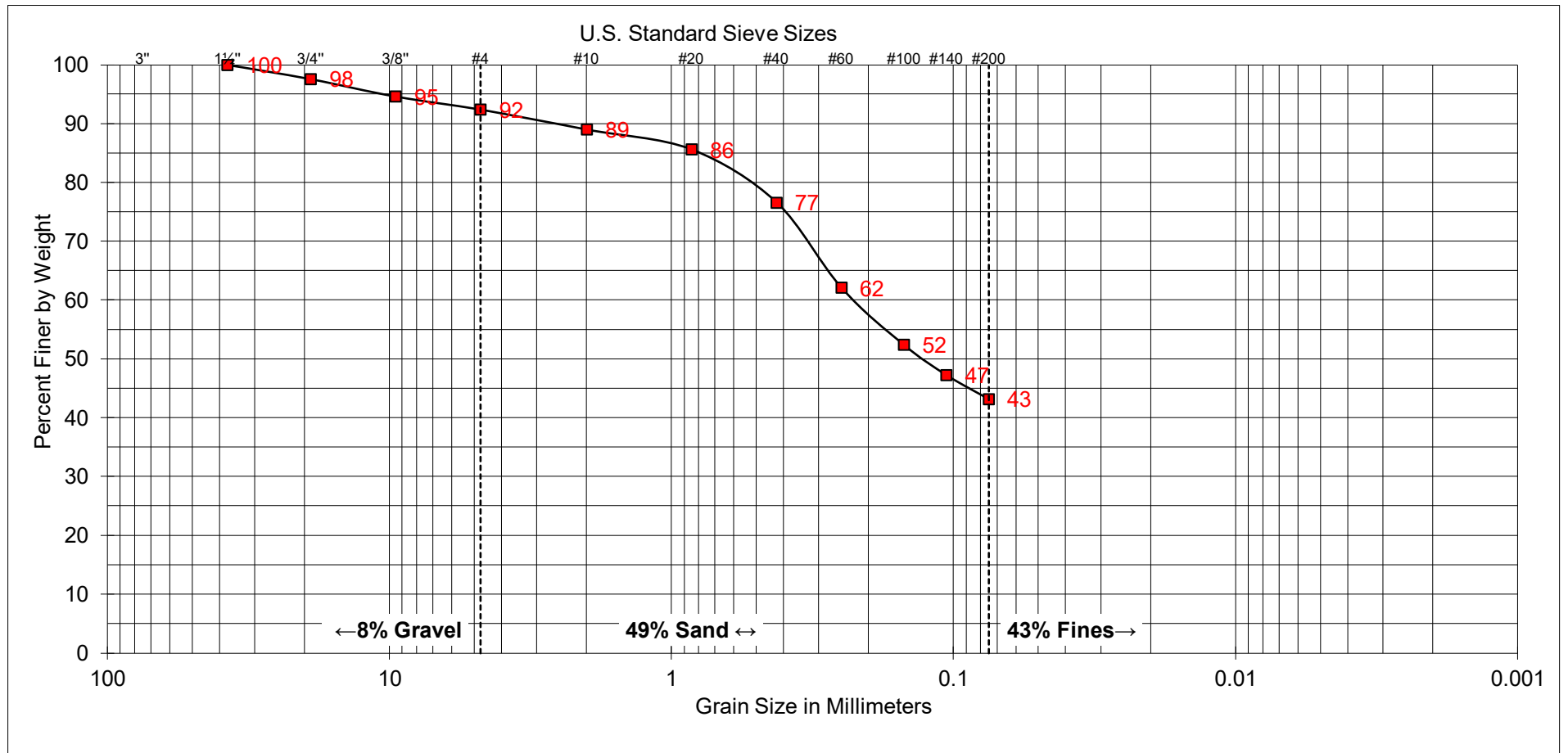
**GROUP DELTA**

**SOIL CLASSIFICATION**

Document No. 22-0116

Project No. SD754

**FIGURE B-1.25**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
BORING NO:	A-22-04
SAMPLE DEPTH:	1' - 5'

UNIFIED SOIL CLASSIFICATION:	SC
DESCRIPTION:	CLAYEY SAND

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



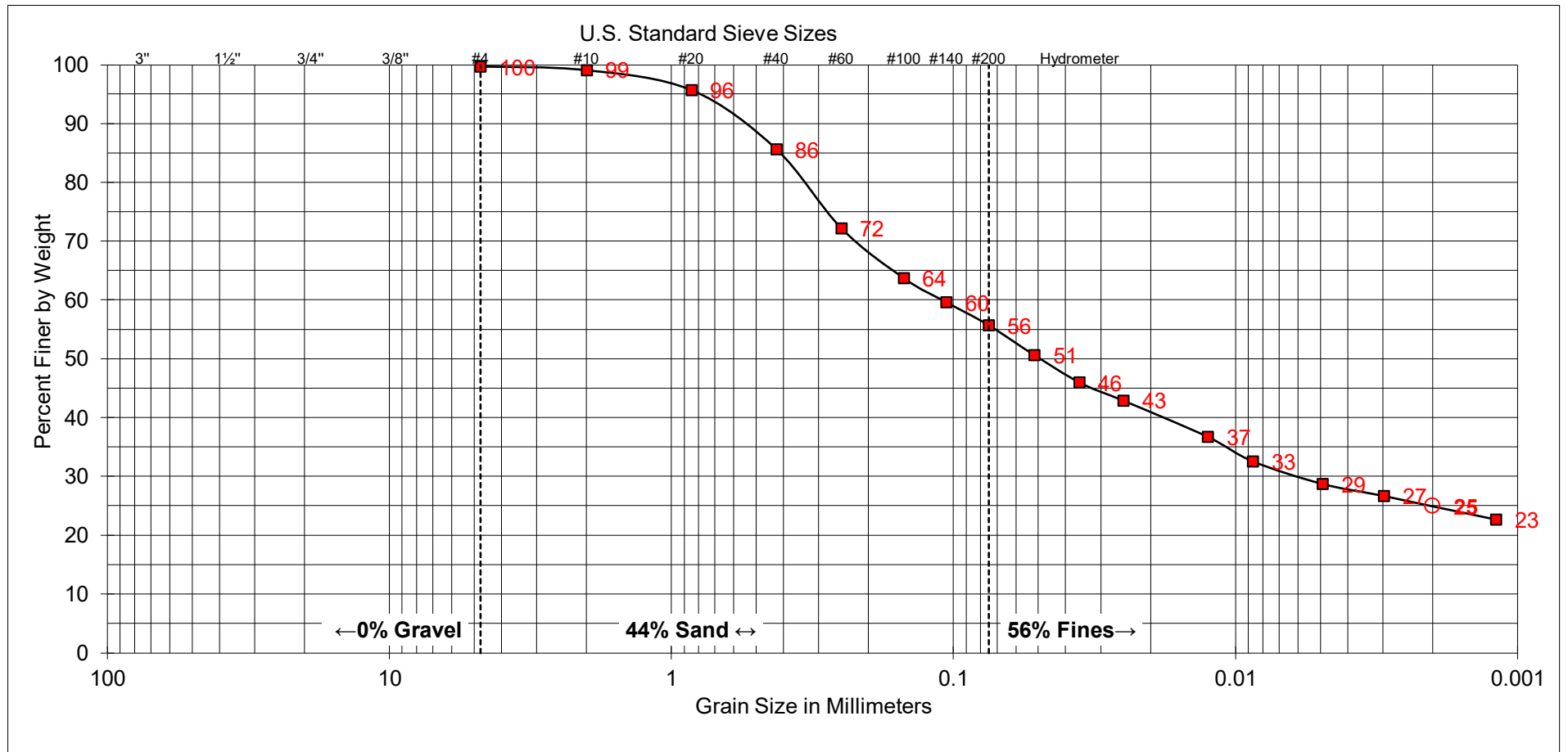
**GROUP DELTA**

**SOIL CLASSIFICATION**

Document No. 22-0116

Project No. SD754

**FIGURE B-1.26**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
BORING NO:	A-22-05
SAMPLE DEPTH:	25' - 26 1/2'

UNIFIED SOIL CLASSIFICATION:	CL
DESCRIPTION:	SANDY LEAN CLAY

ATTERBERG LIMITS
LIQUID LIMIT: 30
PLASTIC LIMIT: 13
PLASTICITY INDEX: 17



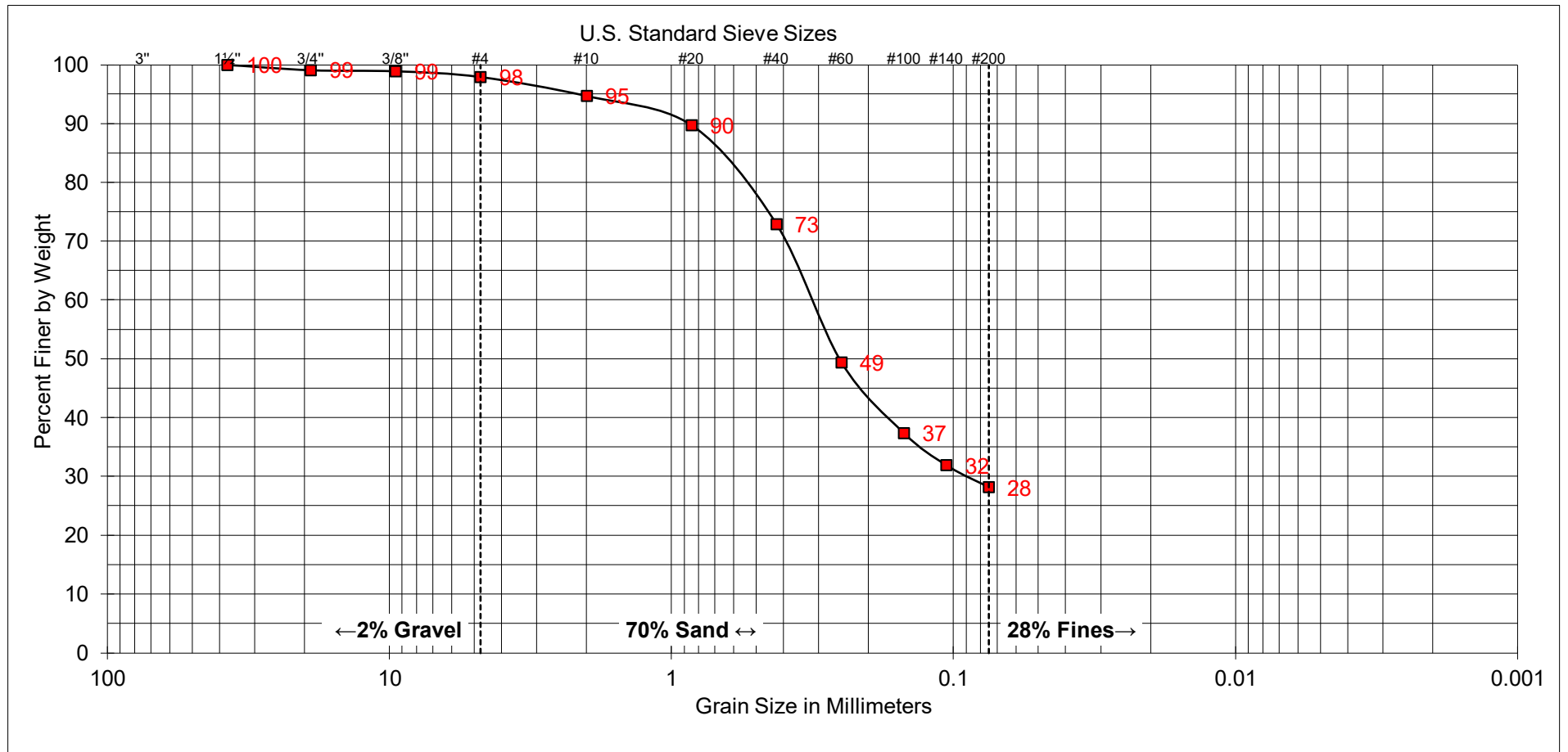
**GROUP DELTA**

**SOIL CLASSIFICATION**

Document No. 22-0116

Project No. SD754

**FIGURE B-1.27**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
BORING NO:	A-22-06
SAMPLE DEPTH:	1' - 5'

UNIFIED SOIL CLASSIFICATION:	SC
DESCRIPTION:	CLAYEY SAND

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



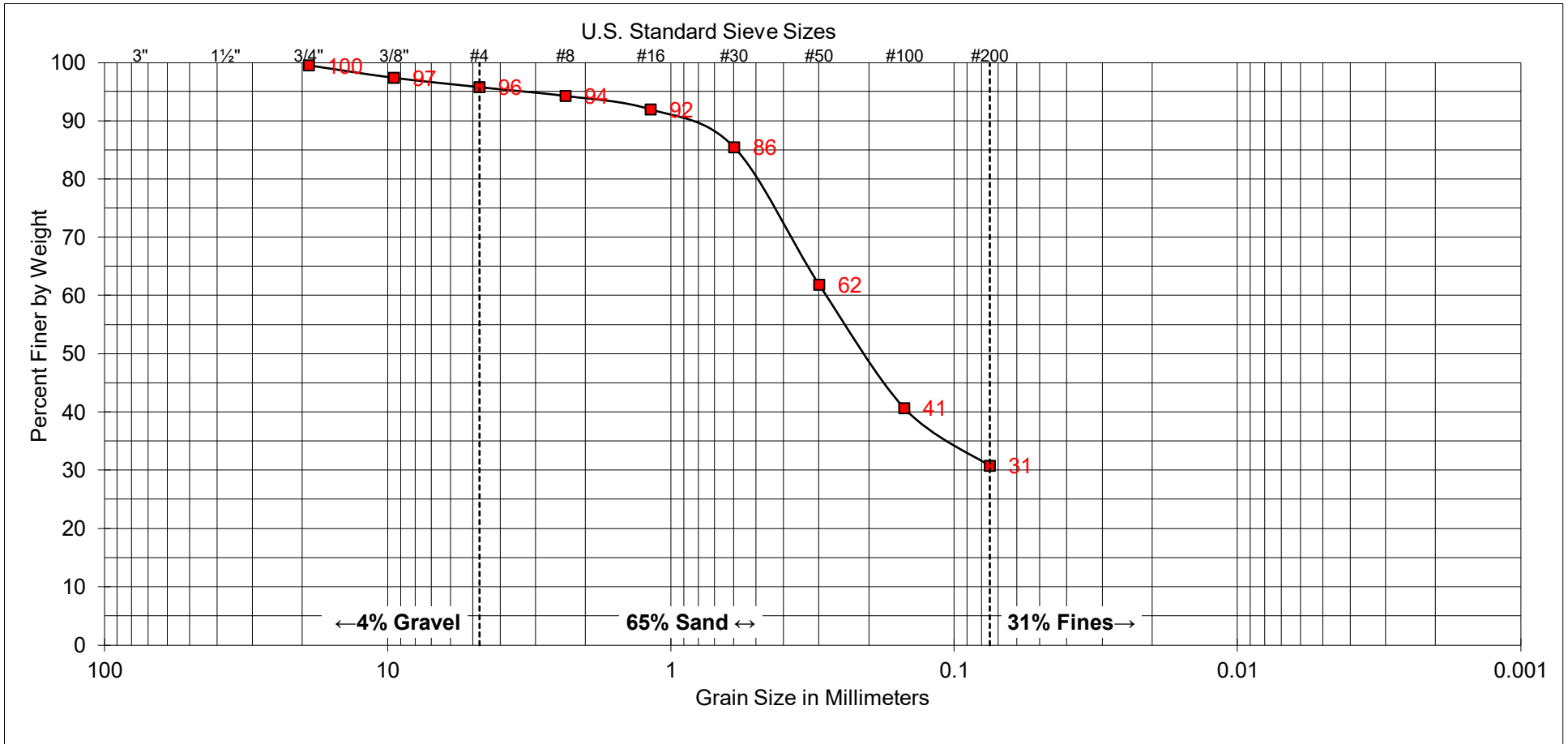
**GROUP DELTA**

**SOIL CLASSIFICATION**

Document No. 22-0116

Project No. SD754

**FIGURE B-1.28**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
BORING NO:	A-17-01
SAMPLE DEPTH:	½' - 5'

UNIFIED SOIL CLASSIFICATION: SC

DESCRIPTION: CLAYEY SAND

ATTERBERG LIMITS

LIQUID LIMIT: 24  
PLASTIC LIMIT: 15  
PLASTICITY INDEX: 9



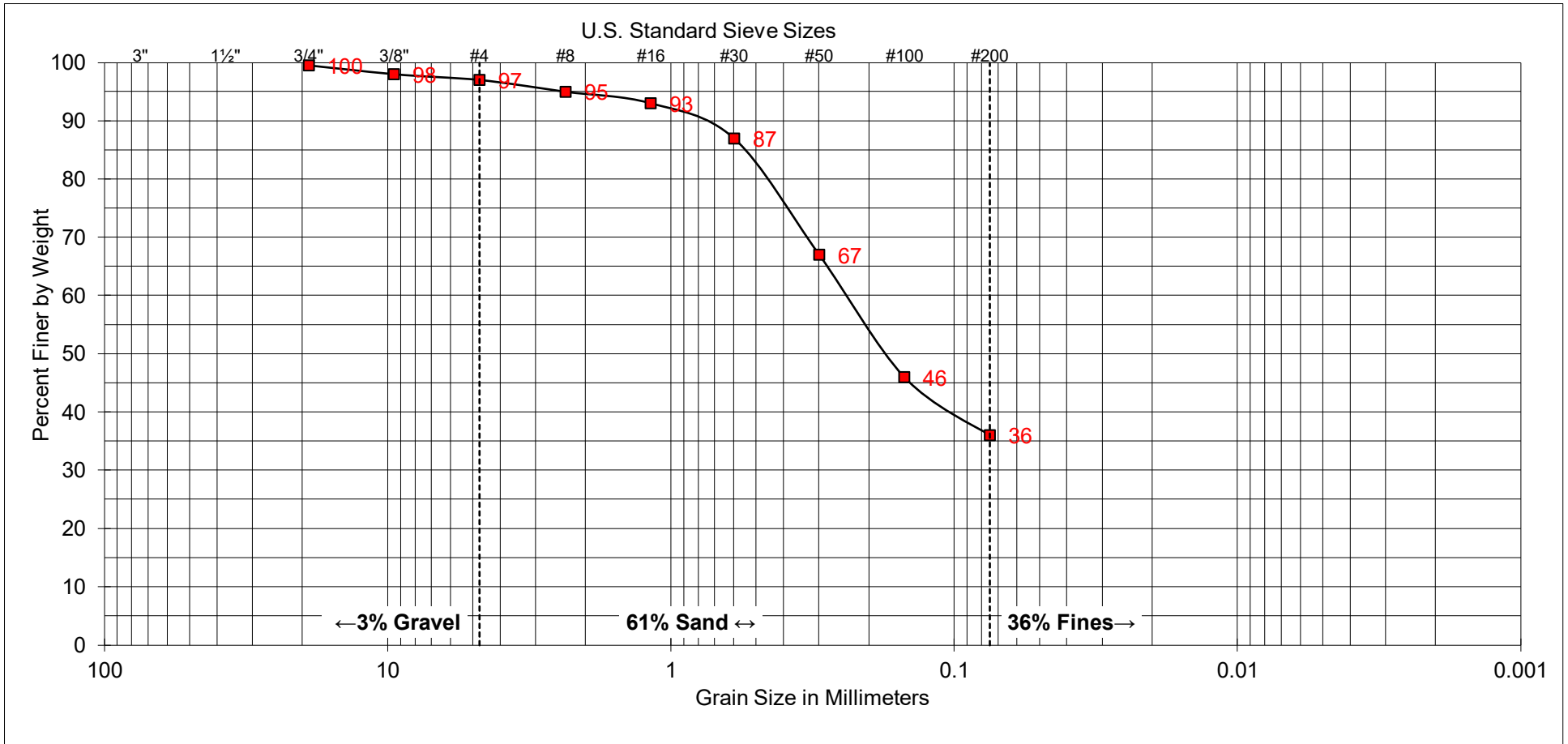
**GROUP DELTA**

**SOIL CLASSIFICATION**

Document No. 22-0116

Project No. SD754

**FIGURE B-1.29**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
BORING NO:	A-17-02
SAMPLE DEPTH:	½' - 5'

UNIFIED SOIL CLASSIFICATION:	SC
DESCRIPTION:	CLAYEY SAND

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



**GROUP DELTA**

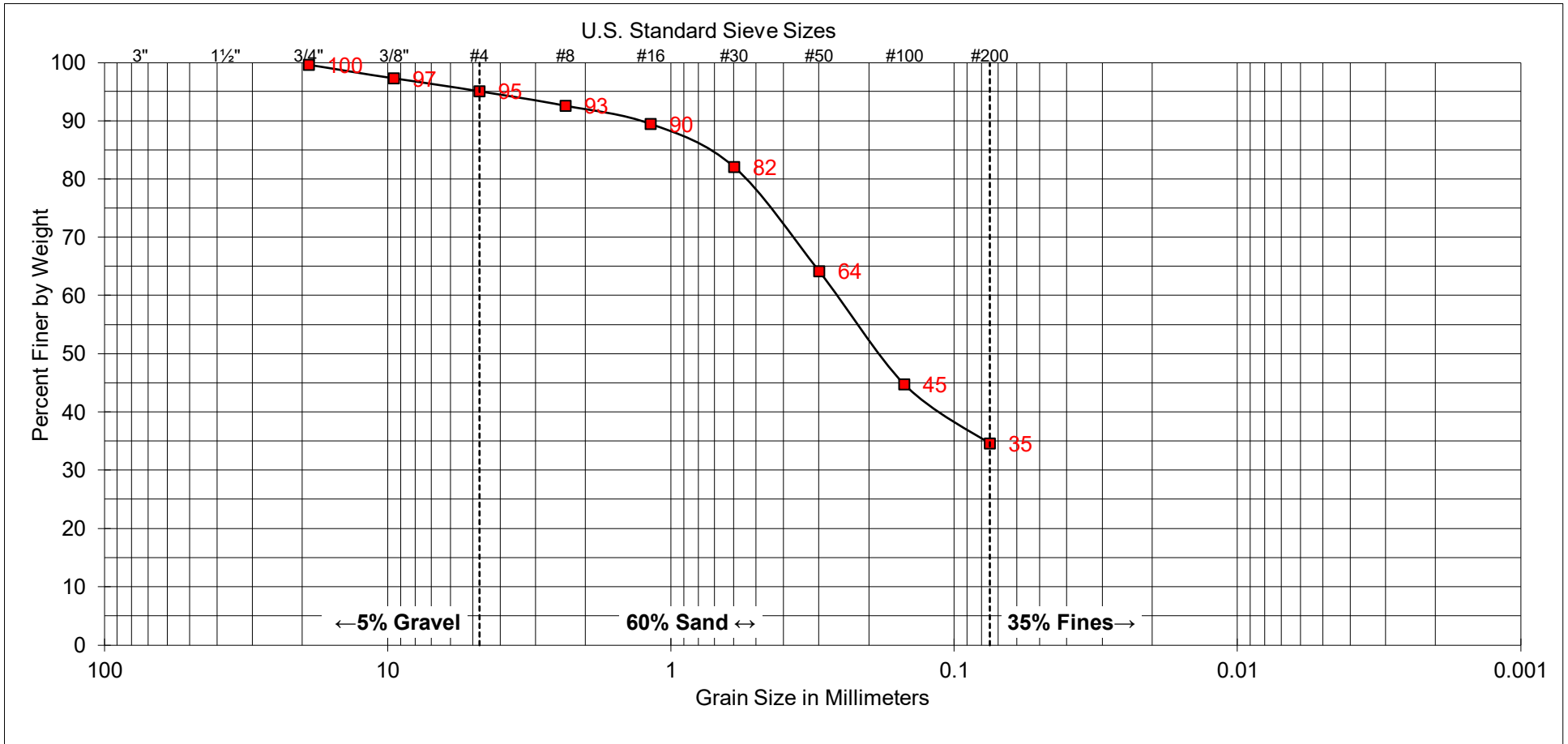
**SOIL CLASSIFICATION**

Document No. 22-0116

Project No. SD754

**FIGURE B-1.30**





COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
BORING NO:	A-17-03
SAMPLE DEPTH:	½' - 5'

UNIFIED SOIL CLASSIFICATION:	SC
DESCRIPTION:	CLAYEY SAND

ATTERBERG LIMITS
LIQUID LIMIT: 29
PLASTIC LIMIT: 12
PLASTICITY INDEX: 17



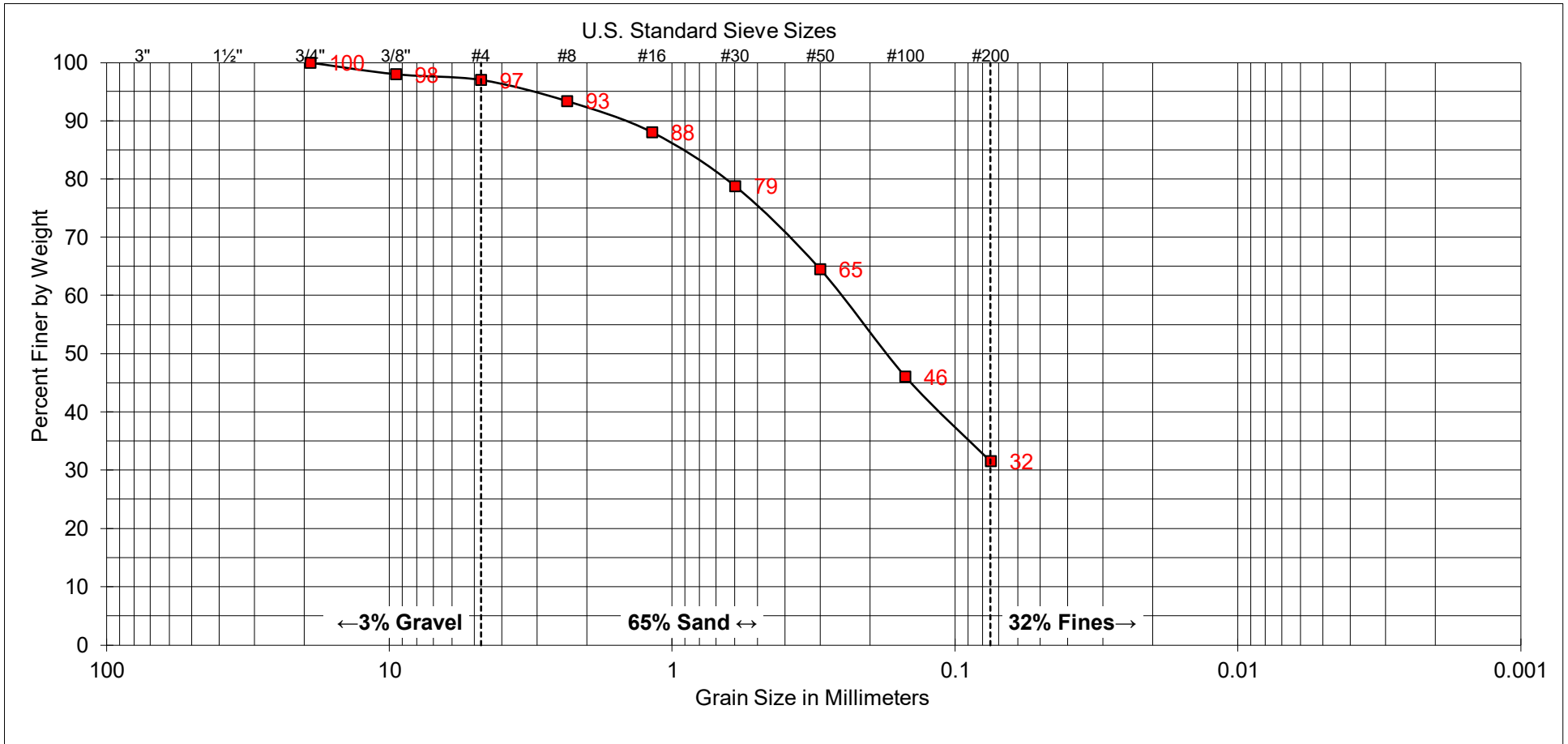
**GROUP DELTA**

**SOIL CLASSIFICATION**

Document No. 22-0116

Project No. SD754

**FIGURE B-1.31**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
BORING NO:	A-16-01
SAMPLE DEPTH:	1' - 5'

UNIFIED SOIL CLASSIFICATION:	SC
DESCRIPTION:	CLAYEY SAND

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



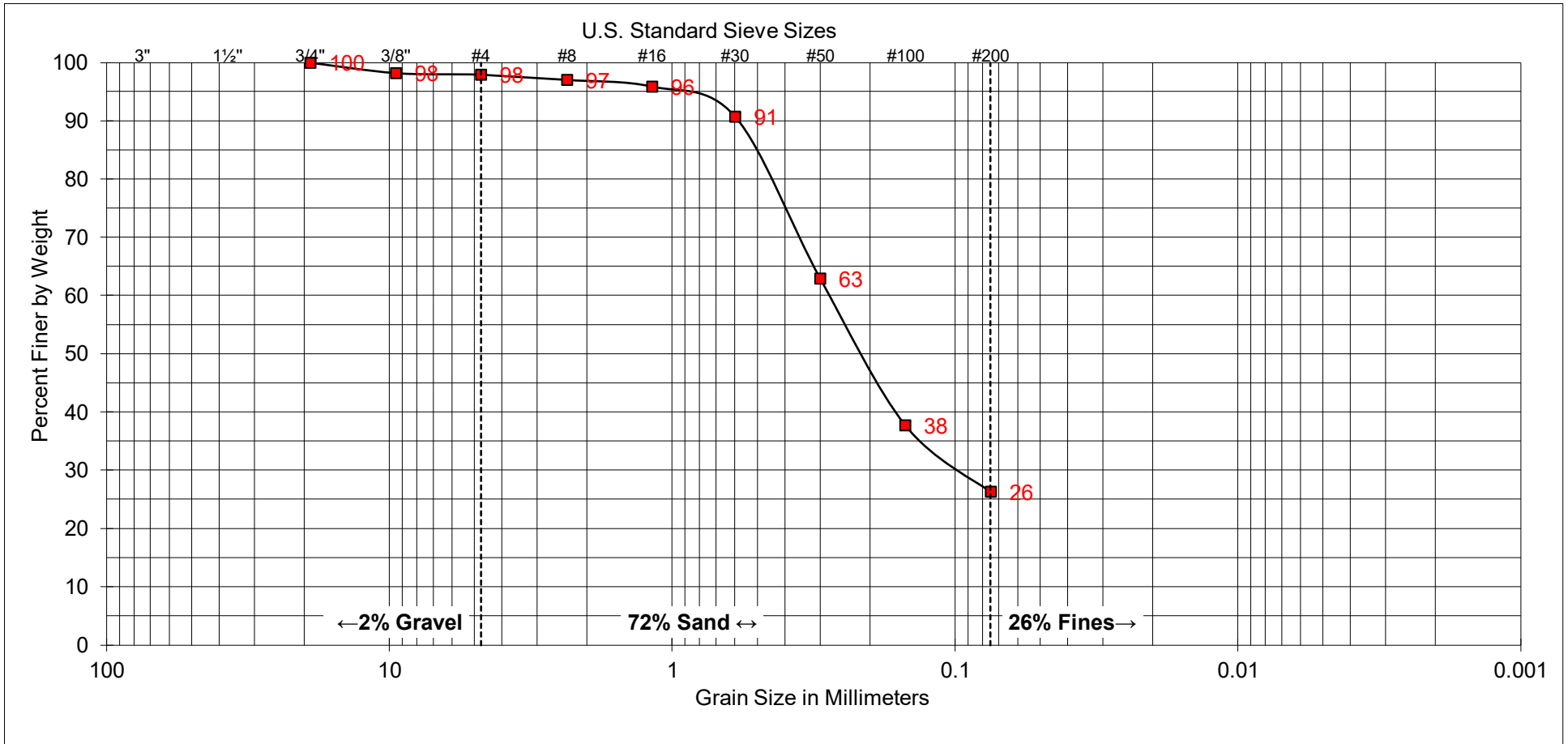
**GROUP DELTA**

**SOIL CLASSIFICATION**

Document No. 22-0116

Project No. SD754

**FIGURE B-1.32**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
BORING NO:	A-16-08
SAMPLE DEPTH:	1' - 3'

UNIFIED SOIL CLASSIFICATION:	SM
DESCRIPTION:	SILTY SAND

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



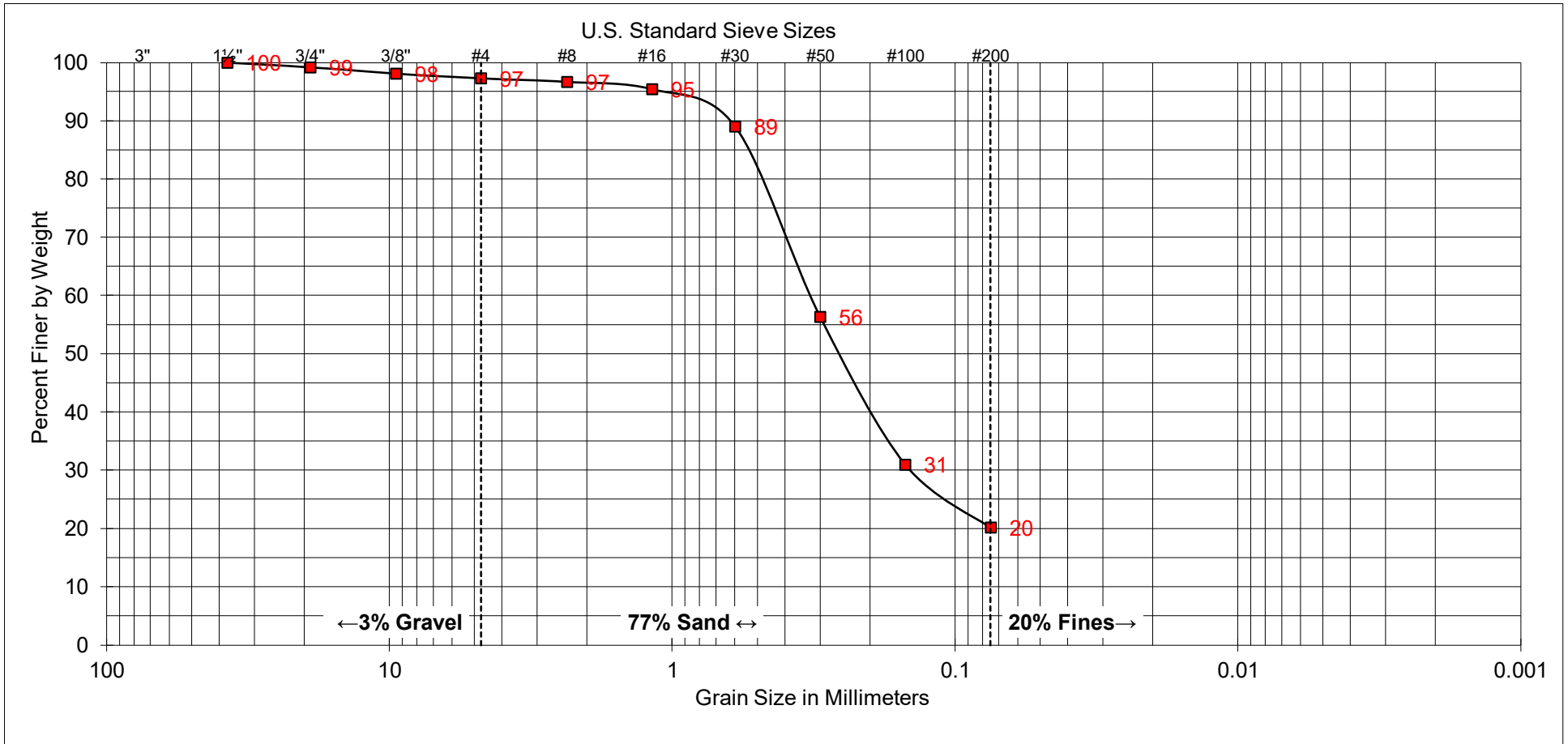
**GROUP DELTA**

**SOIL CLASSIFICATION**

Document No. 22-0116

Project No. SD754

**FIGURE B-1.33**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
BORING NO:	A-16-09
SAMPLE DEPTH:	2' - 4'

UNIFIED SOIL CLASSIFICATION: SM

DESCRIPTION: SILTY SAND

ATTERBERG LIMITS

LIQUID LIMIT: ---  
PLASTIC LIMIT: ---  
PLASTICITY INDEX: ---



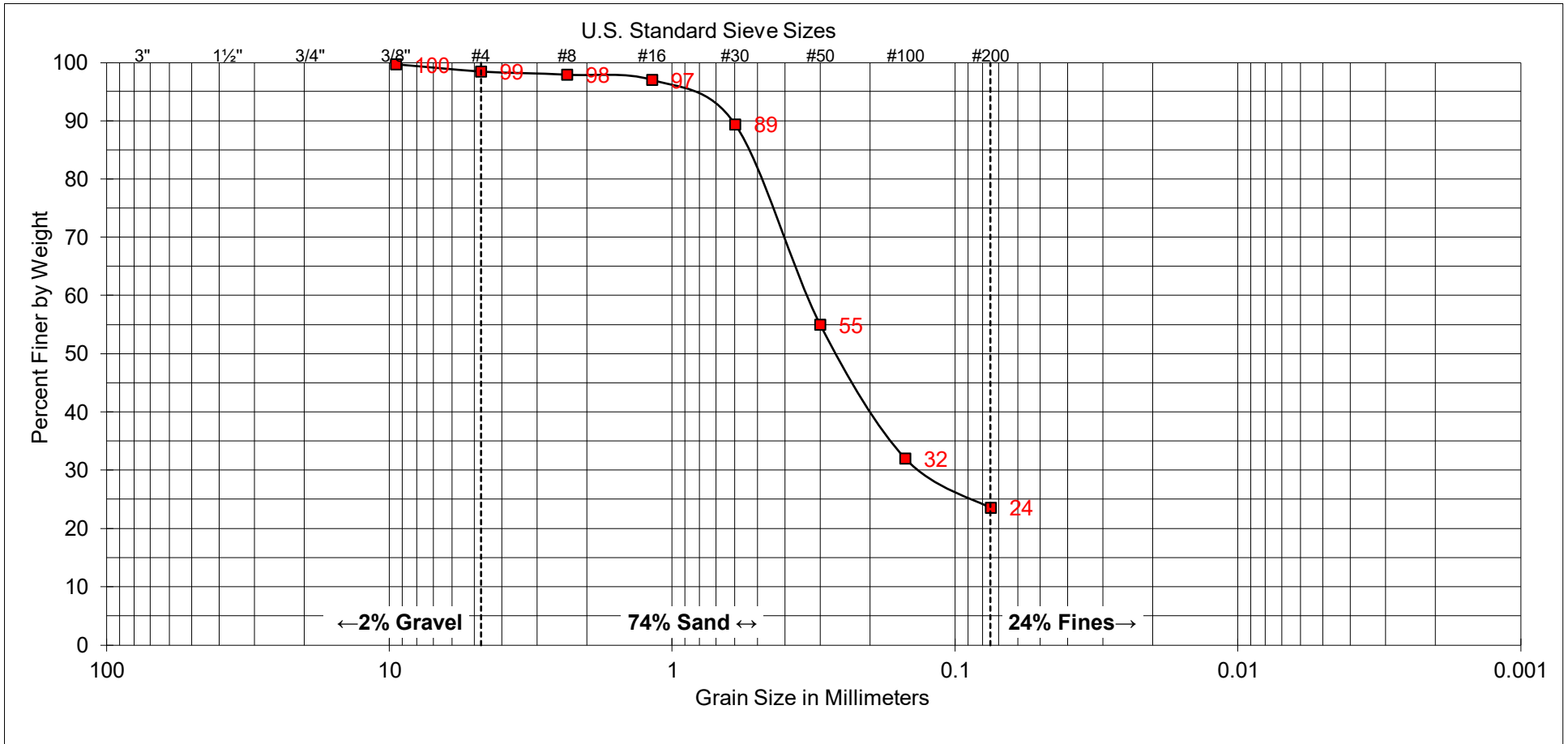
**GROUP DELTA**

**SOIL CLASSIFICATION**

Document No. 22-0116

Project No. SD754

**FIGURE B-1.34**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
BORING NO:	A-16-10
SAMPLE DEPTH:	2' - 4'

UNIFIED SOIL CLASSIFICATION: SM

DESCRIPTION: SILTY SAND

ATTERBERG LIMITS

LIQUID LIMIT: ---  
 PLASTIC LIMIT: ---  
 PLASTICITY INDEX: ---



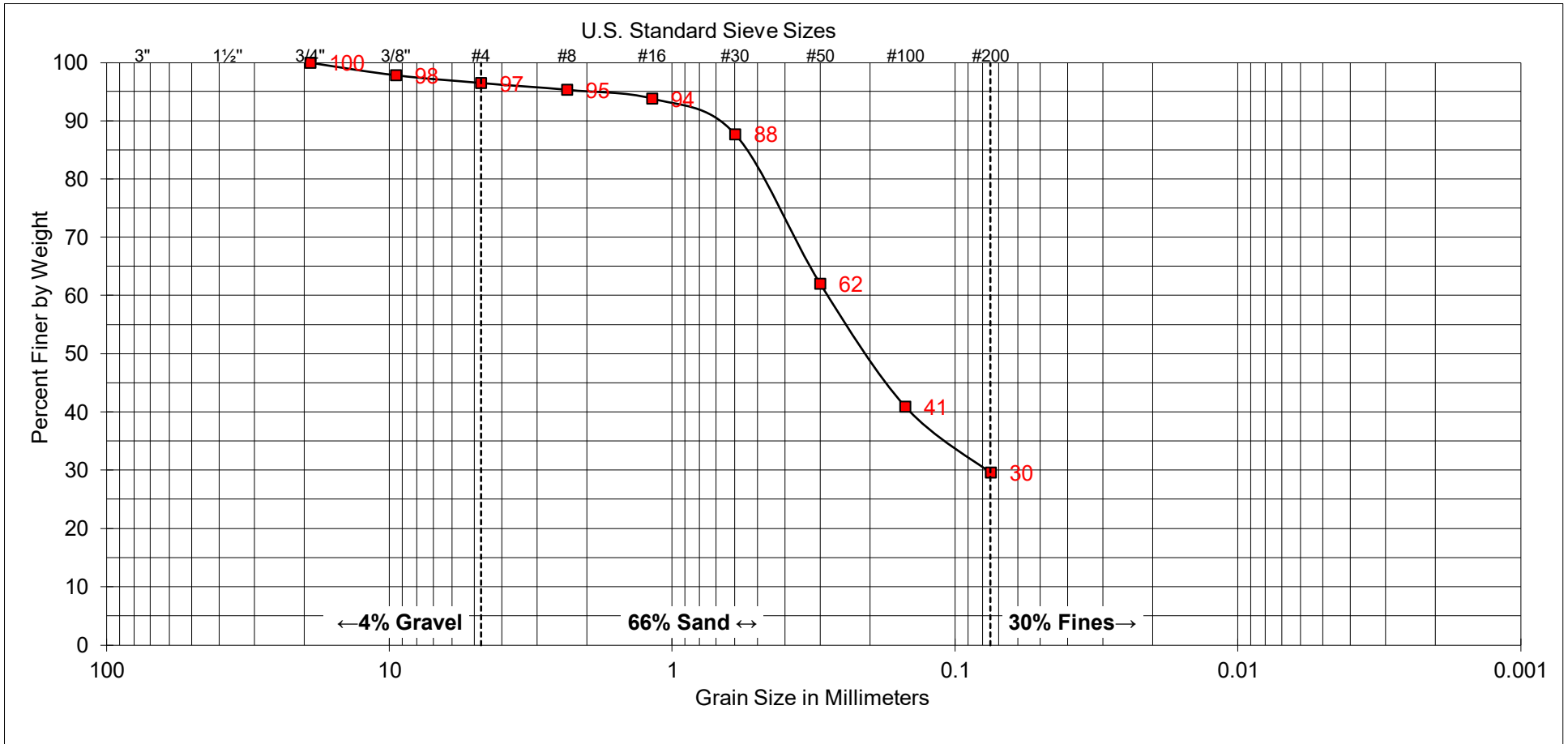
**GROUP DELTA**

**SOIL CLASSIFICATION**

Document No. 22-0116

Project No. SD754

**FIGURE B-1.35**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
BORING NO:	A-16-11
SAMPLE DEPTH:	1' - 3'

UNIFIED SOIL CLASSIFICATION:	SM
DESCRIPTION:	SILTY SAND

ATTERBERG LIMITS
LIQUID LIMIT: ---
PLASTIC LIMIT: ---
PLASTICITY INDEX: ---



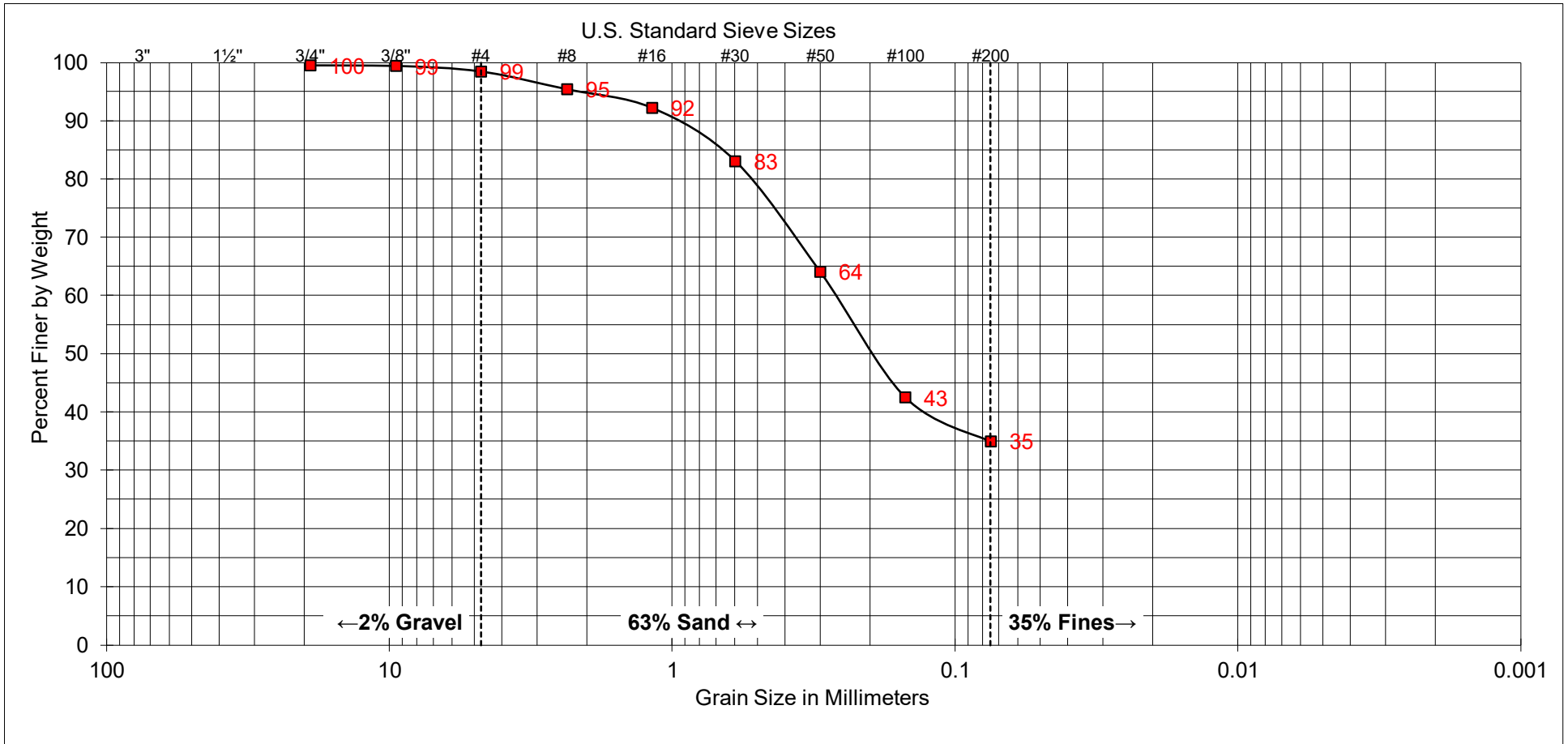
**GROUP DELTA**

**SOIL CLASSIFICATION**

Document No. 22-0116

Project No. SD754

**FIGURE B-1.36**



COARSE	FINE	COARSE	MEDIUM	FINE	SILT AND CLAY
GRAVEL		SAND			

SAMPLE	
BORING NO:	A-14-01
SAMPLE DEPTH:	0' - 5'

UNIFIED SOIL CLASSIFICATION: SM

DESCRIPTION: SILTY SAND

ATTERBERG LIMITS

LIQUID LIMIT: ---  
PLASTIC LIMIT: ---  
PLASTICITY INDEX: ---



**GROUP DELTA**

**SOIL CLASSIFICATION**

Document No. 22-0116

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**FIGURE B-1.37**

**EXPANSION TEST RESULTS**  
(ASTM D4829)

SAMPLE NO.	DESCRIPTION	EXPANSION INDEX
B-16 @ 1' – 5'	<u>Fill</u> : Dark yellowish brown clayey sand (SC)	14
B-23 @ 1' – 5'	<u>Fill</u> : Yellowish brown clayey sand (SC)	1
B-25 @ 0' – 5'	<u>Fill</u> : Dark yellowish brown silty sand (SM)	15
B-26 @ 0' – 5'	<u>Fill</u> : Dark brown clayey sand (SC)	8
B-33 @ 1' – 5'	<u>Fill</u> : Dark yellowish brown clayey sand (SC)	5
B-35 @ 1' – 5'	<u>Fill</u> : Dark yellowish brown sandy lean clay (CL)	41
B-42 @ 1' – 5'	<u>Fill</u> : Dark reddish brown silty sand (SM)	0
B-45 @ 1' – 5'	<u>Fill</u> : Dark yellowish brown clayey sand (SC)	2
B-50 @ 1' – 5'	<u>Scripps Formation</u> : Dark yellowish brown silty sandstone (SM)	19
A-22-02 @ 1' – 5'	<u>Fill</u> : Light olive brown clayey sand (SC)	22
A-22-04 @ 1' – 5'	<u>Fill</u> : Dark brown clayey sand (SC)	26
A-22-06 @ 1' – 5'	<u>Fill</u> : Brown clayey sand (SC)	22
A-17-03 @ ½' – 5'	<u>Fill</u> : Dark brown clayey sand (SC)	20
A-16-01 @ 1' – 5'	<u>Fill</u> : Yellow brown clayey sand (SC)	16
A-16-08 @ 1' – 3'	<u>Fill</u> : Yellow brown silty sand (SM)	9
A-16-11 @ 1' – 3'	<u>Fill</u> : Yellow brown silty sand (SM)	9
A-14-01 @ 0' – 5'	<u>Fill</u> : Reddish brown silty sand (SM)	13

EXPANSION INDEX	POTENTIAL EXPANSION
0 to 20	Very low
21 to 50	Low
51 to 90	Medium
91 to 130	High
Above 130	Very High





**CORROSIVITY TEST RESULTS**  
(ASTM D516, CTM 643)

SAMPLE NO.	pH	RESISTIVITY [OHM-CM]	SULFATE CONTENT [%]	CHLORIDE CONTENT [%]
B-16 @ 1' – 5'	7.8	1,300	0.01	< 0.01
B-33 @ 1' – 5'	9.1	1,430	0.02	0.02
B-35 @ 1' – 5'	8.6	740	0.06	0.02
B-42 @ 1' – 5'	7.9	620	0.08	< 0.01
A-22-01 @ 1' – 5'	7.1	500	0.05	0.06
A-22-05 @ 2' – 5'	8.7	1,410	0.02	< 0.01
A-16-01 @ 1' – 5'	7.3	670	0.03	0.01
A-16-08 @ 1' – 3'	8.0	630	0.02	0.03
A-16-11 @ 1' – 3'	7.9	570	0.04	0.03
A-14-01 @ 0' – 5'	5.8	1,140	0.04	< 0.01

SULFATE CONTENT [%]	SULFATE EXPOSURE	CEMENT TYPE
0.00 to 0.10	Negligible	-
0.10 to 0.20	Moderate	II, IP(MS), IS(MS)
0.20 to 2.00	Severe	V
Above 2.00	Very Severe	V plus pozzolan

SOIL RESISTIVITY [OHM-CM]	GENERAL DEGREE OF CORROSIVITY TO FERROUS METALS
0 to 1,000	Very Corrosive
1,000 to 2,000	Corrosive
2,000 to 5,000	Moderately Corrosive
5,000 to 10,000	Mildly Corrosive
Above 10,000	Slightly Corrosive

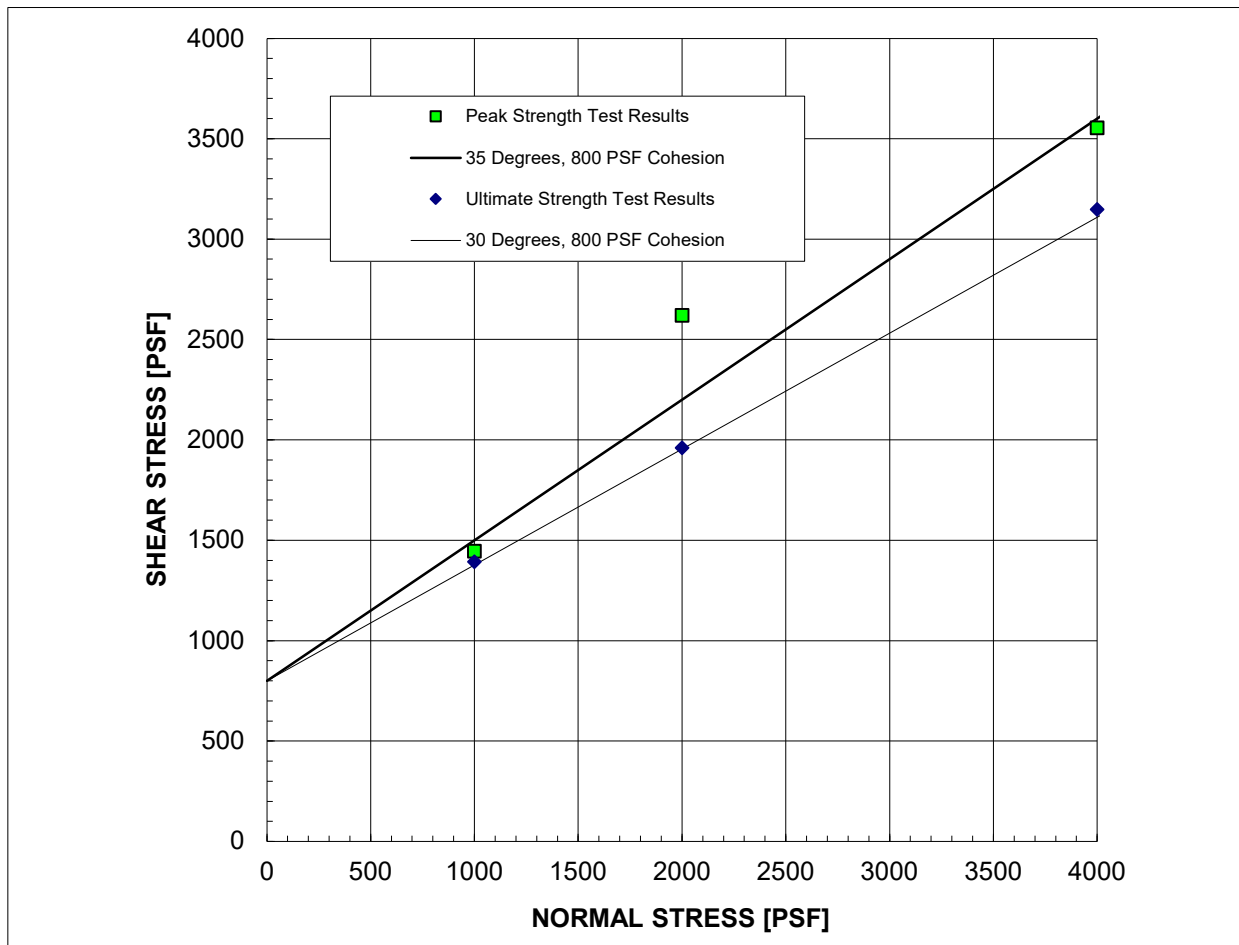
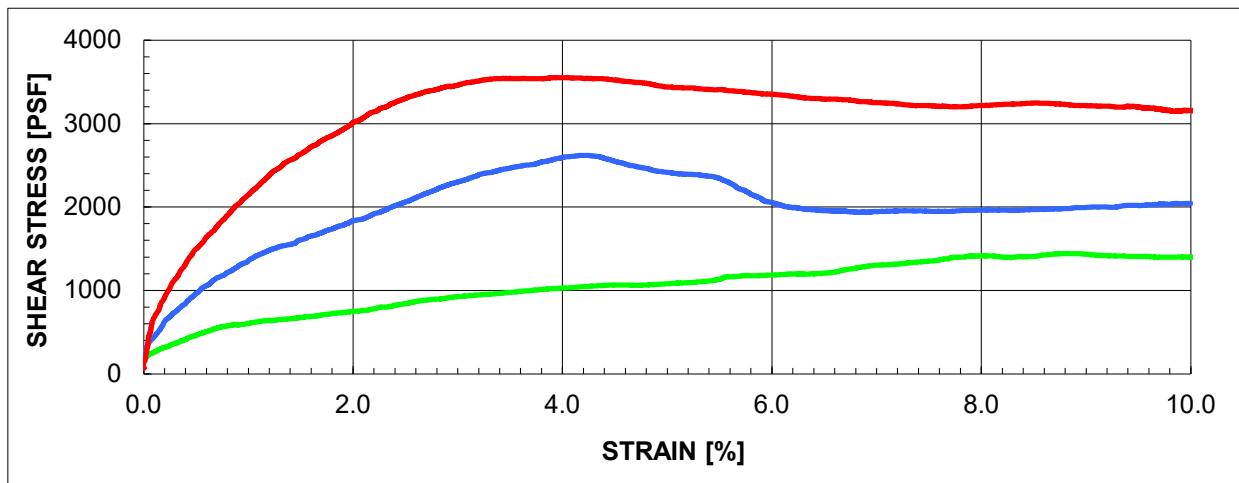
CHLORIDE (Cl) CONTENT [%]	GENERAL DEGREE OF CORROSIVITY TO METALS
0.00 to 0.03	Negligible
0.03 to 0.15	Corrosive
Above 0.15	Severely Corrosive



**MAXIMUM DENSITY & OPTIMUM MOISTURE**  
(ASTM D1557)

<b>SAMPLE NO.</b>	<b>DESCRIPTION</b>	<b>MAXIMUM DENSITY [lb/ft<sup>3</sup>]</b>	<b>OPTIMUM MOISTURE [%]</b>
B-7 @ 1' – 5'	<u>Fill</u> : Dark yellowish brown silty sand (SM).	123.0	8.8
B-26 @ 0' – 5'	<u>Fill</u> : Dark brown clayey sand (SC).	125.3	8.0
A-16-09 @ 2' – 4'	<u>Fill</u> : Yellow brown silty sand (SM).	128	10
A-16-12 @ 0' – 5'	<u>Fill</u> : Yellow brown sandy lean clay (CL).	116½	15





**SAMPLE:** A-22-01 @ 6'

**Scripps Formation (Tsc):**

Very pale brown silty sandstone (SM)

**PEAK**

$\phi'$

35 °

$c'$

800 PSF

**ULTIMATE**

30 °

800 PSF

**IN-SITU**

$\gamma_d$

101.3 PCF

$w_c$

12.5 %

**AS-TESTED**

101.3 PCF

24.6 %

**STRAIN RATE:** 0.0007 IN/MIN

(Sample was consolidated and drained)



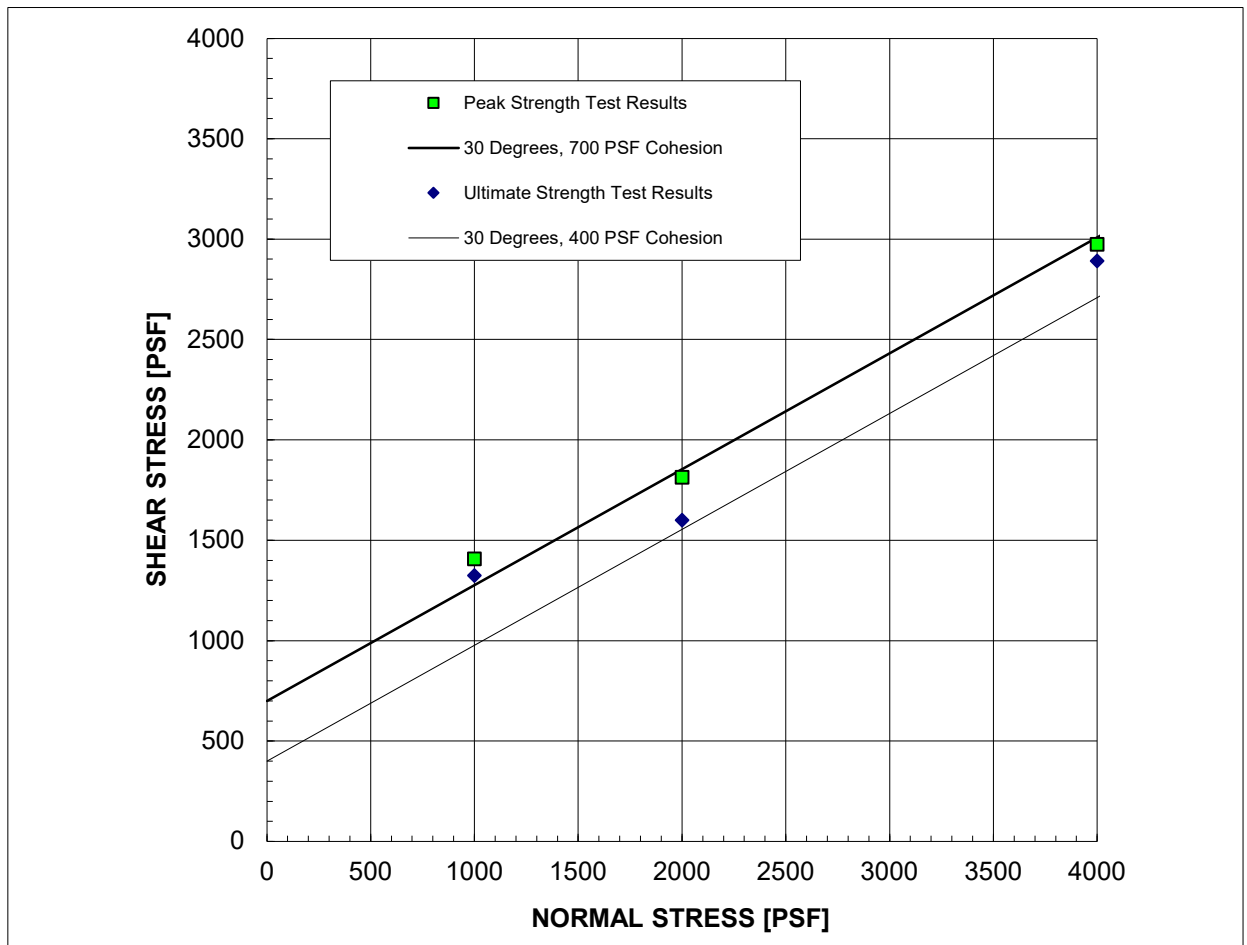
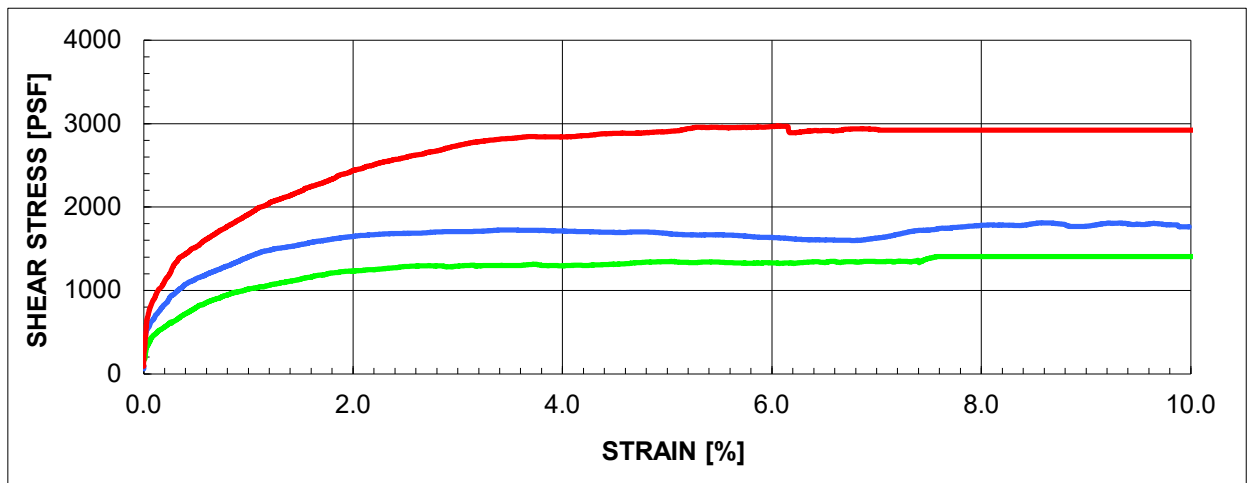
**GROUP DELTA**

**DIRECT SHEAR TEST RESULTS**

Document No. 22-0116

Project No. SD754

**FIGURE B-5.1**



**SAMPLE:** A-22-05 @ 20'

**Fill:**

Dark yellowish brown clayey sand (SC)

**PEAK**

$\phi'$

30 °

$c'$

700 PSF

**ULTIMATE**

30 °

400 PSF

**STRAIN RATE:**

0.0007 IN/MIN

(Sample was consolidated and drained)

**IN-SITU**

$\gamma_d$

115.2 PCF

$w_c$

10.4 %

**AS-TESTED**

115.2 PCF

17.1 %



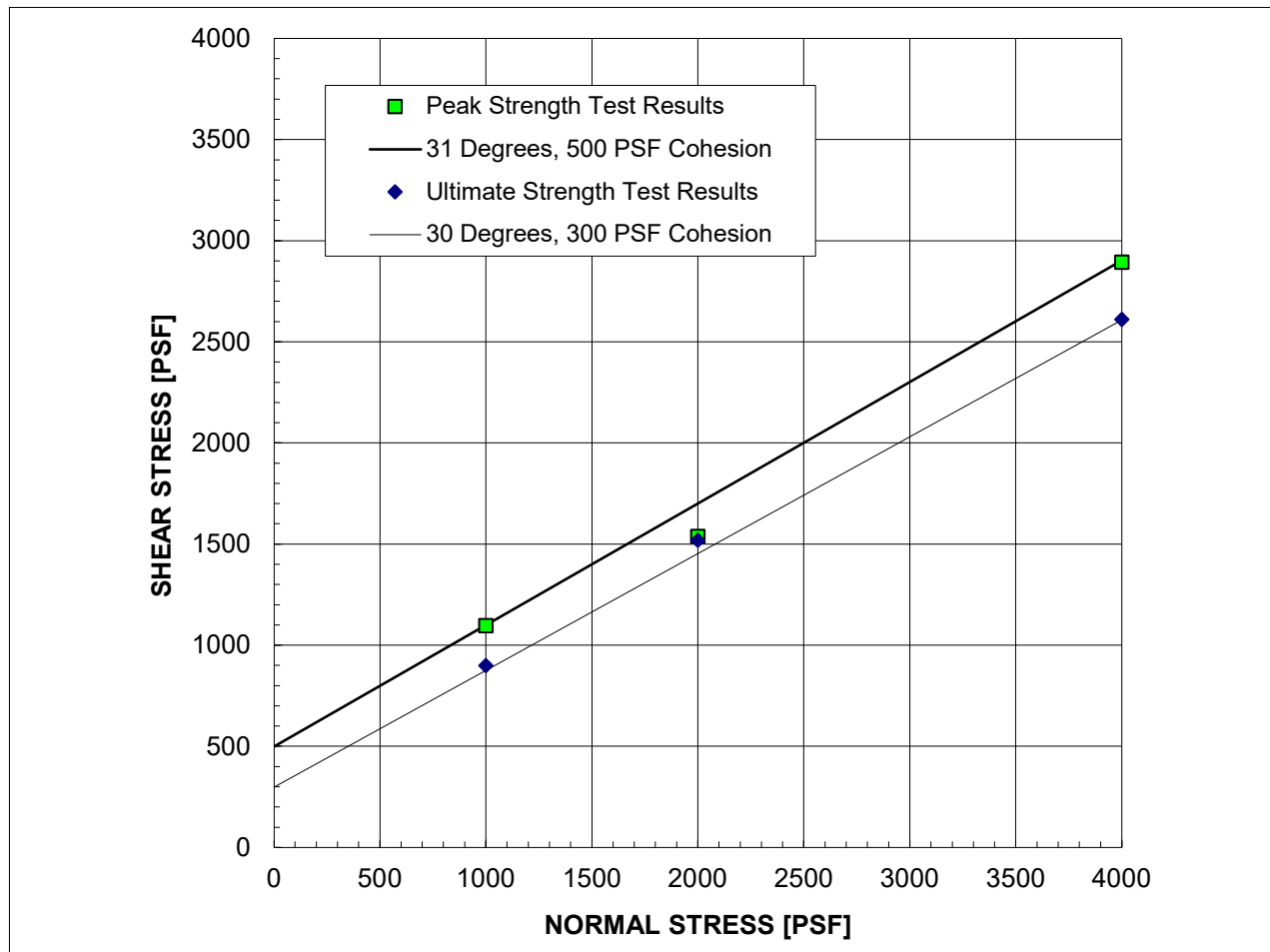
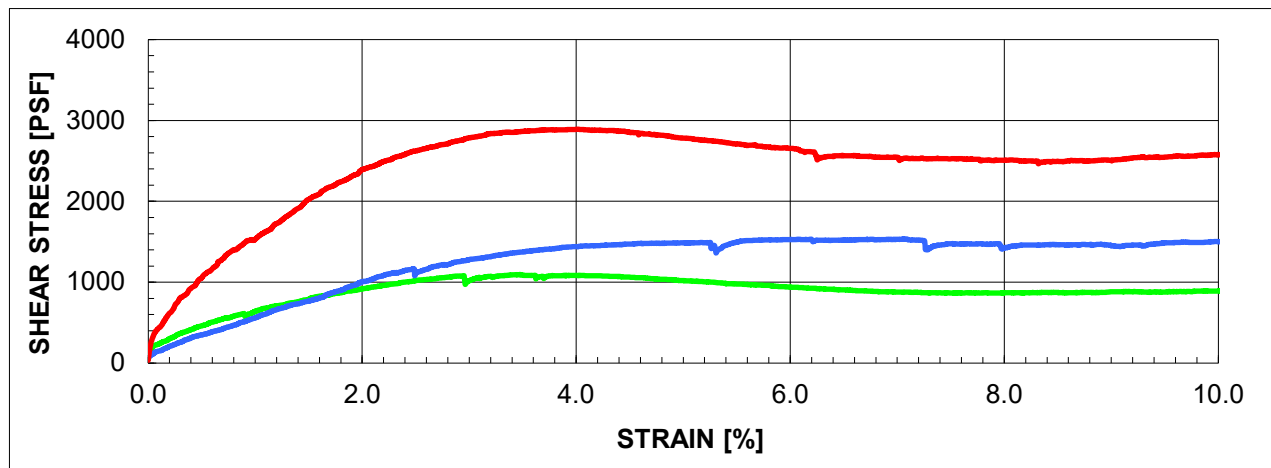
**GROUP DELTA**

**DIRECT SHEAR TEST RESULTS**

Document No. 22-0116

Project No. SD754

**FIGURE B-5.2**



**SAMPLE:** A-17-02 @ 5'

**Fill:**

Dark yellow brown clayey sand (SC)

**PEAK**

$\phi'$

31 °

$c'$

500 PSF

**ULTIMATE**

30 °

300 PSF

**STRAIN RATE:**

0.0040 IN/MIN

(Sample was consolidated and drained)

**IN-SITU**

$\gamma_d$

114.9 PCF

$w_c$

4.3 %

**AS-TESTED**

114.9 PCF

14.1 %



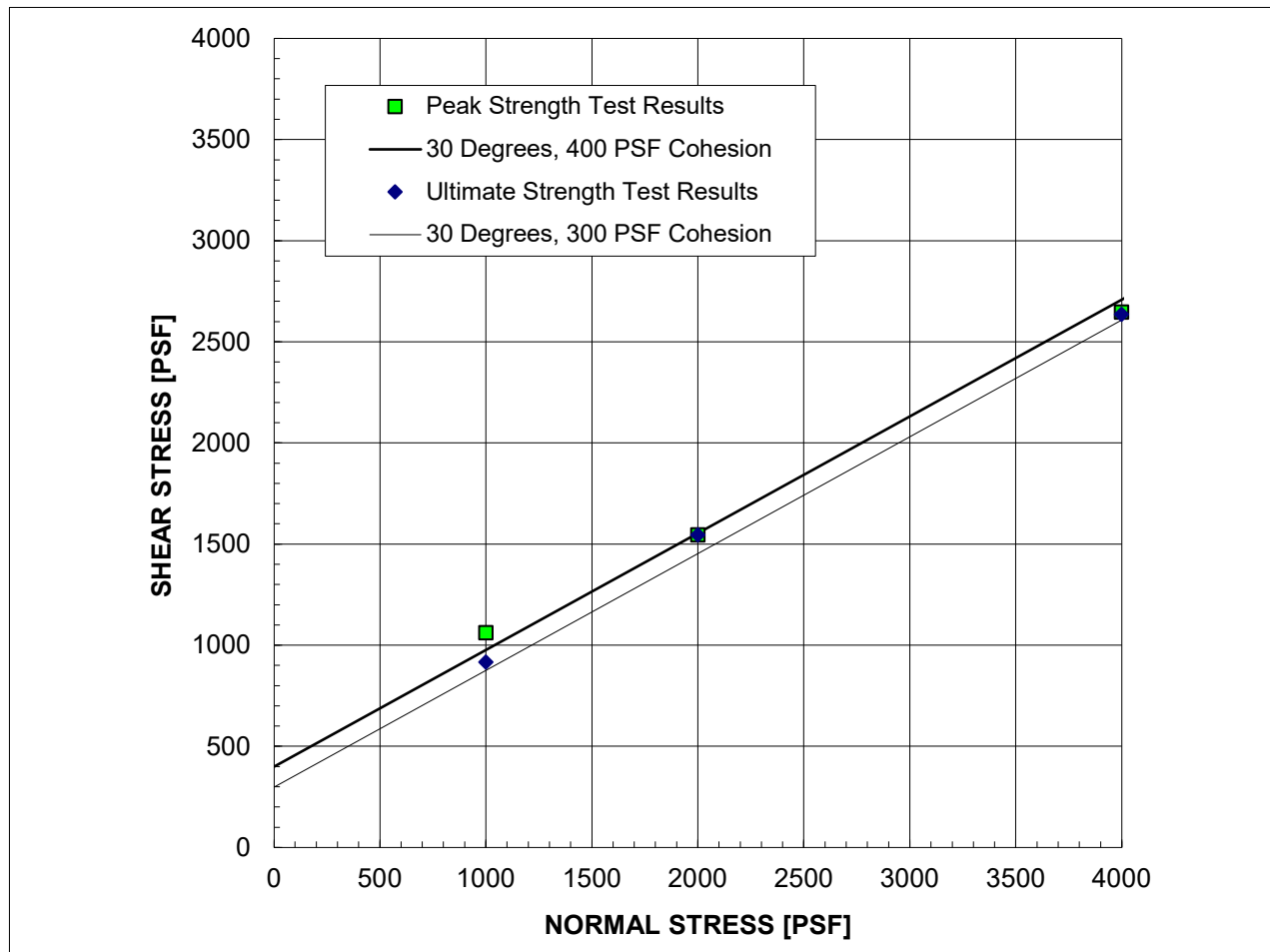
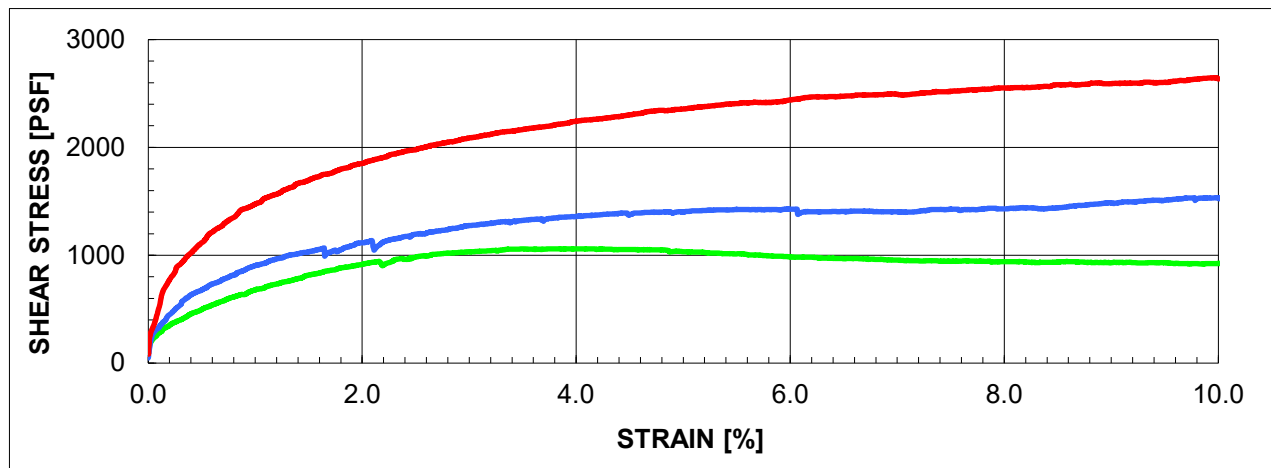
**GROUP DELTA**

**DIRECT SHEAR TEST RESULTS**

Document No. 22-0116

Project No. SD754

**FIGURE B-5.3**



**SAMPLE:** A-17-03 @ 5'

**Fill:**

Dark yellow brown clayey sand (SC)

**PEAK**

$\phi'$

30 °

$c'$

400 PSF

**ULTIMATE**

30 °

300 PSF

**STRAIN RATE:** 0.0008 IN/MIN

(Sample was consolidated and drained)

**IN-SITU**

$\gamma_d$

102.0 PCF

$w_c$

17.8 %

**AS-TESTED**

102.0 PCF

20.6 %



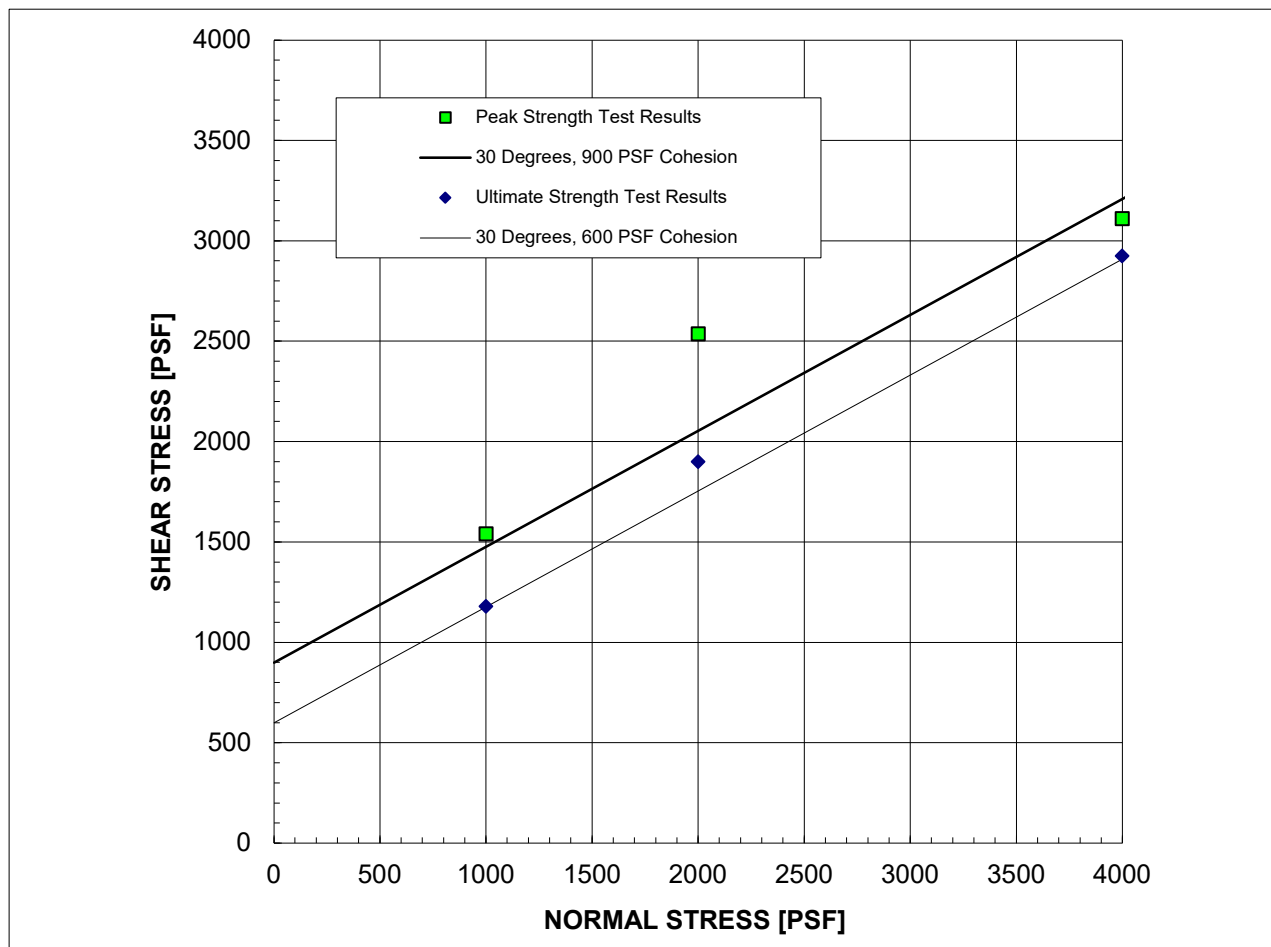
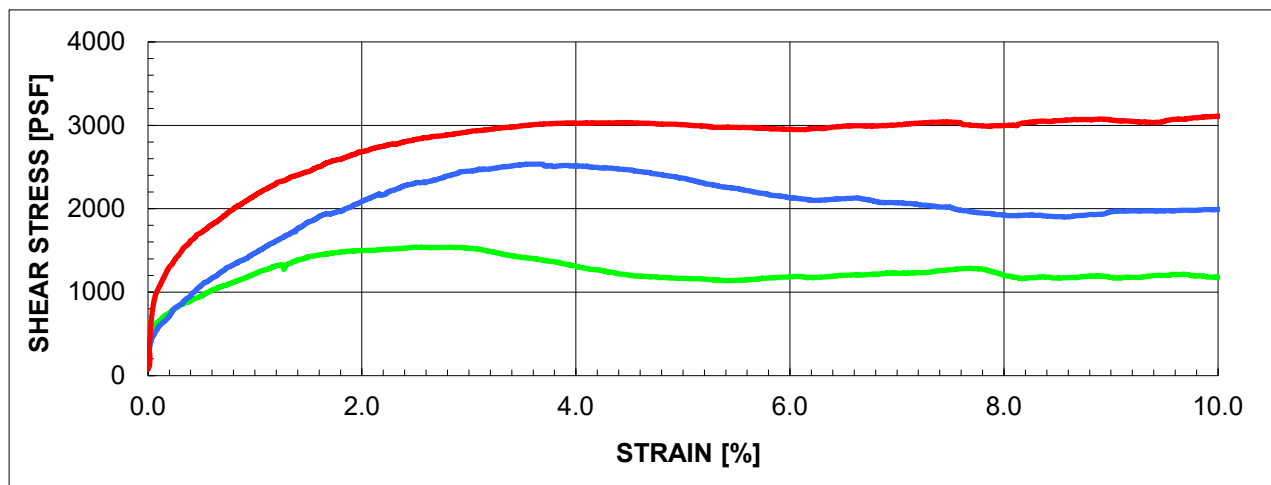
**GROUP DELTA**

**DIRECT SHEAR TEST RESULTS**

Document No. 22-0116

Project No. SD754

**FIGURE B-5.4**



**SAMPLE:** B-28 @ 10'

**Fill:**

Brown clayey sand (SC)

**PEAK**

$\phi'$

30 °

$c'$

900 PSF

**ULTIMATE**

30 °

600 PSF

**STRAIN RATE:**

0.0040 IN/MIN

(Sample was consolidated and drained)

**IN-SITU**

$\gamma_d$

120.9 PCF

$w_c$

10.0 %

**AS-TESTED**

120.9 PCF

14.6 %



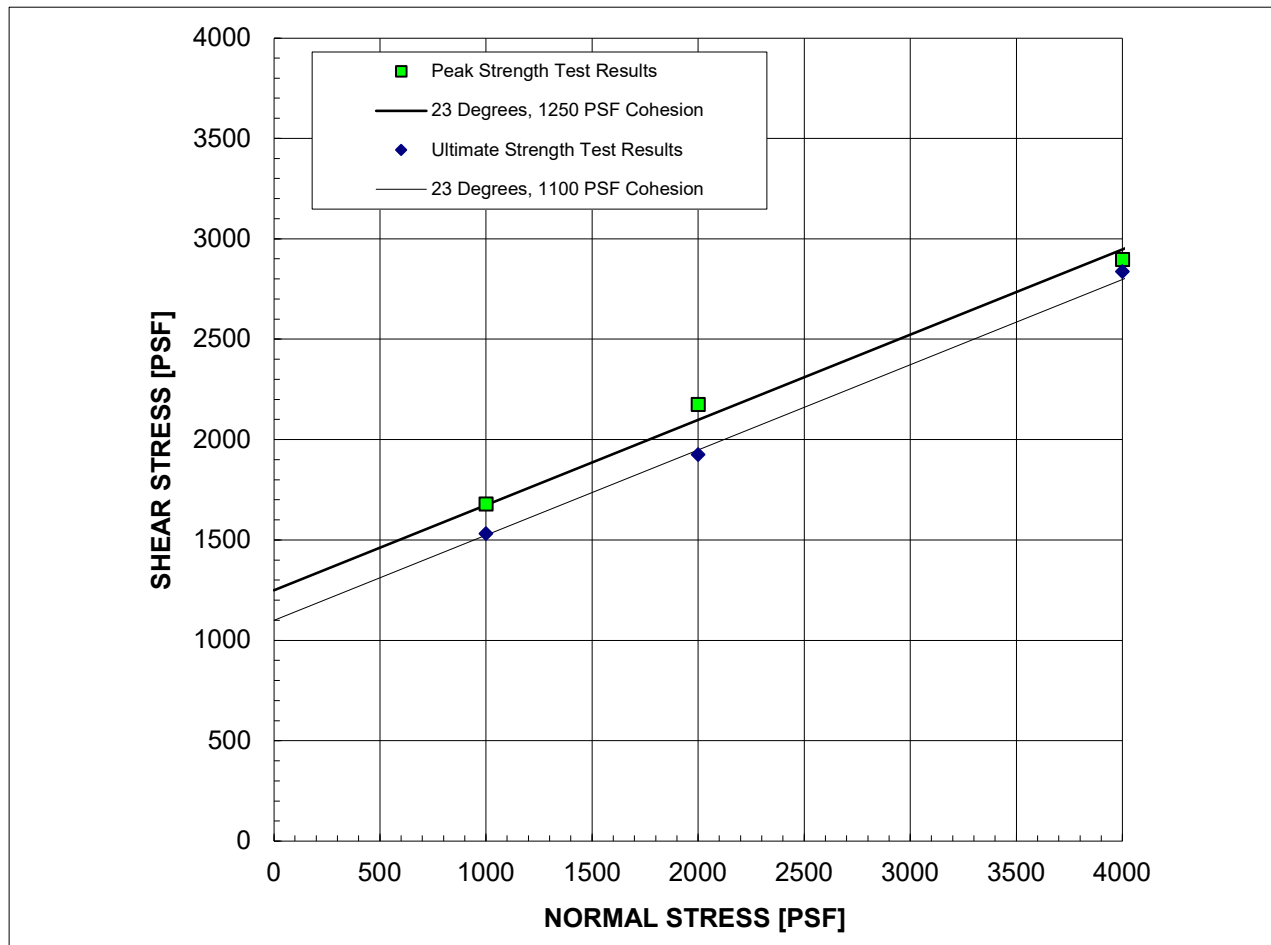
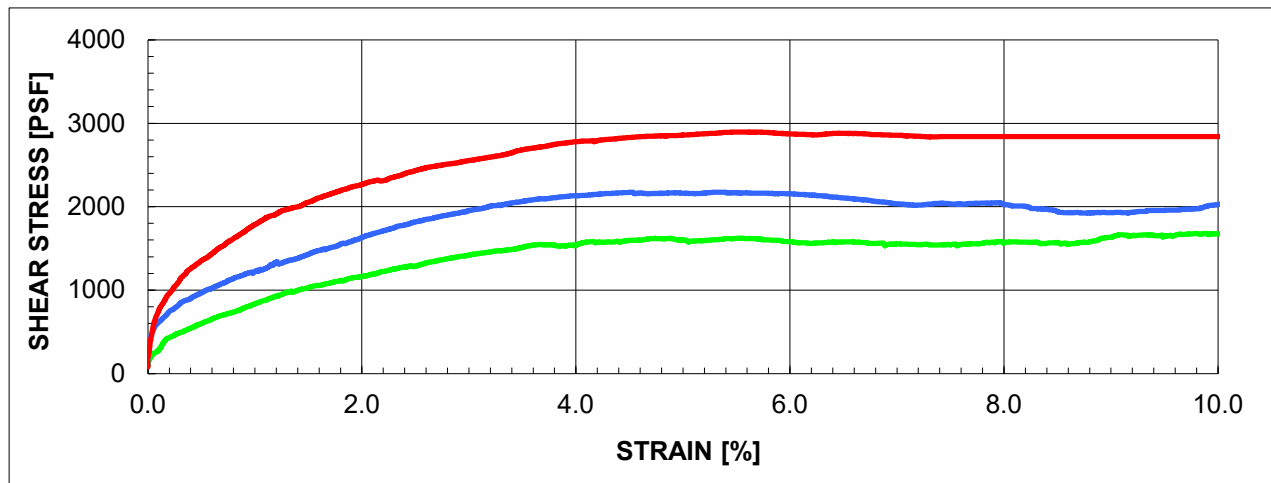
**GROUP DELTA**

**DIRECT SHEAR TEST RESULTS**

Document No. 22-0116

Project No. SD754A

**FIGURE B-5.5**



**SAMPLE:** B-33 @ 2'

**Fill:**

Dark yellowish brown clayey sand (SC)

**STRAIN RATE:**

0.0020 IN/MIN

(Sample was consolidated and drained)

**PEAK**

$\phi'$

23 °

$c'$

1,250 PSF

**ULTIMATE**

23 °

1,100 PSF

**IN-SITU**

$\gamma_d$

115.0 PCF

$w_c$

13.2 %

**AS-TESTED**

115.0 PCF

16.1 %



**GROUP DELTA**

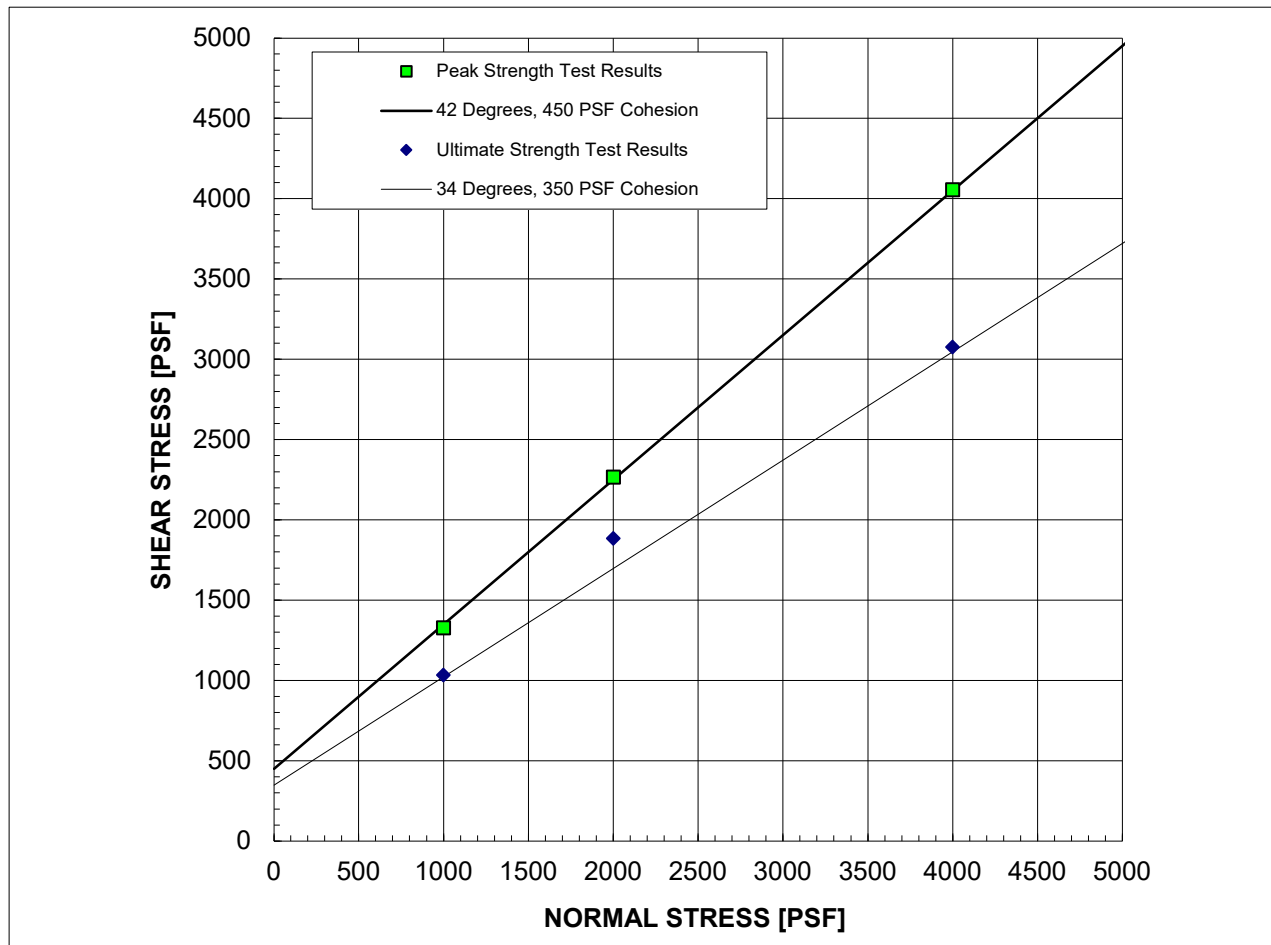
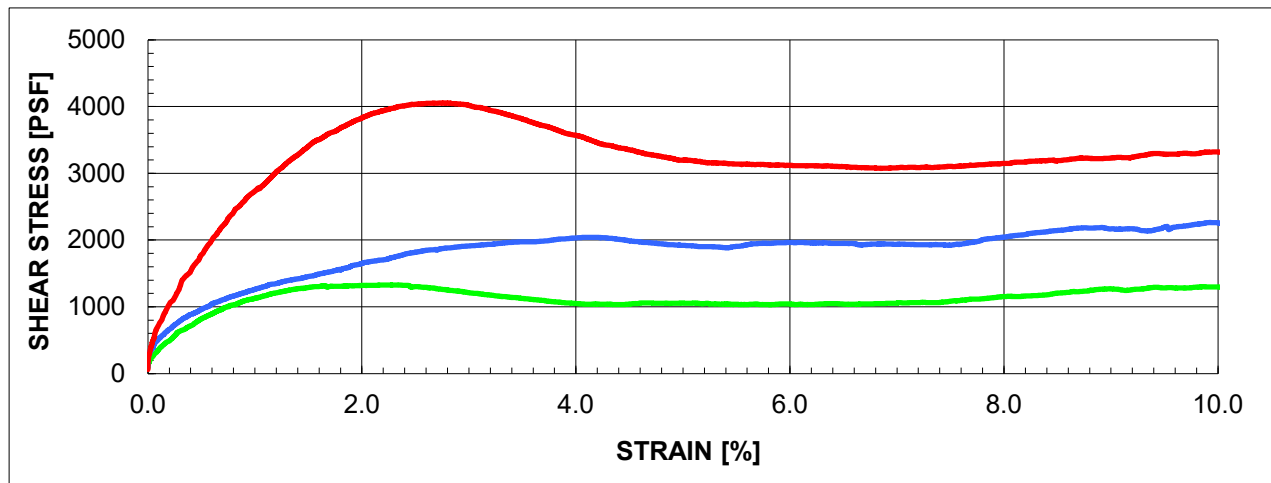
**DIRECT SHEAR TEST RESULTS**

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Project No. SD754A

**FIGURE B-5.6**





**SAMPLE:** B-37 @ 15'

**Fill:**

Yellowish brown clayey sand (SC)

**PEAK**

$\phi'$

42 °

$c'$

450 PSF

**ULTIMATE**

34 °

350 PSF

**STRAIN RATE:**

0.0008 IN/MIN

(Sample was consolidated and drained)

**IN-SITU**

$\gamma_d$

115.4 PCF

$w_c$

10.4 %

**AS-TESTED**

115.4 PCF

15.9 %



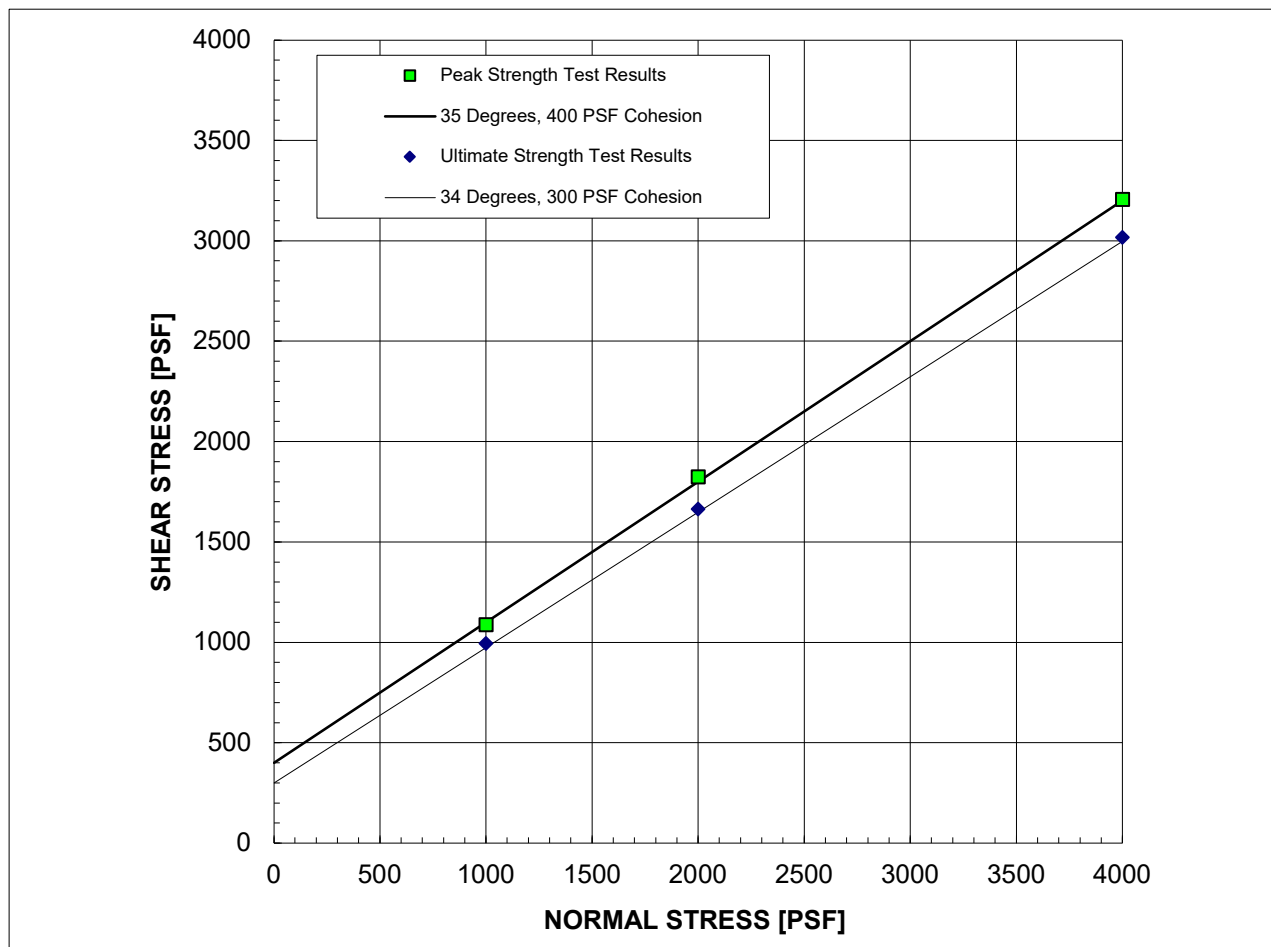
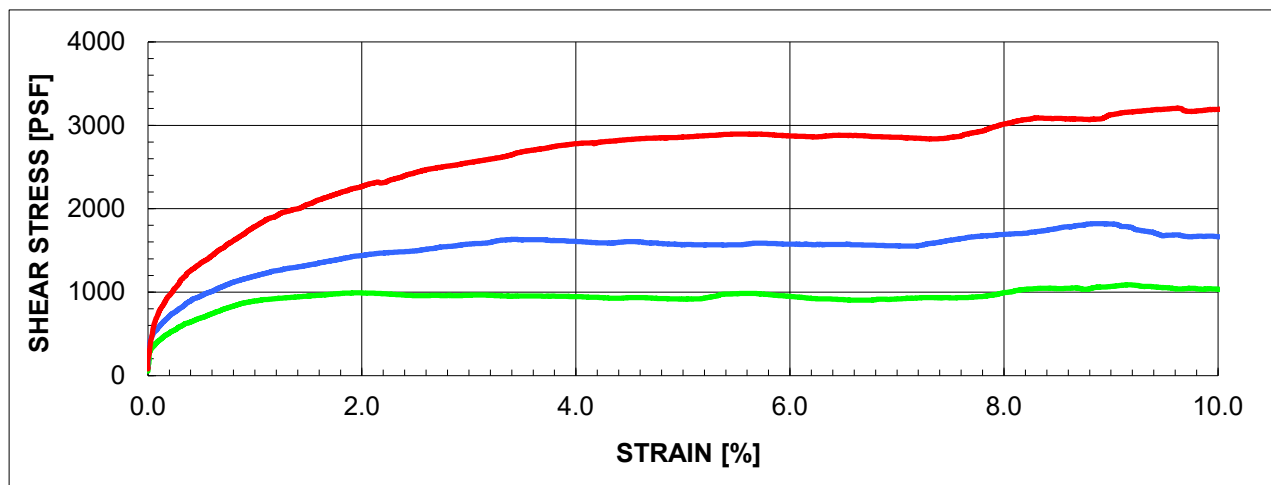
**GROUP DELTA**

**DIRECT SHEAR TEST RESULTS**

Document No. 22-0116

Project No. SD754A

**FIGURE B-5.7**



**SAMPLE:** B-42 @ 15'

**Fill:**

Dark yellowish brown clayey sand (SC)

**STRAIN RATE:**

0.0002 IN/MIN

(Sample was consolidated and drained)

**PEAK**

$\phi'$

35 °

$c'$

400 PSF

**ULTIMATE**

34 °

300 PSF

**IN-SITU**

$\gamma_d$

112.0 PCF

$w_c$

16.6 %

**AS-TESTED**

112.0 PCF

18.7 %



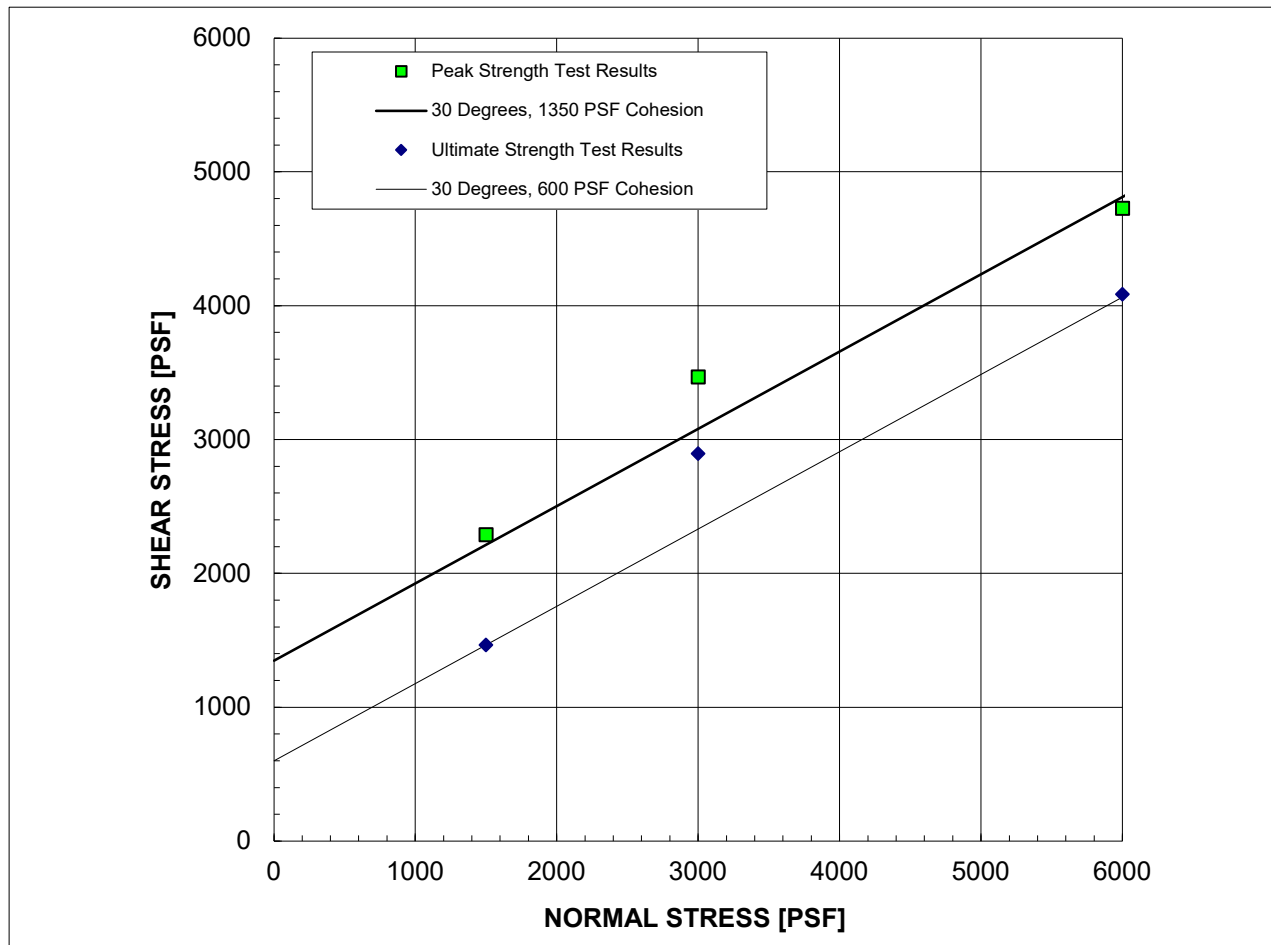
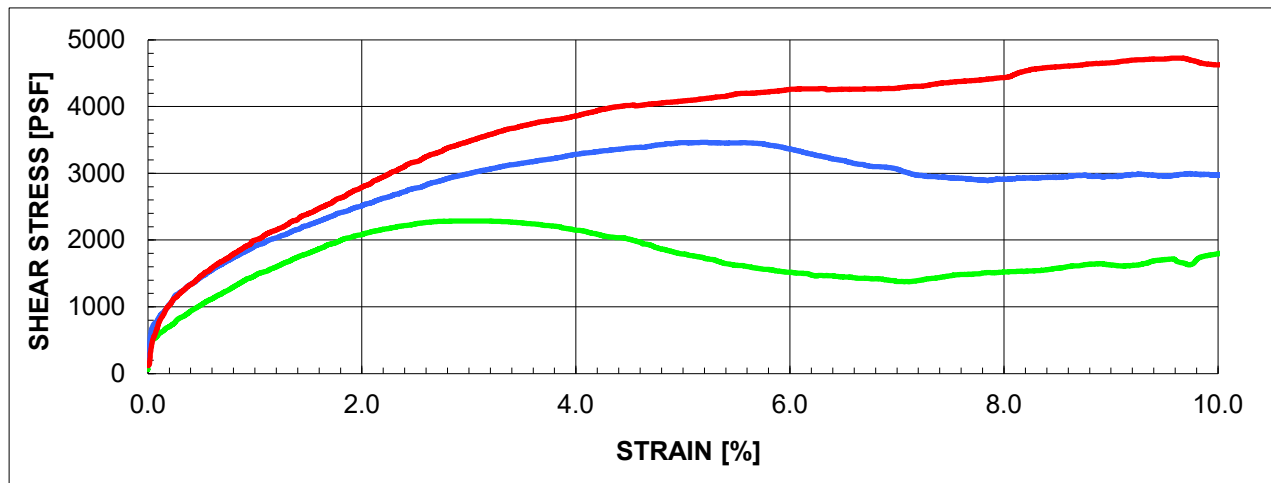
**GROUP DELTA**

**DIRECT SHEAR TEST RESULTS**

Document No. 22-0116

Project No. SD754A

**FIGURE B-5.8**



**SAMPLE:** B-43 @ 30'

**Fill:**

Yellowish brown silty sand (SM)

**STRAIN RATE:**

0.0008 IN/MIN

(Sample was consolidated and drained)

**PEAK**

$\phi'$

30 °

$c'$

1,350 PSF

**ULTIMATE**

30 °

600 PSF

**IN-SITU**

$\gamma_d$

109.9 PCF

$w_c$

16.2 %

**AS-TESTED**

109.9 PCF

16.1 %



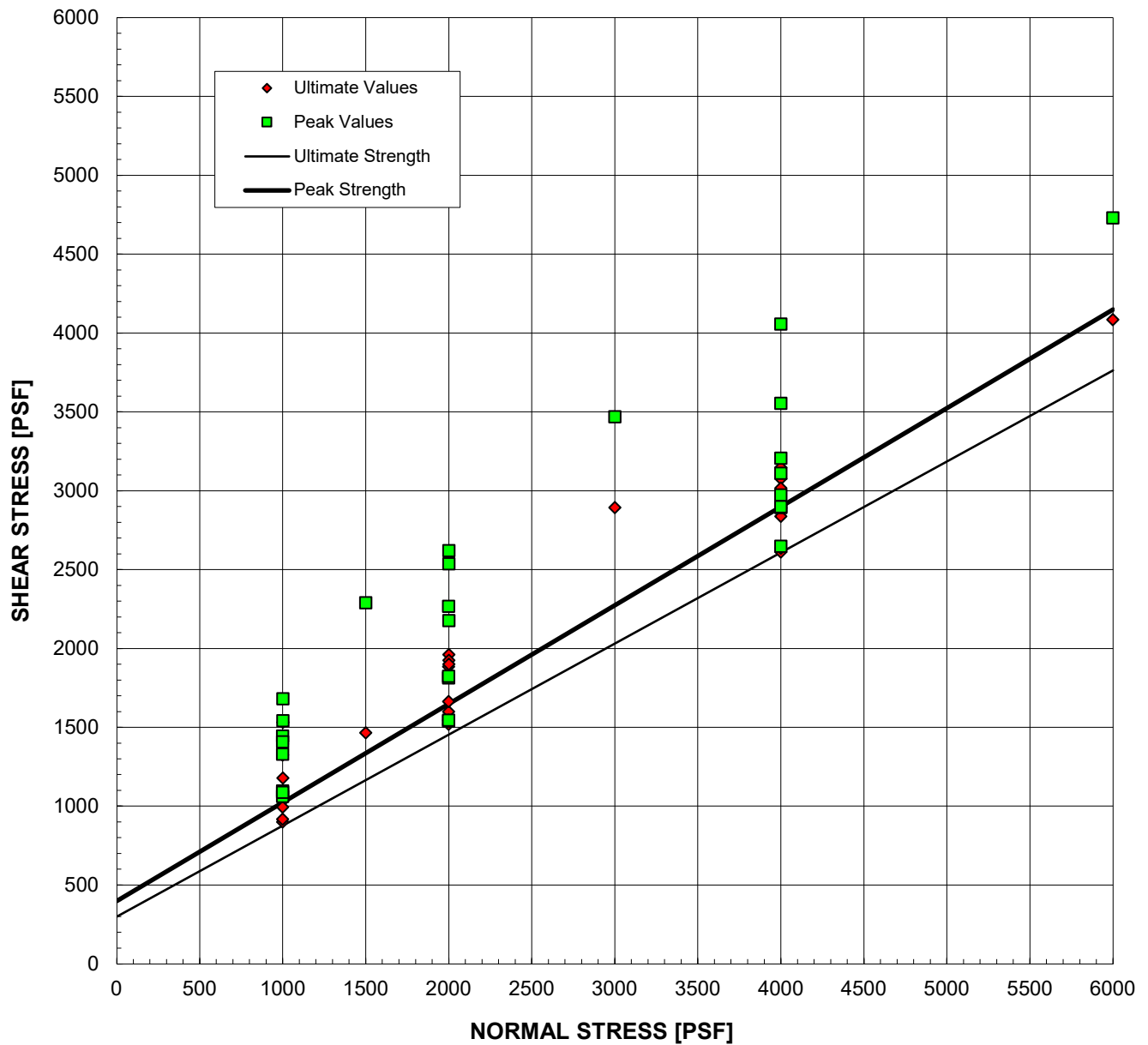
**GROUP DELTA**

**DIRECT SHEAR TEST RESULTS**

Document No. 22-0116

Project No. SD754A

**FIGURE B-5.9**



#### DESCRIPTION

A summary of 8 direct shear tests on random samples of the undocumented fill collected from our exploratory borings, including both silty sand (SM) and clayey sand (SC).

#### PEAK ESTIMATE

$\phi'$	32 °
$c'$	400 PSF

#### ULTIMATE ESTIMATE

$\phi'$	30 °
$c'$	300 PSF



**GROUP DELTA**

**DIRECT SHEAR TEST SUMMARY**

Document No. 22-0116

Project No. SD754A

**FIGURE B-5.10**

**BORING NO.:** A-22-05

**SAMPLE DATE:** 10/14/22

**BORING DEPTH:** 2' - 5'

**TEST DATE:** 10/20/22

**SAMPLE DESCRIPTION:** Yellowish brown clayey sand (SC)

## LABORATORY TEST DATA

TEST SPECIMEN	1	2	3	4	5	
A COMPACTOR PRESSURE	160	120	90			[PSI]
B INITIAL MOISTURE	3.0	3.0	3.0			[%]
C BATCH SOIL WEIGHT	1200	1200	1200			[G]
D WATER ADDED	100	110	120			[ML]
E WATER ADDED ( $D^*(100+B)/C$ )	8.6	9.4	10.3			[%]
F COMPACTION MOISTURE (B+E)	11.6	12.4	13.3			[%]
G MOLD WEIGHT	2011.6	2010.4	2019.9			[G]
H TOTAL BRIQUETTE WEIGHT	3162.1	3162.3	3135.9			[G]
I NET BRIQUETTE WEIGHT (H-G)	1150.5	1151.9	1116.0			[G]
J BRIQUETTE HEIGHT	2.54	2.57	2.51			[IN]
K DRY DENSITY ( $30.3*I/((100+F)*J)$ )	123.0	120.8	118.9			[PCF]
L EXUDATION LOAD	4792	3258	1959			[LB]
M EXUDATION PRESSURE (L/12.54)	382	260	156			[PSI]
N STABILOMETER AT 1000 LBS	40	46	50			[PSI]
O STABILOMETER AT 2000 LBS	100	112	120			[PSI]
P DISPLACEMENT FOR 100 PSI	4.82	4.92	5.19			[Turns]
Q R VALUE BY STABILOMETER	24	18	14			
R CORRECTED R-VALUE (See Fig. 14)	37	19	12			
S EXPANSION DIAL READING	0.0003	0.0002	0.0001			[IN]
T EXPANSION PRESSURE ( $S*43,300$ )	13	9	4			[PSF]
U COVER BY STABILOMETER	0.57	0.74	0.80			[FT]
V COVER BY EXPANSION	0.10	0.07	0.03			[FT]

TRAFFIC INDEX:  
GRAVEL FACTOR:  
UNIT WEIGHT OF COVER [PCF]:  
R-VALUE BY EXUDATION:  
R-VALUE BY EXPANSION:  
R-VALUE AT EQUILIBRIUM:

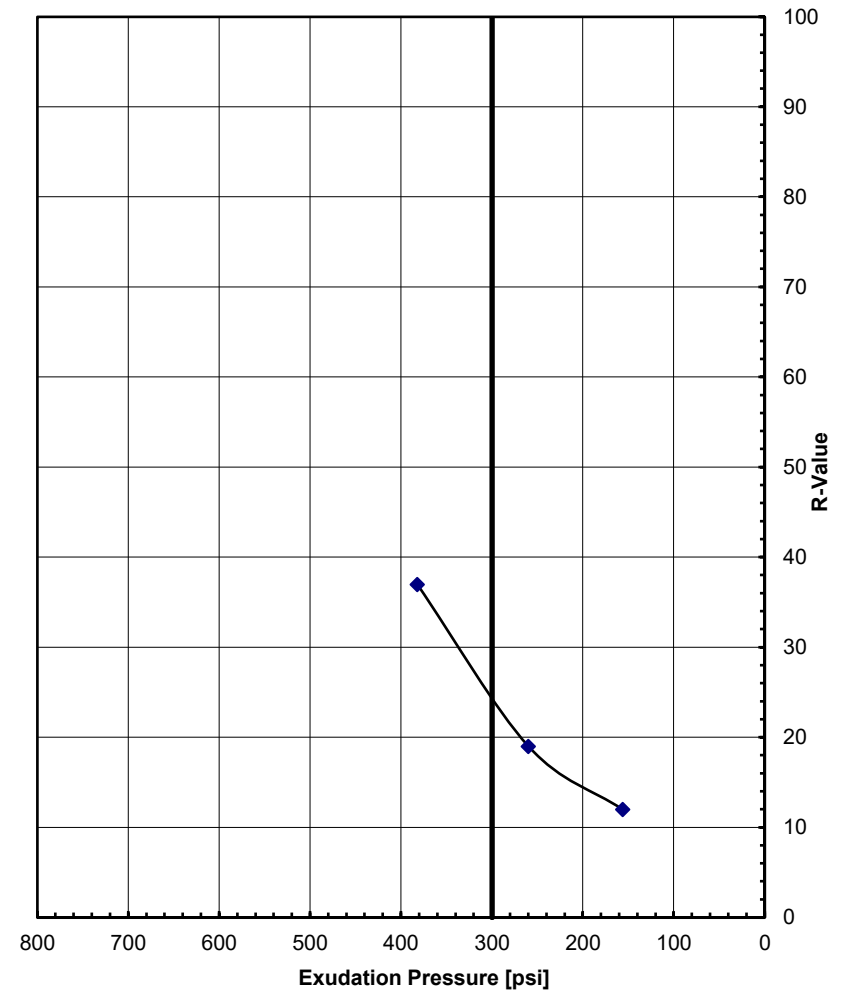
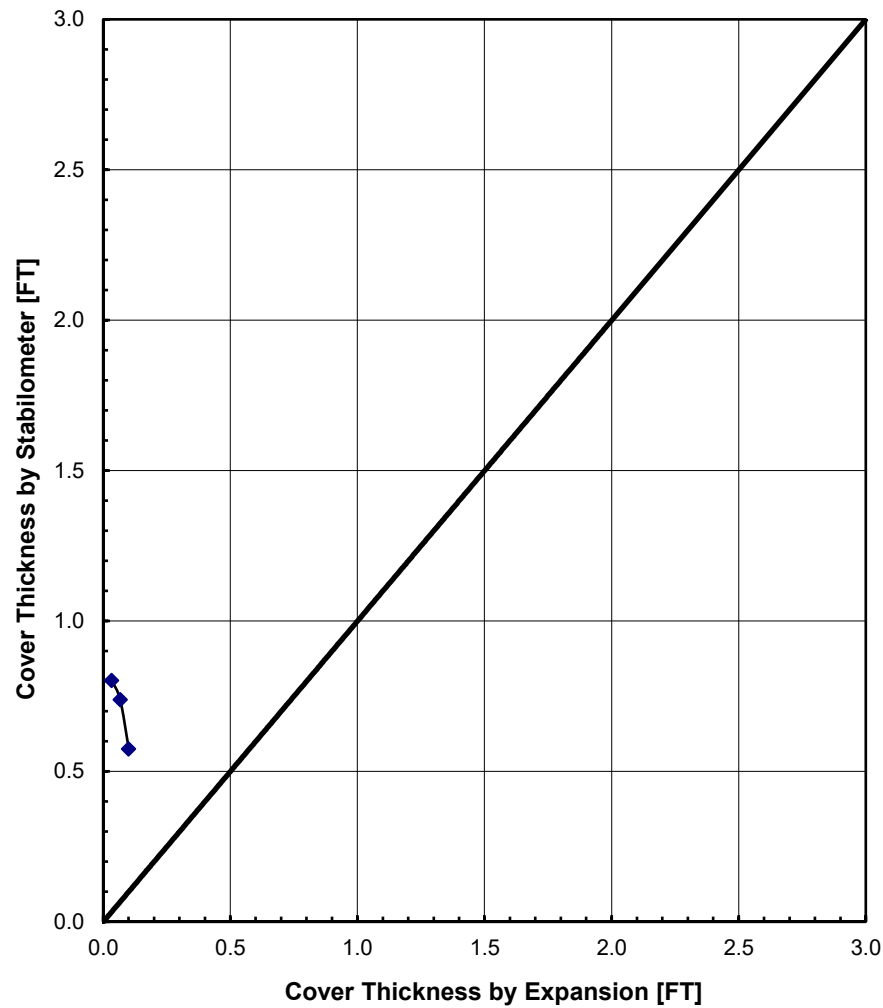
5.0
1.60
130
24
43
24

\*Note: Gravel factor estimated from pavement section using CTM 301, Section C, Part b.

REV. 2, DATED 1/31/15

Sample: A-22-05 @ 2' - 5'

R-Value at Equilibrium: 24



**BORING NO.:** A-17-01

**SAMPLE DATE:** 3/17/17

**BORING DEPTH:** ½' - 5'

**TEST DATE:** 3/31/17

**SAMPLE DESCRIPTION:** Dark yellowish brown clayey sand (SC)

## LABORATORY TEST DATA

TEST SPECIMEN	1	2	3	4	5	
A COMPACTOR PRESSURE	100	150	350			[PSI]
B INITIAL MOISTURE	1.4	1.4	1.4			[%]
C BATCH SOIL WEIGHT	1200	1200	1200			[G]
D WATER ADDED	120	105	95			[ML]
E WATER ADDED ( $D^*(100+B)/C$ )	10.1	8.9	8.0			[%]
F COMPACTION MOISTURE (B+E)	11.5	10.3	9.4			[%]
G MOLD WEIGHT	2113.1	2098.6	2100.2			[G]
H TOTAL BRIQUETTE WEIGHT	3293.3	3248.0	3182.7			[G]
I NET BRIQUETTE WEIGHT (H-G)	1180.2	1149.4	1082.5			[G]
J BRIQUETTE HEIGHT	2.64	2.43	2.40			[IN]
K DRY DENSITY ( $30.3*I/((100+F)*J)$ )	121.4	130.0	124.9			[PCF]
L EXUDATION LOAD	2055	2878	7440			[LB]
M EXUDATION PRESSURE (L/12.54)	164	230	593			[PSI]
N STABILOMETER AT 1000 LBS	56	49	29			[PSI]
O STABILOMETER AT 2000 LBS	129	114	64			[PSI]
P DISPLACEMENT FOR 100 PSI	5.67	4.73	3.84			[Turns]
Q R VALUE BY STABILOMETER	10	18	49			
R CORRECTED R-VALUE (See Fig. 14)	11	18	47			
S EXPANSION DIAL READING	0.0000	0.0001	0.0031			[IN]
T EXPANSION PRESSURE ( $S*43,300$ )	0	4	134			[PSF]
U COVER BY STABILOMETER	0.87	0.80	0.52			[FT]
V COVER BY EXPANSION	0.00	0.03	1.03			[FT]

TRAFFIC INDEX:  
GRAVEL FACTOR:  
UNIT WEIGHT OF COVER [PCF]:  
R-VALUE BY EXUDATION:  
R-VALUE BY EXPANSION:  
R-VALUE AT EQUILIBRIUM:

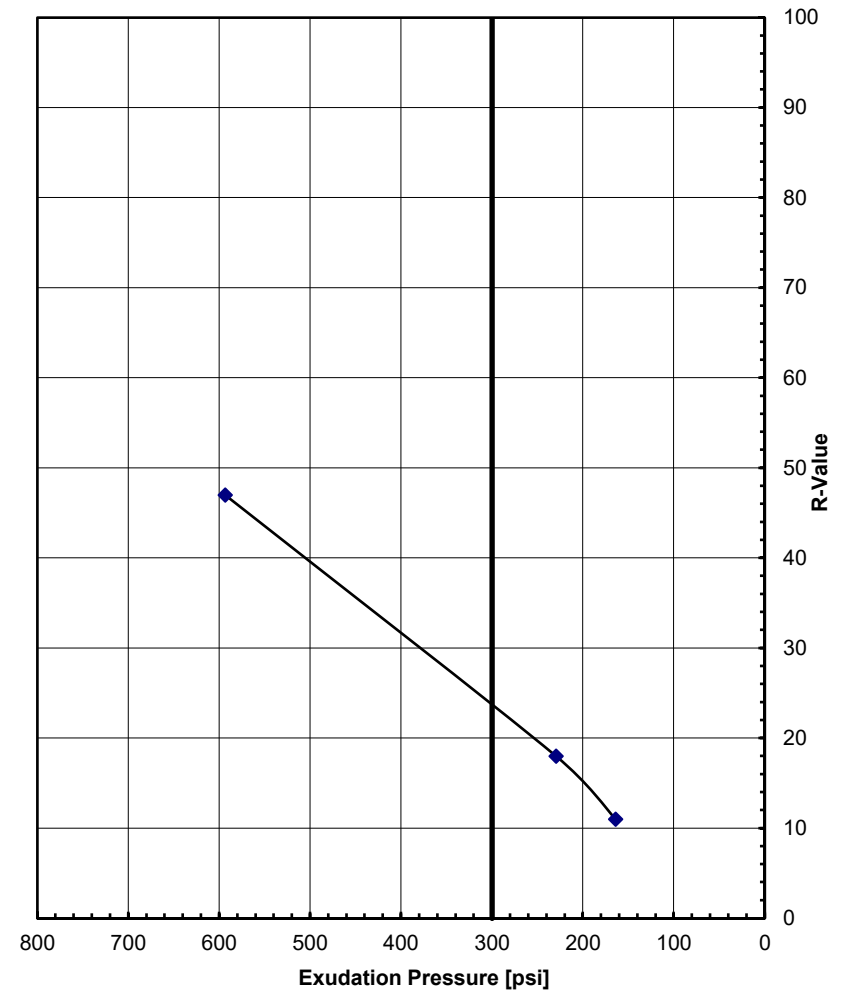
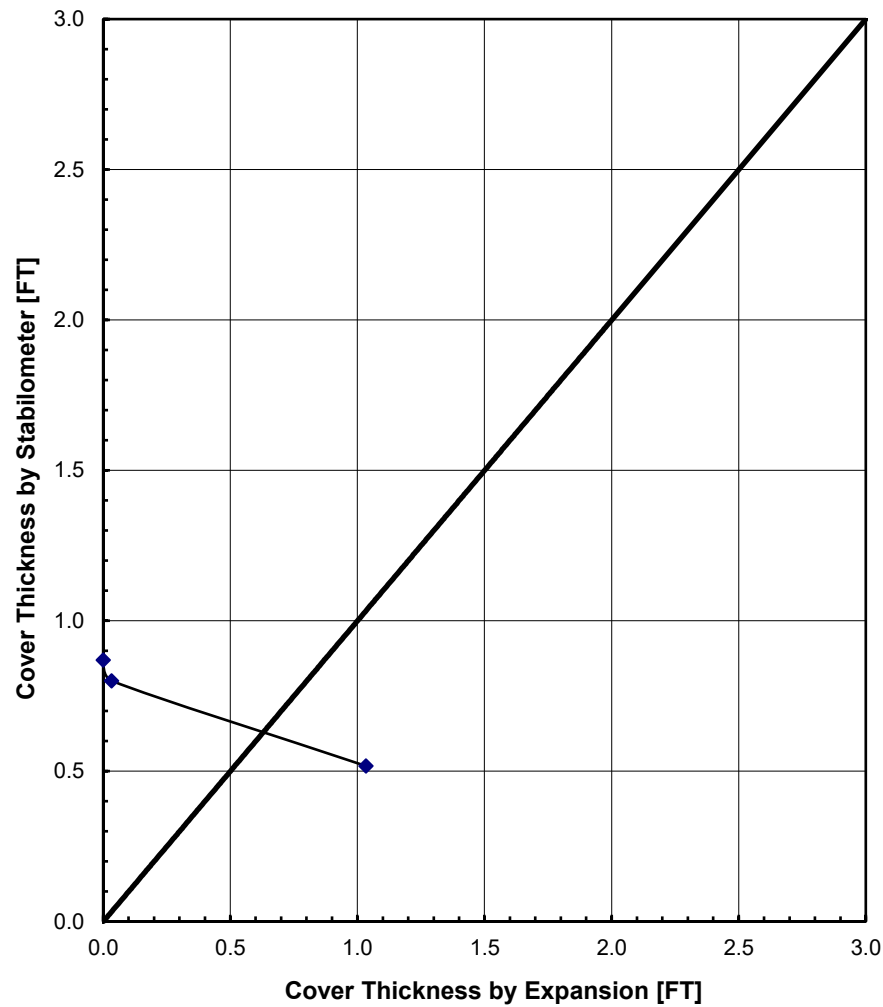
5.0
1.64
130
24
32
24

\*Note: Gravel factor estimated from pavement section using CTM 301, Section C, Part b.

REV. 2, DATED 1/31/15

Sample: A-17-01, ½' - 5'

R-Value at Equilibrium: 24



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SAN DIEGO, CALIFORNIA 92126

## COVER AND EXUDATION CHARTS

Document No. 22-0116

Project No. SD754

FIGURE B-6.2b



**BORING NO.:** A-17-02

**SAMPLE DATE:** 3/17/17

**BORING DEPTH:** 0' - 5'

**TEST DATE:** 4/3/17

**SAMPLE DESCRIPTION:** Dark yellow brown clayey sand (SC)

## LABORATORY TEST DATA

TEST SPECIMEN	1	2	3	4	5	
A COMPACTOR PRESSURE	250	190	230			[PSI]
B INITIAL MOISTURE	1.3	1.3	1.3			[%]
C BATCH SOIL WEIGHT	1200	1200	1200			[G]
D WATER ADDED	100	111	106			[ML]
E WATER ADDED ( $D \cdot (100+B)/C$ )	8.4	9.4	8.9			[%]
F COMPACTION MOISTURE (B+E)	9.7	10.7	10.2			[%]
G MOLD WEIGHT	2111.6	2112.3	2114.4			[G]
H TOTAL BRIQUETTE WEIGHT	3204.3	3213.6	3223.4			[G]
I NET BRIQUETTE WEIGHT (H-G)	1092.7	1101.3	1109.0			[G]
J BRIQUETTE HEIGHT	2.40	2.43	2.45			[IN]
K DRY DENSITY ( $30.3 \cdot I / ((100+F) \cdot J)$ )	125.7	124.1	124.4			[PCF]
L EXUDATION LOAD	6606	3000	4998			[LB]
M EXUDATION PRESSURE (L/12.54)	527	239	399			[PSI]
N STABILOMETER AT 1000 LBS	28	40	33			[PSI]
O STABILOMETER AT 2000 LBS	64	96	76			[PSI]
P DISPLACEMENT FOR 100 PSI	3.95	4.71	4.30			[Turns]
Q R VALUE BY STABILOMETER	49	26	39			
R CORRECTED R-VALUE (See Fig. 14)	46	25	39			
S EXPANSION DIAL READING	0.0035	0.0011	0.0027			[IN]
T EXPANSION PRESSURE ( $S \cdot 43,300$ )	152	48	117			[PSF]
U COVER BY STABILOMETER	0.53	0.73	0.60			[FT]
V COVER BY EXPANSION	1.17	0.37	0.90			[FT]

TRAFFIC INDEX:  
GRAVEL FACTOR:  
UNIT WEIGHT OF COVER [PCF]:  
R-VALUE BY EXUDATION:  
R-VALUE BY EXPANSION:  
R-VALUE AT EQUILIBRIUM:

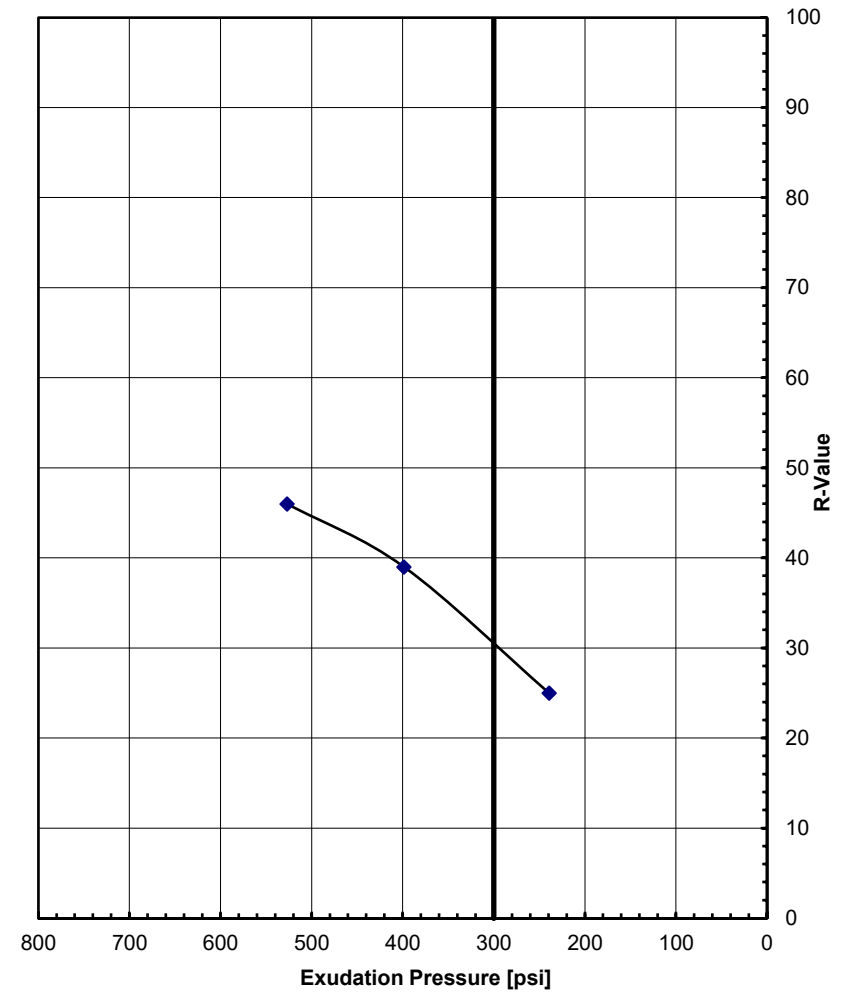
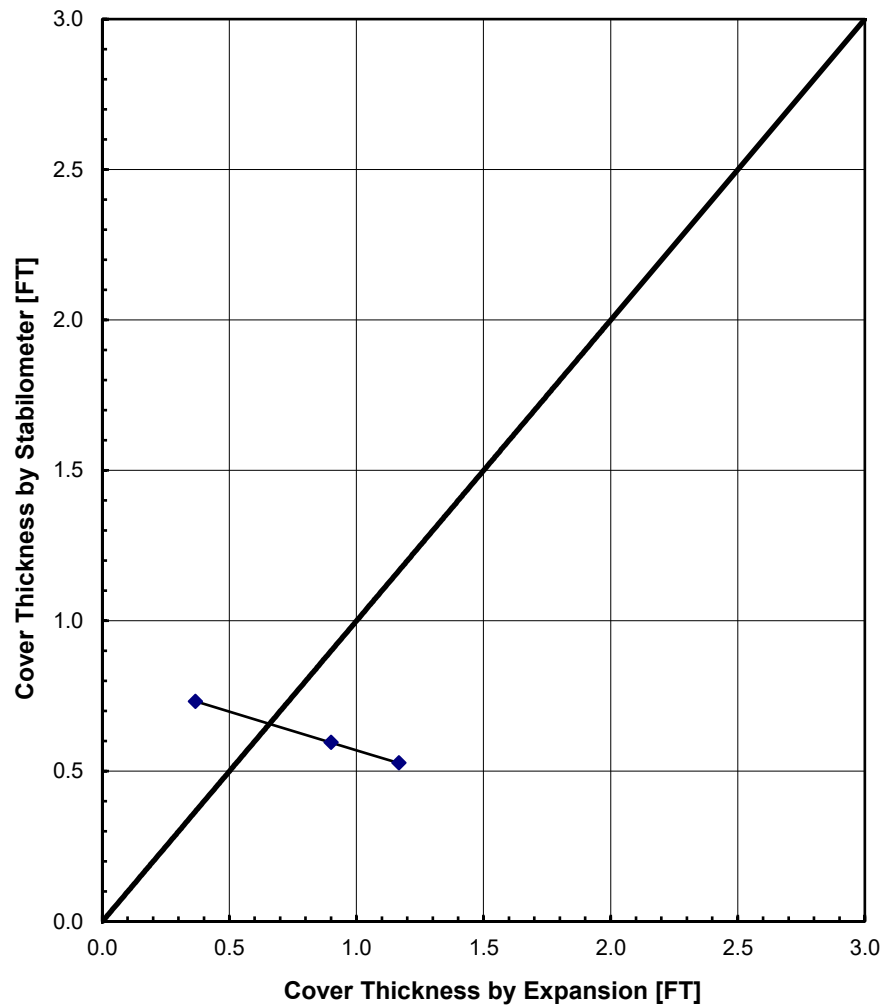
5.0
1.64
130
30
32
30

\*Note: Gravel factor estimated from pavement section using CTM 301, Section C, Part b.

REV. 2, DATED 1/31/15

Sample: A-17-02, 0' - 5'

R-Value at Equilibrium: 30



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## COVER AND EXUDATION CHARTS

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**FIGURE B-6.3b**

**BORING NO.:** A-17-03**SAMPLE DATE:** 3/17/17**BORING DEPTH:** ½' - 5'**TEST DATE:** 4/3/17**SAMPLE DESCRIPTION:** Dark yellowish brown clayey sand (SC)**LABORATORY TEST DATA**

<b>TEST SPECIMEN</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	
A COMPACTOR PRESSURE	115	90	180			[PSI]
B INITIAL MOISTURE	2.3	2.3	2.3			[%]
C BATCH SOIL WEIGHT	1200	1200	1200			[G]
D WATER ADDED	110	120	95			[ML]
E WATER ADDED ( $D \cdot (100+B)/C$ )	9.4	10.2	8.1			[%]
F COMPACTION MOISTURE (B+E)	11.7	12.5	10.4			[%]
G MOLD WEIGHT	2108.0	2006.1	2108.5			[G]
H TOTAL BRIQUETTE WEIGHT	3242.7	3156.5	3244.7			[G]
I NET BRIQUETTE WEIGHT (H-G)	1134.7	1150.4	1136.2			[G]
J BRIQUETTE HEIGHT	2.52	2.58	2.47			[IN]
K DRY DENSITY ( $30.3 \cdot I / ((100+F) \cdot J)$ )	122.2	120.1	126.3			[PCF]
L EXUDATION LOAD	2963	1987	7484			[LB]
M EXUDATION PRESSURE ( $L/12.54$ )	236	158	597			[PSI]
N STABILOMETER AT 1000 LBS	53	58	37			[PSI]
O STABILOMETER AT 2000 LBS	123	129	92			[PSI]
P DISPLACEMENT FOR 100 PSI	4.80	5.75	3.80			[Turns]
Q R VALUE BY STABILOMETER	14	9	33			
R CORRECTED R-VALUE (See Fig. 14)	14	10	33			
S EXPANSION DIAL READING	0.0011	0.0007	0.0032			[IN]
T EXPANSION PRESSURE ( $S \cdot 43,300$ )	48	30	139			[PSF]
U COVER BY STABILOMETER	0.78	0.82	0.61			[FT]
V COVER BY EXPANSION	0.37	0.23	1.07			[FT]

TRAFFIC INDEX:

6.0

GRAVEL FACTOR:

1.61

UNIT WEIGHT OF COVER [PCF]:

130

R-VALUE BY EXUDATION:

17

R-VALUE BY EXPANSION:

35

R-VALUE AT EQUILIBRIUM:

17

\*Note: Gravel factor estimated from required AC pavement section using CT301, Part 6.B.2.

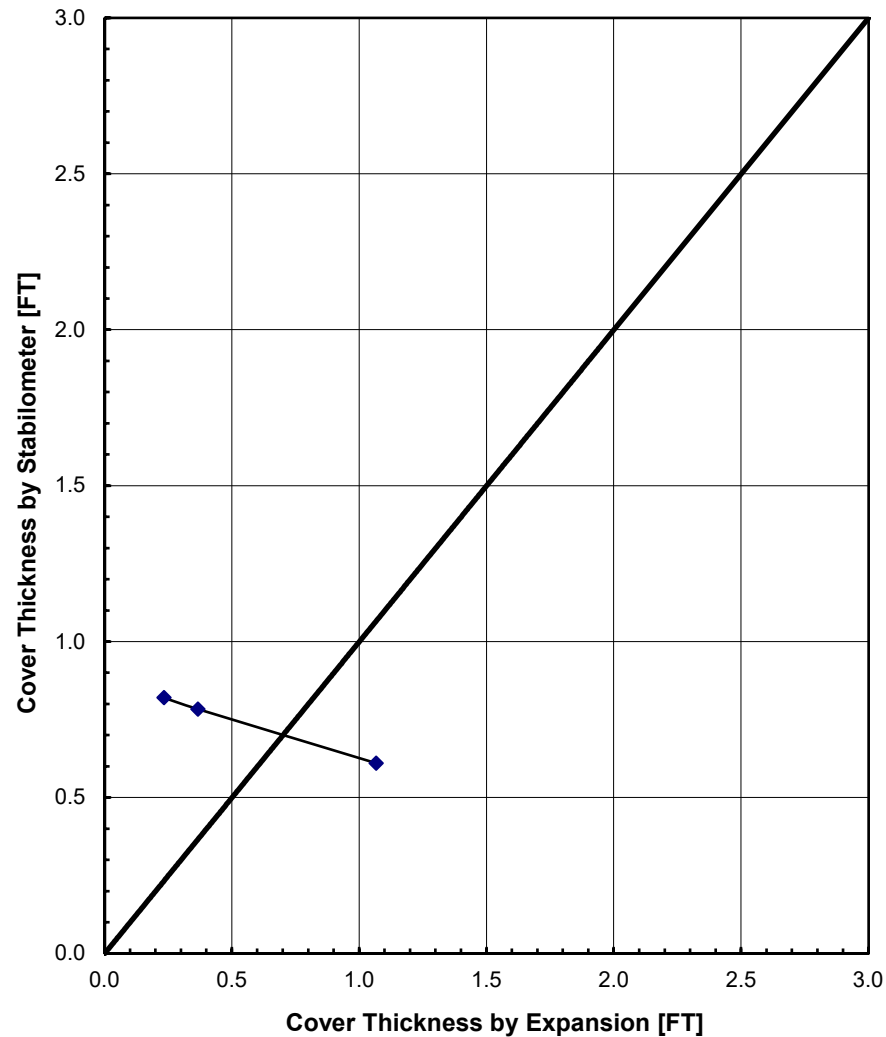
**GROUP DELTA****R-VALUE TEST RESULTS**

Document No. 22-0116

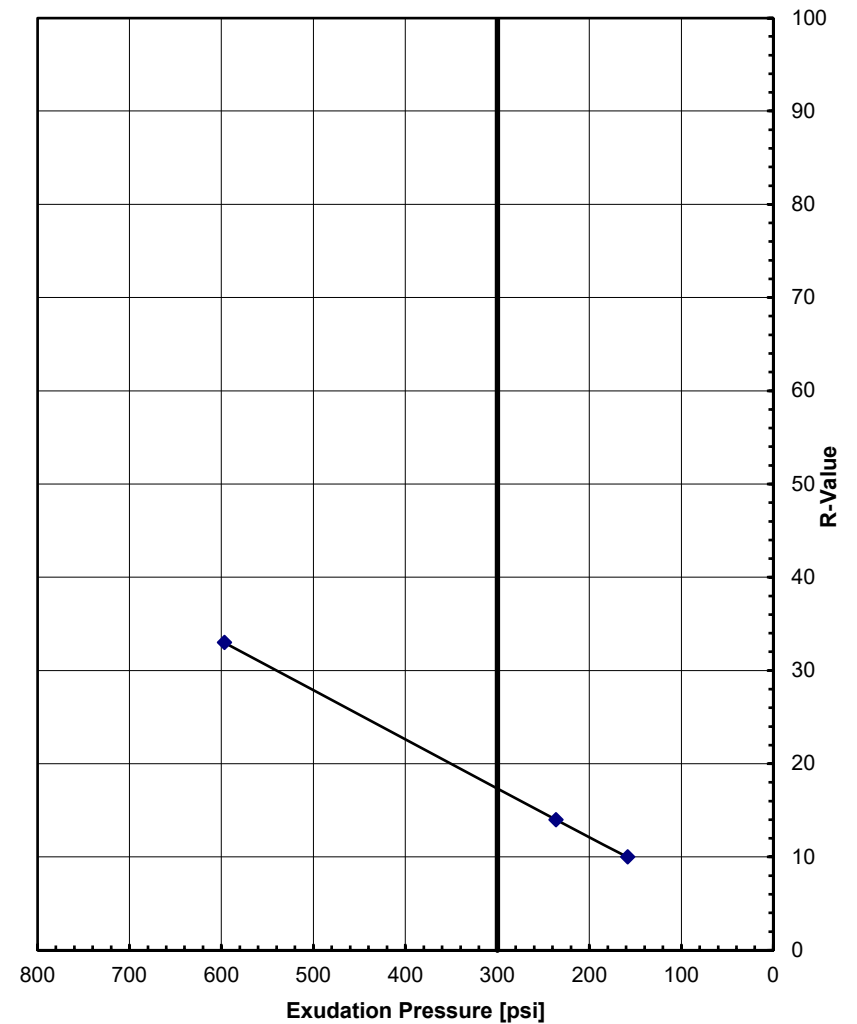
Project No. SD754

**FIGURE B-6.4a**

Sample A-17-03 @ ½' - 5'



R-Value at Equilibrium: 17



**GROUP DELTA**

**COVER AND EXUDATION CHARTS**

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**FIGURE B-6.4b**

**BORING NO.:** A-16-03**SAMPLE DATE:** 4/20/16**BORING DEPTH:** 0' - 5'**TEST DATE:** 4/27/16**SAMPLE DESCRIPTION:** Dark yellow brown clayey sand (SC)**LABORATORY TEST DATA**

TEST SPECIMEN	1	2	3	4	5	
A COMPACTOR PRESSURE	290	230	170			[PSI]
B INITIAL MOISTURE	7.1	7.1	7.1			[%]
C BATCH SOIL WEIGHT	1200	1200	1200			[G]
D WATER ADDED	60	70	85			[ML]
E WATER ADDED ( $D^*(100+B)/C$ )	5.4	6.2	7.6			[%]
F COMPACTION MOISTURE (B+E)	12.5	13.3	14.7			[%]
G MOLD WEIGHT	2111.4	2112.2	2108.6			[G]
H TOTAL BRIQUETTE WEIGHT	3137.0	3135.7	3127.3			[G]
I NET BRIQUETTE WEIGHT (H-G)	1025.6	1023.5	1018.7			[G]
J BRIQUETTE HEIGHT	2.50	2.50	2.48			[IN]
K DRY DENSITY ( $30.3*I/((100+F)*J)$ )	110.5	109.4	108.5			[PCF]
L EXUDATION LOAD	5461	4108	2886			[LB]
M EXUDATION PRESSURE (L/12.54)	435	328	230			[PSI]
N STABILOMETER AT 1000 LBS	28	31	46			[PSI]
O STABILOMETER AT 2000 LBS	65	71	104			[PSI]
P DISPLACEMENT FOR 100 PSI	3.97	4.10	4.59			[Turns]
Q R VALUE BY STABILOMETER	48	43	23			
R CORRECTED R-VALUE (See Fig. 14)	48	43	23			
S EXPANSION DIAL READING	0.0052	0.0034	0.0013			[IN]
T EXPANSION PRESSURE ( $S*43,300$ )	225	147	56			[PSF]
U COVER BY STABILOMETER	0.52	0.57	0.77			[FT]
V COVER BY EXPANSION	1.73	1.13	0.43			[FT]

TRAFFIC INDEX:  
 GRAVEL FACTOR:  
 UNIT WEIGHT OF COVER [PCF]:  
 R-VALUE BY EXUDATION:  
 R-VALUE BY EXPANSION:  
 R-VALUE AT EQUILIBRIUM:

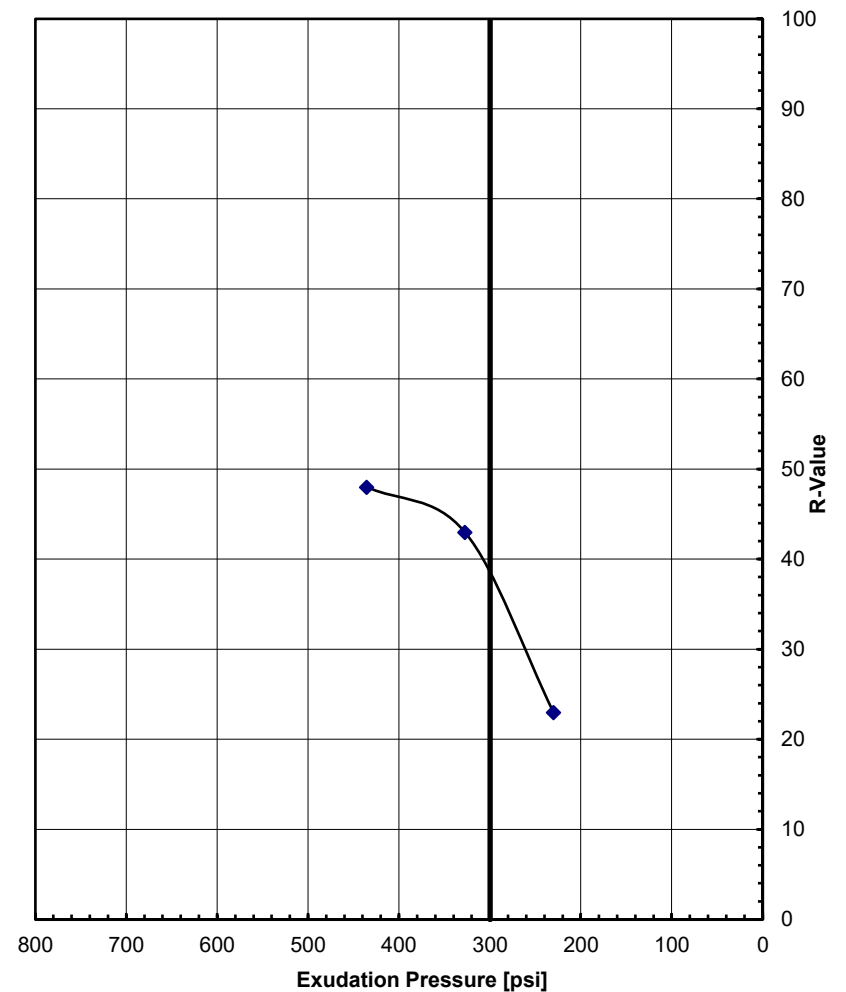
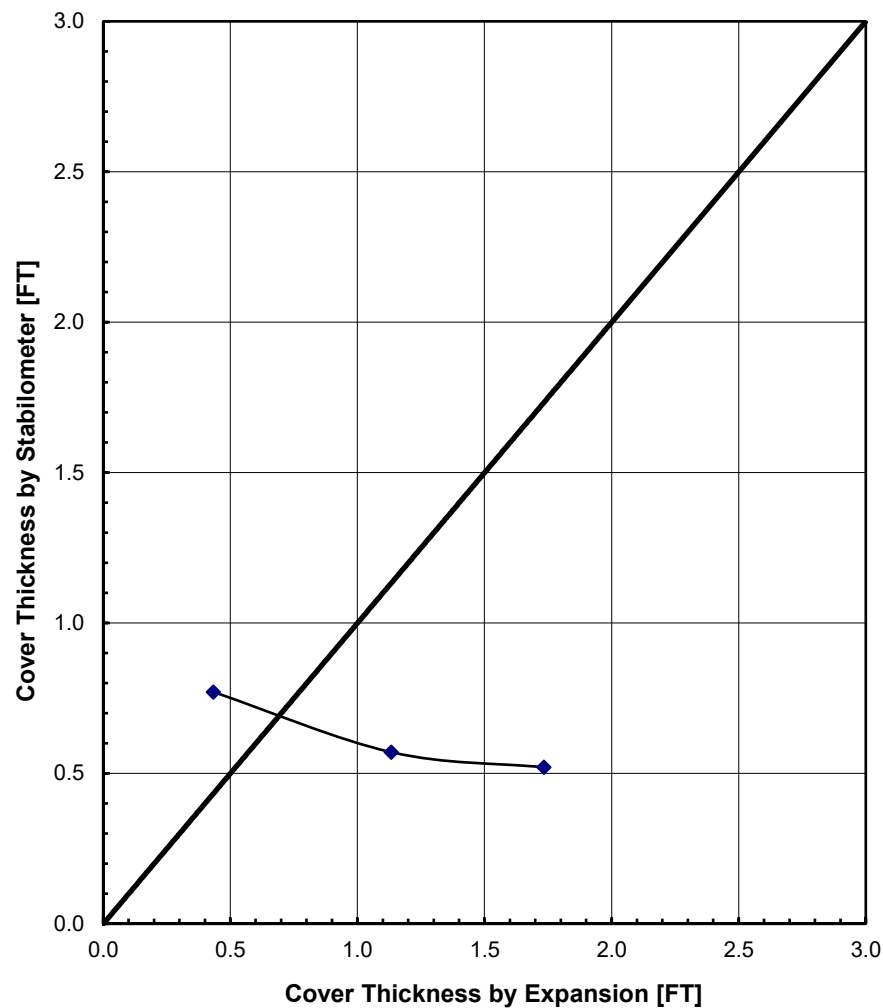
5.0
1.60
130
39
31
31

\*Note: Gravel factor estimated from pavement section using CTM 301, Section C, Part b.

REV. 2, DATED 1/31/15

Sample: A-16-03, 0' - 5'

R-Value at Equilibrium: 31



**BORING NO.:** A-16-09

**SAMPLE DATE:** 6/7/16

**BORING DEPTH:** 2' - 4'

**TEST DATE:** 6/10/16

**SAMPLE DESCRIPTION:** Dark yellow brown silty sand (SM)

## LABORATORY TEST DATA

TEST SPECIMEN	1	2	3	4	5	
A COMPACTOR PRESSURE	350	280	350			[PSI]
B INITIAL MOISTURE	2.1	2.1	2.1			[%]
C BATCH SOIL WEIGHT	1200	1200	1200			[G]
D WATER ADDED	80	90	74			[ML]
E WATER ADDED ( $D^*(100+B)/C$ )	6.8	7.7	6.3			[%]
F COMPACTION MOISTURE (B+E)	8.9	9.8	8.4			[%]
G MOLD WEIGHT	2108.7	2112.2	2114.3			[G]
H TOTAL BRIQUETTE WEIGHT	3215.2	3231.4	3216.8			[G]
I NET BRIQUETTE WEIGHT (H-G)	1106.5	1119.2	1102.5			[G]
J BRIQUETTE HEIGHT	2.44	2.45	2.45			[IN]
K DRY DENSITY ( $30.3*I/((100+F)*J)$ )	126.2	126.1	125.8			[PCF]
L EXUDATION LOAD	5283	3113	8218			[LB]
M EXUDATION PRESSURE (L/12.54)	421	248	655			[PSI]
N STABILOMETER AT 1000 LBS	22	30	14			[PSI]
O STABILOMETER AT 2000 LBS	45	68	27			[PSI]
P DISPLACEMENT FOR 100 PSI	3.56	4.19	3.69			[Turns]
Q R VALUE BY STABILOMETER	64	45	77			
R CORRECTED R-VALUE (See Fig. 14)	63	45	77			
S EXPANSION DIAL READING	0.0012	0.0000	0.0024			[IN]
T EXPANSION PRESSURE ( $S*43,300$ )	52	0	104			[PSF]
U COVER BY STABILOMETER	0.34	0.51	0.21			[FT]
V COVER BY EXPANSION	0.40	0.00	0.80			[FT]

TRAFFIC INDEX:  
GRAVEL FACTOR:  
UNIT WEIGHT OF COVER [PCF]:  
R-VALUE BY EXUDATION:  
R-VALUE BY EXPANSION:  
R-VALUE AT EQUILIBRIUM:

5.0
1.72
130
51
60
51

\*Note: Gravel factor estimated from pavement section using CTM 301, Section C, Part b.

REV. 2, DATED 1/31/15



**GROUP DELTA**

**R-VALUE TEST RESULTS**

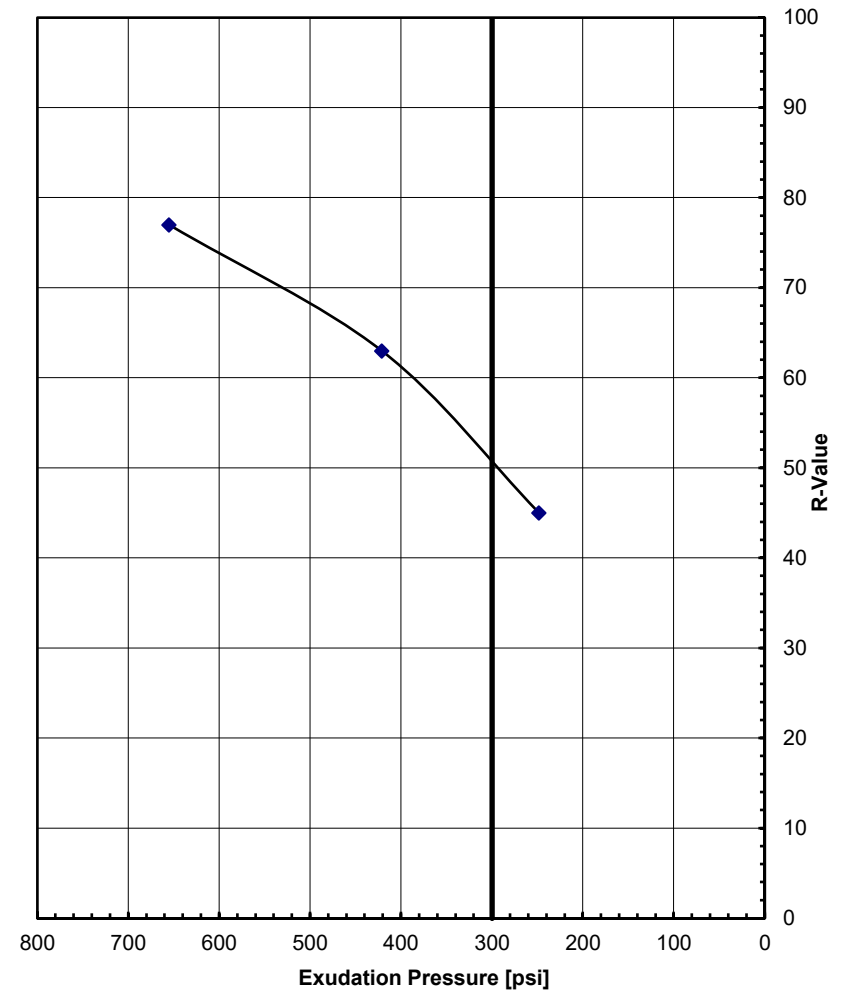
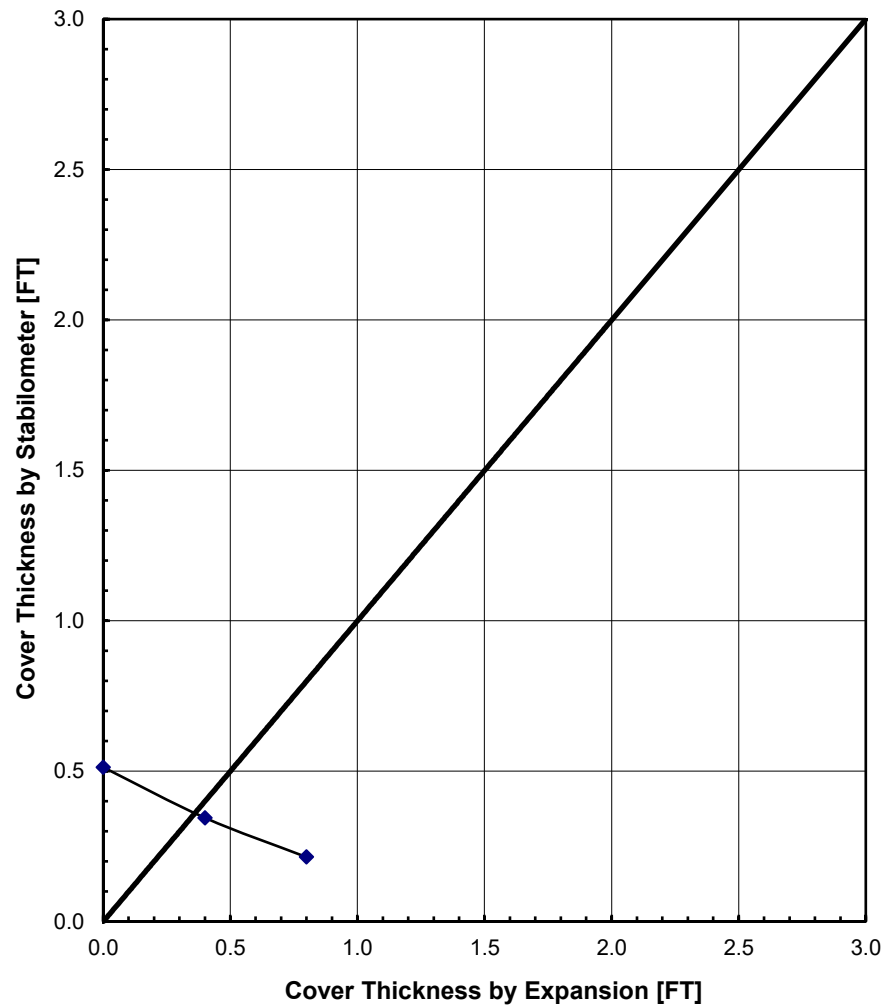
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**FIGURE B-6.6a**

Sample: A-16-09, 2' - 4'

R-Value at Equilibrium: 51



**GROUP DELTA**

**COVER AND EXUDATION CHARTS**

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**FIGURE B-6.6b**



**BORING NO.:** A-16-10

**SAMPLE DATE:** 6/7/16

**BORING DEPTH:** 2' - 4'

**TEST DATE:** 6/10/16

**SAMPLE DESCRIPTION:** Dark yellow brown silty sand (SM)

## LABORATORY TEST DATA

TEST SPECIMEN	1	2	3	4	5	
A COMPACTOR PRESSURE	270	200	350			[PSI]
B INITIAL MOISTURE	4.2	4.2	4.2			[%]
C BATCH SOIL WEIGHT	1200	1200	1200			[G]
D WATER ADDED	81	90	70			[ML]
E WATER ADDED ( $D^*(100+B)/C$ )	7.0	7.8	6.1			[%]
F COMPACTION MOISTURE (B+E)	11.3	12.0	10.3			[%]
G MOLD WEIGHT	2098.7	2108.2	2113.2			[G]
H TOTAL BRIQUETTE WEIGHT	3221.4	3260.8	3207.8			[G]
I NET BRIQUETTE WEIGHT (H-G)	1122.7	1152.6	1094.6			[G]
J BRIQUETTE HEIGHT	2.44	2.50	2.40			[IN]
K DRY DENSITY ( $30.3*I/((100+F)*J)$ )	125.3	124.7	125.3			[PCF]
L EXUDATION LOAD	4180	3143	6731			[LB]
M EXUDATION PRESSURE (L/12.54)	333	251	537			[PSI]
N STABILOMETER AT 1000 LBS	38	46	19			[PSI]
O STABILOMETER AT 2000 LBS	90	106	40			[PSI]
P DISPLACEMENT FOR 100 PSI	4.15	4.58	3.51			[Turns]
Q R VALUE BY STABILOMETER	32	22	68			
R CORRECTED R-VALUE (See Fig. 14)	32	22	66			
S EXPANSION DIAL READING	0.0000	0.0000	0.0019			[IN]
T EXPANSION PRESSURE ( $S*43,300$ )	0	0	82			[PSF]
U COVER BY STABILOMETER	0.69	0.79	0.34			[FT]
V COVER BY EXPANSION	0.00	0.00	0.63			[FT]

TRAFFIC INDEX:  
GRAVEL FACTOR:  
UNIT WEIGHT OF COVER [PCF]:  
R-VALUE BY EXUDATION:  
R-VALUE BY EXPANSION:  
R-VALUE AT EQUILIBRIUM:

5.0
1.58
130
26
55
26

\*Note: Gravel factor estimated from pavement section using CTM 301, Section C, Part b.

REV. 2, DATED 1/31/15



**GROUP DELTA**

**R-VALUE TEST RESULTS**

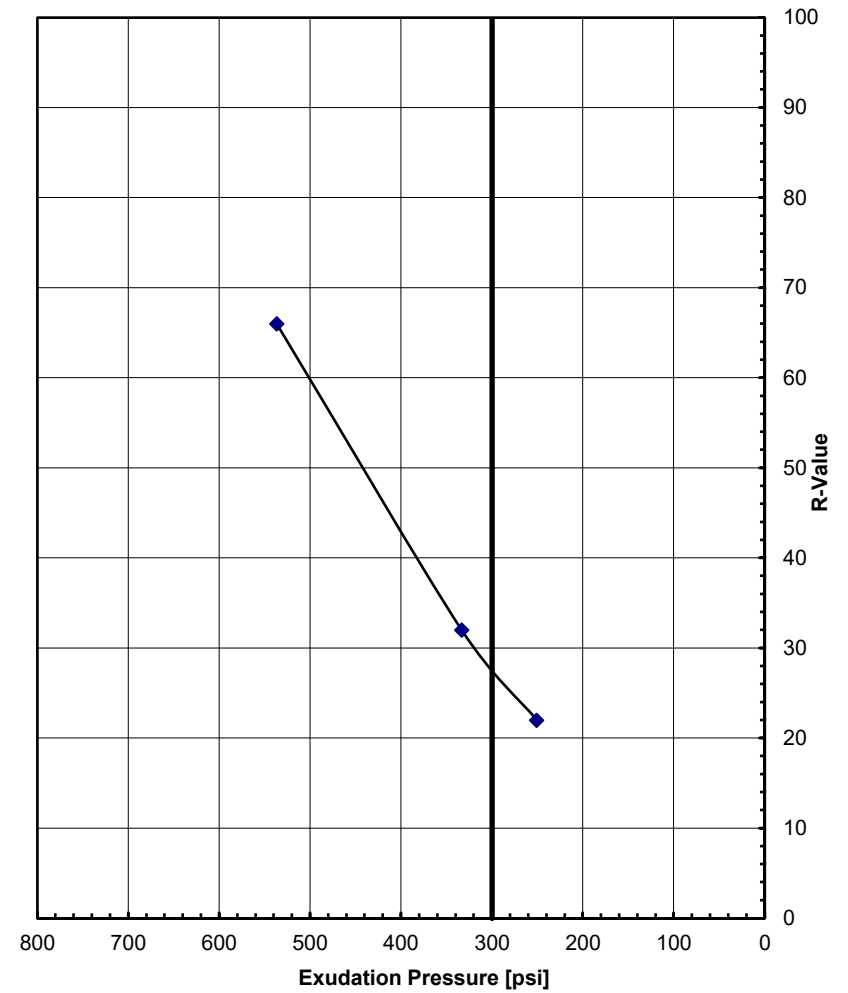
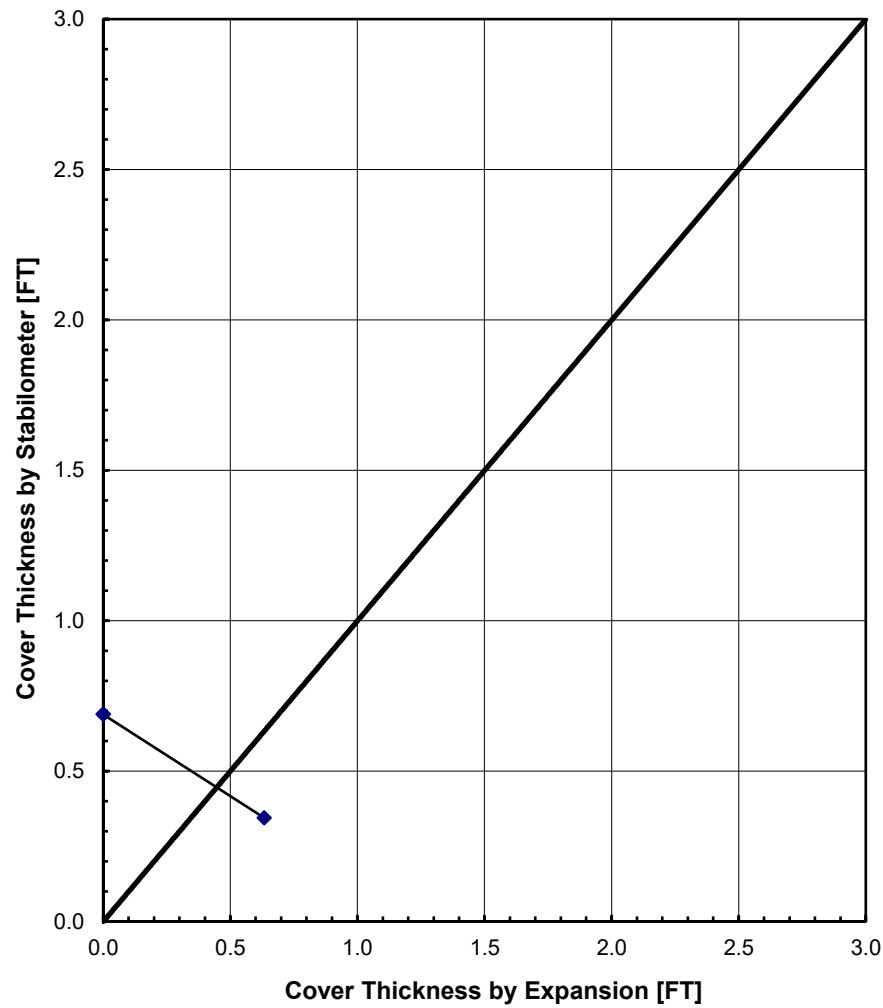
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**FIGURE B-6.7a**

Sample: A-16-10, 2' - 4'

R-Value at Equilibrium: 26



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**COVER AND EXUDATION CHARTS**

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**FIGURE B-6.7b**

**BORING NO.:** A-14-01**SAMPLE DATE:** 6/23/14**BORING DEPTH:** 0' - 5'**TEST DATE:** 7/11/14**SAMPLE DESCRIPTION:** Reddish brown silty sand (SM)**LABORATORY TEST DATA**

<b>TEST SPECIMEN</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	
A COMPACTOR PRESSURE	90	70	50			[PSI]
B INITIAL MOISTURE	2.3	2.3	2.3			[%]
C BATCH SOIL WEIGHT	1200	1200	1200			[G]
D WATER ADDED	112	125	140			[ML]
E WATER ADDED ( $D \cdot (100+B)/C$ )	9.5	10.7	11.9			[%]
F COMPACTION MOISTURE (B+E)	11.8	13.0	14.2			[%]
G MOLD WEIGHT	2010.5	2017.2	2008.2			[G]
H TOTAL BRIQUETTE WEIGHT	3127.2	3139.2	3098.4			[G]
I NET BRIQUETTE WEIGHT (H-G)	1116.7	1122.0	1090.2			[G]
J BRIQUETTE HEIGHT	2.51	2.57	2.55			[IN]
K DRY DENSITY ( $30.3 \cdot I / ((100+F) \cdot J)$ )	120.5	117.1	113.4			[PCF]
L EXUDATION LOAD	7716	5403	3449			[LB]
M EXUDATION PRESSURE ( $L/12.54$ )	615	431	275			[PSI]
N STABILOMETER AT 1000 LBS	46	54	71			[PSI]
O STABILOMETER AT 2000 LBS	104	123	137			[PSI]
P DISPLACEMENT FOR 100 PSI	4.36	4.61	4.92			[Turns]
Q R VALUE BY STABILOMETER	24	14	8			
R CORRECTED R-VALUE (See Fig. 14)	24	15	8			
S EXPANSION DIAL READING	0.0024	0.0008	0.0000			[IN]
T EXPANSION PRESSURE ( $S \cdot 43,300$ )	104	35	0			[PSF]
U COVER BY STABILOMETER	0.83	0.93	1.01			[FT]
V COVER BY EXPANSION	0.80	0.27	0.00			[FT]

TRAFFIC INDEX:

5.0

GRAVEL FACTOR:

1.46

UNIT WEIGHT OF COVER [PCF]:

130

R-VALUE BY EXUDATION:

9

R-VALUE BY EXPANSION:

24

R-VALUE AT EQUILIBRIUM:

9

\*Note: Gravel factor estimated from required AC pavement section using CT301, Part 6.B.2.

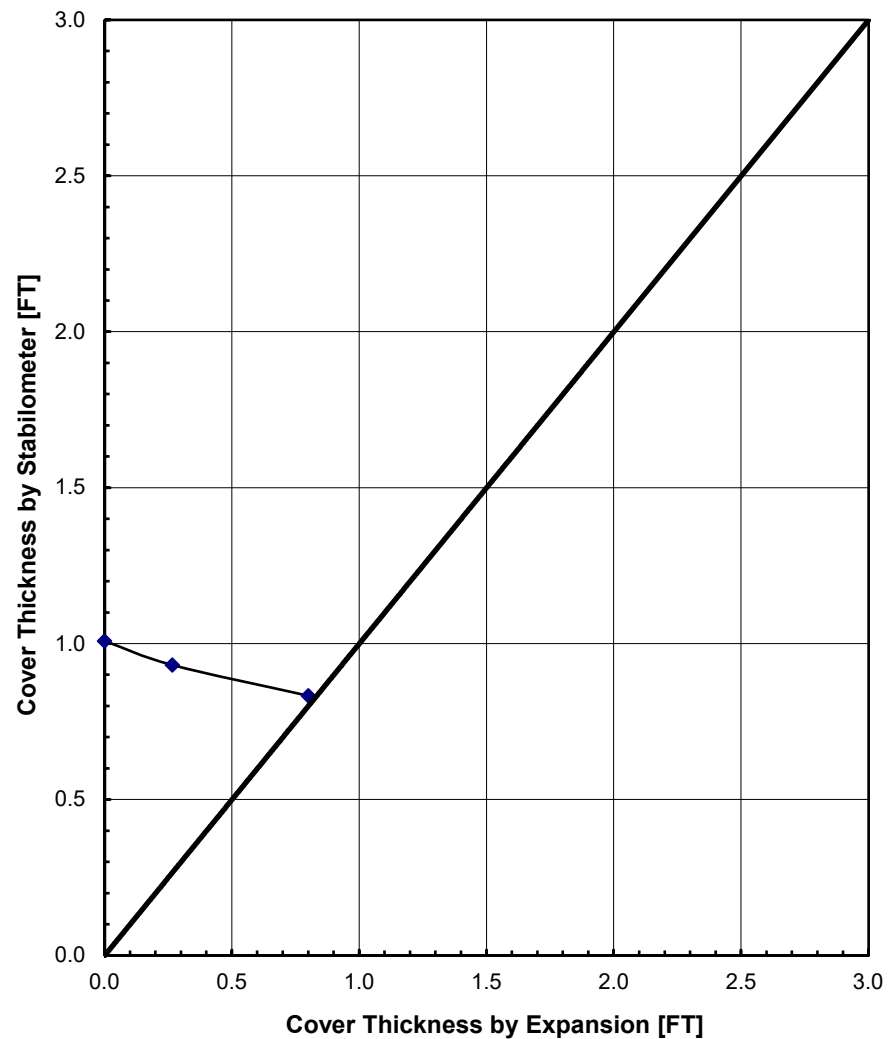
**GROUP DELTA****R-VALUE TEST RESULTS**

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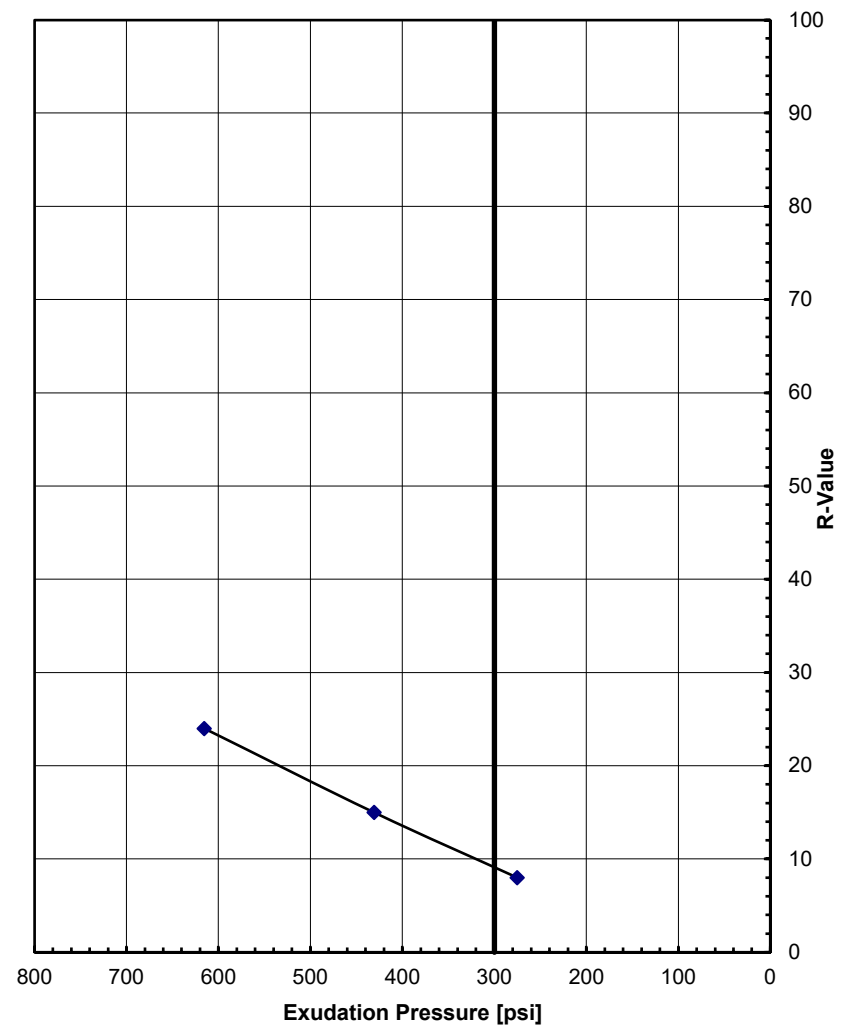
Project No. SD754

**FIGURE B-6.8a**

Sample A-14-01 @ 0' - 5'



R-Value at Equilibrium: 9



**GROUP DELTA**

**COVER AND EXUDATION CHARTS**

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**FIGURE B-6.8b**

**SAMPLE NO.:** B-4

**SAMPLE DATE:** 12/22/22

**SAMPLE LOCATION:** 1' - 5'

**TEST DATE:** 1/5/23

**SAMPLE DESCRIPTION:** Yellowish brown silty sand (SM)

## LABORATORY TEST DATA

TEST SPECIMEN	1	2	3	4	5	
A COMPACTOR PRESSURE	100	140	180			[PSI]
B INITIAL MOISTURE	2.1	2.1	2.1			[%]
C BATCH SOIL WEIGHT	1200	1200	1200			[G]
D WATER ADDED	135	122	109			[ML]
E WATER ADDED ( $D \cdot (100+B)/C$ )	11.5	10.4	9.3			[%]
F COMPACTION MOISTURE (B+E)	13.6	12.5	11.4			[%]
G MOLD WEIGHT	2102.7	2104.9	2077.4			[G]
H TOTAL BRIQUETTE WEIGHT	3218.7	3194.1	3089.0			[G]
I NET BRIQUETTE WEIGHT (H-G)	1116.0	1089.2	1011.6			[G]
J BRIQUETTE HEIGHT	2.55	2.45	2.47			[IN]
K DRY DENSITY ( $30.3 \cdot I / ((100+F) \cdot J)$ )	116.7	119.8	111.4			[PCF]
L EXUDATION LOAD	2475	4156	6988			[LB]
M EXUDATION PRESSURE (L/12.54)	197	331	557			[PSI]
N STABILOMETER AT 1000 LBS	54	51	47			[PSI]
O STABILOMETER AT 2000 LBS	131	124	114			[PSI]
P DISPLACEMENT FOR 100 PSI	5.45	4.53	4.44			[Turns]
Q R VALUE BY STABILOMETER	9	14	19			
R CORRECTED R-VALUE (See Fig. 14)	9	14	19			
S EXPANSION DIAL READING	0.0000	0.0000	0.0000			[IN]
T EXPANSION PRESSURE ( $S \cdot 43,300$ )	0	0	0			[PSF]
U COVER BY STABILOMETER	0.92	0.87	0.82			[FT]
V COVER BY EXPANSION	0.00	0.00	0.00			[FT]

TRAFFIC INDEX:  
GRAVEL FACTOR:  
UNIT WEIGHT OF COVER [PCF]:  
R-VALUE BY EXUDATION:  
R-VALUE BY EXPANSION:  
R-VALUE AT EQUILIBRIUM:

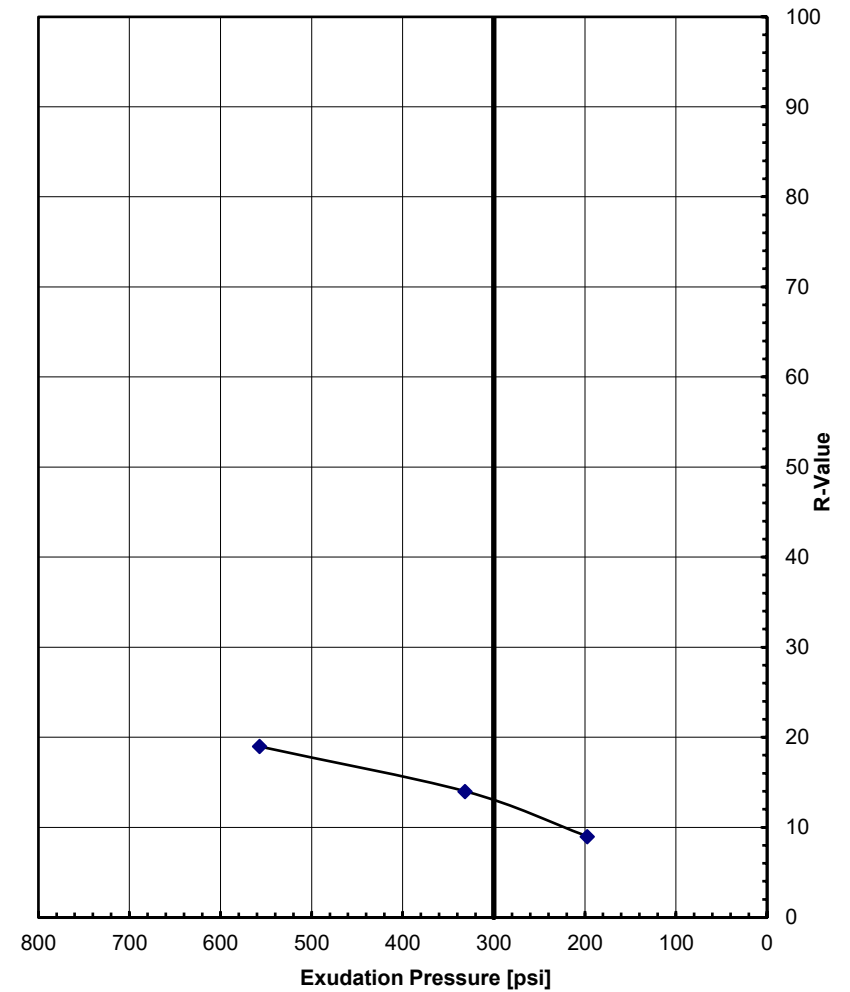
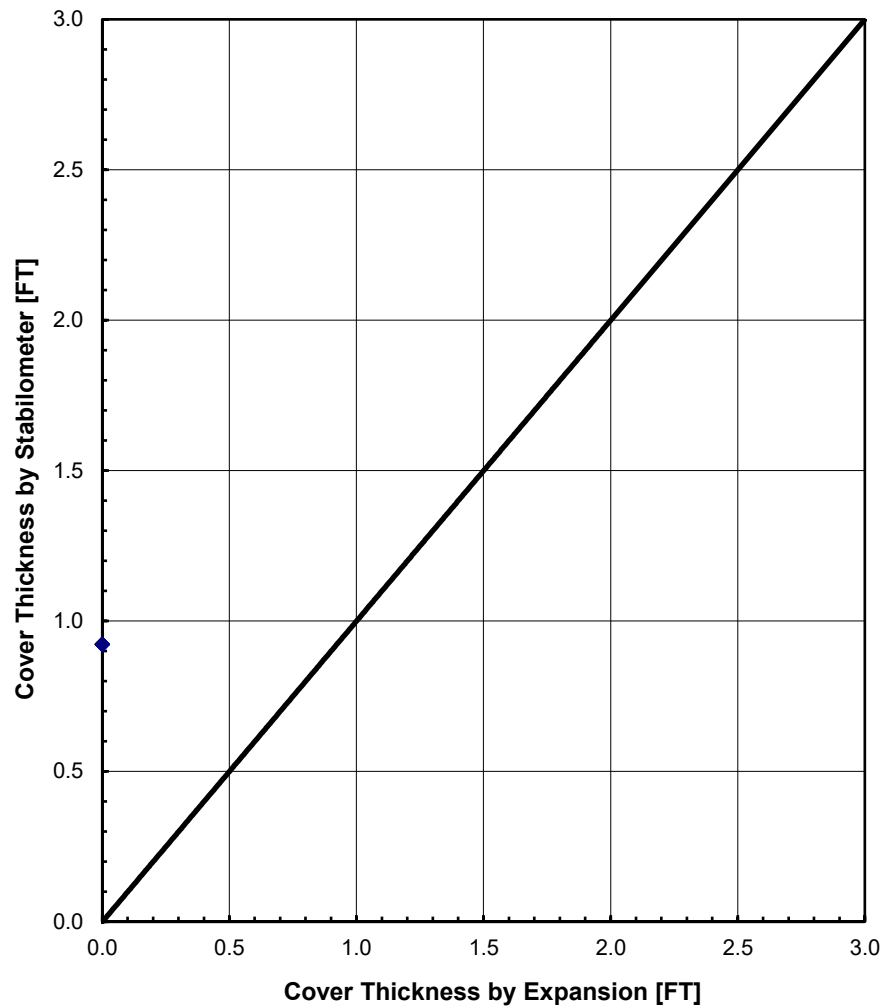
5.0
1.58
130
14
100
14

\*Note: Gravel factor estimated from pavement section using CTM 301, Section C, Part b.

REV. 2, DATED 1/31/15

Sample: B-4 @ 1' - 5'

R-Value at Equilibrium: 14



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## COVER AND EXUDATION CHARTS

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**FIGURE B-6.9b**

**SAMPLE NO.:** B-19

**SAMPLE DATE:** 12/12/22

**SAMPLE LOCATION:** 1' - 5'

**TEST DATE:** 1/4/22

**SAMPLE DESCRIPTION:** Yellowish brown silty sand (SM)

## LABORATORY TEST DATA

TEST SPECIMEN	1	2	3	4	5	
A COMPACTOR PRESSURE	100	150	190			[PSI]
B INITIAL MOISTURE	2.2	2.2	2.2			[%]
C BATCH SOIL WEIGHT	1200	1200	1200			[G]
D WATER ADDED	130	115	107			[ML]
E WATER ADDED ( $D \cdot (100+B)/C$ )	11.1	9.8	9.1			[%]
F COMPACTION MOISTURE (B+E)	13.3	12.0	11.3			[%]
G MOLD WEIGHT	2012.0	2012.1	2087.7			[G]
H TOTAL BRIQUETTE WEIGHT	3130.5	3138.8	3211.1			[G]
I NET BRIQUETTE WEIGHT (H-G)	1118.5	1126.7	1123.4			[G]
J BRIQUETTE HEIGHT	2.57	2.50	2.49			[IN]
K DRY DENSITY ( $30.3 \cdot I / ((100+F) \cdot J)$ )	116.4	121.9	122.8			[PCF]
L EXUDATION LOAD	2906	5704	6052			[LB]
M EXUDATION PRESSURE (L/12.54)	232	455	483			[PSI]
N STABILOMETER AT 1000 LBS	57	50	43			[PSI]
O STABILOMETER AT 2000 LBS	130	121	106			[PSI]
P DISPLACEMENT FOR 100 PSI	6.14	5.19	4.40			[Turns]
Q R VALUE BY STABILOMETER	9	13	22			
R CORRECTED R-VALUE (See Fig. 14)	9	13	22			
S EXPANSION DIAL READING	0.0000	0.0003	0.0005			[IN]
T EXPANSION PRESSURE ( $S \cdot 43,300$ )	0	13	22			[PSF]
U COVER BY STABILOMETER	1.00	0.95	0.85			[FT]
V COVER BY EXPANSION	0.00	0.10	0.17			[FT]

TRAFFIC INDEX:  
GRAVEL FACTOR:  
UNIT WEIGHT OF COVER [PCF]:  
R-VALUE BY EXUDATION:  
R-VALUE BY EXPANSION:  
R-VALUE AT EQUILIBRIUM:

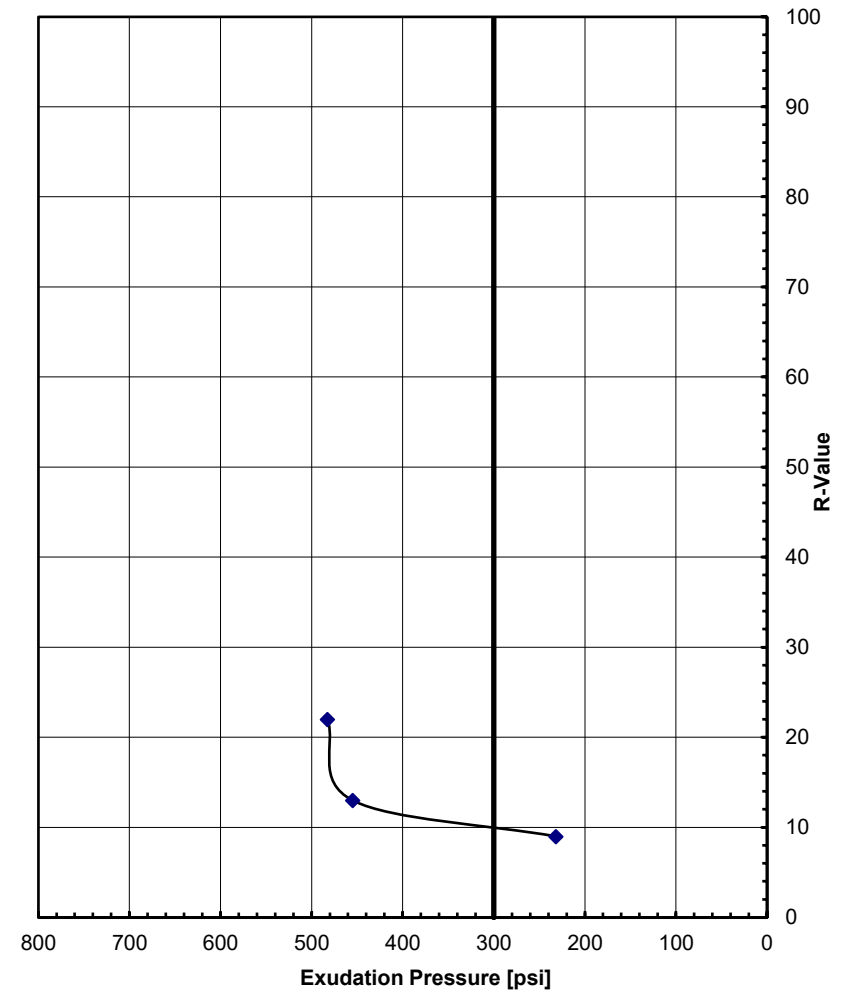
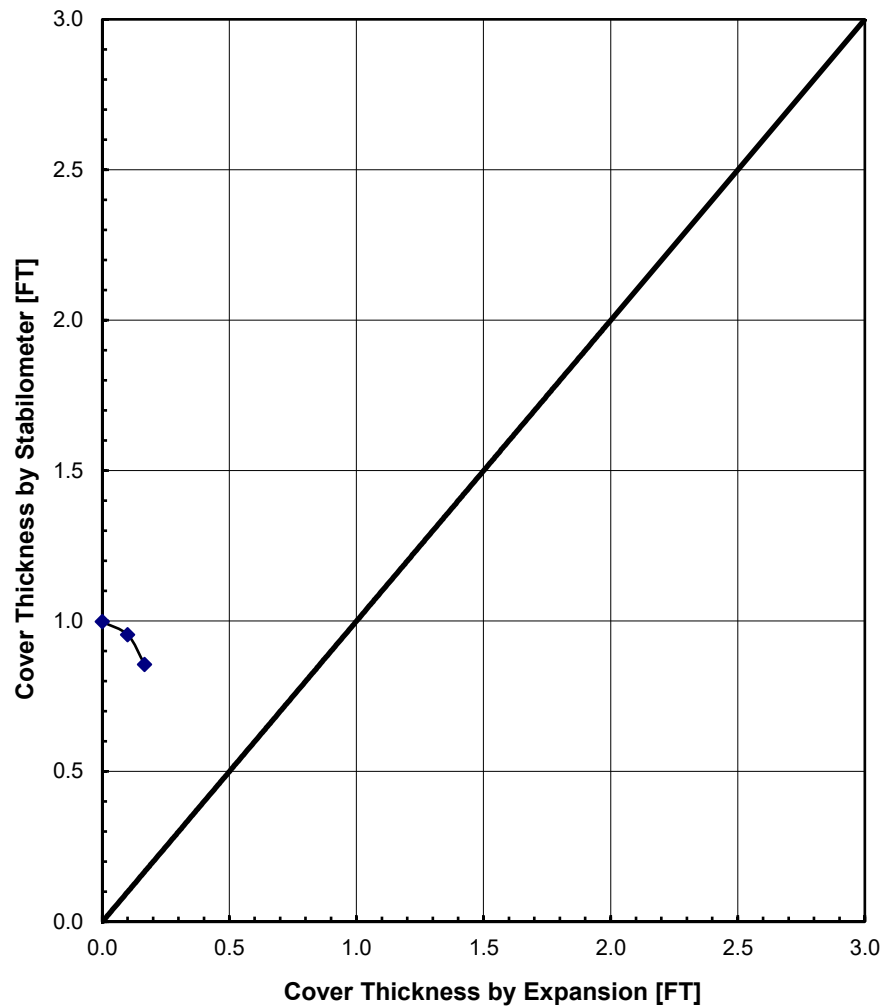
5.0
1.46
130
10
22
10

\*Note: Gravel factor estimated from pavement section using CTM 301, Section C, Part b.

REV. 2, DATED 1/31/15

Sample: B-19 @ 1' - 5'

R-Value at Equilibrium: 10



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Document No. 22-0116

Project No. SD754A

**FIGURE B-6.10b**



**SAMPLE NO.:** B-39

**SAMPLE DATE:** 12/15/22

**SAMPLE LOCATION:** 1' - 5'

**TEST DATE:** 1/5/23

**SAMPLE DESCRIPTION:** Yellowish brown clayey sand (SC)

## LABORATORY TEST DATA

TEST SPECIMEN	1	2	3	4	5	
A COMPACTOR PRESSURE	130	160	100			[PSI]
B INITIAL MOISTURE	2.1	2.1	2.1			[%]
C BATCH SOIL WEIGHT	1200	1200	1200			[G]
D WATER ADDED	146	131	156			[ML]
E WATER ADDED ( $D \cdot (100+B)/C$ )	12.4	11.1	13.3			[%]
F COMPACTION MOISTURE (B+E)	14.5	13.2	15.4			[%]
G MOLD WEIGHT	2014.8	2011.5	2013.3			[G]
H TOTAL BRIQUETTE WEIGHT	3069.0	3119.0	3050.1			[G]
I NET BRIQUETTE WEIGHT (H-G)	1054.2	1107.5	1036.8			[G]
J BRIQUETTE HEIGHT	2.45	2.48	2.47			[IN]
K DRY DENSITY ( $30.3 \cdot I / ((100+F) \cdot J)$ )	113.8	119.5	110.2			[PCF]
L EXUDATION LOAD	3066	5190	2123			[LB]
M EXUDATION PRESSURE (L/12.54)	244	414	169			[PSI]
N STABILOMETER AT 1000 LBS	46	36	54			[PSI]
O STABILOMETER AT 2000 LBS	120	95	130			[PSI]
P DISPLACEMENT FOR 100 PSI	4.53	4.06	5.11			[Turns]
Q R VALUE BY STABILOMETER	16	30	10			
R CORRECTED R-VALUE (See Fig. 14)	16	30	10			
S EXPANSION DIAL READING	0.0007	0.0009	0.0001			[IN]
T EXPANSION PRESSURE ( $S \cdot 43,300$ )	30	39	4			[PSF]
U COVER BY STABILOMETER	0.88	0.73	0.94			[FT]
V COVER BY EXPANSION	0.23	0.30	0.03			[FT]

TRAFFIC INDEX:  
GRAVEL FACTOR:  
UNIT WEIGHT OF COVER [PCF]:  
R-VALUE BY EXUDATION:  
R-VALUE BY EXPANSION:  
R-VALUE AT EQUILIBRIUM:

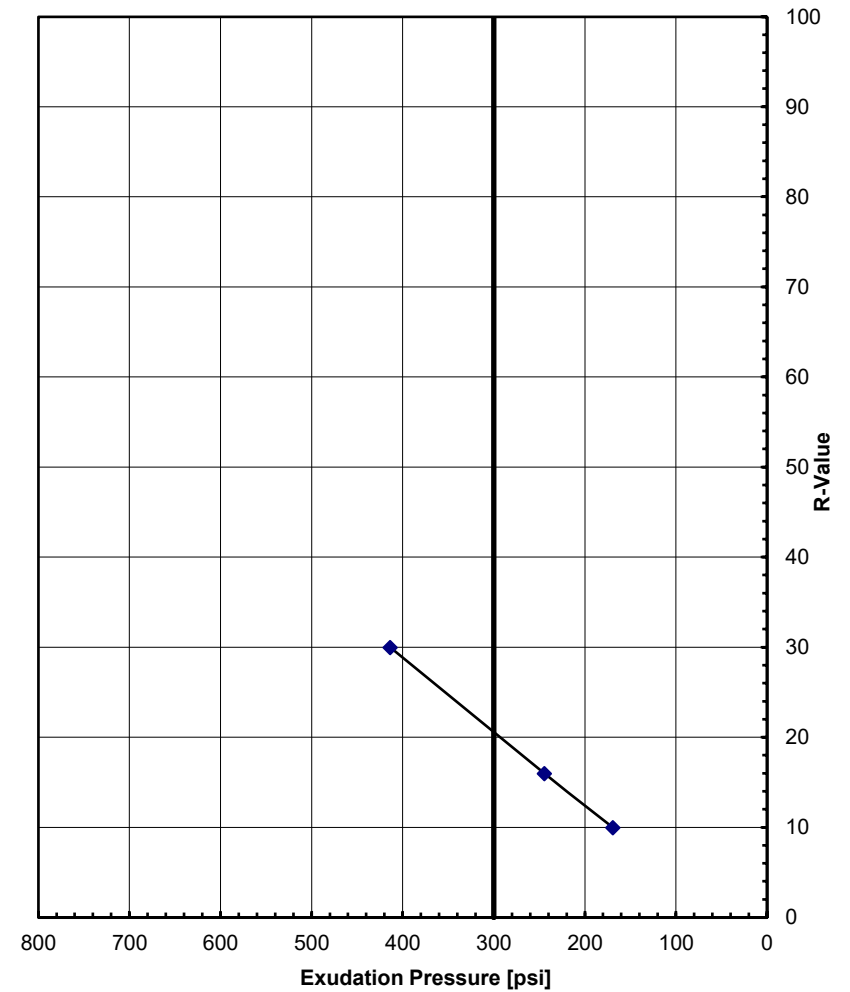
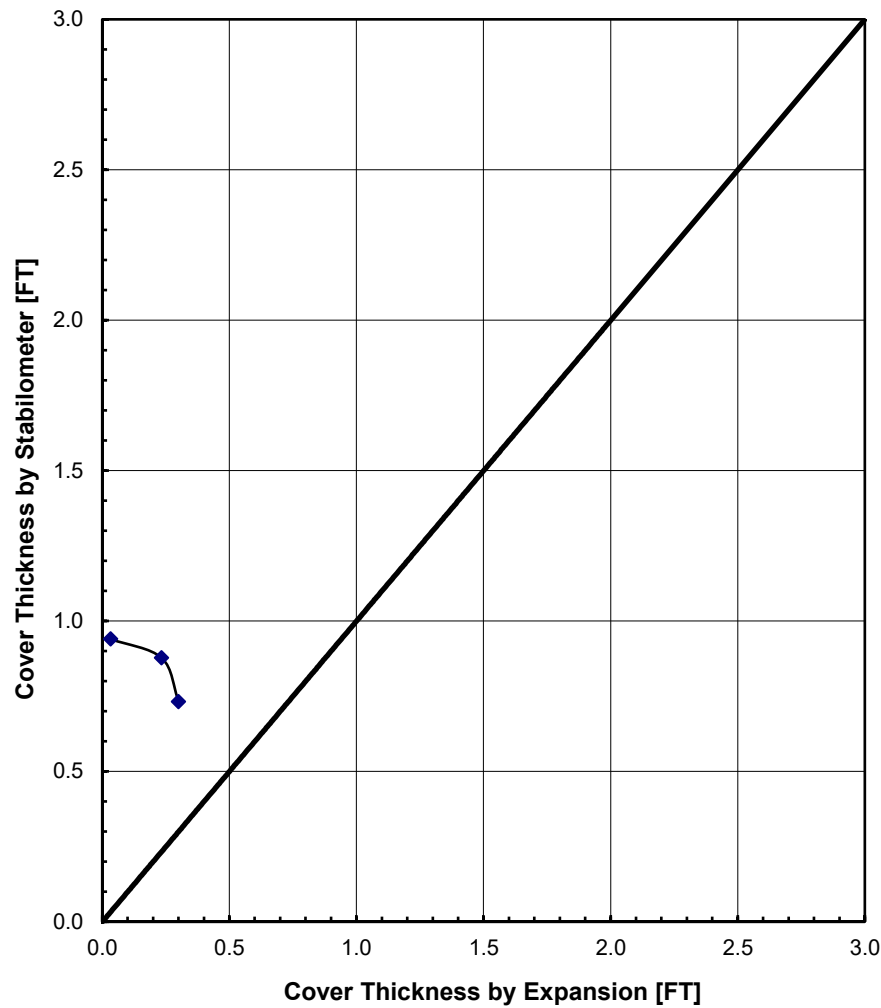
5.0
1.53
130
20
30
20

\*Note: Gravel factor estimated from pavement section using CTM 301, Section C, Part b.

REV. 2, DATED 1/31/15

Sample: B-39 @ 1' - 5'

R-Value at Equilibrium: 20



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## COVER AND EXUDATION CHARTS

Document No. 22-0116

Project No. SD754A

**FIGURE B-6.11b**

**SAMPLE NO.:** B-48

**SAMPLE DATE:** 12/14/22

**SAMPLE LOCATION:** 1' - 5'

**TEST DATE:** 1/4/22

**SAMPLE DESCRIPTION:** Pale brown silty sand (SM)

## LABORATORY TEST DATA

TEST SPECIMEN	1	2	3	4	5	
A COMPACTOR PRESSURE	140	110	170			[PSI]
B INITIAL MOISTURE	1.7	1.7	1.7			[%]
C BATCH SOIL WEIGHT	1200	1200	1200			[G]
D WATER ADDED	125	135	115			[ML]
E WATER ADDED ( $D \cdot (100+B)/C$ )	10.6	11.4	9.7			[%]
F COMPACTION MOISTURE (B+E)	12.3	13.1	11.4			[%]
G MOLD WEIGHT	2010.6	2020.0	2010.6			[G]
H TOTAL BRIQUETTE WEIGHT	3156.0	3187.5	3158.7			[G]
I NET BRIQUETTE WEIGHT (H-G)	1145.4	1167.5	1148.1			[G]
J BRIQUETTE HEIGHT	2.50	2.62	2.53			[IN]
K DRY DENSITY ( $30.3 \cdot I / ((100+F) \cdot J)$ )	123.6	119.3	123.4			[PCF]
L EXUDATION LOAD	3479	2405	4570			[LB]
M EXUDATION PRESSURE (L/12.54)	277	192	364			[PSI]
N STABILOMETER AT 1000 LBS	54	60	51			[PSI]
O STABILOMETER AT 2000 LBS	126	130	116			[PSI]
P DISPLACEMENT FOR 100 PSI	5.39	5.78	5.21			[Turns]
Q R VALUE BY STABILOMETER	11	9	15			
R CORRECTED R-VALUE (See Fig. 14)	11	9	15			
S EXPANSION DIAL READING	0.0000	0.0000	0.0000			[IN]
T EXPANSION PRESSURE ( $S \cdot 43,300$ )	0	0	0			[PSF]
U COVER BY STABILOMETER	0.90	0.92	0.86			[FT]
V COVER BY EXPANSION	0.00	0.00	0.00			[FT]

TRAFFIC INDEX:  
GRAVEL FACTOR:  
UNIT WEIGHT OF COVER [PCF]:  
R-VALUE BY EXUDATION:  
R-VALUE BY EXPANSION:  
R-VALUE AT EQUILIBRIUM:

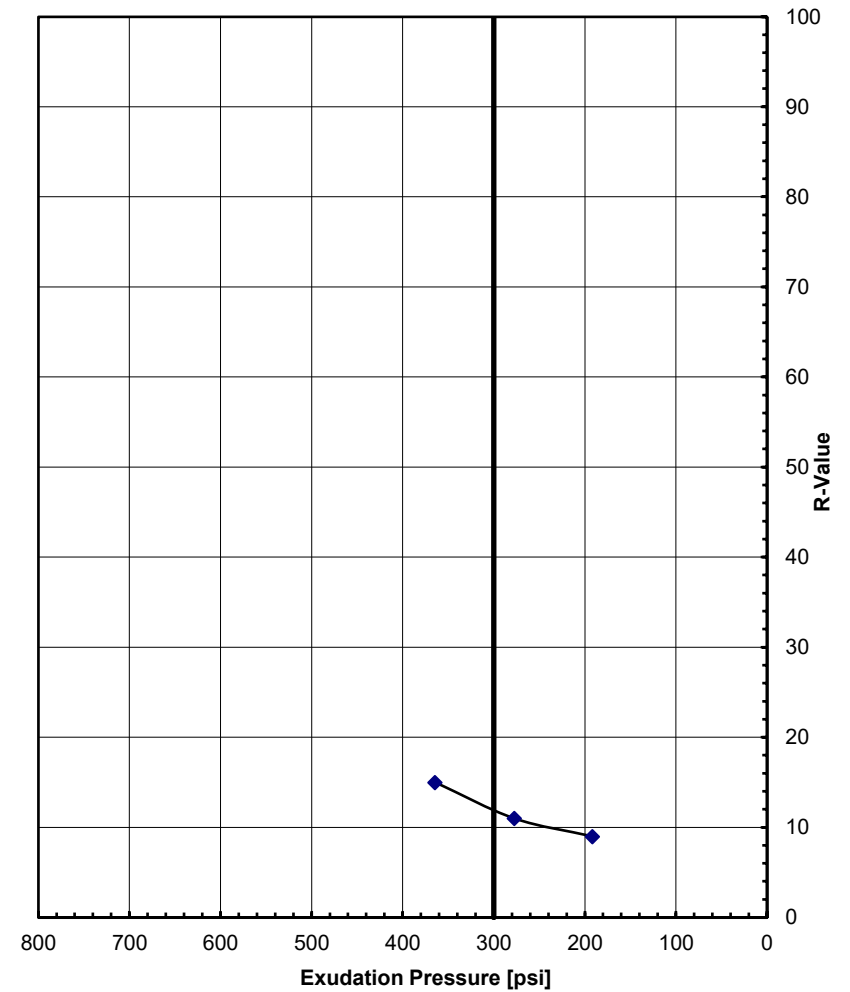
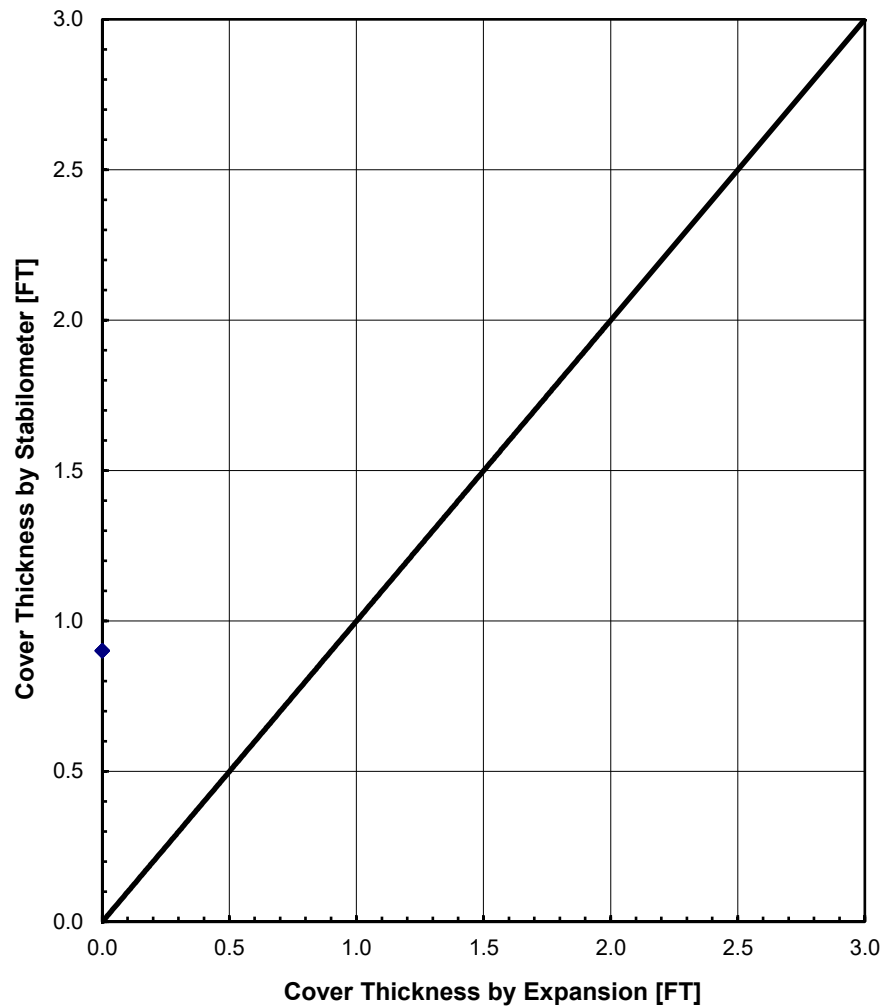
5.0
1.58
130
12
100
12

\*Note: Gravel factor estimated from pavement section using CTM 301, Section C, Part b.

REV. 2, DATED 1/31/15

Sample: B-48 @ 1' - 5'

R-Value at Equilibrium: 12



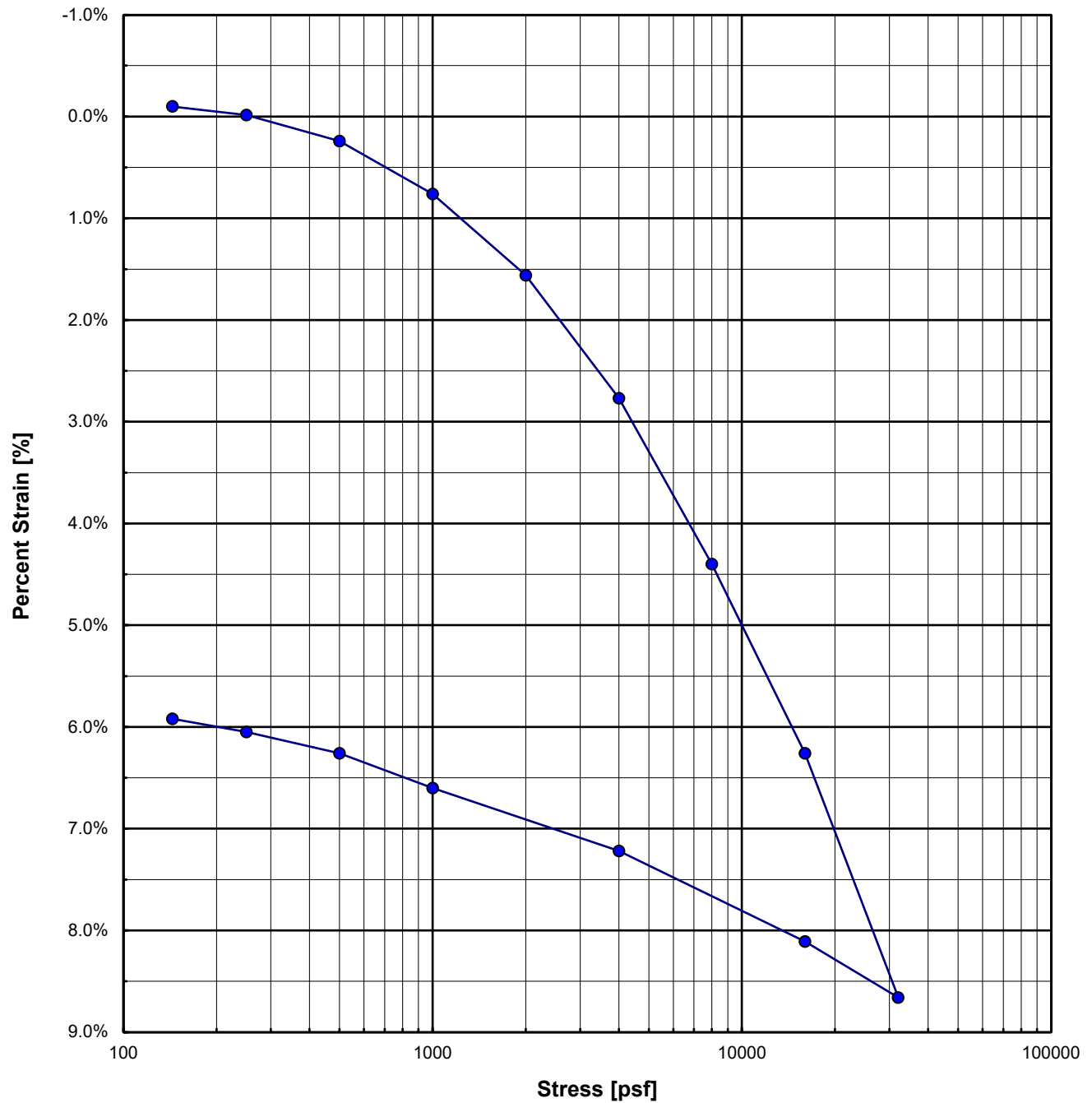
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## COVER AND EXUDATION CHARTS

Document No. 22-0116

Project No. SD754A

**FIGURE B-6.12b**



**B-25 @ 10' - 11½'**

INITIAL	FINAL
1.0000	0.9408
110.8	117.8
2.67	2.67
0.51	0.42
16.3	15.6
86.0	100.0

SAMPLE HEIGHT [IN]  
 DRY DENSITY [PCF]  
 SPECIFIC GRAVITY (ASSUMED)  
 VOID RATIO (e)  
 WATER CONTENT [%]  
 DEGREE OF SATURATION [%]



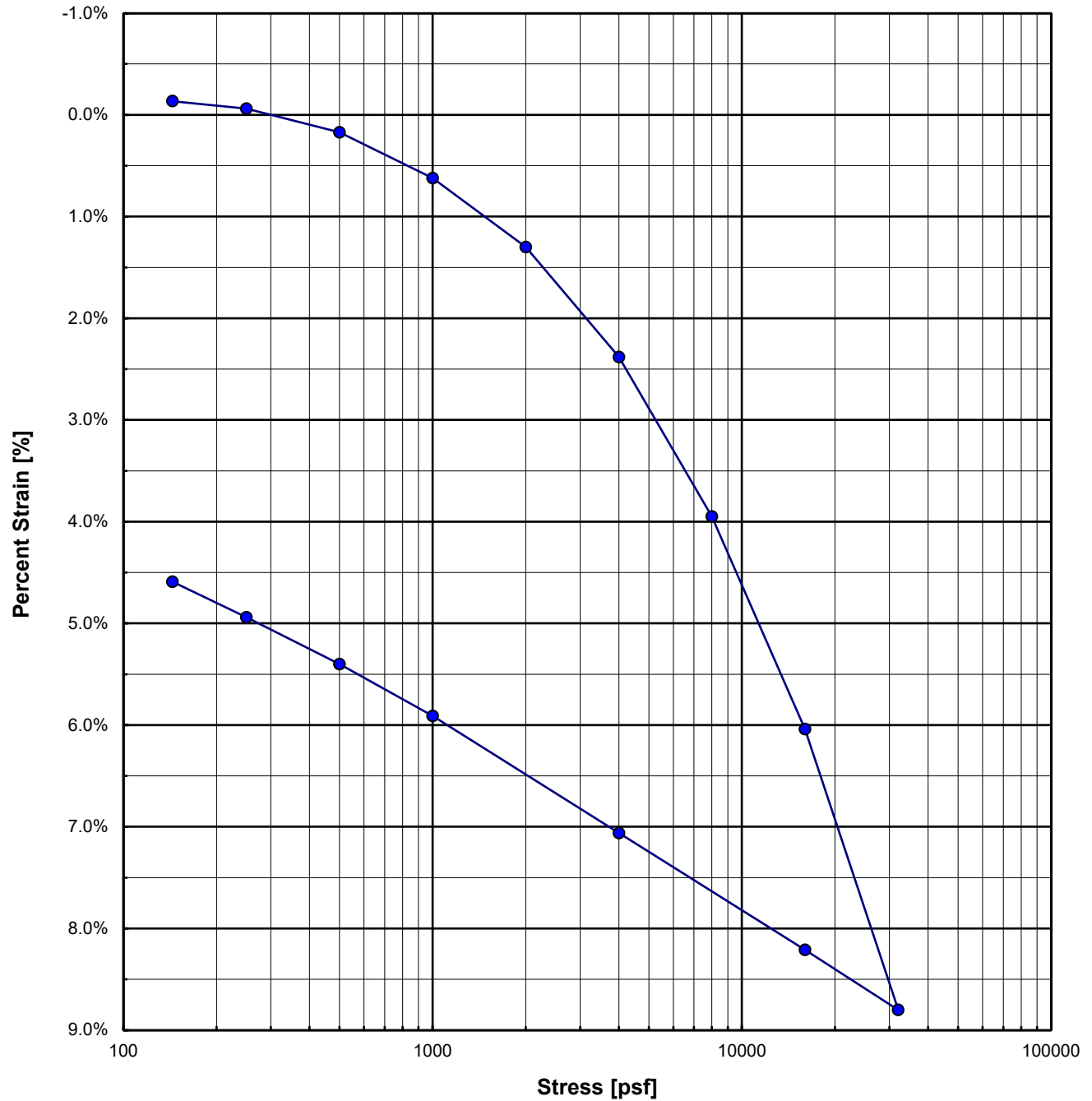
**GROUP DELTA**

**CONSOLIDATION RESULTS**

Document No. 22-0116

Project No. SD754

**FIGURE B-7.1**



**B-36 @ 5' - 6½'**

INITIAL	FINAL
1.0000	0.9541
114.1	119.6
2.65	2.65
0.45	0.38
14.5	14.2
85.1	98.2

SAMPLE HEIGHT [IN]  
 DRY DENSITY [PCF]  
 SPECIFIC GRAVITY (ASSUMED)  
 VOID RATIO (e)  
 WATER CONTENT [%]  
 DEGREE OF SATURATION [%]



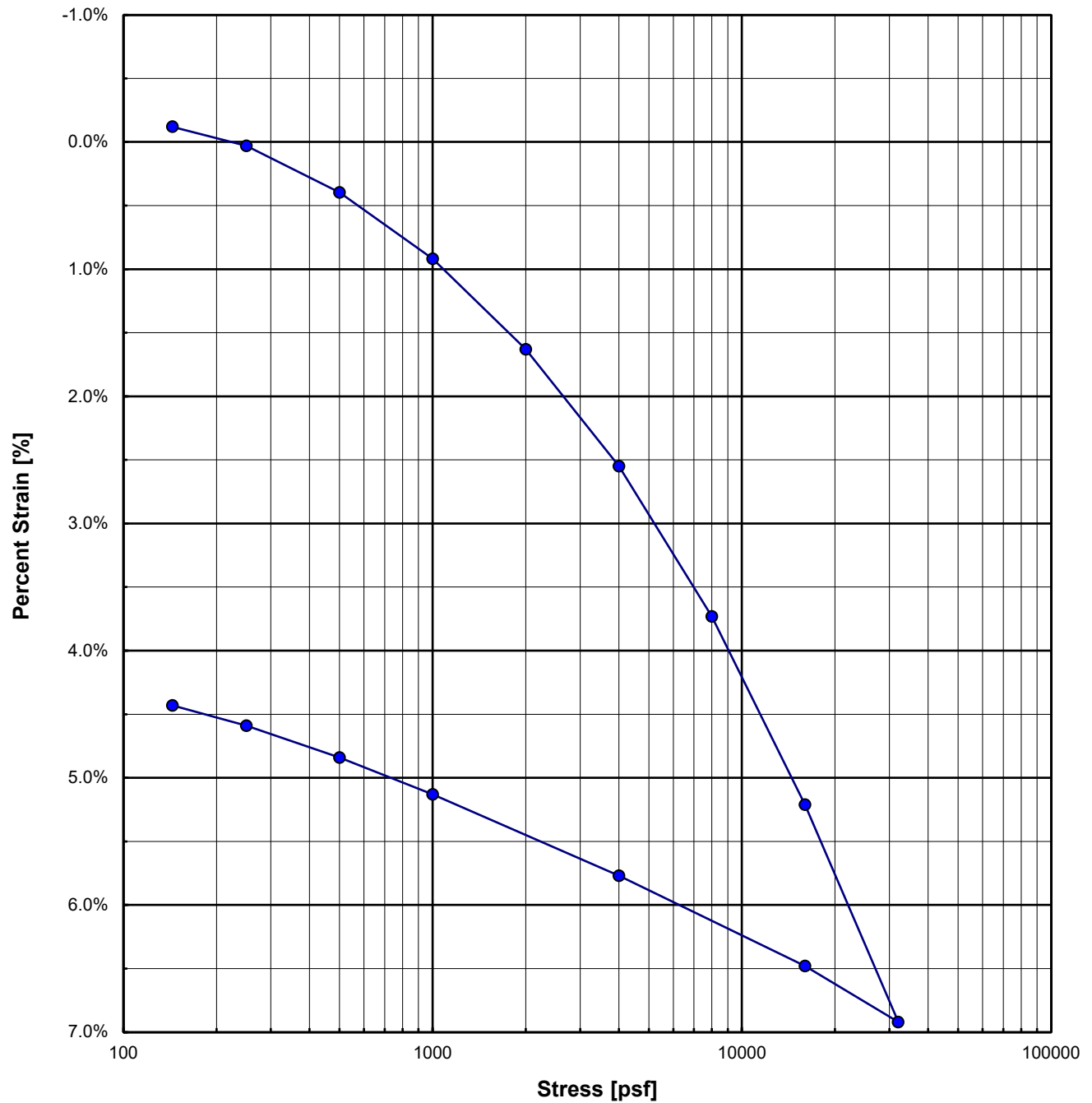
**GROUP DELTA**

**CONSOLIDATION RESULTS**

Document No. 22-0116

Project No. SD754

**FIGURE B-7.2**



**B-37 @ 5' - 6½'**

INITIAL	FINAL
1.0000	0.9557
119.8	125.4
2.65	2.65
0.38	0.32
11.2	12.0
77.5	99.8

SAMPLE HEIGHT [IN]  
 DRY DENSITY [PCF]  
 SPECIFIC GRAVITY (ASSUMED)  
 VOID RATIO (e)  
 WATER CONTENT [%]  
 DEGREE OF SATURATION [%]



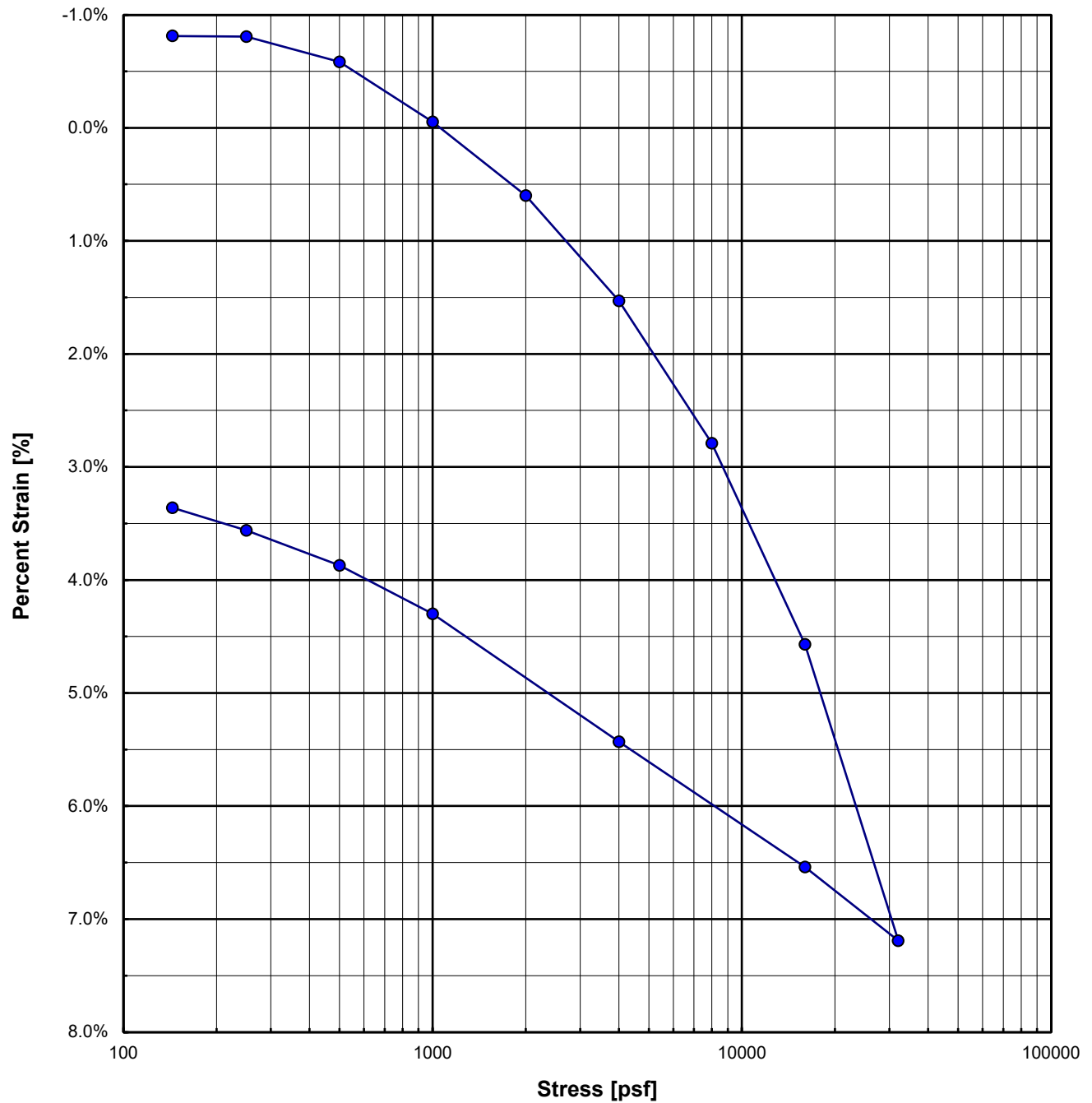
**GROUP DELTA**

**CONSOLIDATION RESULTS**

Document No. 22-0116

Project No. SD754

**FIGURE B-7.3**



**B-42 @ 35' - 36½'**

INITIAL	FINAL
1.0000	0.9664
106.5	110.2
2.65	2.65
0.57	0.50
14.1	17.9
65.8	94.5

SAMPLE HEIGHT [IN]  
 DRY DENSITY [PCF]  
 SPECIFIC GRAVITY (ASSUMED)  
 VOID RATIO (e)  
 WATER CONTENT [%]  
 DEGREE OF SATURATION [%]



**GROUP DELTA**

**CONSOLIDATION RESULTS**

Document No. 22-0116

Project No. SD754

**FIGURE B-7.4**



## **Appendix D. Greenhouse Gas Emissions Memorandum**

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# MEMORANDUM

**To:** Lauren Lievers, Senior Environmental Planner, University of California, San Diego  
**From:** Sharon Toland, Project Manager/Senior Technical Specialist, Harris & Associates  
**RE:** UC San Diego Science Research Park Expansion Project Greenhouse Gas Emissions Memorandum  
**Date:** September 5, 2023  
**CC:** Diane Sandman, Vice President, Environmental + Planning Consulting, and Kelsey Hawkins, Project Manager, Harris & Associates  
**Att:** 1, Model Outputs

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The Environmental Impact Report for the University of California, San Diego (UC San Diego), 2018 Long Range Development Plan (2018 LRDP) for the La Jolla Campus (2018 LRDP EIR) was certified in November 2018 (SCH No. 2016111019) (UC San Diego 2018). The 2018 LRDP EIR assumed that the East Campus would increase from 3,075,300 gross square feet (GSF) to 9,358,300 GSF at buildout (an increase of 6,283,000 GSF) (UC San Diego 2018, Table 2-3). The 2018 LRDP EIR also assumed the operation of 5,800 spaces in parking structures.

Following certification, the Science Research Park Expansion Project (project) proposes development in the East Campus area. The purpose of this memorandum is to compare development of the project to the 2018 LRDP to determine whether the potential impacts of the project are adequately addressed in the certified 2018 LRDP EIR. For each issue addressed in Section 3.6, Greenhouse Gas Emissions, of the 2018 LRDP EIR, the following analysis summarizes the greenhouse gas (GHG) emissions impacts of the 2018 LRDP, specifically in the East Campus area, if applicable, and provides a comparison to the potential impacts of the project.

## Project Description

The approximately 14-acre project site is located within the existing 22.6-acre Science Research Park on the East Campus bounded by Regents Road to the east, Miramar Street to the south, and Health Sciences Drive/future-realigned Medical Center Drive to the north. The project proposes to develop approximately 14 acres of existing surface parking with 1,100,000 square feet of laboratory/office space across three buildings ranging from 325,000 to 400,000 GSF each. Each building would include laboratory space, office space, and supporting retail and amenities. The project also includes construction of a small surface parking lot and two parking structures that would provide approximately 3,120 parking spaces. Surface parking would be provided for short-term parking, such as deliveries. The project would also realign Medical Center Drive in the northwest. The project would be designed to meet LEED Gold (Green Building Sector) standards, and project design includes the following specific features to reduce energy and water demand, and encourage the use of alternative transportation:

- The project would comply with the UC Sustainable Practices Policy by implementing the following energy-saving features:
  - The project buildings would be LEED Gold with a goal of attaining LEED Platinum certification.
  - All purchased electricity would be 100% clean electricity.
  - Natural gas would not be used for space and water heating.
  - Parking structures would comply with current Building Code solar requirements (California Code of Regulations Title 24, Part 6, Section 140.10), as well as exceed Title 24 Energy Efficiency Standards by at least 20 percent.
  - Building envelopes would be high performance (insulation, air-sealing, fenestration).



- Chillers would be high efficiency for simultaneous heating and cooling loads.
- Chillers would include heat recovery.
- Heating, ventilation, and air conditioning systems would include water-side economizing.
- Heating, ventilation, and air conditioning setbacks would include occupancy/vacancy in select program areas.
- Air change rate setbacks would be included in laboratories.
- Daylighting controls would be installed.
- Partially decoupled space conditioning and ventilation would be installed.
- Demand control ventilation would be installed in select program areas.
- Variable flow/velocity laboratory exhaust would be installed.
- Water saving measures
  - Low-flow plumbing fixtures would be installed.
  - Reclaimed water would be used for landscape irrigation.
- Alternative transportation measures
  - 20 percent of total parking spaces would be electric vehicle ready (i.e., would contain the necessary electrical connections for charging stations), and the project would install Level II electric vehicle chargers at 25 percent of those spaces.
  - Short-term and long-term bicycle/micromobility storage would be provided for 132 bicycles or micromobility devices.
  - Long-term bicycle/micromobility storage would be secure and lockable.
  - Short-term bicycle/micromobility storage would include permanently anchored bicycle racks located within 200 feet of building entrances.
  - A bicycle repair station would be provided on the ground floor of Parking Structure 1.
  - The existing UC San Diego Blue Line trolley light-rail service UC San Diego Health La Jolla transit stop is approximately 0.3 mile from the entrance to new North Building.
  - The UC San Diego Blue Line trolley light-rail service Executive Drive Station transit stop is approximately 0.5 mile from the entrances to new South and West Buildings.

## Issue 1: Generate Greenhouse Gas Emissions

The 2018 LRDP EIR relied on consistency with California's GHG emissions reduction goals established in Assembly Bill 32 and Senate Bill 32 as a threshold for this issue, including reducing GHG emissions to 1990 levels by 2020, 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050. Consistency with these goals was determined through a campus-specific service population efficiency metric threshold developed for the 2018 LRDP EIR. Service population includes campus population and employment. If the 2018 LRDP GHG emissions per service population were less than the efficiency threshold, the impact would be less than cumulatively considerable for the target years. The 2018 LRDP was evaluated for target years 2025 and 2035. The previous analysis used an efficiency threshold for 2025 of 4.07 metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e) per service population and a threshold for 2035 of 2.36 MT CO<sub>2</sub>e per service population.

## Summary of 2018 Long Range Development Plan Environmental Impact Report Impacts

GHG emissions from construction and operation of the 2018 LRDP as identified in the 2018 LRDP EIR are summarized below. The analysis of GHG emissions is based on the Greenhouse Gas Analysis and Reduction Strategy Report prepared for the 2018 LRDP by AECOM (2018).

### Construction

Construction activities would result in temporary increases in GHG emissions from operation of heavy equipment and vehicles during construction. Construction emissions for the 2018 LRDP were calculated by campus location, including West Campus, East Campus, and Scripps Institution of Oceanography, for two construction scenarios, the 2025 Scenario (2018 through 2025) and the 2035 Scenario (2025 through 2035). The 2025 Scenario was calculated to generate a total of 35,764 MT CO<sub>2</sub>e or an average of 5,109 MT CO<sub>2</sub>e per year. Construction activities in the 2035 Scenario would generate a total of 34,324 MT CO<sub>2</sub>e or an average of 3,432 MT CO<sub>2</sub>e per year. Total construction emissions for both scenarios were 70,089 MT CO<sub>2</sub>e. Annual construction emissions were added to operational emissions, described below.



## **Operation**

Operational GHG emissions were estimated for future years 2025 and 2035. The inventory included area sources, stationary sources, purchased electricity, natural gas, commute vehicle trips, solid waste, water and wastewater, fleet vehicles, air travel, refrigerants, and average construction emissions. The project would not be operational before 2025; therefore, the 2035 scenario is applicable to the project and summarized here. Operational emissions assumed implementation of UC San Diego GHG Reduction Actions, including using biogas for natural gas in cogeneration facilities, purchasing carbon neutral electricity, and reducing campus fleet emissions. With implementation of these GHG reduction features, annual campus GHG emissions were calculated to be 234,178 MT CO<sub>2</sub>e or 3.57 MT CO<sub>2</sub>e per service population. The 2018 LRDP EIR determined that campus emissions would exceed the threshold of 2.36 MT CO<sub>2</sub>e per service population and result in a significant impact. Implementation of programmatic Mitigation Measures GHG-1A through GHG-1C would reduce this impact to a less than significant level.

**GHG-1A: Decarbonization of the Cogeneration Plant.** UC San Diego shall decarbonize the cogeneration plant after 2032. Decarbonization could take one of the several paths, including electrification, biomass, complete conversion to directed biogas possibly augmented with renewably produced hydrogen (if available), or new technology.

**GHG-1B: Electric Charging Stations.** UC San Diego shall continue to expand and update the on-campus alternative fueling infrastructure by installing electric vehicle chargers by 2035 to be available for campus fleet and public charging.

**GHG-1C: Annual Inventory Updates and Carbon Credit Purchase.** UC San Diego shall continue to prepare annual inventory updates to monitor and track campus emissions relative to the trajectory analyzed in this EIR. The annual inventory updates may be completed in conjunction with the annual reporting completed for the TCR [The Climate Registry] and supplemented to include all sources (e.g., solid waste, water, and area sources) consistent with the methodology used to develop the proposed 2018 LRDP inventory and forecasts. If, based on the annual inventory updates, UC San Diego determines that credits are required to achieve a campus-wide emission rate of no more than 2.36 MT CO<sub>2</sub>e per service population by 2035, they shall be purchased, in an amount sufficient to ensure that campus-wide emissions achieve that target rate, from the California Air Pollution Control Officers Association (CAPCOA) GHG Reduction Exchange program, American Carbon Registry (ACR) Climate Action Reserve (CAR), or other similar carbon credit registry consistent with policy recommendations included within ARB's [California Air Resources Board's] 2017 Climate Change Scoping Plan Update.

## **Science Research Park Expansion Project Consistency Evaluation**

Construction and operational GHG emissions associated with the project are addressed below.

### **Construction**

The 2018 LRDP EIR assumed that GHG construction emissions for the East Campus would total 27,698 (14,608 + 13,090) (UC San Diego 2018, Table 3.6-5, Appendix G, Table 5). GHG emissions from construction of the project were estimated using California Emissions Estimator Model (CalEEMod) Version 2022.1.1.13 based on construction schedule and material movement estimates provided by the applicant (Attachment 1, Model Outputs). The overall construction schedule is split into four phases (1A, 1B, 2A, and 2B). To represent a worst-case construction emissions estimate, this analysis assumed that the project would be constructed in five separate construction cycles (including demolition, grading, building construction, paving, and interior construction per cycle), one cycle for each of the three buildings and two parking structures, with surface parking and other site improvements incorporated into these phases. Each building and parking structure phase of construction would include demolition of existing asphalt surfaces, grading, building foundation and structure construction, internal shell construction and architectural coating, and pavement and hardscape installation. For the purposes of modeling, the total working days for each construction activity represent the sum of the working days estimated for that activity for each of the five construction phases, including surface parking. This assumption is conservative, because it assumes that a complete construction fleet would be on site for each construction activity and for each

phase. However, phases may overlap, in which case some of the equipment fleet and workers would work on more than one phase on the same day. Modeling assumes a worst-case material movement of 110,700 cubic yards of soil export and 114,700 cubic yards of soil import. It is anticipated that some exported soil would require disposal at a hazardous waste disposal facility. To account for disposal at a hazardous waste disposal facility, modeling assumes that 50 percent of exported soil would require disposal at a facility 250 miles from the project site. Watering exposed surfaces twice daily is assumed. Modeling defaults are assumed for worker and vendor trips, except interior construction and coating vendor trips. CalEEMod default modeling assumptions did not include any vendor trips for the architectural coating phase; however, trips are anticipated during this phase for interior construction. Interior construction vendor trips were assumed to be 20 percent of building construction vendor trips, which is the default assumption for architectural coating worker trips. Construction assumptions are summarized in Table 1, Science Research Park Expansion Project Construction Assumptions.

**Table 1. Science Research Park Expansion Project Construction Assumptions**

Construction Activity	Total Working Days	Total Material Movement	Worker Trips per Day	Vendor Trips per Day
Demolition	180	5,095 tons	15	—
Grading	280	110,700 cubic yards export/ 114,700 cubic yards import	20	—
Building Construction	1,300	—	853	376
Paving	585	—	15	—
Interior Construction and Architectural Coating	600	—	171	76

Source: Attachment 1.

Using CalEEMod, project construction was calculated to result in total GHG emissions of 18,191 MT CO<sub>2</sub>e. As described previously, this estimate represents a conservative, worst-case estimate. Actual emissions are anticipated to be lower as overlaps in construction phasing more efficiently use construction resources, and the amount of hazardous material requiring specialized disposal is determined. Emissions are summarized by construction activity in Table 2, Science Research Park Expansion Project Construction Greenhouse Gas Emissions. The 2018 LRDP conservatively averaged annual construction emissions and added these emissions to total operational emissions. However, because project-specific construction information is available for the project, construction emissions are amortized over the lifetime of the project, consistent with the South Coast Air Quality Management District guidance and the methodology used for 2019 LRDP EIR prepared for the UC San Diego Hillcrest Campus (LSA 2018). The most recent published guidance for GHG impacts from the Bay Area Air Quality Management District does not include construction emissions in a project's operational GHG analysis (BAAQMD 2023); therefore, the methodology used for the project remains conservative. Construction of the project results in an amortized contribution of 606 MT CO<sub>2</sub>e to annual emissions, which are added to operational emissions below.

**Table 2. Science Research Park Expansion Project Construction Greenhouse Gas Emissions**

Emissions Source	Annual Emissions (MT CO <sub>2</sub> e)
Demolition	345
Grading	4,475
Building Construction	11,616
Paving	437
Interior Construction and Architectural Coating	1,318
<b>Total Construction Emissions</b>	<b>18,191</b>
Amortized Construction Emissions	606

Source: Attachment 1.

## **Operation**

The project proposes development consistent with the land use assumptions for the East Campus in 2018 LRDP EIR, which calls for Science Research Park. However, 2018 LRDP EIR modeling was not site specific, and emissions per service population are not available for the project site. Therefore, the project is compared to the campus-wide emissions efficiency calculated in the 2018 LRDP EIR. Project annual operational emissions were modeled using CalEEMod. Daily vehicle miles traveled were provided by Linscott, Law & Greenspan, Engineers. Annual vehicle miles traveled were calculated based on an average of 260 working days per year. Modeling accounts for access to transit and bicycle infrastructure and proposed bicycle facilities. Building electricity and indoor water demand was provided by the design team, and default electricity demand assumptions were used for the parking structures and parking lot. Modeling defaults for outdoor water use and solid waste generation are assumed. The building would be all-electric, except for kitchens and specialized equipment. Cooking accounts for approximately 6 percent of typical commercial natural gas use; therefore, 6 percent of the default natural gas emissions were assumed (C2ES 2012). GHG emissions from proposed generators were calculated using emissions factors from the 2018 LRDP EIR, and usage assumptions and equipment specifications were obtained from the design team. A total of 15 generators were assumed to be tested for 30 minutes monthly. Additionally, an estimated service population of 3,083 people was assumed based on building size and land use type. Annual project operational emissions are provided in Table 3, Science Research Park Expansion Project Operational Greenhouse Gas Emissions.

**Table 3. Science Research Park Expansion Project Operational Greenhouse Gas Emissions**

<b>Emissions Source</b>	<b>Annual Emissions (MT CO<sub>2</sub>e)</b>
Mobile	3,499
Area	34
Energy	4,643
Water	97
Solid Waste	26
Refrigerants	5
Stationary Sources (Generators)	32
Amortized Construction Emissions	606
<b>Total Annual Emissions</b>	<b>8,942</b>
Service Population	3,083
<b>Emissions Per Service Population</b>	<b>2.9</b>

**Source:** Attachment 1.

As show in Table 3, the project would result in annual emissions of 2.9 MT CO<sub>2</sub>e per service population. Emissions exceed the 2.36 MT CO<sub>2</sub>e per service population threshold identified in the 2018 LRDP EIR but are less than the 3.57 MT CO<sub>2</sub>e per service population calculated for the campus under the 2018 LRDP prior to mitigation. Therefore, project impacts would not exceed those identified in the 2018 LRDP EIR. The project would not hinder the ability of the campus to achieve 2.36 MT CO<sub>2</sub>e by 2035 with implementation of 2018 LRDP EIR programmatic Mitigation Measures GHG-1A through GHG-1C (listed above). As described previously, Mitigation Measure GHG-1A is decarbonization of the cogeneration plant. The project would not increase demand on the cogeneration plant and would not have an impact on implementation of this measure. Mitigation Measure GHG-1B is the expansion of electric vehicle charging stations. The project would implement this measure, as 20 percent of the parking spaces would be electric vehicle ready. Mitigation Measure GHG-1C is the purchase of carbon credits when UC San Diego determines that annual emissions do not meet the service population efficiency targets. Because the project is within assumed development density for the campus and does not exceed the calculated emission efficiency for campus buildout under the 2018 LRDP, it would not hinder the ability of the campus to implement this mitigation measure.

GHG emissions from construction and operation of the project would not exceed the per service population GHG emissions assumed for campus buildout in the 2018 LRDP EIR. Therefore, the project would not result in a new



significant environmental effect or a substantial increase in the severity of a previously identified significant effect regarding GHG emissions. The project's impact would be reduced to a less than significant level by campus implementation of programmatic mitigation measures, the same as the impact identified in the 2018 LRDP EIR.

## Summary of Greenhouse Gas Emissions Impacts

Impacts related to GHG emissions from construction and operation of the project would be the same as those identified in the 2018 LRDP EIR. The project would be consistent with 2018 LRDP commitments to implement the UC Sustainable Practices Policy and the UC San Diego GHG Reduction Actions. The project would not result in additional GHG emissions per service population, would not include any new sources of GHG emissions that were not previously addressed, and no new significant impacts would occur compared to those identified in the 2018 LRDP EIR. Therefore, the project would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects related to GHG emissions.

## References

- AECOM. 2018. Greenhouse Gas Analysis and Reduction Strategy Report for the 2018 UC San Diego Long Range Development Plan, San Diego County, California.
- BAAQMD (Bay Area Air Quality Management District). 2023. 2022 CEQA Guidelines. April 20.
- C2ES (Center for Climate and Energy Solutions). 2012. Natural Gas in Commercial Buildings. October.
- LSA (LSA Associates, Inc.). 2018. Greenhouse Gas Emissions Reduction Strategy – University of California, San Diego, Hillcrest Campus Long Range Development Plan EIR. June.
- UC San Diego (University of California, San Diego). 2018. 2018 Long Range Development Plan La Jolla Campus University of California San Diego Final Environmental Impact Report (SCH No. 2016111019). November.



## **Attachment 1. Model Outputs**

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# UC San Diego Science Research Park Detailed Report

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# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	UC San Diego Science Research Park
Construction Start Date	1/18/2024
Operational Year	2030
Lead Agency	University of California
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	19.8
Location	32.8763253398794, -117.21956578741151
County	San Diego
City	San Diego
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6908
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.13

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
------------------	------	------	-------------	-----------------------	------------------------	--------------------------------	------------	-------------

Research & Development	1,100	1000sqft	6.00	1,100,000	195,345	—	—	Buildings 1-3
Enclosed Parking Structure	1,194	1000sqft	6.00	1,194,000	0.00	—	—	Parking Structures 1-2
Parking Lot	146	Space	1.50	0.00	0.00	—	—	Surface parking

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Transportation	T-3	Provide Transit-Oriented Development
Transportation	T-10	Provide End-of-Trip Bicycle Facilities
Transportation	T-14*	Provide Electric Vehicle Charging Infrastructure
Transportation	T-33*	Locate Project near Bike Path/Bike Lane
Transportation	T-34*	Provide Bike Parking
Water	W-4	Require Low-Flow Water Fixtures

\* Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

## 2. Emissions Summary

### 2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	14.5	121	126	0.35	3.64	21.5	25.1	3.40	5.91	9.32	—	58,402	58,402	2.72	6.20	120	60,437
Mit.	14.5	121	126	0.35	3.64	21.5	25.1	3.40	5.91	9.32	—	58,402	58,402	2.72	6.20	120	60,437
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	14.4	122	121	0.35	3.64	21.5	25.1	3.40	5.91	9.32	—	57,929	57,929	2.76	6.20	3.10	59,848
Mit.	14.4	122	121	0.35	3.64	21.5	25.1	3.40	5.91	9.32	—	57,929	57,929	2.76	6.20	3.10	59,848
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.2	73.2	74.9	0.22	2.12	13.5	15.6	1.99	3.70	5.69	—	36,026	36,026	1.71	3.85	33.0	37,248
Mit.	10.2	73.2	74.9	0.22	2.12	13.5	15.6	1.99	3.70	5.69	—	36,026	36,026	1.71	3.85	33.0	37,248
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.86	13.4	13.7	0.04	0.39	2.46	2.85	0.36	0.68	1.04	—	5,965	5,965	0.28	0.64	5.47	6,167
Mit.	1.86	13.4	13.7	0.04	0.39	2.46	2.85	0.36	0.68	1.04	—	5,965	5,965	0.28	0.64	5.47	6,167
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	137	250	550	250	—	—	100	—	—	55.0	—	—	—	—	—	—	—
Unmit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Mit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	137	250	550	250	—	—	100	—	—	55.0	—	—	—	—	—	—	—
Unmit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Mit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

## 2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	11.9	121	126	0.35	3.64	21.5	25.1	3.40	5.91	9.32	—	58,402	58,402	2.72	6.20	120	60,437
2025	5.84	33.1	69.1	0.10	0.91	9.75	10.7	0.84	2.39	3.23	—	21,559	21,559	0.96	1.65	55.3	22,130
2026	5.32	31.3	66.0	0.10	0.83	9.75	10.6	0.77	2.39	3.16	—	21,216	21,216	0.89	1.65	50.8	21,781
2027	14.5	32.6	69.1	0.12	0.76	11.6	12.3	0.71	2.83	3.49	—	24,140	24,140	1.00	1.89	54.6	24,784
2028	14.3	31.1	66.6	0.12	0.64	11.6	12.2	0.60	2.83	3.43	—	23,701	23,701	0.72	1.89	49.1	24,333
2029	10.1	8.84	14.9	0.03	0.20	1.93	2.13	0.17	0.47	0.64	—	4,754	4,754	0.15	0.31	7.34	4,858
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	11.8	122	121	0.35	3.64	21.5	25.1	3.40	5.91	9.32	—	57,929	57,929	2.76	6.20	3.10	59,848
2025	9.44	96.2	104	0.33	2.64	20.7	23.3	2.48	5.79	8.27	—	54,527	54,527	2.65	5.92	2.98	56,360
2026	5.27	32.1	61.7	0.10	0.83	9.75	10.6	0.77	2.39	3.16	—	20,773	20,773	0.91	1.67	1.32	21,295
2027	14.4	33.7	64.1	0.12	0.76	11.6	12.3	0.71	2.83	3.49	—	23,627	23,627	1.06	1.92	1.41	24,226
2028	14.2	31.9	61.8	0.12	0.64	11.6	12.2	0.60	2.83	3.43	—	23,199	23,199	0.74	1.89	1.27	23,783
2029	14.1	30.4	59.4	0.12	0.60	11.6	12.2	0.49	2.83	3.32	—	22,747	22,747	0.74	1.82	1.14	23,309
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	7.18	73.2	74.9	0.22	2.12	13.5	15.6	1.99	3.70	5.69	—	36,026	36,026	1.71	3.85	33.0	37,248
2025	4.58	33.4	51.3	0.11	0.89	8.67	9.56	0.83	2.24	3.07	—	20,447	20,447	0.96	1.90	21.3	21,057
2026	3.74	22.8	44.3	0.07	0.59	6.88	7.47	0.55	1.68	2.23	—	14,884	14,884	0.65	1.19	15.7	15,272
2027	5.55	21.4	42.0	0.07	0.48	7.26	7.73	0.45	1.78	2.22	—	15,077	15,077	0.66	1.20	15.0	15,466
2028	10.2	22.8	44.5	0.08	0.46	8.17	8.63	0.43	2.00	2.43	—	16,668	16,668	0.53	1.36	15.2	17,101
2029	7.14	6.73	10.9	0.02	0.15	1.53	1.68	0.13	0.37	0.50	—	3,655	3,655	0.12	0.25	2.54	3,734

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.31	13.4	13.7	0.04	0.39	2.46	2.85	0.36	0.68	1.04	—	5,965	5,965	0.28	0.64	5.47	6,167
2025	0.84	6.10	9.35	0.02	0.16	1.58	1.74	0.15	0.41	0.56	—	3,385	3,385	0.16	0.31	3.53	3,486
2026	0.68	4.16	8.08	0.01	0.11	1.26	1.36	0.10	0.31	0.41	—	2,464	2,464	0.11	0.20	2.60	2,528
2027	1.01	3.90	7.67	0.01	0.09	1.32	1.41	0.08	0.32	0.41	—	2,496	2,496	0.11	0.20	2.48	2,561
2028	1.86	4.16	8.13	0.02	0.08	1.49	1.58	0.08	0.37	0.44	—	2,760	2,760	0.09	0.22	2.51	2,831
2029	1.30	1.23	1.99	< 0.005	0.03	0.28	0.31	0.02	0.07	0.09	—	605	605	0.02	0.04	0.42	618

## 2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	11.9	121	126	0.35	3.64	21.5	25.1	3.40	5.91	9.32	—	58,402	58,402	2.72	6.20	120	60,437
2025	5.84	33.1	69.1	0.10	0.91	9.75	10.7	0.84	2.39	3.23	—	21,559	21,559	0.96	1.65	55.3	22,130
2026	5.32	31.3	66.0	0.10	0.83	9.75	10.6	0.77	2.39	3.16	—	21,216	21,216	0.89	1.65	50.8	21,781
2027	14.5	32.6	69.1	0.12	0.76	11.6	12.3	0.71	2.83	3.49	—	24,140	24,140	1.00	1.89	54.6	24,784
2028	14.3	31.1	66.6	0.12	0.64	11.6	12.2	0.60	2.83	3.43	—	23,701	23,701	0.72	1.89	49.1	24,333
2029	10.1	8.84	14.9	0.03	0.20	1.93	2.13	0.17	0.47	0.64	—	4,754	4,754	0.15	0.31	7.34	4,858
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	11.8	122	121	0.35	3.64	21.5	25.1	3.40	5.91	9.32	—	57,929	57,929	2.76	6.20	3.10	59,848
2025	9.44	96.2	104	0.33	2.64	20.7	23.3	2.48	5.79	8.27	—	54,527	54,527	2.65	5.92	2.98	56,360
2026	5.27	32.1	61.7	0.10	0.83	9.75	10.6	0.77	2.39	3.16	—	20,773	20,773	0.91	1.67	1.32	21,295
2027	14.4	33.7	64.1	0.12	0.76	11.6	12.3	0.71	2.83	3.49	—	23,627	23,627	1.06	1.92	1.41	24,226
2028	14.2	31.9	61.8	0.12	0.64	11.6	12.2	0.60	2.83	3.43	—	23,199	23,199	0.74	1.89	1.27	23,783
2029	14.1	30.4	59.4	0.12	0.60	11.6	12.2	0.49	2.83	3.32	—	22,747	22,747	0.74	1.82	1.14	23,309



Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	7.18	73.2	74.9	0.22	2.12	13.5	15.6	1.99	3.70	5.69	—	36,026	36,026	1.71	3.85	33.0	37,248
2025	4.58	33.4	51.3	0.11	0.89	8.67	9.56	0.83	2.24	3.07	—	20,447	20,447	0.96	1.90	21.3	21,057
2026	3.74	22.8	44.3	0.07	0.59	6.88	7.47	0.55	1.68	2.23	—	14,884	14,884	0.65	1.19	15.7	15,272
2027	5.55	21.4	42.0	0.07	0.48	7.26	7.73	0.45	1.78	2.22	—	15,077	15,077	0.66	1.20	15.0	15,466
2028	10.2	22.8	44.5	0.08	0.46	8.17	8.63	0.43	2.00	2.43	—	16,668	16,668	0.53	1.36	15.2	17,101
2029	7.14	6.73	10.9	0.02	0.15	1.53	1.68	0.13	0.37	0.50	—	3,655	3,655	0.12	0.25	2.54	3,734
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.31	13.4	13.7	0.04	0.39	2.46	2.85	0.36	0.68	1.04	—	5,965	5,965	0.28	0.64	5.47	6,167
2025	0.84	6.10	9.35	0.02	0.16	1.58	1.74	0.15	0.41	0.56	—	3,385	3,385	0.16	0.31	3.53	3,486
2026	0.68	4.16	8.08	0.01	0.11	1.26	1.36	0.10	0.31	0.41	—	2,464	2,464	0.11	0.20	2.60	2,528
2027	1.01	3.90	7.67	0.01	0.09	1.32	1.41	0.08	0.32	0.41	—	2,496	2,496	0.11	0.20	2.48	2,561
2028	1.86	4.16	8.13	0.02	0.08	1.49	1.58	0.08	0.37	0.44	—	2,760	2,760	0.09	0.22	2.51	2,831
2029	1.30	1.23	1.99	< 0.005	0.03	0.28	0.31	0.02	0.07	0.09	—	605	605	0.02	0.04	0.42	618

## 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	76.7	16.3	254	0.33	0.41	11.3	11.7	0.44	2.00	2.44	153	60,996	61,148	23.1	2.53	97.2	62,578
Mit.	72.3	14.5	235	0.29	0.38	9.92	10.3	0.41	1.75	2.16	142	56,891	57,033	21.8	2.30	88.6	58,352
% Reduced	6%	11%	8%	12%	7%	13%	12%	6%	13%	11%	7%	7%	7%	6%	9%	9%	7%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	59.7	17.0	157	0.31	0.28	11.3	11.6	0.26	2.00	2.26	153	59,210	59,363	23.3	2.64	29.9	60,761
Mit.	55.3	14.9	138	0.27	0.25	9.92	10.2	0.23	1.75	1.98	142	55,277	55,419	21.9	2.39	29.7	56,711
% Reduced	7%	12%	12%	12%	11%	13%	12%	10%	13%	12%	7%	7%	7%	6%	9%	1%	7%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	58.8	13.1	165	0.24	0.28	8.53	8.81	0.29	1.50	1.80	153	51,818	51,970	22.7	2.19	50.6	53,241
Mit.	55.6	11.6	151	0.21	0.26	7.46	7.72	0.27	1.32	1.59	142	48,835	48,977	21.4	2.00	47.7	50,156
% Reduced	5%	12%	9%	12%	8%	13%	12%	7%	13%	12%	7%	6%	6%	6%	9%	6%	6%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.7	2.39	30.2	0.04	0.05	1.56	1.61	0.05	0.27	0.33	25.3	8,579	8,604	3.76	0.36	8.37	8,815
Mit.	10.1	2.12	27.6	0.04	0.05	1.36	1.41	0.05	0.24	0.29	23.5	8,085	8,109	3.54	0.33	7.90	8,304
% Reduced	5%	12%	9%	12%	8%	13%	12%	7%	13%	12%	7%	6%	6%	6%	9%	6%	6%
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	137	250	550	249	—	—	100	—	—	55.0	—	—	—	—	—	—	—
Unmit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Mit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	137	250	550	249	—	—	100	—	—	55.0	—	—	—	—	—	—	—
Unmit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Mit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

## 2.5. Operations Emissions by Sector, Unmitigated

## Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	35.3	14.9	154	0.32	0.23	11.3	11.6	0.22	2.00	2.22	—	32,679	32,679	2.20	1.62	69.1	33,287
Area	41.4	0.84	99.8	0.01	0.13	—	0.13	0.18	—	0.18	—	410	410	0.02	< 0.005	—	412
Energy	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	27,721	27,721	5.32	0.64	—	28,045
Water	—	—	—	—	—	—	—	—	—	—	108	185	293	11.1	0.27	—	649
Waste	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Total	76.7	16.3	254	0.33	0.41	11.3	11.7	0.44	2.00	2.44	153	60,996	61,148	23.1	2.53	97.2	62,578
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	34.6	16.4	157	0.31	0.23	11.3	11.6	0.22	2.00	2.22	—	31,304	31,304	2.43	1.73	1.79	31,882
Area	25.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	27,721	27,721	5.32	0.64	—	28,045
Water	—	—	—	—	—	—	—	—	—	—	108	185	293	11.1	0.27	—	649
Waste	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Total	59.7	17.0	157	0.31	0.28	11.3	11.6	0.26	2.00	2.26	153	59,210	59,363	23.3	2.64	29.9	60,761
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	25.7	12.1	116	0.23	0.18	8.53	8.70	0.16	1.50	1.67	—	23,709	23,709	1.78	1.28	22.4	24,158
Area	33.1	0.41	49.2	< 0.005	0.07	—	0.07	0.09	—	0.09	—	202	202	0.01	< 0.005	—	203
Energy	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	27,721	27,721	5.32	0.64	—	28,045
Water	—	—	—	—	—	—	—	—	—	—	108	185	293	11.1	0.27	—	649
Waste	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Total	58.8	13.1	165	0.24	0.28	8.53	8.81	0.29	1.50	1.80	153	51,818	51,970	22.7	2.19	50.6	53,241
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.68	2.21	21.1	0.04	0.03	1.56	1.59	0.03	0.27	0.30	—	3,925	3,925	0.29	0.21	3.72	4,000
Area	6.04	0.08	8.98	< 0.005	0.01	—	0.01	0.02	—	0.02	—	33.5	33.5	< 0.005	< 0.005	—	33.6
Energy	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	4,590	4,590	0.88	0.11	—	4,643
Water	—	—	—	—	—	—	—	—	—	—	17.8	30.6	48.5	1.83	0.04	—	107
Waste	—	—	—	—	—	—	—	—	—	—	7.46	0.00	7.46	0.75	0.00	—	26.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.65	4.65
Total	10.7	2.39	30.2	0.04	0.05	1.56	1.61	0.05	0.27	0.33	25.3	8,579	8,604	3.76	0.36	8.37	8,815

## 2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	30.9	13.1	135	0.28	0.20	9.92	10.1	0.19	1.75	1.94	—	28,592	28,592	1.92	1.42	60.4	29,124
Area	41.4	0.84	99.8	0.01	0.13	—	0.13	0.18	—	0.18	—	410	410	0.02	< 0.005	—	412
Energy	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	27,721	27,721	5.32	0.64	—	28,045
Water	—	—	—	—	—	—	—	—	—	—	97.1	168	265	9.99	0.24	—	586
Waste	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Total	72.3	14.5	235	0.29	0.38	9.92	10.3	0.41	1.75	2.16	142	56,891	57,033	21.8	2.30	88.6	58,352
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	30.3	14.4	137	0.27	0.20	9.92	10.1	0.19	1.75	1.94	—	27,388	27,388	2.12	1.51	1.57	27,894
Area	25.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Energy	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	27,721	27,721	5.32	0.64	—	28,045
Water	—	—	—	—	—	—	—	—	—	—	97.1	168	265	9.99	0.24	—	586
Waste	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Total	55.3	14.9	138	0.27	0.25	9.92	10.2	0.23	1.75	1.98	142	55,277	55,419	21.9	2.39	29.7	56,711
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	22.5	10.6	101	0.20	0.15	7.46	7.61	0.14	1.32	1.46	—	20,744	20,744	1.55	1.12	19.6	21,137
Area	33.1	0.41	49.2	< 0.005	0.07	—	0.07	0.09	—	0.09	—	202	202	0.01	< 0.005	—	203
Energy	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	27,721	27,721	5.32	0.64	—	28,045
Water	—	—	—	—	—	—	—	—	—	—	97.1	168	265	9.99	0.24	—	586
Waste	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Total	55.6	11.6	151	0.21	0.26	7.46	7.72	0.27	1.32	1.59	142	48,835	48,977	21.4	2.00	47.7	50,156
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.10	1.94	18.5	0.04	0.03	1.36	1.39	0.03	0.24	0.27	—	3,434	3,434	0.26	0.19	3.25	3,499
Area	6.04	0.08	8.98	< 0.005	0.01	—	0.01	0.02	—	0.02	—	33.5	33.5	< 0.005	< 0.005	—	33.6
Energy	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	4,590	4,590	0.88	0.11	—	4,643
Water	—	—	—	—	—	—	—	—	—	—	16.1	27.7	43.8	1.65	0.04	—	97.0
Waste	—	—	—	—	—	—	—	—	—	—	7.46	0.00	7.46	0.75	0.00	—	26.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.65	4.65
Total	10.1	2.12	27.6	0.04	0.05	1.36	1.41	0.05	0.24	0.29	23.5	8,085	8,109	3.54	0.33	7.90	8,304

### 3. Construction Emissions Details

#### 3.1. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	0.45	0.45	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	0.18	0.18	< 0.005	0.02	0.02	—	5.29	5.29	< 0.005	< 0.005	< 0.005	5.58
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	0.45	0.45	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	0.18	0.18	< 0.005	0.02	0.02	—	5.34	5.34	< 0.005	< 0.005	< 0.005	5.62
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.29	12.3	10.7	0.02	0.52	—	0.52	0.48	—	0.48	—	1,689	1,689	0.07	0.01	—	1,695
Demolition	—	—	—	—	—	0.22	0.22	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.02	0.01	< 0.005	< 0.005	0.09	0.09	< 0.005	0.01	0.01	—	2.62	2.62	< 0.005	< 0.005	< 0.005	2.76
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	2.24	1.96	< 0.005	0.10	—	0.10	0.09	—	0.09	—	280	280	0.01	< 0.005	—	281
Demolition	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—

Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	0.43	0.43	< 0.005	< 0.005	< 0.005	0.46
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.74	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	145	145	0.01	0.01	0.58	147
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.81	0.29	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	602	602	0.03	0.10	1.29	633
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.65	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	137	137	0.01	0.01	0.02	139
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.84	0.29	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	602	602	0.03	0.10	0.03	632
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.32	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	68.2	68.2	< 0.005	< 0.005	0.12	69.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.41	0.14	< 0.005	0.01	0.07	0.08	0.01	0.02	0.03	—	297	297	0.02	0.05	0.28	312
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.3	11.3	< 0.005	< 0.005	0.02	11.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.08	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	49.1	49.1	< 0.005	0.01	0.05	51.6

### 3.2. Demolition (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	0.45	0.45	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	0.18	0.18	< 0.005	0.02	0.02	—	5.29	5.29	< 0.005	< 0.005	< 0.005	5.58
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	0.45	0.45	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	0.18	0.18	< 0.005	0.02	0.02	—	5.34	5.34	< 0.005	< 0.005	< 0.005	5.62
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.29	12.3	10.7	0.02	0.52	—	0.52	0.48	—	0.48	—	1,689	1,689	0.07	0.01	—	1,695
Demolition	—	—	—	—	—	0.22	0.22	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.02	0.01	< 0.005	< 0.005	0.09	0.09	< 0.005	0.01	0.01	—	2.62	2.62	< 0.005	< 0.005	< 0.005	2.76
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	2.24	1.96	< 0.005	0.10	—	0.10	0.09	—	0.09	—	280	280	0.01	< 0.005	—	281
Demolition	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	0.43	0.43	< 0.005	< 0.005	< 0.005	0.46
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.74	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	145	145	0.01	0.01	0.58	147
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.81	0.29	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	602	602	0.03	0.10	1.29	633
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.65	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	137	137	0.01	0.01	0.02	139
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.84	0.29	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	602	602	0.03	0.10	0.03	632
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.32	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	68.2	68.2	< 0.005	< 0.005	0.12	69.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.41	0.14	< 0.005	0.01	0.07	0.08	0.01	0.02	0.03	—	297	297	0.02	0.05	0.28	312
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.3	11.3	< 0.005	< 0.005	0.02	11.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.08	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	49.1	49.1	< 0.005	0.01	0.05	51.6

### 3.3. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	3.52	34.3	30.2	0.06	1.45	—	1.45	1.33	—	1.33	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	3.61	3.61	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	0.18	0.18	< 0.005	0.02	0.02	—	5.29	5.29	< 0.005	< 0.005	< 0.005	5.58
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.52	34.3	30.2	0.06	1.45	—	1.45	1.33	—	1.33	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	3.61	3.61	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	0.18	0.18	< 0.005	0.02	0.02	—	5.34	5.34	< 0.005	< 0.005	< 0.005	5.62
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.11	20.6	18.1	0.04	0.87	—	0.87	0.80	—	0.80	—	3,964	3,964	0.16	0.03	—	3,978
Dust From Material Movement	—	—	—	—	—	2.17	2.17	—	0.86	0.86	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.02	0.01	< 0.005	< 0.005	0.11	0.11	< 0.005	0.01	0.01	—	3.19	3.19	< 0.005	< 0.005	< 0.005	3.36
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39	3.76	3.31	0.01	0.16	—	0.16	0.15	—	0.15	—	656	656	0.03	0.01	—	659
Dust From Material Movement	—	—	—	—	—	0.40	0.40	—	0.16	0.16	—	—	—	—	—	—	—

Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	0.53	0.53	< 0.005	< 0.005	< 0.005	0.56
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.99	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	194	194	0.01	0.01	0.78	197
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.40	33.1	10.4	0.17	0.50	7.00	7.50	0.50	1.92	2.41	—	27,194	27,194	1.38	4.35	59.5	28,585
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.87	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	183	183	0.01	0.01	0.02	185
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.39	34.2	10.4	0.17	0.50	7.00	7.50	0.50	1.92	2.41	—	27,196	27,196	1.38	4.35	1.54	28,530
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.53	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	111	111	0.01	< 0.005	0.20	112
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.24	20.6	6.24	0.10	0.30	4.16	4.46	0.30	1.14	1.44	—	16,338	16,338	0.83	2.62	15.4	17,154
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.3	18.3	< 0.005	< 0.005	0.03	18.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	3.76	1.14	0.02	0.05	0.76	0.81	0.05	0.21	0.26	—	2,705	2,705	0.14	0.43	2.56	2,840

### 3.4. Grading (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.52	34.3	30.2	0.06	1.45	—	1.45	1.33	—	1.33	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	3.61	3.61	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	0.18	0.18	< 0.005	0.02	0.02	—	5.29	5.29	< 0.005	< 0.005	< 0.005	5.58
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.52	34.3	30.2	0.06	1.45	—	1.45	1.33	—	1.33	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	3.61	3.61	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	0.18	0.18	< 0.005	0.02	0.02	—	5.34	5.34	< 0.005	< 0.005	< 0.005	5.62
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.11	20.6	18.1	0.04	0.87	—	0.87	0.80	—	0.80	—	3,964	3,964	0.16	0.03	—	3,978
Dust From Material Movement	—	—	—	—	—	2.17	2.17	—	0.86	0.86	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.02	0.01	< 0.005	< 0.005	0.11	0.11	< 0.005	0.01	0.01	—	3.19	3.19	< 0.005	< 0.005	< 0.005	3.36
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39	3.76	3.31	0.01	0.16	—	0.16	0.15	—	0.15	—	656	656	0.03	0.01	—	659

Dust From Material Movement	—	—	—	—	—	0.40	0.40	—	0.16	0.16	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	0.53	0.53	< 0.005	< 0.005	< 0.005	0.56
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.99	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	194	194	0.01	0.01	0.78	197
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.40	33.1	10.4	0.17	0.50	7.00	7.50	0.50	1.92	2.41	—	27,194	27,194	1.38	4.35	59.5	28,585
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.87	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	183	183	0.01	0.01	0.02	185
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.39	34.2	10.4	0.17	0.50	7.00	7.50	0.50	1.92	2.41	—	27,196	27,196	1.38	4.35	1.54	28,530
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.53	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	111	111	0.01	< 0.005	0.20	112
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.24	20.6	6.24	0.10	0.30	4.16	4.46	0.30	1.14	1.44	—	16,338	16,338	0.83	2.62	15.4	17,154
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.3	18.3	< 0.005	< 0.005	0.03	18.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	3.76	1.14	0.02	0.05	0.76	0.81	0.05	0.21	0.26	—	2,705	2,705	0.14	0.43	2.56	2,840

### 3.5. Grading (2025) - Unmitigated

## Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	3.61	3.61	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	0.18	0.18	< 0.005	0.02	0.02	—	5.25	5.25	< 0.005	< 0.005	< 0.005	5.53
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.53	4.94	4.71	0.01	0.21	—	0.21	0.19	—	0.19	—	1,098	1,098	0.04	0.01	—	1,101
Dust From Material Movement	—	—	—	—	—	0.60	0.60	—	0.24	0.24	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	< 0.005	—	0.87	0.87	< 0.005	< 0.005	< 0.005	0.92
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.90	0.86	< 0.005	0.04	—	0.04	0.03	—	0.03	—	182	182	0.01	< 0.005	—	182
Dust From Material Movement	—	—	—	—	—	0.11	0.11	—	0.04	0.04	—	—	—	—	—	—	—

Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	0.14	0.14	< 0.005	< 0.005	< 0.005	0.15
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.81	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	179	179	0.01	0.01	0.02	182
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.39	32.5	10.4	0.17	0.50	7.00	7.50	0.50	1.92	2.41	—	26,638	26,638	1.38	4.19	1.53	27,923
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	30.1	30.1	< 0.005	< 0.005	0.05	30.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.07	5.43	1.73	0.03	0.08	1.15	1.24	0.08	0.32	0.40	—	4,431	4,431	0.23	0.70	4.23	4,648
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.98	4.98	< 0.005	< 0.005	0.01	5.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.99	0.32	0.01	0.02	0.21	0.23	0.02	0.06	0.07	—	734	734	0.04	0.12	0.70	770

### 3.6. Grading (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	3.61	3.61	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	0.18	0.18	< 0.005	0.02	0.02	—	5.25	5.25	< 0.005	< 0.005	< 0.005	5.53
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.53	4.94	4.71	0.01	0.21	—	0.21	0.19	—	0.19	—	1,098	1,098	0.04	0.01	—	1,101
Dust From Material Movement	—	—	—	—	—	0.60	0.60	—	0.24	0.24	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	< 0.005	—	0.87	0.87	< 0.005	< 0.005	< 0.005	0.92
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.90	0.86	< 0.005	0.04	—	0.04	0.03	—	0.03	—	182	182	0.01	< 0.005	—	182
Dust From Material Movement	—	—	—	—	—	0.11	0.11	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	0.14	0.14	< 0.005	< 0.005	< 0.005	0.15
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.81	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	179	179	0.01	0.01	0.02	182
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.39	32.5	10.4	0.17	0.50	7.00	7.50	0.50	1.92	2.41	—	26,638	26,638	1.38	4.19	1.53	27,923
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	30.1	30.1	< 0.005	< 0.005	0.05	30.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.07	5.43	1.73	0.03	0.08	1.15	1.24	0.08	0.32	0.40	—	4,431	4,431	0.23	0.70	4.23	4,648
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.98	4.98	< 0.005	< 0.005	0.01	5.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.99	0.32	0.01	0.02	0.21	0.23	0.02	0.06	0.07	—	734	734	0.04	0.12	0.70	770

### 3.7. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	7.66	8.96	0.02	0.34	—	0.34	0.31	—	0.31	—	1,638	1,638	0.07	0.01	—	1,643
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.40	1.63	< 0.005	0.06	—	0.06	0.06	—	0.06	—	271	271	0.01	< 0.005	—	272
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.57	2.87	42.2	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	8,258	8,258	0.38	0.30	33.2	8,390
Vendor	0.38	13.2	6.10	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,578	9,578	0.42	1.33	24.6	10,010
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.54	3.17	36.9	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,796	7,796	0.41	0.30	0.86	7,897
Vendor	0.36	13.7	6.28	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,583	9,583	0.42	1.33	0.64	9,990
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.38	2.15	25.6	0.00	0.00	4.87	4.87	0.00	1.14	1.14	—	5,373	5,373	0.28	0.21	9.74	5,451
Vendor	0.25	9.32	4.23	0.04	0.09	1.63	1.71	0.09	0.45	0.54	—	6,543	6,543	0.28	0.91	7.23	6,828

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.43	0.39	4.67	0.00	0.00	0.89	0.89	0.00	0.21	0.21	—	889	889	0.05	0.03	1.61	902
Vendor	0.05	1.70	0.77	0.01	0.02	0.30	0.31	0.02	0.08	0.10	—	1,083	1,083	0.05	0.15	1.20	1,130
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.8. Building Construction (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	7.66	8.96	0.02	0.34	—	0.34	0.31	—	0.31	—	1,638	1,638	0.07	0.01	—	1,643
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.15	1.40	1.63	< 0.005	0.06	—	0.06	0.06	—	0.06	—	271	271	0.01	< 0.005	—	272
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.57	2.87	42.2	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	8,258	8,258	0.38	0.30	33.2	8,390
Vendor	0.38	13.2	6.10	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,578	9,578	0.42	1.33	24.6	10,010
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.54	3.17	36.9	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,796	7,796	0.41	0.30	0.86	7,897
Vendor	0.36	13.7	6.28	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,583	9,583	0.42	1.33	0.64	9,990
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.38	2.15	25.6	0.00	0.00	4.87	4.87	0.00	1.14	1.14	—	5,373	5,373	0.28	0.21	9.74	5,451
Vendor	0.25	9.32	4.23	0.04	0.09	1.63	1.71	0.09	0.45	0.54	—	6,543	6,543	0.28	0.91	7.23	6,828
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.43	0.39	4.67	0.00	0.00	0.89	0.89	0.00	0.21	0.21	—	889	889	0.05	0.03	1.61	902
Vendor	0.05	1.70	0.77	0.01	0.02	0.30	0.31	0.02	0.08	0.10	—	1,083	1,083	0.05	0.15	1.20	1,130
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.9. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	7.46	9.31	0.02	0.31	—	0.31	0.28	—	0.28	—	1,713	1,713	0.07	0.01	—	1,719
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.36	1.70	< 0.005	0.06	—	0.06	0.05	—	0.05	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.44	2.61	39.5	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	8,098	8,098	0.38	0.28	30.4	8,221
Vendor	0.38	12.5	5.81	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,410	9,410	0.42	1.33	24.4	9,841
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.39	2.91	34.6	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,647	7,647	0.41	0.30	0.79	7,747
Vendor	0.36	13.0	5.99	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,415	9,415	0.42	1.33	0.63	9,823
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.39	2.07	25.1	0.00	0.00	5.09	5.09	0.00	1.19	1.19	—	5,511	5,511	0.28	0.21	9.36	5,591
Vendor	0.27	9.22	4.21	0.05	0.09	1.70	1.79	0.09	0.47	0.56	—	6,723	6,723	0.30	0.95	7.56	7,021
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.44	0.38	4.58	0.00	0.00	0.93	0.93	0.00	0.22	0.22	—	912	912	0.05	0.04	1.55	926
Vendor	0.05	1.68	0.77	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,113	1,113	0.05	0.16	1.25	1,162
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.10. Building Construction (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	7.46	9.31	0.02	0.31	—	0.31	0.28	—	0.28	—	1,713	1,713	0.07	0.01	—	1,719
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.36	1.70	< 0.005	0.06	—	0.06	0.05	—	0.05	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.44	2.61	39.5	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	8,098	8,098	0.38	0.28	30.4	8,221
Vendor	0.38	12.5	5.81	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,410	9,410	0.42	1.33	24.4	9,841
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.39	2.91	34.6	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,647	7,647	0.41	0.30	0.79	7,747
Vendor	0.36	13.0	5.99	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,415	9,415	0.42	1.33	0.63	9,823
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.39	2.07	25.1	0.00	0.00	5.09	5.09	0.00	1.19	1.19	—	5,511	5,511	0.28	0.21	9.36	5,591
Vendor	0.27	9.22	4.21	0.05	0.09	1.70	1.79	0.09	0.47	0.56	—	6,723	6,723	0.30	0.95	7.56	7,021

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.44	0.38	4.58	0.00	0.00	0.93	0.93	0.00	0.22	0.22	—	912	912	0.05	0.04	1.55	926
Vendor	0.05	1.68	0.77	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,113	1,113	0.05	0.16	1.25	1,162
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.11. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	7.04	9.26	0.02	0.27	—	0.27	0.25	—	0.25	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Off-Road Equipment	0.14	1.28	1.69	< 0.005	0.05	—	0.05	0.05	—	0.05	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.08	2.37	36.9	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,933	7,933	0.38	0.28	27.8	8,054
Vendor	0.32	11.9	5.60	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,236	9,236	0.35	1.33	22.5	9,664
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.05	2.67	32.5	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,492	7,492	0.39	0.30	0.72	7,592
Vendor	0.30	12.4	5.69	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,242	9,242	0.35	1.33	0.59	9,648
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.15	1.89	23.5	0.00	0.00	5.09	5.09	0.00	1.19	1.19	—	5,399	5,399	0.28	0.21	8.56	5,479
Vendor	0.22	8.77	4.01	0.05	0.09	1.70	1.79	0.09	0.47	0.56	—	6,599	6,599	0.25	0.95	6.98	6,896
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.35	4.28	0.00	0.00	0.93	0.93	0.00	0.22	0.22	—	894	894	0.05	0.04	1.42	907
Vendor	0.04	1.60	0.73	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,093	1,093	0.04	0.16	1.16	1,142
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.12. Building Construction (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	7.04	9.26	0.02	0.27	—	0.27	0.25	—	0.25	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.28	1.69	< 0.005	0.05	—	0.05	0.05	—	0.05	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.08	2.37	36.9	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,933	7,933	0.38	0.28	27.8	8,054
Vendor	0.32	11.9	5.60	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,236	9,236	0.35	1.33	22.5	9,664
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.05	2.67	32.5	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,492	7,492	0.39	0.30	0.72	7,592
Vendor	0.30	12.4	5.69	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,242	9,242	0.35	1.33	0.59	9,648
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.15	1.89	23.5	0.00	0.00	5.09	5.09	0.00	1.19	1.19	—	5,399	5,399	0.28	0.21	8.56	5,479
Vendor	0.22	8.77	4.01	0.05	0.09	1.70	1.79	0.09	0.47	0.56	—	6,599	6,599	0.25	0.95	6.98	6,896
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.35	4.28	0.00	0.00	0.93	0.93	0.00	0.22	0.22	—	894	894	0.05	0.04	1.42	907
Vendor	0.04	1.60	0.73	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,093	1,093	0.04	0.16	1.16	1,142
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.13. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74	6.71	9.24	0.02	0.24	—	0.24	0.22	—	0.22	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.22	1.69	< 0.005	0.04	—	0.04	0.04	—	0.04	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.01	2.10	35.0	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,799	7,799	0.36	0.28	25.3	7,917
Vendor	0.32	11.4	5.38	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,040	9,040	0.34	1.27	20.2	9,446
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.93	2.63	30.7	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,366	7,366	0.39	0.30	0.65	7,466
Vendor	0.29	11.8	5.47	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,046	9,046	0.35	1.27	0.52	9,433
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.08	1.86	22.2	0.00	0.00	5.09	5.09	0.00	1.19	1.19	—	5,308	5,308	0.27	0.20	7.80	5,383
Vendor	0.21	8.38	3.90	0.05	0.09	1.70	1.79	0.09	0.47	0.56	—	6,459	6,459	0.25	0.91	6.23	6,741

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.34	4.05	0.00	0.00	0.93	0.93	0.00	0.22	0.22	—	879	879	0.04	0.03	1.29	891
Vendor	0.04	1.53	0.71	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,069	1,069	0.04	0.15	1.03	1,116
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.14. Building Construction (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74	6.71	9.24	0.02	0.24	—	0.24	0.22	—	0.22	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.13	1.22	1.69	< 0.005	0.04	—	0.04	0.04	—	0.04	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.01	2.10	35.0	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,799	7,799	0.36	0.28	25.3	7,917
Vendor	0.32	11.4	5.38	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,040	9,040	0.34	1.27	20.2	9,446
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.93	2.63	30.7	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,366	7,366	0.39	0.30	0.65	7,466
Vendor	0.29	11.8	5.47	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	9,046	9,046	0.35	1.27	0.52	9,433
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.08	1.86	22.2	0.00	0.00	5.09	5.09	0.00	1.19	1.19	—	5,308	5,308	0.27	0.20	7.80	5,383
Vendor	0.21	8.38	3.90	0.05	0.09	1.70	1.79	0.09	0.47	0.56	—	6,459	6,459	0.25	0.91	6.23	6,741
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.34	4.05	0.00	0.00	0.93	0.93	0.00	0.22	0.22	—	879	879	0.04	0.03	1.29	891
Vendor	0.04	1.53	0.71	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,069	1,069	0.04	0.15	1.03	1,116
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.15. Building Construction (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.71	6.39	9.26	0.02	0.22	—	0.22	0.20	—	0.20	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.17	1.69	< 0.005	0.04	—	0.04	0.04	—	0.04	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.92	2.08	33.1	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,660	7,660	0.13	0.28	22.9	7,770
Vendor	0.31	10.8	5.16	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	8,813	8,813	0.34	1.27	18.0	9,217
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.88	2.39	29.0	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,235	7,235	0.15	0.28	0.59	7,323
Vendor	0.29	11.2	5.31	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	8,819	8,819	0.34	1.27	0.47	9,206
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.03	1.69	21.0	0.00	0.00	5.10	5.10	0.00	1.20	1.20	—	5,228	5,228	0.11	0.20	7.08	5,298
Vendor	0.21	7.99	3.75	0.05	0.09	1.71	1.80	0.09	0.47	0.56	—	6,314	6,314	0.24	0.91	5.56	6,596
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.37	0.31	3.84	0.00	0.00	0.93	0.93	0.00	0.22	0.22	—	866	866	0.02	0.03	1.17	877
Vendor	0.04	1.46	0.68	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,045	1,045	0.04	0.15	0.92	1,092
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.16. Building Construction (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Off-Road Equipment	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.71	6.39	9.26	0.02	0.22	—	0.22	0.20	—	0.20	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.17	1.69	< 0.005	0.04	—	0.04	0.04	—	0.04	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.92	2.08	33.1	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,660	7,660	0.13	0.28	22.9	7,770
Vendor	0.31	10.8	5.16	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	8,813	8,813	0.34	1.27	18.0	9,217
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.88	2.39	29.0	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,235	7,235	0.15	0.28	0.59	7,323
Vendor	0.29	11.2	5.31	0.06	0.13	2.41	2.53	0.13	0.66	0.79	—	8,819	8,819	0.34	1.27	0.47	9,206
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.03	1.69	21.0	0.00	0.00	5.10	5.10	0.00	1.20	1.20	—	5,228	5,228	0.11	0.20	7.08	5,298
Vendor	0.21	7.99	3.75	0.05	0.09	1.71	1.80	0.09	0.47	0.56	—	6,314	6,314	0.24	0.91	5.56	6,596

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.37	0.31	3.84	0.00	0.00	0.93	0.93	0.00	0.22	0.22	—	866	866	0.02	0.03	1.17	877
Vendor	0.04	1.46	0.68	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,045	1,045	0.04	0.15	0.92	1,092
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.17. Building Construction (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.97	8.58	12.9	0.02	0.28	—	0.28	0.25	—	0.25	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.17	0.25	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	46.9	46.9	< 0.005	< 0.005	—	47.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.77	7.77	< 0.005	< 0.005	—	7.79
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.76	2.12	27.2	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,111	7,111	0.15	0.28	0.53	7,199
Vendor	0.28	10.7	5.09	0.06	0.13	2.41	2.53	0.06	0.66	0.73	—	8,567	8,567	0.34	1.20	0.41	8,935
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.54	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	140	140	< 0.005	0.01	0.17	142
Vendor	0.01	0.21	0.10	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	168	168	0.01	0.02	0.13	175
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	23.2	23.2	< 0.005	< 0.005	0.03	23.6
Vendor	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	27.7	27.7	< 0.005	< 0.005	0.02	29.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.18. Building Construction (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.97	8.58	12.9	0.02	0.28	—	0.28	0.25	—	0.25	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.17	0.25	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	46.9	46.9	< 0.005	< 0.005	—	47.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.77	7.77	< 0.005	< 0.005	—	7.79
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.76	2.12	27.2	0.00	0.00	7.22	7.22	0.00	1.69	1.69	—	7,111	7,111	0.15	0.28	0.53	7,199
Vendor	0.28	10.7	5.09	0.06	0.13	2.41	2.53	0.06	0.66	0.73	—	8,567	8,567	0.34	1.20	0.41	8,935
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.54	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	140	140	< 0.005	0.01	0.17	142
Vendor	0.01	0.21	0.10	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	168	168	0.01	0.02	0.13	175
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	23.2	23.2	< 0.005	< 0.005	0.03	23.6

Vendor	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	27.7	27.7	< 0.005	< 0.005	0.02	29.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.19. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46	4.26	5.70	0.01	0.20	—	0.20	0.18	—	0.18	—	864	864	0.04	0.01	—	867
Paving	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.08	0.78	1.04	< 0.005	0.04	—	0.04	0.03	—	0.03	—	143	143	0.01	< 0.005	—	143
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.69	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	142	142	0.01	< 0.005	0.53	144
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.61	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	134	134	0.01	0.01	0.01	136
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.35	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	77.5	77.5	< 0.005	< 0.005	0.13	78.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.8	12.8	< 0.005	< 0.005	0.02	13.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.20. Paving (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46	4.26	5.70	0.01	0.20	—	0.20	0.18	—	0.18	—	864	864	0.04	0.01	—	867
Paving	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.78	1.04	< 0.005	0.04	—	0.04	0.03	—	0.03	—	143	143	0.01	< 0.005	—	143
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.69	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	142	142	0.01	< 0.005	0.53	144
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.61	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	134	134	0.01	0.01	0.01	136
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.35	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	77.5	77.5	< 0.005	< 0.005	0.13	78.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.8	12.8	< 0.005	< 0.005	0.02	13.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.21. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Off-Road Equipment	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	5.08	7.10	0.01	0.23	—	0.23	0.21	—	0.21	—	1,079	1,079	0.04	0.01	—	1,083
Paving	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.93	1.30	< 0.005	0.04	—	0.04	0.04	—	0.04	—	179	179	0.01	< 0.005	—	179
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.65	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	139	139	0.01	< 0.005	0.49	142
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.57	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	132	132	0.01	0.01	0.01	133
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.41	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	94.9	94.9	< 0.005	< 0.005	0.15	96.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.7	15.7	< 0.005	< 0.005	0.02	15.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.22. Paving (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	5.08	7.10	0.01	0.23	—	0.23	0.21	—	0.21	—	1,079	1,079	0.04	0.01	—	1,083
Paving	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.93	1.30	< 0.005	0.04	—	0.04	0.04	—	0.04	—	179	179	0.01	< 0.005	—	179
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.65	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	139	139	0.01	< 0.005	0.49	142
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.57	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	132	132	0.01	0.01	0.01	133

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.41	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	94.9	94.9	< 0.005	< 0.005	0.15	96.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.7	15.7	< 0.005	< 0.005	0.02	15.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.23. Paving (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	2.20	3.16	< 0.005	0.09	—	0.09	0.09	—	0.09	—	479	479	0.02	< 0.005	—	481
Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.40	0.58	< 0.005	0.02	—	0.02	0.02	—	0.02	—	79.3	79.3	< 0.005	< 0.005	—	79.6
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.61	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	137	137	0.01	< 0.005	0.44	139
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.54	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	129	129	0.01	0.01	0.01	131
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.17	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	41.4	41.4	< 0.005	< 0.005	0.06	42.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.86	6.86	< 0.005	< 0.005	0.01	6.95
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.24. Paving (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	2.20	3.16	< 0.005	0.09	—	0.09	0.09	—	0.09	—	479	479	0.02	< 0.005	—	481
Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.40	0.58	< 0.005	0.02	—	0.02	0.02	—	0.02	—	79.3	79.3	< 0.005	< 0.005	—	79.6
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.61	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	137	137	0.01	< 0.005	0.44	139
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.54	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	129	129	0.01	0.01	0.01	131
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.17	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	41.4	41.4	< 0.005	< 0.005	0.06	42.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.86	6.86	< 0.005	< 0.005	0.01	6.95
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

## 3.25. Architectural Coating (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	6.93	7.75	0.02	0.21	—	0.21	0.19	—	0.19	—	1,518	1,518	0.06	0.01	—	1,523
Architectural Coatings	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	6.93	7.75	0.02	0.21	—	0.21	0.19	—	0.19	—	1,518	1,518	0.06	0.01	—	1,523
Architectural Coatings	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	1.55	1.73	< 0.005	0.05	—	0.05	0.04	—	0.04	—	339	339	0.01	< 0.005	—	340
Architectural Coatings	1.94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00



Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.28	0.32	< 0.005	0.01	—	0.01	0.01	—	0.01	—	56.1	56.1	< 0.005	< 0.005	—	56.2
Architectural Coatings	0.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.60	0.42	7.00	0.00	0.00	1.44	1.44	0.00	0.34	0.34	—	1,560	1,560	0.07	0.06	5.06	1,583
Vendor	0.06	2.31	1.09	0.01	0.03	0.49	0.51	0.03	0.13	0.16	—	1,827	1,827	0.07	0.26	4.08	1,909
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.59	0.53	6.15	0.00	0.00	1.44	1.44	0.00	0.34	0.34	—	1,473	1,473	0.08	0.06	0.13	1,493
Vendor	0.06	2.39	1.11	0.01	0.03	0.49	0.51	0.03	0.13	0.16	—	1,828	1,828	0.07	0.26	0.11	1,907
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	1.39	0.00	0.00	0.32	0.32	0.00	0.07	0.07	—	332	332	0.02	0.01	0.49	336
Vendor	0.01	0.53	0.25	< 0.005	0.01	0.11	0.11	0.01	0.03	0.04	—	408	408	0.02	0.06	0.39	426
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.25	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	54.9	54.9	< 0.005	< 0.005	0.08	55.7
Vendor	< 0.005	0.10	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	67.5	67.5	< 0.005	0.01	0.07	70.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

## 3.26. Architectural Coating (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	6.93	7.75	0.02	0.21	—	0.21	0.19	—	0.19	—	1,518	1,518	0.06	0.01	—	1,523
Architectural Coatings	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	6.93	7.75	0.02	0.21	—	0.21	0.19	—	0.19	—	1,518	1,518	0.06	0.01	—	1,523
Architectural Coatings	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	1.55	1.73	< 0.005	0.05	—	0.05	0.04	—	0.04	—	339	339	0.01	< 0.005	—	340
Architectural Coatings	1.94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.28	0.32	< 0.005	0.01	—	0.01	0.01	—	0.01	—	56.1	56.1	< 0.005	< 0.005	—	56.2
Architectural Coatings	0.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.60	0.42	7.00	0.00	0.00	1.44	1.44	0.00	0.34	0.34	—	1,560	1,560	0.07	0.06	5.06	1,583
Vendor	0.06	2.31	1.09	0.01	0.03	0.49	0.51	0.03	0.13	0.16	—	1,827	1,827	0.07	0.26	4.08	1,909
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.59	0.53	6.15	0.00	0.00	1.44	1.44	0.00	0.34	0.34	—	1,473	1,473	0.08	0.06	0.13	1,493
Vendor	0.06	2.39	1.11	0.01	0.03	0.49	0.51	0.03	0.13	0.16	—	1,828	1,828	0.07	0.26	0.11	1,907
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	1.39	0.00	0.00	0.32	0.32	0.00	0.07	0.07	—	332	332	0.02	0.01	0.49	336
Vendor	0.01	0.53	0.25	< 0.005	0.01	0.11	0.11	0.01	0.03	0.04	—	408	408	0.02	0.06	0.39	426
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.25	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	54.9	54.9	< 0.005	< 0.005	0.08	55.7
Vendor	< 0.005	0.10	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	67.5	67.5	< 0.005	0.01	0.07	70.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

## 3.27. Architectural Coating (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.75	6.62	7.73	0.02	0.19	—	0.19	0.17	—	0.17	—	1,518	1,518	0.06	0.01	—	1,523
Architectural Coatings	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.75	6.62	7.73	0.02	0.19	—	0.19	0.17	—	0.17	—	1,518	1,518	0.06	0.01	—	1,523
Architectural Coatings	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	4.74	5.54	0.01	0.14	—	0.14	0.12	—	0.12	—	1,087	1,087	0.04	0.01	—	1,091
Architectural Coatings	6.23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.87	1.01	< 0.005	0.02	—	0.02	0.02	—	0.02	—	180	180	0.01	< 0.005	—	181
Architectural Coatings	1.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.58	0.42	6.62	0.00	0.00	1.44	1.44	0.00	0.34	0.34	—	1,532	1,532	0.03	0.06	4.58	1,554
Vendor	0.06	2.19	1.04	0.01	0.03	0.49	0.51	0.03	0.13	0.16	—	1,781	1,781	0.07	0.26	3.64	1,863
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.58	0.48	5.79	0.00	0.00	1.44	1.44	0.00	0.34	0.34	—	1,447	1,447	0.03	0.06	0.12	1,465
Vendor	0.06	2.27	1.07	0.01	0.03	0.49	0.51	0.03	0.13	0.16	—	1,783	1,783	0.07	0.26	0.09	1,861
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.41	0.34	4.20	0.00	0.00	1.02	1.02	0.00	0.24	0.24	—	1,046	1,046	0.02	0.04	1.42	1,060
Vendor	0.04	1.61	0.76	0.01	0.02	0.34	0.36	0.02	0.10	0.11	—	1,276	1,276	0.05	0.18	1.12	1,333
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.77	0.00	0.00	0.19	0.19	0.00	0.04	0.04	—	173	173	< 0.005	0.01	0.23	175
Vendor	0.01	0.29	0.14	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	211	211	0.01	0.03	0.19	221
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

## 3.28. Architectural Coating (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.75	6.62	7.73	0.02	0.19	—	0.19	0.17	—	0.17	—	1,518	1,518	0.06	0.01	—	1,523
Architectural Coatings	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.75	6.62	7.73	0.02	0.19	—	0.19	0.17	—	0.17	—	1,518	1,518	0.06	0.01	—	1,523
Architectural Coatings	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	4.74	5.54	0.01	0.14	—	0.14	0.12	—	0.12	—	1,087	1,087	0.04	0.01	—	1,091
Architectural Coatings	6.23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.87	1.01	< 0.005	0.02	—	0.02	0.02	—	0.02	—	180	180	0.01	< 0.005	—	181
Architectural Coatings	1.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.58	0.42	6.62	0.00	0.00	1.44	1.44	0.00	0.34	0.34	—	1,532	1,532	0.03	0.06	4.58	1,554
Vendor	0.06	2.19	1.04	0.01	0.03	0.49	0.51	0.03	0.13	0.16	—	1,781	1,781	0.07	0.26	3.64	1,863
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.58	0.48	5.79	0.00	0.00	1.44	1.44	0.00	0.34	0.34	—	1,447	1,447	0.03	0.06	0.12	1,465
Vendor	0.06	2.27	1.07	0.01	0.03	0.49	0.51	0.03	0.13	0.16	—	1,783	1,783	0.07	0.26	0.09	1,861
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.41	0.34	4.20	0.00	0.00	1.02	1.02	0.00	0.24	0.24	—	1,046	1,046	0.02	0.04	1.42	1,060
Vendor	0.04	1.61	0.76	0.01	0.02	0.34	0.36	0.02	0.10	0.11	—	1,276	1,276	0.05	0.18	1.12	1,333
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.77	0.00	0.00	0.19	0.19	0.00	0.04	0.04	—	173	173	< 0.005	0.01	0.23	175
Vendor	0.01	0.29	0.14	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	211	211	0.01	0.03	0.19	221
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.29. Architectural Coating (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.39	7.68	0.02	0.17	—	0.17	0.16	—	0.16	—	1,518	1,518	0.06	0.01	—	1,523
Architectural Coatings	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.39	7.68	0.02	0.17	—	0.17	0.16	—	0.16	—	1,518	1,518	0.06	0.01	—	1,523
Architectural Coatings	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51	4.50	5.41	0.01	0.12	—	0.12	0.11	—	0.11	—	1,069	1,069	0.04	0.01	—	1,073
Architectural Coatings	6.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00



Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.82	0.99	< 0.005	0.02	—	0.02	0.02	—	0.02	—	177	177	0.01	< 0.005	—	178
Architectural Coatings	1.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.56	0.37	6.24	0.00	0.00	1.44	1.44	0.00	0.34	0.34	—	1,506	1,506	0.02	0.06	4.12	1,527
Vendor	0.06	2.08	1.01	0.01	0.03	0.49	0.51	0.01	0.13	0.15	—	1,730	1,730	0.07	0.24	3.22	1,808
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.55	0.42	5.44	0.00	0.00	1.44	1.44	0.00	0.34	0.34	—	1,422	1,422	0.03	0.06	0.11	1,440
Vendor	0.06	2.17	1.03	0.01	0.03	0.49	0.51	0.01	0.13	0.15	—	1,732	1,732	0.07	0.24	0.08	1,806
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.30	3.89	0.00	0.00	1.00	1.00	0.00	0.24	0.24	—	1,011	1,011	0.02	0.04	1.25	1,024
Vendor	0.04	1.51	0.72	0.01	0.02	0.34	0.36	0.01	0.09	0.10	—	1,219	1,219	0.05	0.17	0.98	1,273
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.05	0.71	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	167	167	< 0.005	0.01	0.21	170
Vendor	0.01	0.28	0.13	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	202	202	0.01	0.03	0.16	211
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

## 3.30. Architectural Coating (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.39	7.68	0.02	0.17	—	0.17	0.16	—	0.16	—	1,518	1,518	0.06	0.01	—	1,523
Architectural Coatings	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.39	7.68	0.02	0.17	—	0.17	0.16	—	0.16	—	1,518	1,518	0.06	0.01	—	1,523
Architectural Coatings	8.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51	4.50	5.41	0.01	0.12	—	0.12	0.11	—	0.11	—	1,069	1,069	0.04	0.01	—	1,073
Architectural Coatings	6.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.82	0.99	< 0.005	0.02	—	0.02	0.02	—	0.02	—	177	177	0.01	< 0.005	—	178
Architectural Coatings	1.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.56	0.37	6.24	0.00	0.00	1.44	1.44	0.00	0.34	0.34	—	1,506	1,506	0.02	0.06	4.12	1,527
Vendor	0.06	2.08	1.01	0.01	0.03	0.49	0.51	0.01	0.13	0.15	—	1,730	1,730	0.07	0.24	3.22	1,808
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.55	0.42	5.44	0.00	0.00	1.44	1.44	0.00	0.34	0.34	—	1,422	1,422	0.03	0.06	0.11	1,440
Vendor	0.06	2.17	1.03	0.01	0.03	0.49	0.51	0.01	0.13	0.15	—	1,732	1,732	0.07	0.24	0.08	1,806
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.30	3.89	0.00	0.00	1.00	1.00	0.00	0.24	0.24	—	1,011	1,011	0.02	0.04	1.25	1,024
Vendor	0.04	1.51	0.72	0.01	0.02	0.34	0.36	0.01	0.09	0.10	—	1,219	1,219	0.05	0.17	0.98	1,273
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.05	0.71	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	167	167	< 0.005	0.01	0.21	170
Vendor	0.01	0.28	0.13	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	202	202	0.01	0.03	0.16	211
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

## 4. Operations Emissions Details

### 4.1. Mobile Emissions by Land Use

#### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	35.3	14.9	154	0.32	0.23	11.3	11.6	0.22	2.00	2.22	—	32,679	32,679	2.20	1.62	69.1	33,287
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	35.3	14.9	154	0.32	0.23	11.3	11.6	0.22	2.00	2.22	—	32,679	32,679	2.20	1.62	69.1	33,287
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	34.6	16.4	157	0.31	0.23	11.3	11.6	0.22	2.00	2.22	—	31,304	31,304	2.43	1.73	1.79	31,882
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	34.6	16.4	157	0.31	0.23	11.3	11.6	0.22	2.00	2.22	—	31,304	31,304	2.43	1.73	1.79	31,882
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Research & Development	4.68	2.21	21.1	0.04	0.03	1.56	1.59	0.03	0.27	0.30	—	3,925	3,925	0.29	0.21	3.72	4,000
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.68	2.21	21.1	0.04	0.03	1.56	1.59	0.03	0.27	0.30	—	3,925	3,925	0.29	0.21	3.72	4,000

#### 4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	30.9	13.1	135	0.28	0.20	9.92	10.1	0.19	1.75	1.94	—	28,592	28,592	1.92	1.42	60.4	29,124
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	30.9	13.1	135	0.28	0.20	9.92	10.1	0.19	1.75	1.94	—	28,592	28,592	1.92	1.42	60.4	29,124
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	30.3	14.4	137	0.27	0.20	9.92	10.1	0.19	1.75	1.94	—	27,388	27,388	2.12	1.51	1.57	27,894
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	30.3	14.4	137	0.27	0.20	9.92	10.1	0.19	1.75	1.94	—	27,388	27,388	2.12	1.51	1.57	27,894
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	4.10	1.94	18.5	0.04	0.03	1.36	1.39	0.03	0.24	0.27	—	3,434	3,434	0.26	0.19	3.25	3,499
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.10	1.94	18.5	0.04	0.03	1.36	1.39	0.03	0.24	0.27	—	3,434	3,434	0.26	0.19	3.25	3,499

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	—	25,074	25,074	4.88	0.59	—	25,372
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	1,943	1,943	0.38	0.05	—	1,966
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	26.6	26.6	0.01	< 0.005	—	26.9
Total	—	—	—	—	—	—	—	—	—	—	—	27,044	27,044	5.26	0.64	—	27,365

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	—	25,074	25,074	4.88	0.59	—	25,372
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	1,943	1,943	0.38	0.05	—	1,966
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	26.6	26.6	0.01	< 0.005	—	26.9
Total	—	—	—	—	—	—	—	—	—	—	—	27,044	27,044	5.26	0.64	—	27,365
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	—	4,151	4,151	0.81	0.10	—	4,201
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	322	322	0.06	0.01	—	326
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	4.40	4.40	< 0.005	< 0.005	—	4.46
Total	—	—	—	—	—	—	—	—	—	—	—	4,477	4,477	0.87	0.11	—	4,531

#### 4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	—	25,074	25,074	4.88	0.59	—	25,372

Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	1,943	1,943	0.38	0.05	—	1,966
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	26.6	26.6	0.01	< 0.005	—	26.9
Total	—	—	—	—	—	—	—	—	—	—	—	27,044	27,044	5.26	0.64	—	27,365
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	—	25,074	25,074	4.88	0.59	—	25,372
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	1,943	1,943	0.38	0.05	—	1,966
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	26.6	26.6	0.01	< 0.005	—	26.9
Total	—	—	—	—	—	—	—	—	—	—	—	27,044	27,044	5.26	0.64	—	27,365
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	—	4,151	4,151	0.81	0.10	—	4,201
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	322	322	0.06	0.01	—	326
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	4.40	4.40	< 0.005	< 0.005	—	4.46
Total	—	—	—	—	—	—	—	—	—	—	—	4,477	4,477	0.87	0.11	—	4,531

#### 4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------



Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	677	677	0.06	< 0.005	—	679
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	677	677	0.06	< 0.005	—	679
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	677	677	0.06	< 0.005	—	679
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	677	677	0.06	< 0.005	—	679
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	112	112	0.01	< 0.005	—	112
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	112	112	0.01	< 0.005	—	112

## 4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	677	677	0.06	< 0.005	—	679
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	677	677	0.06	< 0.005	—	679
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	677	677	0.06	< 0.005	—	679
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.03	0.57	0.48	< 0.005	0.04	—	0.04	0.04	—	0.04	—	677	677	0.06	< 0.005	—	679
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	112	112	0.01	< 0.005	—	112
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.10	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	112	112	0.01	< 0.005	—	112

### 4.3. Area Emissions by Source

#### 4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	23.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscaping Equipment	16.4	0.84	99.8	0.01	0.13	—	0.13	0.18	—	0.18	—	410	410	0.02	< 0.005	—	412
Total	41.4	0.84	99.8	0.01	0.13	—	0.13	0.18	—	0.18	—	410	410	0.02	< 0.005	—	412
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	23.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	25.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.48	0.08	8.98	< 0.005	0.01	—	0.01	0.02	—	0.02	—	33.5	33.5	< 0.005	< 0.005	—	33.6
Total	6.04	0.08	8.98	< 0.005	0.01	—	0.01	0.02	—	0.02	—	33.5	33.5	< 0.005	< 0.005	—	33.6

#### 4.3.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	23.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	16.4	0.84	99.8	0.01	0.13	—	0.13	0.18	—	0.18	—	410	410	0.02	< 0.005	—	412
Total	41.4	0.84	99.8	0.01	0.13	—	0.13	0.18	—	0.18	—	410	410	0.02	< 0.005	—	412
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer	23.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	25.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.48	0.08	8.98	< 0.005	0.01	—	0.01	0.02	—	0.02	—	33.5	33.5	< 0.005	< 0.005	—	33.6
Total	6.04	0.08	8.98	< 0.005	0.01	—	0.01	0.02	—	0.02	—	33.5	33.5	< 0.005	< 0.005	—	33.6

## 4.4. Water Emissions by Land Use

### 4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	108	185	293	11.1	0.27	—	649
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	108	185	293	11.1	0.27	—	649
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	108	185	293	11.1	0.27	—	649
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	108	185	293	11.1	0.27	—	649
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	17.8	30.6	48.5	1.83	0.04	—	107
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	17.8	30.6	48.5	1.83	0.04	—	107

#### 4.4.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Research & Development	—	—	—	—	—	—	—	—	—	—	97.1	168	265	9.99	0.24	—	586
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	97.1	168	265	9.99	0.24	—	586
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	97.1	168	265	9.99	0.24	—	586
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	97.1	168	265	9.99	0.24	—	586
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	16.1	27.7	43.8	1.65	0.04	—	97.0
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	16.1	27.7	43.8	1.65	0.04	—	97.0

#### 4.5. Waste Emissions by Land Use

## 4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	7.46	0.00	7.46	0.75	0.00	—	26.1
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00



Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	7.46	0.00	7.46	0.75	0.00	—	26.1

#### 4.5.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	45.1	0.00	45.1	4.50	0.00	—	158
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Research & Development	—	—	—	—	—	—	—	—	—	—	7.46	0.00	7.46	0.75	0.00	—	26.1
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	7.46	0.00	7.46	0.75	0.00	—	26.1

## 4.6. Refrigerant Emissions by Land Use

### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.65	4.65

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.65	4.65
-------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	------	------

#### 4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.1	28.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.65	4.65
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.65	4.65

#### 4.7. Offroad Emissions By Equipment Type

##### 4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------------	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.8. Stationary Emissions By Equipment Type

##### 4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme nt Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.9. User Defined Emissions By Equipment Type

## 4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 4.10. Soil Carbon Accumulation By Vegetation Type

### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/18/2024	9/25/2024	5.00	180	Demo of existing structures/parking
Grading	Grading	02/29/2024	3/26/2025	5.00	280	grade site
Building Construction	Building Construction	01/18/2024	1/10/2029	5.00	1,300	3 buildings, 2 parking structures, 1 lot
Paving	Paving	03/15/2025	6/11/2027	5.00	585	hardscape, flatwork, access work
Architectural Coating	Architectural Coating	09/09/2027	12/26/2029	5.00	600	coat structures

### 5.2. Off-Road Equipment

#### 5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40

Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Architectural Coating	Aerial Lifts	Diesel	Average	1.00	6.00	46.0	0.31
Architectural Coating	Cranes	Diesel	Average	1.00	6.00	367	0.29
Architectural Coating	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Architectural Coating	Generator Sets	Diesel	Average	1.00	6.00	14.0	0.74
Architectural Coating	Welders	Diesel	Average	1.00	6.00	46.0	0.45
Architectural Coating	Concrete/Industrial Saws	Diesel	Average	1.00	6.00	33.0	0.73

### 5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Architectural Coating	Aerial Lifts	Diesel	Average	1.00	6.00	46.0	0.31
Architectural Coating	Cranes	Diesel	Average	1.00	6.00	367	0.29
Architectural Coating	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Architectural Coating	Generator Sets	Diesel	Average	1.00	6.00	14.0	0.74
Architectural Coating	Welders	Diesel	Average	1.00	6.00	46.0	0.45
Architectural Coating	Concrete/Industrial Saws	Diesel	Average	1.00	6.00	33.0	0.73

## 5.3. Construction Vehicles

### 5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	12.0	LDA,LDT1,LDT2
Demolition	Vendor	—	7.63	HHDT,MHDT
Demolition	Hauling	8.21	20.0	HHDT
Demolition	Onsite truck	2.00	0.25	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	12.0	LDA,LDT1,LDT2
Grading	Vendor	—	7.63	HHDT,MHDT
Grading	Hauling	101	75.0	HHDT
Grading	Onsite truck	2.00	0.25	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	853	12.0	LDA,LDT1,LDT2
Building Construction	Vendor	376	7.63	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	12.0	LDA,LDT1,LDT2
Paving	Vendor	—	7.63	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	171	12.0	LDA,LDT1,LDT2
Architectural Coating	Vendor	76.0	7.63	HHDT,MHDT

Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

### 5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	12.0	LDA,LDT1,LDT2
Demolition	Vendor	—	7.63	HHDT,MHDT
Demolition	Hauling	8.21	20.0	HHDT
Demolition	Onsite truck	2.00	0.25	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	12.0	LDA,LDT1,LDT2
Grading	Vendor	—	7.63	HHDT,MHDT
Grading	Hauling	101	75.0	HHDT
Grading	Onsite truck	2.00	0.25	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	853	12.0	LDA,LDT1,LDT2
Building Construction	Vendor	376	7.63	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	12.0	LDA,LDT1,LDT2
Paving	Vendor	—	7.63	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	171	12.0	LDA,LDT1,LDT2

Architectural Coating	Vendor	76.0	7.63	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

## 5.4. Vehicles

### 5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

## 5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	1,661,761	551,307	19,602

## 5.6. Dust Mitigation

### 5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	5,905	—
Grading	114,700	110,700	858	0.00	—
Paving	0.00	0.00	0.00	0.00	7.50

### 5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
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Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

## 5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Research & Development	0.00	0%
Enclosed Parking Structure	6.00	100%
Parking Lot	1.50	100%

## 5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	540	0.03	< 0.005
2025	0.00	540	0.03	< 0.005
2026	0.00	45.1	0.03	< 0.005
2027	0.00	45.1	0.03	< 0.005
2028	0.00	45.1	0.03	< 0.005
2029	0.00	45.1	0.03	< 0.005

## 5.9. Operational Mobile Sources

### 5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Research & Development	12,386	2,090	1,221	3,401,852	41,122	6,939	4,054	11,294,260
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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### 5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Research & Development	10,837	1,829	1,068	2,976,375	35,979	6,071	3,547	9,881,663
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## 5.10. Operational Area Sources

### 5.10.1. Hearths

#### 5.10.1.1. Unmitigated

#### 5.10.1.2. Mitigated

### 5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	1,661,761	551,307	19,602

### 5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

## 5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

## 5.11. Operational Energy Consumption

## 5.11.1. Unmitigated

## Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Research & Development	53,951,608	170	0.0330	0.0040	2,113,519
Enclosed Parking Structure	4,180,709	170	0.0330	0.0040	0.00
Parking Lot	57,238	170	0.0330	0.0040	0.00

## 5.11.2. Mitigated

## Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Research & Development	53,951,608	170	0.0330	0.0040	2,113,519
Enclosed Parking Structure	4,180,709	170	0.0330	0.0040	0.00
Parking Lot	57,238	170	0.0330	0.0040	0.00

## 5.12. Operational Water and Wastewater Consumption

## 5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Research & Development	56,210,000	2,919,268

Enclosed Parking Structure	0.00	0.00
Parking Lot	0.00	0.00

### 5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Research & Development	50,673,315	2,919,268
Enclosed Parking Structure	0.00	0.00
Parking Lot	0.00	0.00

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Research & Development	83.6	—
Enclosed Parking Structure	0.00	—
Parking Lot	0.00	—

### 5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Research & Development	83.6	—
Enclosed Parking Structure	0.00	—
Parking Lot	0.00	—

## 5.14. Operational Refrigeration and Air Conditioning Equipment

### 5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Research & Development	Household refrigerators and/or freezers	R-134a	1,430	0.45	0.60	0.00	1.00
Research & Development	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

#### 5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Research & Development	Household refrigerators and/or freezers	R-134a	1,430	0.45	0.60	0.00	1.00
Research & Development	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

### 5.15. Operational Off-Road Equipment

#### 5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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#### 5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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### 5.16. Stationary Sources

#### 5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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#### 5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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## 5.17. User Defined

Equipment Type	Fuel Type
—	—

## 5.18. Vegetation

### 5.18.1. Land Use Change

#### 5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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#### 5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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### 5.18.1. Biomass Cover Type

#### 5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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#### 5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres
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### 5.18.2. Sequestration

## 5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	11.3	annual days of extreme heat
Extreme Precipitation	2.45	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	1.34	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about  $\frac{3}{4}$  an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

### 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
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Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

### 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.



## 6.4. Climate Risk Reduction Measures

# 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	42.6
AQ-PM	45.8
AQ-DPM	92.2
Drinking Water	29.0
Lead Risk Housing	57.6
Pesticides	0.00
Toxic Releases	22.4
Traffic	77.2
Effect Indicators	—
CleanUp Sites	37.6
Groundwater	55.6
Haz Waste Facilities/Generators	96.5
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	0.06
Cardio-vascular	0.04
Low Birth Weights	7.17
Socioeconomic Factor Indicators	—

Education	9.73
Housing	90.7
Linguistic	63.3
Poverty	82.5
Unemployment	9.72

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	—
Employed	—
Median HI	—
Education	—
Bachelor's or higher	—
High school enrollment	—
Preschool enrollment	—
Transportation	—
Auto Access	—
Active commuting	—
Social	—
2-parent households	—
Voting	—
Neighborhood	—
Alcohol availability	—
Park access	—
Retail density	—

Supermarket access	—
Tree canopy	—
Housing	—
Homeownership	—
Housing habitability	—
Low-inc homeowner severe housing cost burden	—
Low-inc renter severe housing cost burden	—
Uncrowded housing	—
Health Outcomes	—
Insured adults	—
Arthritis	99.9
Asthma ER Admissions	96.7
High Blood Pressure	99.9
Cancer (excluding skin)	99.8
Asthma	55.1
Coronary Heart Disease	99.9
Chronic Obstructive Pulmonary Disease	99.7
Diagnosed Diabetes	99.9
Life Expectancy at Birth	0.0
Cognitively Disabled	91.4
Physically Disabled	98.4
Heart Attack ER Admissions	98.1
Mental Health Not Good	63.6
Chronic Kidney Disease	99.9
Obesity	99.8
Pedestrian Injuries	0.0
Physical Health Not Good	99.8

Stroke	99.9
Health Risk Behaviors	—
Binge Drinking	2.6
Current Smoker	82.0
No Leisure Time for Physical Activity	94.0
Climate Change Exposures	—
Wildfire Risk	44.0
SLR Inundation Area	0.0
Children	6.0
Elderly	98.4
English Speaking	0.0
Foreign-born	0.0
Outdoor Workers	92.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	61.3
Traffic Density	0.0
Traffic Access	87.4
Other Indices	—
Hardship	0.0
Other Decision Support	—
2016 Voting	0.0

### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	25.0
Healthy Places Index Score for Project Location (b)	—
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No

Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

## 7.4. Health & Equity Measures

No Health & Equity Measures selected.

## 7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

## 7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

# 8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Per applicant's schedule for total working days
Operations: Energy Use	Revised to match applicant assumptions for the three new buildings. Default for parking. Assume mostly electric per UC policy. Assume 6% of default natural gas to represent kitchens
Operations: Water and Waste Water	Per applicant Tranche 2
Land Use	Adjusted to reflect actual size of project site
Construction: Dust From Material Movement	Provided in 4.27.23 memo
Construction: Trips and VMT	assumed 2 water trucks for demo/grading. Haul trip length of 75 assumes 50% of material is hazardous and exported to landfill 250 miles away
Operations: Vehicle Data	Revised based on LLG VMT Memo
Construction: Off-Road Equipment	Added equipment to coating to reflect core/shell construction

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## **Appendix E. Phase II Environmental Site Assessment**

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# GROUP



**SUPPLEMENTAL PHASE II ENVIRONMENTAL SITE ASSESSMENT  
UCSD SCIENCE RESEARCH PARK  
LA JOLLA, CALIFORNIA**

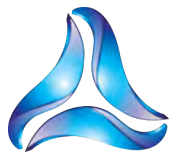
Prepared for

**WEXFORD SCIENCE + TECHNOLOGY**  
Facilities Design and Construction  
1090 King George Post Road, Suite 604  
Edison, New Jersey 08837

Prepared by

**GROUP DELTA CONSULTANTS, INC.**  
9245 Activity Road, Suite 103  
San Diego, California 92126

Project No. SD754  
January 31, 2023



# GROUP DELTA



January 31, 2023

Wexford Science + Technology  
1090 King George Post Road, Suite 604  
Edison, New Jersey 08837

Attention: Mr. Rosalio Arellanes

**SUBJECT: Supplemental Phase II Environmental Site Assessment  
UCSD Science Research Park  
La Jolla, California**

Mr. Arellanes,

We are pleased to submit this Supplemental Phase II Environmental Site Assessment for Phase 1 of the planned Science Research Park development at the University of California, San Diego. Specific conclusions regarding the potential environmental/hazardous waste constraints at the site related to subsurface soil, the findings from our exploratory borings and laboratory tests, and preliminary recommendations for soil management are provided in the following report.

We appreciate this opportunity to be of continued professional service. Feel free to contact the office with any questions or comments, or if you need anything else.

**GROUP DELTA CONSULTANTS**

Alexandre M. Santini, PE  
Senior Project Engineer

Jack Packwood, CIH  
Associate

Distribution: (1) Addressee, Mr. Rosalio Arellanes ([rosalio.arellanes@wexfordscitech.com](mailto:rosalio.arellanes@wexfordscitech.com))

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Figure 1B – Site Vicinity Plan

Figure 2 – Proposed Development

Figures 3A to 3B – Exploration Plans

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Appendix A – Boring Records

Appendix B – Camp Matthews Plan

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## 1.0 INTRODUCTION

The following report summarizes the findings of the Group Delta Consultants, Inc. (Group Delta) Supplemental Phase II Environmental Site Assessment (ESA) for the proposed Science Research Park (SRP) development at the University of California San Diego (UCSD) campus (Site). The general location of the Site is shown in Figure 1A. This report discusses the subsurface soil investigations completed in two phases in October and December 2022 which included a total of 56 borings as shown on the Site Vicinity Plan, Figure 1B. The preliminary layout of the development is shown on the Proposed Development, Figure 2. The locations of borings that Group Delta has completed on Site and in the Site vicinity are shown in more detail on the Exploration Plans, Figures 3A and 3B.

The purpose of these investigations was to conduct a screening of constraints to future Site development associated with contaminated/hazardous soil and provide recommendations for soil management. The recommendations provided herein are based on our subsurface explorations, laboratory tests and analyses, and Group Delta's previous experience with this region of UCSD.

### 1.1 Scope of Services

This report was prepared in general accordance with the provisions of the referenced proposal (Group Delta, 2022).

In summary, Group Delta provided the following scope of services.

- Subsurface exploration of the Site including 56 exploratory borings at the approximate locations shown on the Exploration Plans, Figures 3A and 3B. Boring Records are provided as Appendix A.
- Laboratory analysis of all soil samples for total petroleum hydrocarbons (TPH) and California Title 22 Metals. Laboratory analysis of soil samples collected from the initial six borings for polycyclic aromatic hydrocarbons (PAHs).
- Preparation of this report summarizing our findings, conclusions, and recommendations for the planned development.

### 1.2 Site Description

The subject Site consists of the planned SRP development on the UCSD campus. The general location of the Site is shown on the Site Location Map, Figure 1A. The Site vicinity is shown in more detail in Figure 1B. The Site is located south of Health Science Drive, west of Regents Road, north of Miramar Street, and east of Medical Center Drive. Site access is provided by Athena Circle. Group Delta understands that Medical Center Drive will ultimately be realigned by UCSD to form the northwest property boundary for the SRP (Figure 2).

Most of the planned development is located in areas that are currently being used for parking at the UCSD Center for Novel Therapeutics and the La Jolla Institute for Allergy and Immunology. These parking lots are generally paved with flexible asphalt concrete pavements, surrounded by typical concrete curbs and gutters with various irrigated landscaping areas. The southwest portion of the Site is not paved but is instead covered with gravel and contains a fenced construction yard that is currently being used to store materials. The parking lot located immediately west of this area was constructed more recently than the three other lots and includes various recent best management practice (BMP) drainage improvements such as bioretention swales without concrete curbs and gutters. Another bioswale was constructed several years ago between Athena Circle and Miramar Street.

In general, the Site slopes down gently to the south and west. Relatively minor 2:1 (horizontal to vertical) cut, and fill slopes separate the sheet graded parking lots from the surrounding streets. Most of these slopes vary from only 5 to 10 feet in maximum height, with the exception of the roughly 20-foot-high fill slope that ascends from Athena Circle to Miramar Street along the southern edge of the Site. Elevations on Site vary from a high of about 350 feet above mean sea level (MSL) near the intersection between Athena Circle and Health Sciences Drive, to a low of about 320 feet MSL along Athena Circle near the Neuvo West Parking Garage.

### **1.3 Proposed Development**

Detailed drawings showing the planned structures are not yet available. Based on our project team meetings, we understand that the development will likely include construction of three 10-story steel framed research buildings (Buildings 1, 2 and 3), as well as two 8 to 9-story reinforced concrete parking garages (Parking Structures 1 and 2). No basements are anticipated. In addition, a variety of associated subsurface utility infrastructure, exterior flatwork and pavement areas, landscaping and drainage improvements will also be constructed. The preliminary layout of the proposed Science Research Park is shown on the Proposed Development, Figure 2 (Wexford, 2023).

We anticipate that Site development will be conducted in phases over several years, and will begin with demolition of existing landscaping, parking lots, sidewalks, and other surface improvements for each phase of development. Remedial earthwork and typical cut and fill grading will then be used to attain plan grades. A variety of existing subsurface utilities will be removed and relocated throughout the Site. Once each of the structures are built, the surrounding parking and flatwork areas will be constructed. Various new drainage improvements are also being considered.

### **1.4 Site Geology**

The Site is located within the coastal plain section of the Peninsular Ranges geomorphic province of southern California. The coastal plain generally consists of subdued landforms underlain by marine sedimentary formations. The entire Site is underlain at depth by the Eocene-age Scripps Formation which is covered by a relatively thin layer of Pleistocene-age Very Old Paralic Deposits around the Site perimeter. Most of the Site is covered with undocumented fill. The northern portion of the Site is underlain by relatively shallow undocumented fill soils ranging from a few feet to 29 feet in

depth. Up to about 53 feet of undocumented fill was encountered in the southern portion of the Site where the buried canyon is located (Group Delta, 2023).

## 1.5 Groundwater

Groundwater was not encountered in the 71 borings drilled up to 56 ½ feet below grade included in Appendix A. Perched groundwater was previously encountered in the vicinity of the Site. Regional groundwater is likely to be located more than 100 feet below current grades throughout the Site.

## 1.6 Known Environmental Conditions

Much of the UCSD campus was used as a training facility during World War II known as Camp Matthews. Based upon a review of historical mapping, the location of the Site appears to be within the limits of both the former “Range F” and a smaller “Range School”, and adjacent to the former “Range E”. “Range F”, the “Range School”, and “Range E” all once contained numerous targets within, or in the vicinity of, the southern portion of the Site. Each of these ranges presents the risk for residual lead contamination in soil. Appendix B shows the Site location overlain onto a historical map of Camp Matthews.

Elevated and hazardous concentrations of lead were previously encountered along the southern portion of the Site along Miramar Street and Athena Circle, and within the Nuevo East Housing Development south of Miramar Street. Elevated and hazardous concentrations of lead were also previously encountered during construction of the neighboring Parking Lot P783, within the streambed to the north of the parking lot, and in the open space west of the parking lot, all to the west of the project Site. During construction of Miramar Street, Athena Circle, Nuevo East Housing Development, and parking lot P783, Group Delta supported soil management and/or remediation. Significant volumes of hazardous waste were disposed of for each project due to elevated lead concentrations. In general, hazardous concentrations of lead were encountered for each project down to the depths of the fill material. Depending upon the historical topography of the Site during the operation of Camp Matthews, the depths of fill and hazardous lead concentrations vary significantly and can extend fairly deep, particularly within or adjacent to historical drainages/waterways.

Finally, a Phase I Environmental Site Assessment (ESA) was recently performed for the Site in accordance with ASTM Practice E1527-21 (Hillmann, 2022). The Phase I ESA identified the following Recognized Environmental Conditions (RECs) associated with the property, with text quoted directly from the document:

*“The Subject Property was previously a part of the military base, Camp Matthews Naval Reservation, occupied by the US Marine Corps. Camp Matthews was utilized as a training camp, firing range, and munitions testing site for small arms, grenades, and large caliber munitions training. Hillmann reviewed a 2017 Remedial Investigation/ Feasibility Study University of California at San Diego (Camp Matthews) Range Complex No. 1 report for historical information regarding potential RECs on the Subject Property. The report indicated that a portion of the Subject Property*

*was found to be in an area listed as “Group 1” which represents areas with the greatest potential to encounter buried munitions, explosive, and debris. Based on its use, heavy metals, and polycyclic aromatic hydrocarbons (PAHs) from small arms munitions, nonexploding bullets and fragments, and clay targets could have impacted the soil and are considered a potential REC in connection with the Subject Property” (Hillmann, 2022).*



## 2.0 FIELD INVESTIGATION

The initial phase of our field investigation for this project included six exploratory borings completed between October 13 and 14, 2022. The supplemental phase of field exploration described herein included another 50 borings completed between December 12 and 22, 2022.

The initial six borings were drilled by Tri-County Drilling using their Deidrick D120HT truck mounted drill rig with an 8-inch diameter hollow stem flight auger. The supplemental 50 borings were drilled by Pacific Drilling using their Marl M10 (Yeti) drill rig with a 6-inch hollow stem flight auger. The maximum depth of exploration for all of these borings was about 56½ feet below surrounding grades. The approximate boring locations are shown on the Exploration Plans, Figures 3A and 3B. Boring logs are provided in Appendix A, after the Boring Record Legends.

Disturbed soil samples were collected from the borings using a 2-inch outside diameter Standard Penetration Test (SPT) sampler. Less disturbed samples were collected using a 3-inch outside diameter ring-lined sampler (a modified California sampler). Various automatic hammers with Energy Transfer Ratio (ETR) ranging from about 80 to 92 percent were used to collect many of the drive samples, while a standard Cat-Head was used for others (ETR~60%). For each sample, the number of blows needed to drive the sampler 12 inches was recorded on the logs. The field blow counts (N) were normalized to approximate a standard 60 percent ETR as shown on the logs (N<sub>60</sub>). Bulk samples were also collected from the borings at selected intervals.

Portions of the drive samples collected from fill material identified in the borings were also tested for contaminants using Environmental Protection Agency (EPA) methods. Environmental samples were not collected from the Scripps Formation. The boring was initiated using a decontaminated hollow stem auger and advanced to the first fill sampling depth. A decontaminated sampler was driven into the soil and soil samples were retrieved in dedicated sampling rings representative of sampling depth intervals. The soil sample was transferred to sampling containers provided by the laboratory. Each sample was placed in a chilled cooler and transported to Eurofins Calscience LLC under chain of custody (COC) protocol.

A summary of the borings and sampling depths is provided in the table below:

Boring ID	Date Drilled	Ground Surface Elevation (feet)	Exploration Depth (feet)	Fill Sample Depths (feet)	Figure No.
A-22-01	10/13/22	345	11½	2, 5	3A
A-22-02	10/13/22	343	16½	2, 5, 10	3A
A-22-03	10/13/22	343	16½	2, 5, 10	3A
A-22-04	10/14/22	334	46	2, 5, 10, 15, 20, 25, 30, 35	3B
A-22-05	10/14/22	337	46½	2, 5, 10, 15, 20, 25, 30, 35	3B
A-22-06	10/13/22	340	26½	2, 5, 10, 15, 20	3B
B-01	12/20/2022	346	5	2	3A
B-02	12/20/2022	348	5	2	3A
B-03	12/20/2022	349	11½	2, 5	3A
B-04	12/22/2022	343	5	2	3A

Boring ID	Date Drilled	Ground Surface Elevation (feet)	Exploration Depth (feet)	Fill Sample Depths (feet)	Figure No.
B-05	12/22/2022	345	5	2	3A
B-06	12/19/2022	345	6	2	3A
B-07	12/19/2022	347	6½	2	3A
B-08	12/22/2022	338	6½	2	3A
B-09	12/22/2022	339½	6	2	3A
B-10	12/22/2022	340½	5	2	3A
B-11	12/19/2022	341	6	2	3A
B-12	12/12/2022	347½	6½	2.5	3A
B-13	12/12/2022	345½	6½	2.5	3A
B-14	12/12/2022	344½	11½	2.5	3A
B-15	12/12/2022	346	11½	2.5	3A
B-16	12/12/2022	342	16	2.5, 5	3A
B-17	12/12/2022	343	26	2.5, 5, 10, 15	3A
B-18	12/14/2022	338	21½	2.5, 5, 10	3A
B-19	12/12/2022	341	11½	2.5	3A
B-20	12/13/2022	340	16	2.5, 5	3A
B-21	12/21/2022	334	30½	2, 5, 10, 15, 20, 25	3A
B-22	12/13/2022	340	25½	2.5, 5, 10, 15	3A
B-23	12/14/2022	337½	31½	2.5, 5, 10, 15, 20	3A
B-24	12/13/2022	340½	31	2.5, 5, 10, 15, 20	3A
B-25	12/22/2022	324½	36	2, 5, 10, 15, 20, 25, 30	3B
B-26	12/21/2022	334	55½	2, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50	3B
B-27	12/22/2022	331	11½	2, 5	3B
B-28	12/21/2022	335	56½	2, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50	3B
B-29	12/20/2022	328	6½	2	3B
B-30	12/20/2022	330	6	2	3B
B-31	12/20/2022	332½	16½	2, 5, 10	3B
B-32	12/20/2022	334½	26	2, 5, 10, 15	3B
B-33	12/19/2022	338	41	2, 5, 10, 15, 20, 25, 30, 35	3B
B-34	12/20/2022	336	46½	2, 5, 10, 15, 20, 25, 30, 35, 40	3B
B-35	12/16/2022	337	31	2, 5, 10, 15, 20, 25	3B
B-36	12/19/2022	337	31½	2, 5, 10, 15, 20, 25	3B
B-37	12/16/2022	336	50½	2, 5, 10, 15, 20, 25, 30, 35, 40, 45	3B
B-38	12/16/2022	336	50½	2, 5, 10, 15, 20, 25, 30, 35, 40	3B
B-39	12/15/2022	335½	31	2, 5, 10, 15, 20, 25	3B
B-40	12/15/2022	336	36½	2, 5, 10, 15, 20, 25, 30	3B
B-41	12/19/2022	336½	46	2, 5, 10, 15, 20, 25, 30, 35, 40	3B
B-42	12/13/2022	340½	56	2.5, 5, 10, 15, 20, 25, 30, 35, 40, 45	3B
B-43	12/15/2022	336	51	2.5, 5, 10, 15, 20, 25, 30, 35, 40	3B
B-44	12/14/2022	340	40½	2.5, 5, 10, 15, 20, 25	3B

Boring ID	Date Drilled	Ground Surface Elevation (feet)	Exploration Depth (feet)	Fill Sample Depths (feet)	Figure No.
B-45	12/14/2022	336	26½	2.5, 5, 10, 15	3B
B-46	12/15/2022	337	16	2.5, 5	3B
B-47	12/14/2022	341½	21	2.5, 5, 10	3B
B-48	12/14/2022	335½	6½	2.5	3B
B-49	12/14/2022	340	5½	2.5	3B
B-50	12/15/2022	344	6½	2.5	3B

## 3.0 LABORATORY ANALYSIS

### 3.1 Laboratory Analyses

All soil samples were transferred under standard COC protocol to Eurofins Calscience LLC in Tustin, California, a State-certified laboratory under the Environmental Laboratory Accreditation Program (ELAP).

All soil samples collected were analyzed for the following constituents:

- TPH carbon chain analysis for gasoline range organics (GRO) (C4-C12), diesel range organics (DRO) (C13-C22), and oil range organics (ORO) (C23-C40) using EPA Test Method 8015B.
- Title 22 Metals using EPA Test Method 6010B/7471A.

Soil samples collected from the six borings advanced during the first phase of investigation were also analyzed for the following constituents:

- PAHs using EPA Test Method 8270C SIM.

Finally, supplemental soluble lead analyses using the California Waste Extraction Test (CA-WET) and EPA Toxicity Characteristic Leaching Procedure (TCLP) were requested for a selected subset of samples as required by California Title 22 based upon elevated total lead and copper concentrations detected in the primary samples.

### 3.2 Screening Levels

The following screening criteria were used to evaluate contaminant concentrations detected in soil samples collected during the limited environmental investigation:

- The Site Development Guidelines and Procedures for UC San Diego (UCSD, 2018), promulgated by the UCSD Environmental Health and Safety Department (EH&S), provides screening criteria for unrestricted reuse on campus and reuse at a commercial/industrial site 5 feet below finish grade. The application of these criteria must be confirmed/evaluated with EH&S on a project-by-project basis.
- EPA Regional Screening Levels (RSLs) are federal screening level concentrations for chemicals in commercial/industrial soil. The screening level concentrations are based on an estimated lifetime cancer risk of one in one million (1E-6) and non-cancer hazard quotient of 1.0. The RSLs are based on exposure to a single chemical in soil and do not consider multi-chemical exposure scenarios. The RSLs were last updated in May 2022 (EPA, 2022).
- The Department of Toxic Substances Control (DTSC) Human and Ecological Risk Office (HERO) modified screening levels (DTSC-SLs) are state screening level concentrations for

chemicals in commercial/industrial soil. The DTSC-SLs use the same risk-based threshold values as the EPA RSLs, but they reflect California exposure assumptions and toxicity factors. The DTSC-SLs are more conservative than the EPA RSLs in some cases, resulting in lower soil screening levels. The DTSC-SLs were last updated in May 2022 (DTSC, 2022).

- The DTSC Southern California Ambient Arsenic Screening Level document (DTSC, 2020) establishes a regional background arsenic concentration that can be used as a screening tool for soil at sites throughout Southern California. Data were derived from completed site investigation reports for proposed school sites where arsenic analysis was conducted. Site data were combined for most counties in southern California, including Los Angeles, Orange, Riverside, San Bernardino, and San Diego counties. Los Angeles had the largest number of sites and arsenic data points and serves as the model for the statistical derivation of the 12 milligrams per kilogram (mg/kg) arsenic background concentration established by the DTSC. Therefore, for arsenic only, EPA RSLs and DTSC-SLs are typically disregarded, and the established upper-bound ambient background concentration of 12 mg/kg is used as the preferred screening level.
- Detected metals in soil were compared to State and Federal criteria for hazardous waste provided in California Code of Regulations (CCR) Title 22, Section 66261.24, to determine the appropriate waste classification and disposal requirements. Total concentrations were compared to the Total Threshold Limit Concentration (TTL) criteria for California hazardous waste. Total concentrations were also compared to 10 times the California Soluble Threshold Limit Concentration (STLC) and 20 times Federal TCLP concentration to determine if further waste extraction laboratory analyses were warranted to properly characterize the material as California or Federal hazardous waste

## 4.0 RESULTS

Laboratory results are provided in Tables 1 through 3. The screening level exceedances discussed below are depicted in Figures 4A and 4B. Copies of the laboratory reports are provided as Appendix C.

### 4.1 Total Petroleum Hydrocarbons (TPH) in Soil

The 224 soil samples were analyzed for TPH as GRO, DRO, and ORO by EPA Method 8015B. GRO, DRO, and ORO detections are summarized below and presented in Table 1.

There are no EPA and DTSC screening levels specifically for TPH-GRO, DRO, and ORO. However, EPA RSLs and DTSC-SLs include screening levels for TPH aromatics and TPH aliphatics within similar low to high hydrocarbon ranges (i.e., GRO, DRO, and ORO). TPH-GRO, DRO, and ORO hydrocarbon ranges contain both aromatics and aliphatics, which are assigned unique screening levels. Laboratory analysis for aromatics and aliphatics within the three TPH ranges is not standard industry practice and is not provided by environmental laboratories in Southern California using available common EPA test methods. In the absence of aromatic versus aliphatic speciation data, DTSC recommends using a default assumption of 50% aromatics and 50% aliphatics as a human health-protective assumption (DTSC, 2021).

#### 4.1.1 Gasoline Range Organics (GRO)

Concentrations of TPH-GRO were detected in four (4) of the 224 soil samples analyzed. The four samples had concentrations ranging from 0.075J<sup>1</sup> mg/kg to 0.20 mg/kg. The highest TPH-GRO concentration was in sample B-42@45' at 45 feet below ground surface (bgs). None of the samples analyzed exceeded the applicable commercial DTSC-SL and EPA RSL.

#### 4.1.2 Diesel Range Organics (DRO)

Concentrations of TPH-DRO were detected in 82 of the 224 soil samples analyzed. The detected concentrations ranged from 3.8J<sup>1</sup> mg/kg to 310 mg/kg. The highest TPH-DRO concentration was in sample B-37@30' at 30 feet bgs. None of the samples analyzed exceeded the applicable commercial DTSC-SL and EPA RSL.

#### 4.1.3 Oil Range Organics (ORO)

Concentrations of TPH-ORO were detected in 195 of the 224 samples analyzed. The detected concentrations ranged from 3.8J<sup>1</sup> mg/kg to 1,700 mg/kg. The highest TPH-ORO concentration was in sample B-9@2' at 2 feet bgs. None of the samples analyzed exceeded the applicable commercial DTSC-SL and EPA RSL.

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<sup>1</sup> J-flagged result is less than the reporting limit but greater than or equal to the method detection limit, and the concentration is an approximate value.

## **4.2 Title 22 Metals in Soil**

The 224 soil samples were analyzed for Title 22 metals by EPA Method 6010B/7471A. Total metals detections are summarized below and presented in Table 2.

### **4.2.1 Total Metals**

Metals were detected in all 224 soil samples including antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, vanadium, and zinc.

None of the detected metal concentrations exceeded their respective commercial DTSC-SLs or EPA RSLs with the exception of arsenic and lead as shown in Table 2. Arsenic and lead concentrations are further evaluated in Sections 4.2.2 and 4.2.3.

Antimony, arsenic, cobalt, copper, lead, molybdenum, selenium, vanadium, and zinc were detected above the UCSD Screening Criteria for Importing and Exporting Soil (UCSD, 2018) in samples collected from 35 of the 56 borings which require further evaluation by UCSD EH&S. However, the majority of these detections do not exceed UCSD criteria for application under a commercial/industrial scenario below 5 feet bgs.

### **4.2.2 Total Arsenic**

Total arsenic was detected above the laboratory reporting limit in 218 of the 224 samples analyzed. Total arsenic concentrations ranged from 0.956 mg/kg to 42.6 mg/kg. The average arsenic concentration is approximately 5.97 mg/kg, and the 95% Upper Confidence Limit (UCL) arsenic concentration is approximately 6.283 mg/kg, both below the background concentration of 12 mg/kg established by DTSC (DTSC, 2020).

Arsenic was detected at concentrations exceeding the background concentration of 12 mg/kg in 18 of the 224 samples analyzed. However, because these exceedances are likely naturally occurring background in the San Diego region, and the 95% UCL is below 12 mg/kg, it is unlikely that arsenic actually presents a chemical of potential concern (COPC) for the Site. The backup for the arsenic statistical analyses is included in Appendix D.

### **4.2.3 Total Lead**

Total lead was detected above the laboratory reporting limit in all 224 samples analyzed. Total lead concentrations ranged from 0.840 mg/kg to 5,420 mg/kg. The highest total lead concentration was in sample B-44@15' at 15 feet bgs. The average detected lead concentration is approximately 82.25 mg/kg and the 95% UCL lead concentration is approximately 220.8 mg/kg. The backup for the lead statistical analyses is included in Appendix E and further discussed in Section 5.

Of the 224 samples analyzed, six (6) samples contained total lead concentrations that exceeded the commercial DTSC-SL of 500 mg/kg and the commercial EPA RSL of 800 mg/kg. These commercial DTSC-SLs and EPA RSLs exceedances are in samples A-22-05@15' at 15 feet bgs, B-25@25' at 25 feet bgs, B-25@30' at 30 feet bgs, B-32@10' at 10 feet bgs, B-44@15' at 15 feet bgs, and B-45@5' at 5 feet bgs. The remaining 218 soil samples did not exceed the commercial DTSC-SLs and EPA RSLs.

The same six (6) samples mentioned above, exceeded the California TTLC of 1,000 mg/kg. This threshold is used as criteria for non-Resource Conservation and Recovery Act (non-RCRA) California hazardous waste. It should be noted that copper was also detected in one sample (B-32@10') at a concentration that exceeded the California TTLC; however, this sample also exceeded the California TTLC for lead.

#### **4.2.4 Soluble Lead**

##### **California Waste Extraction Test (CA-WET)**

Of the 224 samples analyzed, 25 samples contained total lead concentrations that were greater than or equal to 50 mg/kg, the threshold which requires the samples to be further analyzed for soluble lead using the CA-WET method in order to perform waste characterization.

Lead concentrations using the CA-WET method ranged from 0.242J milligrams per liter (mg/L) in sample B-45@5' at 5 feet bgs to 319 mg/L in sample B-25@30' at 30 ft bgs. As shown in Table 2, 14 of the 25 samples analyzed exceeded the California Soluble Threshold Limit Concentration (STLC) threshold of 5 mg/L, a secondary criteria for non-RCRA California hazardous waste.

##### **EPA Toxicity Criteria Leaching Procedure (TCLP)**

Samples that contained greater than or equal to 100 mg/kg of total lead or greater than 5 mg/L of extractable lead using CA-WET were further analyzed using the EPA TCLP method in order to perform waste characterization. Of the 224 samples analyzed, 12 samples contained total lead concentrations that were greater than or equal to 100 mg/kg and seven (7) samples exceeded the STLC threshold of 5 mg/L.

Lead concentrations using the TCLP method ranged from 0.0610J mg/L in sample B-38@10' at 10 feet bgs to 128 mg/L in sample B-44@15' at 15 feet bgs. As shown in Table 2, five (5) of the 19 samples analyzed exceeded the TCLP threshold of 5 mg/L used as criteria for Federal RCRA hazardous waste.

#### **4.3 Polycyclic Aromatic Hydrocarbons (PAHs) in Soil**

The 29 soil samples collected during the first phase of investigation were analyzed for PAHs by EPA Method 8270C SIM. Polycyclic aromatic hydrocarbon detections are summarized below and presented in Table 3.



Fourteen PAH compounds were detected in soil samples including acenaphthene, anthracene, benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[g,h,i]perylene, benzo[k]fluoranthene, chrysene, dibenz[a,h]anthracene, fluoranthene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene, and pyrene.

None of the detected PAH concentrations exceeded their respective commercial soil screening levels as shown in Table 3. Detected concentrations of PAHs were at least one order of magnitude lower than the applicable commercial screening levels.

#### **4.4 Data Validation**

Quality assurance/quality control (QA/QC) procedures were implemented to ensure the quality, accuracy, and overall reliability of the soil analytical results.

Laboratory data quality was evaluated in accordance with the National Functional Guidelines for Organic Superfund Methods Data Review (EPA, 2017A) and the National Functional Guidelines for Inorganic Superfund Methods Data Review (EPA, 2017B). Laboratory QA/QC measures include the use of surrogates, method blanks, laboratory control samples (LCS), laboratory control sample duplicates (LCSD), matrix spikes (MS), and matrix spike duplicates (MSD). The quality assurance sample results reported by the laboratory were reviewed and are discussed in Appendix F.

A review of the laboratory QA/QC results indicates satisfactory data quality, and therefore, the soil analytical results are of sufficient quality for purposes of Site characterization.

## 5.0 DISCUSSION & STATISTICS

Based upon the distribution of lead throughout the Site and the fact the lead has been identified as the primary chemical of concern, statistical analysis was performed on lead concentrations to evaluate alternative methodologies of soil management that remain protective of human health, but avoid significant off-Site disposal of material.

The following section describes the statistical methods utilized to evaluate the available lead data set for the Site. The purpose of the data evaluation is to help determine the upper confidence limits (UCLs) of lead concentrations to better classify soil for future management.

Statistical analysis was conducted using the software program ProUCL v.5.1 (ProUCL). ProUCL is recommended by the EPA as the appropriate statistical software to be used to perform the statistical analyses for purposes of waste characterization and soil concentration analysis. The backup for the statistical analyses discussed below is presented in Appendix E.

### 5.1 95% Upper Confidence Limit Analysis

The upper one-sided 95% UCL of the arithmetic mean is defined as the value that, when calculated repeatedly for randomly drawn subsets of site data, equals, or exceeds the true mean 95% of the time. Statistical confidence limits are the classical tool for addressing uncertainties of a distribution mean. The UCLs of the arithmetic mean concentration are used as the mean concentrations because it is not possible to know the true mean due to the essentially infinite number of soil samples that could be collected from a site. Therefore, the UCLs account for uncertainties due to limited sampling data. The actual site soil lead concentrations may vary from statistical projections, as results are influenced by the limited number of samples collected and analyzed. Prior to calculations, samples without detectable concentrations of soluble lead were assigned values equal to half the laboratory reporting limit as recommended by EPA.

During construction, soil is likely to be excavated, stockpiled, and relocated using methods that tend to homogenize soil constituent concentrations. Therefore, statistical analyses were applied to all soil samples which represent conservative grading and excavation scenarios and the composite material that may be generated during construction of the project. A review of the distribution of lead within areas of fill shows that the lead is relatively evenly distributed among all depths of fill material; because of this, statistical analyses of soil using discreet depth intervals was not conducted and more comprehensive analyses were performed using all data.

The 95% UCLs of the mean for total lead in the project areas are presented as results from the ProUCL analyses. Statistical analyses were completed with the following considerations:

#### Full Site

- Scenario 1 – All samples
- Scenario 1a – Excluding samples meeting the criteria of Federal RCRA hazardous waste and samples with EPA/DTSC commercial screening level exceedances

- Scenario 1b – Excluding samples meeting the criteria of hazardous waste (Federal RCRA and California Non-RCRA) and samples with EPA/DTSC commercial screening level exceedances

#### North Side

- Scenario 2 – All samples
- Scenario 2a – Excluding samples meeting the criteria of Federal RCRA hazardous waste and samples with EPA/DTSC commercial screening level exceedances
- Scenario 2b – Excluding samples meeting the criteria of hazardous waste (Federal RCRA and California Non-RCRA) and samples with EPA/DTSC commercial screening level exceedances

#### South Side

- Scenario 3 – All samples
- Scenario 3a – Excluding samples meeting the criteria of Federal RCRA hazardous waste and samples with EPA/DTSC commercial screening level exceedances
- Scenario 3b – Excluding samples meeting the criteria of hazardous waste (Federal RCRA and California Non-RCRA) and samples with EPA/DTSC commercial screening level exceedances

The recommended UCL statistical methods for use on the project are presented as results from the ProUCL analyses. The table below provides data for project areas including the average concentrations, results of the 95% UCL analyses, and the UCL statistical methods utilized per ProUCL.

Project Area	Data Analyzed	Total Lead Mean (mg/kg)	Total Lead UCL (mg/kg)	UCL Used
Full Site	All samples	86.25	220.8	95% Chebyshev (Mean, Sd) UCL
	Excluding samples meeting the criteria of RCRA hazardous waste and samples with EPA/DTSC exceedances	19.79	28.05	95% Chebyshev (Mean, Sd) UCL
	Excluding samples meeting the criteria of hazardous waste (RCRA & Non-RCRA) and samples with EPA/DTSC exceedances	17.03	18.12	95% H-UCL

Project Area	Data Analyzed	Total Lead Mean (mg/kg)	Total Lead UCL (mg/kg)	UCL Used
North Side	All samples	14.33	14.84	95% H-UCL
	Excluding samples meeting the criteria of RCRA hazardous waste and samples with EPA/DTSC exceedances	10.19	12.01	95% H-UCL
	Excluding samples meeting the criteria of hazardous waste (RCRA & Non-RCRA) and samples with EPA/DTSC exceedances	10.19	12.01	95% H-UCL
South Side	All samples	110.2	289	95% Chebyshev (Mean, Sd) UCL
	Excluding samples meeting the criteria of RCRA hazardous waste and samples with EPA/DTSC exceedances	23.06	25.58	95% H-UCL
	Excluding samples meeting the criteria of hazardous waste (RCRA & Non-RCRA) and samples with EPA/DTSC exceedances	19.49	21.43	95% H-UCL

## 5.2 Data Correlation (Total Lead versus CA-WET)

Total lead and corresponding CA-WET lead concentrations are bivariate data typically possessing a linear structure. A linear regression analysis is used to create a soluble lead prediction model using total lead data for use in calculating potential UCLs. To utilize this method, it must be determined if there is a reliable correlation between total lead and CA-WET soluble lead. If there is a reliable correlation between total and soluble lead, the prediction model can approximate the CA-WET UCLs using the UCLs calculated for total lead.

A line is fit to the data using the equation:

$$y = mx + b$$

Where:

y = soluble lead by CA-WET (citric acid) (mg/l)

x = total lead concentration (mg/kg)

b = y-intercept

m = slope =  $(r \times s_t)/s_s$

Where:

$r$  = correlation coefficient

$s_t$  = standard deviation of the total lead concentrations

$s_s$  = standard deviation of the soluble lead concentrations

The linear regression correlating the analytical data was performed using ProUCL. An ordinary least squares (OLS) regression was used to find the equation of a best-fit line (regression line). The results of the regression performed in ProUCL resulted in an equation that predicted CA-WET values.

The linear regression analysis conducted for the Project was developed as a single data set including all total lead samples with corresponding CA-WET data; however, samples meeting the criteria for RCRA hazardous waste and those exceeding DTSC or EPA commercial screening levels were removed from the regression; it is assumed that soil associated with these samples will require special management regardless of the selected approach.

The correlation coefficient ( $r$ ) for this relationship is calculated as 0.706. The integrity of the equation is directly related to  $r$ . Ideally,  $r$  would be greater than or equal to 0.8; however, an  $r$  value of 0.7 indicates a strong, positive, linear relationship. Therefore, the total lead data procured during the investigation can be considered for correlation to predict CA-WET lead concentrations.

The equation of the regression line was determined to be  $y = 0.0404x$  with  $y$ -intercept = 0, where  $x$  represents total lead concentration and  $y$  represents predicted CA-WET lead concentration.

Using the 95% UCL for total lead calculated for a specific area/scenario of the project, the corresponding composite CA-WET UCL concentration can be calculated for the same area/scenario.

Project Area	Data Analyzed	Total Lead UCL (mg/kg)	Predicted CA-WET UCL (mg/L)
Full Site	All samples	220.8	<b>8.92</b>
	Excluding samples meeting the criteria of RCRA hazardous waste and samples with EPA/DTSC exceedances	28.05	1.13
	Excluding samples meeting the criteria of hazardous waste (RCRA & Non-RCRA) and samples with EPA/DTSC exceedances	18.12	0.73

Project Area	Data Analyzed	Total Lead UCL (mg/kg)	Predicted CA-WET UCL (mg/L)
North Side	All samples	14.84	0.60
	Excluding samples meeting the criteria of RCRA hazardous waste and samples with EPA/DTSC exceedances	12.01	0.49
	Excluding samples meeting the criteria of hazardous waste (RCRA & Non-RCRA) and samples with EPA/DTSC exceedances	12.01	0.49
South Side	All samples	289	<b>11.68</b>
	Excluding samples meeting the criteria of RCRA hazardous waste and samples with EPA/DTSC exceedances	25.58	1.03
	Excluding samples meeting the criteria of hazardous waste (RCRA & Non-RCRA) and samples with EPA/DTSC exceedances	21.43	0.87

Note: Bold indicates exceedance of California STLC (5 mg/L)

## 6.0 CONCLUSIONS

Group Delta presents the following conclusions:

- Total petroleum hydrocarbons were detected throughout the Site, primarily in the heavier oil range, which requires further evaluation by UCSD EH&S. However, detected concentrations of GRO, DRO, and ORO did not exceed the applicable commercial DTSC and EPA screening levels. Total petroleum hydrocarbons should be eliminated as a COPCs for the project.
- Samples collected from six (6) borings during the initial phase of investigation were analyzed for PAHs. Fourteen PAH compounds were detected in soil samples collected from five of the six borings. None of the detected PAH concentrations exceeded their respective commercial soil screening levels. Detected concentrations of PAHs were at least one order of magnitude lower than commercial screening levels. PAHs were eliminated as a COPC for the Site and omitted from laboratory analysis during the Supplemental Phase II ESA.
- Antimony, arsenic, cobalt, copper, lead, molybdenum, selenium, vanadium, and zinc were detected above the UCSD Screening Criteria for Importing and Exporting Soil (UCSD, 2018) in samples collected from 35 of the 56 borings which require further evaluation by UCSD EH&S. However, most of these detections do not exceed the UCSD criteria for application below 5 feet bgs under a commercial/industrial scenario. Final determinations on the placement of excavated soil will be the decision of EH&S and the criteria for import/export soil likely do not apply to soil generated on Site and remaining on Site.

Apart from lead and copper, most of these metals detections may represent naturally occurring background concentrations; no information has been reviewed indicating these metals are COPCs for the Site. Antimony, cobalt, copper, molybdenum, selenium, vanadium, and zinc should be eliminated as COPCs for the project; arsenic, copper, and lead are discussed further below.

- Arsenic was detected at concentrations exceeding the upper-bound background concentration of 12 mg/kg established by DTSC in 18 of the 224 samples (DTSC, 2020). Arsenic concentrations above the background concentration of 12 mg/kg are not uncommon, particularly in San Diego County. The average arsenic concentration is approximately 5.97 mg/kg, and the 95% UCL arsenic concentration is approximately 6.283 mg/kg. Arsenic should be eliminated as a COPC for the project.
- Copper was detected in one sample at a concentration meeting the criteria for California non-RCRA hazardous waste; however, the concentration was less than 50% of the EPA/DTSC-promulgated health-based screening criteria for commercial land uses. It is possible that anthropogenic sources of copper exist on Site from bullet casings/shells/jackets; however, elevated copper is not widespread on Site. The location of

the sample corresponds to a location that will not be suitable for reuse based upon elevated lead content. Although copper can be considered a secondary COPC for the project, the presence of elevated copper in one sample does impact soil management protocol beyond the protocol necessary for lead management (Section 7); copper is not discussed further.

- Lead is considered the primary chemical of concern for the project.

The lead concentrations detected in five (5) samples were elevated to such a degree that these samples meet the criteria for Federal RCRA hazardous waste.

Excluding the five samples meeting the criteria for Federal RCRA hazardous waste, the lead concentrations detected in 11 additional samples were elevated to such a degree that these samples meet the criteria for California non-RCRA hazardous waste.

The lead concentrations detected in six (6) samples also exceeded the commercial DTSC-SL and/or EPA RSL for total lead.

Based upon the data collected, elevated lead concentrations exist, but are primarily limited to the southern portion of the Site. This finding would appear to be consistent with historical mapping of Camp Matthews which shows the former targets associated with multiple target ranges within or adjacent to the southern portion of the Site (Appendix B). The southern portion of the Site is also the location of a historical drainage or streambed as shown on historical aerial photographs (Hillmann, 2022). Building 2 and Parking Structures P1 and P2 will be situated over as much as 40 to 50 feet of undocumented fill in some areas (Group Delta Consultants, 2022b). Because some, if not all, of the infill of this drainage occurred after target range operations ceased, the potential for lead contamination extending fairly deep exists on the southern portion of the Site. Similarly, during recent construction projects throughout the surrounding area, elevated lead concentrations were detected in fill material down to native material.

Elevated lead concentrations are primarily limited to the southern portion of the Site including most of the soil meeting the criteria for hazardous waste and soil with lead concentrations in excess of health-based screening criteria. As such dividing the Site into a northern portion and southern portion appears useful for purposes of characterizing the Site. A more detailed discussion of findings related to lead contamination on the north side of the Site versus the south side of the Site is presented below.

#### North Side

- The north side has no samples exceeding the health-based commercial screening criteria promulgated by the DTSC and EPA. No special segregation of such material is required for the north side.



- On the north side, one sample meets the criteria for Federal RCRA hazardous waste (Figure 4A).
- On the north side, multiple samples exceeded UCSD Screening Criteria for Importing and Exporting Soil. However, the 95% UCL representing the composite soil that will be generated on the north side was 12.01 mg/kg (excluding the Federal RCRA sample) which meets the UCSD screening criteria.

#### South Side

- The south side has seven (7) samples that meet the criteria for Federal RCRA hazardous waste or that exceed the health-based commercial screening criteria promulgated by the DTSC and EPA (Figure 4B).
- On the south side, eight (8) additional samples meet the criteria only for California non-RCRA hazardous waste (Figure 4B). However, the total lead 95% UCL for the south side is 25.58 mg/kg (excluding samples meeting the criteria of RCRA hazardous waste and samples with EPA/DTSC commercial screening level exceedances), below the California TTLC threshold of 1,000 mg/kg. In addition, using this 95% UCL for total lead, the corresponding composite CA-WET concentration can be predicted using the regression equation discussed in Section 5.2. The estimated composite CA-WET concentration for the south side is calculated at 1.03 mg/L, below the California STLC threshold. In consideration of these concentrations, it is recommended that the composite soil excavated on the south side be considered non-hazardous assuming segregation of soil discussed in bullet 1.
- On the south side, numerous samples exceeded UCSD Screening Criteria for Importing and Exporting Soil. The 95% UCL representing the composite soil that will be generated on the south side was 25.58 mg/kg (excluding the Federal RCRA samples and those exceeding EPA/DTSC commercial screening levels). Using UCSD “import” soil criteria, this would indicate the soil on the south side is only suitable for reuse at commercial sites at 5 feet below finish grade. However, final determinations on the placement of excavated soil and the applicability of import/export criteria will be the decision of EH&S.

## 7.0 RECOMMENDATIONS

Group Delta presents below the recommendations for the project.

1. The Soils Management Policy provided in the UCSD Site Development Guidelines and Procedures states that placement of excavated soil will be a joint decision between the Responsible Parties and EH&S. This leaves a degree of discretion on soils management which must be evaluated with EH&S. The client should present the results to EH&S. Concurrence must be gained on the elimination of COPCs on the project and a proposed soil management approach.
2. Soil with elevated lead concentrations exists on the Site. A Soil Management Plan (SMP) and Lead Compliance Plan will be warranted to guide the contractor on appropriate soil handling and disposal protocol. A Site-specific Health and Safety Plan (HASP) is also recommended.
3. Group Delta believes that a Site-specific Human Health Risk Assessment (HHRA) may be useful for the project. An HHRA evaluates human exposure to chemical residue by utilizing standard equations and methods developed by the EPA and the California Environmental Protection Agency (Cal-EPA) for similar exposure conditions. Site-specific information regarding land use and receptors are used to quantify exposures to the media of concern (i.e., lead). An HHRA would be beneficial to (1) determine whether residual lead remaining in soil represents a threat to human health; (2) provide a basis for determining residual chemical levels that are adequately protective of public health, and; (3) determine whether risk-control measures should be implemented to protect construction workers and future occupants of the Site.

## 8.0 LIMITATIONS

This report was prepared using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable consultants practicing in similar localities. No warranty, express or implied, is made as to the conclusions and professional opinions included in this report.

The findings of this report are valid as of the present date. However, changes in the condition of a property can occur with the passage of time, whether due to natural processes or the work of man on this or adjacent properties. In addition, changes in applicable or appropriate standards of practice may occur from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control.

## 9.0 REFERENCES

- Department of Toxic Substances Control (DTSC), Human and Ecological Risk Office (HERO) (2020). *Human Health Risk Assessment (HHRA) Note Number 11, Southern California Ambient Arsenic Screening Level*, June.
- Department of Toxic Substances Control (DTSC), Human and Ecological Risk Office (HERO) (2021). *Human Health Risk Assessment (HHRA) Note Number 12, Guidance for Evaluating Human Health Risks at Sites Contaminated by Petroleum Hydrocarbons and Related Chemicals of Potential Concern (COPC)*, June.
- Department of Toxic Substances Control (DTSC), Human and Ecological Risk Office (HERO) (2022). *Human Health Risk Assessment (HHRA) Note Number 3, DTSC-modified Screening Levels (DTSC-SLs)*, May.
- Group Delta Consultants (2022). *Proposal for Preliminary Geotechnical Investigation, UC San Diego Science Research Park, La Jolla, CA*, Proposal No. SD22-072, September 23.
- Group Delta Consultants (2023). *Report of Geotechnical Investigation, UCSD Science Research Park Development, La Jolla, CA*, Project No. SD754, January 19.
- Hillmann Consulting (2022). *Phase I Environmental Site Assessment, Science Research Park, San Diego, California 92037*, October 6.
- United States Environmental Protection Agency (2017a). *National Functional Guidelines for Organic Superfund Methods Data Review, Office of Superfund Remediation and Technology Innovation, EPA-540-R-2017-002*, January.
- United States Environmental Protection Agency (2017b). *National Functional Guidelines for Inorganic Superfund Methods Data Review, Office of Superfund Remediation and Technology Innovation, EPA-540-R-2017-001*, January.
- United States Environmental Protection Agency (USEPA) (2022). *Regional Screening Level (RSL) Summary Table (TR=1E-06, HQ=1)*, May.
- University of California, San Diego Environmental Health and Safety (EH&S) (2018). *Site Development Guidelines and Procedures for UC San Diego*, April.

## ***TABLES***

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**Table 1**  
**Analytical Results for Total Petroleum Hydrocarbons (TPH) in Soil**  
**Supplemental Phase II Environmental Site Assessment**  
**UCSD Science Research Park**  
**La Jolla, California**

Boring ID	Sample Identification	Sample Depth (feet)	Sample Date	TPH-GRO (C4-C12) (mg/kg)	TPH-DRO (C13-C22) (mg/kg)	TPH-MRO (C23-C40) (mg/kg)
A-22-01	A-22-01 @ 2'	2.0	10/13/2022	<0.099	<5.0	16
	A-22-01 @ 5'	5.0	10/13/2022	<0.099	<49	290
A-22-02	A-22-02 @ 2'	2.0	10/13/2022	<0.099	8.1	41
	A-22-02 @ 5'	5.0	10/13/2022	<0.10	<4.9	<4.9
	A-22-02 @ 10'	10.0	10/13/2022	<0.099	<4.9	<4.9
A-22-03	A-22-03 @ 2'	2.0	10/13/2022	<0.10	6.8	11
	A-22-03 @ 5'	5.0	10/13/2022	<0.10	<4.9	20
	A-22-03 @ 10'	10.0	10/13/2022	<0.099	<4.9	<4.9
A-22-04	A-22-04 @ 2'	2.0	10/14/2022	<0.099	<4.8	20
	A22-04 @ 5'	5.0	10/14/2022	<0.099	<4.9	4.6 J
	A22-04 @ 10'	10.0	10/14/2022	<0.099	15	110
	A22-04 @ 15'	15.0	10/14/2022	<0.099	<4.9	8.7
	A22-04 @ 20'	20.0	10/14/2022	<0.10	<4.9	13
	A22-04 @ 25'	25.0	10/14/2022	<0.099	<4.9	14
	A22-04 @ 30'	30.0	10/14/2022	<0.099	<4.9	4.6 J
	A22-04 @ 35'	35.0	10/14/2022	<0.10	<4.9	8.0
A-22-05	A-22-05 @ 2'	2.0	10/14/2022	<0.099	<4.9	21
	A-22-05 @ 5'	5.0	10/14/2022	<0.099	<4.9	8.3
	A-22-05 @ 10'	10.0	10/14/2022	<0.099	<4.9	21
	A-22-05 @ 15'	15.0	10/14/2022	<0.10	<4.9	5.6
	A-22-05 @ 20'	20.0	10/14/2022	<0.10	<4.9	61
	A-22-05 @ 25'	25.0	10/14/2022	<0.10	<4.9	5.5
	A-22-05 @ 30'	30.0	10/14/2022	<0.10	<4.9	11
	A-22-05 @ 35'	35.0	10/14/2022	<0.099	<4.9	11
A-22-06	A-22-06 @ 2'	2.0	10/13/2022	<0.10	17	250
	A-22-06 @ 5'	5.0	10/13/2022	<0.10	<4.9	9.2
	A-22-06 @ 10'	10.0	10/13/2022	<0.099	<4.9	3.8 J
	A-22-06 @ 15'	15.0	10/13/2022	<0.099	4.3 J	54
	A-22-06 @ 20'	20.0	10/13/2022	<0.099	<4.9	17
B-1	B-1 @ 2'	2.0	12/20/2022	<0.10	<5.0	<5.0
B-2	B-2 @ 2'	2.0	12/20/2022	<0.10	<5.0	5.0
B-3	B-3 @ 2'	2.0	12/20/2022	<0.099	4.5 J	<5.0
	B-3 @ 5'	5.0	12/20/2022	<0.099	25	160
B-4	B-4@2'	2.0	12/22/2022	<0.10	<5.0	6.1
B-5	B-5@2'	2.0	12/22/2022	<0.10	<5.0	5.3
B-6	B-6@2'	2.0	12/19/2022	<0.10	<5.0	<5.0
B-7	B-7@2'	2.0	12/19/2022	<0.10	<5.0	<5.0
B-8	B-8@2'	2.0	12/22/2022	<0.099	<25	430
B-9	B-9@2'	2.0	12/22/2022	<0.099	220	1700
B-10	B-10@2'	2.0	12/22/2022	<0.099	<5.0	50
B-11	B-11@2'	2.0	12/19/2022	<0.10	<5.0	<5.0
B-12	B-12@2.5'	2.5	12/12/2022	<0.10	<5.0	9.9
B-13	B-13@2.5'	2.5	12/12/2022	<0.10	<4.9	38
B-14	B-14@2.5'	2.5	12/12/2022	<0.099	<5.0	4.1 J
B-15	B-15@2.5'	2.5	12/12/2022	<0.10	12	260
B-16	B-16@2.5'	2.5	12/12/2022	<0.10	<4.8	4.3 J
	B-16@5'	5.0	12/12/2022	<0.099	<4.9	6.0
B-17	B-17@2.5'	2.5	12/12/2022	<0.099	<5.0	<5.0
	B-17@5'	5.0	12/12/2022	<0.099	<4.8	<4.8
	B-17@10'	10.0	12/12/2022	<0.10	<5.0	<5.0
	B-17@15'	15.0	12/12/2022	<0.10	<5.0	<5.0

**Table 1**  
**Analytical Results for Total Petroleum Hydrocarbons (TPH) in Soil**  
**Supplemental Phase II Environmental Site Assessment**  
**UCSD Science Research Park**  
**La Jolla, California**

Boring ID	Sample Identification	Sample Depth (feet)	Sample Date	TPH-GRO (C4-C12) (mg/kg)	TPH-DRO (C13-C22) (mg/kg)	TPH-MRO (C23-C40) (mg/kg)
B-18	B-18 @ 2.5'	2.5	12/14/2022	<0.099	<4.9	14
	B-18 @ 5'	5.0	12/14/2022	<0.10	<5.1	20
	B-18 @ 10'	10.0	12/14/2022	<0.10	6.8	7.9
B-19	B-19@2.5'	2.5	12/12/2022	<0.10	<4.8	<4.8
B-20	B-20@2.5'	2.5	12/13/2022	<0.10	41	3.9 J
	B-20@5'	5.0	12/13/2022	<0.10	7.7	9.5
B-21	B-21@2'	2.0	12/21/2022	<0.099	130	8.2
	B-21@5'	5.0	12/21/2022	<0.099	<4.9	<4.9
	B-21@10'	10.0	12/21/2022	<0.10	<4.9	<4.9
	B-21@15'	15.0	12/21/2022	<0.099	<4.9	<4.9
	B-21@20'	20.0	12/21/2022	<0.099	11	<4.9
	B-21@25'	25.0	12/21/2022	<0.099	<4.9	<4.9
B-22	B-22@2.5'	2.5	12/13/2022	<0.10	10	130
	B-22@5'	5.0	12/13/2022	<0.099	<5.0	13
	B-22@10'	10.0	12/13/2022	<0.10	<5.0	15
	B-22@15'	15.0	12/13/2022	<0.099	<5.0	6.8
B-23	B-23 @ 2.5'	2.5	12/14/2022	<0.099	8.4	34
	B-23 @ 5'	5.0	12/14/2022	<0.10	6.2	25
	B-23 @ 10'	10.0	12/14/2022	<0.10	<4.9	21
	B-23 @ 15'	15.0	12/14/2022	<0.099	<4.8	6.7
	B-23 @ 20'	20.0	12/14/2022	<0.10	4.9	20
B-24	B-24@2.5'	2.5	12/13/2022	<0.10	<5.0	15
	B-24@5'	5.0	12/13/2022	<0.099	<5.0	12
	B-24@10'	10.0	12/13/2022	<0.10	<5.0	29
	B-24@15'	15.0	12/13/2022	<0.10	<5.0	17
	B-24@20'	20.0	12/13/2022	<0.099	6.8	52
B-25	B-25@2'	2.0	12/22/2022	0.14	<5.0	7.8
	B-25@5'	5.0	12/22/2022	<0.10	<5.0	9.8
	B-25@10'	10.0	12/22/2022	<0.10	<5.0	<5.0
	B-25@15'	15.0	12/22/2022	0.15	3.9 J	15
	B-25@20'	20.0	12/22/2022	<0.099	93	350
	B-25@25'	25.0	12/22/2022	<0.099	<5.0	17
	B-25@30'	30.0	12/22/2022	<0.099	<5.0	9.8
B-26	B-26@2'	2.0	12/21/2022	<0.099	<4.9	12
	B-26@5'	5.0	12/21/2022	<0.10	6.4	60
	B-26@10'	10.0	12/21/2022	<0.099	5.6	14
	B-26@15'	15.0	12/21/2022	<0.10	<4.8	<4.8
	B-26@20'	20.0	12/21/2022	<0.099	<4.8	40
	B-26@25'	25.0	12/21/2022	<0.10	<4.8	<4.8
	B-26@30'	30.0	12/21/2022	<0.10	11	65
	B-26@35'	35.0	12/21/2022	<0.10	4.9	5.5
	B-26@40'	40.0	12/21/2022	<0.099	<4.9	12
	B-26@45'	45.0	12/21/2022	<0.10	<5.0	<5.0
	B-26@50'	50.0	12/21/2022	<0.099	32	4.7 J
B-27	B-27@2'	2.0	12/22/2022	<0.10	5.0	27
	B-27@5'	5.0	12/22/2022	<0.10	<5.0	32
B-28	B-28@2'	2.0	12/21/2022	<0.099	4.3 J	71
	B-28@5'	5.0	12/21/2022	<0.10	<4.9	5.1
	B-28@10'	10.0	12/21/2022	<0.10	<4.9	11
	B-28@15'	15.0	12/21/2022	<0.099	<4.9	7.3
	B-28@20'	20.0	12/21/2022	<0.10	<4.9	<4.9

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Boring ID	Sample Identification	Sample Depth (feet)	Sample Date	TPH-GRO (C4-C12) (mg/kg)	TPH-DRO (C13-C22) (mg/kg)	TPH-MRO (C23-C40) (mg/kg)
B-28	B-28@25'	25.0	12/21/2022	<0.10	<4.9	9.2
	B-28@30'	30.0	12/21/2022	<0.10	<4.9	13
	B-28@35'	35.0	12/21/2022	<0.10	<4.9	21
	B-28@40'	40.0	12/21/2022	<0.10	15	280
	B-28@45'	45.0	12/21/2022	<0.099	<4.9	4.2 J
	B-28@50'	50.0	12/21/2022	<0.099	<4.9	<4.9
B-29	B-29 @ 2'	2.0	12/20/2022	<0.099	<5.0	<5.0
B-30	B-30 @ 2'	2.0	12/20/2022	<0.099	<5.0	4.2 J
B-31	B-31 @ 2'	2.0	12/20/2022	<0.099	<5.0	8.4
	B-31 @ 5'	5.0	12/20/2022	<0.099	5.7	140
	B-31 @ 10'	10.0	12/20/2022	<0.099	5.7	120
B-32	B-32 @ 2'	2.0	12/20/2022	<0.10	<5.0	7.8
	B-32 @ 5'	5.0	12/20/2022	<0.10	<5.0	<5.0
	B-32 @ 10'	10.0	12/20/2022	<0.10	<5.0	3.9 J
	B-32 @ 15'	15.0	12/20/2022	<0.10	<5.0	4.7 J
B-33	B-33@2'	2.0	12/19/2022	<0.099	6.0	99
	B-33@5'	5.0	12/19/2022	<0.099	9.6	54
	B-33@10'	10.0	12/19/2022	<0.099	<5.0	7.7
	B-33@15'	15.0	12/19/2022	<0.10	<5.0	13
	B-33@20'	20.0	12/19/2022	<0.10	<5.0	16
	B-33@25'	25.0	12/19/2022	<0.10	7.5	49
	B-33@30'	30.0	12/19/2022	<0.10	<5.0	7.0
	B-33@35'	35.0	12/19/2022	<0.10	<5.0	9.8
B-34	B-34 @ 2'	2.0	12/20/2022	<0.099	<5.0	15
	B-34 @ 5'	5.0	12/20/2022	<0.10	<5.0	6.9
	B-34 @ 10'	10.0	12/20/2022	<0.10	<5.0	73
	B-34 @ 15'	15.0	12/20/2022	<0.10	8.6	160
	B-34 @ 20'	20.0	12/20/2022	<0.10	<5.0	44
	B-34 @ 25'	25.0	12/20/2022	<0.10	5.5	120
	B-34 @ 30'	30.0	12/20/2022	<0.10	<5.0	15
	B-34 @ 35'	35.0	12/20/2022	<0.099	<5.0	<5.0
	B-34 @ 40'	40.0	12/20/2022	<0.10	7.5	9.3
B-35	B-35 @ 2'	2.0	12/16/2022	<0.10	<4.9	11
	B-35 @ 5'	5.0	12/16/2022	<0.099	<4.9	4.6 J
	B-35 @ 10'	10.0	12/16/2022	<0.10	<4.9	17
	B-35 @ 15'	15.0	12/16/2022	<0.099	<4.8	17
	B-35 @ 20'	20.0	12/16/2022	<0.10	<4.8	8.9
	B-35 @ 25'	25.0	12/16/2022	<0.099	<4.8	13
B36	B-36@2'	2.0	12/19/2022	<0.099	<5.0	12
	B-36@5'	5.0	12/19/2022	<0.099	<5.0	6.9
	B-36@10'	10.0	12/19/2022	<0.10	<5.0	16
	B-36@15'	15.0	12/19/2022	<0.099	<5.0	7.5
	B-36@20'	20.0	12/19/2022	<0.099	<5.0	10
	B-36@25'	25.0	12/19/2022	<0.099	<5.0	5.0
B-37	B-37 @ 2'	2.0	12/16/2022	<0.10	<4.8	15
	B-37 @ 5'	5.0	12/16/2022	<0.10	<4.9	42
	B-37 @ 10'	10.0	12/16/2022	<0.10	<4.9	33
	B-37 @ 15'	15.0	12/16/2022	<0.10	4.5 J	36
	B-37 @ 20'	20.0	12/16/2022	<0.099	20	97
	B-37 @ 25'	25.0	12/16/2022	<0.10	<4.9	10
	B-37 @ 30'	30.0	12/16/2022	0.075 J	310	1500



**Table 1**  
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**Supplemental Phase II Environmental Site Assessment**  
**UCSD Science Research Park**  
**La Jolla, California**

Boring ID	Sample Identification	Sample Depth (feet)	Sample Date	TPH-GRO (C4-C12) (mg/kg)	TPH-DRO (C13-C22) (mg/kg)	TPH-MRO (C23-C40) (mg/kg)
B-37	B-37 @ 35'	35.0	12/16/2022	<0.10	<4.9	14
	B-37 @ 40'	40.0	12/16/2022	<0.099	18	39
	B-37 @ 45'	45.0	12/16/2022	<0.10	45	20
B-38	B-38 @ 2'	2.0	12/15/2022	<0.10	56	350
	B-38 @ 5'	5.0	12/16/2022	<0.099	6.4	79
	B-38 @ 10'	10.0	12/16/2022	<0.10	<4.9	12
	B-38 @ 15'	15.0	12/16/2022	<0.10	18	55
	B-38 @ 20'	20.0	12/16/2022	<0.099	<4.9	6.4
	B-38 @ 25'	25.0	12/16/2022	<0.10	<4.9	8.0
	B-38 @ 30'	30.0	12/16/2022	<0.099	<4.9	5.0
	B-38 @ 35'	35.0	12/16/2022	<0.099	<4.9	19
	B-38 @ 40'	40.0	12/16/2022	<0.10	<4.9	4.2 J
B-39	B-39 @ 2'	2.0	12/15/2022	<0.10	5.8	23
	B-39 @ 5'	5.0	12/15/2022	<0.10	3.8 J	8.7
	B-39@10'	10.0	12/15/2022	<0.10	5.0	17
	B-39@15'	15.0	12/15/2022	<0.099	4.2 J	7.5
	B-39@20'	20.0	12/15/2022	<0.10	10	4.0 J
	B-39@25'	25.0	12/15/2022	<0.10	4.0 J	<5.0
B-40	B-40@2'	2.0	12/15/2022	<0.10	9.3	18
	B-40@5'	5.0	12/15/2022	<0.10	<5.0	12
	B-40@10'	10.0	12/15/2022	<0.10	28	15
	B-40@15'	15.0	12/15/2022	<0.099	4.1 J	7.4
	B-40@20'	20.0	12/15/2022	<0.10	6.7	10
	B-40@25'	25.0	12/15/2022	<0.10	4.5 J	6.2
	B-40@30'	30.0	12/15/2022	<0.099	<5.0	3.8 J
B-41	B-41@2'	2.0	12/19/2022	<0.10	<5.0	9.3
	B-41@5'	5.0	12/19/2022	<0.099	5.8	19
	B-41@10'	10.0	12/19/2022	<0.10	<5.0	41
	B-41@15'	15.0	12/19/2022	<0.10	<5.0	7.4
	B-41@20'	20.0	12/19/2022	<0.10	<5.0	9.5
	B-41@25'	25.0	12/19/2022	<0.10	28	14
	B-41@30'	30.0	12/19/2022	<0.10	<5.0	8.5
	B-41@35'	35.0	12/19/2022	<0.099	<5.0	18
	B-41@40'	40.0	12/19/2022	<0.10	<5.0	8.7
B-42	B-42@2.5'	2.5	12/13/2022	<0.099	<5.0	18
	B-42@5'	5.0	12/13/2022	<0.10	<5.0	13
	B-42@10'	10.0	12/13/2022	<0.099	17	260
	B-42@15'	15.0	12/13/2022	<0.10	5.4	37
	B-42@20'	20.0	12/13/2022	<0.099	8.4	23
	B-42@25'	25.0	12/13/2022	<0.099	<5.0	14
	B-42@30'	30.0	12/13/2022	<0.099	<5.0	7.8
	B-42@35'	35.0	12/13/2022	<0.099	11	10
	B-42@40'	40.0	12/13/2022	<0.099	<5.0	4.6 J
	B-42@45'	45.0	12/13/2022	0.20	150	36
B-43	B-43@2.5'	2.5	12/15/2022	<0.10	8.0	110
	B-43@5'	5.0	12/15/2022	<0.099	4.2 J	13
	B-43@10'	10.0	12/15/2022	<0.10	<5.0	33
	B-43@15'	15.0	12/15/2022	<0.099	29	94
	B-43@20'	20.0	12/15/2022	<0.099	4.2 J	48
	B-43@25'	25.0	12/15/2022	<0.10	4.3 J	8.8
	B-43@30'	30.0	12/15/2022	<0.10	<5.0	4.3 J

Table 1  
Analytical Results for Total Petroleum Hydrocarbons (TPH) in Soil  
Supplemental Phase II Environmental Site Assessment  
UCSD Science Research Park  
La Jolla, California

Boring ID	Sample Identification	Sample Depth (feet)	Sample Date	TPH-GRO (C4-C12) (mg/kg)	TPH-DRO (C13-C22) (mg/kg)	TPH-MRO (C23-C40) (mg/kg)
B-43	B-43@35'	35.0	12/15/2022	<0.10	<b>5.7</b>	<b>29</b>
	B-43@40'	40.0	12/15/2022	<0.099	<b>4.8 J</b>	<b>6.7</b>
B-44	B-44 @ 2.5'	2.5	12/14/2022	<0.10	<4.9	<b>10</b>
	B-44 @ 5'	5.0	12/14/2022	<0.10	<b>14</b>	<b>260</b>
	B-44 @ 10'	10.0	12/14/2022	<0.10	<b>4.4 J</b>	<b>19</b>
	B-44 @ 15'	15.0	12/14/2022	<0.10	<b>4.1 J</b>	<b>15</b>
	B-44 @ 20'	20.0	12/14/2022	<0.10	<b>17</b>	<b>21</b>
	B-44 @ 25'	25.0	12/14/2022	<0.099	<b>44</b>	<b>25</b>
B-45	B-45 @ 2.5'	2.5	12/14/2022	<0.099	<5.0	<b>12</b>
	B-45 @ 5'	5.0	12/14/2022	<0.10	<5.0	<b>12</b>
	B-45 @ 10'	10.0	12/14/2022	<0.10	<b>4.1 J</b>	<b>12</b>
	B-45 @ 15'	15.0	12/15/2022	<0.099	<5.0	<5.0
B-46	B-46 @ 2.5'	2.5	12/15/2022	<0.099	<b>5.5</b>	<b>38</b>
	B-46 @ 5'	5.0	12/15/2022	<0.099	<5.0	<b>12</b>
B-47	B-47 @ 2.5'	2.5	12/14/2022	<0.099	<b>9.5 J</b>	<b>100</b>
	B-47 @ 5'	5.0	12/14/2022	<0.099	<5.0	<b>49</b>
	B-47 @ 10'	10.0	12/14/2022	<0.099	<b>5.9</b>	<b>37</b>
B-48	B-48 @ 2.5'	2.5	12/14/2022	<0.10	<b>13</b>	<b>160</b>
B-49	B-49 @ 2.5'	2.5	12/14/2022	<0.10	<b>8.9</b>	<b>11</b>
B-50	B-50 @ 2.5'	2.5	12/15/2022	<0.099	<b>4.2 J</b>	<b>4.7 J</b>
2022 EPA RSL: Commercial/Industrial Soil				420	440	30,000
2022 DTSC SL: Commercial/Industrial Soil				500	500	18,000

Notes:

EPA	Environmental Protection Agency
RSL	Regional Screening Level
DTSC	Department of Toxic Substances Control
SL	Screening Level
TPH	Total Petroleum Hydrocarbons
GRO	Gasoline Range Organics
DRO	Diesel Range Organics
MRO	Motor Oil Range Organics
mg/kg	milligrams per kilogram
<b>Bold</b>	Analyte detected above reporting limit
<0.0	Analyte not detected above reporting limit
J	Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.











Table 2  
Analytical Results for Metals in Soil  
Supplemental Phase II Environmental Site Assessment  
UCSD Science Research Park  
La Jolla, California

Notes:

EPA	Environmental Protection Agency
RSL	Regional Screening Level
DTSC	Department of Toxic Substances Control
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
<b>Bold</b>	Analyte detected above reporting limit
<0.0	not detected above reporting limit
Units	All metal results reported in mg/kg except for STLC and TCLP which are in mg/L
UCSD	University of California San Diego
STLC	Soluble Threshold Limit Concentrations
TCLP	Toxic Characteristic Leaching Procedure
TTLC	Total Threshold Limit Concentration
RCRA	Resource Conservation and Recovery Act

*	Sample analyzed for copper STLC at 0.246 J B mg/L. This concentration does not exceed the California Hazardous Waste Criteria of 25 mg/L.
**	Arsenic concentrations were evaluated using the DTSC-accepted upper-bound background level of 12 mg/kg.
NL	No listed regulatory screening limit for constituent
NA	Not applicable
	Compound detected above TTLC and/or STLC threshold (California non-RCRA Hazardous Waste)
	Compound detected above TCLP threshold (Federal RCRA Hazardous Waste)
	Compound detected above UCSD Campus Reuse Criteria
	Compound detected above November 2022 EPA RSL and/or May 2022 DTSC SL for Commercial/Industrial Soil
J	Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
B	Compound was found in the blank and sample.
F1	Matrix spike / matrix spike duplicate (MS/MSD) recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.

**Table 3**  
**Analytical Results for Polycyclic Aromatic Hydrocarbons (PAHs) in Soil**  
**Supplemental Phase II Environmental Site Assessment**  
**UCSD Science Research Park**  
**La Jolla, California**

Boring ID	Sample Identification	Sample Depth (feet)	Sample Date	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Chrysene	Dibenzo[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Naphthalene	Phenanthrene	Pyrene
A-22-01	A-22-01 @ 2'	2.0	10/13/2022	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
	A-22-01 @ 5'	5.0	10/13/2022	<0.020	<0.020	<0.020	<0.020	<0.020	<b>0.018 J</b>	<b>0.0078 J</b>	<b>0.0083 J</b>	<0.020	<0.020	<b>0.017 J</b>	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<b>0.011 J</b>
A-22-02	A-22-02 @ 2'	2.0	10/13/2022	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<b>0.0085 J</b>	<b>0.0081 J</b>	<0.020	<b>0.011 J</b>	<0.020	<b>0.016 J</b>	<0.020	<0.020	<0.020	<0.020	<b>0.015 J</b>
	A-22-02 @ 5'	5.0	10/13/2022	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
	A-22-02 @ 10'	10.0	10/13/2022	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
A-22-03	A-22-03 @ 2'	2.0	10/13/2022	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
	A-22-03 @ 5'	5.0	10/13/2022	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
	A-22-03 @ 10'	10.0	10/13/2022	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
A-22-04	A-22-04 @ 2'	2.0	10/14/2022	<0.019	<0.019	<0.019	<0.019	<b>0.013 J</b>	<b>0.068</b>	<b>0.072</b>	<b>0.060</b>	<b>0.076</b>	<b>0.070</b>	<b>0.092</b>	<b>0.021</b>	<b>0.11</b>	<0.019	<b>0.052</b>	<0.019	<b>0.047</b>	<b>0.11</b>
	A22-04 @ 5'	5.0	10/14/2022	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
	A22-04 @ 10'	10.0	10/14/2022	<0.020	<0.020	<0.020	<0.020	<b>0.011 J</b>	<b>0.019 J</b>	<b>0.021</b>	<b>0.032</b>	<b>0.025</b>	<b>0.020</b>	<b>0.052</b>	<0.020	<b>0.054</b>	<0.020	<b>0.013 J</b>	<0.020	<b>0.052</b>	<b>0.065</b>
	A22-04 @ 15'	15.0	10/14/2022	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
	A22-04 @ 20'	20.0	10/14/2022	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<b>0.0082 J</b>	<0.019	<0.019	<b>0.0074 J</b>	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<b>0.0097 J</b>
	A22-04 @ 25'	25.0	10/14/2022	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<b>0.0077 J</b>	<0.019	<0.019	<0.019	<0.019	<0.019
	A22-04 @ 30'	30.0	10/14/2022	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
	A22-04 @ 35'	35.0	10/14/2022	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019
A-22-05	A-22-05 @ 2'	2.0	10/14/2022	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<b>0.011 J</b>	<b>0.015 J</b>	<b>0.012 J</b>	<0.020	<b>0.016 J</b>	<0.020	<b>0.026</b>	<0.020	<0.020	<0.020	<b>0.018 J</b>	<b>0.027</b>
	A-22-05 @ 5'	5.0	10/14/2022	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
	A-22-05 @ 10'	10.0	10/14/2022	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
	A-22-05 @ 15'	15.0	10/14/2022	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
	A-22-05 @ 20'	20.0	10/14/2022	<0.020	<0.020	<b>0.025</b>	<0.020	<b>0.024</b>	<b>0.026</b>	<b>0.040</b>	<b>0.039</b>	<b>0.043</b>	<b>0.029</b>	<b>0.065</b>	<0.020	<b>0.10</b>	<0.020	<b>0.021</b>	<0.020	<b>0.11</b>	<b>0.11</b>
	A-22-05 @ 25'	25.0	10/14/2022	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
	A-22-05 @ 30'	30.0	10/14/2022	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
	A-22-05 @ 35'	35.0	10/14/2022	<0.020	<0.020	<b>0.015 J</b>	<0.020	<b>0.032</b>	<b>0.052</b>	<b>0.077</b>	<b>0.077</b>	<b>0.088</b>	<b>0.056</b>	<b>0.10</b>	<b>0.016 J</b>	<b>0.19</b>	<b>0.011 J</b>	<b>0.044</b>	<0.020	<b>0.14</b>	<b>0.20</b>
A-22-06	A-22-06 @ 2'	2.0	10/13/2022	<0.020	<0.020	<0.020	<0.020	<b>0.010 J</b>	<b>0.018 J</b>	<b>0.015 J</b>	<b>0.023</b>	<b>0.021</b>	<b>0.019 J</b>	<b>0.024</b>	<0.020	<b>0.032</b>	<0.020	<0.020	<0.020	<b>0.026</b>	<b>0.028</b>
	A-22-06 @ 5'	5.0	10/13/2022	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
	A-22-06 @ 10'	10.0	10/13/2022	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019
	A-22-06 @ 15'	15.0	10/13/2022	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
	A-22-06 @ 20'	20.0	10/13/2022	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
<b>2022 EPA RSL: Commercial/Industrial Soil</b>				73	3000	45000	NL	130000	NL	210	21	2.1	21	2100	2.1	30000	30000	21	8.6	NL	23000
<b>2022 DTSC SL: Commercial/Industrial Soil</b>				30	1300	23000	NL	130000	NL	130	12	1.3	13	1300	0.31	18000	17000	13	6.5	NL	13000

Notes:

EPA	Environmental Protection Agency
RSL	Regional Screening Level
DTSC	Department of Toxic Substances Control
SL	Screening Level
mg/kg	milligrams per kilogram
<b>Bold</b>	Analyte detected above reporting limit
<b>J</b>	Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
Units	All results reported in mg/kg



## ***FIGURES***

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Wexford Science + Technology




PROJECT NUMBER  
SD754  
DOCUMENT NUMBER  
22-0116  
FIGURE NUMBER  
1A

**SITE LOCATION MAP**





**EXPLANATION:**

- B-50**  Approximate locations of the 50 supplemental borings.
- A-22-06**  Approximate locations of the 6 preliminary borings.
- A-17-03**  Approximate locations of the 15 previous borings.

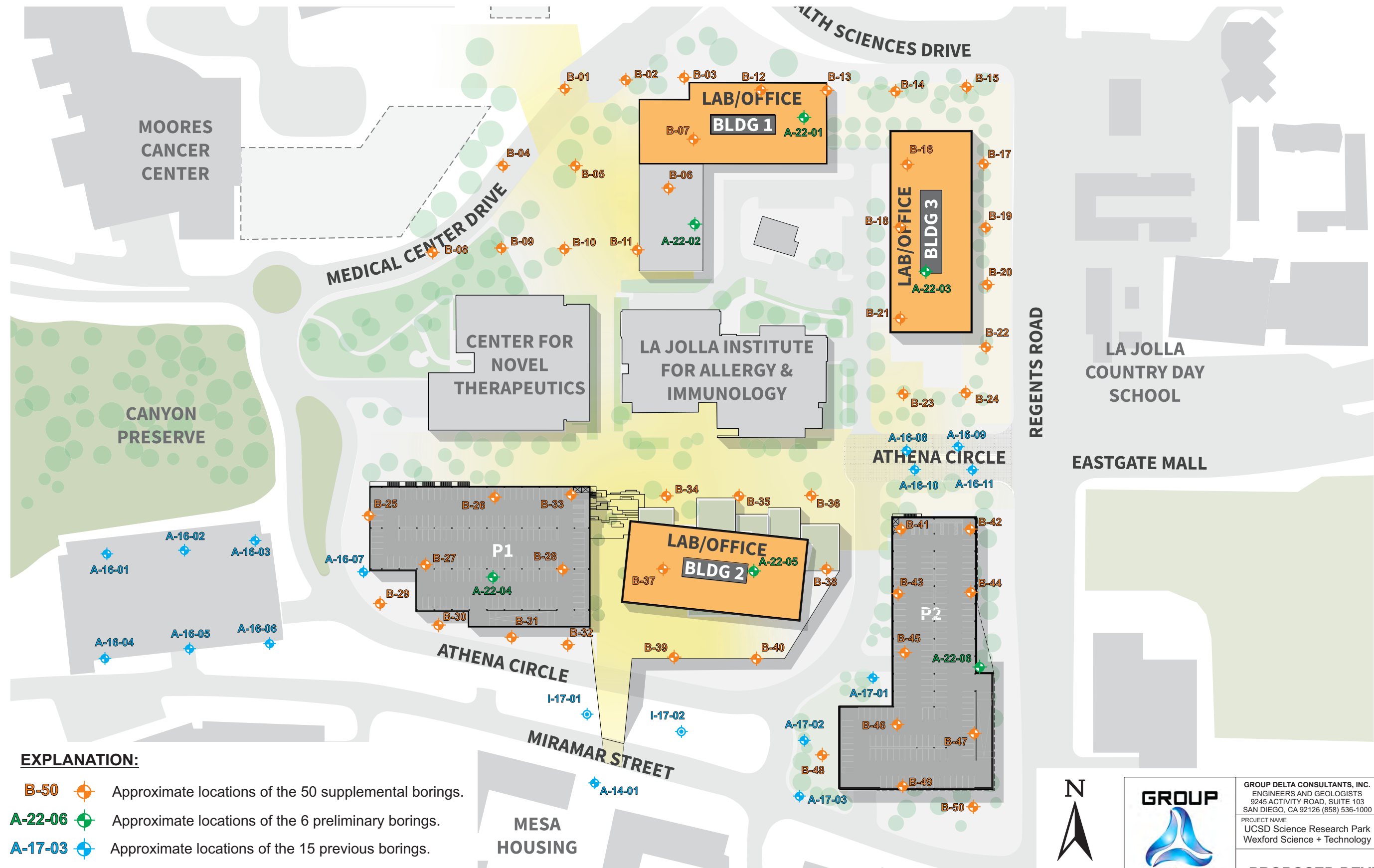


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PROJECT NUMBER  
**SD754**  
DOCUMENT NUMBER  
**22-0116**  
FIGURE NUMBER  
**1B**

**SITE VICINITY PLAN**





**EXPLANATION:**

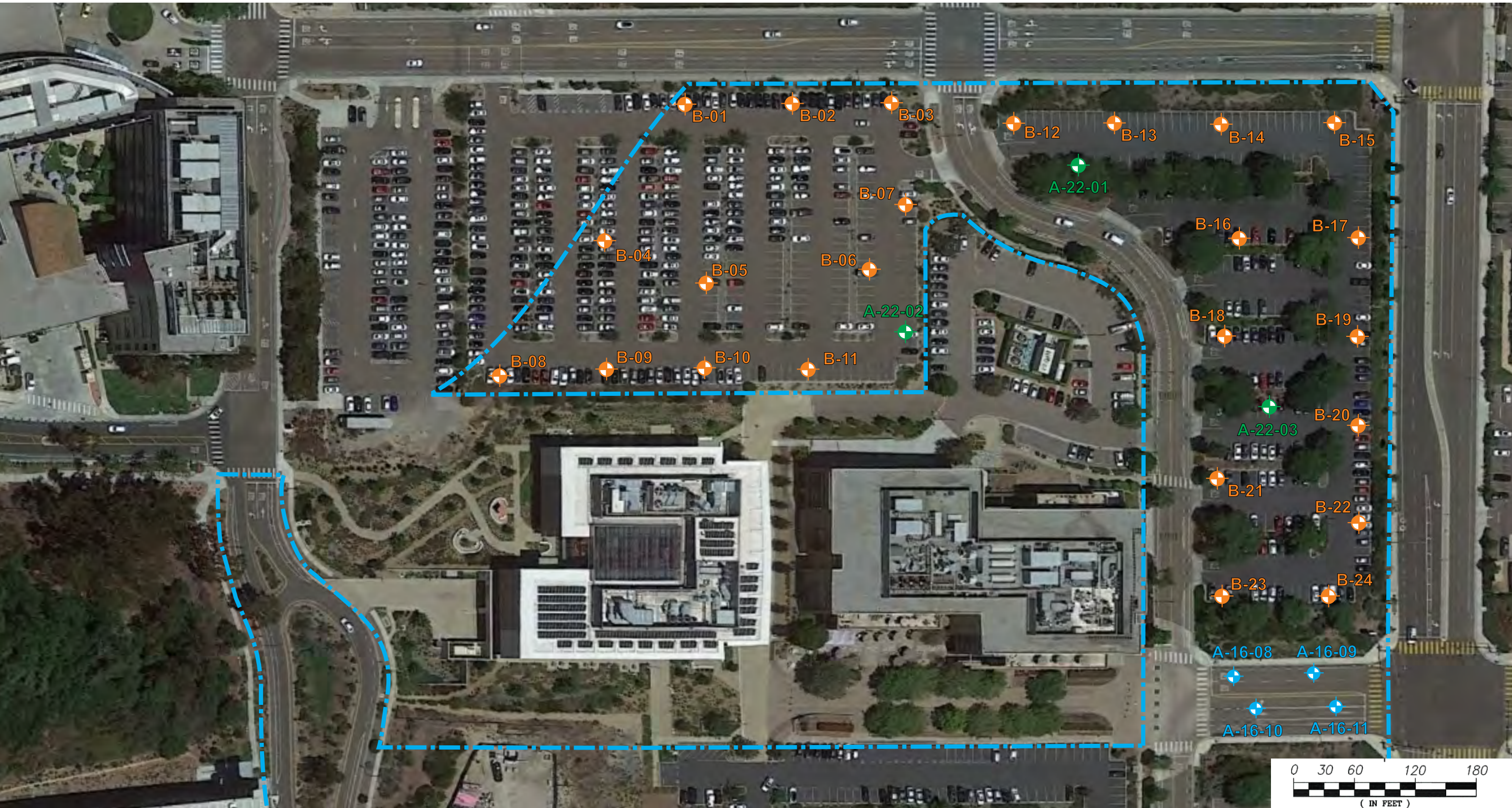
- B-50** Approximate locations of the 50 supplemental borings.
- A-22-06** Approximate locations of the 6 preliminary borings.
- A-17-03** Approximate locations of the 15 previous borings.

**REFERENCE:** Wexford Science + Technology (2022). *Preliminary Ground Level Floor Plan - Elevation 335'*, April 8.






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	DOCUMENT NUMBER 22-0116
	FIGURE NUMBER 2
PROJECT NAME UCSD Science Research Park Wexford Science + Technology	
PROPOSED DEVELOPMENT	





**EXPLANATION:**

- B-50**  Approximate locations of the 50 supplemental borings conducted for design of the UC San Diego Science Research Park (GDC, 2022).
- A-22-06**  Approximate locations of the 6 exploratory borings conducted for the preliminary UC San Diego Science Research Park study (GDC, 2022).
- A-17-03**  Approximate locations of the 15 exploratory borings we previously completed in the site vicinity (GDC, 2014, 2016, 2017).



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PROJECT NUMBER  
**SD754**  
DOCUMENT NUMBER  
**22-0116**  
FIGURE NUMBER  
**3A**

**EXPLORATION PLAN**





**EXPLANATION:**

- B-50**  Approximate locations of the 50 supplemental borings conducted for design of the UC San Diego Science Research Park (GDC, 2022).
- A-22-06**  Approximate locations of the 6 exploratory borings conducted for the preliminary UC San Diego Science Research Park study (GDC, 2022).
- A-17-03**  Approximate locations of the 15 exploratory borings we previously completed in the site vicinity (GDC, 2014, 2016, 2017).



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	DOCUMENT NUMBER <b>22-0116</b>
	FIGURE NUMBER <b>3B</b>
EXPLORATION PLAN	





**LEGEND:**



- Compound detected above TTLC and/or STLC threshold (California non-RCRA Hazardous Waste)
- Compound detected above TCLP threshold (Federal RCRA Hazardous Waste)
- Compound detected above November 2022 EPA RSL and/or May 2022 DTSC SL for Commercial/Industrial Soil



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PROJECT NUMBER  
SD754  
DOCUMENT NUMBER  
22-0116  
FIGURE NUMBER  
4A

**SCREENING LEVELS  
EXCEEDANCES SUMMARY**





**LEGEND:**



- Compound detected above TTLC and/or STLC threshold (California non-RCRA Hazardous Waste)
- Compound detected above TCLP threshold (Federal RCRA Hazardous Waste)
- Compound detected above November 2022 EPA RSL and/or May 2022 DTSC SL for Commercial/Industrial Soil



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DOCUMENT NUMBER  
**22-0116**

FIGURE NUMBER  
**4B**

**SCREENING LEVELS  
EXCEEDANCES SUMMARY**



***APPENDIX A***  
***BORING RECORDS***

---

## APPENDIX A

### FIELD EXPLORATION

The initial phase of field exploration included a visual reconnaissance of the site and the drilling of 6 exploratory borings between October 13<sup>th</sup> and 14<sup>th</sup>, 2022. These borings were drilled by Tri-County Drilling using their Deidrick D120HT truck mounted drill rig with an 8-inch diameter hollow stem flight auger. A supplemental investigation was conducted between December 12<sup>th</sup> and 22<sup>nd</sup> which included 50 additional borings completed by Pacific Drilling using their Marl M10 (Yeti) drill rig with a 6-inch hollow stem flight auger. Another 15 explorations we previously completed at the site are also included in this appendix. The maximum depth of exploration was about 56½ feet below surrounding grades. The approximate boring locations are shown on the Exploration Plans, Figures 3A and 3B. Boring logs are provided in Figures A-1 to A-71, after the Boring Record Legends.

Disturbed soil samples were collected from the borings using a 2-inch outside diameter Standard Penetration Test (SPT) sampler. Less disturbed samples were collected using a 3-inch outside diameter ring lined sampler (a modified California sampler). Various automatic hammers with Energy Transfer Ratio (ETR) ranging from about 83 to 92 percent were used to collect most of the drive samples, while a standard Cat-Head was used for others (ETR~60%). For each sample, the number of blows needed to drive the sampler 12 inches was recorded on the logs. The field blow counts (N) were normalized to approximate a standard 60 percent ETR as shown on the logs (N<sub>60</sub>). Bulk samples were also collected from the borings at selected intervals. A summary of the borings included in this appendix is provided in the table below.

Boring ID	Date Drilled	Latitude	Longitude	Ground Surface Elevation [FT]	Exploration Depth [FT]	Figure No.
B-01	12/20/22	32.878479°	-117.220815°	346	5	A-1
B-02	12/20/22	32.878482°	-117.220454°	348	5	A-2
B-03	12/20/22	32.878487°	-117.220147°	349	11½	A-3
B-04	12/22/22	32.878105°	-117.221066°	343	5	A-4
B-05	12/22/22	32.878003°	-117.220724°	345	5	A-5
B-06	12/19/22	32.878027°	-117.220230°	345	6	A-6
B-07	12/19/22	32.878218°	-117.220093°	347	6½	A-7
B-08	12/22/22	32.877738°	-117.221387°	338	6½	A-8
B-09	12/22/22	32.877752°	-117.221058°	339½	6	A-9
B-10	12/22/22	32.877755°	-117.220727°	340½	5	A-10
B-11	12/19/22	32.877760°	-117.220403°	341	6	A-11
B-12	12/12/22	32.878438°	-117.219756°	347½	6½	A-12
B-13	12/12/22	32.878440°	-117.219439°	345½	6½	A-13
B-14	12/12/22	32.878445°	-117.219083°	344½	11½	A-14
B-15	12/12/22	32.878440°	-117.218732°	346	11½	A-15
B-16	12/12/22	32.878132°	-117.219079°	342	16	A-16
B-17	12/12/22	32.878131°	-117.218648°	343	26	A-17
B-18	12/14/22	32.877866°	-117.219083°	338	21½	A-18
B-19	12/12/22	32.877874°	-117.218637°	341	11½	A-19
B-20	12/13/22	32.877640°	-117.218634°	340	16	A-20



## APPENDIX A

### FIELD EXPLORATION (Continued)

Boring ID	Date Drilled	Latitude	Longitude	Ground Surface Elevation [FT]	Exploration Depth [FT]	Figure No.
B-21	12/21/22	32.877476°	-117.219075°	334	30½	A-21
B-22	12/13/22	32.877367°	-117.218628°	340	25½	A-22
B-23	12/14/22	32.877179°	-117.219065°	337½	31½	A-23
B-24	12/13/22	32.877174°	-117.218728°	340½	31	A-24
B-25	12/22/22	32.876655°	-117.221699°	324½	36	A-25
B-26	12/21/22	32.876711°	-117.221073°	334	55½	A-26
B-27	12/22/22	32.876450°	-117.221421°	331	11½	A-27
B-28	12/21/22	32.876437°	-117.220732°	335	56½	A-28
B-29	12/20/22	32.876278°	-117.221636°	328	6½	A-29
B-30	12/20/22	32.876177°	-117.221336°	330	6	A-30
B-31	12/20/22	32.876120°	-117.220988°	332½	16½	A-31
B-32	12/20/22	32.876086°	-117.220712°	334½	26	A-32
B-33	12/19/22	32.876727°	-117.220683°	338	41	A-33
B-34	12/20/22	32.876733°	-117.220210°	336	46½	A-34
B-35	12/16/22	32.876738°	-117.219844°	337	31	A-35
B-36	12/19/22	32.876744°	-117.219490°	337	31½	A-36
B-37	12/16/22	32.876422°	-117.220221°	336	50½	A-37
B-38	12/16/22	32.876439°	-117.219404°	336	50½	A-38
B-39	12/15/22	32.876039°	-117.220164°	335½	31	A-39
B-40	12/15/22	32.876037°	-117.219773°	336	36½	A-40
B-41	12/19/22	32.876587°	-117.219050°	336½	46	A-41
B-42	12/13/22	32.876598°	-117.218697°	340½	56	A-42
B-43	12/15/22	32.876327°	-117.219061°	336	51	A-43
B-44	12/14/22	32.876330°	-117.218699°	340	40½	A-44
B-45	12/14/22	32.876099°	-117.219111°	336	26½	A-45
B-46	12/15/22	32.875776°	-117.219076°	337	16	A-46
B-47	12/14/22	32.875718°	-117.218677°	341½	21	A-47
B-48	12/14/22	32.875636°	-117.219419°	335½	6½	A-48
B-49	12/14/22	32.875530°	-117.219037°	340	5½	A-49
B-50	12/15/22	32.875432°	-117.218677°	344	6½	A-50
A-22-01	10/13/22	32.878329°	-117.219583°	345	11½	A-51
A-22-02	10/13/22	32.877846°	-117.220102°	343	16½	A-52
A-22-03	10/13/22	32.877678°	-117.218916°	343	16½	A-53
A-22-04	10/14/22	32.876400°	-117.221106°	334	46	A-54
A-22-05	10/14/22	32.876423°	-117.219790°	337	46½	A-55
A-22-06	10/13/22	32.876031°	-117.218667°	340	26½	A-56
A-17-01	03/17/17	32.875944°	-117.219185°	334½	21½	A-57
A-17-02	03/17/17	32.875690°	-117.219525°	335	16	A-58
A-17-03	03/17/17	32.875459°	-117.219543°	354	31½	A-59
A-16-01	04/20/16	32.876471°	-117.222991°	334	20½	A-60
A-16-02	04/20/16	32.876489°	-117.222642°	329	6½	A-61
A-16-03	04/20/16	32.876531°	-117.222275°	327	20½	A-62
A-16-04	04/20/16	32.876056°	-117.222939°	336	6	A-63



## APPENDIX A

### FIELD EXPLORATION (Continued)

Boring ID	Date Drilled	Latitude	Longitude	Ground Surface Elevation [FT]	Exploration Depth [FT]	Figure No.
A-16-05	04/20/16	32.876100°	-117.222583°	332	6	A-64
A-16-06	04/20/16	32.876120°	-117.222210°	331	20½	A-65
A-16-07	04/20/16	32.876413°	-117.221733°	329	6½	A-66
A-16-08	06/07/16	32.876942°	-117.219026°	336½	4½	A-67
A-16-09	06/07/16	32.876954°	-117.218761°	338½	4½	A-68
A-16-10	06/07/16	32.876856°	-117.218959°	337	4	A-69
A-16-11	06/07/16	32.876866°	-117.218709°	340½	5	A-70
A-14-01	06/27/14	32.875538°	-117.220577°	350	20½	A-71

The boring locations were determined by visually estimating, pacing and taping distances from landmarks shown on the Exploration Plans. The locations shown should not be considered more accurate than is implied by the method of measurement used and the scale of the map. The lines designating the interface between differing soil materials on the logs may be abrupt or gradational. Further, soil conditions at locations between the excavations may be substantially different from those at the specific locations we explored. It should be noted that the passage of time may also result in changes in the soil conditions reported in the logs.

## SOIL IDENTIFICATION AND DESCRIPTION SEQUENCE

Sequence	Identification Components	Refer to Section		Required	Optional
		Field	Lab		
1	Group Name	2.5.2	3.2.2	●	
2	Group Symbol	2.5.2	3.2.2	●	
	<b>Description Components</b>				
3	Consistency of Cohesive Soil	2.5.3	3.2.3	●	
4	Apparent Density of Cohesionless Soil	2.5.4		●	
5	Color	2.5.5		●	
6	Moisture	2.5.6		●	
7	Percent or Proportion of Soil	2.5.7	3.2.4	●	○
	Particle Size	2.5.8	2.5.8	●	○
	Particle Angularity	2.5.9			○
	Particle Shape	2.5.10			○
8	Plasticity (for fine-grained soil)	2.5.11	3.2.5		○
9	Dry Strength (for fine-grained soil)	2.5.12			○
10	Dilatency (for fine-grained soil)	2.5.13			○
11	Toughness (for fine-grained soil)	2.5.14			○
12	Structure	2.5.15			○
13	Cementation	2.5.16		●	
14	Percent of Cobbles and Boulders	2.5.17		●	
	Description of Cobbles and Boulders	2.5.18		●	
15	Consistency Field Test Result	2.5.3		●	
16	Additional Comments	2.5.19			○

**Describe the soil using descriptive terms in the order shown**

### Minimum Required Sequence:

USCS Group Name (Group Symbol); Consistency or Density; Color; Moisture; Percent or Proportion of Soil; Particle Size; Plasticity (optional).

○ = optional for non-Caltrans projects

### Where applicable:

Cementation; % cobbles & boulders;  
Description of cobbles & boulders;  
Consistency field test result

## HOLE IDENTIFICATION

Holes are identified using the following convention:

*H – YY – NNN*

Where:

*H*: Hole Type Code

*YY*: 2-digit year

*NNN*: 3-digit number (001-999)

### Hole Type Code and Description

Hole Type Code	Description
A	Auger boring (hollow or solid stem, bucket)
R	Rotary drilled boring (conventional)
RC	Rotary core (self-cased wire-line, continuously-sampled)
RW	Rotary core (self-cased wire-line, not continuously sampled)
P	Rotary percussion boring (Air)
HD	Hand driven (1-inch soil tube)
HA	Hand auger
D	Driven (dynamic cone penetrometer)
CPT	Cone Penetration Test
O	Other (note on LOTB)

### Description Sequence Examples:

SANDY lean CLAY (CL); very stiff; yellowish brown; moist; mostly fines; some SAND, from fine to medium; few gravels; medium plasticity; PP=2.75.

Well-graded SAND with SILT and GRAVEL and COBBLES (SW-SM); dense; brown; moist; mostly SAND, from fine to coarse; some fine GRAVEL; few fines; weak cementation; 10% GRANITE COBBLES; 3 to 6 inches; hard; subrounded.

Clayey SAND (SC); medium dense, light brown; wet; mostly fine sand; little fines; low plasticity.

REFERENCE: Caltrans Soil and Rock Logging, Classification, and Presentation Manual (2010).



Project No. SD754

UCSD Science Research Park  
Wexford Science + Technology

**BORING RECORD LEGEND #1**



GROUP SYMBOLS AND NAMES				FIELD AND LABORATORY TESTING	
Graphic / Symbol	Group Names	Graphic / Symbol	Group Names		
	GW Well-graded GRAVEL Well-graded GRAVEL with SAND		CL Lean CLAY Lean CLAY with SAND Lean CLAY with GRAVEL SANDY lean CLAY SANDY lean CLAY with GRAVEL GRAVELLY lean CLAY GRAVELLY lean CLAY with SAND	C	Consolidation (ASTM D 2435)
	GP Poorly graded GRAVEL Poorly graded GRAVEL with SAND		CL-ML SILTY CLAY SILTY CLAY with SAND SILTY CLAY with GRAVEL SANDY SILTY CLAY SANDY SILTY CLAY with GRAVEL GRAVELLY SILTY CLAY GRAVELLY SILTY CLAY with SAND	CL	Collapse Potential (ASTM D 5333)
	GW-GM Well-graded GRAVEL with SILT Well-graded GRAVEL with SILT and SAND		ML SILT SILT with SAND SILT with GRAVEL SANDY SILT SANDY SILT with GRAVEL GRAVELLY SILT GRAVELLY SILT with SAND	CP	Compaction Curve (CTM 216)
	GW-GC Well-graded GRAVEL with CLAY (or SILTY CLAY) Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		OL ORGANIC lean CLAY ORGANIC lean CLAY with SAND ORGANIC lean CLAY with GRAVEL SANDY ORGANIC lean CLAY SANDY ORGANIC lean CLAY with GRAVEL GRAVELLY ORGANIC lean CLAY GRAVELLY ORGANIC lean CLAY with SAND	CR	Corrosion, Sulfates, Chlorides (CTM 643; CTM 417; CTM 422)
	GP-GM Poorly graded GRAVEL with SILT Poorly graded GRAVEL with SILT and SAND		OL ORGANIC SILT ORGANIC SILT with SAND ORGANIC SILT with GRAVEL SANDY ORGANIC SILT SANDY ORGANIC SILT with GRAVEL GRAVELLY ORGANIC SILT GRAVELLY ORGANIC SILT with SAND	CU	Consolidated Undrained Triaxial (ASTM D 4767)
	GP-GC Poorly graded GRAVEL with CLAY (or SILTY CLAY) Poorly graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		MH Elastic SILT Elastic SILT with SAND Elastic SILT with GRAVEL SANDY elastic SILT SANDY elastic SILT with GRAVEL GRAVELLY elastic SILT GRAVELLY elastic SILT with SAND	DS	Direct Shear (ASTM D 3080)
	GM Silty GRAVEL Silty GRAVEL with SAND		OH ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND	EI	Expansion Index (ASTM D 4829)
	GC Clayey GRAVEL Clayey GRAVEL with SAND		OH ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY elastic ELASTIC SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND	M	Moisture Content (ASTM D 2216)
	GC-GM Silty, Clayey GRAVEL Silty, Clayey GRAVEL with SAND		OL/OH ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND	OC	Organic Content (ASTM D 2974)
	SW Well-graded SAND Well-graded SAND with GRAVEL		CH Fat CLAY Fat CLAY with SAND Fat CLAY with GRAVEL SANDY fat CLAY SANDY fat CLAY with GRAVEL GRAVELLY fat CLAY GRAVELLY fat CLAY with SAND	P	Permeability (CTM 220)
	SP Poorly graded SAND Poorly graded SAND with GRAVEL		CH SANDY fat CLAY SANDY fat CLAY with GRAVEL GRAVELLY fat CLAY GRAVELLY fat CLAY with SAND	PA	Particle Size Analysis (ASTM D 422)
	SW-SM Well-graded SAND with SILT Well-graded SAND with SILT and GRAVEL		MH SANDY elastic SILT SANDY elastic SILT with GRAVEL GRAVELLY elastic SILT GRAVELLY elastic SILT with SAND	PI	Liquid Limit, Plastic Limit, Plasticity Index (AASHTO T 89; AASHTO T 90)
	SW-SC Well-graded SAND with CLAY (or SILTY CLAY) Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		OH ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND	PL	Point Load Index (ASTM D 5731)
	SP-SM Poorly graded SAND with SILT Poorly graded SAND with SILT and GRAVEL		OH ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY elastic ELASTIC SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND	PM	Pressure Meter
	SP-SC Poorly graded SAND with CLAY (or SILTY CLAY) Poorly graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		OL/OH ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND	R	R-Value (CTM 301)
	SM Silty SAND Silty SAND with GRAVEL			SE	Sand Equivalent (CTM 217)
	SC Clayey SAND Clayey SAND with GRAVEL			SG	Specific Gravity (AASHTO T 100)
	SC-SM Silty, Clayey SAND Silty, Clayey SAND with GRAVEL			SL	Shrinkage Limit (ASTM D 427)
	PT PEAT			SW	Swell Potential (ASTM D 4546)
				UC	Unconfined Compression - Soil (ASTM D 2166) Unconfined Compression - Rock (ASTM D 2938)
				UU	Unconsolidated Undrained Triaxial (ASTM D 2850)
				UW	Unit Weight (ASTM D 4767)
DRILLING METHOD SYMBOLS				SAMPLER GRAPHIC SYMBOLS	
	Auger Drilling		Rotary Drilling		Standard Penetration Test (SPT)
	Dynamic Cone or Hand Driven		Diamond Core		Standard California Sampler
					Modified California Sampler (2.4" ID, 3" OD)
					Shelby Tube
					Piston Sampler
					NX Rock Core
					HQ Rock Core
					Bulk Sample
					Other (see remarks)
WATER LEVEL SYMBOLS				DEFINITIONS FOR CHANGE IN MATERIAL	
	First Water Level Reading (during drilling)		Static Water Level Reading (after drilling, date)	Term	Definition
				Symbol	
				Material Change	Change in material is observed in the sample or core and the location of change can be accurately located.
				Estimated Material Change	Change in material cannot be accurately located either because the change is gradational or because of limitations of the drilling and sampling methods.
				Soil / Rock Boundary	Material changes from soil characteristics to rock characteristics.
REFERENCE: Caltrans Soil and Rock Logging, Classification, and Presentation Manual (2010).					
GROUP DELTA				Project No. SD754	
				UCSD Science Research Park Wexford Science + Technology	
				BORING RECORD LEGEND #2	



CONSISTENCY OF COHESIVE SOILS				
Description	Shear Strength (tsf)	Pocket Penetrometer, PP Measurement (tsf)	Torvane, TV, Measurement (tsf)	Vane Shear, VS, Measurement (tsf)
Very Soft	Less than 0.12	Less than 0.25	Less than 0.12	Less than 0.12
Soft	0.12 - 0.25	0.25 - 0.5	0.12 - 0.25	0.12 - 0.25
Medium Stiff	0.25 - 0.5	0.5 - 1	0.25 - 0.5	0.25 - 0.5
Stiff	0.5 - 1	1 - 2	0.5 - 1	0.5 - 1
Very Stiff	1 - 2	2 - 4	1 - 2	1 - 2
Hard	Greater than 2	Greater than 4	Greater than 2	Greater than 2

APPARENT DENSITY OF COHESIONLESS SOILS	
Description	SPT N <sub>60</sub> (blows / 12 inches)
Very Loose	0 - 5
Loose	5 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	Greater than 50

MOISTURE	
Description	Criteria
Dry	No discernable moisture
Moist	Moisture present, but no free water
Wet	Visible free water

PERCENT OR PROPORTION OF SOILS	
Description	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5 - 10%
Little	15 - 25%
Some	30 - 45%
Mostly	50 - 100%

PARTICLE SIZE		
Description	Size (in)	
Boulder	Greater than 12	
Cobble	3 - 12	
Gravel	Coarse	3/4 - 3
	Fine	1/5 - 3/4
Sand	Coarse	1/16 - 1/5
	Medium	1/64 - 1/16
	Fine	1/300 - 1/64
Silt and Clay	Less than 1/300	

CEMENTATION	
Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

#### Plasticity

Description	Criteria
Nonplastic	A 1/8-in. thread cannot be rolled at any water content.
Low	The thread can barely be rolled and the lump cannot be formed when drier than the plastic limit.
Medium	The thread is easy to roll and not much time is required to reach the plastic limit. The thread cannot be rerolled after reaching the plastic limit. The lump crumbles when drier than the plastic limit.
High	It takes considerable time rolling and kneading to reach the plastic limit. The thread can be rerolled several times after reaching the plastic limit. The lump can be formed without crumbling when drier than the plastic limit.

**REFERENCE: Caltrans Soil and Rock Logging, Classification, and Presentation Manual (2010), with the exception of consistency of cohesive soils vs. N<sub>60</sub>.**

CONSISTENCY OF COHESIVE SOILS	
Description	SPT N <sub>60</sub> (blows/12 inches)
Very Soft	0 - 2
Soft	2 - 4
Medium Stiff	4 - 8
Stiff	8 - 15
Very Stiff	15 - 30
Hard	Greater than 30

Ref: Peck, Hansen, and Thornburn, 1974,  
"Foundation Engineering," Second Edition.

**Note:** Only to be used (with caution) when pocket penetrometer or other data on undrained shear strength are unavailable.  
Not allowed by Caltrans Soil and Rock Logging and Classification Manual, 2010.



Project No. SD754

UCSD Science Research Park  
Wexford Science + Technology

**BORING RECORD LEGEND #3**

### LEGEND OF ROCK MATERIALS



IGNEOUS ROCK



SEDIMENTARY ROCK



METAMORPHIC ROCK

### BEDDING SPACING

Description	Thickness/Spacing
Massive	Greater than 10 ft
Very Thickly Bedded	3 ft - 10 ft
Thickly Bedded	1 ft - 3 ft
Moderately Bedded	4 in - 1 ft
Thinly Bedded	1 in - 4 in
Very Thinly Bedded	1/4 in - 1 in
Laminated	Less than 1/4 in

### WEATHERING DESCRIPTORS FOR INTACT ROCK

	Diagnostic Features					
Description	Chemical Weathering-Discoloration-Oxidation		Mechanical Weathering and Grain Boundary Conditions	Texture and Leaching		General Characteristics
	Body of Rock	Fracture Surfaces		Texture	Leaching	
Fresh	No discoloration, not oxidized	No discoloration or oxidation	No separation, intact (tight)	No change	No leaching	Hammer rings when crystalline rocks are struck.
Slightly Weathered	Discoloration or oxidation is limited to surface of, or short distance from, fractures; some feldspar crystals are dull	Minor to complete discoloration or oxidation of most surfaces	No visible separation, intact (tight)	Preserved	Minor leaching of some soluble minerals	Hammer rings when crystalline rocks are struck. Body of rock not weakened.
Moderately Weathered	Discoloration or oxidation extends from fractures usually throughout; Fe-Mg minerals are "rusty"; feldspar crystals are "cloudy"	All fracture surfaces are discolored or oxidized	Partial separation of boundaries visible	Generally preserved	Soluble minerals may be mostly leached	Hammer does not ring when rock is struck. Body of rock is slightly weakened.
Intensely Weathered	Discoloration or oxidation throughout; all feldspars and Fe-Mg minerals are altered to clay to some extent; or chemical alteration produces in situ disaggregation, grain boundary conditions	All fracture surfaces are discolored or oxidized; surfaces friable	Partial separation, rock is friable; in semi-arid conditions, granitics are disaggregated	Texture altered by chemical disintegration (hydration, argillation)	Leaching of soluble minerals may be complete	Dull sound when struck with hammer; usually can be broken with moderate to heavy manual pressure or by light hammer blow without reference to planes of weakness such as incipient or hairline fractures or veinlets. Rock is significantly weakened.
Decomposed	Discolored or oxidized throughout, but resistant minerals such as quartz may be unaltered; all feldspars and Fe-Mg minerals are completely altered to clay		Complete separation of grain boundaries (disaggregated)	Resembles a soil; partial or complete remnant rock structure may be preserved; leaching of soluble minerals usually complete		Can be granulated by hand. Resistant minerals such as quartz may be present as "stringers" or "dikes".

### PERCENT CORE RECOVERY (REC)

$$\frac{\sum \text{Length of the recovered core pieces (in.)}}{\text{Total length of core run (in.)}} \times 100$$

### ROCK QUALITY DESIGNATION (RQD)

$$\frac{\sum \text{Length of intact core pieces} \geq 4 \text{ in.}}{\text{Total length of core run (in.)}} \times 100$$

RQD\* indicates soundness criteria not met.

### ROCK HARDNESS

Description	Criteria
Extremely Hard	Cannot be scratched with a pocketknife or sharp pick. Can only be chipped with repeated heavy hammer blows
Very Hard	Cannot be scratched with a pocketknife or sharp pick. Breaks with repeated heavy hammer blows.
Hard	Can be scratched with a pocketknife or sharp pick with difficulty (heavy pressure). Breaks with heavy hammer blows.
Moderately Hard	Can be scratched with a pocketknife or sharp pick with light or moderate pressure. Breaks with moderate hammer blows
Moderately Soft	Can be grooved 1/16 in. deep with a pocketknife or sharp pick with moderate or heavy pressure. Breaks with light hammer blow or heavy manual pressure.
Soft	Can be grooved or gouged easily with a pocketknife or sharp pick with light pressure, can be scratched with fingernail. Breaks with light to moderate manual pressure.
Very Soft	Can be readily indented, grooved or gouged with fingernail, or carved with a pocketknife. Breaks with light manual pressure.

### FRACTURE DENSITY

Description	Observed Fracture Density
Unfractured	No fractures
Very Slightly Fractured	Core lengths greater than 3 ft.
Slightly Fractured	Core lengths mostly from 1 to 3 ft.
Moderately Fractured	Core lengths mostly 4 in. to 1 ft.
Intensely Fractured	Core lengths mostly from 1 to 4 in.
Very Intensely Fractured	Mostly chips and fragments.

**REFERENCE** Caltrans Soil and Rock Logging, Classification, and Presentation Manual (2010).

**GROUP**



**DELTA**






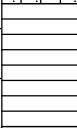
Project No. SD754

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**BORING RECORD LEGEND #4**





GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-01</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/20/2022		FINISH 12/20/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 5		GROUND ELEV (ft) 346		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
	345		B-1									<b>PAVEMENT:</b> 5-inches asphalt concrete over 4½-inches aggregate base.	
			S-2	8 20 31	51	78			EPA			<b>FILL:</b> SILTY SAND (SM); medium dense; dark yellowish brown (10YR 4/6), moist; mostly fine to medium SAND; some fines; low plasticity.	
5										5		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light yellowish brown (10YR 6/4); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; low plasticity; iron oxide stains).	
	340											Total Depth: 5 feet No groundwater encountered * Rock Description; (Soil Description)	
10										10			
	335												
15										15			
	330												
20										20			
	325												


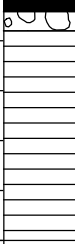
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-1</b>
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<b>BORING RECORD</b>				PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A				BORING <b>B-04</b>																							
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle								START 12/22/2022				FINISH 12/22/2022				SHEET NO. 1 of 1																			
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger						LOGGED BY CRJ				CHECKED BY MAF																			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6				TOTAL DEPTH (ft) 5				GROUND ELEV (ft) 343				DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na																	
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N																													
DEPTH (feet)		ELEVATION (feet)		SAMPLE TYPE		SAMPLE NO.		PENETRATION RESISTANCE (BLOWS / 6 IN)		BLOW/FT "N"		N <sub>60</sub>		MOISTURE (%)		DRY DENSITY (pcf)		OTHER TESTS		DEPTH (feet)		GRAPHIC LOG		DESCRIPTION AND CLASSIFICATION											
5		340				B-1 R-2		25 60		85		87		8.9		118		PA R EPA		5				<b>PAVEMENT:</b> 5-inches asphalt concrete over 4-inches aggregate base.  <b>SCRIPPS FORMATION (Tsc):</b> * Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 7/6); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; trace GRAVEL; nonplastic; slightly micaceous).  (2% Gravel; 60% Sand; 38% Fines)											
		10		335																				Total Depth: 5 feet No groundwater encountered * Rock Description; (Soil Description)											
330																																			
325																																			
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45		300																																	
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60		285																																	
65		280																																	
70		275																																	
75		270																																	
80		265																																	
85		260																																	
90		255																																	
95		250																																	
100		245																																	
105		240																																	
110		235																																	
115		230																																	
120		225																																	
125		22																																	

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-05</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/22/2022		FINISH 12/22/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 5		GROUND ELEV (ft) 345		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
5	340		B-1 S-2	13 17 21	38	58			EPA	5		<b>PAVEMENT:</b> 5-inches asphalt concrete over 4½-inches aggregate base.  <b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; dark yellowish brown (10YR 4/6); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic).	
10	335									10		Total Depth: 5 feet No groundwater encountered * Rock Description; (Soil Description)	
15	330									15			
20	325									20			

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126		THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-5</b>
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




GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING B-06	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/19/2022		FINISH 12/19/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 6		GROUND ELEV (ft) 345		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1									<b>PAVEMENT:</b> 5-inches asphalt concrete over 4½-inches aggregate base.  <b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 5/6); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; nonplastic; weakly cemented; iron oxide stains).  Sample was highly disturbed.	
			R-2	10 50 (5")	100+	100+	7.7	---	EPA				
5	340		S-3	20 50	70	100+				5			
10	335									10		Total Depth: 6 feet No groundwater encountered * Rock Description; (Soil Description)	
15	330									15			
20	325									20			

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  A-6
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-08</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/22/2022		FINISH 12/22/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 6.5		GROUND ELEV (ft) 338		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1									<b>PAVEMENT:</b> 5-inches asphalt concrete over 4½-inches aggregate base.	
	335		R-2	9 15 20	35	36	12.6	116	EPA			<b>FILL:</b> CLAYEY SAND (SC); medium dense to dense; dark grayish brown (10YR 4/2), moist; mostly fine to medium SAND; some fines; low plasticity. Contains asphalt concrete fragments and vegetative debris.	
5			S-3	20 27 41	68	100+				5		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; very pale yellow (10YR 7/4); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic).	
	330											Total Depth: 6½ feet No groundwater encountered * Rock Description; (Soil Description)	
10										10			
	325												
15										15			
	320												
20										20			
	315												

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-8</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-09</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/22/2022		FINISH 12/22/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 6		GROUND ELEV (ft) 339.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1									<b>PAVEMENT:</b> 5-inches asphalt concrete over 4½-inches aggregate base.	
			S-2	13 12 11	23	35			EPA			<b>FILL:</b> SILTY SAND (SM); medium dense to dense; very dark gray (10YR 3/1); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.	
5	335		R-3	20 50	70	71	18.1	105		5		<b>SCRIPPS FORMATION (Tsc):</b> * Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 5/8) and brown (10YR 5/3); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to coarse SAND; little fines; nonplastic; iron oxide).	
10	330									10		Total Depth: 6 feet No groundwater encountered * Rock Description; (Soil Description)	
15	325									15			
20	320									20			
	315												

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-9</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-10</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/22/2022		FINISH 12/22/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 5		GROUND ELEV (ft) 340.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
340			B-1	20								<b>PAVEMENT:</b> 4½-inches asphalt concrete over 5-inches aggregate base. <b>FILL:</b> CLAYEY SAND (SC); medium dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; low plasticity. <b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light and dark yellowish brown (10YR 6/4 and 10YR 4/6); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to coarse SAND; little fines; nonplastic; slightly micaceous; iron oxide stains).	
			R-2	42	92	94	19.1	108	EPA				
5	335			50						5		Total Depth: 5 feet No groundwater encountered * Rock Description; (Soil Description)	
10	330									10			
15	325									15			
20	320									20			

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-10</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING B-11	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/19/2022		FINISH 12/19/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 6		GROUND ELEV (ft) 341		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
	340		B-1	11								<b>PAVEMENT:</b> 4½-inches asphalt concrete over 5-inches aggregate base.  <b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 5/6); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; nonplastic; weakly cemented; iron oxide stains).	
			S-2	25	56	86			EPA				
5			R-3	31									
	335			32	92	94	11.7	112		5		Total Depth: 6 feet No groundwater encountered * Rock Description; (Soil Description)	
				50									
				(5")									
10										10			
	330												
15										15			
	325												
20										20			
	320												

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  A-11
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-12</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/12/2022		FINISH 12/12/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 6.5		GROUND ELEV (ft) 347.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
												<b>PAVEMENT:</b> 4-inches asphalt concrete over 5-inches aggregate base.	
	345		B-1	7								<b>FILL:</b> SILTY SAND (SM); medium dense; dark yellow brown (10YR 4/4), moist; mostly fine to medium SAND; some fines; trace GRAVEL; nonplastic.	
			S-2	10	27	41			EPA				
				17									
5				11						5		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; grayish brown (10YR 5/2); intensely weathered; very soft; (SILTY SAND (SM); dense to very dense; moist; mostly fine SAND; little fines; nonplastic; weakly cemented; trace iron oxide staining; slightly micaceous).	
			R-3	35	85	87	13.4	111					
				50									
	340											Total Depth: 6½ feet No groundwater encountered * Rock Description; (Soil Description)	
10										10			
	335												
15										15			
	330												
20										20			
	325												

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-12</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-13</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/12/2022		FINISH 12/12/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 6.5		GROUND ELEV (ft) 345.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
	345		B-1									<b>PAVEMENT:</b> 4-inches asphalt concrete over 4-inches aggregate base.	
			R-2	16 23 50	73	75	7.1	106	EPA PA			<b>FILL:</b> SILTY SAND (SM); medium dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; trace GRAVEL; nonplastic.	
5	340		S-3	18 31 40	71	100+				5		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; grayish brown (10YR 5/2); moderately weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; little fines; few GRAVEL; nonplastic; weakly cemented; slightly micaceous; trace iron oxide stains). (7% Gravel; 65% Sand; 28% Fines)	
												Total Depth: 6½ feet No groundwater encountered * Rock Description; (Soil Description)	
10	335									10			
15	330									15			
20	325									20			

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-13</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING B-14	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/12/2022		FINISH 12/12/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 11.5		GROUND ELEV (ft) 344.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1										
			S-2	5 6 6	12	18			EPA			<b>PAVEMENT:</b> 4-inches asphalt concrete over 4-inches aggregate base.  <b>FILL:</b> SILTY SAND (SM); medium dense; yellowish brown (10YR 5/4); moist; mostly fine SAND; some fines; trace GRAVEL; nonplastic.	
5	340		R-3	8 17 34	51	52	11.3	104		5		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; grayish brown (10YR 5/2); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic; trace iron oxide stains).	
10	335		S-4	6 23 36	59	90				10		Little to some fines; weakly cemented.	
15	330									15		Total Depth: 11½ feet No groundwater encountered * Rock Description; (Soil Description)	
20	325									20			
	320												

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  A-14
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BORING RECORD						PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING <b>B-15</b>	
SITE LOCATION								START		FINISH		SHEET NO.	
Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle								12/12/2022		12/12/2022		1 of 1	
DRILLING COMPANY						DRILLING METHOD				LOGGED BY		CHECKED BY	
Pacific Drilling Company						Hollow Stem Auger				SRN		MAF	
DRILLING EQUIPMENT						BORING DIA. (in)		TOTAL DEPTH (ft)		GROUND ELEV (ft)		DEPTH/ELEV. GROUNDWATER (ft)	
Marl M10 (Yeti) Truck Mounted Rig						6		11.5		346		▼ N/A / na	
SAMPLING METHOD						NOTES							
Hammer: 140 lbs., Drop: 30 in. (Automatic)						ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
	345		B-1									<b>PAVEMENT:</b> 4-inches asphalt concrete over 4-inches aggregate base.	
			R-2	10 16 23	39	40	9.4	119	EPA			<b>FILL:</b> SILTY SAND (SM); medium dense to dense; brown (10YR 5/3); moist; mostly fine SAND; some fines; trace GRAVEL; nonplastic.  Mottled coloration.	
5										5		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light yellowish brown (10YR 6/4); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; little fines; nonplastic; trace iron oxide stains).	
	340		S-3	6 12 22	34	52							
10			R-4	16 39 45	84	86	---	---		10		Little to some fines.	
	335											Total Depth: 11½ feet No groundwater encountered * Rock Description; (Soil Description)	
										15			
	330												
										20			
	325												

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**FIGURE**  
  
**A-15**

GDC LOG BORING\_MM SOIL\_SD SD754 LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-16</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/12/2022		FINISH 12/12/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 16		GROUND ELEV (ft) 342		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1						PA PI CR EI EPA			<b>PAVEMENT:</b> 4-inches asphalt concrete over 4-inches aggregate base.	
	340		S-2	8 7 11	18	28						<b>FILL:</b> CLAYEY SAND (SC); medium dense; dark yellowish brown (10YR 4/4); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity. (2% Gravel; 58% Sand; 40% Fines) (LL~27; PL~13; PI~14)	
5			R-3	9 15 21	36	37	13.0	116	EPA	5		LEAN CLAY WITH SAND (CL); stiff; gray (10YR 5/1); moist; mostly fines; little fine SAND; medium plasticity.	
	335											SILTY SAND (SM); dense; mottled dark gray (10YR 5/3) and brown (10YR 4/1); moist; mostly fine SAND; some fines; nonplastic.	
10			S-4	7 10 21	31	47				10		<b>SCRIPPS FORMATION (Tsc):</b> * Poorly-indurated SANDSTONE; medium grained; gray (10YR 5/1); intensely weathered; very soft; (SILTY SAND (SM); dense to very dense; moist; mostly fine SAND; little fines; nonplastic; trace iron oxide stains).	
	330												
15			R-5	26 50 (3")	100	100+	---	---		15			
	325											Total Depth: 16 feet No groundwater encountered * Rock Description; (Soil Description)	
	320									20			

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**FIGURE**  
**A-16**


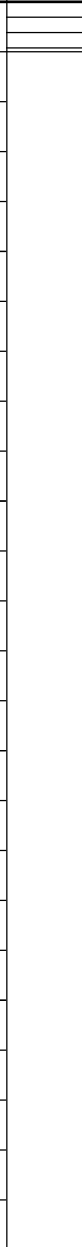


GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-17</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/12/2022		FINISH 12/12/2022		SHEET NO. 1 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 26		GROUND ELEV (ft) 343		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1										
	340		S-2	5 9 11	20	31			EPA			<b>PAVEMENT:</b> 4-inches asphalt concrete over 4-inches aggregate base.	
5			R-3	13 21 32	53	54	12.3	109	EPA	5		<b>FILL:</b> SILTY SAND (SM); medium dense to dense; brown (10YR 5/4); moist; mostly fine SAND; some fines; nonplastic.	
	335											SILTY SAND (SM); very dense; pale brown (10YR 6/3); moist; mostly fine SAND; little to some fines; low plasticity; iron oxide stains.	
10			S-4	7 7 8	15	23			EPA	10		SILTY SAND (SM); medium dense; brown (10YR 4/3); moist; mostly fine SAND; some fines; nonplastic.	
	330												
15			R-5	7 9 15	24	24	15.5	104	EPA	15		Same.	
	325												
20			S-6	22 32 46	78	100+				20		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; gray (10YR 5/1); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; little to some fines; nonplastic; iron oxide stains).	
	320												

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-17 a</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

<b>BORING RECORD</b>							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-17</b>		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/12/2022		FINISH 12/12/2022		SHEET NO. 2 of 2			
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF				
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 26		GROUND ELEV (ft) 343		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
			R-7	23 60	83	85	---	---				<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; gray (10YR 5/1); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; little to some fines; nonplastic; iron oxide stains).  Total Depth: 26 feet No groundwater encountered * Rock Description; (Soil Description)		
315										30				
310										35				
305										40				
300										45				
295														
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			<b>FIGURE</b>  A-17 b	




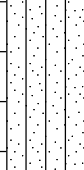



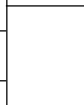



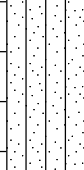



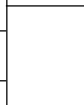



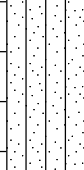



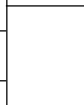
GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-18</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/14/2022		FINISH 12/14/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 21.5		GROUND ELEV (ft) 338		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1										
	335		S-2	4 4 5	9	14			EPA			<b>PAVEMENT:</b> 3-inches asphalt concrete over 4-inches aggregate base.	
5			R-3	6 12 16	28	29	10.7	113	EPA	5		<b>FILL:</b> SILTY SAND (SM); medium dense; yellowish brown (10YR 5/6); moist; mostly fine to medium SAND; some fines; trace GRAVEL; nonplastic.	
	330											Mottled yellowish brown (10YR 5/6) and pale yellowish brown (10YR 6/2).	
10			S-4	8 10 8	18	28			EPA	10		Trace iron oxide stains.	
	325												
15			R-5	12 20 38	58	59	12.7	118		15		Dark grayish brown (10YR 4/2)	
	320											<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; pale brown (10YR 6/3); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; little fines; nonplastic; trace of iron oxide stains).	
20			S-6	23 37 75	100+	100+				20			
	315											Total Depth: 21½ feet No groundwater encountered * Rock Description; (Soil Description)	

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**FIGURE**  
**A-18**

<b>BORING RECORD</b>				PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A				BORING <b>B-19</b>																																																																																																																																					
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle								START 12/12/2022				FINISH 12/12/2022				SHEET NO. 1 of 1																																																																																																																																	
DRILLING COMPANY Pacific Drilling Company								DRILLING METHOD Hollow Stem Auger								LOGGED BY SRN				CHECKED BY MAF																																																																																																																													
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig								BORING DIA. (in) 6				TOTAL DEPTH (ft) 11.5				GROUND ELEV (ft) 341				DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na																																																																																																																													
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)								NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N																																																																																																																																									
<table border="1"> <thead> <tr> <th>DEPTH (feet)</th> <th>ELEVATION (feet)</th> <th>SAMPLE TYPE</th> <th>SAMPLE NO.</th> <th>PENETRATION RESISTANCE (BLOWS / 6 IN)</th> <th>BLOW/FT "N"</th> <th>N<sub>60</sub></th> <th>MOISTURE (%)</th> <th>DRY DENSITY (pcf)</th> <th>OTHER TESTS</th> <th>DEPTH (feet)</th> <th>GRAPHIC LOG</th> <th>DESCRIPTION AND CLASSIFICATION</th> </tr> </thead> <tbody> <tr> <td></td> <td>340</td> <td></td> <td>B-1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td><b>PAVEMENT:</b> 4-inches asphalt concrete over 4-inches aggregate base.</td> </tr> <tr> <td></td> <td></td> <td></td> <td>S-2</td> <td>8 10 19</td> <td>29</td> <td>44</td> <td></td> <td></td> <td></td> <td>PA R  EPA</td> <td></td> <td><b>FILL:</b> SILTY SAND (SM); medium dense; yellowish brown (10YR 5/4); moist; mostly fine to medium SAND; some fines; trace GRAVEL; nonplastic.  (3% Gravel; 64% Sand; 33% Fines)</td> </tr> <tr> <td>5</td> <td></td> <td></td> <td>R-3</td> <td>36 60</td> <td>96</td> <td>98</td> <td>16.5</td> <td>104</td> <td></td> <td></td> <td></td> <td><b>SCRIPPS FORMATION (Tsc):</b>* Poorly-indurated SANDSTONE; medium grained; gray (10YR 6/1); intensely weathered; very soft; (SILTY SAND (SM)); very dense; moist; mostly fine SAND; some fines; nonplastic; trace iron oxide stains).</td> </tr> <tr> <td>10</td> <td></td> <td></td> <td>S-4</td> <td>10 21 36</td> <td>57</td> <td>87</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Trace iron oxide stains.</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Total Depth: 11½ feet No groundwater encountered * Rock Description; (Soil Description)</td> </tr> <tr> <td>15</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>325</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>20</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>320</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>																DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		340		B-1									<b>PAVEMENT:</b> 4-inches asphalt concrete over 4-inches aggregate base.				S-2	8 10 19	29	44				PA R  EPA		<b>FILL:</b> SILTY SAND (SM); medium dense; yellowish brown (10YR 5/4); moist; mostly fine to medium SAND; some fines; trace GRAVEL; nonplastic.  (3% Gravel; 64% Sand; 33% Fines)	5			R-3	36 60	96	98	16.5	104				<b>SCRIPPS FORMATION (Tsc):</b> * Poorly-indurated SANDSTONE; medium grained; gray (10YR 6/1); intensely weathered; very soft; (SILTY SAND (SM)); very dense; moist; mostly fine SAND; some fines; nonplastic; trace iron oxide stains).	10			S-4	10 21 36	57	87						Trace iron oxide stains.													Total Depth: 11½ feet No groundwater encountered * Rock Description; (Soil Description)	15														325												20														320											
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION																																																																																																																																					
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<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.				<b>FIGURE</b>  <b>A-19</b>																																																																																																																																			

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23













BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-20</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/13/2022		FINISH 12/13/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 16		GROUND ELEV (ft) 340		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1									<b>PAVEMENT:</b> 3-inches asphalt concrete over 4-inches aggregate base.	
			R-2	14 15 16	31	32	9.7	117	EPA			<b>FILL:</b> SILTY SAND (SM); medium dense to dense; dark grayish brown (10YR 3/6); moist; mostly fine to medium SAND; some fines; low plasticity.	
5	335		S-3	9 14 14	28	43			EPA	5			
10	330		R-4	22 60	82	84	10.7	105		10		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; yellowish gray (5Y 8/1); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; nonplastic).	
15	325		S-5	25 50	75	100+				15			
20	320									20		Total Depth: 16 feet No groundwater encountered * Rock Description; (Soil Description)	

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San Diego, California 92126

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.

**FIGURE**  
**A-20**

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD										PROJECT NAME UCSD Science Research Park		PROJECT NUMBER SD754A		BORING B-21	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/21/2022		FINISH 12/21/2022		SHEET NO. 1 of 2	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 30.5		GROUND ELEV (ft) 334		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
5	330		B-1									<b>PAVEMENT:</b> 4-inches asphalt concrete over 4½-inches aggregate base.			
			R-2	7 14 23	37	38	8.5	123	EPA			<b>FILL:</b> CLAYEY SAND (SC); medium dense to dense; dark brown (10YR 3/3); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.  Contains some brick fragments and demolition debris.			
			S-3	6 10 6	16	24				EPA	5		Interlayered with SILTY SAND (SM); yellowish brown (10YR 5/6).		
			R-4	11 11 10	21	21	12.9	114	EPA	10		Interlayered CLAYEY SAND (SC) and SILTY SAND (SM); dark yellowish brown (10YR 4/6) and brown (10YR 5/3); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.			
			S-5	12 15 14	29	44				EPA	15		SILTY SAND (SM); dense; yellowish brown (10YR 5/6) to dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; little fines; trace GRAVEL; low plasticity.		
			R-6	11 16 23	39	40	13.7	113	EPA	20					
	310														
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE  A-21 a		

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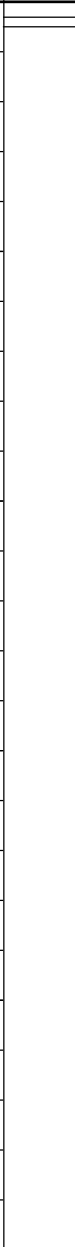
GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-22</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/13/2022		FINISH 12/13/2022		SHEET NO. 1 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 25.5		GROUND ELEV (ft) 340		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1									<b>PAVEMENT:</b> 3-inches asphalt concrete over 4-inches aggregate base.	
			S-2	5 8 11	19	29			EPA			<b>FILL:</b> SILTY SAND (SM); medium dense; dark yellowish brown (10YR 4/4); moist; mostly fine to medium SAND; some fines; low plasticity.	
5	335		R-3	18 41 22	63	64	10.4	115	EPA	5		SILTY SAND (SM); very dense; dark yellowish brown (10YR 4/4); moist; mostly fine to medium SAND; little fines; nonplastic.	
10	330		S-4	6 9 10	19	29			EPA	10		SILTY SAND (SM); medium dense; dark yellowish brown (10YR 4/4); moist; mostly fine SAND; some fines; low plasticity.	
15	325		R-5	7 10 15	25	26	14.4	114	EPA	15		CLAYEY SAND (SC); medium dense; dark reddish brown (10R 3/4); moist; mostly fine to coarse SAND; some fines; low to medium plasticity.	
20	320		S-6	16 26 40	66	100+				20		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light yellowish gray (5Y 8/1); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; nonplastic; iron oxide stains).	

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-22 a</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

<b>BORING RECORD</b>							PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING <b>B-22</b>		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/13/2022		FINISH 12/13/2022		SHEET NO. 2 of 2	
DRILLING COMPANY Pacific Drilling Company							DRILLING METHOD Hollow Stem Auger				LOGGED BY SRN		CHECKED BY MAF		
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig							BORING DIA. (in) 6		TOTAL DEPTH (ft) 25.5		GROUND ELEV (ft) 340		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)							NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
30	310		R-7	50 (6")	100	100+	---	---		30		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light yellowish gray (5Y 8/1); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; nonplastic; slightly micaceous).  Total Depth: 25½ feet No groundwater encountered * Rock Description; (Soil Description)			
35	305									35					
40	300									40					
45	295									45					
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.				<b>FIGURE</b>  A-22 b	















<b>BORING RECORD</b>						PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A			BORING <b>B-23</b>				
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle									START 12/14/2022			FINISH 12/14/2022			SHEET NO. 1 of 2	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger						LOGGED BY SRN			CHECKED BY MAF	
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6			TOTAL DEPTH (ft) 31.5		GROUND ELEV (ft) 337.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N										
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION				
												PAVEMENT: 3-inches asphalt concrete over 4-inches aggregate base.				
5	335	R-2	B-1	5 16 13	29	29	9.2	108	EPA	5		FILL: CLAYEY SAND (SC); medium dense; yellowish brown (10YR 5/6) mottled with gray (10YR 6/1); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.  (1% Gravel; 61% Sand; 38% Fines)				
		S-3		4 7 9	16	24			EPA							
10	330	R-4		9 11 13	24	24	10.9	120	EPA	10						
15	325	S-5		4 4 5	9	14			EPA	15		SANDY LEAN CLAY (CL); stiff; very dark grayish brown (10YR 3/2); moist; mostly fines; some fine SAND; medium plasticity.				
20	320	R-6		8 12 16	28	29	10.8	117	EPA	20		SILTY SAND (SM); medium dense; yellowish brown (10YR 5/4); moist; mostly fine to medium SAND; little fines; trace GRAVEL; nonplastic.				
	315															
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE  A-23 a			

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-23</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/14/2022		FINISH 12/14/2022		SHEET NO. 2 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 31.5		GROUND ELEV (ft) 337.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
310			S-7	28 42 100	100+	100+						<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; pale brown (10YR 6/3); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; little fines; nonplastic; trace of iron oxide stains).  Light grayish brown (10YR 7/2); trace iron oxide stains.	
30			R-8	16 42 100	100+	100+	---	---		30			
305												Total Depth: 31½ feet No groundwater encountered * Rock Description; (Soil Description)	
35										35			
40										40			
45										45			
295													
290													

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  A-23 b
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD										PROJECT NAME UCSD Science Research Park		PROJECT NUMBER SD754A		BORING B-24	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/13/2022		FINISH 12/13/2022		SHEET NO. 1 of 2	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 31		GROUND ELEV (ft) 340.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
5	340		B-1						PA			<b>PAVEMENT:</b> 3-inches asphalt concrete over 4-inches aggregate base.			
			R-2	11 11 22	33	34	10.4	120	EPA			<b>FILL:</b> SILTY SAND (SM); medium dense to dense; dark yellowish brown (10YR 4/4); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.  (3% Gravel; 57% Sand; 40% Fines)			
															
			S-3	8 9 10	19	29			EPA	5		Dark reddish brown (10R 3/4).			
10	335														
	330		R-4	7 10 14	24	24	11.9	118	EPA	10		Moderate olive brown (5Y 4/4).			
15															
	325		S-5	9 11 13	24	37			EPA	15		CLAYEY SAND (SC); medium dense to dense; moderate olive brown (5Y 4/4); moist; mostly fine to medium SAND; some fines; low to medium plasticity.  Several brick fragments observed in sampler.			
20															
	320		R-6	12 12 15	27	28	8.1	116	EPA	20		Rubble and brick fragments observed in sampler.			
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.				FIGURE  A-24 a	

<b>BORING RECORD</b>						PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A				BORING <b>B-24</b>			
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle								START 12/13/2022				FINISH 12/13/2022				SHEET NO. 2 of 2	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger						LOGGED BY SRN				CHECKED BY MAF	
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 31		GROUND ELEV (ft) 340.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na					
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N											
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION					
	315	X	S-7	27 35 75	100+	100+						<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light yellowish gray (10YR 6/2); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; nonplastic; iron oxide stains).  Total Depth: 31 feet No groundwater encountered * Rock Description; (Soil Description)					
30	310	X	R-8	40 50 (3")	100+	100+	---	---		30							
												Total Depth: 31 feet No groundwater encountered * Rock Description; (Soil Description)					
35	305									35							
40	300									40							
45	295									45							
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.					FIGURE  A-24 b		

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23


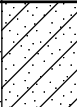
































BORING RECORD							PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING B-25		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/22/2022		FINISH 12/22/2022		SHEET NO. 1 of 2	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Limited Access Track Mounted Rig (Fraste)						BORING DIA. (in) 6		TOTAL DEPTH (ft) 36		GROUND ELEV (ft) 324.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 83%, N <sub>60</sub> ~ 83/60 * N ~ 1.38 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
5	320		B-1						PA EI			<b>FILL:</b> SILTY SAND (SM); medium dense to dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; few GRAVEL; low plasticity.  (4% Gravel; 60% Sand; 36% Fines)			
			R-2	22 24 43	67	62	9.2	120	EPA						
			S-3	9 9 12	21	29			EPA	5					
10	315		R-4	14 15 18	33	30	16.3	111	EPA C	10		CLAYEY SAND (SC); dense; yellowish brown (10YR 5/8); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.			
15	310		S-5	23 13 15	28	39			EPA	15		SILTY SAND (SM); medium dense to dense; black (10YR 2/1); moist; mostly fine to medium SAND; little fines; trace GRAVEL; low plasticity.  Contains some vegetative debris.			
20	305		R-6	13 10 18	28	26	9.3	120	EPA	20					
300															
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.				FIGURE  A-25 a	

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-25</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/22/2022		FINISH 12/22/2022		SHEET NO. 2 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Limited Access Track Mounted Rig (Fraste)					BORING DIA. (in) 6		TOTAL DEPTH (ft) 36		GROUND ELEV (ft) 324.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 83%, N <sub>60</sub> ~ 83/60 * N ~ 1.38 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			S-7	18 12 11	23	32			EPA			<b>FILL:</b> SILTY SAND (SM); dense; dark grayish brown (10YR 4/2); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.  Contains some vegetative debris.	
30	295		R-8	28 15 60	75	69	8.4	101	EPA	30		Very dense; dark grayish brown (10YR 3/2).	
35	290		S-9	33 60	93	100+				35		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light yellow brown (10YR 6/4); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic; trace iron oxide stains; slightly micaceous).	
40	285									40		Total Depth: 36 feet No groundwater encountered * Rock Description; (Soil Description)	
45	280									45			
	275												

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  A-25 b
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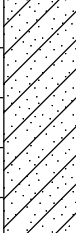






GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING B-26	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/21/2022		FINISH 12/21/2022		SHEET NO. 1 of 3		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 55.5		GROUND ELEV (ft) 334		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1						PA EI CP			<b>FILL:</b> CLAYEY SAND (SC); medium dense to dense; dark brown (10YR 3/3); moist; mostly fine to medium SAND; some fines; few GRAVEL; low plasticity.	
			S-2	12 9 12	21	32			EPA			(6% Gravel; 55% Sand; 39% Fines)	
5	330		R-3	16 20 28	48	49	7.5	117	EPA	5		Dark yellowish brown (10YR 4/6).	
													
													
10	325		S-4	4 6 6	12	18			EPA	10		SILTY SAND (SM); medium dense to dense; dark yellowish brown (10YR 3/6); moist; mostly fine to medium SAND; some fines; low plasticity.	
													
15	320		R-5	18 20 24	44	45	11.1	119	EPA	15		Dense; dark grayish brown (10YR 3/2); mostly fine to coarse SAND; trace GRAVEL.	
													
20	315		S-6	13 14 13	27	41			EPA	20		Dark yellowish brown (10YR 4/4); mostly fine to medium SAND.	
													
													
													
												CLAYEY SAND (SC); dense; dark grayish brown (10YR 4/2); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.	
													
													
													

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  A-26 a
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754 LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD										PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING B-26	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/21/2022		FINISH 12/21/2022		SHEET NO. 2 of 3			
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY CRJ		CHECKED BY MAF					
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 55.5		GROUND ELEV (ft) 334		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na					
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N											
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION					
30	305		R-7	50 (6")	100	100+	---	---	EPA	30		<b>FILL:</b> CLAYEY SAND (SC); very dense; dark grayish brown (10YR 4/2); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.  Gravel in sampler (inflated blow counts). Entire sample used for environmental testing.					
35	300		R-9	22 32 41	73	74	10.2	120	EPA	35		SILTY SAND (SM); dense to very dense; dark grayish brown (10YR 4/2); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.					
40	295		S-10	11 13 14	27	41			EPA	40							
45	290		R-11	17 25 42	67	68	10.3	125	EPA	45		CLAYEY SAND (SC); dense to very dense; dark yellowish brown (10YR 3/4); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.					
285																	

GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	FIGURE A-26 b
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<b>BORING RECORD</b>				PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A				BORING <b>B-27</b>									
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle								START 12/22/2022				FINISH 12/22/2022				SHEET NO. 1 of 1					
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger						LOGGED BY CRJ				CHECKED BY MAF					
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6				TOTAL DEPTH (ft) 11.5				GROUND ELEV (ft) 331				DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N															
<div> <div>DEPTH (feet)</div> <div>ELEVATION (feet)</div> <div>SAMPLE TYPE</div> <div>SAMPLE NO.</div> <div>PENETRATION RESISTANCE (BLOWS / 6 IN)</div> <div>BLOW/FT "N"</div> <div>N<sub>60</sub></div> <div>MOISTURE (%)</div> <div>DRY DENSITY (pcf)</div> <div>OTHER TESTS</div> <div>DEPTH (feet)</div> <div>GRAPHIC LOG</div> <div>DESCRIPTION AND CLASSIFICATION</div> </div>																					
<div> <div>330</div> <div>B-1</div> <div>11</div> <div>41</div> <div>63</div> <div></div> <div></div> <div></div> <div></div> <div>5</div> <div></div> <div> <b>FILL:</b> SILTY SAND (SM); medium dense to dense; dark yellowish brown (10YR 4/6); moist; mostly fine SAND; some fines; trace GRAVEL; low plasticity. </div> </div>																					
<div> <div>325</div> <div>R-3</div> <div>12</div> <div>38</div> <div>39</div> <div>16.3</div> <div>113</div> <div>EPA</div> <div>5</div> <div></div> <div> Mottled dark yellowish brown (10YR 4/6) and very pale brown (10YR 7/3). </div> </div>																					
<div> <div>320</div> <div>S-4</div> <div>13</div> <div>47</div> <div>72</div> <div></div> <div></div> <div></div> <div></div> <div>10</div> <div></div> <div> <b>SCRIPPS FORMATION (Tsc):</b>* Poorly-indurated SANDSTONE; medium grained; yellow to yellowish brown (10YR 5/4); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; low plasticity; trace iron oxide stains). </div> </div>																					
<div> <div>315</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>15</div> <div></div> <div> Total Depth: 11½ feet No groundwater encountered * Rock Description; (Soil Description) </div> </div>																					
<div> <div>310</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>20</div> <div></div> <div></div> </div>																					
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.				<b>FIGURE</b>  A-27							

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD						PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING B-28			
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/21/2022		FINISH 12/21/2022		SHEET NO. 1 of 3	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 56.5		GROUND ELEV (ft) 335		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
5	330		B-1							5		<b>FILL:</b> SILTY SAND (SM); dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.			
			R-2	19 30 20	50	51	6.1	118	EPA						
			S-3	8 12 12	24	37			EPA				Yellowish brown (10YR 5/4).		
10	325		R-4	20 21 37	58	59	10.0	121	EPA DS	10		CLAYEY SAND (SC); medium dense to dense; brown (10YR 4/4); moist; mostly fine to coarse SAND; some fines; trace GRAVEL; low plasticity.			
			S-5	8 8 9	17	26			EPA				Medium dense; dark yellowish brown (10YR 4/4); mostly fine to medium SAND.		
20	315		R-6	28 35 75	100+	100+	---	---	EPA	20		SILTY SAND (SM); dense to very dense; dark yellowish brown (10YR 4/4); moist; mostly fine to medium SAND; some fines; low plasticity.  Trace GRAVEL (likley inflated blow counts). Entire sample used for environmental testing.			
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE  A-28 a		

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-28</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/21/2022		FINISH 12/21/2022		SHEET NO. 2 of 3		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 56.5		GROUND ELEV (ft) 335		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			S-7	10 11 13	24	37			EPA			<b>FILL:</b> CLAYEY SAND (SC); dense to very dense; very dark grayish brown (10YR 3/2); moist; mostly fine to medium SAND; some fines; low plasticity.	
30	305		R-8	14 22 40	62	63	13.6	121	EPA	30			
35	300		S-9	10 10 13	23	35			EPA	35			Dense; dark yellowish brown (10YR 4/6).  Contains asphalt concrete fragments and vegetative debris.
40	295		R-10	13 27 36	63	64	14.9	113	EPA	40			Very dense; dark grayish brown (10YR 4/2).
45	290		S-11	10 12 13	25	38			EPA	45		Dense; dark yellowish brown (10YR 4/6).	

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  A-28 b
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-28</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/21/2022		FINISH 12/21/2022		SHEET NO. 3 of 3		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 56.5		GROUND ELEV (ft) 335		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			R-12	20 24 24	48	49	15.1	114	EPA			<b>FILL:</b> CLAYEY SAND (SC); dense; mottled black (10YR 2/2) abd dark grayish brown (10YR 4/2); moist; mostly fine to medium SAND; some fines; low plasticity.	
55	280		S-13	28 43 100	100+	100+				55		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 5/6); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic; iron oxide stains).	
60	275									60		Total Depth: 56½ feet No groundwater encountered * Rock Description; (Soil Description)	
65	270									65			
70	265									70			

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-28 c</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING B-29	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/20/2022		FINISH 12/20/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 6.5		GROUND ELEV (ft) 328		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1									<b>FILL:</b> SILTY SAND (SM); medium dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; low plasticity. Trace vegetative debris.	
	325		R-2	5 22 75	97	99	19.6	108	EPA				<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; dark yellowish brown (10YR 4/6); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; low plasticity). Yellowish brown (10YR 6/6).
5			S-3	23 29 36	65	99				5			
	320											Total Depth: 6½ feet No groundwater encountered * Rock Description; (Soil Description)	
10										10			
	315												
15										15			
	310												
20										20			
	305												

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  A-29
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-30</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/20/2022		FINISH 12/20/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 6		GROUND ELEV (ft) 330		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1						PA			<b>FILL:</b> SILTY SAND (SM); medium dense; yellowish brown (10YR 5/4); moist; mostly fine to medium SAND; some fines; low plasticity. Trace vegetative debris. (0% Gravel; 69% Sand; 31% Fines)	
			S-2	6 14 28	42	64			EPA			<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; dark yellowish brown (10YR 5/4) grades to light yellowish brown (10YR 6/4); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; low plasticity; iron oxide stains; slightly micaceous).	
5	325		R-3	35 60	95	97	8.2	108		5			
												Total Depth: 6 feet No groundwater encountered * Rock Description; (Soil Description)	
10	320									10			
15	315									15			
20	310									20			

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-30</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-31</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/20/2022		FINISH 12/20/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 16.5		GROUND ELEV (ft) 332.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1										
	330		R-2	14 33 31	64	65	7.5	125	EPA			<b>FILL:</b> SILTY SAND (SM); dense to very dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; little GRAVEL; low plasticity.	
5			S-3	12 13 12	25	38			EPA	5		Dense; yellowish brown (10YR 6/6); trace GRAVEL.	
	325												
10			R-4	31 36 50	86	88	9.3	123	EPA	10		Very dense; dark yellowish brown (10YR 3/3); increased moisture content; mostly fine to coarse grained SAND; some fines; trace GRAVEL; low plasticity; trace vegetative debris.	
	320												
15			S-5	36 24 25	49	75				15		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 6/6); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; low plasticity).	
	315											Total Depth: 16½ feet No groundwater encountered * Rock Description; (Soil Description)	
20										20			
	310												


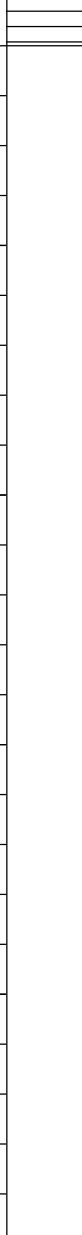
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-31</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-32</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/20/2022		FINISH 12/20/2022		SHEET NO. 1 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 26		GROUND ELEV (ft) 334.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1										
			S-2	8 14 17	31	47			EPA				
5	330		R-3	22 36 39	75	77	8.2	125	EPA	5		Dark yellowish brown (10YR 4/6); trace GRAVEL.	
10	325		S-4	11 11 10	21	32			EPA	10		CLAYEY SAND (SC); dense; yellowish brown (10YR 4/4); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.	
15	320		R-5	17 60	77	79	22.3	103	EPA PA	15		SILT WITH SAND (ML); very dense; yellowish brown (10YR 5/4), moist; mostly fines; some fine SAND; low plasticity.  (0% Gravel; 25% Sand; 75% Fines)	
20	315		S-6	17 19 19	38	58				20		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; pale and dark brown (10YR 7/3 to 10YR 3/3); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; low plasticity; iron oxide stains).	
	310												

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-32 a</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

<b>BORING RECORD</b>							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-32</b>		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/20/2022		FINISH 12/20/2022		SHEET NO. 2 of 2			
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF				
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 26		GROUND ELEV (ft) 334.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
			R-7	25 50 (4")	100	100+	---	---				<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; pale and dark brown (10YR 7/3 to 10YR 3/3); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; low plasticity).  Total Depth: 26 feet No groundwater encountered * Rock Description; (Soil Description)		
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			<b>FIGURE</b>  A-32 b	

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23




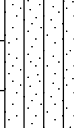

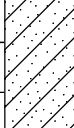

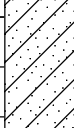

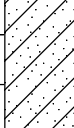


BORING RECORD							PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING B-33		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/19/2022		FINISH 12/19/2022		SHEET NO. 1 of 2	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger					LOGGED BY CRJ		CHECKED BY MAF		
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 41		GROUND ELEV (ft) 338		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
5	335		B-1									<b>PAVEMENT:</b> 4½-inches asphalt concrete over 5½-inches aggregate base.			
			R-2	6 9 12	21	21	13.2	115	PA CR EI EPA DS			<b>FILL:</b> CLAYEY SAND (SC); medium dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.  (2% Gravel; 61% Sand; 37% Fines)			
			S-3	3 6 8	14	21			EPA	5					
10	330		R-4	7 21 30	51	52	20.4	96	EPA	10		CLAYEY SAND (SC); dense to very dense; dark yellowish brown (10YR 4/6); moist; mostly fine to coarse SAND; some fines; trace GRAVEL; low plasticity.			
15	325		S-5	11 12 13	25	38			EPA	15					
20	320		R-6	12 24 28	52	53	14.5	118	EPA	20		SILTY SAND (SM); very dense; dark yellowish brown (10YR 3/4); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.			
	315														
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE  A-33 a		

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-33</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/19/2022		FINISH 12/19/2022		SHEET NO. 2 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 41		GROUND ELEV (ft) 338		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
310			S-7	12 14 16	30	46			EPA			<b>FILL:</b> CLAYEY SAND (SC); dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; low plasticity.  Fragments of asphalt concrete and debris.	
30			R-8	18 26 38	64	65	10.4	116	EPA PA	30		(0% Gravel; 71% Sand; 29% Fines)  SANDY LEAN CLAY (CL); hard; dark yellowish brown (10YR 3/4); moist; mostly fines; some fine to medium SAND; trace GRAVEL; low plasticity. Contains some vegetative debris.	
305													
35			S-9	8 8 22	30	46			EPA	35		CLAYEY SAND (SC); dense; dark grayish brown (10YR 3/1); moist; mostly fine to medium SAND; some fines; low plasticity.	
300													
40			R-10	44 60	100+	100+	---	---		40		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light yellowish brown (10YR 6/4); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic; trace iron oxide stains; slightly micaceous).	
295												Total Depth: 41 feet No groundwater encountered * Rock Description; (Soil Description)	
45										45			
290													

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-33 b</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754 LOGS (PHASE 2)/GPJ GDCLOG.GDT 1/6/23








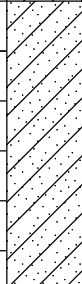

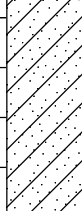

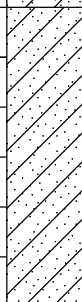
BORING RECORD							PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING B-34		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/20/2022		FINISH 12/20/2022		SHEET NO. 1 of 2	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 46.5		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
	335		B-1									<b>PAVEMENT:</b> 3-inches asphalt concrete over 4½-inches aggregate base.			
			R-2	9 14 13	27	28	10.9	118	EPA			<b>FILL:</b> SILTY SAND (SM); medium dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; low plasticity. Trace GRAVEL.			
5			S-3	6 6 5	11	17			EPA	5		CLAYEY SAND (SC); medium dense; dark yellowish brown (10YR 3/4); moist; mostly fine to medium SAND; some fines; low plasticity.			
	330														
10			R-4	7 13 25	38	39	11.5	119	EPA	10		Dense; yellowish brown (10YR 4/3); trace GRAVEL.			
	325														
15			S-5	8 10 12	22	34			EPA	15		Contains asphalt concrete debris; angular gravel to 4 inches in maximum dimension.			
	320														
20			R-6	13 25 49	74	75	10.5	121	EPA	20		SILTY SAND (SM); dense to very dense; dark grayish brown (10YR 3/2); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.  Contains asphalt concrete and plastic debris.			
	315														
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.				FIGURE  A-34 a	

GDC\_LOG\_BORING\_MM\_X\_SOIL\_SD\_SD754 LOGS (PHASE 2) GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-34</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/20/2022		FINISH 12/20/2022		SHEET NO. 2 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 46.5		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
310			S-7	11 19 13	32	49			EPA			<b>FILL:</b> SILTY SAND (SM); dense to very dense; dark grayish brown (10YR 3/2); moist; mostly fine to medium SAND; some fines; low plasticity.  Contains some vegetative debris.	
30	305		R-8	9 23 46	79	81	11.5	121	EPA	30			
35	300		S-9	7 9 20	29	44			EPA	35		CLAYEY SAND (SC); dense to very dense; dark grayish brown (10YR 5/2); moist; mostly fine to medium SAND; some fines; low plasticity.  Contains vegetative debris.	
40	295		R-10	12 28 60	88	90	13.3	120	EPA	40			
45	290		S-11	28 41 50	91	100+				45		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light and dark yellowish brown (10YR 6/4 and 10YR 4/6); intensely weathered; very soft; (POORLY GRADED SAND WITH SILT (SP-SM); very dense; moist; mostly fine to medium SAND; few to little fines; nonplastic; iron oxide stains).	
												Total Depth: 46½ feet No groundwater encountered * Rock Description; (Soil Description)	


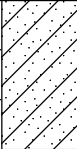


<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-34 b</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD										PROJECT NAME UCSD Science Research Park		PROJECT NUMBER SD754A		BORING B-35	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/16/2022		FINISH 12/16/2022		SHEET NO. 1 of 2	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 31		GROUND ELEV (ft) 337		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
			B-1									<b>PAVEMENT:</b> 4-inches asphalt concrete over 5-inches aggregate base.			
	335		R-2	7 11 11	22	22	9.6	107	EPA			<b>FILL:</b> CLAYEY SAND (SC); medium dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; low plasticity.			
5			S-3	8 6 6	12	18			PA CR EI EPA	5		SANDY LEAN CLAY (CL); stiff; dark yellowish brown (10YR 4/6); moist; mostly fines; some fine to medium SAND; low plasticity.  (1% Gravel; 37% Sand; 62% Fines)			
	330														
10			R-4	8 11 24	35	36	16.6	111	EPA	10		CLAYEY SAND (SC); dense; dark grayish brown (5YR 3/2); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity. Contains some asphalt concrete fragments.			
	325														
15			S-5	8 8 14	22	34			EPA	15					
	320														
20			R-6	13 22 34	56	57	11.4	120	EPA	20		CLAYEY SAND (SC); very dense; dark grayish brown (5YR 3/2); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.			
	315														
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE A-35 a		



GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-35</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/16/2022		FINISH 12/16/2022		SHEET NO. 2 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 31		GROUND ELEV (ft) 337		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
310			S-7	12 12 11	23	35			EPA			<b>FILL:</b> CLAYEY SAND (SC); very dense; dark grayish brown (5YR 3/2); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.	
30			R-8	30 50 (3")	100+	100+	---	---		30		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light yellowish brown (10YR 6/4); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; little fines; nonplastic; iron-oxide stains).	
305												Total Depth: 31 feet No groundwater encountered * Rock Description; (Soil Description)	
35										35			
300													
40										40			
295													
45										45			
290													

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-35 b</b>
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# BORING RECORD

PROJECT NAME
UCSD Science Research Park

PROJECT NUMBER	SD754A
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**BORING**  
**B-36**

## SITE LOCATION

Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle

START	12/19/2022
-------	------------

FINISH	12/19/2022
--------	------------

<b>SHEET NO.</b>
1 of 2

**DRILLING COMPANY**

Pacific Drilling Company

## DRILLING METHOD

## Hollow Stem Auger

LOGGED BY	
-----------	--

CRJ

CHECKED BY	
------------	--

MAF

## DRILLING EQUIPMENT

Marl M10 (Yeti) Truck Mounted Rig

BORING DIA. (in)	
1	12.00
2	12.00
3	12.00
4	12.00
5	12.00
6	12.00
7	12.00
8	12.00
9	12.00
10	12.00
11	12.00
12	12.00
13	12.00
14	12.00
15	12.00
16	12.00
17	12.00
18	12.00
19	12.00
20	12.00
21	12.00
22	12.00
23	12.00
24	12.00
25	12.00
26	12.00
27	12.00
28	12.00
29	12.00
30	12.00
31	12.00
32	12.00
33	12.00
34	12.00
35	12.00
36	12.00
37	12.00
38	12.00
39	12.00
40	12.00
41	12.00
42	12.00
43	12.00
44	12.00
45	12.00
46	12.00
47	12.00
48	12.00
49	12.00
50	12.00
51	12.00
52	12.00
53	12.00
54	12.00
55	12.00
56	12.00
57	12.00
58	12.00
59	12.00
60	12.00
61	12.00
62	12.00
63	12.00
64	12.00
65	12.00
66	12.00
67	12.00
68	12.00
69	12.00
70	12.00
71	12.00
72	12.00
73	12.00
74	12.00
75	12.00
76	12.00
77	12.00
78	12.00
79	12.00
80	12.00
81	12.00
82	12.00
83	12.00
84	12.00
85	12.00
86	12.00
87	12.00
88	12.00
89	12.00
90	12.00
91	12.00
92	12.00
93	12.00
94	12.00
95	12.00
96	12.00
97	12.00
98	12.00
99	12.00
100	12.00

6

## TOTAL DEPTH (ft)

31.5

GROUND ELEV (ft)
------------------

337

DEPTH/ELEV. GROUNDWATER (ft)
------------------------------

▼ N/A / na

## SAMPLING METHOD

Hammer: 140 lbs., Drop: 30 in. (Automatic)

NOTES
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$$\text{ETR} \sim 92\%, N_{60} \sim 92/60 * N \sim 1.53 * N$$
[illegible]

**GROUP DELTA CONSULTANTS, INC.**  
9245 Activity Road, Suite 103  
San Diego, California 92126

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FIGURE  
A-36 a





















GDC LOG BORING\_MMXX SOIL\_SD SD754 LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING B-36	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/19/2022		FINISH 12/19/2022		SHEET NO. 2 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 31.5		GROUND ELEV (ft) 337		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
310			R-7	37 60	97	99	14.0	105	EPA			<b>FILL:</b> CLAYEY SAND (SC); very dense; very dark grayish brown (10YR 3/2); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.	
30			S-8	31 34 50	84	100+				30		<b>SCRIPPS FORMATION (Tsc):</b> * Poorly-indurated SANDSTONE; fine grained; light yellowish brown (10YR 6/4); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; some fines; nonplastic; iron-oxide stains).	
305												Total Depth: 31½ feet No groundwater encountered * Rock Description; (Soil Description)	
35										35			
300													
40										40			
295													
45										45			
290													

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  A-36 b
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING B-37	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/16/2022		FINISH 12/16/2022		SHEET NO. 1 of 3		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 50.5		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
	335		B-1									<b>PAVEMENT:</b> 4-inches asphalt concrete over 4-inches aggregate base.	
			S-2	3 7 9	16	24			EPA			<b>FILL:</b> SILTY SAND (SM); medium dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; low plasticity.	
5													
	330		R-3	7 9 14	23	23	11.2	120	EPA C	5		SANDY LEAN CLAY (CL); very stiff; dark yellowish brown (10YR 4/6); moist; mostly fines; some fine to medium SAND; trace GRAVEL; low plasticity.	
													
10			S-4	10 15 18	33	50			EPA	10		Light yellowish brown (10YR 6/4); hard.	
	325												
													
15			R-5	12 22 31	53	54	10.4	115	EPA DS	15		CLAYEY SAND (SC); dense to very dense; mottled dark grayish brown (10YR 3/2) and yellowish brown (10YR 3/6); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.	
	320												
													
20			S-6	7 11 11	22	34			EPA	20			
	315												
													

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-37 a</b>
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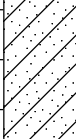





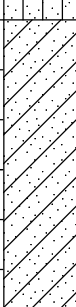


GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING B-37	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/16/2022		FINISH 12/16/2022		SHEET NO. 2 of 3		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 50.5		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
310			R-7	12 19 36	55	56	12.1	119	EPA			<b>FILL:</b> CLAYEY SAND (SC); very dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.  Contains asphalt concrete fragments and debris.	
30			S-8	12 14 21	35	54			EPA	30		Very difficult drilling starting at 33 feet - likely due to increased GRAVEL content.	
35			R-9	25 50	100+	100+	---	---	EPA	35		GRAVEL in sampler inflated blow counts. Entire sample used for environmental testing.	
40			S-10	11 15 15	30	46			EPA	40		CLAYEY SAND (SC); dense; mottled dark yellowish brown (10YR 3/2) and very dark brown (10YR 2/2); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.	
45			R-11	16 18 30	48	49	---	---	EPA	45		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; very dark grayish brown (10YR 3/2); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic).	












<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-37 b</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD										PROJECT NAME UCSD Science Research Park		PROJECT NUMBER SD754A		BORING B-38	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/15/2022		FINISH 12/16/2022		SHEET NO. 1 of 3	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 50.5		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
	335		B-1									<b>PAVEMENT:</b> 4-inches asphalt concrete over 4-inches aggregate base.			
			S-2	9 8 9	17	26			EPA			<b>FILL:</b> CLAYEY SAND (SC); medium dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; low plasticity.			
5			R-3	13 14 4	18	18	11.2	118	EPA	5		SILTY SAND (SM); medium dense to dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; low plasticity.			
	330														
10			S-4	6 7 14	21	32			EPA	10		Contains asphalt concrete fragments and debris.			
	325														
15			R-5	16 10 21	31	32	3.2	129	EPA	15		CLAYEY SAND (SC); dense; very dark grayish brown (10YR 3/2); moist; mostly fine to medium SAND; some fines; low plasticity.			
	320														
20			S-6	6 8 7	15	23			EPA	20		SANDY LEAN CLAY (CL); very stiff; dark grayish brown (10YR 3/2); moist; mostly fines; some fine to medium SAND; low to medium plasticity.			
	315														
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE  A-38 a		

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING B-38		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/15/2022		FINISH 12/16/2022		SHEET NO. 2 of 3	
DRILLING COMPANY Pacific Drilling Company							DRILLING METHOD Hollow Stem Auger				LOGGED BY CRJ		CHECKED BY MAF		
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig							BORING DIA. (in) 6		TOTAL DEPTH (ft) 50.5		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)							NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
310			R-7	12 16 22	38	39	11.6	113	EPA			<b>FILL:</b> CLAYEY SAND (SC); dense; very dark grayish brown (10YR 3/2); moist; mostly fine to medium SAND; some fines; low plasticity.			
30	305		S-8	12 15 16	31	47			EPA	30		Dark yellowish brown (10YR 3/6).			
35	300		R-9	14 21 31	52	53	10.2	120	EPA	35		SILTY SAND (SM); very dense; light yellowish brown (10YR 6/4); moist; mostly fine to medium SAND; some fines; nonplastic.			
40	295		S-10	12 16 19	35	54			EPA	40		CLAYEY SAND (SC); very dense; mottled dark yellowish brown (10YR 3/2) and gray (10YR 6/1); moist; mostly fine to medium SAND; some fines; low plasticity.			
45	290		R-11	50 (3")	100+	100+	---	---		45		No sample recovery.			
												<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SILTSTONE; medium grained; very pale brown (10YR 8/1); intensely weathered; very soft; (SANDY SILT (ML); very dense; moist; mostly fines; little fine SAND; low plasticity; strongly cemented).			
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE  A-38 b		





GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING <b>B-39</b>		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/15/2022		FINISH 12/15/2022		SHEET NO. 1 of 2	
DRILLING COMPANY Pacific Drilling Company							DRILLING METHOD Hollow Stem Auger				LOGGED BY CRJ		CHECKED BY MAF		
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig							BORING DIA. (in) 6		TOTAL DEPTH (ft) 31		GROUND ELEV (ft) 335.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)							NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
	335	[Pattern]	B-1						PA R		[Pattern]	<b>PAVEMENT:</b> 4-inches asphalt concrete over 5-inches aggregate base.  <b>FILL:</b> CLAYEY SAND (SC); medium dense; mottled dark yellowish brown (10YR 3/4) and very pale brown (10YR 2/3); moist; mostly fine to medium SAND; some fines; few GRAVEL; low plasticity.  (7% Gravel; 43% Sand; 50% Fines)  Dark yellowish brown (10YR 7/3).			
		[Pattern]	S-2	5 7 7	14	21			EPA		[Pattern]				
5	330	[Pattern]	R-3	6 9 13	22	22	11.1	111	EPA	5	[Pattern]				
		[Pattern]									[Pattern]				
10	325	[Pattern]	S-4	10 15 15	30	46			EPA	10	[Pattern]	SILTY SAND (SM); dense; dark yellowish brown (10YR 7/3); moist; mostly fine to medium SAND; some fines; nonplastic.			
		[Pattern]									[Pattern]				
15	320	[Pattern]	R-5	8 16 25	41	42	13.0	116	EPA	15	[Pattern]	Dark yellowish brown (10YR 3/6).			
		[Pattern]									[Pattern]				
20	315	[Pattern]	S-6	10 12 13	25	38			EPA	20	[Pattern]				
		[Pattern]									[Pattern]				



























<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-39 a</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-39</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/15/2022		FINISH 12/15/2022		SHEET NO. 2 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 31		GROUND ELEV (ft) 335.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
310			R-7	16 49 150	100+	100+	---	---				<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light brownish gray (10YR 6/2) and brownish yellow (10YR 6/8); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic).	
30	305		S-8	23 50 (4")	100+	100+				30			
35	300									35		Total Depth: 31 feet No groundwater encountered * Rock Description; (Soil Description)	
40	295									40			
45	290									45			

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-39 b</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23




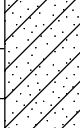


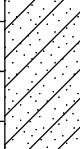

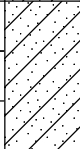

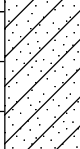


BORING RECORD							PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING B-40		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/15/2022		FINISH 12/15/2022		SHEET NO. 1 of 2	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 36.5		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
	335		B-1									<b>PAVEMENT:</b> 4-inches asphalt concrete over 4½-inches aggregate base.			
			R-2	9 11 11	22	22	13.2	111	EPA			<b>FILL:</b> CLAYEY SAND (SC); medium dense; very dark grayish brown (10YR 3/2); moist; mostly fine to medium SAND; some fines; low plasticity.			
5										5					
	330		S-3	7 8 7	15	23			EPA						
															
10			R-4	7 13 11	24	24	11.0	116	EPA			Increased SAND content; little fines.			
	325														
			S-5	10 13 13	26	40			EPA			SILTY SAND (SM); dense; dark grayish brown (10YR 4/2); moist; mostly fine to medium SAND; some fines; nonplastic.			
15										15					
	320														
			R-6	14 15 25	40	41	10.1	113	EPA			Same.			
20										20					
	315														
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.				FIGURE  A-40 a	

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-40</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/15/2022		FINISH 12/15/2022		SHEET NO. 2 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 36.5		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
310			S-7	14 13 11	24	37			EPA			<b>FILL:</b> SILTY SAND (SM); dense; dark yellowish brown (10YR 3/6); moist; mostly fine to medium SAND; little fines; nonplastic.	
30	305		R-8	12 13 24	37	38	21.8	105	EPA	30		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; mottled light brownish gray (10YR 6/2) and brownish yellow (10YR 6/8); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic).	
35	300		S-9	31 38 100	100+	100+				35		Total Depth: 36½ feet No groundwater encountered * Rock Description; (Soil Description)	
40	295									40			
45	290									45			

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  A-40 b
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GDC\_LOG\_BORING\_MM\_X\_SOIL\_SD\_SD754 LOGS (PHASE 2)/GPJ GDCLOG.GDT 1/6/23













BORING RECORD							PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING B-41		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/19/2022		FINISH 12/19/2022		SHEET NO. 1 of 2	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 46		GROUND ELEV (ft) 336.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
5	335		B-1									PAVEMENT: 4-inches asphalt concrete over 4½-inches aggregate base.			
			R-2	4 4 6	10	10	6.0	113	EPA			FILL: CLAYEY SAND (SC); loose to medium dense; dark brown (10YR 4/3); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.			
															
			S-3	5 6 8	14	21			EPA	5		Brown (10YR 5/4).			
		330													
10															
			R-4	15 19 24	43	44	12.5	118	EPA	10		CLAYEY SAND (SC); medium dense to dense; dark brown (10YR 4/3); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.			
15															
			S-5	8 9 10	19	29			EPA	15		Yellowish brown (10YR 4/3).			
20															
			R-6	8 12 18	30	31	12.6	118	EPA	20		Dark brown (10YR 3/4).			
	315														
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE  A-41 a		

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-41</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/19/2022		FINISH 12/19/2022		SHEET NO. 2 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 46		GROUND ELEV (ft) 336.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
310			S-7	14 12 19	31	47			EPA			<b>FILL:</b> CLAYEY SAND (SC); dense; dark brown (10YR 3/3); moist; mostly fine to medium SAND; little fines; trace GRAVEL; low plasticity.	
30	305		R-8	13 20 22	42	43	25.3	106	EPA	30			
35	300		S-9	9 14 13	27	41			EPA	35		SILTY SAND (SM); dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; low plasticity. Contains asphalt concrete debris.	
40	295		R-10	10 15 30	45	46	15.9	111	EPA	40		CLAYEY SAND (SC); dense; mottled dark grayish brown (10YR 3/3); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.  Contains vegetative debris.	
45	290		S-11	25 50	100	100+				45		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light grayish brown (10YR 6/2); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; some fines; nonplastic; iron oxide stains).	
												Total Depth: 46 feet No groundwater encountered * Rock Description; (Soil Description)	












<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  <b>A-41 b</b>
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING B-42		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/13/2022		FINISH 12/13/2022		SHEET NO. 1 of 3	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 56		GROUND ELEV (ft) 340.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
5	340		B-1						PA CR EI			<b>PAVEMENT:</b> 4-inches asphalt concrete over 4-inches aggregate base.			
			S-2	5 15 18	33	50			EPA			<b>FILL:</b> SILTY SAND (SM); medium dense to very dense; dark reddish brown (10R 3/4); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.  (4% Gravel; 60% Sand; 36% Fines)			
			R-3	11 22 29	51	52	8.3	122	EPA	5					
10	330		S-4	8 9 10	19	29			EPA	10		Moderate olive brown (5Y 4/4); medium dense.			
15	325		R-5	6 11 23	34	35	16.6	112	EPA DS	15		CLAYEY SAND (SC); medium dense to dense; dark yellowish brown (10YR 3/4); moist; mostly fine to coarse SAND; some fines; low plasticity.			
20	320		S-6	7 8 7	15	23			EPA	20					



GDC\_LOG\_BORING\_MM\_X\_SOIL\_SD\_SD754 LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD						PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A		BORING B-42			
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 12/13/2022		FINISH 12/13/2022		SHEET NO. 2 of 3	
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger				LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6		TOTAL DEPTH (ft) 56		GROUND ELEV (ft) 340.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
	315		R-7	10 16 33	49	50	10.2	122	EPA			<b>FILL:</b> CLAYEY SAND (SC); dense to very dense; dark yellowish brown (10YR 3/4); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.			
30	310		S-8	10 13 17	30	46			EPA	30		Hard drilling due to gravel from 30 to 33 feet.			
35	305		R-9	17 23 28	51	52	14.1	107	EPA PA C	35		(1% Gravel; 49% Sand; 50% Fines)			
40	300		S-10	8 8 15	23	35			EPA	40		SANDY LEAN CLAY (CL); hard; dark gray (10YR 4/1); moist; mostly fines; some fine to medium SAND; trace GRAVEL; low to medium plasticity.			
45	295		R-11	50 (4")	100+	100+	---	---	EPA	45		Golf ball fragments in drilling spoils.  Large cobble fragment in sampler shoe.			
												<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; dark yellowish brown (10YR 4/3); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; trace GRAVEL; nonplastic).			
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE  A-42 b		

<b>BORING RECORD</b>				PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754A				BORING <b>B-42</b>									
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle								START 12/13/2022				FINISH 12/13/2022				SHEET NO. 3 of 3					
DRILLING COMPANY Pacific Drilling Company						DRILLING METHOD Hollow Stem Auger						LOGGED BY SRN				CHECKED BY MAF					
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig						BORING DIA. (in) 6				TOTAL DEPTH (ft) 56				GROUND ELEV (ft) 340.5				DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N															
<div> <div>DEPTH (feet)</div> <div>ELEVATION (feet)</div> <div>SAMPLE TYPE</div> <div>SAMPLE NO.</div> <div>PENETRATION RESISTANCE (BLOWS / 6 IN)</div> <div>BLOW/FT "N"</div> <div>N<sub>60</sub></div> <div>MOISTURE (%)</div> <div>DRY DENSITY (pcf)</div> <div>OTHER TESTS</div> <div>DEPTH (feet)</div> <div>GRAPHIC LOG</div> <div>DESCRIPTION AND CLASSIFICATION</div> </div>																					
<div> <div>290</div> <div>285</div> <div>55</div> <div>280</div> <div>60</div> <div>275</div> <div>65</div> <div>270</div> <div>70</div> </div> <div> <div>X</div> <div>X</div> </div> <div> <div>S-12</div> <div>R-13</div> </div> <div> <div>23 33 46</div> <div>39 50 (4")</div> </div> <div> <div>79</div> <div>100+</div> </div> <div> <div>100+</div> </div> <div> <div>---</div> </div> <div> <div>---</div> </div> <div> <div>55</div> </div> <div> <div>SCRIPPS FORMATION (Tsc):* Poorly-indurated SANDSTONE; medium grained; pale yellow (5Y 8/2); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; nonplastic; iron oxide stains).</div> <div>Total Depth: 56 feet No groundwater encountered * Rock Description; (Soil Description)</div> </div>																					
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.				<b>FIGURE</b>  A-42 c							

GDGC LOG BORING MMX SOIL SD SD754 LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-43</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/15/2022		FINISH 12/15/2022		SHEET NO. 1 of 3		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 51		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
	335		B-1									<b>PAVEMENT:</b> 4-inches asphalt concrete over 4-inches aggregate base.	
			R-2	9 13 15	28	29	6.0	109	EPA			<b>FILL:</b> CLAYEY SAND (SC); medium dense to dense; dark yellowish brown (10R 4/6); moist; mostly fine to medium SAND; some fines; low plasticity.	
5										5			
	330		S-3	8 8 11	19	29			EPA				
10										10		Dense.	
	325		R-4	12 17 32	49	50	9.7	119	EPA				
15										15		SILTY SAND (SM); dense; dark yellowish brown (10R 3/6); moist; mostly fine to medium SAND; some fines; low plasticity.	
	320		S-5	7 10 11	21	32			EPA				
20										20		CLAYEY SAND (SC); dense; mottled dark yellowish brown (10YR 3/6) and very dark gray (10YR 3/1); moist; mostly fine to medium SAND; some fines; low plasticity.	
	315		R-6	8 11 18	29	30	15.6	116	EPA				

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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754 LOGS (PHASE 2)\GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-43</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/15/2022		FINISH 12/15/2022		SHEET NO. 2 of 3		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 51		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
	310		S-7	10 11 14	25	38			EPA			<b>FILL:</b> CLAYEY SAND (SC); dense; mottled dark yellowish brown (10YR 3/6) and very pale brown (10YR 8/3); moist; mostly fine to medium SAND; some fines; low plasticity.	
30	305		R-8	12 17 23	40	41	16.2	110	EPA PA DS	30		SILTY SAND (SM); very dense; mottled yellowish brown (10YR 5/8) and light gray (10YR 7/2); moist; mostly fine SAND; some fines; trace GRAVEL; nonplastic.  (1% Gravel; 60% Sand; 29% Fines)	
35	300		S-9	10 15 17	32	49			EPA	35			
40	295		R-10	13 17 21	39	40	11.3	116	EPA	40		CLAYEY SAND (SC); dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; low plasticity.	
45	290		S-11	23 50	100+	100+				45		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 6/6) and pale brown (10YR 6/3); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic).	

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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-44</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/14/2022		FINISH 12/14/2022		SHEET NO. 1 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 40.5		GROUND ELEV (ft) 340		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1									<b>PAVEMENT:</b> 3½-inches asphalt concrete over 4½-inches aggregate base.	
5	335		S-2	10 10 10	20	31			EPA	5		<b>FILL:</b> CLAYEY SAND (SC); medium dense to dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.	
			R-3	11 12 18	30	31	12.5	120	EPA				
10	330		S-4	8 8 11	19	29			EPA	10		Dark yellowish brown (10YR 4/6) mottled with yellowish gray (5Y 8/1).	
15	325		R-5	15 25 15	40	41	9.1	112	EPA	15		SILTY SAND (SM); dense to very dense; yellowish brown (10YR 5/4); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.	
20	320		S-6	14 15 20	35	54			EPA	20			






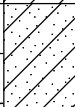

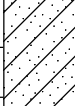

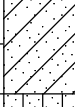




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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/16/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-44</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/14/2022		FINISH 12/14/2022		SHEET NO. 2 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 40.5		GROUND ELEV (ft) 340		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
30	310		R-7	50 (3")	100+	---	---	---	EPA	30		<b>FILL:</b> CLAYEY SAND (SC); very dense; dark yellowish brown (10YR 4/2); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low to medium plasticity.  Gravel in sampler inflated the blow counts. Entire sample used for environmental testing.	
35	305		S-8	23 19 20	39	60				35		<b>SCRIPPS FORMATION (Tsc):</b> * Poorly-indurated SANDSTONE; medium grained; pale brown (5YR 5/2) grades into pale yellow brown (10YR 6/2); intensely weathered; very soft; (SILTY SAND (SM)); very dense; moist; mostly fine SAND; little fines; nonplastic; trace iron oxide stains; slightly micaceous).	
40	300		R-10	43 50	93	100+				40		Total Depth: 40½ feet No groundwater encountered * Rock Description; (Soil Description)	
45	295			50 (5")	100+	100+	---	---		45			

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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754 LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-45</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/14/2022		FINISH 12/15/2022		SHEET NO. 1 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 26.5		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
	335		B-1									<b>PAVEMENT:</b> 4-inches asphalt concrete over 4-inches aggregate base.	
			S-2	4 4 5	9	14			EPA PA PI EI			<b>FILL:</b> SANDY LEAN CLAY (CL); stiff; dark yellowish brown (10YR 3/6); moist; mostly fines; some fine to medium SAND; medium plasticity.	
5										5		CLAYEY SAND (SC); loose to medium dense; dark yellowish brown (10YR 4/6); moist to wet; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity. (2% Gravel; 59% Sand; 39% Fines)	
	330		R-3	1 1 4	5	5	12.5	119	EPA			(LL~17; PL~13; PI~4)  Increased density with depth.	
10			R-4	13 27 32	59	60	10.4	113	EPA	10		Stopped drilling for the evening on 12/14/22. Resumed drilling in the morning on 12/15/22.	
15			S-5	7 9 12	21	32			EPA	15		SILTY SAND (SM); medium dense to dense; very dark gray (10YR 3/1); moist; mostly fine to medium SAND; some fines; nonplastic.	
20			R-6	37 50 (4")	100+	100+	---	---		20		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 6/6) and pale brown (10YR 6/3); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic).	


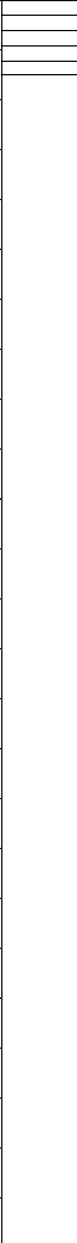
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**FIGURE**  
**A-45 a**



GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING B-45	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/14/2022		FINISH 12/15/2022		SHEET NO. 2 of 2		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 26.5		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
	310		S-7	24 32 50	82	100+						<p><b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 6/6) and pale brown (10YR 6/3); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic).</p> <p>Total Depth: 26½ feet No groundwater encountered * Rock Description; (Soil Description)</p>	

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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-46</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/15/2022		FINISH 12/15/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 16		GROUND ELEV (ft) 337		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
												<b>PAVEMENT:</b> 4-inches asphalt concrete over 3½-inches aggregate base.	
335			B-1										
			S-2	6 12 11	23	35			EPA			<b>FILL:</b> CLAYEY SAND (SC); medium dense to dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; low plasticity.	
5			R-3	16 18 30	48	49	10.6	111	EPA	5		Dense.	
330													
			S-4	27 33 60	93	100+				10		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 5/6) and Pale brown (10YR 6/3); intensely weathered; very soft; (SILTY SAND (SM)); very dense; moist; mostly fine to medium SAND; little fines; nonplastic).	
325													
15			R-5	42 50 (4")	100+	100+	---	---		15			
320												Total Depth: 16 feet No groundwater encountered * Rock Description; (Soil Description)	
20										20			
315													

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**FIGURE**  
**A-46**

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23







BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-47</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/14/2022		FINISH 12/14/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 21		GROUND ELEV (ft) 341.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
												<b>PAVEMENT:</b> 4-inches asphalt concrete over 4½-inches aggregate base.	
	340		B-1										
			R-2	5 10 12	22	22	12.5	104	EPA			<b>FILL:</b> CLAYEY SAND (SC); medium dense; dark yellowish brown (10YR 4/6); moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.	
5										5			
			S-3	9 10 11	21	32			EPA			Dense; mottled with gray (10YR 6/1).	
	335												
			R-4	7 13 14	27	28	11.6	110	EPA	10		Dark grayish brown (10YR 4/2). Sample contains several brick fragments.	
	330												
			S-5	26 50 (5")	100+	100+				15		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; pale brown (10YR 6/3); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; little fines; nonplastic; trace iron oxide stains; slightly micaceous).	
	325												
			R-6	26 50 (4")	100+	100+	---	---		20			
	320											Total Depth: 21 feet No groundwater encountered * Rock Description; (Soil Description)	

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**FIGURE**  
  
**A-47**

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-48</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/14/2022		FINISH 12/14/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 6.5		GROUND ELEV (ft) 335.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
335			B-1						PA R			<b>PAVEMENT:</b> 4-inches asphalt concrete over 3½-inches aggregate base.	
			R-2	32 50 (4")	100+	100+	6.0	109	EPA			<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; pale brown (10YR 6/3); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; nonplastic; trace iron oxide stains).  (1% Gravel; 67% Sand; 32% Fines)	
5			S-3	24 31 40	71	100+				5			
												Total Depth: 6½ feet No groundwater encountered * Rock Description; (Soil Description)	
10	325									10			
15	320									15			
20	315									20			

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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-49</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/14/2022		FINISH 12/14/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 5.5		GROUND ELEV (ft) 340		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1									<b>PAVEMENT:</b> 3-inches asphalt concrete over 3-inches aggregate base.	
			S-2	19 29 34	63	96			EPA			<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; pale brown (10YR 6/3); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; little fines; nonplastic; trace iron oxide stains).	
5	335		R-3	50 (6")	100	100+	---	---		5		Very pale brown (10YR 7/4).	
10	330									10		Total Depth: 5½ feet No groundwater encountered * Rock Description; (Soil Description)	
15	325									15			
20	320									20			

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**FIGURE**  
  
A-49

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS (PHASE 2).GPJ GDCLOG.GDT 1/6/23

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754A		BORING <b>B-50</b>	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 12/15/2022		FINISH 12/15/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling Company					DRILLING METHOD Hollow Stem Auger			LOGGED BY CRJ		CHECKED BY MAF			
DRILLING EQUIPMENT Marl M10 (Yeti) Truck Mounted Rig					BORING DIA. (in) 6		TOTAL DEPTH (ft) 6.5		GROUND ELEV (ft) 344		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 92%, N <sub>60</sub> ~ 92/60 * N ~ 1.53 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
			B-1									<b>PAVEMENT:</b> 4-inches asphalt concrete over 3½-inches aggregate base.	
			R-2	20 23 60	83	85	7.1	113	PA EI EPA			<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 6/6); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; some fines; nonplastic).  (1% Gravel; 54% Sand; 45% Fines)	
5	340		S-3	22 28 36	64	98				5			
												Total Depth: 6½ feet No groundwater encountered * Rock Description; (Soil Description)	
	335									10			
	330									15			
	325									20			
	320												

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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS.GPJ GDCLOG.GDT 10/26/22


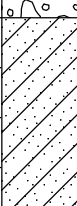





BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING A-22-01	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 10/13/2022		FINISH 10/13/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Tri-County Drilling, Inc.					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Diedrich D-120 All Terrain Truck Mounted Rig					BORING DIA. (in) 8		TOTAL DEPTH (ft) 11.5		GROUND ELEV (ft) 345		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 81%, N <sub>60</sub> ~ 81/60 * N ~ 1.35 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
5	340		B-1						EPA PA CR	5		<p><b>PAVEMENT:</b> 3-inches asphalt concrete over 5-inches aggregate base.</p> <p><b>FILL:</b> SILTY SAND (SM); medium dense; light yellowish brown (10YR 6/4), moist; mostly fine to medium SAND; some fines; trace GRAVEL; nonplastic. (3% Gravel; 65% Sand; 32% Fines)</p>	
10	335		R-2	19 60	79	71	12.5	101	EPA DS	10		<p><b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; very pale brown (10YR 7/3); moderately weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; little to some fines; nonplastic; iron-oxide stains).</p>	
15	330		S-3	7 12 31	43	58				15		<p>Total Depth: 11½ feet No groundwater encountered * Rock Description; (Soil Description)</p>	
20	325									20			

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**FIGURE**  
  
A-51

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS.GPJ GDCLOG.GDT 10/26/22

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING A-22-02	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 10/13/2022		FINISH 10/13/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Tri-County Drilling, Inc.					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Diedrich D-120 All Terrain Truck Mounted Rig					BORING DIA. (in) 8		TOTAL DEPTH (ft) 16.5		GROUND ELEV (ft) 343		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 81%, N <sub>60</sub> ~ 81/60 * N ~ 1.35 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
												<b>PAVEMENT:</b> 3-inches asphalt concrete over 5-inches aggregate base.	
5	340		B-1						EPA PA PI EI	5		<b>FILL:</b> CLAYEY SAND (SC); medium dense; light olive brown (2.5Y 5/3), moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.  (2% Gravel; 57% Sand; 41% Fines)  (LL~27; PL~12; PI~15)  Dark grayish brown (2.5Y 4/2)	
10	335		S-2	6 7 9	16	22			EPA				
10			R-3	8 19 36	55	50	13.9	116	EPA	10			
	330											<b>SCRIPPS FORMATION (Tsc):</b> * Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 5/5); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic; weakly cemented).	
15			S-4	18 34 38	72	97				15		Iron oxide stains.	
	325											Total Depth: 16½ feet No groundwater encountered * Rock Description; (Soil Description)	
20										20			
	320												




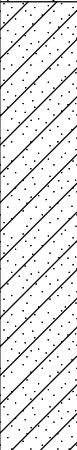





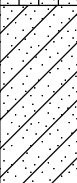
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  A-52
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS.GPJ GDCLOG.GDT 10/26/22

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING A-22-03	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 10/13/2022		FINISH 10/13/2022		SHEET NO. 1 of 1		
DRILLING COMPANY Tri-County Drilling, Inc.					DRILLING METHOD Hollow Stem Auger				LOGGED BY SRN		CHECKED BY MAF		
DRILLING EQUIPMENT Diedrich D-120 All Terrain Truck Mounted Rig					BORING DIA. (in) 8		TOTAL DEPTH (ft) 16.5		GROUND ELEV (ft) 343		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 81%, N <sub>60</sub> ~ 81/60 * N ~ 1.35 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
												<b>PAVEMENT:</b> 3-inches asphalt concrete over 5-inches aggregate base.	
5	340		B-1	10 8 9	17	23			EPA PA	5		<b>FILL:</b> SILTY SAND (SM); medium dense; light yellowish brown (2.5Y 6/3); moist; mostly fine to medium SAND; some fines; trace GRAVEL; nonplastic.  (2% Gravel; 68% Sand; 30% Fines)	
	335		B-3										
10			R-4	11 24 75	99	89	11.5	108	EPA	10		CLAYEY SAND (SC); medium dense; dark gray (10YR 4/1); moist; mostly fine SAND; some fines; medium plasticity.	
	330												
15			S-5	10 13 14	27	36				15		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 5/4); moderately weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; little to some fines; nonplastic; iron-oxide stains).  Dense; trace GRAVEL.	
	325												
20										20		Total Depth: 16½ feet No groundwater encountered * Rock Description; (Soil Description)	
	320												
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.		FIGURE  A-53	

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS.GPJ GDCLOG.GDT 10/26/22


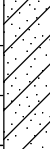
















BORING RECORD										PROJECT NAME UCSD Science Research Park		PROJECT NUMBER SD754		BORING A-22-04	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 10/14/2022		FINISH 10/14/2022		SHEET NO. 1 of 2	
DRILLING COMPANY Tri-County Drilling, Inc.						DRILLING METHOD Hollow Stem Auger				LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Diedrich D-120 All Terrain Truck Mounted Rig						BORING DIA. (in) 8		TOTAL DEPTH (ft) 46		GROUND ELEV (ft) 334		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 81%, N <sub>60</sub> ~ 81/60 * N ~ 1.35 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
5	330		B-1	7 7 7	14	19			EPA PA EI	5		<b>FILL:</b> 9-inches of open graded GRAVEL (GP)			
			S-2									<b>FILL:</b> CLAYEY SAND (SC); medium dense; dark brown (7.5YR 3/2), moist; mostly fine to medium SAND; some fines; few GRAVEL; low to medium plasticity.  (8% Gravel; 49% Sand; 43% Fines)  Mottled gray (10YR 5/12) and brown (10YR 4/3).			
			R-3									SILTY SAND (SM); dense; dark gray (10YR 4/1), moist; mostly fine to medium SAND; some fines; few GRAVEL and concrete fragments; nonplastic.			
			S-4									Mottled dark gray (10YR 4/1) and yellowish brown (10YR 5/4).			
			R-5									CLAYEY SAND (SC); medium dense; mottled gray and yellow brown, moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.			

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS.GPJ GDCLOG.GDT 10/26/22

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING A-22-04		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 10/14/2022		FINISH 10/14/2022		SHEET NO. 2 of 2			
DRILLING COMPANY Tri-County Drilling, Inc.							DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF		
DRILLING EQUIPMENT Diedrich D-120 All Terrain Truck Mounted Rig							BORING DIA. (in) 8		TOTAL DEPTH (ft) 46		GROUND ELEV (ft) 334		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na	
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)							NOTES ETR ~ 81%, N <sub>60</sub> ~ 81/60 * N ~ 1.35 * N							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
			S-6	8 10 9	19	26			EPA			<b>FILL:</b> SITLY SAND (SM); medium dense; grayish brown (2.5Y 5/2), moist; mostly fine SAND; some fines; few GRAVEL; nonplastic.		
30	305		R-7	9 16 18	34	31	12.7	117	EPA	30		Dense.		
35	300		S-8	4 4 6	10	14			EPA	35		CLAYEY SAND (SC); medium dense; dark gray (10YR 4/1), moist; mostly fine to medium SAND; some fines; trace GRAVEL; low to medium plasticity.		
40	295		R-9	20 47 150	100+	100+	13.2	103		40		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; yellowish brown (10YR 5/6); intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine to medium SAND; little fines; nonplastic; iron-oxide stains).		
45	290		S-10	29 60	89	100+				45		Light gray (10YR 6/1); iron oxide stains.		
	285											Total Depth: 46 feet No groundwater encountered * Rock Description; (Soil Description)		

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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS.GPJ GDCLOG.GDT 10/26/22

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING A-22-05	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 10/14/2022		FINISH 10/14/2022		SHEET NO. 1 of 2		
DRILLING COMPANY Tri-County Drilling, Inc.					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Diedrich D-120 All Terrain Truck Mounted Rig					BORING DIA. (in) 8		TOTAL DEPTH (ft) 46.5		GROUND ELEV (ft) 337		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 81%, N <sub>60</sub> ~ 81/60 * N ~ 1.35 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
												<b>PAVEMENT:</b> 4-inches asphalt concrete over 18-inches gravel placed over geogrid.	
5	335		B-1						EPA CR R	5			
			S-2	2 3 6	9	12			EPA			<b>FILL:</b> CLAYEY SAND (SC); medium dense; yellowish brown (10YR 5/4), moist; mostly fine SAND; some fines; trace GRAVEL; low plasticity. Contains fragments of asphalt concrete and brick.	
10	330									10			
			R-3	5 17 29	46	41	13.3	117	EPA			Asphalt concrete fragment in sampler (inflated blow counts).	
15	325									15			
			S-4	6 6 9	15	20			EPA			Strong brown (7.5YR 5/6), mostly fine to medium SAND; little fines.	
20	320									20			
			R-5	6 11 16	27	24	10.4	115	EPA DS			Dark gray (10YR 4/1); trace GRAVEL.	
	315												

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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS.GPJ GDCLOG.GDT 10/26/22


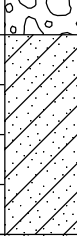


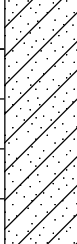


BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING A-22-05	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 10/14/2022		FINISH 10/14/2022		SHEET NO. 2 of 2		
DRILLING COMPANY Tri-County Drilling, Inc.					DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Diedrich D-120 All Terrain Truck Mounted Rig					BORING DIA. (in) 8		TOTAL DEPTH (ft) 46.5		GROUND ELEV (ft) 337		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)					NOTES ETR ~ 81%, N <sub>60</sub> ~ 81/60 * N ~ 1.35 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
310			S-6	5 9 18	27	36			EPA PA PI			<b>FILL:</b> SANDY LEAN CLAY (CL); hard; mottled gray (10YR 5/1) and dark yellowish brown (10YR 3/4), moist; mostly fines; some fine SAND; trace asphalt fragments; medium plasticity.  (0% Gravel; 44% Sand; 56% Fines)  (LL~30; PL~13; PI~17)	
30			R-7	4 9 9	18	16	10.7	94	EPA	30		CLAYEY SAND (SC); medium dense; mottled yellowish brown (10YR 5/4) and very dark gray (10YR 3/1), moist; mostly fine to medium SAND; some fines; trace fine GRAVEL; low plasticity. Filter fabric at 31 feet.	
35			S-8	7 8 10	18	24			EPA	35			
40			S-9	9 10 13	23	31				40		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; pale brown (2.5Y 7/3); intensely weathered; very soft; (SILTY SAND (SM); dense; moist; mostly fine to medium SAND; some fines; nonplastic)	
45			R-10	14 45 150	100+	100+	19.5	101		45		Very dense; weakly cemented; iron oxide stains.	
290												Total Depth: 46½ feet No groundwater encountered * Rock Description; (Soil Description)	

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 San Diego, California 92126



THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.

**FIGURE**  
 A-55 b

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS.GPJ GDCLOG.GDT 10/26/22

BORING RECORD										PROJECT NAME UCSD Science Research Park		PROJECT NUMBER SD754		BORING A-22-06	
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle										START 10/13/2022		FINISH 10/13/2022		SHEET NO. 1 of 2	
DRILLING COMPANY Tri-County Drilling, Inc.						DRILLING METHOD Hollow Stem Auger				LOGGED BY SRN		CHECKED BY MAF			
DRILLING EQUIPMENT Diedrich D-120 All Terrain Truck Mounted Rig						BORING DIA. (in) 8		TOTAL DEPTH (ft) 26.5		GROUND ELEV (ft) 340		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na			
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)						NOTES ETR ~ 81%, N <sub>60</sub> ~ 81/60 * N ~ 1.35 * N									
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION			
												<b>PAVEMENT:</b> 3-inches asphalt concrete over 3-inches aggregate base.			
5	335		B-1						EPA PA EI	5		<b>FILL:</b> CLAYEY SAND (SC); medium dense; brown (7.5YR 5/4) moist; mostly fine to coarse SAND; some fines; trace GRAVEL; asphalt fragments; low plasticity.  (2% Gravel; 70% Sand; 28% Fines)  More asphalt concrete fragments.			
			S-2	6 7 8	15	20			EPA			SILTY SAND (SM); medium dense; grayish brown (2.5Y 5/2), moist; mostly fine SAND; some fines; trace fine GRAVEL and asphalt fragments; nonplastic.			
10	330		R-3	7 11 16	27	24	12.2	108	EPA	10		CLAYEY SAND (SC); medium dense; olive brown (2.5Y 4/3) moist; mostly fine to medium SAND; some fines; few GRAVEL; trace roots and vegetative debris; low plasticity.			
15	325		S-4	7 13 15	28	38			EPA	15		SILTY SAND (SM); medium dense; very dark gray (2.5Y 3/1), moist; mostly fine SAND; little to some fines; trace GRAVEL; nonplastic; black stains.			
20	320		R-5	50 (2")	100+	100+	---	---	EPA	20		Mottled very dark gray (2.5Y 3/1) and yellowish brown (10YR 6/4). Sampler refusal on COBBLE or GRAVEL.			
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.				FIGURE  A-56 a	

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD754\_LOGS.GPJ GDCLOG.GDT 10/26/22


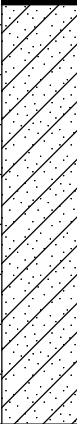

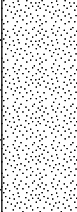

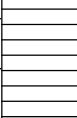
BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING A-22-06		
SITE LOCATION Bound by Health Science Drive, Regents Road, Miramar Street & Athena Circle							START 10/13/2022		FINISH 10/13/2022		SHEET NO. 2 of 2			
DRILLING COMPANY Tri-County Drilling, Inc.							DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF		
DRILLING EQUIPMENT Diedrich D-120 All Terrain Truck Mounted Rig							BORING DIA. (in) 8		TOTAL DEPTH (ft) 26.5		GROUND ELEV (ft) 340		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na	
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)							NOTES ETR ~ 81%, N <sub>60</sub> ~ 81/60 * N ~ 1.35 * N							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
30	310		S-6	18 34 43	77	100+				30		<b>SCRIPPS FORMATION (Tsc):*</b> Poorly-indurated SANDSTONE; medium grained; light yellowish brown (10YR 6/4); thinly bedded; intensely weathered; very soft; (SILTY SAND (SM); very dense; moist; mostly fine SAND; little fines; nonplastic; iron-oxide stains).		
35	305									35		Total Depth: 26½ feet No groundwater encountered * Rock Description; (Soil Description)		
40	300									40				
45	295									45				

<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126	THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  A-56 b

[illegible]









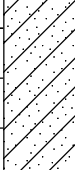


GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD524\_LOGS.GPJ GDCLOG.GDT 10/21/22

BORING RECORD							PROJECT NAME UCSD Science Reserach Park			PROJECT NUMBER SD754		BORING A-17-02		
SITE LOCATION North of Miramar Street, Southeast of Athena Circle							START 3/17/2017		FINISH 3/17/2017		SHEET NO. 1 of 1			
DRILLING COMPANY Pacific Drilling							DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF		
DRILLING EQUIPMENT Tracked Rig (Fraste)							BORING DIA. (in) 6		TOTAL DEPTH (ft) 16		GROUND ELEV (ft) 335		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na	
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)							NOTES ETR ~ 83%, N <sub>60</sub> ~ 83/60 * N ~ 1.38 * N							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
												<b>PAVEMENT:</b> 4-inch asphalt concrete, 1-inch base.		
5	330		B-1	16 21 45	66	61	4.3	115	PA R  DS	5		<b>FILL:</b> CLAYEY SAND (SC); medium dense to dense; dark yellowish brown; moist; mostly fine SAND; some fines; trace GRAVEL; low plasticity.  (3% Gravel; 61% Sand; 36% Fines)  Contains some plastic fragments.		
10	325		S-3	25 36 43	79	109				10		<b>SCRIPPS FORMATION:</b> SILTY SANDSTONE (SM); very dense; orange and grayish brown; moist; mostly fine SAND; little fines; nonplastic; weakly cemented.		
15	320		R-4	19 60	79	73	11.6	103		15		SILTSTONE WITH SAND (ML); very dense; light gray and orange; moist; mostly fines; little fine SAND; low plasticity; moderately cemented.		
20	315									20		Total Depth: 16 feet No groundwater encountered		

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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD524\_LOGS.GPJ GDCLOG.GDT 10/21/22

BORING RECORD							PROJECT NAME UCSD Science Reserach Park			PROJECT NUMBER SD754		BORING A-17-03		
SITE LOCATION North of Miramar Street, Southeast of Athena Circle							START 3/17/2017		FINISH 3/17/2017		SHEET NO. 1 of 2			
DRILLING COMPANY Pacific Drilling							DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF		
DRILLING EQUIPMENT Tracked Rig (Fraste)							BORING DIA. (in) 6		TOTAL DEPTH (ft) 31.5		GROUND ELEV (ft) 354		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na	
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)							NOTES ETR ~ 83%, N <sub>60</sub> ~ 83/60 * N ~ 1.38 * N							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
												<b>PAVEMENT:</b> 5-inch asphalt concrete, 1½-inch base.		
5	350		B-1						PA PI EI R	5		<b>FILL:</b> CLAYEY SAND (SC); medium dense; dark brown; moist; mostly fine SAND; some fines; few GRAVEL; low plasticity.  (5% Gravel; 60% Sand; 35% Fines)  (LL~29; PL~12; PI~17)		
			R-2	5 7 8	15	14	17.8	102	DS					
10	345		S-3	10 12 16	28	39				10		CLAYEY SAND WITH GRAVEL (SC); dense; gray and yellow brown; moist; mostly fine to medium SAND; some fines; little subangular GRAVEL; low plasticity.		
15	340		R-4	25 30 44	74	68	7.8	120		15				
20	335		S-5	7 11 17	28	39				20		CLAYEY SAND (SC); dense; gray; moist; mostly fine to medium SAND; some fines; low plasticity.		
	330													
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			<b>FIGURE</b>  A-59 a	

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD524 LOGS.GPJ GDCLOG.GDT 10/21/22

BORING RECORD							PROJECT NAME UCSD Science Reserach Park			PROJECT NUMBER SD754		BORING A-17-03		
SITE LOCATION North of Miramar Street, Southeast of Athena Circle							START 3/17/2017		FINISH 3/17/2017		SHEET NO. 2 of 2			
DRILLING COMPANY Pacific Drilling							DRILLING METHOD Hollow Stem Auger			LOGGED BY SRN		CHECKED BY MAF		
DRILLING EQUIPMENT Tracked Rig (Fraste)							BORING DIA. (in) 6		TOTAL DEPTH (ft) 31.5		GROUND ELEV (ft) 354		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na	
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)							NOTES ETR ~ 83%, N <sub>60</sub> ~ 83/60 * N ~ 1.38 * N							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
			S-6	2 2 2	4	6						<b>FILL:</b> POORLY GRADED SAND (SP); loose; gray and orange; moist; mostly fine SAND; trace fines; nonplastic.		
30	325		R-7	28 44 50/2"	194	178	25.3	98		30		<b>SCRIPPS FORMATION:</b> SANDY SILTSTONE (ML); very dense; light gray; moist; mostly fines; some fine SAND; low plasticity; moderately cemented.		
35	320									35		Total Depth: 31½ feet No groundwater encountered		
40	315									40				
45	310									45				
	305													
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			<b>FIGURE</b>  A-59 b	









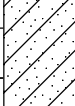
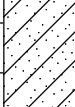

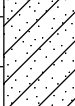
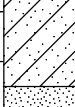

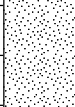
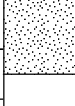
GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD476 LOGS.GPJ GDCLOG.GDT 9/28/22

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING A-16-01		
SITE LOCATION Nuevo West Parking Garage on Athena Circle							START 4/20/2016		FINISH 4/20/2016		SHEET NO. 1 of 1			
DRILLING COMPANY Pacific Drilling							DRILLING METHOD Flight Auger			LOGGED BY TSL		CHECKED BY MAF		
DRILLING EQUIPMENT Limited Access (Mini-Mole)							BORING DIA. (in) 6		TOTAL DEPTH (ft) 20.5		GROUND ELEV (ft) 334		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na	
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Cat-Head)							NOTES ETR ~ 60%, N <sub>60</sub> ~ 60/60 * N ~ 1.00 * N							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
			B-1						PA CR EI			<b>PAVEMENT:</b> 3-inches asphalt concrete over 5-inches aggregate base.		
5	330		R-2	9 17 23	40	27	10.1	112	EPA	5		<b>FILL:</b> CLAYEY SAND (SC); medium dense; mottled orange brown, light gray and olive gray; moist; mostly fine to medium SAND; some fines; trace to few GRAVEL; low plasticity.  (3% Gravel; 65% Sand; 32% Fines)  Contains layer of gravel and cobble.		
			S-3	33 50 (6")	100	100	---	---	EPA					
10	325		R-4	4 8 12	20	13	13.7	112	EPA	10		Contains crushed asphalt concrete.		
15	320		S-5	30 50 (4")	150	150	---	---		15		<b>SCRIPPS FORMATION:</b> SILTY SANDSTONE (SM); very dense; yellowish and grayish brown; moist; mostly fine SAND; little fines; few GRAVEL; nonplastic.		
20	315		R-6	50 (4")	150	100	18.5	105		20		SANDY SILTSTONE (ML); very dense; light brown; moist; mostly fines; some fine SAND; low plasticity.		
	310											Total Depth: 20½ feet No groundwater encountered		

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<b>BORING RECORD</b>				PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754				BORING <b>A-16-02</b>							
SITE LOCATION Nuevo West Parking Garage on Athena Circle								START 4/20/2016				FINISH 4/20/2016				SHEET NO. 1 of 1			
DRILLING COMPANY Pacific Drilling						DRILLING METHOD Flight Auger						LOGGED BY TSL				CHECKED BY MAF			
DRILLING EQUIPMENT Limited Access (Mini-Mole)						BORING DIA. (in) 6		TOTAL DEPTH (ft) 6.5		GROUND ELEV (ft) 329		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na							
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Cat-Head)						NOTES ETR ~ 60%, N <sub>60</sub> ~ 60/60 * N ~ 1.00 * N													
<div> <div> <div>DEPTH (feet)</div> <div>ELEVATION (feet)</div> <div>SAMPLE TYPE</div> <div>SAMPLE NO.</div> <div>PENETRATION RESISTANCE (BLOWS / 6 IN)</div> <div>BLOW/FT "N"</div> <div>N<sub>60</sub></div> <div>MOISTURE (%)</div> <div>DRY DENSITY (pcf)</div> <div>OTHER TESTS</div> <div>DEPTH (feet)</div> <div>GRAPHIC LOG</div> <div>DESCRIPTION AND CLASSIFICATION</div> </div> </div>																			
<div> <div> <div>325</div> <div>5</div> <div> </div> <div>R-1</div> <div> <div>3</div> <div>5</div> <div>6</div> </div> <div>11</div> <div>7</div> <div>---</div> <div>---</div> <div>EPA</div> <div> </div> <div>S-2</div> <div> <div>7</div> <div>7</div> <div>8</div> </div> <div>15</div> <div>15</div> <div>---</div> <div>---</div> <div>EPA</div> </div> <div> <div>320</div> <div>10</div> <div>315</div> <div>15</div> <div>310</div> <div>20</div> <div>305</div> </div> <div> <div>5</div> <div>10</div> <div>15</div> <div>20</div> </div> <div> <div>PAVEMENT:</div> <div>3-inches asphalt concrete over 5-inches aggregate base.</div> <div>FILL:</div> <div>CLAYEY SAND (SC); loose to medium dense; reddish brown; moist; mostly fine to medium SAND; little fines; few GRAVEL; low plasticity.</div> <div>Total Depth: 6½ feet</div> <div>No groundwater encountered</div> </div> </div>																			
<div> <div> <div>GROUP DELTA CONSULTANTS, INC.</div> <div>9245 Activity Road, Suite 103</div> <div>San Diego, California 92126</div> </div> <div> <div>THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.</div> </div> <div> <div>FIGURE</div> <div>A-61</div> </div> </div>																			

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD476 LOGS.GPJ GDCLOG.GDT 9/28/22

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING A-16-03	
SITE LOCATION Nuevo West Parking Garage on Athena Circle							START 4/20/2016		FINISH 4/20/2016		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling					DRILLING METHOD Flight Auger			LOGGED BY TSL		CHECKED BY MAF			
DRILLING EQUIPMENT Limited Access (Mini-Mole)					BORING DIA. (in) 6		TOTAL DEPTH (ft) 20.5		GROUND ELEV (ft) 327		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Cat-Head)					NOTES ETR ~ 60%, N <sub>60</sub> ~ 60/60 * N ~ 1.00 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
	325		B-1						R-31			<b>FILL:</b> SILTY SAND (SM); medium dense; light gray brown; moist; mostly fine SAND; some fines; nonplastic.	
			S-2	6 10 13	23	23	---	---	EPA				
5			R-3	50 (4")	150	100	---	---	EPA	5		CLAYEY SAND WITH GRAVEL (SC); medium dense; dark gray; moist; mostly fine to medium SAND; some fines; few to little subangular GRAVEL; low plasticity.	
	320											CLAYEY SAND (SC); medium dense; light brown; moist; mostly fine to medium SAND; some fines; low plasticity.	
10			S-4	7 9 11	20	13	---	---	EPA	10			
	315												
15			R-5	50 (6")	100	67	---	---	EPA	15		Sampler bouncing on cobble, no soil recovered.	
	310											<b>SCRIPPS FORMATION:</b> SILTY SANDSTONE (SM); very dense; light gray; moist; mostly fine to medium SAND; little fines; nonplastic.	
20			S-6	50 (6")	100	100	---	---		20			
	305											Total Depth: 20½ feet No groundwater encountered	

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<b>BORING RECORD</b>						PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754				BORING <b>A-16-04</b>		
SITE LOCATION Nuevo West Parking Garage on Athena Circle									START 4/20/2016			FINISH 4/20/2016			SHEET NO. 1 of 1	
DRILLING COMPANY Pacific Drilling						DRILLING METHOD Flight Auger						LOGGED BY TSL		CHECKED BY MAF		
DRILLING EQUIPMENT Limited Access (Mini-Mole)						BORING DIA. (in) 6		TOTAL DEPTH (ft) 6		GROUND ELEV (ft) 336		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na				
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Cat-Head)						NOTES ETR ~ 60%, N <sub>60</sub> ~ 60/60 * N ~ 1.00 * N										
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION				
	335											<b>PAVEMENT:</b> 3-inches asphalt concrete over 5-inches aggregate base.				
			R-1	50 (6")	100	67	---	---	EPA			<b>SCRIPPS FORMATION:</b> SILTY SANDSTONE (SM); very dense; light orangish brown; moist; mostly fine to medium SAND; little fines; nonplastic.				
5			S-2	20 50 (6")	100	100	---	---	EPA	5		SANDY SILTSTONE (ML); very dense; light gray; moist; mostly fines; some fine SAND; few GRAVEL; low plasticity.				
	330											Total Depth: 6 feet No groundwater encountered				
10										10						
	325															
15										15						
	320															
20										20						
	315															
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE  A-63			






GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD476 LOGS.GPJ GDCLOG.GDT 9/28/22

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING A-16-05	
SITE LOCATION Nuevo West Parking Garage on Athena Circle							START 4/20/2016		FINISH 4/20/2016		SHEET NO. 1 of 1		
DRILLING COMPANY Pacific Drilling					DRILLING METHOD Flight Auger			LOGGED BY TSL		CHECKED BY MAF			
DRILLING EQUIPMENT Limited Access (Mini-Mole)					BORING DIA. (in) 6		TOTAL DEPTH (ft) 6		GROUND ELEV (ft) 332		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Cat-Head)					NOTES ETR ~ 60%, N <sub>60</sub> ~ 60/60 * N ~ 1.00 * N								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
												<b>PAVEMENT:</b> 3-inches asphalt concrete over 5-inches aggregate base.	
	330		B-1	50 (6")	100	100	---	---	EPA			<b>SCRIPPS FORMATION:</b> SILTY SANDSTONE (SM); very dense; light gray and orangish brown; moist; mostly fine to medium SAND; little fines; nonplastic.	
5			S-2										
			R-3	50 (1")	600	400	---	---	EPA	5		Cobble stuck in sampler.	
	325											Total Depth: 6 feet No groundwater encountered	
10										10			
	320												
15										15			
	315												
20										20			
	310												




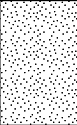
<b>GROUP DELTA CONSULTANTS, INC.</b> 9245 Activity Road, Suite 103 San Diego, California 92126		THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.	<b>FIGURE</b>  A-64
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GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD476 LOGS.GPJ GDCLOG.GDT 9/28/22

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING A-16-06		
SITE LOCATION Nuevo West Parking Garage on Athena Circle							START 4/20/2016		FINISH 4/20/2016		SHEET NO. 1 of 1			
DRILLING COMPANY Pacific Drilling							DRILLING METHOD Flight Auger			LOGGED BY TSL		CHECKED BY MAF		
DRILLING EQUIPMENT Limited Access (Mini-Mole)							BORING DIA. (in) 6		TOTAL DEPTH (ft) 20.5		GROUND ELEV (ft) 331		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na	
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Cat-Head)							NOTES ETR ~ 60%, N <sub>60</sub> ~ 60/60 * N ~ 1.00 * N							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
	330											<b>PAVEMENT:</b> 3-inches asphalt concrete over 5-inches aggregate base.		
			R-1	50 (6")	100	67	7.1	97	EPA			<b>SCRIPPS FORMATION:</b> SILTY SANDSTONE (SM); very dense; light yellow to reddish brown; moist; mostly fine to medium SAND; little fines; nonplastic.		
5			S-2	33 50	100	100	---	---	EPA	5				
	325													
10			R-3	50 (6")	100	67	8.6	100		10				
	320													
15			S-4	50 (5")	120	120	---	---		15		SILTSTONE (ML); very dense; light gray; moist; mostly fines; few fine SAND; low plasticity; moderately to strongly indurated.		
	315													
20			R-5	50 (4")	150	100	15.4	105		20				
	310													
												Total Depth: 20½ feet No groundwater encountered		

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<b>BORING RECORD</b>				PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754				BORING <b>A-16-07</b>															
SITE LOCATION Nuevo West Parking Garage on Athena Circle								START 4/20/2016				FINISH 4/20/2016				SHEET NO. 1 of 1											
DRILLING COMPANY Pacific Drilling								DRILLING METHOD Flight Auger								LOGGED BY TSL				CHECKED BY MAF							
DRILLING EQUIPMENT Limited Access (Mini-Mole)								BORING DIA. (in) 6				TOTAL DEPTH (ft) 6.5				GROUND ELEV (ft) 329				DEPTH/ELEV. GROUNDWATER (ft) N/A / na							
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Cat-Head)								NOTES ETR ~ 60%, N <sub>60</sub> ~ 60/60 * N ~ 1.00 * N																			
DEPTH (feet)		ELEVATION (feet)		SAMPLE TYPE		SAMPLE NO.		PENETRATION RESISTANCE (BLOWS / 6 IN)		BLOW/FT "N"		N <sub>60</sub>		MOISTURE (%)		DRY DENSITY (pcf)		OTHER TESTS		DEPTH (feet)		GRAPHIC LOG		DESCRIPTION AND CLASSIFICATION			
5		325				R-1		50 (5")		120		80		---		---		EPA		5				FILL: CLAYEY SAND (SC); medium dense; light orange brown; moist; mostly fine SAND; some fines; low plasticity.			
																								SCRIPPS FORMATION: SILTSTONE (ML); very dense; gray; moist; mostly fines; trace fine sand; low plasticity; moderately to strongly indurated.			
																								SILTY SANDSTONE (SM); very dense; light gray and orange brown; moist; mostly fine sand; some fines; low plasticity.			
10		320				S-2		21 23 60		83		83		---		---		EPA		10				Total Depth: 6½ feet No groundwater encountered			
15		315																									
20		310																									
		305																									

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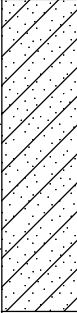
9245 Activity Road, Suite 103

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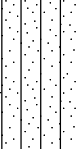


THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.

FIGURE

A-66

<b>BORING RECORD</b>						PROJECT NAME UCSD Science Research Park				PROJECT NUMBER SD754		BORING <b>A-16-08</b>		
SITE LOCATION Athena Way Development									START 6/7/2016		FINISH 6/7/2016		SHEET NO. 1 of 1	
DRILLING COMPANY Tri-County						DRILLING METHOD Test Pit				LOGGED BY TSL		CHECKED BY MAF		
DRILLING EQUIPMENT Backhoe						BORING DIA. (in) 18		TOTAL DEPTH (ft) 4.5		GROUND ELEV (ft) 336.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Shovel						NOTES Moisture and density determined using nuclear gauge.								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
												<b>FILL:</b> Cemented gravel and sand mixture.		
	335		B-1				10.5	116	PA CR EI			SILTY SAND (SM); dense; moderately brown; moist; mostly fine to medium SAND; little fines; nonplastic.		
												CLAYEY SAND (SC); medium dense to dense; reddish brown; moist; mostly fine to medium SAND; little to some fines; low plasticity.		
5										5		Total Depth: 4.5 feet No groundwater encountered		
	330													
GROUP DELTA CONSULTANTS, INC. 9245 Activity Road, Suite 103 San Diego, California 92126										THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.			FIGURE  A-67	

GDC\_LOG\_BORING\_MM\_X\_SOIL\_SD\_SD487 LOGS.GPJ GDCLOG.GDT 9/28/22

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING A-16-09	
SITE LOCATION Athena Way Development							START 6/7/2016		FINISH 6/7/2016		SHEET NO. 1 of 1		
DRILLING COMPANY Tri-County					DRILLING METHOD Test Pit			LOGGED BY TSL		CHECKED BY MAF			
DRILLING EQUIPMENT Backhoe					BORING DIA. (in) 18		TOTAL DEPTH (ft) 4.5		GROUND ELEV (ft) 338.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Shovel					NOTES Moisture and density determined using nuclear gauge.								
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
							12.2	122				<b>FILL:</b> Cemented gravel and sand mixture.	
												SILTY SAND (SM); dense; moderately brown; moist; mostly fine to medium SAND; little fines; nonplastic.	
							11.8	104				SILTY SAND (SM); medium dense to dense; reddish brown; moist; mostly fine to medium SAND; little to some fines; low plasticity.	
			B-1						PA R CP	5		Total Depth: 4.5 feet No groundwater encountered	

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**FIGURE**  
 A-68

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD487\_LOGS.GPJ GDCLOG.GDT 9/28/22

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING A-16-10		
SITE LOCATION Athena Way Development							START 6/7/2016		FINISH 6/7/2016		SHEET NO. 1 of 1			
DRILLING COMPANY Tri-County							DRILLING METHOD Test Pit			LOGGED BY TSL		CHECKED BY MAF		
DRILLING EQUIPMENT Backhoe							BORING DIA. (in) 18		TOTAL DEPTH (ft) 4		GROUND ELEV (ft) 337		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na	
SAMPLING METHOD Shovel							NOTES Moisture and density determined using nuclear gauge.							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
											▲ ▲ ▲	FILL: Cemented gravel and sand mixture.		
							12.5	115				SILTY SAND (SM); dense; moderately brown; moist; mostly fine to medium SAND; little fines; nonplastic.		
	335		B-1						PA R			SILTY SAND (SM); medium dense to dense; reddish brown; moist; mostly fine to medium SAND; little to some fines; low plasticity.		
5										5		Total Depth: 4 feet No groundwater encountered		
	330													

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<b>BORING RECORD</b>							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING <b>A-16-11</b>	
SITE LOCATION Athena Way Development								START 6/7/2016		FINISH 6/7/2016		SHEET NO. 1 of 1	
DRILLING COMPANY Tri-County						DRILLING METHOD Test Pit				LOGGED BY TSL		CHECKED BY MAF	
DRILLING EQUIPMENT Backhoe						BORING DIA. (in) 18		TOTAL DEPTH (ft) 5	GROUND ELEV (ft) 340.5		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na		
SAMPLING METHOD Shovel						NOTES Moisture and density determined using nuclear gauge.							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	
340							11.8	118				FILL: SILTY SAND (SM); dense; moderately brown; moist; mostly fine to medium SAND; little fines; nonplastic.	
			B-1						PA CR EI			CLAYEY SAND (SC); medium dense to dense; reddish brown; moist; mostly fine to medium SAND; little to some fines; low plasticity.	
5										5		Total Depth: 5 feet No groundwater encountered	
335													

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FIGURE  
  
A-70

GDC\_LOG\_BORING\_MMXX\_SOIL\_SD\_SD519\_LOGS.GPJ GDCLOG.GDT 9/28/22

BORING RECORD							PROJECT NAME UCSD Science Research Park			PROJECT NUMBER SD754		BORING A-14-01		
SITE LOCATION Southwest of Regents Road and Miramar Street							START 6/27/2014		FINISH 6/27/2014		SHEET NO. 1 of 1			
DRILLING COMPANY Pacific Drilling							DRILLING METHOD Hollow Stem Auger			LOGGED BY TSL		CHECKED BY MAF		
DRILLING EQUIPMENT Truck Rig (Wolverine)							BORING DIA. (in) 8		TOTAL DEPTH (ft) 20.5		GROUND ELEV (ft) 350		DEPTH/ELEV. GROUNDWATER (ft) ▼ N/A / na	
SAMPLING METHOD Hammer: 140 lbs., Drop: 30 in. (Automatic)							NOTES ETR ~ 80%, N <sub>60</sub> ~ 80/60 * N ~ 1.33 * N							
DEPTH (feet)	ELEVATION (feet)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS / 6 IN)	BLOW/FT "N"	N <sub>60</sub>	MOISTURE (%)	DRY DENSITY (pcf)	OTHER TESTS	DEPTH (feet)	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION		
			B-1						PA CR EI R			<b>FILL:</b> SILTY SAND (SM); medium dense; reddish brown; moist; mostly fine to medium SAND; some fines; trace GRAVEL; low plasticity.  (1% Gravel; 64% Sand; 35% Fines)		
			R-2	6 10 12	22	20	10.7	118	EPA					
5	345		S-3	6 9 13	21	28	---	---	EPA	5				
10	340		R-4	9 23 29	52	46	9.7	128	EPA	10		CLAYEY SAND (SC); medium dense to dense; dark gray; moist; mostly fine to medium SAND; some fines; low plasticity.		
15	335		S-5	14 7 13	20	27	---	---	EPA	15		<b>SCRIPPS FORMATION:</b> SILTY SANDSTONE (SM); very dense; yellowish brown; moist; mostly fine SAND; some fines; nonplastic; weakly cemented.		
20	330		R-6	50 (6")	100	89	8.5	---	EPA	20		Total Depth: 20½ feet No groundwater encountered		


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***APPENDIX B***  
***CAMP MATTHEWS PLAN***


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NO SCALE



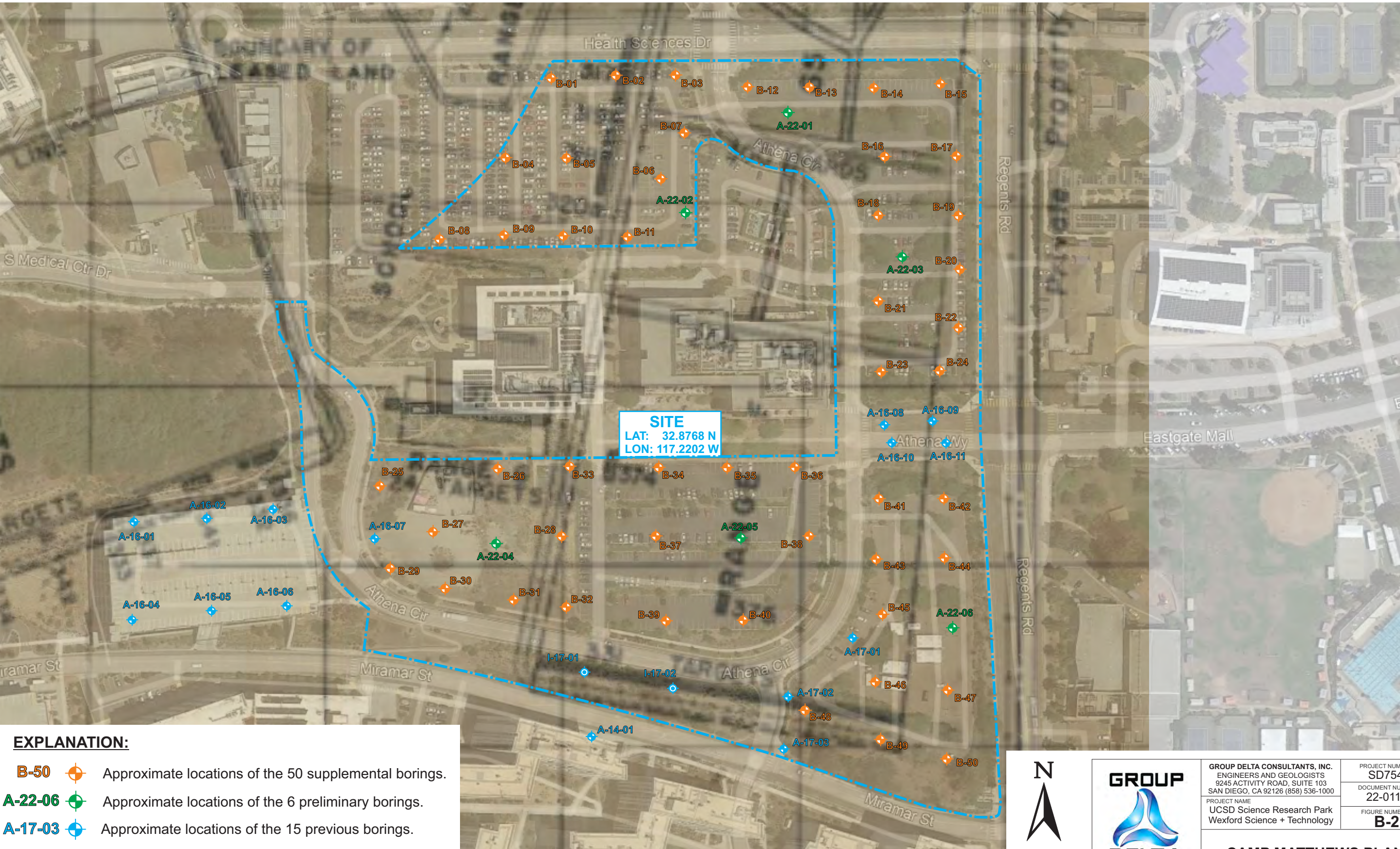
GROUP DELTA CONSULTANTS, INC.  
ENGINEERS AND GEOLOGISTS  
9245 ACTIVITY ROAD, SUITE 103  
SAN DIEGO, CA 92126 (858) 536-1000

PROJECT NAME  
UCSD Science Research Park  
Wexford Science + Technology




PROJECT NUMBER SD754	FIGURE NUMBER B-1
DOCUMENT NUMBER 22-0116	

**CAMP MATTHEWS PLAN**





**EXPLANATION:**

- B-50**  Approximate locations of the 50 supplemental borings.
- A-22-06**  Approximate locations of the 6 preliminary borings.
- A-17-03**  Approximate locations of the 15 previous borings.



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PROJECT NAME  
UCSD Science Research Park  
Wexford Science + Technology

PROJECT NUMBER  
**SD754**  
DOCUMENT NUMBER  
**22-0116**  
FIGURE NUMBER  
**B-2**

**CAMP MATTHEWS PLAN**



***APPENDIX C***  
***LABORATORY ANALYTICAL REPORTS***

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## ANALYTICAL REPORT

Eurofins Calscience  
2841 Dow Avenue, Suite 100  
Tustin, CA 92780  
Tel: (714)895-5494

Laboratory Job ID: 570-113508-1

Client Project/Site: SD754/Science Research Park

**For:**

Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Attn: Matt Fagan

*Vik Patel*

*Authorized for release by:*

*10/21/2022 9:56:09 AM*

Vikas Patel, Project Manager I  
(714)895-5494

[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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# Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Qualifiers

### GC/MS Semi VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
^6+	Interference Check Standard (ICSA and/or ICSAB) is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

**Job ID: 570-113508-1**

**Laboratory: Eurofins Calscience**

## Narrative

### Job Narrative 570-113508-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 10/14/2022 6:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.8° C.

#### GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### GC VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Metals

Method 6010B: The serial dilution performed for the following sample associated with batch 570-273334 was outside control limits for Chromium: (570-113508-A-21-D SD ^25)

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Barium and Antimony for preparation batch 570-273094 and analytical batch 570-273334 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6010B: The initial calibration verification (ICV) result for batch 570-273818 was above the upper control limit for Antimony. Sample results were non-detects, and have been reported as qualified data.

Method 6010B: The ICSAB for batch 570-273818 was outside the acceptance limits for element: Antimony. The samples associated with this ICSAB were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (ICSAB 570-273818/9).

Method 6010B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 570-273093 and analytical batch 570-273818 recovered outside control limits for the following analytes: Antimony. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 6010B: The method blank for preparation batch 570-273093 and analytical batch 570-273818 contained Vanadium above the method detection limit. This target analyte concentration was less than the reporting limit (RL) or greater than 10X the value found in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6010B: The serial dilution performed for the following sample associated with batch 570-273818 was outside control limits for Vanadium: (570-113508-A-1-D SD ^25)

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Antimony for preparation batch 570-273093 and analytical batch 570-273818 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6010B: The post digestion spike % recovery for Antimony associated with batch 570-273818 was outside of control limits.

Method 6010B: The initial calibration verification (ICV) result for batch 570-274483 was above the upper control limit for Antimony. Sample results were non-detects, and have been reported as qualified data.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

## Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

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### Job ID: 570-113508-1 (Continued)

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#### Laboratory: Eurofins Calscience (Continued)

##### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

##### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

Client Sample ID: A-22-01@5'

Lab Sample ID: 570-113508-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[g,h,i]perylene	0.018	J	0.020	0.010	mg/Kg	1		8270C SIM	Total/NA
Benzo[k]fluoranthene	0.0078	J	0.020	0.0074	mg/Kg	1		8270C SIM	Total/NA
Benzo[a]anthracene	0.0083	J	0.020	0.0079	mg/Kg	1		8270C SIM	Total/NA
Chrysene	0.017	J	0.020	0.0064	mg/Kg	1		8270C SIM	Total/NA
Pyrene	0.011	J	0.020	0.0086	mg/Kg	1		8270C SIM	Total/NA
C23-C40	290		49	38	mg/Kg	10		8015B	Total/NA
Arsenic	5.57		3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	54.9		3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.215	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Chromium	7.02		1.01	0.188	mg/Kg	5		6010B	Total/NA
Cobalt	2.35		1.01	0.208	mg/Kg	5		6010B	Total/NA
Copper	17.2		2.02	0.968	mg/Kg	5		6010B	Total/NA
Lead	8.48		2.02	0.413	mg/Kg	5		6010B	Total/NA
Molybdenum	2.32		2.02	0.520	mg/Kg	5		6010B	Total/NA
Nickel	4.32		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	16.6	B	1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	33.0		5.05	1.17	mg/Kg	5		6010B	Total/NA
Mercury	0.0245	J	0.0833	0.0135	mg/Kg	1		7471A	Total/NA

Client Sample ID: A-22-02@5'

Lab Sample ID: 570-113508-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	19.0		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.163	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Chromium	6.63		1.00	0.186	mg/Kg	5		6010B	Total/NA
Cobalt	1.18		1.00	0.206	mg/Kg	5		6010B	Total/NA
Copper	4.56		2.00	0.958	mg/Kg	5		6010B	Total/NA
Lead	5.18		2.00	0.409	mg/Kg	5		6010B	Total/NA
Nickel	1.88	J	2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	19.4	B	1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	6.20		5.00	1.16	mg/Kg	5		6010B	Total/NA

Client Sample ID: A-22-02@10'

Lab Sample ID: 570-113508-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	6.10		2.94	1.36	mg/Kg	5		6010B	Total/NA
Barium	71.8		2.94	0.139	mg/Kg	5		6010B	Total/NA
Beryllium	0.0858	J	0.490	0.0676	mg/Kg	5		6010B	Total/NA
Chromium	4.90		0.980	0.182	mg/Kg	5		6010B	Total/NA
Cobalt	1.26		0.980	0.202	mg/Kg	5		6010B	Total/NA
Copper	3.85		1.96	0.939	mg/Kg	5		6010B	Total/NA
Lead	7.62		1.96	0.401	mg/Kg	5		6010B	Total/NA
Nickel	1.63	J	1.96	0.355	mg/Kg	5		6010B	Total/NA
Vanadium	21.3	B	0.980	0.165	mg/Kg	5		6010B	Total/NA
Zinc	14.3		4.90	1.13	mg/Kg	5		6010B	Total/NA

Client Sample ID: A-22-03@5'

Lab Sample ID: 570-113508-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	20		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	2.14	J	3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	26.7		3.00	0.142	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Client Sample ID: A-22-03@5' (Continued)

## Lab Sample ID: 570-113508-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.138	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Chromium	4.49		1.00	0.186	mg/Kg	5		6010B	Total/NA
Cobalt	1.59		1.00	0.206	mg/Kg	5		6010B	Total/NA
Copper	3.85		2.00	0.958	mg/Kg	5		6010B	Total/NA
Lead	2.59		2.00	0.409	mg/Kg	5		6010B	Total/NA
Nickel	3.28		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	10.6	B	1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	12.6		5.00	1.16	mg/Kg	5		6010B	Total/NA

## Client Sample ID: A-22-03@10'

## Lab Sample ID: 570-113508-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	23.6		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.306	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Chromium	7.42		1.02	0.190	mg/Kg	5		6010B	Total/NA
Cobalt	2.64		1.02	0.210	mg/Kg	5		6010B	Total/NA
Copper	10.0		2.04	0.978	mg/Kg	5		6010B	Total/NA
Lead	2.77		2.04	0.417	mg/Kg	5		6010B	Total/NA
Nickel	2.56		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	21.8	B	1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	16.8		5.10	1.18	mg/Kg	5		6010B	Total/NA

## Client Sample ID: A-22-06-@5'

## Lab Sample ID: 570-113508-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	9.2		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	12.7		2.99	1.38	mg/Kg	5		6010B	Total/NA
Barium	18.8		2.99	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.274	J	0.498	0.0687	mg/Kg	5		6010B	Total/NA
Chromium	8.91		0.995	0.185	mg/Kg	5		6010B	Total/NA
Cobalt	2.26		0.995	0.205	mg/Kg	5		6010B	Total/NA
Copper	23.6		1.99	0.953	mg/Kg	5		6010B	Total/NA
Lead	2.60		1.99	0.407	mg/Kg	5		6010B	Total/NA
Nickel	2.94		1.99	0.360	mg/Kg	5		6010B	Total/NA
Vanadium	16.0	B	0.995	0.167	mg/Kg	5		6010B	Total/NA
Zinc	19.9		4.98	1.15	mg/Kg	5		6010B	Total/NA

## Client Sample ID: A-22-06-@10'

## Lab Sample ID: 570-113508-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	3.8	J	4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	16.2		3.05	1.41	mg/Kg	5		6010B	Total/NA
Barium	50.8		3.05	0.144	mg/Kg	5		6010B	Total/NA
Beryllium	0.355	J	0.508	0.0701	mg/Kg	5		6010B	Total/NA
Chromium	7.84		1.02	0.189	mg/Kg	5		6010B	Total/NA
Cobalt	3.22		1.02	0.209	mg/Kg	5		6010B	Total/NA
Copper	13.1		2.03	0.973	mg/Kg	5		6010B	Total/NA
Lead	12.7		2.03	0.415	mg/Kg	5		6010B	Total/NA
Nickel	4.25		2.03	0.368	mg/Kg	5		6010B	Total/NA
Vanadium	19.6	B	1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	33.8		5.08	1.17	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

Client Sample ID: A-22-06-@15'

Lab Sample ID: 570-113508-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	4.3	J	5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	54		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	4.10		2.99	1.38	mg/Kg	5		6010B	Total/NA
Barium	56.5		2.99	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.323	J	0.498	0.0687	mg/Kg	5		6010B	Total/NA
Chromium	5.45		0.995	0.185	mg/Kg	5		6010B	Total/NA
Cobalt	3.64		0.995	0.205	mg/Kg	5		6010B	Total/NA
Copper	4.90		1.99	0.953	mg/Kg	5		6010B	Total/NA
Lead	4.68		1.99	0.407	mg/Kg	5		6010B	Total/NA
Nickel	2.80		1.99	0.360	mg/Kg	5		6010B	Total/NA
Vanadium	14.3	B	0.995	0.167	mg/Kg	5		6010B	Total/NA
Zinc	18.7		4.98	1.15	mg/Kg	5		6010B	Total/NA

Client Sample ID: A-22-06-@20'

Lab Sample ID: 570-113508-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	17		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	3.39		3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	46.3		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.288	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Chromium	9.33		1.00	0.186	mg/Kg	5		6010B	Total/NA
Cobalt	3.10		1.00	0.206	mg/Kg	5		6010B	Total/NA
Copper	8.59		2.00	0.958	mg/Kg	5		6010B	Total/NA
Lead	15.2		2.00	0.409	mg/Kg	5		6010B	Total/NA
Nickel	3.76		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	27.0	B	1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	17.5		5.00	1.16	mg/Kg	5		6010B	Total/NA

Client Sample ID: A-22-05-@5'

Lab Sample ID: 570-113508-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	8.3		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	26.1		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	54.6		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.472	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Chromium	9.54		1.02	0.190	mg/Kg	5		6010B	Total/NA
Cobalt	4.12		1.02	0.210	mg/Kg	5		6010B	Total/NA
Copper	26.1		2.04	0.978	mg/Kg	5		6010B	Total/NA
Lead	22.5		2.04	0.417	mg/Kg	5		6010B	Total/NA
Molybdenum	0.689	J	2.04	0.526	mg/Kg	5		6010B	Total/NA
Nickel	5.11		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	49.3	B	1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	39.2		5.10	1.18	mg/Kg	5		6010B	Total/NA

Client Sample ID: A-22-05-@10'

Lab Sample ID: 570-113508-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	21		4.9	3.7	mg/Kg	1		8015B	Total/NA
Arsenic	4.82		2.94	1.36	mg/Kg	5		6010B	Total/NA
Barium	47.0		2.94	0.139	mg/Kg	5		6010B	Total/NA
Beryllium	0.282	J	0.490	0.0676	mg/Kg	5		6010B	Total/NA
Chromium	7.46		0.980	0.182	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Client Sample ID: A-22-05-@10' (Continued)

## Lab Sample ID: 570-113508-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	1.91		0.980	0.202	mg/Kg	5		6010B	Total/NA
Copper	6.23		1.96	0.939	mg/Kg	5		6010B	Total/NA
Lead	17.5		1.96	0.401	mg/Kg	5		6010B	Total/NA
Nickel	2.66		1.96	0.355	mg/Kg	5		6010B	Total/NA
Vanadium	22.6	B	0.980	0.165	mg/Kg	5		6010B	Total/NA
Zinc	13.9		4.90	1.13	mg/Kg	5		6010B	Total/NA

## Client Sample ID: A-22-05-@15'

## Lab Sample ID: 570-113508-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	5.6		4.9	3.8	mg/Kg	1		8015B	Total/NA
Antimony	6.49	J ^1+	10.1	2.87	mg/Kg	5		6010B	Total/NA
Arsenic	14.0		3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	65.8		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.364	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Chromium	6.14		1.01	0.187	mg/Kg	5		6010B	Total/NA
Cobalt	2.63		1.01	0.207	mg/Kg	5		6010B	Total/NA
Copper	77.1		2.01	0.963	mg/Kg	5		6010B	Total/NA
Lead	1690		2.01	0.411	mg/Kg	5		6010B	Total/NA
Molybdenum	0.616	J	2.01	0.518	mg/Kg	5		6010B	Total/NA
Nickel	3.93		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	15.9		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	29.3		5.03	1.16	mg/Kg	5		6010B	Total/NA

## Client Sample ID: A-22-05-@20'

## Lab Sample ID: 570-113508-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.025		0.020	0.013	mg/Kg	1		8270C SIM	Total/NA
Anthracene	0.024		0.020	0.0088	mg/Kg	1		8270C SIM	Total/NA
Benzo[g,h,i]perylene	0.026		0.020	0.011	mg/Kg	1		8270C SIM	Total/NA
Benzo[k]fluoranthene	0.040		0.020	0.0074	mg/Kg	1		8270C SIM	Total/NA
Benzo[a]anthracene	0.039		0.020	0.0080	mg/Kg	1		8270C SIM	Total/NA
Benzo[a]pyrene	0.043		0.020	0.0081	mg/Kg	1		8270C SIM	Total/NA
Benzo[b]fluoranthene	0.029		0.020	0.015	mg/Kg	1		8270C SIM	Total/NA
Chrysene	0.065		0.020	0.0064	mg/Kg	1		8270C SIM	Total/NA
Fluoranthene	0.10		0.020	0.0080	mg/Kg	1		8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.021		0.020	0.012	mg/Kg	1		8270C SIM	Total/NA
Phenanthrene	0.11		0.020	0.015	mg/Kg	1		8270C SIM	Total/NA
Pyrene	0.11		0.020	0.0086	mg/Kg	1		8270C SIM	Total/NA
C23-C40	61		4.9	3.7	mg/Kg	1		8015B	Total/NA
Arsenic	2.28	J	3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	49.0		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.350	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Chromium	11.0		1.00	0.186	mg/Kg	5		6010B	Total/NA
Cobalt	2.96		1.00	0.206	mg/Kg	5		6010B	Total/NA
Copper	7.34		2.00	0.958	mg/Kg	5		6010B	Total/NA
Lead	8.55		2.00	0.409	mg/Kg	5		6010B	Total/NA
Nickel	4.86		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	22.0	B	1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	19.5		5.00	1.16	mg/Kg	5		6010B	Total/NA
Mercury	0.0145	J	0.0850	0.0138	mg/Kg	1		7471A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

Client Sample ID: A-22-05-@25'

Lab Sample ID: 570-113508-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	5.5		4.9	3.8	mg/Kg	1		8015B	Total/NA
Barium	63.5		2.97	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.223	J	0.495	0.0683	mg/Kg	5		6010B	Total/NA
Chromium	8.24		0.990	0.184	mg/Kg	5		6010B	Total/NA
Cobalt	2.15		0.990	0.204	mg/Kg	5		6010B	Total/NA
Copper	10.0		1.98	0.949	mg/Kg	5		6010B	Total/NA
Lead	9.25		1.98	0.405	mg/Kg	5		6010B	Total/NA
Nickel	2.65		1.98	0.358	mg/Kg	5		6010B	Total/NA
Vanadium	23.1	B	0.990	0.166	mg/Kg	5		6010B	Total/NA
Zinc	17.8		4.95	1.14	mg/Kg	5		6010B	Total/NA

Client Sample ID: A-22-05-@30'

Lab Sample ID: 570-113508-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	11		4.9	3.7	mg/Kg	1		8015B	Total/NA
Arsenic	2.35	J	3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	46.8		3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.202	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Chromium	10.2		1.01	0.188	mg/Kg	5		6010B	Total/NA
Cobalt	1.78		1.01	0.208	mg/Kg	5		6010B	Total/NA
Copper	3.64		2.02	0.968	mg/Kg	5		6010B	Total/NA
Lead	6.11		2.02	0.413	mg/Kg	5		6010B	Total/NA
Nickel	2.41		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	27.2	B	1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	8.43		5.05	1.17	mg/Kg	5		6010B	Total/NA

Client Sample ID: A-22-05@35'

Lab Sample ID: 570-113508-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.015	J	0.020	0.013	mg/Kg	1		8270C SIM	Total/NA
Anthracene	0.032		0.020	0.0088	mg/Kg	1		8270C SIM	Total/NA
Benzo[g,h,i]perylene	0.052		0.020	0.010	mg/Kg	1		8270C SIM	Total/NA
Benzo[k]fluoranthene	0.077		0.020	0.0074	mg/Kg	1		8270C SIM	Total/NA
Benzo[a]anthracene	0.077		0.020	0.0079	mg/Kg	1		8270C SIM	Total/NA
Benzo[a]pyrene	0.088		0.020	0.0081	mg/Kg	1		8270C SIM	Total/NA
Benzo[b]fluoranthene	0.056		0.020	0.015	mg/Kg	1		8270C SIM	Total/NA
Chrysene	0.10		0.020	0.0064	mg/Kg	1		8270C SIM	Total/NA
Dibenz(a,h)anthracene	0.016	J	0.020	0.011	mg/Kg	1		8270C SIM	Total/NA
Fluoranthene	0.19		0.020	0.0079	mg/Kg	1		8270C SIM	Total/NA
Fluorene	0.011	J	0.020	0.0096	mg/Kg	1		8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.044		0.020	0.012	mg/Kg	1		8270C SIM	Total/NA
Phenanthrene	0.14		0.020	0.015	mg/Kg	1		8270C SIM	Total/NA
Pyrene	0.20		0.020	0.0086	mg/Kg	1		8270C SIM	Total/NA
C23-C40	11		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	5.53		2.96	1.37	mg/Kg	5		6010B	Total/NA
Barium	33.8		2.96	0.140	mg/Kg	5		6010B	Total/NA
Beryllium	0.259	J	0.493	0.0680	mg/Kg	5		6010B	Total/NA
Chromium	13.1		0.985	0.183	mg/Kg	5		6010B	Total/NA
Cobalt	2.66		0.985	0.203	mg/Kg	5		6010B	Total/NA
Copper	8.41		1.97	0.944	mg/Kg	5		6010B	Total/NA
Lead	7.94		1.97	0.403	mg/Kg	5		6010B	Total/NA
Nickel	2.96		1.97	0.357	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Client Sample ID: A-22-05@35' (Continued)

## Lab Sample ID: 570-113508-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	2.91	J	2.96	1.20	mg/Kg	5		6010B	Total/NA
Vanadium	92.4	B	0.985	0.166	mg/Kg	5		6010B	Total/NA
Zinc	9.00		4.93	1.14	mg/Kg	5		6010B	Total/NA

## Client Sample ID: A-22-04@5'

## Lab Sample ID: 570-113508-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	4.6	J	4.9	3.7	mg/Kg	1		8015B	Total/NA
Arsenic	2.70	J	2.94	1.36	mg/Kg	5		6010B	Total/NA
Barium	44.2		2.94	0.139	mg/Kg	5		6010B	Total/NA
Beryllium	0.221	J	0.490	0.0676	mg/Kg	5		6010B	Total/NA
Chromium	13.6		0.980	0.182	mg/Kg	5		6010B	Total/NA
Cobalt	2.99		0.980	0.202	mg/Kg	5		6010B	Total/NA
Copper	6.64		1.96	0.939	mg/Kg	5		6010B	Total/NA
Lead	8.04		1.96	0.401	mg/Kg	5		6010B	Total/NA
Molybdenum	0.613	J	1.96	0.505	mg/Kg	5		6010B	Total/NA
Nickel	3.37		1.96	0.355	mg/Kg	5		6010B	Total/NA
Vanadium	30.4	B	0.980	0.165	mg/Kg	5		6010B	Total/NA
Zinc	12.9		4.90	1.13	mg/Kg	5		6010B	Total/NA

## Client Sample ID: A-22-04@10'

## Lab Sample ID: 570-113508-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	0.011	J	0.020	0.0088	mg/Kg	1		8270C SIM	Total/NA
Benzo[g,h,i]perylene	0.019	J	0.020	0.011	mg/Kg	1		8270C SIM	Total/NA
Benzo[k]fluoranthene	0.021		0.020	0.0075	mg/Kg	1		8270C SIM	Total/NA
Benzo[a]anthracene	0.032		0.020	0.0080	mg/Kg	1		8270C SIM	Total/NA
Benzo[a]pyrene	0.025		0.020	0.0081	mg/Kg	1		8270C SIM	Total/NA
Benzo[b]fluoranthene	0.020		0.020	0.015	mg/Kg	1		8270C SIM	Total/NA
Chrysene	0.052		0.020	0.0065	mg/Kg	1		8270C SIM	Total/NA
Fluoranthene	0.054		0.020	0.0080	mg/Kg	1		8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.013	J	0.020	0.012	mg/Kg	1		8270C SIM	Total/NA
Phenanthrene	0.052		0.020	0.015	mg/Kg	1		8270C SIM	Total/NA
Pyrene	0.065		0.020	0.0086	mg/Kg	1		8270C SIM	Total/NA
C13-C22	15		4.9	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	110		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	2.48	J	2.96	1.37	mg/Kg	5		6010B	Total/NA
Barium	50.4		2.96	0.140	mg/Kg	5		6010B	Total/NA
Beryllium	0.259	J	0.493	0.0680	mg/Kg	5		6010B	Total/NA
Chromium	14.8		0.985	0.183	mg/Kg	5		6010B	Total/NA
Cobalt	2.97		0.985	0.203	mg/Kg	5		6010B	Total/NA
Copper	8.28		1.97	0.944	mg/Kg	5		6010B	Total/NA
Lead	12.1		1.97	0.403	mg/Kg	5		6010B	Total/NA
Molybdenum	0.567	J	1.97	0.507	mg/Kg	5		6010B	Total/NA
Nickel	4.33		1.97	0.357	mg/Kg	5		6010B	Total/NA
Vanadium	31.5	B	0.985	0.166	mg/Kg	5		6010B	Total/NA
Zinc	15.7		4.93	1.14	mg/Kg	5		6010B	Total/NA

## Client Sample ID: A-22-04@15'

## Lab Sample ID: 570-113508-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	8.7		4.9	3.7	mg/Kg	1		8015B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience



# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Client Sample ID: A-22-04@15' (Continued)

## Lab Sample ID: 570-113508-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.41		2.99	1.38	mg/Kg	5		6010B	Total/NA
Barium	54.7		2.99	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.460	J	0.498	0.0687	mg/Kg	5		6010B	Total/NA
Chromium	10.3		0.995	0.185	mg/Kg	5		6010B	Total/NA
Cobalt	6.17		0.995	0.205	mg/Kg	5		6010B	Total/NA
Copper	18.4		1.99	0.953	mg/Kg	5		6010B	Total/NA
Lead	21.7		1.99	0.407	mg/Kg	5		6010B	Total/NA
Nickel	8.42		1.99	0.360	mg/Kg	5		6010B	Total/NA
Vanadium	22.5	B	0.995	0.167	mg/Kg	5		6010B	Total/NA
Zinc	43.5		4.98	1.15	mg/Kg	5		6010B	Total/NA

## Client Sample ID: A-22-04@20'

## Lab Sample ID: 570-113508-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.0082	J	0.019	0.0077	mg/Kg	1		8270C SIM	Total/NA
Chrysene	0.0074	J	0.019	0.0062	mg/Kg	1		8270C SIM	Total/NA
Pyrene	0.0097	J	0.019	0.0083	mg/Kg	1		8270C SIM	Total/NA
C23-C40	13		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	1.67	J	3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	26.2		3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.379	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Chromium	18.5		1.01	0.188	mg/Kg	5		6010B	Total/NA
Cobalt	3.62		1.01	0.208	mg/Kg	5		6010B	Total/NA
Copper	4.09		2.02	0.968	mg/Kg	5		6010B	Total/NA
Lead	8.11		2.02	0.413	mg/Kg	5		6010B	Total/NA
Molybdenum	0.543	J	2.02	0.520	mg/Kg	5		6010B	Total/NA
Nickel	3.45		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	50.3	B	1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	7.73		5.05	1.17	mg/Kg	5		6010B	Total/NA

## Client Sample ID: A-22-04@25'

## Lab Sample ID: 570-113508-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.0077	J	0.019	0.0077	mg/Kg	1		8270C SIM	Total/NA
C23-C40	14		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	3.79		3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	60.0	F1	3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.313	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Chromium	10.3		1.00	0.186	mg/Kg	5		6010B	Total/NA
Cobalt	3.19		1.00	0.206	mg/Kg	5		6010B	Total/NA
Copper	7.44		2.00	0.958	mg/Kg	5		6010B	Total/NA
Lead	4.69		2.00	0.409	mg/Kg	5		6010B	Total/NA
Nickel	4.93		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	26.3		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	19.7		5.00	1.16	mg/Kg	5		6010B	Total/NA
Mercury	0.0154	J	0.0833	0.0135	mg/Kg	1		7471A	Total/NA

## Client Sample ID: A-22-04@30'

## Lab Sample ID: 570-113508-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	4.6	J	4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	5.68		3.06	1.42	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Client Sample ID: A-22-04@30' (Continued)

## Lab Sample ID: 570-113508-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	74.2		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.332	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Chromium	7.17		1.02	0.190	mg/Kg	5		6010B	Total/NA
Cobalt	3.29		1.02	0.210	mg/Kg	5		6010B	Total/NA
Copper	6.53		2.04	0.978	mg/Kg	5		6010B	Total/NA
Lead	22.5		2.04	0.417	mg/Kg	5		6010B	Total/NA
Molybdenum	0.689	J	2.04	0.526	mg/Kg	5		6010B	Total/NA
Nickel	3.05		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	18.7		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	19.1		5.10	1.18	mg/Kg	5		6010B	Total/NA

## Client Sample ID: A-22-04@35'

## Lab Sample ID: 570-113508-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	8.0		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	4.74		2.94	1.36	mg/Kg	5		6010B	Total/NA
Barium	72.0		2.94	0.139	mg/Kg	5		6010B	Total/NA
Beryllium	0.221	J	0.490	0.0676	mg/Kg	5		6010B	Total/NA
Chromium	7.82		0.980	0.182	mg/Kg	5		6010B	Total/NA
Cobalt	2.59		0.980	0.202	mg/Kg	5		6010B	Total/NA
Copper	7.59		1.96	0.939	mg/Kg	5		6010B	Total/NA
Lead	12.6		1.96	0.401	mg/Kg	5		6010B	Total/NA
Molybdenum	1.19	J	1.96	0.505	mg/Kg	5		6010B	Total/NA
Nickel	3.22		1.96	0.355	mg/Kg	5		6010B	Total/NA
Vanadium	14.6		0.980	0.165	mg/Kg	5		6010B	Total/NA
Zinc	17.2		4.90	1.13	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience



# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 8270C SIM - PAHs (GC/MS SIM)

Client Sample ID: A-22-01@5'  
Date Collected: 10/13/22 07:45  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/18/22 14:38	1
2-Methylnaphthalene	ND		0.020	0.010	mg/Kg		10/17/22 06:39	10/18/22 14:38	1
Acenaphthene	ND		0.020	0.013	mg/Kg		10/17/22 06:39	10/18/22 14:38	1
Acenaphthylene	ND		0.020	0.0096	mg/Kg		10/17/22 06:39	10/18/22 14:38	1
Anthracene	ND		0.020	0.0088	mg/Kg		10/17/22 06:39	10/18/22 14:38	1
Benzo[g,h,i]perylene	0.018	J	0.020	0.010	mg/Kg		10/17/22 06:39	10/18/22 14:38	1
Benzo[k]fluoranthene	0.0078	J	0.020	0.0074	mg/Kg		10/17/22 06:39	10/18/22 14:38	1
Benzo[a]anthracene	0.0083	J	0.020	0.0079	mg/Kg		10/17/22 06:39	10/18/22 14:38	1
Benzo[a]pyrene	ND		0.020	0.0081	mg/Kg		10/17/22 06:39	10/18/22 14:38	1
Benzo[b]fluoranthene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/18/22 14:38	1
Chrysene	0.017	J	0.020	0.0064	mg/Kg		10/17/22 06:39	10/18/22 14:38	1
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/18/22 14:38	1
Fluoranthene	ND		0.020	0.0080	mg/Kg		10/17/22 06:39	10/18/22 14:38	1
Fluorene	ND		0.020	0.0096	mg/Kg		10/17/22 06:39	10/18/22 14:38	1
Indeno[1,2,3-cd]pyrene	ND		0.020	0.012	mg/Kg		10/17/22 06:39	10/18/22 14:38	1
Naphthalene	ND		0.020	0.0089	mg/Kg		10/17/22 06:39	10/18/22 14:38	1
Phenanthrene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/18/22 14:38	1
Pyrene	0.011	J	0.020	0.0086	mg/Kg		10/17/22 06:39	10/18/22 14:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	80		22 - 130	10/17/22 06:39	10/18/22 14:38	1
2-Fluorobiphenyl (Surr)	72		22 - 130	10/17/22 06:39	10/18/22 19:48	1
Nitrobenzene-d5 (Surr)	82		20 - 145	10/17/22 06:39	10/18/22 14:38	1
Nitrobenzene-d5 (Surr)	72		20 - 145	10/17/22 06:39	10/18/22 19:48	1
p-Terphenyl-d14 (Surr)	93		33 - 147	10/17/22 06:39	10/18/22 14:38	1
p-Terphenyl-d14 (Surr)	68		33 - 147	10/17/22 06:39	10/18/22 19:48	1

Client Sample ID: A-22-02@5'  
Date Collected: 10/13/22 08:10  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/18/22 14:59	1
2-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/18/22 14:59	1
Acenaphthene	ND		0.020	0.013	mg/Kg		10/17/22 06:39	10/18/22 14:59	1
Acenaphthylene	ND		0.020	0.0097	mg/Kg		10/17/22 06:39	10/18/22 14:59	1
Anthracene	ND		0.020	0.0089	mg/Kg		10/17/22 06:39	10/18/22 14:59	1
Benzo[g,h,i]perylene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/18/22 14:59	1
Benzo[k]fluoranthene	ND		0.020	0.0075	mg/Kg		10/17/22 06:39	10/18/22 14:59	1
Benzo[a]anthracene	ND		0.020	0.0080	mg/Kg		10/17/22 06:39	10/18/22 14:59	1
Benzo[a]pyrene	ND		0.020	0.0082	mg/Kg		10/17/22 06:39	10/18/22 14:59	1
Benzo[b]fluoranthene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/18/22 14:59	1
Chrysene	ND		0.020	0.0065	mg/Kg		10/17/22 06:39	10/18/22 14:59	1
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/18/22 14:59	1
Fluoranthene	ND		0.020	0.0081	mg/Kg		10/17/22 06:39	10/18/22 14:59	1
Fluorene	ND		0.020	0.0097	mg/Kg		10/17/22 06:39	10/18/22 14:59	1
Indeno[1,2,3-cd]pyrene	ND		0.020	0.012	mg/Kg		10/17/22 06:39	10/18/22 14:59	1
Naphthalene	ND		0.020	0.0090	mg/Kg		10/17/22 06:39	10/18/22 14:59	1
Phenanthrene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/18/22 14:59	1
Pyrene	ND		0.020	0.0087	mg/Kg		10/17/22 06:39	10/18/22 14:59	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 8270C SIM - PAHs (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	82		22 - 130	10/17/22 06:39	10/18/22 14:59	1
Nitrobenzene-d5 (Surr)	79		20 - 145	10/17/22 06:39	10/18/22 14:59	1
p-Terphenyl-d14 (Surr)	90		33 - 147	10/17/22 06:39	10/18/22 14:59	1

Client Sample ID: A-22-02@10'

Date Collected: 10/13/22 08:20

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-3

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/18/22 15:20	1
2-Methylnaphthalene	ND		0.020	0.010	mg/Kg		10/17/22 06:39	10/18/22 15:20	1
Acenaphthene	ND		0.020	0.013	mg/Kg		10/17/22 06:39	10/18/22 15:20	1
Acenaphthylene	ND		0.020	0.0095	mg/Kg		10/17/22 06:39	10/18/22 15:20	1
Anthracene	ND		0.020	0.0088	mg/Kg		10/17/22 06:39	10/18/22 15:20	1
Benzo[g,h,i]perylene	ND		0.020	0.010	mg/Kg		10/17/22 06:39	10/18/22 15:20	1
Benzo[k]fluoranthene	ND		0.020	0.0074	mg/Kg		10/17/22 06:39	10/18/22 15:20	1
Benzo[a]anthracene	ND		0.020	0.0079	mg/Kg		10/17/22 06:39	10/18/22 15:20	1
Benzo[a]pyrene	ND		0.020	0.0080	mg/Kg		10/17/22 06:39	10/18/22 15:20	1
Benzo[b]fluoranthene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/18/22 15:20	1
Chrysene	ND		0.020	0.0064	mg/Kg		10/17/22 06:39	10/18/22 15:20	1
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/18/22 15:20	1
Fluoranthene	ND		0.020	0.0079	mg/Kg		10/17/22 06:39	10/18/22 15:20	1
Fluorene	ND		0.020	0.0096	mg/Kg		10/17/22 06:39	10/18/22 15:20	1
Indeno[1,2,3-cd]pyrene	ND		0.020	0.012	mg/Kg		10/17/22 06:39	10/18/22 15:20	1
Naphthalene	ND		0.020	0.0088	mg/Kg		10/17/22 06:39	10/18/22 15:20	1
Phenanthrene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/18/22 15:20	1
Pyrene	ND		0.020	0.0085	mg/Kg		10/17/22 06:39	10/18/22 15:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	85		22 - 130	10/17/22 06:39	10/18/22 15:20	1
Nitrobenzene-d5 (Surr)	81		20 - 145	10/17/22 06:39	10/18/22 15:20	1
p-Terphenyl-d14 (Surr)	94		33 - 147	10/17/22 06:39	10/18/22 15:20	1

Client Sample ID: A-22-03@5'

Date Collected: 10/13/22 11:05

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-4

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/18/22 15:40	1
2-Methylnaphthalene	ND		0.020	0.010	mg/Kg		10/17/22 06:39	10/18/22 15:40	1
Acenaphthene	ND		0.020	0.013	mg/Kg		10/17/22 06:39	10/18/22 15:40	1
Acenaphthylene	ND		0.020	0.0096	mg/Kg		10/17/22 06:39	10/18/22 15:40	1
Anthracene	ND		0.020	0.0088	mg/Kg		10/17/22 06:39	10/18/22 15:40	1
Benzo[g,h,i]perylene	ND		0.020	0.010	mg/Kg		10/17/22 06:39	10/18/22 15:40	1
Benzo[k]fluoranthene	ND		0.020	0.0074	mg/Kg		10/17/22 06:39	10/18/22 15:40	1
Benzo[a]anthracene	ND		0.020	0.0079	mg/Kg		10/17/22 06:39	10/18/22 15:40	1
Benzo[a]pyrene	ND		0.020	0.0081	mg/Kg		10/17/22 06:39	10/18/22 15:40	1
Benzo[b]fluoranthene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/18/22 15:40	1
Chrysene	ND		0.020	0.0064	mg/Kg		10/17/22 06:39	10/18/22 15:40	1
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/18/22 15:40	1
Fluoranthene	ND		0.020	0.0080	mg/Kg		10/17/22 06:39	10/18/22 15:40	1
Fluorene	ND		0.020	0.0096	mg/Kg		10/17/22 06:39	10/18/22 15:40	1
Indeno[1,2,3-cd]pyrene	ND		0.020	0.012	mg/Kg		10/17/22 06:39	10/18/22 15:40	1
Naphthalene	ND		0.020	0.0089	mg/Kg		10/17/22 06:39	10/18/22 15:40	1
Phenanthrene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/18/22 15:40	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 8270C SIM - PAHs (GC/MS SIM) (Continued)

**Client Sample ID: A-22-03@5'**  
**Date Collected: 10/13/22 11:05**  
**Date Received: 10/14/22 18:30**

**Lab Sample ID: 570-113508-4**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	ND		0.020	0.0086	mg/Kg		10/17/22 06:39	10/18/22 15:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	78		22 - 130				10/17/22 06:39	10/18/22 15:40	1
Nitrobenzene-d5 (Surr)	78		20 - 145				10/17/22 06:39	10/18/22 15:40	1
p-Terphenyl-d14 (Surr)	85		33 - 147				10/17/22 06:39	10/18/22 15:40	1

**Client Sample ID: A-22-03@10'**  
**Date Collected: 10/13/22 11:15**  
**Date Received: 10/14/22 18:30**

**Lab Sample ID: 570-113508-5**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/18/22 16:01	1
2-Methylnaphthalene	ND		0.020	0.010	mg/Kg		10/17/22 06:39	10/18/22 16:01	1
Acenaphthene	ND		0.020	0.013	mg/Kg		10/17/22 06:39	10/18/22 16:01	1
Acenaphthylene	ND		0.020	0.0096	mg/Kg		10/17/22 06:39	10/18/22 16:01	1
Anthracene	ND		0.020	0.0088	mg/Kg		10/17/22 06:39	10/18/22 16:01	1
Benzo[g,h,i]perylene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/18/22 16:01	1
Benzo[k]fluoranthene	ND		0.020	0.0075	mg/Kg		10/17/22 06:39	10/18/22 16:01	1
Benzo[a]anthracene	ND		0.020	0.0080	mg/Kg		10/17/22 06:39	10/18/22 16:01	1
Benzo[a]pyrene	ND		0.020	0.0081	mg/Kg		10/17/22 06:39	10/18/22 16:01	1
Benzo[b]fluoranthene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/18/22 16:01	1
Chrysene	ND		0.020	0.0065	mg/Kg		10/17/22 06:39	10/18/22 16:01	1
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/18/22 16:01	1
Fluoranthene	ND		0.020	0.0080	mg/Kg		10/17/22 06:39	10/18/22 16:01	1
Fluorene	ND		0.020	0.0097	mg/Kg		10/17/22 06:39	10/18/22 16:01	1
Indeno[1,2,3-cd]pyrene	ND		0.020	0.012	mg/Kg		10/17/22 06:39	10/18/22 16:01	1
Naphthalene	ND		0.020	0.0089	mg/Kg		10/17/22 06:39	10/18/22 16:01	1
Phenanthrene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/18/22 16:01	1
Pyrene	ND		0.020	0.0086	mg/Kg		10/17/22 06:39	10/18/22 16:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	78		22 - 130				10/17/22 06:39	10/18/22 16:01	1
Nitrobenzene-d5 (Surr)	81		20 - 145				10/17/22 06:39	10/18/22 16:01	1
p-Terphenyl-d14 (Surr)	83		33 - 147				10/17/22 06:39	10/18/22 16:01	1

**Client Sample ID: A-22-06-@5'**  
**Date Collected: 10/13/22 13:20**  
**Date Received: 10/14/22 18:30**

**Lab Sample ID: 570-113508-6**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/18/22 16:21	1
2-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/18/22 16:21	1
Acenaphthene	ND		0.020	0.013	mg/Kg		10/17/22 06:39	10/18/22 16:21	1
Acenaphthylene	ND		0.020	0.0097	mg/Kg		10/17/22 06:39	10/18/22 16:21	1
Anthracene	ND		0.020	0.0089	mg/Kg		10/17/22 06:39	10/18/22 16:21	1
Benzo[g,h,i]perylene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/18/22 16:21	1
Benzo[k]fluoranthene	ND		0.020	0.0075	mg/Kg		10/17/22 06:39	10/18/22 16:21	1
Benzo[a]anthracene	ND		0.020	0.0081	mg/Kg		10/17/22 06:39	10/18/22 16:21	1
Benzo[a]pyrene	ND		0.020	0.0082	mg/Kg		10/17/22 06:39	10/18/22 16:21	1
Benzo[b]fluoranthene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/18/22 16:21	1
Chrysene	ND		0.020	0.0065	mg/Kg		10/17/22 06:39	10/18/22 16:21	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: A-22-06-@5'  
Date Collected: 10/13/22 13:20  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/18/22 16:21	1
Fluoranthene	ND		0.020	0.0081	mg/Kg		10/17/22 06:39	10/18/22 16:21	1
Fluorene	ND		0.020	0.0098	mg/Kg		10/17/22 06:39	10/18/22 16:21	1
Indeno[1,2,3-cd]pyrene	ND		0.020	0.012	mg/Kg		10/17/22 06:39	10/18/22 16:21	1
Naphthalene	ND		0.020	0.0090	mg/Kg		10/17/22 06:39	10/18/22 16:21	1
Phenanthrene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/18/22 16:21	1
Pyrene	ND		0.020	0.0087	mg/Kg		10/17/22 06:39	10/18/22 16:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	81		22 - 130	10/17/22 06:39	10/18/22 16:21	1
Nitrobenzene-d5 (Surr)	80		20 - 145	10/17/22 06:39	10/18/22 16:21	1
p-Terphenyl-d14 (Surr)	83		33 - 147	10/17/22 06:39	10/18/22 16:21	1

Client Sample ID: A-22-06-@10'  
Date Collected: 10/13/22 13:40  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-7  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.019	0.010	mg/Kg		10/17/22 06:39	10/18/22 16:42	1
2-Methylnaphthalene	ND		0.019	0.010	mg/Kg		10/17/22 06:39	10/18/22 16:42	1
Acenaphthene	ND		0.019	0.013	mg/Kg		10/17/22 06:39	10/18/22 16:42	1
Acenaphthylene	ND		0.019	0.0093	mg/Kg		10/17/22 06:39	10/18/22 16:42	1
Anthracene	ND		0.019	0.0086	mg/Kg		10/17/22 06:39	10/18/22 16:42	1
Benzo[g,h,i]perylene	ND		0.019	0.010	mg/Kg		10/17/22 06:39	10/18/22 16:42	1
Benzo[k]fluoranthene	ND		0.019	0.0072	mg/Kg		10/17/22 06:39	10/18/22 16:42	1
Benzo[a]anthracene	ND		0.019	0.0077	mg/Kg		10/17/22 06:39	10/18/22 16:42	1
Benzo[a]pyrene	ND		0.019	0.0079	mg/Kg		10/17/22 06:39	10/18/22 16:42	1
Benzo[b]fluoranthene	ND		0.019	0.014	mg/Kg		10/17/22 06:39	10/18/22 16:42	1
Chrysene	ND		0.019	0.0063	mg/Kg		10/17/22 06:39	10/18/22 16:42	1
Dibenz(a,h)anthracene	ND		0.019	0.011	mg/Kg		10/17/22 06:39	10/18/22 16:42	1
Fluoranthene	ND		0.019	0.0077	mg/Kg		10/17/22 06:39	10/18/22 16:42	1
Fluorene	ND		0.019	0.0094	mg/Kg		10/17/22 06:39	10/18/22 16:42	1
Indeno[1,2,3-cd]pyrene	ND		0.019	0.012	mg/Kg		10/17/22 06:39	10/18/22 16:42	1
Naphthalene	ND		0.019	0.0086	mg/Kg		10/17/22 06:39	10/18/22 16:42	1
Phenanthrene	ND		0.019	0.014	mg/Kg		10/17/22 06:39	10/18/22 16:42	1
Pyrene	ND		0.019	0.0084	mg/Kg		10/17/22 06:39	10/18/22 16:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	80		22 - 130	10/17/22 06:39	10/18/22 16:42	1
Nitrobenzene-d5 (Surr)	76		20 - 145	10/17/22 06:39	10/18/22 16:42	1
p-Terphenyl-d14 (Surr)	81		33 - 147	10/17/22 06:39	10/18/22 16:42	1

Client Sample ID: A-22-06-@15'  
Date Collected: 10/13/22 13:50  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 01:37	1
2-Methylnaphthalene	ND		0.020	0.010	mg/Kg		10/17/22 06:39	10/19/22 01:37	1
Acenaphthene	ND		0.020	0.013	mg/Kg		10/17/22 06:39	10/19/22 01:37	1
Acenaphthylene	ND		0.020	0.0096	mg/Kg		10/17/22 06:39	10/19/22 01:37	1
Anthracene	ND		0.020	0.0088	mg/Kg		10/17/22 06:39	10/19/22 01:37	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: A-22-06-@15'

Date Collected: 10/13/22 13:50

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-8

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 01:37	1
Benzo[k]fluoranthene	ND		0.020	0.0074	mg/Kg		10/17/22 06:39	10/19/22 01:37	1
Benzo[a]anthracene	ND		0.020	0.0080	mg/Kg		10/17/22 06:39	10/19/22 01:37	1
Benzo[a]pyrene	ND		0.020	0.0081	mg/Kg		10/17/22 06:39	10/19/22 01:37	1
Benzo[b]fluoranthene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/19/22 01:37	1
Chrysene	ND		0.020	0.0064	mg/Kg		10/17/22 06:39	10/19/22 01:37	1
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 01:37	1
Fluoranthene	ND		0.020	0.0080	mg/Kg		10/17/22 06:39	10/19/22 01:37	1
Fluorene	ND		0.020	0.0096	mg/Kg		10/17/22 06:39	10/19/22 01:37	1
Indeno[1,2,3-cd]pyrene	ND		0.020	0.012	mg/Kg		10/17/22 06:39	10/19/22 01:37	1
Naphthalene	ND		0.020	0.0089	mg/Kg		10/17/22 06:39	10/19/22 01:37	1
Phenanthrene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/19/22 01:37	1
Pyrene	ND		0.020	0.0086	mg/Kg		10/17/22 06:39	10/19/22 01:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	79		22 - 130	10/17/22 06:39	10/19/22 01:37	1
Nitrobenzene-d5 (Surr)	80		20 - 145	10/17/22 06:39	10/19/22 01:37	1
p-Terphenyl-d14 (Surr)	80		33 - 147	10/17/22 06:39	10/19/22 01:37	1

Client Sample ID: A-22-06-@20'

Date Collected: 10/13/22 14:40

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-9

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 01:58	1
2-Methylnaphthalene	ND		0.020	0.010	mg/Kg		10/17/22 06:39	10/19/22 01:58	1
Acenaphthene	ND		0.020	0.013	mg/Kg		10/17/22 06:39	10/19/22 01:58	1
Acenaphthylene	ND		0.020	0.0096	mg/Kg		10/17/22 06:39	10/19/22 01:58	1
Anthracene	ND		0.020	0.0088	mg/Kg		10/17/22 06:39	10/19/22 01:58	1
Benzo[g,h,i]perylene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 01:58	1
Benzo[k]fluoranthene	ND		0.020	0.0075	mg/Kg		10/17/22 06:39	10/19/22 01:58	1
Benzo[a]anthracene	ND		0.020	0.0080	mg/Kg		10/17/22 06:39	10/19/22 01:58	1
Benzo[a]pyrene	ND		0.020	0.0081	mg/Kg		10/17/22 06:39	10/19/22 01:58	1
Benzo[b]fluoranthene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/19/22 01:58	1
Chrysene	ND		0.020	0.0065	mg/Kg		10/17/22 06:39	10/19/22 01:58	1
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 01:58	1
Fluoranthene	ND		0.020	0.0080	mg/Kg		10/17/22 06:39	10/19/22 01:58	1
Fluorene	ND		0.020	0.0097	mg/Kg		10/17/22 06:39	10/19/22 01:58	1
Indeno[1,2,3-cd]pyrene	ND		0.020	0.012	mg/Kg		10/17/22 06:39	10/19/22 01:58	1
Naphthalene	ND		0.020	0.0089	mg/Kg		10/17/22 06:39	10/19/22 01:58	1
Phenanthrene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/19/22 01:58	1
Pyrene	ND		0.020	0.0086	mg/Kg		10/17/22 06:39	10/19/22 01:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	84		22 - 130	10/17/22 06:39	10/19/22 01:58	1
Nitrobenzene-d5 (Surr)	77		20 - 145	10/17/22 06:39	10/19/22 01:58	1
p-Terphenyl-d14 (Surr)	82		33 - 147	10/17/22 06:39	10/19/22 01:58	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 8270C SIM - PAHs (GC/MS SIM)

Client Sample ID: A-22-05-@5'  
Date Collected: 10/14/22 08:00  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-10  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 02:18	1
2-Methylnaphthalene	ND		0.020	0.010	mg/Kg		10/17/22 06:39	10/19/22 02:18	1
Acenaphthene	ND		0.020	0.013	mg/Kg		10/17/22 06:39	10/19/22 02:18	1
Acenaphthylene	ND		0.020	0.0096	mg/Kg		10/17/22 06:39	10/19/22 02:18	1
Anthracene	ND		0.020	0.0089	mg/Kg		10/17/22 06:39	10/19/22 02:18	1
Benzo[g,h,i]perylene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 02:18	1
Benzo[k]fluoranthene	ND		0.020	0.0075	mg/Kg		10/17/22 06:39	10/19/22 02:18	1
Benzo[a]anthracene	ND		0.020	0.0080	mg/Kg		10/17/22 06:39	10/19/22 02:18	1
Benzo[a]pyrene	ND		0.020	0.0081	mg/Kg		10/17/22 06:39	10/19/22 02:18	1
Benzo[b]fluoranthene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/19/22 02:18	1
Chrysene	ND		0.020	0.0065	mg/Kg		10/17/22 06:39	10/19/22 02:18	1
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 02:18	1
Fluoranthene	ND		0.020	0.0080	mg/Kg		10/17/22 06:39	10/19/22 02:18	1
Fluorene	ND		0.020	0.0097	mg/Kg		10/17/22 06:39	10/19/22 02:18	1
Indeno[1,2,3-cd]pyrene	ND		0.020	0.012	mg/Kg		10/17/22 06:39	10/19/22 02:18	1
Naphthalene	ND		0.020	0.0089	mg/Kg		10/17/22 06:39	10/19/22 02:18	1
Phenanthrene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/19/22 02:18	1
Pyrene	ND		0.020	0.0086	mg/Kg		10/17/22 06:39	10/19/22 02:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	72		22 - 130	10/17/22 06:39	10/19/22 02:18	1
Nitrobenzene-d5 (Surr)	74		20 - 145	10/17/22 06:39	10/19/22 02:18	1
p-Terphenyl-d14 (Surr)	72		33 - 147	10/17/22 06:39	10/19/22 02:18	1

Client Sample ID: A-22-05-@10'  
Date Collected: 10/14/22 08:15  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-11  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 02:39	1
2-Methylnaphthalene	ND		0.020	0.010	mg/Kg		10/17/22 06:39	10/19/22 02:39	1
Acenaphthene	ND		0.020	0.013	mg/Kg		10/17/22 06:39	10/19/22 02:39	1
Acenaphthylene	ND		0.020	0.0096	mg/Kg		10/17/22 06:39	10/19/22 02:39	1
Anthracene	ND		0.020	0.0089	mg/Kg		10/17/22 06:39	10/19/22 02:39	1
Benzo[g,h,i]perylene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 02:39	1
Benzo[k]fluoranthene	ND		0.020	0.0075	mg/Kg		10/17/22 06:39	10/19/22 02:39	1
Benzo[a]anthracene	ND		0.020	0.0080	mg/Kg		10/17/22 06:39	10/19/22 02:39	1
Benzo[a]pyrene	ND		0.020	0.0081	mg/Kg		10/17/22 06:39	10/19/22 02:39	1
Benzo[b]fluoranthene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/19/22 02:39	1
Chrysene	ND		0.020	0.0065	mg/Kg		10/17/22 06:39	10/19/22 02:39	1
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 02:39	1
Fluoranthene	ND		0.020	0.0080	mg/Kg		10/17/22 06:39	10/19/22 02:39	1
Fluorene	ND		0.020	0.0097	mg/Kg		10/17/22 06:39	10/19/22 02:39	1
Indeno[1,2,3-cd]pyrene	ND		0.020	0.012	mg/Kg		10/17/22 06:39	10/19/22 02:39	1
Naphthalene	ND		0.020	0.0089	mg/Kg		10/17/22 06:39	10/19/22 02:39	1
Phenanthrene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/19/22 02:39	1
Pyrene	ND		0.020	0.0086	mg/Kg		10/17/22 06:39	10/19/22 02:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	73		22 - 130	10/17/22 06:39	10/19/22 02:39	1
Nitrobenzene-d5 (Surr)	77		20 - 145	10/17/22 06:39	10/19/22 02:39	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: A-22-05-@10'  
Date Collected: 10/14/22 08:15  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-11  
Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl-d14 (Surr)	70		33 - 147	10/17/22 06:39	10/19/22 02:39	1

Client Sample ID: A-22-05-@15'  
Date Collected: 10/14/22 08:25  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 02:59	1
2-Methylnaphthalene	ND		0.020	0.010	mg/Kg		10/17/22 06:39	10/19/22 02:59	1
Acenaphthene	ND		0.020	0.013	mg/Kg		10/17/22 06:39	10/19/22 02:59	1
Acenaphthylene	ND		0.020	0.0094	mg/Kg		10/17/22 06:39	10/19/22 02:59	1
Anthracene	ND		0.020	0.0087	mg/Kg		10/17/22 06:39	10/19/22 02:59	1
Benzo[g,h,i]perylene	ND		0.020	0.010	mg/Kg		10/17/22 06:39	10/19/22 02:59	1
Benzo[k]fluoranthene	ND		0.020	0.0073	mg/Kg		10/17/22 06:39	10/19/22 02:59	1
Benzo[a]anthracene	ND		0.020	0.0078	mg/Kg		10/17/22 06:39	10/19/22 02:59	1
Benzo[a]pyrene	ND		0.020	0.0080	mg/Kg		10/17/22 06:39	10/19/22 02:59	1
Benzo[b]fluoranthene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/19/22 02:59	1
Chrysene	ND		0.020	0.0064	mg/Kg		10/17/22 06:39	10/19/22 02:59	1
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 02:59	1
Fluoranthene	ND		0.020	0.0079	mg/Kg		10/17/22 06:39	10/19/22 02:59	1
Fluorene	ND		0.020	0.0095	mg/Kg		10/17/22 06:39	10/19/22 02:59	1
Indeno[1,2,3-cd]pyrene	ND		0.020	0.012	mg/Kg		10/17/22 06:39	10/19/22 02:59	1
Naphthalene	ND		0.020	0.0088	mg/Kg		10/17/22 06:39	10/19/22 02:59	1
Phenanthrene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/19/22 02:59	1
Pyrene	ND		0.020	0.0085	mg/Kg		10/17/22 06:39	10/19/22 02:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	74		22 - 130	10/17/22 06:39	10/19/22 02:59	1
Nitrobenzene-d5 (Surr)	54		20 - 145	10/17/22 06:39	10/19/22 02:59	1
p-Terphenyl-d14 (Surr)	78		33 - 147	10/17/22 06:39	10/19/22 02:59	1

Client Sample ID: A-22-05-@20'  
Date Collected: 10/14/22 08:35  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 03:20	1
2-Methylnaphthalene	ND		0.020	0.010	mg/Kg		10/17/22 06:39	10/19/22 03:20	1
Acenaphthene	0.025		0.020	0.013	mg/Kg		10/17/22 06:39	10/19/22 03:20	1
Acenaphthylene	ND		0.020	0.0096	mg/Kg		10/17/22 06:39	10/19/22 03:20	1
Anthracene	0.024		0.020	0.0088	mg/Kg		10/17/22 06:39	10/19/22 03:20	1
Benzo[g,h,i]perylene	0.026		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 03:20	1
Benzo[k]fluoranthene	0.040		0.020	0.0074	mg/Kg		10/17/22 06:39	10/19/22 03:20	1
Benzo[a]anthracene	0.039		0.020	0.0080	mg/Kg		10/17/22 06:39	10/19/22 03:20	1
Benzo[a]pyrene	0.043		0.020	0.0081	mg/Kg		10/17/22 06:39	10/19/22 03:20	1
Benzo[b]fluoranthene	0.029		0.020	0.015	mg/Kg		10/17/22 06:39	10/19/22 03:20	1
Chrysene	0.065		0.020	0.0064	mg/Kg		10/17/22 06:39	10/19/22 03:20	1
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 03:20	1
Fluoranthene	0.10		0.020	0.0080	mg/Kg		10/17/22 06:39	10/19/22 03:20	1
Fluorene	ND		0.020	0.0096	mg/Kg		10/17/22 06:39	10/19/22 03:20	1
Indeno[1,2,3-cd]pyrene	0.021		0.020	0.012	mg/Kg		10/17/22 06:39	10/19/22 03:20	1
Naphthalene	ND		0.020	0.0089	mg/Kg		10/17/22 06:39	10/19/22 03:20	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: A-22-05-@20'

Date Collected: 10/14/22 08:35

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-13

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	0.11		0.020	0.015	mg/Kg		10/17/22 06:39	10/19/22 03:20	1
Pyrene	0.11		0.020	0.0086	mg/Kg		10/17/22 06:39	10/19/22 03:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	78		22 - 130				10/17/22 06:39	10/19/22 03:20	1
Nitrobenzene-d5 (Surr)	79		20 - 145				10/17/22 06:39	10/19/22 03:20	1
p-Terphenyl-d14 (Surr)	77		33 - 147				10/17/22 06:39	10/19/22 03:20	1

Client Sample ID: A-22-05-@25'

Date Collected: 10/14/22 08:45

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-14

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 03:40	1
2-Methylnaphthalene	ND		0.020	0.010	mg/Kg		10/17/22 06:39	10/19/22 03:40	1
Acenaphthene	ND		0.020	0.013	mg/Kg		10/17/22 06:39	10/19/22 03:40	1
Acenaphthylene	ND		0.020	0.0096	mg/Kg		10/17/22 06:39	10/19/22 03:40	1
Anthracene	ND		0.020	0.0089	mg/Kg		10/17/22 06:39	10/19/22 03:40	1
Benzo[g,h,i]perylene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 03:40	1
Benzo[k]fluoranthene	ND		0.020	0.0075	mg/Kg		10/17/22 06:39	10/19/22 03:40	1
Benzo[a]anthracene	ND		0.020	0.0080	mg/Kg		10/17/22 06:39	10/19/22 03:40	1
Benzo[a]pyrene	ND		0.020	0.0081	mg/Kg		10/17/22 06:39	10/19/22 03:40	1
Benzo[b]fluoranthene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/19/22 03:40	1
Chrysene	ND		0.020	0.0065	mg/Kg		10/17/22 06:39	10/19/22 03:40	1
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 03:40	1
Fluoranthene	ND		0.020	0.0080	mg/Kg		10/17/22 06:39	10/19/22 03:40	1
Fluorene	ND		0.020	0.0097	mg/Kg		10/17/22 06:39	10/19/22 03:40	1
Indeno[1,2,3-cd]pyrene	ND		0.020	0.012	mg/Kg		10/17/22 06:39	10/19/22 03:40	1
Naphthalene	ND		0.020	0.0089	mg/Kg		10/17/22 06:39	10/19/22 03:40	1
Phenanthrene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/19/22 03:40	1
Pyrene	ND		0.020	0.0086	mg/Kg		10/17/22 06:39	10/19/22 03:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	83		22 - 130				10/17/22 06:39	10/19/22 03:40	1
Nitrobenzene-d5 (Surr)	80		20 - 145				10/17/22 06:39	10/19/22 03:40	1
p-Terphenyl-d14 (Surr)	84		33 - 147				10/17/22 06:39	10/19/22 03:40	1

Client Sample ID: A-22-05-@30'

Date Collected: 10/14/22 09:10

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-15

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 04:01	1
2-Methylnaphthalene	ND		0.020	0.010	mg/Kg		10/17/22 06:39	10/19/22 04:01	1
Acenaphthene	ND		0.020	0.013	mg/Kg		10/17/22 06:39	10/19/22 04:01	1
Acenaphthylene	ND		0.020	0.0095	mg/Kg		10/17/22 06:39	10/19/22 04:01	1
Anthracene	ND		0.020	0.0087	mg/Kg		10/17/22 06:39	10/19/22 04:01	1
Benzo[g,h,i]perylene	ND		0.020	0.010	mg/Kg		10/17/22 06:39	10/19/22 04:01	1
Benzo[k]fluoranthene	ND		0.020	0.0073	mg/Kg		10/17/22 06:39	10/19/22 04:01	1
Benzo[a]anthracene	ND		0.020	0.0078	mg/Kg		10/17/22 06:39	10/19/22 04:01	1
Benzo[a]pyrene	ND		0.020	0.0080	mg/Kg		10/17/22 06:39	10/19/22 04:01	1
Benzo[b]fluoranthene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/19/22 04:01	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: A-22-05-@30'

Date Collected: 10/14/22 09:10

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-15

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		0.020	0.0064	mg/Kg		10/17/22 06:39	10/19/22 04:01	1
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 04:01	1
Fluoranthene	ND		0.020	0.0079	mg/Kg		10/17/22 06:39	10/19/22 04:01	1
Fluorene	ND		0.020	0.0095	mg/Kg		10/17/22 06:39	10/19/22 04:01	1
Indeno[1,2,3-cd]pyrene	ND		0.020	0.012	mg/Kg		10/17/22 06:39	10/19/22 04:01	1
Naphthalene	ND		0.020	0.0088	mg/Kg		10/17/22 06:39	10/19/22 04:01	1
Phenanthrene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/19/22 04:01	1
Pyrene	ND		0.020	0.0085	mg/Kg		10/17/22 06:39	10/19/22 04:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	77		22 - 130	10/17/22 06:39	10/19/22 04:01	1
Nitrobenzene-d5 (Surr)	77		20 - 145	10/17/22 06:39	10/19/22 04:01	1
p-Terphenyl-d14 (Surr)	76		33 - 147	10/17/22 06:39	10/19/22 04:01	1

Client Sample ID: A-22-05@35'

Date Collected: 10/14/22 09:25

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-16

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 04:21	1
2-Methylnaphthalene	ND		0.020	0.010	mg/Kg		10/17/22 06:39	10/19/22 04:21	1
Acenaphthene	0.015	J	0.020	0.013	mg/Kg		10/17/22 06:39	10/19/22 04:21	1
Acenaphthylene	ND		0.020	0.0095	mg/Kg		10/17/22 06:39	10/19/22 04:21	1
Anthracene	0.032		0.020	0.0088	mg/Kg		10/17/22 06:39	10/19/22 04:21	1
Benzo[g,h,i]perylene	0.052		0.020	0.010	mg/Kg		10/17/22 06:39	10/19/22 04:21	1
Benzo[k]fluoranthene	0.077		0.020	0.0074	mg/Kg		10/17/22 06:39	10/19/22 04:21	1
Benzo[a]anthracene	0.077		0.020	0.0079	mg/Kg		10/17/22 06:39	10/19/22 04:21	1
Benzo[a]pyrene	0.088		0.020	0.0081	mg/Kg		10/17/22 06:39	10/19/22 04:21	1
Benzo[b]fluoranthene	0.056		0.020	0.015	mg/Kg		10/17/22 06:39	10/19/22 04:21	1
Chrysene	0.10		0.020	0.0064	mg/Kg		10/17/22 06:39	10/19/22 04:21	1
Dibenz(a,h)anthracene	0.016	J	0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 04:21	1
Fluoranthene	0.19		0.020	0.0079	mg/Kg		10/17/22 06:39	10/19/22 04:21	1
Fluorene	0.011	J	0.020	0.0096	mg/Kg		10/17/22 06:39	10/19/22 04:21	1
Indeno[1,2,3-cd]pyrene	0.044		0.020	0.012	mg/Kg		10/17/22 06:39	10/19/22 04:21	1
Naphthalene	ND		0.020	0.0088	mg/Kg		10/17/22 06:39	10/19/22 04:21	1
Phenanthrene	0.14		0.020	0.015	mg/Kg		10/17/22 06:39	10/19/22 04:21	1
Pyrene	0.20		0.020	0.0086	mg/Kg		10/17/22 06:39	10/19/22 04:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	81		22 - 130	10/17/22 06:39	10/19/22 04:21	1
Nitrobenzene-d5 (Surr)	82		20 - 145	10/17/22 06:39	10/19/22 04:21	1
p-Terphenyl-d14 (Surr)	87		33 - 147	10/17/22 06:39	10/19/22 04:21	1

Client Sample ID: A-22-04@5'

Date Collected: 10/14/22 12:50

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-17

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 04:42	1
2-Methylnaphthalene	ND		0.020	0.010	mg/Kg		10/17/22 06:39	10/19/22 04:42	1
Acenaphthene	ND		0.020	0.013	mg/Kg		10/17/22 06:39	10/19/22 04:42	1
Acenaphthylene	ND		0.020	0.0096	mg/Kg		10/17/22 06:39	10/19/22 04:42	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: A-22-04@5'  
Date Collected: 10/14/22 12:50  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-17  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.020	0.0088	mg/Kg		10/17/22 06:39	10/19/22 04:42	1
Benzo[g,h,i]perylene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 04:42	1
Benzo[k]fluoranthene	ND		0.020	0.0075	mg/Kg		10/17/22 06:39	10/19/22 04:42	1
Benzo[a]anthracene	ND		0.020	0.0080	mg/Kg		10/17/22 06:39	10/19/22 04:42	1
Benzo[a]pyrene	ND		0.020	0.0081	mg/Kg		10/17/22 06:39	10/19/22 04:42	1
Benzo[b]fluoranthene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/19/22 04:42	1
Chrysene	ND		0.020	0.0065	mg/Kg		10/17/22 06:39	10/19/22 04:42	1
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 04:42	1
Fluoranthene	ND		0.020	0.0080	mg/Kg		10/17/22 06:39	10/19/22 04:42	1
Fluorene	ND		0.020	0.0097	mg/Kg		10/17/22 06:39	10/19/22 04:42	1
Indeno[1,2,3-cd]pyrene	ND		0.020	0.012	mg/Kg		10/17/22 06:39	10/19/22 04:42	1
Naphthalene	ND		0.020	0.0089	mg/Kg		10/17/22 06:39	10/19/22 04:42	1
Phenanthrene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/19/22 04:42	1
Pyrene	ND		0.020	0.0086	mg/Kg		10/17/22 06:39	10/19/22 04:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	69		22 - 130	10/17/22 06:39	10/19/22 04:42	1
Nitrobenzene-d5 (Surr)	68		20 - 145	10/17/22 06:39	10/19/22 04:42	1
p-Terphenyl-d14 (Surr)	69		33 - 147	10/17/22 06:39	10/19/22 04:42	1

Client Sample ID: A-22-04@10'  
Date Collected: 10/14/22 13:00  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-18  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 05:02	1
2-Methylnaphthalene	ND		0.020	0.010	mg/Kg		10/17/22 06:39	10/19/22 05:02	1
Acenaphthene	ND		0.020	0.013	mg/Kg		10/17/22 06:39	10/19/22 05:02	1
Acenaphthylene	ND		0.020	0.0096	mg/Kg		10/17/22 06:39	10/19/22 05:02	1
Anthracene	0.011	J	0.020	0.0088	mg/Kg		10/17/22 06:39	10/19/22 05:02	1
Benzo[g,h,i]perylene	0.019	J	0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 05:02	1
Benzo[k]fluoranthene	0.021		0.020	0.0075	mg/Kg		10/17/22 06:39	10/19/22 05:02	1
Benzo[a]anthracene	0.032		0.020	0.0080	mg/Kg		10/17/22 06:39	10/19/22 05:02	1
Benzo[a]pyrene	0.025		0.020	0.0081	mg/Kg		10/17/22 06:39	10/19/22 05:02	1
Benzo[b]fluoranthene	0.020		0.020	0.015	mg/Kg		10/17/22 06:39	10/19/22 05:02	1
Chrysene	0.052		0.020	0.0065	mg/Kg		10/17/22 06:39	10/19/22 05:02	1
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 05:02	1
Fluoranthene	0.054		0.020	0.0080	mg/Kg		10/17/22 06:39	10/19/22 05:02	1
Fluorene	ND		0.020	0.0096	mg/Kg		10/17/22 06:39	10/19/22 05:02	1
Indeno[1,2,3-cd]pyrene	0.013	J	0.020	0.012	mg/Kg		10/17/22 06:39	10/19/22 05:02	1
Naphthalene	ND		0.020	0.0089	mg/Kg		10/17/22 06:39	10/19/22 05:02	1
Phenanthrene	0.052		0.020	0.015	mg/Kg		10/17/22 06:39	10/19/22 05:02	1
Pyrene	0.065		0.020	0.0086	mg/Kg		10/17/22 06:39	10/19/22 05:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	77		22 - 130	10/17/22 06:39	10/19/22 05:02	1
Nitrobenzene-d5 (Surr)	78		20 - 145	10/17/22 06:39	10/19/22 05:02	1
p-Terphenyl-d14 (Surr)	85		33 - 147	10/17/22 06:39	10/19/22 05:02	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 8270C SIM - PAHs (GC/MS SIM)

Client Sample ID: A-22-04@15'  
Date Collected: 10/14/22 13:10  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-19  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 05:23	1
2-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 05:23	1
Acenaphthene	ND		0.020	0.013	mg/Kg		10/17/22 06:39	10/19/22 05:23	1
Acenaphthylene	ND		0.020	0.0097	mg/Kg		10/17/22 06:39	10/19/22 05:23	1
Anthracene	ND		0.020	0.0089	mg/Kg		10/17/22 06:39	10/19/22 05:23	1
Benzo[g,h,i]perylene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 05:23	1
Benzo[k]fluoranthene	ND		0.020	0.0075	mg/Kg		10/17/22 06:39	10/19/22 05:23	1
Benzo[a]anthracene	ND		0.020	0.0080	mg/Kg		10/17/22 06:39	10/19/22 05:23	1
Benzo[a]pyrene	ND		0.020	0.0082	mg/Kg		10/17/22 06:39	10/19/22 05:23	1
Benzo[b]fluoranthene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/19/22 05:23	1
Chrysene	ND		0.020	0.0065	mg/Kg		10/17/22 06:39	10/19/22 05:23	1
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/19/22 05:23	1
Fluoranthene	ND		0.020	0.0081	mg/Kg		10/17/22 06:39	10/19/22 05:23	1
Fluorene	ND		0.020	0.0098	mg/Kg		10/17/22 06:39	10/19/22 05:23	1
Indeno[1,2,3-cd]pyrene	ND		0.020	0.012	mg/Kg		10/17/22 06:39	10/19/22 05:23	1
Naphthalene	ND		0.020	0.0090	mg/Kg		10/17/22 06:39	10/19/22 05:23	1
Phenanthrene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/19/22 05:23	1
Pyrene	ND		0.020	0.0087	mg/Kg		10/17/22 06:39	10/19/22 05:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	76		22 - 130	10/17/22 06:39	10/19/22 05:23	1
Nitrobenzene-d5 (Surr)	73		20 - 145	10/17/22 06:39	10/19/22 05:23	1
p-Terphenyl-d14 (Surr)	75		33 - 147	10/17/22 06:39	10/19/22 05:23	1

Client Sample ID: A-22-04@20'  
Date Collected: 10/14/22 13:18  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-20  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.019	0.010	mg/Kg		10/17/22 06:39	10/19/22 12:28	1
2-Methylnaphthalene	ND		0.019	0.010	mg/Kg		10/17/22 06:39	10/19/22 12:28	1
Acenaphthene	ND		0.019	0.013	mg/Kg		10/17/22 06:39	10/19/22 12:28	1
Acenaphthylene	ND		0.019	0.0093	mg/Kg		10/17/22 06:39	10/19/22 12:28	1
Anthracene	ND		0.019	0.0085	mg/Kg		10/17/22 06:39	10/19/22 12:28	1
Benzo[g,h,i]perylene	ND		0.019	0.010	mg/Kg		10/17/22 06:39	10/19/22 12:28	1
Benzo[k]fluoranthene	ND		0.019	0.0072	mg/Kg		10/17/22 06:39	10/19/22 12:28	1
Benzo[a]anthracene	0.0082	J	0.019	0.0077	mg/Kg		10/17/22 06:39	10/19/22 12:28	1
Benzo[a]pyrene	ND		0.019	0.0078	mg/Kg		10/17/22 06:39	10/19/22 12:28	1
Benzo[b]fluoranthene	ND		0.019	0.014	mg/Kg		10/17/22 06:39	10/19/22 12:28	1
Chrysene	0.0074	J	0.019	0.0062	mg/Kg		10/17/22 06:39	10/19/22 12:28	1
Dibenz(a,h)anthracene	ND		0.019	0.011	mg/Kg		10/17/22 06:39	10/19/22 12:28	1
Fluoranthene	ND		0.019	0.0077	mg/Kg		10/17/22 06:39	10/19/22 12:28	1
Fluorene	ND		0.019	0.0093	mg/Kg		10/17/22 06:39	10/19/22 12:28	1
Indeno[1,2,3-cd]pyrene	ND		0.019	0.012	mg/Kg		10/17/22 06:39	10/19/22 12:28	1
Naphthalene	ND		0.019	0.0086	mg/Kg		10/17/22 06:39	10/19/22 12:28	1
Phenanthrene	ND		0.019	0.014	mg/Kg		10/17/22 06:39	10/19/22 12:28	1
Pyrene	0.0097	J	0.019	0.0083	mg/Kg		10/17/22 06:39	10/19/22 12:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	83		22 - 130	10/17/22 06:39	10/19/22 12:28	1
Nitrobenzene-d5 (Surr)	80		20 - 145	10/17/22 06:39	10/19/22 12:28	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: A-22-04@20'  
Date Collected: 10/14/22 13:18  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-20  
Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl-d14 (Surr)	79		33 - 147	10/17/22 06:39	10/19/22 12:28	1

Client Sample ID: A-22-04@25'  
Date Collected: 10/14/22 13:31  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-21  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.019	0.010	mg/Kg		10/17/22 06:42	10/19/22 00:15	1
2-Methylnaphthalene	ND		0.019	0.010	mg/Kg		10/17/22 06:42	10/19/22 00:15	1
Acenaphthene	ND		0.019	0.013	mg/Kg		10/17/22 06:42	10/19/22 00:15	1
Acenaphthylene	ND		0.019	0.0093	mg/Kg		10/17/22 06:42	10/19/22 00:15	1
Anthracene	ND		0.019	0.0086	mg/Kg		10/17/22 06:42	10/19/22 00:15	1
Benzo[g,h,i]perylene	ND		0.019	0.010	mg/Kg		10/17/22 06:42	10/19/22 00:15	1
Benzo[k]fluoranthene	ND		0.019	0.0072	mg/Kg		10/17/22 06:42	10/19/22 00:15	1
Benzo[a]anthracene	ND		0.019	0.0077	mg/Kg		10/17/22 06:42	10/19/22 00:15	1
Benzo[a]pyrene	ND		0.019	0.0079	mg/Kg		10/17/22 06:42	10/19/22 00:15	1
Benzo[b]fluoranthene	ND		0.019	0.014	mg/Kg		10/17/22 06:42	10/19/22 00:15	1
Chrysene	ND		0.019	0.0063	mg/Kg		10/17/22 06:42	10/19/22 00:15	1
Dibenz(a,h)anthracene	ND		0.019	0.011	mg/Kg		10/17/22 06:42	10/19/22 00:15	1
Fluoranthene	0.0077	J	0.019	0.0077	mg/Kg		10/17/22 06:42	10/19/22 00:15	1
Fluorene	ND		0.019	0.0094	mg/Kg		10/17/22 06:42	10/19/22 00:15	1
Indeno[1,2,3-cd]pyrene	ND		0.019	0.012	mg/Kg		10/17/22 06:42	10/19/22 00:15	1
Naphthalene	ND		0.019	0.0086	mg/Kg		10/17/22 06:42	10/19/22 00:15	1
Phenanthrene	ND		0.019	0.014	mg/Kg		10/17/22 06:42	10/19/22 00:15	1
Pyrene	ND		0.019	0.0083	mg/Kg		10/17/22 06:42	10/19/22 00:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	84		22 - 130	10/17/22 06:42	10/19/22 00:15	1
Nitrobenzene-d5 (Surr)	85		20 - 145	10/17/22 06:42	10/19/22 00:15	1
p-Terphenyl-d14 (Surr)	82		33 - 147	10/17/22 06:42	10/19/22 00:15	1

Client Sample ID: A-22-04@30'  
Date Collected: 10/14/22 13:46  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-22  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/17/22 06:42	10/19/22 00:36	1
2-Methylnaphthalene	ND		0.020	0.010	mg/Kg		10/17/22 06:42	10/19/22 00:36	1
Acenaphthene	ND		0.020	0.013	mg/Kg		10/17/22 06:42	10/19/22 00:36	1
Acenaphthylene	ND		0.020	0.0094	mg/Kg		10/17/22 06:42	10/19/22 00:36	1
Anthracene	ND		0.020	0.0087	mg/Kg		10/17/22 06:42	10/19/22 00:36	1
Benzo[g,h,i]perylene	ND		0.020	0.010	mg/Kg		10/17/22 06:42	10/19/22 00:36	1
Benzo[k]fluoranthene	ND		0.020	0.0073	mg/Kg		10/17/22 06:42	10/19/22 00:36	1
Benzo[a]anthracene	ND		0.020	0.0078	mg/Kg		10/17/22 06:42	10/19/22 00:36	1
Benzo[a]pyrene	ND		0.020	0.0080	mg/Kg		10/17/22 06:42	10/19/22 00:36	1
Benzo[b]fluoranthene	ND		0.020	0.015	mg/Kg		10/17/22 06:42	10/19/22 00:36	1
Chrysene	ND		0.020	0.0063	mg/Kg		10/17/22 06:42	10/19/22 00:36	1
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/17/22 06:42	10/19/22 00:36	1
Fluoranthene	ND		0.020	0.0078	mg/Kg		10/17/22 06:42	10/19/22 00:36	1
Fluorene	ND		0.020	0.0095	mg/Kg		10/17/22 06:42	10/19/22 00:36	1
Indeno[1,2,3-cd]pyrene	ND		0.020	0.012	mg/Kg		10/17/22 06:42	10/19/22 00:36	1
Naphthalene	ND		0.020	0.0087	mg/Kg		10/17/22 06:42	10/19/22 00:36	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 8270C SIM - PAHs (GC/MS SIM) (Continued)

**Client Sample ID: A-22-04@30'**  
**Date Collected: 10/14/22 13:46**  
**Date Received: 10/14/22 18:30**

**Lab Sample ID: 570-113508-22**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		0.020	0.015	mg/Kg		10/17/22 06:42	10/19/22 00:36	1
Pyrene	ND		0.020	0.0085	mg/Kg		10/17/22 06:42	10/19/22 00:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	83		22 - 130				10/17/22 06:42	10/19/22 00:36	1
Nitrobenzene-d5 (Surr)	84		20 - 145				10/17/22 06:42	10/19/22 00:36	1
p-Terphenyl-d14 (Surr)	87		33 - 147				10/17/22 06:42	10/19/22 00:36	1

**Client Sample ID: A-22-04@35'**  
**Date Collected: 10/14/22 14:02**  
**Date Received: 10/14/22 18:30**

**Lab Sample ID: 570-113508-23**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.019	0.010	mg/Kg		10/17/22 06:42	10/19/22 00:56	1
2-Methylnaphthalene	ND		0.019	0.010	mg/Kg		10/17/22 06:42	10/19/22 00:56	1
Acenaphthene	ND		0.019	0.012	mg/Kg		10/17/22 06:42	10/19/22 00:56	1
Acenaphthylene	ND		0.019	0.0092	mg/Kg		10/17/22 06:42	10/19/22 00:56	1
Anthracene	ND		0.019	0.0084	mg/Kg		10/17/22 06:42	10/19/22 00:56	1
Benzo[g,h,i]perylene	ND		0.019	0.010	mg/Kg		10/17/22 06:42	10/19/22 00:56	1
Benzo[k]fluoranthene	ND		0.019	0.0071	mg/Kg		10/17/22 06:42	10/19/22 00:56	1
Benzo[a]anthracene	ND		0.019	0.0076	mg/Kg		10/17/22 06:42	10/19/22 00:56	1
Benzo[a]pyrene	ND		0.019	0.0077	mg/Kg		10/17/22 06:42	10/19/22 00:56	1
Benzo[b]fluoranthene	ND		0.019	0.014	mg/Kg		10/17/22 06:42	10/19/22 00:56	1
Chrysene	ND		0.019	0.0062	mg/Kg		10/17/22 06:42	10/19/22 00:56	1
Dibenz(a,h)anthracene	ND		0.019	0.010	mg/Kg		10/17/22 06:42	10/19/22 00:56	1
Fluoranthene	ND		0.019	0.0076	mg/Kg		10/17/22 06:42	10/19/22 00:56	1
Fluorene	ND		0.019	0.0092	mg/Kg		10/17/22 06:42	10/19/22 00:56	1
Indeno[1,2,3-cd]pyrene	ND		0.019	0.011	mg/Kg		10/17/22 06:42	10/19/22 00:56	1
Naphthalene	ND		0.019	0.0085	mg/Kg		10/17/22 06:42	10/19/22 00:56	1
Phenanthrene	ND		0.019	0.014	mg/Kg		10/17/22 06:42	10/19/22 00:56	1
Pyrene	ND		0.019	0.0082	mg/Kg		10/17/22 06:42	10/19/22 00:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	82		22 - 130				10/17/22 06:42	10/19/22 00:56	1
Nitrobenzene-d5 (Surr)	84		20 - 145				10/17/22 06:42	10/19/22 00:56	1
p-Terphenyl-d14 (Surr)	84		33 - 147				10/17/22 06:42	10/19/22 00:56	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: A-22-01@5'**  
**Date Collected: 10/13/22 07:45**  
**Date Received: 10/14/22 18:30**

**Lab Sample ID: 570-113508-1**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		10/18/22 11:33	10/18/22 15:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		42 - 126				10/18/22 11:33	10/18/22 15:11	1

**Client Sample ID: A-22-02@5'**  
**Date Collected: 10/13/22 08:10**  
**Date Received: 10/14/22 18:30**

**Lab Sample ID: 570-113508-2**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		10/18/22 11:33	10/18/22 15:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		42 - 126				10/18/22 11:33	10/18/22 15:37	1

**Client Sample ID: A-22-02@10'**  
**Date Collected: 10/13/22 08:20**  
**Date Received: 10/14/22 18:30**

**Lab Sample ID: 570-113508-3**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		10/18/22 11:33	10/18/22 16:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		42 - 126				10/18/22 11:33	10/18/22 16:02	1

**Client Sample ID: A-22-03@5'**  
**Date Collected: 10/13/22 11:05**  
**Date Received: 10/14/22 18:30**

**Lab Sample ID: 570-113508-4**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		10/18/22 11:33	10/18/22 16:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		42 - 126				10/18/22 11:33	10/18/22 16:30	1

**Client Sample ID: A-22-03@10'**  
**Date Collected: 10/13/22 11:15**  
**Date Received: 10/14/22 18:30**

**Lab Sample ID: 570-113508-5**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		10/18/22 11:33	10/18/22 16:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		42 - 126				10/18/22 11:33	10/18/22 16:56	1

**Client Sample ID: A-22-06-@5'**  
**Date Collected: 10/13/22 13:20**  
**Date Received: 10/14/22 18:30**

**Lab Sample ID: 570-113508-6**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		10/18/22 11:33	10/18/22 17:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		42 - 126				10/18/22 11:33	10/18/22 17:21	1



# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

Client Sample ID: A-22-06-@10'

Date Collected: 10/13/22 13:40

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-7

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		10/18/22 11:33	10/18/22 17:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		42 - 126				10/18/22 11:33	10/18/22 17:47	1

Client Sample ID: A-22-06-@15'

Date Collected: 10/13/22 13:50

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-8

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		10/17/22 15:25	10/18/22 12:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		42 - 126				10/17/22 15:25	10/18/22 12:05	1

Client Sample ID: A-22-06-@20'

Date Collected: 10/13/22 14:40

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-9

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		10/17/22 15:25	10/18/22 13:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		42 - 126				10/17/22 15:25	10/18/22 13:21	1

Client Sample ID: A-22-05-@5'

Date Collected: 10/14/22 08:00

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-10

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		10/17/22 15:25	10/18/22 13:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		42 - 126				10/17/22 15:25	10/18/22 13:46	1

Client Sample ID: A-22-05-@10'

Date Collected: 10/14/22 08:15

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-11

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		10/17/22 15:25	10/18/22 14:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		42 - 126				10/17/22 15:25	10/18/22 14:11	1

Client Sample ID: A-22-05-@15'

Date Collected: 10/14/22 08:25

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-12

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		10/17/22 15:25	10/18/22 14:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		42 - 126				10/17/22 15:25	10/18/22 14:36	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: A-22-05-@20'**  
**Date Collected: 10/14/22 08:35**  
**Date Received: 10/14/22 18:30**

**Lab Sample ID: 570-113508-13**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		10/17/22 15:25	10/18/22 15:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		42 - 126				10/17/22 15:25	10/18/22 15:01	1

**Client Sample ID: A-22-05-@25'**  
**Date Collected: 10/14/22 08:45**  
**Date Received: 10/14/22 18:30**

**Lab Sample ID: 570-113508-14**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		10/17/22 15:25	10/18/22 15:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		42 - 126				10/17/22 15:25	10/18/22 15:26	1

**Client Sample ID: A-22-05-@30'**  
**Date Collected: 10/14/22 09:10**  
**Date Received: 10/14/22 18:30**

**Lab Sample ID: 570-113508-15**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		10/17/22 15:25	10/18/22 17:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		42 - 126				10/17/22 15:25	10/18/22 17:55	1

**Client Sample ID: A-22-05@35'**  
**Date Collected: 10/14/22 09:25**  
**Date Received: 10/14/22 18:30**

**Lab Sample ID: 570-113508-16**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		10/17/22 15:25	10/18/22 18:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		42 - 126				10/17/22 15:25	10/18/22 18:20	1

**Client Sample ID: A-22-04@5'**  
**Date Collected: 10/14/22 12:50**  
**Date Received: 10/14/22 18:30**

**Lab Sample ID: 570-113508-17**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		10/17/22 15:25	10/18/22 18:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		42 - 126				10/17/22 15:25	10/18/22 18:45	1

**Client Sample ID: A-22-04@10'**  
**Date Collected: 10/14/22 13:00**  
**Date Received: 10/14/22 18:30**

**Lab Sample ID: 570-113508-18**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		10/17/22 15:25	10/18/22 19:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		42 - 126				10/17/22 15:25	10/18/22 19:36	1



# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: A-22-04@15'**  
**Date Collected: 10/14/22 13:10**  
**Date Received: 10/14/22 18:30**

**Lab Sample ID: 570-113508-19**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		10/17/22 15:25	10/18/22 20:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		42 - 126				10/17/22 15:25	10/18/22 20:01	1

**Client Sample ID: A-22-04@20'**  
**Date Collected: 10/14/22 13:18**  
**Date Received: 10/14/22 18:30**

**Lab Sample ID: 570-113508-20**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		10/17/22 15:25	10/18/22 20:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		42 - 126				10/17/22 15:25	10/18/22 20:26	1

**Client Sample ID: A-22-04@25'**  
**Date Collected: 10/14/22 13:31**  
**Date Received: 10/14/22 18:30**

**Lab Sample ID: 570-113508-21**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		10/17/22 15:25	10/18/22 20:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	77		42 - 126				10/17/22 15:25	10/18/22 20:51	1

**Client Sample ID: A-22-04@30'**  
**Date Collected: 10/14/22 13:46**  
**Date Received: 10/14/22 18:30**

**Lab Sample ID: 570-113508-22**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		10/17/22 15:25	10/18/22 21:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		42 - 126				10/17/22 15:25	10/18/22 21:16	1

**Client Sample ID: A-22-04@35'**  
**Date Collected: 10/14/22 14:02**  
**Date Received: 10/14/22 18:30**

**Lab Sample ID: 570-113508-23**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		10/17/22 15:25	10/18/22 21:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	68		42 - 126				10/17/22 15:25	10/18/22 21:41	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: A-22-01@5'  
Date Collected: 10/13/22 07:45  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		49	38	mg/Kg		10/17/22 11:16	10/18/22 02:05	10
C23-C40	290		49	38	mg/Kg		10/17/22 11:16	10/18/22 02:05	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	102		60 - 138				10/17/22 11:16	10/18/22 02:05	10

Client Sample ID: A-22-02@5'  
Date Collected: 10/13/22 08:10  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.7	mg/Kg		10/17/22 11:16	10/18/22 02:26	1
C23-C40	ND		4.9	3.7	mg/Kg		10/17/22 11:16	10/18/22 02:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	113		60 - 138				10/17/22 11:16	10/18/22 02:26	1

Client Sample ID: A-22-02@10'  
Date Collected: 10/13/22 08:20  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.7	mg/Kg		10/17/22 11:16	10/18/22 02:48	1
C23-C40	ND		4.9	3.7	mg/Kg		10/17/22 11:16	10/18/22 02:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	111		60 - 138				10/17/22 11:16	10/18/22 02:48	1

Client Sample ID: A-22-03@5'  
Date Collected: 10/13/22 11:05  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		10/17/22 11:16	10/18/22 03:09	1
C23-C40	20		4.9	3.8	mg/Kg		10/17/22 11:16	10/18/22 03:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	113		60 - 138				10/17/22 11:16	10/18/22 03:09	1

Client Sample ID: A-22-03@10'  
Date Collected: 10/13/22 11:15  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		10/17/22 11:16	10/18/22 03:30	1
C23-C40	ND		4.9	3.8	mg/Kg		10/17/22 11:16	10/18/22 03:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	111		60 - 138				10/17/22 11:16	10/18/22 03:30	1

Client Sample ID: A-22-06-@5'  
Date Collected: 10/13/22 13:20  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		10/17/22 11:16	10/18/22 03:51	1
C23-C40	9.2		4.9	3.8	mg/Kg		10/17/22 11:16	10/18/22 03:51	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	110		60 - 138	10/17/22 11:16	10/18/22 03:51	1
<div> <div>Client Sample ID: A-22-06-@10'</div> <div>Date Collected: 10/13/22 13:40</div> <div>Date Received: 10/14/22 18:30</div> </div> <div> <div>Lab Sample ID: 570-113508-7</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		4.9	3.8	mg/Kg	
C23-C40	3.8	J	4.9	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	111		60 - 138	10/17/22 11:16	10/18/22 04:13	1
<div> <div>Client Sample ID: A-22-06-@15'</div> <div>Date Collected: 10/13/22 13:50</div> <div>Date Received: 10/14/22 18:30</div> </div> <div> <div>Lab Sample ID: 570-113508-8</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	4.3	J	5.0	3.8	mg/Kg	
C23-C40	54		5.0	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	111		60 - 138	10/17/22 11:16	10/18/22 04:34	1
<div> <div>Client Sample ID: A-22-06-@20'</div> <div>Date Collected: 10/13/22 14:40</div> <div>Date Received: 10/14/22 18:30</div> </div> <div> <div>Lab Sample ID: 570-113508-9</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		4.9	3.8	mg/Kg	
C23-C40	17		4.9	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	109		60 - 138	10/17/22 11:16	10/18/22 04:55	1
<div> <div>Client Sample ID: A-22-05-@5'</div> <div>Date Collected: 10/14/22 08:00</div> <div>Date Received: 10/14/22 18:30</div> </div> <div> <div>Lab Sample ID: 570-113508-10</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		4.9	3.8	mg/Kg	
C23-C40	8.3		4.9	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	111		60 - 138	10/17/22 11:16	10/18/22 05:17	1
<div> <div>Client Sample ID: A-22-05-@10'</div> <div>Date Collected: 10/14/22 08:15</div> <div>Date Received: 10/14/22 18:30</div> </div> <div> <div>Lab Sample ID: 570-113508-11</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		4.9	3.7	mg/Kg	
C23-C40	21		4.9	3.7	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	110		60 - 138	10/17/22 11:16	10/18/22 05:38	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: A-22-05-@15'  
Date Collected: 10/14/22 08:25  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		10/17/22 11:16	10/18/22 05:59	1
<b>C23-C40</b>	<b>5.6</b>		4.9	3.8	mg/Kg		10/17/22 11:16	10/18/22 05:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	110		60 - 138				10/17/22 11:16	10/18/22 05:59	1

Client Sample ID: A-22-05-@20'  
Date Collected: 10/14/22 08:35  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.7	mg/Kg		10/17/22 11:16	10/18/22 06:21	1
<b>C23-C40</b>	<b>61</b>		4.9	3.7	mg/Kg		10/17/22 11:16	10/18/22 06:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	108		60 - 138				10/17/22 11:16	10/18/22 06:21	1

Client Sample ID: A-22-05-@25'  
Date Collected: 10/14/22 08:45  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-14  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		10/17/22 11:16	10/18/22 06:42	1
<b>C23-C40</b>	<b>5.5</b>		4.9	3.8	mg/Kg		10/17/22 11:16	10/18/22 06:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	110		60 - 138				10/17/22 11:16	10/18/22 06:42	1

Client Sample ID: A-22-05-@30'  
Date Collected: 10/14/22 09:10  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-15  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.7	mg/Kg		10/17/22 11:16	10/18/22 07:03	1
<b>C23-C40</b>	<b>11</b>		4.9	3.7	mg/Kg		10/17/22 11:16	10/18/22 07:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	110		60 - 138				10/17/22 11:16	10/18/22 07:03	1

Client Sample ID: A-22-05-@35'  
Date Collected: 10/14/22 09:25  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-16  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		10/17/22 11:16	10/18/22 07:25	1
<b>C23-C40</b>	<b>11</b>		4.9	3.8	mg/Kg		10/17/22 11:16	10/18/22 07:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	108		60 - 138				10/17/22 11:16	10/18/22 07:25	1

Client Sample ID: A-22-04@5'  
Date Collected: 10/14/22 12:50  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-17  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.7	mg/Kg		10/17/22 11:16	10/18/22 07:46	1
<b>C23-C40</b>	<b>4.6 J</b>		4.9	3.7	mg/Kg		10/17/22 11:16	10/18/22 07:46	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	108		60 - 138			10/17/22 11:16	10/18/22 07:46	1	
Client Sample ID: A-22-04@10' Date Collected: 10/14/22 13:00 Date Received: 10/14/22 18:30						Lab Sample ID: 570-113508-18 Matrix: Solid			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	15		4.9	3.8	mg/Kg		10/17/22 11:16	10/18/22 08:07	1
C23-C40	110		4.9	3.8	mg/Kg		10/17/22 11:16	10/18/22 08:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	108		60 - 138			10/17/22 11:16	10/18/22 08:07	1	
Client Sample ID: A-22-04@15' Date Collected: 10/14/22 13:10 Date Received: 10/14/22 18:30						Lab Sample ID: 570-113508-19 Matrix: Solid			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.7	mg/Kg		10/17/22 11:16	10/18/22 08:28	1
C23-C40	8.7		4.9	3.7	mg/Kg		10/17/22 11:16	10/18/22 08:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	110		60 - 138			10/17/22 11:16	10/18/22 08:28	1	
Client Sample ID: A-22-04@20' Date Collected: 10/14/22 13:18 Date Received: 10/14/22 18:30						Lab Sample ID: 570-113508-20 Matrix: Solid			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		10/17/22 11:16	10/18/22 08:50	1
C23-C40	13		4.9	3.8	mg/Kg		10/17/22 11:16	10/18/22 08:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	108		60 - 138			10/17/22 11:16	10/18/22 08:50	1	
Client Sample ID: A-22-04@25' Date Collected: 10/14/22 13:31 Date Received: 10/14/22 18:30						Lab Sample ID: 570-113508-21 Matrix: Solid			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		10/17/22 11:14	10/17/22 22:53	1
C23-C40	14		4.9	3.8	mg/Kg		10/17/22 11:14	10/17/22 22:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	107		60 - 138			10/17/22 11:14	10/17/22 22:53	1	
Client Sample ID: A-22-04@30' Date Collected: 10/14/22 13:46 Date Received: 10/14/22 18:30						Lab Sample ID: 570-113508-22 Matrix: Solid			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		10/17/22 11:14	10/17/22 23:15	1
C23-C40	4.6 J		4.9	3.8	mg/Kg		10/17/22 11:14	10/17/22 23:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	110		60 - 138			10/17/22 11:14	10/17/22 23:15	1	

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: A-22-04@35'  
Date Collected: 10/14/22 14:02  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-23  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		10/17/22 11:14	10/17/22 23:36	1
C23-C40	8.0		4.9	3.8	mg/Kg		10/17/22 11:14	10/17/22 23:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	109		60 - 138				10/17/22 11:14	10/17/22 23:36	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: A-22-01@5'  
Date Collected: 10/13/22 07:45  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	*+ F1 ^1+ ^6+	10.1	2.89	mg/Kg		10/17/22 06:59	10/18/22 19:07	5
Arsenic	5.57		3.03	1.41	mg/Kg		10/17/22 06:59	10/18/22 19:07	5
Barium	54.9		3.03	0.143	mg/Kg		10/17/22 06:59	10/18/22 19:07	5
Beryllium	0.215	J	0.505	0.0697	mg/Kg		10/17/22 06:59	10/18/22 19:07	5
Cadmium	ND		0.505	0.0838	mg/Kg		10/17/22 06:59	10/18/22 19:07	5
Chromium	7.02		1.01	0.188	mg/Kg		10/17/22 06:59	10/18/22 19:07	5
Cobalt	2.35		1.01	0.208	mg/Kg		10/17/22 06:59	10/18/22 19:07	5
Copper	17.2		2.02	0.968	mg/Kg		10/17/22 06:59	10/18/22 19:07	5
Lead	8.48		2.02	0.413	mg/Kg		10/17/22 06:59	10/18/22 19:07	5
Molybdenum	2.32		2.02	0.520	mg/Kg		10/17/22 06:59	10/18/22 19:07	5
Nickel	4.32		2.02	0.366	mg/Kg		10/17/22 06:59	10/18/22 19:07	5
Selenium	ND		3.03	1.23	mg/Kg		10/17/22 06:59	10/18/22 19:07	5
Silver	ND		1.52	0.145	mg/Kg		10/17/22 06:59	10/18/22 19:07	5
Thallium	ND		10.1	2.13	mg/Kg		10/17/22 06:59	10/18/22 19:07	5
Vanadium	16.6	B	1.01	0.170	mg/Kg		10/17/22 06:59	10/18/22 19:07	5
Zinc	33.0		5.05	1.17	mg/Kg		10/17/22 06:59	10/18/22 19:07	5

Client Sample ID: A-22-02@5'  
Date Collected: 10/13/22 08:10  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	*+ ^1+ ^6+	10.0	2.86	mg/Kg		10/17/22 06:59	10/18/22 19:17	5
Arsenic	ND		3.00	1.39	mg/Kg		10/17/22 06:59	10/18/22 19:17	5
Barium	19.0		3.00	0.142	mg/Kg		10/17/22 06:59	10/18/22 19:17	5
Beryllium	0.163	J	0.500	0.0690	mg/Kg		10/17/22 06:59	10/18/22 19:17	5
Cadmium	ND		0.500	0.0830	mg/Kg		10/17/22 06:59	10/18/22 19:17	5
Chromium	6.63		1.00	0.186	mg/Kg		10/17/22 06:59	10/18/22 19:17	5
Cobalt	1.18		1.00	0.206	mg/Kg		10/17/22 06:59	10/18/22 19:17	5
Copper	4.56		2.00	0.958	mg/Kg		10/17/22 06:59	10/18/22 19:17	5
Lead	5.18		2.00	0.409	mg/Kg		10/17/22 06:59	10/18/22 19:17	5
Molybdenum	ND		2.00	0.515	mg/Kg		10/17/22 06:59	10/18/22 19:17	5
Nickel	1.88	J	2.00	0.362	mg/Kg		10/17/22 06:59	10/18/22 19:17	5
Selenium	ND		3.00	1.22	mg/Kg		10/17/22 06:59	10/18/22 19:17	5
Silver	ND		1.50	0.144	mg/Kg		10/17/22 06:59	10/18/22 19:17	5
Thallium	ND		10.0	2.11	mg/Kg		10/17/22 06:59	10/18/22 19:17	5
Vanadium	19.4	B	1.00	0.168	mg/Kg		10/17/22 06:59	10/18/22 19:17	5
Zinc	6.20		5.00	1.16	mg/Kg		10/17/22 06:59	10/18/22 19:17	5

Client Sample ID: A-22-02@10'  
Date Collected: 10/13/22 08:20  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	*+ ^1+ ^6+	9.80	2.80	mg/Kg		10/17/22 06:59	10/18/22 19:19	5
Arsenic	6.10		2.94	1.36	mg/Kg		10/17/22 06:59	10/18/22 19:19	5
Barium	71.8		2.94	0.139	mg/Kg		10/17/22 06:59	10/18/22 19:19	5
Beryllium	0.0858	J	0.490	0.0676	mg/Kg		10/17/22 06:59	10/18/22 19:19	5
Cadmium	ND		0.490	0.0814	mg/Kg		10/17/22 06:59	10/18/22 19:19	5
Chromium	4.90		0.980	0.182	mg/Kg		10/17/22 06:59	10/18/22 19:19	5
Cobalt	1.26		0.980	0.202	mg/Kg		10/17/22 06:59	10/18/22 19:19	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: A-22-02@10'  
Date Collected: 10/13/22 08:20  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	3.85		1.96	0.939	mg/Kg		10/17/22 06:59	10/18/22 19:19	5
Lead	7.62		1.96	0.401	mg/Kg		10/17/22 06:59	10/18/22 19:19	5
Molybdenum	ND		1.96	0.505	mg/Kg		10/17/22 06:59	10/18/22 19:19	5
Nickel	1.63	J	1.96	0.355	mg/Kg		10/17/22 06:59	10/18/22 19:19	5
Selenium	ND		2.94	1.20	mg/Kg		10/17/22 06:59	10/18/22 19:19	5
Silver	ND		1.47	0.141	mg/Kg		10/17/22 06:59	10/18/22 19:19	5
Thallium	ND		9.80	2.06	mg/Kg		10/17/22 06:59	10/18/22 19:19	5
Vanadium	21.3	B	0.980	0.165	mg/Kg		10/17/22 06:59	10/18/22 19:19	5
Zinc	14.3		4.90	1.13	mg/Kg		10/17/22 06:59	10/18/22 19:19	5

Client Sample ID: A-22-03@5'  
Date Collected: 10/13/22 11:05  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	*+ ^1+ ^6+	10.0	2.86	mg/Kg		10/17/22 06:59	10/18/22 19:29	5
Arsenic	2.14	J	3.00	1.39	mg/Kg		10/17/22 06:59	10/18/22 19:29	5
Barium	26.7		3.00	0.142	mg/Kg		10/17/22 06:59	10/18/22 19:29	5
Beryllium	0.138	J	0.500	0.0690	mg/Kg		10/17/22 06:59	10/18/22 19:29	5
Cadmium	ND		0.500	0.0830	mg/Kg		10/17/22 06:59	10/18/22 19:29	5
Chromium	4.49		1.00	0.186	mg/Kg		10/17/22 06:59	10/18/22 19:29	5
Cobalt	1.59		1.00	0.206	mg/Kg		10/17/22 06:59	10/18/22 19:29	5
Copper	3.85		2.00	0.958	mg/Kg		10/17/22 06:59	10/18/22 19:29	5
Lead	2.59		2.00	0.409	mg/Kg		10/17/22 06:59	10/18/22 19:29	5
Molybdenum	ND		2.00	0.515	mg/Kg		10/17/22 06:59	10/18/22 19:29	5
Nickel	3.28		2.00	0.362	mg/Kg		10/17/22 06:59	10/18/22 19:29	5
Selenium	ND		3.00	1.22	mg/Kg		10/17/22 06:59	10/18/22 19:29	5
Silver	ND		1.50	0.144	mg/Kg		10/17/22 06:59	10/18/22 19:29	5
Thallium	ND		10.0	2.11	mg/Kg		10/17/22 06:59	10/18/22 19:29	5
Vanadium	10.6	B	1.00	0.168	mg/Kg		10/17/22 06:59	10/18/22 19:29	5
Zinc	12.6		5.00	1.16	mg/Kg		10/17/22 06:59	10/18/22 19:29	5

Client Sample ID: A-22-03@10'  
Date Collected: 10/13/22 11:15  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	*+ ^1+ ^6+	10.2	2.92	mg/Kg		10/17/22 06:59	10/18/22 19:31	5
Arsenic	ND		3.06	1.42	mg/Kg		10/17/22 06:59	10/18/22 19:31	5
Barium	23.6		3.06	0.145	mg/Kg		10/17/22 06:59	10/18/22 19:31	5
Beryllium	0.306	J	0.510	0.0704	mg/Kg		10/17/22 06:59	10/18/22 19:31	5
Cadmium	ND		0.510	0.0847	mg/Kg		10/17/22 06:59	10/18/22 19:31	5
Chromium	7.42		1.02	0.190	mg/Kg		10/17/22 06:59	10/18/22 19:31	5
Cobalt	2.64		1.02	0.210	mg/Kg		10/17/22 06:59	10/18/22 19:31	5
Copper	10.0		2.04	0.978	mg/Kg		10/17/22 06:59	10/18/22 19:31	5
Lead	2.77		2.04	0.417	mg/Kg		10/17/22 06:59	10/18/22 19:31	5
Molybdenum	ND		2.04	0.526	mg/Kg		10/17/22 06:59	10/18/22 19:31	5
Nickel	2.56		2.04	0.369	mg/Kg		10/17/22 06:59	10/18/22 19:31	5
Selenium	ND		3.06	1.25	mg/Kg		10/17/22 06:59	10/18/22 19:31	5
Silver	ND		1.53	0.147	mg/Kg		10/17/22 06:59	10/18/22 19:31	5
Thallium	ND		10.2	2.15	mg/Kg		10/17/22 06:59	10/18/22 19:31	5
Vanadium	21.8	B	1.02	0.171	mg/Kg		10/17/22 06:59	10/18/22 19:31	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: A-22-03@10'  
Date Collected: 10/13/22 11:15  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	16.8		5.10	1.18	mg/Kg		10/17/22 06:59	10/18/22 19:31	5

Client Sample ID: A-22-06-@5'  
Date Collected: 10/13/22 13:20  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	*+ ^1+ ^6+	9.95	2.84	mg/Kg		10/17/22 06:59	10/18/22 19:34	5
Arsenic	12.7		2.99	1.38	mg/Kg		10/17/22 06:59	10/18/22 19:34	5
Barium	18.8		2.99	0.141	mg/Kg		10/17/22 06:59	10/18/22 19:34	5
Beryllium	0.274	J	0.498	0.0687	mg/Kg		10/17/22 06:59	10/18/22 19:34	5
Cadmium	ND		0.498	0.0826	mg/Kg		10/17/22 06:59	10/18/22 19:34	5
Chromium	8.91		0.995	0.185	mg/Kg		10/17/22 06:59	10/18/22 19:34	5
Cobalt	2.26		0.995	0.205	mg/Kg		10/17/22 06:59	10/18/22 19:34	5
Copper	23.6		1.99	0.953	mg/Kg		10/17/22 06:59	10/18/22 19:34	5
Lead	2.60		1.99	0.407	mg/Kg		10/17/22 06:59	10/18/22 19:34	5
Molybdenum	ND		1.99	0.512	mg/Kg		10/17/22 06:59	10/18/22 19:34	5
Nickel	2.94		1.99	0.360	mg/Kg		10/17/22 06:59	10/18/22 19:34	5
Selenium	ND		2.99	1.22	mg/Kg		10/17/22 06:59	10/18/22 19:34	5
Silver	ND		1.49	0.143	mg/Kg		10/17/22 06:59	10/18/22 19:34	5
Thallium	ND		9.95	2.10	mg/Kg		10/17/22 06:59	10/18/22 19:34	5
Vanadium	16.0	B	0.995	0.167	mg/Kg		10/17/22 06:59	10/18/22 19:34	5
Zinc	19.9		4.98	1.15	mg/Kg		10/17/22 06:59	10/18/22 19:34	5

Client Sample ID: A-22-06-@10'  
Date Collected: 10/13/22 13:40  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-7  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	*+ ^1+ ^6+	10.2	2.90	mg/Kg		10/17/22 06:59	10/18/22 19:36	5
Arsenic	16.2		3.05	1.41	mg/Kg		10/17/22 06:59	10/18/22 19:36	5
Barium	50.8		3.05	0.144	mg/Kg		10/17/22 06:59	10/18/22 19:36	5
Beryllium	0.355	J	0.508	0.0701	mg/Kg		10/17/22 06:59	10/18/22 19:36	5
Cadmium	ND		0.508	0.0843	mg/Kg		10/17/22 06:59	10/18/22 19:36	5
Chromium	7.84		1.02	0.189	mg/Kg		10/17/22 06:59	10/18/22 19:36	5
Cobalt	3.22		1.02	0.209	mg/Kg		10/17/22 06:59	10/18/22 19:36	5
Copper	13.1		2.03	0.973	mg/Kg		10/17/22 06:59	10/18/22 19:36	5
Lead	12.7		2.03	0.415	mg/Kg		10/17/22 06:59	10/18/22 19:36	5
Molybdenum	ND		2.03	0.523	mg/Kg		10/17/22 06:59	10/18/22 19:36	5
Nickel	4.25		2.03	0.368	mg/Kg		10/17/22 06:59	10/18/22 19:36	5
Selenium	ND		3.05	1.24	mg/Kg		10/17/22 06:59	10/18/22 19:36	5
Silver	ND		1.52	0.146	mg/Kg		10/17/22 06:59	10/18/22 19:36	5
Thallium	ND		10.2	2.14	mg/Kg		10/17/22 06:59	10/18/22 19:36	5
Vanadium	19.6	B	1.02	0.171	mg/Kg		10/17/22 06:59	10/18/22 19:36	5
Zinc	33.8		5.08	1.17	mg/Kg		10/17/22 06:59	10/18/22 19:36	5

Client Sample ID: A-22-06-@15'  
Date Collected: 10/13/22 13:50  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	*+ ^1+ ^6+	9.95	2.84	mg/Kg		10/17/22 06:59	10/18/22 19:39	5
Arsenic	4.10		2.99	1.38	mg/Kg		10/17/22 06:59	10/18/22 19:39	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: A-22-06-@15'

Date Collected: 10/13/22 13:50

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-8

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	56.5		2.99	0.141	mg/Kg		10/17/22 06:59	10/18/22 19:39	5
Beryllium	0.323	J	0.498	0.0687	mg/Kg		10/17/22 06:59	10/18/22 19:39	5
Cadmium	ND		0.498	0.0826	mg/Kg		10/17/22 06:59	10/18/22 19:39	5
Chromium	5.45		0.995	0.185	mg/Kg		10/17/22 06:59	10/18/22 19:39	5
Cobalt	3.64		0.995	0.205	mg/Kg		10/17/22 06:59	10/18/22 19:39	5
Copper	4.90		1.99	0.953	mg/Kg		10/17/22 06:59	10/18/22 19:39	5
Lead	4.68		1.99	0.407	mg/Kg		10/17/22 06:59	10/18/22 19:39	5
Molybdenum	ND		1.99	0.512	mg/Kg		10/17/22 06:59	10/18/22 19:39	5
Nickel	2.80		1.99	0.360	mg/Kg		10/17/22 06:59	10/18/22 19:39	5
Selenium	ND		2.99	1.22	mg/Kg		10/17/22 06:59	10/18/22 19:39	5
Silver	ND		1.49	0.143	mg/Kg		10/17/22 06:59	10/18/22 19:39	5
Thallium	ND		9.95	2.10	mg/Kg		10/17/22 06:59	10/18/22 19:39	5
Vanadium	14.3	B	0.995	0.167	mg/Kg		10/17/22 06:59	10/18/22 19:39	5
Zinc	18.7		4.98	1.15	mg/Kg		10/17/22 06:59	10/18/22 19:39	5

Client Sample ID: A-22-06-@20'

Date Collected: 10/13/22 14:40

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-9

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	*+ ^1+ ^6+	10.0	2.86	mg/Kg		10/17/22 06:59	10/18/22 19:41	5
Arsenic	3.39		3.00	1.39	mg/Kg		10/17/22 06:59	10/18/22 19:41	5
Barium	46.3		3.00	0.142	mg/Kg		10/17/22 06:59	10/18/22 19:41	5
Beryllium	0.288	J	0.500	0.0690	mg/Kg		10/17/22 06:59	10/18/22 19:41	5
Cadmium	ND		0.500	0.0830	mg/Kg		10/17/22 06:59	10/18/22 19:41	5
Chromium	9.33		1.00	0.186	mg/Kg		10/17/22 06:59	10/18/22 19:41	5
Cobalt	3.10		1.00	0.206	mg/Kg		10/17/22 06:59	10/18/22 19:41	5
Copper	8.59		2.00	0.958	mg/Kg		10/17/22 06:59	10/18/22 19:41	5
Lead	15.2		2.00	0.409	mg/Kg		10/17/22 06:59	10/18/22 19:41	5
Molybdenum	ND		2.00	0.515	mg/Kg		10/17/22 06:59	10/18/22 19:41	5
Nickel	3.76		2.00	0.362	mg/Kg		10/17/22 06:59	10/18/22 19:41	5
Selenium	ND		3.00	1.22	mg/Kg		10/17/22 06:59	10/18/22 19:41	5
Silver	ND		1.50	0.144	mg/Kg		10/17/22 06:59	10/18/22 19:41	5
Thallium	ND		10.0	2.11	mg/Kg		10/17/22 06:59	10/18/22 19:41	5
Vanadium	27.0	B	1.00	0.168	mg/Kg		10/17/22 06:59	10/18/22 19:41	5
Zinc	17.5		5.00	1.16	mg/Kg		10/17/22 06:59	10/18/22 19:41	5

Client Sample ID: A-22-05-@5'

Date Collected: 10/14/22 08:00

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-10

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	*+ ^1+ ^6+	10.2	2.92	mg/Kg		10/17/22 06:59	10/18/22 19:43	5
Arsenic	26.1		3.06	1.42	mg/Kg		10/17/22 06:59	10/18/22 19:43	5
Barium	54.6		3.06	0.145	mg/Kg		10/17/22 06:59	10/18/22 19:43	5
Beryllium	0.472	J	0.510	0.0704	mg/Kg		10/17/22 06:59	10/18/22 19:43	5
Cadmium	ND		0.510	0.0847	mg/Kg		10/17/22 06:59	10/18/22 19:43	5
Chromium	9.54		1.02	0.190	mg/Kg		10/17/22 06:59	10/18/22 19:43	5
Cobalt	4.12		1.02	0.210	mg/Kg		10/17/22 06:59	10/18/22 19:43	5
Copper	26.1		2.04	0.978	mg/Kg		10/17/22 06:59	10/18/22 19:43	5
Lead	22.5		2.04	0.417	mg/Kg		10/17/22 06:59	10/18/22 19:43	5
Molybdenum	0.689	J	2.04	0.526	mg/Kg		10/17/22 06:59	10/18/22 19:43	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: A-22-05-@5'  
Date Collected: 10/14/22 08:00  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-10  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	5.11		2.04	0.369	mg/Kg		10/17/22 06:59	10/18/22 19:43	5
Selenium	ND		3.06	1.25	mg/Kg		10/17/22 06:59	10/18/22 19:43	5
Silver	ND		1.53	0.147	mg/Kg		10/17/22 06:59	10/18/22 19:43	5
Thallium	ND		10.2	2.15	mg/Kg		10/17/22 06:59	10/18/22 19:43	5
Vanadium	49.3	B	1.02	0.171	mg/Kg		10/17/22 06:59	10/18/22 19:43	5
Zinc	39.2		5.10	1.18	mg/Kg		10/17/22 06:59	10/18/22 19:43	5

Client Sample ID: A-22-05-@10'  
Date Collected: 10/14/22 08:15  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-11  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	*+ ^1+ ^6+	9.80	2.80	mg/Kg		10/17/22 06:59	10/18/22 19:46	5
Arsenic	4.82		2.94	1.36	mg/Kg		10/17/22 06:59	10/18/22 19:46	5
Barium	47.0		2.94	0.139	mg/Kg		10/17/22 06:59	10/18/22 19:46	5
Beryllium	0.282	J	0.490	0.0676	mg/Kg		10/17/22 06:59	10/18/22 19:46	5
Cadmium	ND		0.490	0.0814	mg/Kg		10/17/22 06:59	10/18/22 19:46	5
Chromium	7.46		0.980	0.182	mg/Kg		10/17/22 06:59	10/18/22 19:46	5
Cobalt	1.91		0.980	0.202	mg/Kg		10/17/22 06:59	10/18/22 19:46	5
Copper	6.23		1.96	0.939	mg/Kg		10/17/22 06:59	10/18/22 19:46	5
Lead	17.5		1.96	0.401	mg/Kg		10/17/22 06:59	10/18/22 19:46	5
Molybdenum	ND		1.96	0.505	mg/Kg		10/17/22 06:59	10/18/22 19:46	5
Nickel	2.66		1.96	0.355	mg/Kg		10/17/22 06:59	10/18/22 19:46	5
Selenium	ND		2.94	1.20	mg/Kg		10/17/22 06:59	10/18/22 19:46	5
Silver	ND		1.47	0.141	mg/Kg		10/17/22 06:59	10/18/22 19:46	5
Thallium	ND		9.80	2.06	mg/Kg		10/17/22 06:59	10/18/22 19:46	5
Vanadium	22.6	B	0.980	0.165	mg/Kg		10/17/22 06:59	10/18/22 19:46	5
Zinc	13.9		4.90	1.13	mg/Kg		10/17/22 06:59	10/18/22 19:46	5

Client Sample ID: A-22-05-@15'  
Date Collected: 10/14/22 08:25  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	6.49	J ^1+	10.1	2.87	mg/Kg		10/20/22 12:26	10/20/22 17:45	5
Arsenic	14.0		3.02	1.40	mg/Kg		10/20/22 12:26	10/20/22 17:45	5
Barium	65.8		3.02	0.143	mg/Kg		10/20/22 12:26	10/20/22 17:45	5
Beryllium	0.364	J	0.503	0.0693	mg/Kg		10/20/22 12:26	10/20/22 17:45	5
Cadmium	ND		0.503	0.0834	mg/Kg		10/20/22 12:26	10/20/22 17:45	5
Chromium	6.14		1.01	0.187	mg/Kg		10/20/22 12:26	10/20/22 17:45	5
Cobalt	2.63		1.01	0.207	mg/Kg		10/20/22 12:26	10/20/22 17:45	5
Copper	77.1		2.01	0.963	mg/Kg		10/20/22 12:26	10/20/22 17:45	5
Lead	1690		2.01	0.411	mg/Kg		10/20/22 12:26	10/20/22 17:45	5
Molybdenum	0.616	J	2.01	0.518	mg/Kg		10/20/22 12:26	10/20/22 17:45	5
Nickel	3.93		2.01	0.364	mg/Kg		10/20/22 12:26	10/20/22 17:45	5
Selenium	ND		3.02	1.23	mg/Kg		10/20/22 12:26	10/20/22 17:45	5
Silver	ND		1.51	0.145	mg/Kg		10/20/22 12:26	10/20/22 17:45	5
Thallium	ND		10.1	2.12	mg/Kg		10/20/22 12:26	10/20/22 17:45	5
Vanadium	15.9		1.01	0.169	mg/Kg		10/20/22 12:26	10/20/22 17:45	5
Zinc	29.3		5.03	1.16	mg/Kg		10/20/22 12:26	10/20/22 17:45	5

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: A-22-05-@20'

Date Collected: 10/14/22 08:35

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-13

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	*+ ^1+ ^6+	10.0	2.86	mg/Kg		10/17/22 06:59	10/18/22 19:51	5
Arsenic	2.28	J	3.00	1.39	mg/Kg		10/17/22 06:59	10/18/22 19:51	5
Barium	49.0		3.00	0.142	mg/Kg		10/17/22 06:59	10/18/22 19:51	5
Beryllium	0.350	J	0.500	0.0690	mg/Kg		10/17/22 06:59	10/18/22 19:51	5
Cadmium	ND		0.500	0.0830	mg/Kg		10/17/22 06:59	10/18/22 19:51	5
Chromium	11.0		1.00	0.186	mg/Kg		10/17/22 06:59	10/18/22 19:51	5
Cobalt	2.96		1.00	0.206	mg/Kg		10/17/22 06:59	10/18/22 19:51	5
Copper	7.34		2.00	0.958	mg/Kg		10/17/22 06:59	10/18/22 19:51	5
Lead	8.55		2.00	0.409	mg/Kg		10/17/22 06:59	10/18/22 19:51	5
Molybdenum	ND		2.00	0.515	mg/Kg		10/17/22 06:59	10/18/22 19:51	5
Nickel	4.86		2.00	0.362	mg/Kg		10/17/22 06:59	10/18/22 19:51	5
Selenium	ND		3.00	1.22	mg/Kg		10/17/22 06:59	10/18/22 19:51	5
Silver	ND		1.50	0.144	mg/Kg		10/17/22 06:59	10/18/22 19:51	5
Thallium	ND		10.0	2.11	mg/Kg		10/17/22 06:59	10/18/22 19:51	5
Vanadium	22.0	B	1.00	0.168	mg/Kg		10/17/22 06:59	10/18/22 19:51	5
Zinc	19.5		5.00	1.16	mg/Kg		10/17/22 06:59	10/18/22 19:51	5

Client Sample ID: A-22-05-@25'

Date Collected: 10/14/22 08:45

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-14

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	*+ ^1+ ^6+	9.90	2.83	mg/Kg		10/17/22 06:59	10/18/22 20:00	5
Arsenic	ND		2.97	1.38	mg/Kg		10/17/22 06:59	10/18/22 20:00	5
Barium	63.5		2.97	0.141	mg/Kg		10/17/22 06:59	10/18/22 20:00	5
Beryllium	0.223	J	0.495	0.0683	mg/Kg		10/17/22 06:59	10/18/22 20:00	5
Cadmium	ND		0.495	0.0822	mg/Kg		10/17/22 06:59	10/18/22 20:00	5
Chromium	8.24		0.990	0.184	mg/Kg		10/17/22 06:59	10/18/22 20:00	5
Cobalt	2.15		0.990	0.204	mg/Kg		10/17/22 06:59	10/18/22 20:00	5
Copper	10.0		1.98	0.949	mg/Kg		10/17/22 06:59	10/18/22 20:00	5
Lead	9.25		1.98	0.405	mg/Kg		10/17/22 06:59	10/18/22 20:00	5
Molybdenum	ND		1.98	0.510	mg/Kg		10/17/22 06:59	10/18/22 20:00	5
Nickel	2.65		1.98	0.358	mg/Kg		10/17/22 06:59	10/18/22 20:00	5
Selenium	ND		2.97	1.21	mg/Kg		10/17/22 06:59	10/18/22 20:00	5
Silver	ND		1.49	0.143	mg/Kg		10/17/22 06:59	10/18/22 20:00	5
Thallium	ND		9.90	2.09	mg/Kg		10/17/22 06:59	10/18/22 20:00	5
Vanadium	23.1	B	0.990	0.166	mg/Kg		10/17/22 06:59	10/18/22 20:00	5
Zinc	17.8		4.95	1.14	mg/Kg		10/17/22 06:59	10/18/22 20:00	5

Client Sample ID: A-22-05-@30'

Date Collected: 10/14/22 09:10

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-15

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	*+ ^1+ ^6+	10.1	2.89	mg/Kg		10/17/22 06:59	10/18/22 20:03	5
Arsenic	2.35	J	3.03	1.41	mg/Kg		10/17/22 06:59	10/18/22 20:03	5
Barium	46.8		3.03	0.143	mg/Kg		10/17/22 06:59	10/18/22 20:03	5
Beryllium	0.202	J	0.505	0.0697	mg/Kg		10/17/22 06:59	10/18/22 20:03	5
Cadmium	ND		0.505	0.0838	mg/Kg		10/17/22 06:59	10/18/22 20:03	5
Chromium	10.2		1.01	0.188	mg/Kg		10/17/22 06:59	10/18/22 20:03	5
Cobalt	1.78		1.01	0.208	mg/Kg		10/17/22 06:59	10/18/22 20:03	5
Copper	3.64		2.02	0.968	mg/Kg		10/17/22 06:59	10/18/22 20:03	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: A-22-05-@30'  
Date Collected: 10/14/22 09:10  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-15  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	6.11		2.02	0.413	mg/Kg		10/17/22 06:59	10/18/22 20:03	5
Molybdenum	ND		2.02	0.520	mg/Kg		10/17/22 06:59	10/18/22 20:03	5
Nickel	2.41		2.02	0.366	mg/Kg		10/17/22 06:59	10/18/22 20:03	5
Selenium	ND		3.03	1.23	mg/Kg		10/17/22 06:59	10/18/22 20:03	5
Silver	ND		1.52	0.145	mg/Kg		10/17/22 06:59	10/18/22 20:03	5
Thallium	ND		10.1	2.13	mg/Kg		10/17/22 06:59	10/18/22 20:03	5
Vanadium	27.2	B	1.01	0.170	mg/Kg		10/17/22 06:59	10/18/22 20:03	5
Zinc	8.43		5.05	1.17	mg/Kg		10/17/22 06:59	10/18/22 20:03	5

Client Sample ID: A-22-05@35'  
Date Collected: 10/14/22 09:25  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-16  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	*+ ^1+ ^6+	9.85	2.81	mg/Kg		10/17/22 06:59	10/18/22 20:05	5
Arsenic	5.53		2.96	1.37	mg/Kg		10/17/22 06:59	10/18/22 20:05	5
Barium	33.8		2.96	0.140	mg/Kg		10/17/22 06:59	10/18/22 20:05	5
Beryllium	0.259	J	0.493	0.0680	mg/Kg		10/17/22 06:59	10/18/22 20:05	5
Cadmium	ND		0.493	0.0818	mg/Kg		10/17/22 06:59	10/18/22 20:05	5
Chromium	13.1		0.985	0.183	mg/Kg		10/17/22 06:59	10/18/22 20:05	5
Cobalt	2.66		0.985	0.203	mg/Kg		10/17/22 06:59	10/18/22 20:05	5
Copper	8.41		1.97	0.944	mg/Kg		10/17/22 06:59	10/18/22 20:05	5
Lead	7.94		1.97	0.403	mg/Kg		10/17/22 06:59	10/18/22 20:05	5
Molybdenum	ND		1.97	0.507	mg/Kg		10/17/22 06:59	10/18/22 20:05	5
Nickel	2.96		1.97	0.357	mg/Kg		10/17/22 06:59	10/18/22 20:05	5
Selenium	2.91	J	2.96	1.20	mg/Kg		10/17/22 06:59	10/18/22 20:05	5
Silver	ND		1.48	0.142	mg/Kg		10/17/22 06:59	10/18/22 20:05	5
Thallium	ND		9.85	2.07	mg/Kg		10/17/22 06:59	10/18/22 20:05	5
Vanadium	92.4	B	0.985	0.166	mg/Kg		10/17/22 06:59	10/18/22 20:05	5
Zinc	9.00		4.93	1.14	mg/Kg		10/17/22 06:59	10/18/22 20:05	5

Client Sample ID: A-22-04@5'  
Date Collected: 10/14/22 12:50  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-17  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	*+ ^1+ ^6+	9.80	2.80	mg/Kg		10/17/22 06:59	10/18/22 20:07	5
Arsenic	2.70	J	2.94	1.36	mg/Kg		10/17/22 06:59	10/18/22 20:07	5
Barium	44.2		2.94	0.139	mg/Kg		10/17/22 06:59	10/18/22 20:07	5
Beryllium	0.221	J	0.490	0.0676	mg/Kg		10/17/22 06:59	10/18/22 20:07	5
Cadmium	ND		0.490	0.0814	mg/Kg		10/17/22 06:59	10/18/22 20:07	5
Chromium	13.6		0.980	0.182	mg/Kg		10/17/22 06:59	10/18/22 20:07	5
Cobalt	2.99		0.980	0.202	mg/Kg		10/17/22 06:59	10/18/22 20:07	5
Copper	6.64		1.96	0.939	mg/Kg		10/17/22 06:59	10/18/22 20:07	5
Lead	8.04		1.96	0.401	mg/Kg		10/17/22 06:59	10/18/22 20:07	5
Molybdenum	0.613	J	1.96	0.505	mg/Kg		10/17/22 06:59	10/18/22 20:07	5
Nickel	3.37		1.96	0.355	mg/Kg		10/17/22 06:59	10/18/22 20:07	5
Selenium	ND		2.94	1.20	mg/Kg		10/17/22 06:59	10/18/22 20:07	5
Silver	ND		1.47	0.141	mg/Kg		10/17/22 06:59	10/18/22 20:07	5
Thallium	ND		9.80	2.06	mg/Kg		10/17/22 06:59	10/18/22 20:07	5
Vanadium	30.4	B	0.980	0.165	mg/Kg		10/17/22 06:59	10/18/22 20:07	5
Zinc	12.9		4.90	1.13	mg/Kg		10/17/22 06:59	10/18/22 20:07	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: A-22-04@10'  
Date Collected: 10/14/22 13:00  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-18  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	*+ ^1+ ^6+	9.85	2.81	mg/Kg		10/17/22 06:59	10/18/22 20:10	5
Arsenic	2.48	J	2.96	1.37	mg/Kg		10/17/22 06:59	10/18/22 20:10	5
Barium	50.4		2.96	0.140	mg/Kg		10/17/22 06:59	10/18/22 20:10	5
Beryllium	0.259	J	0.493	0.0680	mg/Kg		10/17/22 06:59	10/18/22 20:10	5
Cadmium	ND		0.493	0.0818	mg/Kg		10/17/22 06:59	10/18/22 20:10	5
Chromium	14.8		0.985	0.183	mg/Kg		10/17/22 06:59	10/18/22 20:10	5
Cobalt	2.97		0.985	0.203	mg/Kg		10/17/22 06:59	10/18/22 20:10	5
Copper	8.28		1.97	0.944	mg/Kg		10/17/22 06:59	10/18/22 20:10	5
Lead	12.1		1.97	0.403	mg/Kg		10/17/22 06:59	10/18/22 20:10	5
Molybdenum	0.567	J	1.97	0.507	mg/Kg		10/17/22 06:59	10/18/22 20:10	5
Nickel	4.33		1.97	0.357	mg/Kg		10/17/22 06:59	10/18/22 20:10	5
Selenium	ND		2.96	1.20	mg/Kg		10/17/22 06:59	10/18/22 20:10	5
Silver	ND		1.48	0.142	mg/Kg		10/17/22 06:59	10/18/22 20:10	5
Thallium	ND		9.85	2.07	mg/Kg		10/17/22 06:59	10/18/22 20:10	5
Vanadium	31.5	B	0.985	0.166	mg/Kg		10/17/22 06:59	10/18/22 20:10	5
Zinc	15.7		4.93	1.14	mg/Kg		10/17/22 06:59	10/18/22 20:10	5

Client Sample ID: A-22-04@15'  
Date Collected: 10/14/22 13:10  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-19  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	*+ ^1+ ^6+	9.95	2.84	mg/Kg		10/17/22 06:59	10/18/22 20:12	5
Arsenic	7.41		2.99	1.38	mg/Kg		10/17/22 06:59	10/18/22 20:12	5
Barium	54.7		2.99	0.141	mg/Kg		10/17/22 06:59	10/18/22 20:12	5
Beryllium	0.460	J	0.498	0.0687	mg/Kg		10/17/22 06:59	10/18/22 20:12	5
Cadmium	ND		0.498	0.0826	mg/Kg		10/17/22 06:59	10/18/22 20:12	5
Chromium	10.3		0.995	0.185	mg/Kg		10/17/22 06:59	10/18/22 20:12	5
Cobalt	6.17		0.995	0.205	mg/Kg		10/17/22 06:59	10/18/22 20:12	5
Copper	18.4		1.99	0.953	mg/Kg		10/17/22 06:59	10/18/22 20:12	5
Lead	21.7		1.99	0.407	mg/Kg		10/17/22 06:59	10/18/22 20:12	5
Molybdenum	ND		1.99	0.512	mg/Kg		10/17/22 06:59	10/18/22 20:12	5
Nickel	8.42		1.99	0.360	mg/Kg		10/17/22 06:59	10/18/22 20:12	5
Selenium	ND		2.99	1.22	mg/Kg		10/17/22 06:59	10/18/22 20:12	5
Silver	ND		1.49	0.143	mg/Kg		10/17/22 06:59	10/18/22 20:12	5
Thallium	ND		9.95	2.10	mg/Kg		10/17/22 06:59	10/18/22 20:12	5
Vanadium	22.5	B	0.995	0.167	mg/Kg		10/17/22 06:59	10/18/22 20:12	5
Zinc	43.5		4.98	1.15	mg/Kg		10/17/22 06:59	10/18/22 20:12	5

Client Sample ID: A-22-04@20'  
Date Collected: 10/14/22 13:18  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-20  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	*+ ^1+ ^6+	10.1	2.89	mg/Kg		10/17/22 06:59	10/18/22 20:15	5
Arsenic	1.67	J	3.03	1.41	mg/Kg		10/17/22 06:59	10/18/22 20:15	5
Barium	26.2		3.03	0.143	mg/Kg		10/17/22 06:59	10/18/22 20:15	5
Beryllium	0.379	J	0.505	0.0697	mg/Kg		10/17/22 06:59	10/18/22 20:15	5
Cadmium	ND		0.505	0.0838	mg/Kg		10/17/22 06:59	10/18/22 20:15	5
Chromium	18.5		1.01	0.188	mg/Kg		10/17/22 06:59	10/18/22 20:15	5
Cobalt	3.62		1.01	0.208	mg/Kg		10/17/22 06:59	10/18/22 20:15	5
Copper	4.09		2.02	0.968	mg/Kg		10/17/22 06:59	10/18/22 20:15	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: A-22-04@20'  
Date Collected: 10/14/22 13:18  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-20  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	8.11		2.02	0.413	mg/Kg		10/17/22 06:59	10/18/22 20:15	5
Molybdenum	0.543	J	2.02	0.520	mg/Kg		10/17/22 06:59	10/18/22 20:15	5
Nickel	3.45		2.02	0.366	mg/Kg		10/17/22 06:59	10/18/22 20:15	5
Selenium	ND		3.03	1.23	mg/Kg		10/17/22 06:59	10/18/22 20:15	5
Silver	ND		1.52	0.145	mg/Kg		10/17/22 06:59	10/18/22 20:15	5
Thallium	ND		10.1	2.13	mg/Kg		10/17/22 06:59	10/18/22 20:15	5
Vanadium	50.3	B	1.01	0.170	mg/Kg		10/17/22 06:59	10/18/22 20:15	5
Zinc	7.73		5.05	1.17	mg/Kg		10/17/22 06:59	10/18/22 20:15	5

Client Sample ID: A-22-04@25'  
Date Collected: 10/14/22 13:31  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-21  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	F1	10.0	2.86	mg/Kg		10/17/22 07:06	10/17/22 16:22	5
Arsenic	3.79		3.00	1.39	mg/Kg		10/17/22 07:06	10/17/22 16:22	5
Barium	60.0	F1	3.00	0.142	mg/Kg		10/17/22 07:06	10/17/22 16:22	5
Beryllium	0.313	J	0.500	0.0690	mg/Kg		10/17/22 07:06	10/17/22 16:22	5
Cadmium	ND		0.500	0.0830	mg/Kg		10/17/22 07:06	10/17/22 16:22	5
Chromium	10.3		1.00	0.186	mg/Kg		10/17/22 07:06	10/17/22 16:22	5
Cobalt	3.19		1.00	0.206	mg/Kg		10/17/22 07:06	10/17/22 16:22	5
Copper	7.44		2.00	0.958	mg/Kg		10/17/22 07:06	10/17/22 16:22	5
Lead	4.69		2.00	0.409	mg/Kg		10/17/22 07:06	10/17/22 16:22	5
Molybdenum	ND		2.00	0.515	mg/Kg		10/17/22 07:06	10/17/22 16:22	5
Nickel	4.93		2.00	0.362	mg/Kg		10/17/22 07:06	10/17/22 16:22	5
Selenium	ND		3.00	1.22	mg/Kg		10/17/22 07:06	10/17/22 16:22	5
Silver	ND		1.50	0.144	mg/Kg		10/17/22 07:06	10/17/22 16:22	5
Thallium	ND		10.0	2.11	mg/Kg		10/17/22 07:06	10/17/22 16:22	5
Vanadium	26.3		1.00	0.168	mg/Kg		10/17/22 07:06	10/17/22 16:22	5
Zinc	19.7		5.00	1.16	mg/Kg		10/17/22 07:06	10/17/22 16:22	5

Client Sample ID: A-22-04@30'  
Date Collected: 10/14/22 13:46  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-22  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10.2	2.92	mg/Kg		10/17/22 07:06	10/17/22 16:47	5
Arsenic	5.68		3.06	1.42	mg/Kg		10/17/22 07:06	10/17/22 16:47	5
Barium	74.2		3.06	0.145	mg/Kg		10/17/22 07:06	10/17/22 16:47	5
Beryllium	0.332	J	0.510	0.0704	mg/Kg		10/17/22 07:06	10/17/22 16:47	5
Cadmium	ND		0.510	0.0847	mg/Kg		10/17/22 07:06	10/17/22 16:47	5
Chromium	7.17		1.02	0.190	mg/Kg		10/17/22 07:06	10/17/22 16:47	5
Cobalt	3.29		1.02	0.210	mg/Kg		10/17/22 07:06	10/17/22 16:47	5
Copper	6.53		2.04	0.978	mg/Kg		10/17/22 07:06	10/17/22 16:47	5
Lead	22.5		2.04	0.417	mg/Kg		10/17/22 07:06	10/17/22 16:47	5
Molybdenum	0.689	J	2.04	0.526	mg/Kg		10/17/22 07:06	10/17/22 16:47	5
Nickel	3.05		2.04	0.369	mg/Kg		10/17/22 07:06	10/17/22 16:47	5
Selenium	ND		3.06	1.25	mg/Kg		10/17/22 07:06	10/17/22 16:47	5
Silver	ND		1.53	0.147	mg/Kg		10/17/22 07:06	10/17/22 16:47	5
Thallium	ND		10.2	2.15	mg/Kg		10/17/22 07:06	10/17/22 16:47	5
Vanadium	18.7		1.02	0.171	mg/Kg		10/17/22 07:06	10/17/22 16:47	5
Zinc	19.1		5.10	1.18	mg/Kg		10/17/22 07:06	10/17/22 16:47	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: A-22-04@35'  
Date Collected: 10/14/22 14:02  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-23  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.80	2.80	mg/Kg		10/17/22 07:06	10/17/22 16:49	5
Arsenic	4.74		2.94	1.36	mg/Kg		10/17/22 07:06	10/17/22 16:49	5
Barium	72.0		2.94	0.139	mg/Kg		10/17/22 07:06	10/17/22 16:49	5
Beryllium	0.221	J	0.490	0.0676	mg/Kg		10/17/22 07:06	10/17/22 16:49	5
Cadmium	ND		0.490	0.0814	mg/Kg		10/17/22 07:06	10/17/22 16:49	5
Chromium	7.82		0.980	0.182	mg/Kg		10/17/22 07:06	10/17/22 16:49	5
Cobalt	2.59		0.980	0.202	mg/Kg		10/17/22 07:06	10/17/22 16:49	5
Copper	7.59		1.96	0.939	mg/Kg		10/17/22 07:06	10/17/22 16:49	5
Lead	12.6		1.96	0.401	mg/Kg		10/17/22 07:06	10/17/22 16:49	5
Molybdenum	1.19	J	1.96	0.505	mg/Kg		10/17/22 07:06	10/17/22 16:49	5
Nickel	3.22		1.96	0.355	mg/Kg		10/17/22 07:06	10/17/22 16:49	5
Selenium	ND		2.94	1.20	mg/Kg		10/17/22 07:06	10/17/22 16:49	5
Silver	ND		1.47	0.141	mg/Kg		10/17/22 07:06	10/17/22 16:49	5
Thallium	ND		9.80	2.06	mg/Kg		10/17/22 07:06	10/17/22 16:49	5
Vanadium	14.6		0.980	0.165	mg/Kg		10/17/22 07:06	10/17/22 16:49	5
Zinc	17.2		4.90	1.13	mg/Kg		10/17/22 07:06	10/17/22 16:49	5



# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 7471A - Mercury (CVAA)

Client Sample ID: A-22-01@5'  
Date Collected: 10/13/22 07:45  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0245	J	0.0833	0.0135	mg/Kg		10/17/22 16:25	10/18/22 16:07	1

Client Sample ID: A-22-02@5'  
Date Collected: 10/13/22 08:10  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0135	mg/Kg		10/17/22 16:25	10/18/22 16:09	1

Client Sample ID: A-22-02@10'  
Date Collected: 10/13/22 08:20  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0132	mg/Kg		10/17/22 16:25	10/18/22 16:11	1

Client Sample ID: A-22-03@5'  
Date Collected: 10/13/22 11:05  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0135	mg/Kg		10/17/22 16:25	10/18/22 16:13	1

Client Sample ID: A-22-03@10'  
Date Collected: 10/13/22 11:15  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0138	mg/Kg		10/17/22 16:25	10/18/22 16:19	1

Client Sample ID: A-22-06-@5'  
Date Collected: 10/13/22 13:20  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0135	mg/Kg		10/17/22 16:25	10/18/22 16:21	1

Client Sample ID: A-22-06-@10'  
Date Collected: 10/13/22 13:40  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-7  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0138	mg/Kg		10/17/22 16:25	10/18/22 16:23	1

Client Sample ID: A-22-06-@15'  
Date Collected: 10/13/22 13:50  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0135	mg/Kg		10/17/22 16:25	10/18/22 16:25	1

Client Sample ID: A-22-06-@20'  
Date Collected: 10/13/22 14:40  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-9  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0138	mg/Kg		10/17/22 16:25	10/18/22 16:27	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 7471A - Mercury (CVAA)

Client Sample ID: A-22-05-@5'  
Date Collected: 10/14/22 08:00  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-10  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0135	mg/Kg		10/17/22 16:25	10/18/22 16:29	1

Client Sample ID: A-22-05-@10'  
Date Collected: 10/14/22 08:15  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-11  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0132	mg/Kg		10/17/22 16:25	10/18/22 16:30	1

Client Sample ID: A-22-05-@15'  
Date Collected: 10/14/22 08:25  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0138	mg/Kg		10/17/22 16:25	10/18/22 16:32	1

Client Sample ID: A-22-05-@20'  
Date Collected: 10/14/22 08:35  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0145	J	0.0850	0.0138	mg/Kg		10/17/22 16:25	10/18/22 16:34	1

Client Sample ID: A-22-05-@25'  
Date Collected: 10/14/22 08:45  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-14  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0135	mg/Kg		10/17/22 16:25	10/18/22 16:36	1

Client Sample ID: A-22-05-@30'  
Date Collected: 10/14/22 09:10  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-15  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0135	mg/Kg		10/17/22 16:25	10/18/22 16:42	1

Client Sample ID: A-22-05@35'  
Date Collected: 10/14/22 09:25  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-16  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0132	mg/Kg		10/17/22 16:25	10/18/22 16:44	1

Client Sample ID: A-22-04@5'  
Date Collected: 10/14/22 12:50  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-17  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0138	mg/Kg		10/17/22 16:25	10/18/22 16:46	1

Client Sample ID: A-22-04@10'  
Date Collected: 10/14/22 13:00  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-18  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0138	mg/Kg		10/17/22 16:25	10/18/22 16:48	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: SW846 7471A - Mercury (CVAA)

Client Sample ID: A-22-04@15'  
Date Collected: 10/14/22 13:10  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-19  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0138	mg/Kg		10/17/22 16:25	10/18/22 16:50	1

Client Sample ID: A-22-04@20'  
Date Collected: 10/14/22 13:18  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-20  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0132	mg/Kg		10/17/22 16:24	10/18/22 14:33	1

Client Sample ID: A-22-04@25'  
Date Collected: 10/14/22 13:31  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-21  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0154	J	0.0833	0.0135	mg/Kg		10/17/22 16:24	10/18/22 14:35	1

Client Sample ID: A-22-04@30'  
Date Collected: 10/14/22 13:46  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-22  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0132	mg/Kg		10/17/22 16:24	10/18/22 14:37	1

Client Sample ID: A-22-04@35'  
Date Collected: 10/14/22 14:02  
Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-23  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0132	mg/Kg		10/17/22 16:24	10/18/22 14:39	1

# Surrogate Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: 8270C SIM - PAHs (GC/MS SIM)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (22-130)	NBZ (20-145)	TPHd14 (33-147)
570-113508-1	A-22-01@5'	80	82	93
570-113508-1	A-22-01@5'	72	72	68
570-113508-1 MS	A-22-01@5'	86	82	93
570-113508-1 MS	A-22-01@5'	106	102	99
570-113508-1 MSD	A-22-01@5'	80	78	90
570-113508-1 MSD	A-22-01@5'	90	91	84
570-113508-2	A-22-02@5'	82	79	90
570-113508-3	A-22-02@10'	85	81	94
570-113508-4	A-22-03@5'	78	78	85
570-113508-5	A-22-03@10'	78	81	83
570-113508-6	A-22-06-@5'	81	80	83
570-113508-7	A-22-06-@10'	80	76	81
570-113508-8	A-22-06-@15'	79	80	80
570-113508-9	A-22-06-@20'	84	77	82
570-113508-10	A-22-05-@5'	72	74	72
570-113508-11	A-22-05-@10'	73	77	70
570-113508-12	A-22-05-@15'	74	54	78
570-113508-13	A-22-05-@20'	78	79	77
570-113508-14	A-22-05-@25'	83	80	84
570-113508-15	A-22-05-@30'	77	77	76
570-113508-16	A-22-05@35'	81	82	87
570-113508-17	A-22-04@5'	69	68	69
570-113508-18	A-22-04@10'	77	78	85
570-113508-19	A-22-04@15'	76	73	75
570-113508-20	A-22-04@20'	83	80	79
570-113508-21	A-22-04@25'	84	85	82
570-113508-21 MS	A-22-04@25'	100	101	99
570-113508-21 MSD	A-22-04@25'	94	99	96
570-113508-22	A-22-04@30'	83	84	87
570-113508-23	A-22-04@35'	82	84	84
LCS 570-273091/2-A	Lab Control Sample	106	101	98
LCS 570-273092/2-A	Lab Control Sample	95	99	89
LCSD 570-273091/3-A	Lab Control Sample Dup	111	109	102
LCSD 570-273092/3-A	Lab Control Sample Dup	101	104	95
MB 570-273091/1-A	Method Blank	96	92	91
MB 570-273092/1-A	Method Blank	97	93	91

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

## Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (42-126)	
570-113508-1	A-22-01@5'	88	
570-113508-2	A-22-02@5'	83	

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# Surrogate Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1 (42-126)
570-113508-3	A-22-02@10'	84
570-113508-4	A-22-03@5'	87
570-113508-5	A-22-03@10'	84
570-113508-6	A-22-06-@5'	94
570-113508-7	A-22-06-@10'	90
570-113508-8	A-22-06-@15'	81
570-113508-8 MS	A-22-06-@15'	94
570-113508-8 MSD	A-22-06-@15'	91
570-113508-9	A-22-06-@20'	81
570-113508-10	A-22-05-@5'	80
570-113508-11	A-22-05-@10'	81
570-113508-12	A-22-05-@15'	81
570-113508-13	A-22-05-@20'	79
570-113508-14	A-22-05-@25'	80
570-113508-15	A-22-05-@30'	79
570-113508-16	A-22-05@35'	78
570-113508-17	A-22-04@5'	80
570-113508-18	A-22-04@10'	78
570-113508-19	A-22-04@15'	81
570-113508-20	A-22-04@20'	76
570-113508-21	A-22-04@25'	77
570-113508-22	A-22-04@30'	78
570-113508-23	A-22-04@35'	68
LCS 570-273298/1-A	Lab Control Sample	94
LCS 570-273572/1-A	Lab Control Sample	105
LCSD 570-273298/2-A	Lab Control Sample Dup	94
LCSD 570-273572/2-A	Lab Control Sample Dup	104
MB 570-273298/3-A	Method Blank	80
MB 570-273572/3-A	Method Blank	84

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (60-138)
570-113508-1	A-22-01@5'	102
570-113508-1 MS	A-22-01@5'	110
570-113508-1 MSD	A-22-01@5'	108
570-113508-2	A-22-02@5'	113
570-113508-3	A-22-02@10'	111
570-113508-4	A-22-03@5'	113
570-113508-5	A-22-03@10'	111
570-113508-6	A-22-06-@5'	110
570-113508-7	A-22-06-@10'	111
570-113508-8	A-22-06-@15'	111
570-113508-9	A-22-06-@20'	109
570-113508-10	A-22-05-@5'	111

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# Surrogate Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

**Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)**

**Matrix: Solid**

**Prep Type: Total/NA**

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	OTCSN1 (60-138)
570-113508-11	A-22-05-@10'	110
570-113508-12	A-22-05-@15'	110
570-113508-13	A-22-05-@20'	108
570-113508-14	A-22-05-@25'	110
570-113508-15	A-22-05-@30'	110
570-113508-16	A-22-05-@35'	108
570-113508-17	A-22-04-@5'	108
570-113508-18	A-22-04-@10'	108
570-113508-19	A-22-04-@15'	110
570-113508-20	A-22-04-@20'	108
570-113508-21	A-22-04-@25'	107
570-113508-22	A-22-04-@30'	110
570-113508-23	A-22-04-@35'	109
LCS 570-273208/2-A	Lab Control Sample	107
LCS 570-273210/2-A	Lab Control Sample	110
LCSD 570-273208/3-A	Lab Control Sample Dup	110
LCSD 570-273210/3-A	Lab Control Sample Dup	109
MB 570-273208/1-A	Method Blank	109
MB 570-273210/1-A	Method Blank	111

## Surrogate Legend

OTCSN = n-Octacosane (Surr)

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: 8270C SIM - PAHs (GC/MS SIM)

Lab Sample ID: MB 570-273091/1-A

Matrix: Solid

Analysis Batch: 273575

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 273091

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/18/22 12:56	1
2-Methylnaphthalene	ND		0.020	0.010	mg/Kg		10/17/22 06:39	10/18/22 12:56	1
Acenaphthene	ND		0.020	0.013	mg/Kg		10/17/22 06:39	10/18/22 12:56	1
Acenaphthylene	ND		0.020	0.0096	mg/Kg		10/17/22 06:39	10/18/22 12:56	1
Anthracene	ND		0.020	0.0089	mg/Kg		10/17/22 06:39	10/18/22 12:56	1
Benzo[g,h,i]perylene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/18/22 12:56	1
Benzo[k]fluoranthene	ND		0.020	0.0075	mg/Kg		10/17/22 06:39	10/18/22 12:56	1
Benzo[a]anthracene	ND		0.020	0.0080	mg/Kg		10/17/22 06:39	10/18/22 12:56	1
Benzo[a]pyrene	ND		0.020	0.0082	mg/Kg		10/17/22 06:39	10/18/22 12:56	1
Benzo[b]fluoranthene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/18/22 12:56	1
Chrysene	ND		0.020	0.0065	mg/Kg		10/17/22 06:39	10/18/22 12:56	1
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/17/22 06:39	10/18/22 12:56	1
Fluoranthene	ND		0.020	0.0080	mg/Kg		10/17/22 06:39	10/18/22 12:56	1
Fluorene	ND		0.020	0.0097	mg/Kg		10/17/22 06:39	10/18/22 12:56	1
Indeno[1,2,3-cd]pyrene	ND		0.020	0.012	mg/Kg		10/17/22 06:39	10/18/22 12:56	1
Naphthalene	ND		0.020	0.0089	mg/Kg		10/17/22 06:39	10/18/22 12:56	1
Phenanthrene	ND		0.020	0.015	mg/Kg		10/17/22 06:39	10/18/22 12:56	1
Pyrene	ND		0.020	0.0087	mg/Kg		10/17/22 06:39	10/18/22 12:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	96		22 - 130	10/17/22 06:39	10/18/22 12:56	1
Nitrobenzene-d5 (Surr)	92		20 - 145	10/17/22 06:39	10/18/22 12:56	1
p-Terphenyl-d14 (Surr)	91		33 - 147	10/17/22 06:39	10/18/22 12:56	1

Lab Sample ID: LCS 570-273091/2-A

Matrix: Solid

Analysis Batch: 273575

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 273091

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.200	0.2250		mg/Kg		112	54 - 132
2-Methylnaphthalene	0.200	0.2199		mg/Kg		110	50 - 127
Acenaphthene	0.200	0.2060		mg/Kg		103	53 - 125
Acenaphthylene	0.200	0.2297		mg/Kg		115	50 - 123
Anthracene	0.200	0.2210		mg/Kg		111	50 - 132
Benzo[g,h,i]perylene	0.200	0.2211		mg/Kg		111	50 - 130
Benzo[k]fluoranthene	0.200	0.2195		mg/Kg		110	49 - 150
Benzo[a]anthracene	0.200	0.1984		mg/Kg		99	50 - 133
Benzo[a]pyrene	0.200	0.2015		mg/Kg		101	50 - 134
Benzo[b]fluoranthene	0.200	0.1897		mg/Kg		95	50 - 142
Chrysene	0.200	0.2228		mg/Kg		111	51 - 129
Dibenz(a,h)anthracene	0.200	0.2121		mg/Kg		106	50 - 133
Fluoranthene	0.200	0.1954		mg/Kg		98	55 - 127
Fluorene	0.200	0.2094		mg/Kg		105	55 - 127
Indeno[1,2,3-cd]pyrene	0.200	0.2015		mg/Kg		101	50 - 148
Naphthalene	0.200	0.2104		mg/Kg		105	51 - 129
Phenanthrene	0.200	0.2029		mg/Kg		101	50 - 122
Pyrene	0.200	0.1993		mg/Kg		100	50 - 134

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Lab Sample ID: LCS 570-273091/2-A

Matrix: Solid

Analysis Batch: 273575

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 273091

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	106		22 - 130
Nitrobenzene-d5 (Surr)	101		20 - 145
p-Terphenyl-d14 (Surr)	98		33 - 147

Lab Sample ID: LCSD 570-273091/3-A

Matrix: Solid

Analysis Batch: 273575

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 273091

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	0.200	0.2399		mg/Kg		120	54 - 132	6	20
2-Methylnaphthalene	0.200	0.2360		mg/Kg		118	50 - 127	7	20
Acenaphthene	0.200	0.2197		mg/Kg		110	53 - 125	6	20
Acenaphthylene	0.200	0.2415		mg/Kg		121	50 - 123	5	20
Anthracene	0.200	0.2396		mg/Kg		120	50 - 132	8	20
Benzo[g,h,i]perylene	0.200	0.2311		mg/Kg		116	50 - 130	4	20
Benzo[k]fluoranthene	0.200	0.2325		mg/Kg		116	49 - 150	6	20
Benzo[a]anthracene	0.200	0.2091		mg/Kg		105	50 - 133	5	20
Benzo[a]pyrene	0.200	0.2083		mg/Kg		104	50 - 134	3	20
Benzo[b]fluoranthene	0.200	0.1973		mg/Kg		99	50 - 142	4	20
Chrysene	0.200	0.2364		mg/Kg		118	51 - 129	6	20
Dibenz(a,h)anthracene	0.200	0.2217		mg/Kg		111	50 - 133	4	20
Fluoranthene	0.200	0.2013		mg/Kg		101	55 - 127	3	20
Fluorene	0.200	0.2175		mg/Kg		109	55 - 127	4	20
Indeno[1,2,3-cd]pyrene	0.200	0.2098		mg/Kg		105	50 - 148	4	20
Naphthalene	0.200	0.2278		mg/Kg		114	51 - 129	8	20
Phenanthrene	0.200	0.2166		mg/Kg		108	50 - 122	7	20
Pyrene	0.200	0.2123		mg/Kg		106	50 - 134	6	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	111		22 - 130
Nitrobenzene-d5 (Surr)	109		20 - 145
p-Terphenyl-d14 (Surr)	102		33 - 147

Lab Sample ID: 570-113508-1 MS

Matrix: Solid

Analysis Batch: 273575

Client Sample ID: A-22-01@5'

Prep Type: Total/NA

Prep Batch: 273091

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	ND		0.199	0.1803		mg/Kg		91	34 - 136
2-Methylnaphthalene	ND		0.199	0.1779		mg/Kg		89	29 - 137
Acenaphthene	ND		0.199	0.1698		mg/Kg		85	29 - 137
Acenaphthylene	ND		0.199	0.1844		mg/Kg		93	29 - 131
Anthracene	ND		0.199	0.1863		mg/Kg		94	26 - 134
Benzo[g,h,i]perylene	0.018	J	0.199	0.2071		mg/Kg		95	20 - 148
Benzo[k]fluoranthene	0.0078	J	0.199	0.1861		mg/Kg		90	28 - 148
Benzo[a]anthracene	0.0083	J	0.199	0.1836		mg/Kg		88	24 - 150
Benzo[a]pyrene	ND		0.199	0.1692		mg/Kg		85	29 - 149
Benzo[b]fluoranthene	ND		0.199	0.1728		mg/Kg		87	21 - 153

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Lab Sample ID: 570-113508-1 MS

Matrix: Solid

Analysis Batch: 273575

Client Sample ID: A-22-01@5'

Prep Type: Total/NA

Prep Batch: 273091

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chrysene	0.017	J	0.199	0.2041		mg/Kg		94	25 - 145
Dibenz(a,h)anthracene	ND		0.199	0.1812		mg/Kg		91	20 - 132
Fluoranthene	ND		0.199	0.1854		mg/Kg		93	20 - 151
Fluorene	ND		0.199	0.1692		mg/Kg		85	36 - 132
Indeno[1,2,3-cd]pyrene	ND		0.199	0.1743		mg/Kg		88	20 - 154
Naphthalene	ND		0.199	0.1730		mg/Kg		87	20 - 150
Phenanthrene	ND		0.199	0.1743		mg/Kg		88	20 - 144
Pyrene	0.011	J	0.199	0.2088		mg/Kg		99	20 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl (Surr)	86		22 - 130
Nitrobenzene-d5 (Surr)	82		20 - 145
p-Terphenyl-d14 (Surr)	93		33 - 147

Lab Sample ID: 570-113508-1 MS

Matrix: Solid

Analysis Batch: 273711

Client Sample ID: A-22-01@5'

Prep Type: Total/NA

Prep Batch: 273091

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	ND		0.199	0.2292		mg/Kg		115	34 - 136
2-Methylnaphthalene	ND		0.199	0.2275		mg/Kg		114	29 - 137
Acenaphthene	ND	F2	0.199	0.2293		mg/Kg		115	29 - 137
Acenaphthylene	ND		0.199	0.2215		mg/Kg		111	29 - 131
Anthracene	ND	F2	0.199	0.2242		mg/Kg		113	26 - 134
Benzo[g,h,i]perylene	ND		0.199	0.2245		mg/Kg		113	20 - 148
Benzo[k]fluoranthene	ND	F2	0.199	0.2169		mg/Kg		109	28 - 148
Benzo[a]anthracene	ND	F2	0.199	0.2016		mg/Kg		101	24 - 150
Benzo[a]pyrene	ND	F2	0.199	0.2008		mg/Kg		101	29 - 149
Benzo[b]fluoranthene	ND	F2	0.199	0.1991		mg/Kg		100	21 - 153
Chrysene	ND		0.199	0.2207		mg/Kg		111	25 - 145
Dibenz(a,h)anthracene	ND	F2	0.199	0.2181		mg/Kg		110	20 - 132
Fluoranthene	ND	F2	0.199	0.2046		mg/Kg		103	20 - 151
Fluorene	ND	F2	0.199	0.2111		mg/Kg		106	36 - 132
Indeno[1,2,3-cd]pyrene	ND		0.199	0.2009		mg/Kg		101	20 - 154
Naphthalene	ND		0.199	0.2158		mg/Kg		108	20 - 150
Phenanthrene	ND		0.199	0.2066		mg/Kg		104	20 - 144
Pyrene	ND		0.199	0.1979		mg/Kg		99	20 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl (Surr)	106		22 - 130
Nitrobenzene-d5 (Surr)	102		20 - 145
p-Terphenyl-d14 (Surr)	99		33 - 147

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Lab Sample ID: 570-113508-1 MSD

Matrix: Solid

Analysis Batch: 273575

Client Sample ID: A-22-01@5'

Prep Type: Total/NA

Prep Batch: 273091

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	ND		0.199	0.1551		mg/Kg		78	34 - 136	15	29
2-Methylnaphthalene	ND		0.199	0.1480		mg/Kg		74	29 - 137	18	31
Acenaphthene	ND		0.199	0.1581		mg/Kg		80	29 - 137	7	28
Acenaphthylene	ND		0.199	0.1599		mg/Kg		80	29 - 131	14	32
Anthracene	ND		0.199	0.1592		mg/Kg		80	26 - 134	16	27
Benzo[g,h,i]perylene	0.018	J	0.199	0.1814		mg/Kg		82	20 - 148	13	27
Benzo[k]fluoranthene	0.0078	J	0.199	0.1512		mg/Kg		72	28 - 148	21	26
Benzo[a]anthracene	0.0083	J	0.199	0.1590		mg/Kg		76	24 - 150	14	24
Benzo[a]pyrene	ND		0.199	0.1504		mg/Kg		76	29 - 149	12	22
Benzo[b]fluoranthene	ND		0.199	0.1508		mg/Kg		76	21 - 153	14	26
Chrysene	0.017	J	0.199	0.1771		mg/Kg		81	25 - 145	14	28
Dibenz(a,h)anthracene	ND		0.199	0.1593		mg/Kg		80	20 - 132	13	26
Fluoranthene	ND		0.199	0.1501		mg/Kg		75	20 - 151	21	26
Fluorene	ND		0.199	0.1464		mg/Kg		74	36 - 132	14	27
Indeno[1,2,3-cd]pyrene	ND		0.199	0.1517		mg/Kg		76	20 - 154	14	25
Naphthalene	ND		0.199	0.1426		mg/Kg		72	20 - 150	19	33
Phenanthrene	ND		0.199	0.1435		mg/Kg		72	20 - 144	19	27
Pyrene	0.011	J	0.199	0.1791		mg/Kg		84	20 - 150	15	32

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	80		22 - 130
Nitrobenzene-d5 (Surr)	78		20 - 145
p-Terphenyl-d14 (Surr)	90		33 - 147

Lab Sample ID: 570-113508-1 MSD

Matrix: Solid

Analysis Batch: 273711

Client Sample ID: A-22-01@5'

Prep Type: Total/NA

Prep Batch: 273091

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	ND		0.199	0.1725		mg/Kg		87	34 - 136	28	29
2-Methylnaphthalene	ND		0.199	0.1703		mg/Kg		86	29 - 137	29	31
Acenaphthene	ND	F2	0.199	0.1630	F2	mg/Kg		82	29 - 137	34	28
Acenaphthylene	ND		0.199	0.1659		mg/Kg		83	29 - 131	29	32
Anthracene	ND	F2	0.199	0.1662	F2	mg/Kg		84	26 - 134	30	27
Benzo[g,h,i]perylene	ND		0.199	0.1731		mg/Kg		87	20 - 148	26	27
Benzo[k]fluoranthene	ND	F2	0.199	0.1635	F2	mg/Kg		82	28 - 148	28	26
Benzo[a]anthracene	ND	F2	0.199	0.1518	F2	mg/Kg		76	24 - 150	28	24
Benzo[a]pyrene	ND	F2	0.199	0.1443	F2	mg/Kg		73	29 - 149	33	22
Benzo[b]fluoranthene	ND	F2	0.199	0.1490	F2	mg/Kg		75	21 - 153	29	26
Chrysene	ND		0.199	0.1709		mg/Kg		86	25 - 145	25	28
Dibenz(a,h)anthracene	ND	F2	0.199	0.1654	F2	mg/Kg		83	20 - 132	27	26
Fluoranthene	ND	F2	0.199	0.1508	F2	mg/Kg		76	20 - 151	30	26
Fluorene	ND	F2	0.199	0.1569	F2	mg/Kg		79	36 - 132	29	27
Indeno[1,2,3-cd]pyrene	ND		0.199	0.1579		mg/Kg		79	20 - 154	24	25
Naphthalene	ND		0.199	0.1683		mg/Kg		85	20 - 150	25	33
Phenanthrene	ND		0.199	0.1598		mg/Kg		80	20 - 144	26	27
Pyrene	ND		0.199	0.1540		mg/Kg		77	20 - 150	25	32

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Lab Sample ID: 570-113508-1 MSD

Matrix: Solid

Analysis Batch: 273711

Client Sample ID: A-22-01@5'

Prep Type: Total/NA

Prep Batch: 273091

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	90		22 - 130
Nitrobenzene-d5 (Surr)	91		20 - 145
p-Terphenyl-d14 (Surr)	84		33 - 147

Lab Sample ID: MB 570-273092/1-A

Matrix: Solid

Analysis Batch: 273711

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 273092

Analyte	MB	MB							
	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/17/22 06:42	10/18/22 22:32	1
2-Methylnaphthalene	ND		0.020	0.010	mg/Kg		10/17/22 06:42	10/18/22 22:32	1
Acenaphthene	ND		0.020	0.013	mg/Kg		10/17/22 06:42	10/18/22 22:32	1
Acenaphthylene	ND		0.020	0.0096	mg/Kg		10/17/22 06:42	10/18/22 22:32	1
Anthracene	ND		0.020	0.0089	mg/Kg		10/17/22 06:42	10/18/22 22:32	1
Benzo[g,h,i]perylene	ND		0.020	0.011	mg/Kg		10/17/22 06:42	10/18/22 22:32	1
Benzo[k]fluoranthene	ND		0.020	0.0075	mg/Kg		10/17/22 06:42	10/18/22 22:32	1
Benzo[a]anthracene	ND		0.020	0.0080	mg/Kg		10/17/22 06:42	10/18/22 22:32	1
Benzo[a]pyrene	ND		0.020	0.0082	mg/Kg		10/17/22 06:42	10/18/22 22:32	1
Benzo[b]fluoranthene	ND		0.020	0.015	mg/Kg		10/17/22 06:42	10/18/22 22:32	1
Chrysene	ND		0.020	0.0065	mg/Kg		10/17/22 06:42	10/18/22 22:32	1
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/17/22 06:42	10/18/22 22:32	1
Fluoranthene	ND		0.020	0.0080	mg/Kg		10/17/22 06:42	10/18/22 22:32	1
Fluorene	ND		0.020	0.0097	mg/Kg		10/17/22 06:42	10/18/22 22:32	1
Indeno[1,2,3-cd]pyrene	ND		0.020	0.012	mg/Kg		10/17/22 06:42	10/18/22 22:32	1
Naphthalene	ND		0.020	0.0089	mg/Kg		10/17/22 06:42	10/18/22 22:32	1
Phenanthrene	ND		0.020	0.015	mg/Kg		10/17/22 06:42	10/18/22 22:32	1
Pyrene	ND		0.020	0.0087	mg/Kg		10/17/22 06:42	10/18/22 22:32	1

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
2-Fluorobiphenyl (Surr)	97		22 - 130	10/17/22 06:42	10/18/22 22:32	1			
Nitrobenzene-d5 (Surr)	93		20 - 145	10/17/22 06:42	10/18/22 22:32	1			
p-Terphenyl-d14 (Surr)	91		33 - 147	10/17/22 06:42	10/18/22 22:32	1			

Lab Sample ID: LCS 570-273092/2-A

Matrix: Solid

Analysis Batch: 273711

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 273092

Analyte	Spike	LCS	LCS						
	Added	Result	Qualifier	Unit	D	%Rec	%Rec	Limits	
1-Methylnaphthalene	0.200	0.2241		mg/Kg		112		54 - 132	
2-Methylnaphthalene	0.200	0.2212		mg/Kg		111		50 - 127	
Acenaphthene	0.200	0.2031		mg/Kg		102		53 - 125	
Acenaphthylene	0.200	0.2126		mg/Kg		106		50 - 123	
Anthracene	0.200	0.2129		mg/Kg		106		50 - 132	
Benzo[g,h,i]perylene	0.200	0.2143		mg/Kg		107		50 - 130	
Benzo[k]fluoranthene	0.200	0.2002		mg/Kg		100		49 - 150	
Benzo[a]anthracene	0.200	0.1837		mg/Kg		92		50 - 133	
Benzo[a]pyrene	0.200	0.1786		mg/Kg		89		50 - 134	
Benzo[b]fluoranthene	0.200	0.1727		mg/Kg		86		50 - 142	

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Lab Sample ID: LCS 570-273092/2-A

Matrix: Solid

Analysis Batch: 273711

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 273092

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chrysene	0.200	0.2108		mg/Kg		105	51 - 129
Dibenz(a,h)anthracene	0.200	0.2029		mg/Kg		101	50 - 133
Fluoranthene	0.200	0.1884		mg/Kg		94	55 - 127
Fluorene	0.200	0.2003		mg/Kg		100	55 - 127
Indeno[1,2,3-cd]pyrene	0.200	0.1935		mg/Kg		97	50 - 148
Naphthalene	0.200	0.2042		mg/Kg		102	51 - 129
Phenanthrene	0.200	0.1935		mg/Kg		97	50 - 122
Pyrene	0.200	0.1839		mg/Kg		92	50 - 134

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	95		22 - 130
Nitrobenzene-d5 (Surr)	99		20 - 145
p-Terphenyl-d14 (Surr)	89		33 - 147

Lab Sample ID: LCSD 570-273092/3-A

Matrix: Solid

Analysis Batch: 273711

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 273092

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	0.200	0.2202		mg/Kg		110	54 - 132	2	20
2-Methylnaphthalene	0.200	0.2266		mg/Kg		113	50 - 127	2	20
Acenaphthene	0.200	0.2184		mg/Kg		109	53 - 125	7	20
Acenaphthylene	0.200	0.2270		mg/Kg		114	50 - 123	7	20
Anthracene	0.200	0.2307		mg/Kg		115	50 - 132	8	20
Benzo[g,h,i]perylene	0.200	0.2413		mg/Kg		121	50 - 130	12	20
Benzo[k]fluoranthene	0.200	0.2253		mg/Kg		113	49 - 150	12	20
Benzo[a]anthracene	0.200	0.2004		mg/Kg		100	50 - 133	9	20
Benzo[a]pyrene	0.200	0.1991		mg/Kg		100	50 - 134	11	20
Benzo[b]fluoranthene	0.200	0.1863		mg/Kg		93	50 - 142	8	20
Chrysene	0.200	0.2283		mg/Kg		114	51 - 129	8	20
Dibenz(a,h)anthracene	0.200	0.2255		mg/Kg		113	50 - 133	11	20
Fluoranthene	0.200	0.1989		mg/Kg		99	55 - 127	5	20
Fluorene	0.200	0.2119		mg/Kg		106	55 - 127	6	20
Indeno[1,2,3-cd]pyrene	0.200	0.2160		mg/Kg		108	50 - 148	11	20
Naphthalene	0.200	0.2204		mg/Kg		110	51 - 129	8	20
Phenanthrene	0.200	0.2098		mg/Kg		105	50 - 122	8	20
Pyrene	0.200	0.2001		mg/Kg		100	50 - 134	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	101		22 - 130
Nitrobenzene-d5 (Surr)	104		20 - 145
p-Terphenyl-d14 (Surr)	95		33 - 147

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Lab Sample ID: 570-113508-21 MS

Matrix: Solid

Analysis Batch: 273711

Client Sample ID: A-22-04@25'

Prep Type: Total/NA

Prep Batch: 273092

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	ND		0.191	0.1819		mg/Kg		95	34 - 136
2-Methylnaphthalene	ND		0.191	0.1868		mg/Kg		98	29 - 137
Acenaphthene	ND		0.191	0.1824		mg/Kg		95	29 - 137
Acenaphthylene	ND		0.191	0.1850		mg/Kg		97	29 - 131
Anthracene	ND		0.191	0.1912		mg/Kg		100	26 - 134
Benzo[g,h,i]perylene	ND		0.191	0.1946		mg/Kg		102	20 - 148
Benzo[k]fluoranthene	ND		0.191	0.1830		mg/Kg		96	28 - 148
Benzo[a]anthracene	ND		0.191	0.1740		mg/Kg		91	24 - 150
Benzo[a]pyrene	ND		0.191	0.1681		mg/Kg		88	29 - 149
Benzo[b]fluoranthene	ND		0.191	0.1617		mg/Kg		85	21 - 153
Chrysene	ND		0.191	0.1977		mg/Kg		103	25 - 145
Dibenz(a,h)anthracene	ND		0.191	0.1803		mg/Kg		94	20 - 132
Fluoranthene	0.0077	J	0.191	0.1767		mg/Kg		92	20 - 151
Fluorene	ND		0.191	0.1727		mg/Kg		90	36 - 132
Indeno[1,2,3-cd]pyrene	ND		0.191	0.1716		mg/Kg		90	20 - 154
Naphthalene	ND		0.191	0.1857		mg/Kg		97	20 - 150
Phenanthrene	ND		0.191	0.1821		mg/Kg		95	20 - 144
Pyrene	ND		0.191	0.1877		mg/Kg		98	20 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl (Surr)	100		22 - 130
Nitrobenzene-d5 (Surr)	101		20 - 145
p-Terphenyl-d14 (Surr)	99		33 - 147

Lab Sample ID: 570-113508-21 MSD

Matrix: Solid

Analysis Batch: 273711

Client Sample ID: A-22-04@25'

Prep Type: Total/NA

Prep Batch: 273092

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
1-Methylnaphthalene	ND		0.190	0.2074		mg/Kg		109	34 - 136	13	29
2-Methylnaphthalene	ND		0.190	0.2073		mg/Kg		109	29 - 137	10	31
Acenaphthene	ND		0.190	0.1942		mg/Kg		102	29 - 137	6	28
Acenaphthylene	ND		0.190	0.1998		mg/Kg		105	29 - 131	8	32
Anthracene	ND		0.190	0.2045		mg/Kg		107	26 - 134	7	27
Benzo[g,h,i]perylene	ND		0.190	0.2016		mg/Kg		106	20 - 148	4	27
Benzo[k]fluoranthene	ND		0.190	0.1999		mg/Kg		105	28 - 148	9	26
Benzo[a]anthracene	ND		0.190	0.1845		mg/Kg		97	24 - 150	6	24
Benzo[a]pyrene	ND		0.190	0.1815		mg/Kg		95	29 - 149	8	22
Benzo[b]fluoranthene	ND		0.190	0.1674		mg/Kg		88	21 - 153	3	26
Chrysene	ND		0.190	0.2053		mg/Kg		108	25 - 145	4	28
Dibenz(a,h)anthracene	ND		0.190	0.1841		mg/Kg		97	20 - 132	2	26
Fluoranthene	0.0077	J	0.190	0.1900		mg/Kg		100	20 - 151	7	26
Fluorene	ND		0.190	0.1903		mg/Kg		100	36 - 132	10	27
Indeno[1,2,3-cd]pyrene	ND		0.190	0.1792		mg/Kg		94	20 - 154	4	25
Naphthalene	ND		0.190	0.1938		mg/Kg		102	20 - 150	4	33
Phenanthrene	ND		0.190	0.1897		mg/Kg		100	20 - 144	4	27
Pyrene	ND		0.190	0.1896		mg/Kg		100	20 - 150	1	32

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Lab Sample ID: 570-113508-21 MSD

Matrix: Solid

Analysis Batch: 273711

Client Sample ID: A-22-04@25'

Prep Type: Total/NA

Prep Batch: 273092

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	94		22 - 130
Nitrobenzene-d5 (Surr)	99		20 - 145
p-Terphenyl-d14 (Surr)	96		33 - 147

## Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-273298/3-A

Matrix: Solid

Analysis Batch: 273535

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 273298

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	Result	Qualifier					10/17/22 15:25	10/18/22 11:40	1
	ND		0.10	0.056	mg/Kg				
Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene (Surr)	%Recovery	Qualifier		10/17/22 15:25	10/18/22 11:40	1			
	80		42 - 126						

Lab Sample ID: LCS 570-273298/1-A

Matrix: Solid

Analysis Batch: 273535

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 273298

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec		
Gasoline Range Organics (C4-C13)	Added	Result	Qualifier			97	Limits		
	2.00	1.937		mg/Kg			70 - 124		
Surrogate	LCS	LCS	Limits						
4-Bromofluorobenzene (Surr)	%Recovery	Qualifier							
	94		42 - 126						

Lab Sample ID: LCSD 570-273298/2-A

Matrix: Solid

Analysis Batch: 273535

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 273298

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	RPD
Gasoline Range Organics (C4-C13)	Added	Result	Qualifier			94	Limits	4	18
	1.98	1.868		mg/Kg			70 - 124		
Surrogate	LCSD	LCSD	Limits						
4-Bromofluorobenzene (Surr)	%Recovery	Qualifier							
	94		42 - 126						

Lab Sample ID: 570-113508-8 MS

Matrix: Solid

Analysis Batch: 273535

Client Sample ID: A-22-06-@15'

Prep Type: Total/NA

Prep Batch: 273298

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec		
Gasoline Range Organics (C4-C13)	Result	Qualifier	Added	Result	Qualifier			78	Limits		
	ND		1.97	1.528		mg/Kg			48 - 114		
Surrogate	MS	MS	Limits								
4-Bromofluorobenzene (Surr)	%Recovery	Qualifier									
	94		42 - 126								

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: 570-113508-8 MSD

Matrix: Solid

Analysis Batch: 273535

Client Sample ID: A-22-06-@15'

Prep Type: Total/NA

Prep Batch: 273298

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	ND		2.00	1.602		mg/Kg		80	48 - 114	5	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	91		42 - 126								

Lab Sample ID: MB 570-273572/3-A

Matrix: Solid

Analysis Batch: 273538

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 273572

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		10/18/22 10:30	10/18/22 12:08	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		42 - 126				10/18/22 10:30	10/18/22 12:08	1

Lab Sample ID: LCS 570-273572/1-A

Matrix: Solid

Analysis Batch: 273538

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 273572

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (C4-C13)	1.98	2.180		mg/Kg		110	70 - 124		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	105		42 - 126						

Lab Sample ID: LCSD 570-273572/2-A

Matrix: Solid

Analysis Batch: 273538

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 273572

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	1.99	2.146		mg/Kg		108	70 - 124	2	18
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	104		42 - 126						

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-273208/1-A

Matrix: Solid

Analysis Batch: 273166

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 273208

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		10/17/22 11:13	10/17/22 21:49	1
C23-C40	ND		5.0	3.8	mg/Kg		10/17/22 11:13	10/17/22 21:49	1

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 570-273208/1-A

Matrix: Solid

Analysis Batch: 273166

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 273208

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	109		60 - 138	10/17/22 11:13	10/17/22 21:49	1

Lab Sample ID: LCS 570-273208/2-A

Matrix: Solid

Analysis Batch: 273166

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 273208

			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Diesel Range Organics			400	423.6		mg/Kg		106	80 - 130		
[C10-C28]											
Surrogate	LCS	LCS									
	%Recovery	Qualifier	Limits								
n-Octacosane (Surr)	107		60 - 138								

Lab Sample ID: LCSD 570-273208/3-A

Matrix: Solid

Analysis Batch: 273166

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 273208

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			400	430.4		mg/Kg		108	80 - 130	2	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits								
n-Octacosane (Surr)	110		60 - 138								

Lab Sample ID: MB 570-273210/1-A

Matrix: Solid

Analysis Batch: 273166

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 273210

Sample Data 1 of 10									
Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
C13-C22	ND		5.0	3.8	mg/Kg		10/17/22 11:16	10/17/22 23:57	1
C23-C40	ND		5.0	3.8	mg/Kg		10/17/22 11:16	10/17/22 23:57	1
Sample Data 2 of 10									
Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac			
	%Recovery	Qualifier							
n-Octacosane (Surr)	111		60 - 138	10/17/22 11:16	10/17/22 23:57	1			

Lab Sample ID: LCS 570-273210/2-A

Matrix: Solid

Analysis Batch: 273166

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 273210

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			400	429.5		mg/Kg		107	80 - 130		
Surrogate	LCS %Recovery	LCS Qualifier	Limits								
n-Octacosane (Surr)	110		60 - 138								

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 570-273210/3-A

Matrix: Solid

Analysis Batch: 273166

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 273210

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	400	430.3		mg/Kg		108	80 - 130	0	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
n-Octacosane (Surr)	109		60 - 138						

Lab Sample ID: 570-113508-1 MS

Matrix: Solid

Analysis Batch: 273166

Client Sample ID: A-22-01@5'

Prep Type: Total/NA

Prep Batch: 273210

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	76		391	473.5		mg/Kg		102	43 - 165		
Surrogate	MS %Recovery	MS Qualifier	Limits								
n-Octacosane (Surr)	110		60 - 138								

Lab Sample ID: 570-113508-1 MSD

Matrix: Solid

Analysis Batch: 273166

Client Sample ID: A-22-01@5'

Prep Type: Total/NA

Prep Batch: 273210

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	76		389	433.5		mg/Kg		92	43 - 165	9	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
n-Octacosane (Surr)	108		60 - 138								

## Method: 6010B - Metals (ICP)

Lab Sample ID: MB 570-273093/1-A ^5

Matrix: Solid

Analysis Batch: 273818

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 273093

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^1+ ^6+	10.0	2.86	mg/Kg		10/17/22 06:59	10/18/22 19:00	5
Arsenic	ND		3.00	1.39	mg/Kg		10/17/22 06:59	10/18/22 19:00	5
Barium	ND		3.00	0.142	mg/Kg		10/17/22 06:59	10/18/22 19:00	5
Beryllium	ND		0.500	0.0690	mg/Kg		10/17/22 06:59	10/18/22 19:00	5
Cadmium	ND		0.500	0.0830	mg/Kg		10/17/22 06:59	10/18/22 19:00	5
Chromium	ND		1.00	0.186	mg/Kg		10/17/22 06:59	10/18/22 19:00	5
Cobalt	ND		1.00	0.206	mg/Kg		10/17/22 06:59	10/18/22 19:00	5
Copper	ND		2.00	0.958	mg/Kg		10/17/22 06:59	10/18/22 19:00	5
Lead	ND		2.00	0.409	mg/Kg		10/17/22 06:59	10/18/22 19:00	5
Molybdenum	ND		2.00	0.515	mg/Kg		10/17/22 06:59	10/18/22 19:00	5
Nickel	ND		2.00	0.362	mg/Kg		10/17/22 06:59	10/18/22 19:00	5
Selenium	ND		3.00	1.22	mg/Kg		10/17/22 06:59	10/18/22 19:00	5
Silver	ND		1.50	0.144	mg/Kg		10/17/22 06:59	10/18/22 19:00	5
Thallium	ND		10.0	2.11	mg/Kg		10/17/22 06:59	10/18/22 19:00	5

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 570-273093/1-A ^5

Matrix: Solid

Analysis Batch: 273818

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 273093

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	0.2250	J	1.00	0.168	mg/Kg		10/17/22 06:59	10/18/22 19:00	5
Zinc	ND		5.00	1.16	mg/Kg		10/17/22 06:59	10/18/22 19:00	5

Lab Sample ID: LCS 570-273093/2-A ^5

Matrix: Solid

Analysis Batch: 273818

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 273093

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	50.0	66.73	^1+ ^6+ *	mg/Kg		133	80 - 120
Arsenic	50.0	43.99		mg/Kg		88	80 - 120
Barium	50.0	44.08		mg/Kg		88	80 - 120
Beryllium	50.0	44.19		mg/Kg		88	80 - 120
Cadmium	50.0	43.91		mg/Kg		88	80 - 120
Chromium	50.0	44.31		mg/Kg		89	80 - 120
Cobalt	50.0	45.33		mg/Kg		91	80 - 120
Copper	50.0	44.15		mg/Kg		88	80 - 120
Lead	50.0	44.26		mg/Kg		89	80 - 120
Molybdenum	50.0	45.04		mg/Kg		90	80 - 120
Nickel	50.0	44.19		mg/Kg		88	80 - 120
Selenium	50.0	41.43		mg/Kg		83	80 - 120
Silver	25.0	21.99		mg/Kg		88	80 - 120
Thallium	50.0	44.61		mg/Kg		89	80 - 120
Vanadium	50.0	43.96		mg/Kg		88	80 - 120
Zinc	50.0	43.54		mg/Kg		87	80 - 120

Lab Sample ID: LCSD 570-273093/3-A ^5

Matrix: Solid

Analysis Batch: 273818

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 273093

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	51.0	64.72	*+ ^1+ ^6+	mg/Kg		127	80 - 120	3	20
Arsenic	51.0	45.03		mg/Kg		88	80 - 120	2	20
Barium	51.0	45.14		mg/Kg		88	80 - 120	2	20
Beryllium	51.0	45.18		mg/Kg		89	80 - 120	2	20
Cadmium	51.0	44.71		mg/Kg		88	80 - 120	2	20
Chromium	51.0	45.11		mg/Kg		88	80 - 120	2	20
Cobalt	51.0	46.24		mg/Kg		91	80 - 120	2	20
Copper	51.0	45.17		mg/Kg		89	80 - 120	2	20
Lead	51.0	45.40		mg/Kg		89	80 - 120	3	20
Molybdenum	51.0	46.03		mg/Kg		90	80 - 120	2	20
Nickel	51.0	45.54		mg/Kg		89	80 - 120	3	20
Selenium	51.0	42.69		mg/Kg		84	80 - 120	3	20
Silver	25.5	22.59		mg/Kg		89	80 - 120	3	20
Thallium	51.0	45.01		mg/Kg		88	80 - 120	1	20
Vanadium	51.0	44.97		mg/Kg		88	80 - 120	2	20
Zinc	51.0	44.74		mg/Kg		88	80 - 120	3	20

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 570-113508-1 MS

Matrix: Solid

Analysis Batch: 273818

Client Sample ID: A-22-01@5'

Prep Type: Total/NA

Prep Batch: 273093

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND	*+ F1 ^1+ ^6+	50.0	22.25	^1+ ^6+ F1	mg/Kg		45	75 - 125
Arsenic	5.57		50.0	49.65		mg/Kg		88	75 - 125
Barium	54.9		50.0	112.0		mg/Kg		114	75 - 125
Beryllium	0.215	J	50.0	43.24		mg/Kg		86	75 - 125
Cadmium	ND		50.0	40.69		mg/Kg		81	75 - 125
Chromium	7.02		50.0	52.18		mg/Kg		90	75 - 125
Cobalt	2.35		50.0	44.84		mg/Kg		85	75 - 125
Copper	17.2		50.0	78.31		mg/Kg		122	75 - 125
Lead	8.48		50.0	52.44		mg/Kg		88	75 - 125
Molybdenum	2.32		50.0	41.21		mg/Kg		78	75 - 125
Nickel	4.32		50.0	46.59		mg/Kg		85	75 - 125
Selenium	ND		50.0	39.26		mg/Kg		79	75 - 125
Silver	ND		25.0	21.36		mg/Kg		85	75 - 125
Thallium	ND		50.0	41.18		mg/Kg		82	75 - 125
Vanadium	16.6	B	50.0	66.65		mg/Kg		100	75 - 125
Zinc	33.0		50.0	94.06		mg/Kg		122	75 - 125

Lab Sample ID: 570-113508-1 MSD

Matrix: Solid

Analysis Batch: 273818

Client Sample ID: A-22-01@5'

Prep Type: Total/NA

Prep Batch: 273093

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND	*+ F1 ^1+ ^6+	50.8	21.94	^1+ ^6+ F1	mg/Kg		43	75 - 125	1	20
Arsenic	5.57		50.8	51.03		mg/Kg		90	75 - 125	3	20
Barium	54.9		50.8	110.7		mg/Kg		110	75 - 125	1	20
Beryllium	0.215	J	50.8	43.39		mg/Kg		85	75 - 125	0	20
Cadmium	ND		50.8	40.98		mg/Kg		81	75 - 125	1	20
Chromium	7.02		50.8	53.46		mg/Kg		91	75 - 125	2	20
Cobalt	2.35		50.8	45.51		mg/Kg		85	75 - 125	1	20
Copper	17.2		50.8	75.72		mg/Kg		115	75 - 125	3	20
Lead	8.48		50.8	53.10		mg/Kg		88	75 - 125	1	20
Molybdenum	2.32		50.8	41.97		mg/Kg		78	75 - 125	2	20
Nickel	4.32		50.8	46.93		mg/Kg		84	75 - 125	1	20
Selenium	ND		50.8	40.30		mg/Kg		79	75 - 125	3	20
Silver	ND		25.4	21.56		mg/Kg		85	75 - 125	1	20
Thallium	ND		50.8	41.55		mg/Kg		82	75 - 125	1	20
Vanadium	16.6	B	50.8	67.32		mg/Kg		100	75 - 125	1	20
Zinc	33.0		50.8	94.18		mg/Kg		120	75 - 125	0	20

Lab Sample ID: MB 570-273094/1-A ^5

Matrix: Solid

Analysis Batch: 273334

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 273094

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.95	2.84	mg/Kg		10/17/22 07:06	10/17/22 16:13	5
Arsenic	ND		2.99	1.38	mg/Kg		10/17/22 07:06	10/17/22 16:13	5
Barium	ND		2.99	0.141	mg/Kg		10/17/22 07:06	10/17/22 16:13	5

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 570-273094/1-A ^5

Matrix: Solid

Analysis Batch: 273334

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 273094

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.498	0.0687	mg/Kg		10/17/22 07:06	10/17/22 16:13	5
Cadmium	ND		0.498	0.0826	mg/Kg		10/17/22 07:06	10/17/22 16:13	5
Chromium	ND		0.995	0.185	mg/Kg		10/17/22 07:06	10/17/22 16:13	5
Cobalt	ND		0.995	0.205	mg/Kg		10/17/22 07:06	10/17/22 16:13	5
Copper	ND		1.99	0.953	mg/Kg		10/17/22 07:06	10/17/22 16:13	5
Lead	ND		1.99	0.407	mg/Kg		10/17/22 07:06	10/17/22 16:13	5
Molybdenum	ND		1.99	0.512	mg/Kg		10/17/22 07:06	10/17/22 16:13	5
Nickel	ND		1.99	0.360	mg/Kg		10/17/22 07:06	10/17/22 16:13	5
Selenium	ND		2.99	1.22	mg/Kg		10/17/22 07:06	10/17/22 16:13	5
Silver	ND		1.49	0.143	mg/Kg		10/17/22 07:06	10/17/22 16:13	5
Thallium	ND		9.95	2.10	mg/Kg		10/17/22 07:06	10/17/22 16:13	5
Vanadium	ND		0.995	0.167	mg/Kg		10/17/22 07:06	10/17/22 16:13	5
Zinc	ND		4.98	1.15	mg/Kg		10/17/22 07:06	10/17/22 16:13	5

Lab Sample ID: LCS 570-273094/2-A ^5

Matrix: Solid

Analysis Batch: 273334

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 273094

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	50.0	48.59		mg/Kg		97	80 - 120
Arsenic	50.0	43.89		mg/Kg		88	80 - 120
Barium	50.0	44.14		mg/Kg		88	80 - 120
Beryllium	50.0	44.13		mg/Kg		88	80 - 120
Cadmium	50.0	44.21		mg/Kg		88	80 - 120
Chromium	50.0	44.78		mg/Kg		90	80 - 120
Cobalt	50.0	44.44		mg/Kg		89	80 - 120
Copper	50.0	44.31		mg/Kg		89	80 - 120
Lead	50.0	44.14		mg/Kg		88	80 - 120
Molybdenum	50.0	45.60		mg/Kg		91	80 - 120
Nickel	50.0	44.69		mg/Kg		89	80 - 120
Selenium	50.0	41.25		mg/Kg		83	80 - 120
Silver	25.0	21.90		mg/Kg		88	80 - 120
Thallium	50.0	44.14		mg/Kg		88	80 - 120
Vanadium	50.0	43.98		mg/Kg		88	80 - 120
Zinc	50.0	43.16		mg/Kg		86	80 - 120

Lab Sample ID: LCSD 570-273094/3-A ^5

Matrix: Solid

Analysis Batch: 273334

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 273094

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	50.0	47.41		mg/Kg		95	80 - 120	2	20
Arsenic	50.0	42.34		mg/Kg		85	80 - 120	4	20
Barium	50.0	42.99		mg/Kg		86	80 - 120	3	20
Beryllium	50.0	43.04		mg/Kg		86	80 - 120	2	20
Cadmium	50.0	43.00		mg/Kg		86	80 - 120	3	20
Chromium	50.0	43.65		mg/Kg		87	80 - 120	3	20
Cobalt	50.0	42.95		mg/Kg		86	80 - 120	3	20
Copper	50.0	43.11		mg/Kg		86	80 - 120	3	20

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSD 570-273094/3-A ^5

Matrix: Solid

Analysis Batch: 273334

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 273094

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	50.0	43.29		mg/Kg		87	80 - 120	2	20
Molybdenum	50.0	43.95		mg/Kg		88	80 - 120	4	20
Nickel	50.0	43.55		mg/Kg		87	80 - 120	3	20
Selenium	50.0	40.75		mg/Kg		82	80 - 120	1	20
Silver	25.0	21.39		mg/Kg		86	80 - 120	2	20
Thallium	50.0	43.08		mg/Kg		86	80 - 120	2	20
Vanadium	50.0	42.80		mg/Kg		86	80 - 120	3	20
Zinc	50.0	42.68		mg/Kg		85	80 - 120	1	20

Lab Sample ID: 570-113508-21 MS

Matrix: Solid

Analysis Batch: 273334

Client Sample ID: A-22-04@25'

Prep Type: Total/NA

Prep Batch: 273094

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND	F1	49.8	18.89	F1	mg/Kg		38	75 - 125		
Arsenic	3.79		49.8	45.02		mg/Kg		83	75 - 125		
Barium	60.0	F1	49.8	90.95	F1	mg/Kg		62	75 - 125		
Beryllium	0.313	J	49.8	43.48		mg/Kg		87	75 - 125		
Cadmium	ND		49.8	41.89		mg/Kg		84	75 - 125		
Chromium	10.3		49.8	58.47		mg/Kg		97	75 - 125		
Cobalt	3.19		49.8	46.04		mg/Kg		86	75 - 125		
Copper	7.44		49.8	53.47		mg/Kg		93	75 - 125		
Lead	4.69		49.8	47.92		mg/Kg		87	75 - 125		
Molybdenum	ND		49.8	40.37		mg/Kg		81	75 - 125		
Nickel	4.93		49.8	48.03		mg/Kg		87	75 - 125		
Selenium	ND		49.8	37.97		mg/Kg		76	75 - 125		
Silver	ND		24.9	21.32		mg/Kg		86	75 - 125		
Thallium	ND		49.8	41.73		mg/Kg		84	75 - 125		
Vanadium	26.3		49.8	78.31		mg/Kg		105	75 - 125		
Zinc	19.7		49.8	64.47		mg/Kg		90	75 - 125		

Lab Sample ID: 570-113508-21 MSD

Matrix: Solid

Analysis Batch: 273334

Client Sample ID: A-22-04@25'

Prep Type: Total/NA

Prep Batch: 273094

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND	F1	49.5	19.33	F1	mg/Kg		39	75 - 125	2	20
Arsenic	3.79		49.5	44.75		mg/Kg		83	75 - 125	1	20
Barium	60.0	F1	49.5	88.63	F1	mg/Kg		58	75 - 125	3	20
Beryllium	0.313	J	49.5	42.66		mg/Kg		86	75 - 125	2	20
Cadmium	ND		49.5	41.40		mg/Kg		84	75 - 125	1	20
Chromium	10.3		49.5	56.82		mg/Kg		94	75 - 125	3	20
Cobalt	3.19		49.5	45.14		mg/Kg		85	75 - 125	2	20
Copper	7.44		49.5	53.08		mg/Kg		92	75 - 125	1	20
Lead	4.69		49.5	47.26		mg/Kg		86	75 - 125	1	20
Molybdenum	ND		49.5	40.04		mg/Kg		81	75 - 125	1	20
Nickel	4.93		49.5	46.83		mg/Kg		85	75 - 125	3	20
Selenium	ND		49.5	38.45		mg/Kg		78	75 - 125	1	20
Silver	ND		24.8	20.95		mg/Kg		85	75 - 125	2	20

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 570-113508-21 MSD

Matrix: Solid

Analysis Batch: 273334

Client Sample ID: A-22-04@25'

Prep Type: Total/NA

Prep Batch: 273094

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Thallium	ND		49.5	41.72		mg/Kg		84	75 - 125	0	20
Vanadium	26.3		49.5	75.06		mg/Kg		99	75 - 125	4	20
Zinc	19.7		49.5	66.67		mg/Kg		95	75 - 125	3	20

Lab Sample ID: MB 570-274386/1-A ^5

Matrix: Solid

Analysis Batch: 274483

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 274386

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^1+	9.85	2.81	mg/Kg		10/20/22 12:26	10/20/22 17:10	5
Arsenic	ND		2.96	1.37	mg/Kg		10/20/22 12:26	10/20/22 17:10	5
Barium	ND		2.96	0.140	mg/Kg		10/20/22 12:26	10/20/22 17:10	5
Beryllium	ND		0.493	0.0680	mg/Kg		10/20/22 12:26	10/20/22 17:10	5
Cadmium	ND		0.493	0.0818	mg/Kg		10/20/22 12:26	10/20/22 17:10	5
Chromium	ND		0.985	0.183	mg/Kg		10/20/22 12:26	10/20/22 17:10	5
Cobalt	ND		0.985	0.203	mg/Kg		10/20/22 12:26	10/20/22 17:10	5
Copper	ND		1.97	0.944	mg/Kg		10/20/22 12:26	10/20/22 17:10	5
Lead	ND		1.97	0.403	mg/Kg		10/20/22 12:26	10/20/22 17:10	5
Molybdenum	ND		1.97	0.507	mg/Kg		10/20/22 12:26	10/20/22 17:10	5
Nickel	ND		1.97	0.357	mg/Kg		10/20/22 12:26	10/20/22 17:10	5
Selenium	ND		2.96	1.20	mg/Kg		10/20/22 12:26	10/20/22 17:10	5
Silver	ND		1.48	0.142	mg/Kg		10/20/22 12:26	10/20/22 17:10	5
Thallium	ND		9.85	2.07	mg/Kg		10/20/22 12:26	10/20/22 17:10	5
Vanadium	ND		0.985	0.166	mg/Kg		10/20/22 12:26	10/20/22 17:10	5
Zinc	ND		4.93	1.14	mg/Kg		10/20/22 12:26	10/20/22 17:10	5

Lab Sample ID: LCS 570-274386/2-A ^5

Matrix: Solid

Analysis Batch: 274483

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 274386

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	51.0	51.03	^1+	mg/Kg		100	80 - 120
Arsenic	51.0	49.45		mg/Kg		97	80 - 120
Barium	51.0	49.58		mg/Kg		97	80 - 120
Beryllium	51.0	49.80		mg/Kg		98	80 - 120
Cadmium	51.0	49.46		mg/Kg		97	80 - 120
Chromium	51.0	50.03		mg/Kg		98	80 - 120
Cobalt	51.0	50.05		mg/Kg		98	80 - 120
Copper	51.0	50.14		mg/Kg		98	80 - 120
Lead	51.0	49.45		mg/Kg		97	80 - 120
Molybdenum	51.0	50.06		mg/Kg		98	80 - 120
Nickel	51.0	50.59		mg/Kg		99	80 - 120
Selenium	51.0	47.49		mg/Kg		93	80 - 120
Silver	25.5	24.49		mg/Kg		96	80 - 120
Thallium	51.0	49.94		mg/Kg		98	80 - 120
Vanadium	51.0	49.58		mg/Kg		97	80 - 120
Zinc	51.0	49.80		mg/Kg		98	80 - 120

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSD 570-274386/3-A ^5

Matrix: Solid

Analysis Batch: 274483

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 274386

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	49.0	50.07	^1+	mg/Kg		102	80 - 120	2	20
Arsenic	49.0	46.25		mg/Kg		94	80 - 120	7	20
Barium	49.0	46.63		mg/Kg		95	80 - 120	6	20
Beryllium	49.0	46.74		mg/Kg		95	80 - 120	6	20
Cadmium	49.0	46.92		mg/Kg		96	80 - 120	5	20
Chromium	49.0	46.90		mg/Kg		96	80 - 120	6	20
Cobalt	49.0	47.33		mg/Kg		97	80 - 120	6	20
Copper	49.0	47.08		mg/Kg		96	80 - 120	6	20
Lead	49.0	46.57		mg/Kg		95	80 - 120	6	20
Molybdenum	49.0	48.15		mg/Kg		98	80 - 120	4	20
Nickel	49.0	47.32		mg/Kg		97	80 - 120	7	20
Selenium	49.0	44.40		mg/Kg		91	80 - 120	7	20
Silver	24.5	23.06		mg/Kg		94	80 - 120	6	20
Thallium	49.0	47.05		mg/Kg		96	80 - 120	6	20
Vanadium	49.0	46.61		mg/Kg		95	80 - 120	6	20
Zinc	49.0	46.99		mg/Kg		96	80 - 120	6	20

## Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 570-273314/1-A

Matrix: Solid

Analysis Batch: 273677

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 273314

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0138	mg/Kg		10/17/22 16:24	10/18/22 14:07	1

Lab Sample ID: LCS 570-273314/2-A

Matrix: Solid

Analysis Batch: 273677

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 273314

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.392	0.4077		mg/Kg		104	80 - 120

Lab Sample ID: LCSD 570-273314/3-A

Matrix: Solid

Analysis Batch: 273677

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 273314

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.400	0.4129		mg/Kg		103	80 - 120	1	10

Lab Sample ID: MB 570-273316/1-A

Matrix: Solid

Analysis Batch: 273677

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 273316

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0138	mg/Kg		10/17/22 16:25	10/18/22 15:56	1

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 570-273316/2-A

Matrix: Solid

Analysis Batch: 273677

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 273316

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.400	0.4143		mg/Kg		104	80 - 120

Lab Sample ID: LCSD 570-273316/3-A

Matrix: Solid

Analysis Batch: 273677

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 273316

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.400	0.4193		mg/Kg		105	80 - 120	1	10



# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## GC/MS Semi VOA

### Prep Batch: 273091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-1	A-22-01@5'	Total/NA	Solid	3546	
570-113508-2	A-22-02@5'	Total/NA	Solid	3546	
570-113508-3	A-22-02@10'	Total/NA	Solid	3546	
570-113508-4	A-22-03@5'	Total/NA	Solid	3546	
570-113508-5	A-22-03@10'	Total/NA	Solid	3546	
570-113508-6	A-22-06-@5'	Total/NA	Solid	3546	
570-113508-7	A-22-06-@10'	Total/NA	Solid	3546	
570-113508-8	A-22-06-@15'	Total/NA	Solid	3546	
570-113508-9	A-22-06-@20'	Total/NA	Solid	3546	
570-113508-10	A-22-05-@5'	Total/NA	Solid	3546	
570-113508-11	A-22-05-@10'	Total/NA	Solid	3546	
570-113508-12	A-22-05-@15'	Total/NA	Solid	3546	
570-113508-13	A-22-05-@20'	Total/NA	Solid	3546	
570-113508-14	A-22-05-@25'	Total/NA	Solid	3546	
570-113508-15	A-22-05-@30'	Total/NA	Solid	3546	
570-113508-16	A-22-05-@35'	Total/NA	Solid	3546	
570-113508-17	A-22-04@5'	Total/NA	Solid	3546	
570-113508-18	A-22-04@10'	Total/NA	Solid	3546	
570-113508-19	A-22-04@15'	Total/NA	Solid	3546	
570-113508-20	A-22-04@20'	Total/NA	Solid	3546	
MB 570-273091/1-A	Method Blank	Total/NA	Solid	3546	
LCS 570-273091/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 570-273091/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
570-113508-1 MS	A-22-01@5'	Total/NA	Solid	3546	
570-113508-1 MSD	A-22-01@5'	Total/NA	Solid	3546	

### Prep Batch: 273092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-21	A-22-04@25'	Total/NA	Solid	3546	
570-113508-22	A-22-04@30'	Total/NA	Solid	3546	
570-113508-23	A-22-04@35'	Total/NA	Solid	3546	
MB 570-273092/1-A	Method Blank	Total/NA	Solid	3546	
LCS 570-273092/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 570-273092/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
570-113508-21 MS	A-22-04@25'	Total/NA	Solid	3546	
570-113508-21 MSD	A-22-04@25'	Total/NA	Solid	3546	

### Analysis Batch: 273575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-1	A-22-01@5'	Total/NA	Solid	8270C SIM	273091
570-113508-2	A-22-02@5'	Total/NA	Solid	8270C SIM	273091
570-113508-3	A-22-02@10'	Total/NA	Solid	8270C SIM	273091
570-113508-4	A-22-03@5'	Total/NA	Solid	8270C SIM	273091
570-113508-5	A-22-03@10'	Total/NA	Solid	8270C SIM	273091
570-113508-6	A-22-06-@5'	Total/NA	Solid	8270C SIM	273091
570-113508-7	A-22-06-@10'	Total/NA	Solid	8270C SIM	273091
MB 570-273091/1-A	Method Blank	Total/NA	Solid	8270C SIM	273091
LCS 570-273091/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	273091
LCSD 570-273091/3-A	Lab Control Sample Dup	Total/NA	Solid	8270C SIM	273091
570-113508-1 MS	A-22-01@5'	Total/NA	Solid	8270C SIM	273091
570-113508-1 MSD	A-22-01@5'	Total/NA	Solid	8270C SIM	273091

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## GC/MS Semi VOA

### Analysis Batch: 273711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-1	A-22-01@5'	Total/NA	Solid	8270C SIM	273091
570-113508-8	A-22-06-@15'	Total/NA	Solid	8270C SIM	273091
570-113508-9	A-22-06-@20'	Total/NA	Solid	8270C SIM	273091
570-113508-10	A-22-05-@5'	Total/NA	Solid	8270C SIM	273091
570-113508-11	A-22-05-@10'	Total/NA	Solid	8270C SIM	273091
570-113508-12	A-22-05-@15'	Total/NA	Solid	8270C SIM	273091
570-113508-13	A-22-05-@20'	Total/NA	Solid	8270C SIM	273091
570-113508-14	A-22-05-@25'	Total/NA	Solid	8270C SIM	273091
570-113508-15	A-22-05-@30'	Total/NA	Solid	8270C SIM	273091
570-113508-16	A-22-05@35'	Total/NA	Solid	8270C SIM	273091
570-113508-17	A-22-04@5'	Total/NA	Solid	8270C SIM	273091
570-113508-18	A-22-04@10'	Total/NA	Solid	8270C SIM	273091
570-113508-19	A-22-04@15'	Total/NA	Solid	8270C SIM	273091
570-113508-21	A-22-04@25'	Total/NA	Solid	8270C SIM	273092
570-113508-22	A-22-04@30'	Total/NA	Solid	8270C SIM	273092
570-113508-23	A-22-04@35'	Total/NA	Solid	8270C SIM	273092
MB 570-273092/1-A	Method Blank	Total/NA	Solid	8270C SIM	273092
LCS 570-273092/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	273092
LCSD 570-273092/3-A	Lab Control Sample Dup	Total/NA	Solid	8270C SIM	273092
570-113508-1 MS	A-22-01@5'	Total/NA	Solid	8270C SIM	273091
570-113508-1 MSD	A-22-01@5'	Total/NA	Solid	8270C SIM	273091
570-113508-21 MS	A-22-04@25'	Total/NA	Solid	8270C SIM	273092
570-113508-21 MSD	A-22-04@25'	Total/NA	Solid	8270C SIM	273092

### Analysis Batch: 273971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-20	A-22-04@20'	Total/NA	Solid	8270C SIM	273091

## GC VOA

### Prep Batch: 273298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-8	A-22-06-@15'	Total/NA	Solid	5030C	
570-113508-9	A-22-06-@20'	Total/NA	Solid	5030C	
570-113508-10	A-22-05-@5'	Total/NA	Solid	5030C	
570-113508-11	A-22-05-@10'	Total/NA	Solid	5030C	
570-113508-12	A-22-05-@15'	Total/NA	Solid	5030C	
570-113508-13	A-22-05-@20'	Total/NA	Solid	5030C	
570-113508-14	A-22-05-@25'	Total/NA	Solid	5030C	
570-113508-15	A-22-05-@30'	Total/NA	Solid	5030C	
570-113508-16	A-22-05@35'	Total/NA	Solid	5030C	
570-113508-17	A-22-04@5'	Total/NA	Solid	5030C	
570-113508-18	A-22-04@10'	Total/NA	Solid	5030C	
570-113508-19	A-22-04@15'	Total/NA	Solid	5030C	
570-113508-20	A-22-04@20'	Total/NA	Solid	5030C	
570-113508-21	A-22-04@25'	Total/NA	Solid	5030C	
570-113508-22	A-22-04@30'	Total/NA	Solid	5030C	
570-113508-23	A-22-04@35'	Total/NA	Solid	5030C	
MB 570-273298/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-273298/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-273298/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## GC VOA (Continued)

### Prep Batch: 273298 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-8 MS	A-22-06-@15'	Total/NA	Solid	5030C	
570-113508-8 MSD	A-22-06-@15'	Total/NA	Solid	5030C	

### Analysis Batch: 273535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-8	A-22-06-@15'	Total/NA	Solid	8015B	273298
570-113508-9	A-22-06-@20'	Total/NA	Solid	8015B	273298
570-113508-10	A-22-05-@5'	Total/NA	Solid	8015B	273298
570-113508-11	A-22-05-@10'	Total/NA	Solid	8015B	273298
570-113508-12	A-22-05-@15'	Total/NA	Solid	8015B	273298
570-113508-13	A-22-05-@20'	Total/NA	Solid	8015B	273298
570-113508-14	A-22-05-@25'	Total/NA	Solid	8015B	273298
570-113508-15	A-22-05-@30'	Total/NA	Solid	8015B	273298
570-113508-16	A-22-05-@35'	Total/NA	Solid	8015B	273298
570-113508-17	A-22-04-@5'	Total/NA	Solid	8015B	273298
570-113508-18	A-22-04-@10'	Total/NA	Solid	8015B	273298
570-113508-19	A-22-04-@15'	Total/NA	Solid	8015B	273298
570-113508-20	A-22-04-@20'	Total/NA	Solid	8015B	273298
570-113508-21	A-22-04-@25'	Total/NA	Solid	8015B	273298
570-113508-22	A-22-04-@30'	Total/NA	Solid	8015B	273298
570-113508-23	A-22-04-@35'	Total/NA	Solid	8015B	273298
MB 570-273298/3-A	Method Blank	Total/NA	Solid	8015B	273298
LCS 570-273298/1-A	Lab Control Sample	Total/NA	Solid	8015B	273298
LCSD 570-273298/2-A	Lab Control Sample Dup	Total/NA	Solid	8015B	273298
570-113508-8 MS	A-22-06-@15'	Total/NA	Solid	8015B	273298
570-113508-8 MSD	A-22-06-@15'	Total/NA	Solid	8015B	273298

### Analysis Batch: 273538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-1	A-22-01-@5'	Total/NA	Solid	8015B	273572
570-113508-2	A-22-02-@5'	Total/NA	Solid	8015B	273572
570-113508-3	A-22-02-@10'	Total/NA	Solid	8015B	273572
570-113508-4	A-22-03-@5'	Total/NA	Solid	8015B	273572
570-113508-5	A-22-03-@10'	Total/NA	Solid	8015B	273572
570-113508-6	A-22-06-@5'	Total/NA	Solid	8015B	273572
570-113508-7	A-22-06-@10'	Total/NA	Solid	8015B	273572
MB 570-273572/3-A	Method Blank	Total/NA	Solid	8015B	273572
LCS 570-273572/1-A	Lab Control Sample	Total/NA	Solid	8015B	273572
LCSD 570-273572/2-A	Lab Control Sample Dup	Total/NA	Solid	8015B	273572

### Prep Batch: 273572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-1	A-22-01-@5'	Total/NA	Solid	5030C	
570-113508-2	A-22-02-@5'	Total/NA	Solid	5030C	
570-113508-3	A-22-02-@10'	Total/NA	Solid	5030C	
570-113508-4	A-22-03-@5'	Total/NA	Solid	5030C	
570-113508-5	A-22-03-@10'	Total/NA	Solid	5030C	
570-113508-6	A-22-06-@5'	Total/NA	Solid	5030C	
570-113508-7	A-22-06-@10'	Total/NA	Solid	5030C	
MB 570-273572/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-273572/1-A	Lab Control Sample	Total/NA	Solid	5030C	

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## GC VOA (Continued)

### Prep Batch: 273572 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 570-273572/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	

## GC Semi VOA

### Analysis Batch: 273166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-1	A-22-01@5'	Total/NA	Solid	8015B	273210
570-113508-2	A-22-02@5'	Total/NA	Solid	8015B	273210
570-113508-3	A-22-02@10'	Total/NA	Solid	8015B	273210
570-113508-4	A-22-03@5'	Total/NA	Solid	8015B	273210
570-113508-5	A-22-03@10'	Total/NA	Solid	8015B	273210
570-113508-6	A-22-06-@5'	Total/NA	Solid	8015B	273210
570-113508-7	A-22-06-@10'	Total/NA	Solid	8015B	273210
570-113508-8	A-22-06-@15'	Total/NA	Solid	8015B	273210
570-113508-9	A-22-06-@20'	Total/NA	Solid	8015B	273210
570-113508-10	A-22-05-@5'	Total/NA	Solid	8015B	273210
570-113508-11	A-22-05-@10'	Total/NA	Solid	8015B	273210
570-113508-12	A-22-05-@15'	Total/NA	Solid	8015B	273210
570-113508-13	A-22-05-@20'	Total/NA	Solid	8015B	273210
570-113508-14	A-22-05-@25'	Total/NA	Solid	8015B	273210
570-113508-15	A-22-05-@30'	Total/NA	Solid	8015B	273210
570-113508-16	A-22-05@35'	Total/NA	Solid	8015B	273210
570-113508-17	A-22-04@5'	Total/NA	Solid	8015B	273210
570-113508-18	A-22-04@10'	Total/NA	Solid	8015B	273210
570-113508-19	A-22-04@15'	Total/NA	Solid	8015B	273210
570-113508-20	A-22-04@20'	Total/NA	Solid	8015B	273210
570-113508-21	A-22-04@25'	Total/NA	Solid	8015B	273208
570-113508-22	A-22-04@30'	Total/NA	Solid	8015B	273208
570-113508-23	A-22-04@35'	Total/NA	Solid	8015B	273208
MB 570-273208/1-A	Method Blank	Total/NA	Solid	8015B	273208
MB 570-273210/1-A	Method Blank	Total/NA	Solid	8015B	273210
LCS 570-273208/2-A	Lab Control Sample	Total/NA	Solid	8015B	273208
LCS 570-273210/2-A	Lab Control Sample	Total/NA	Solid	8015B	273210
LCSD 570-273208/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	273208
LCSD 570-273210/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	273210
570-113508-1 MS	A-22-01@5'	Total/NA	Solid	8015B	273210
570-113508-1 MSD	A-22-01@5'	Total/NA	Solid	8015B	273210

### Prep Batch: 273208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-21	A-22-04@25'	Total/NA	Solid	3550C	
570-113508-22	A-22-04@30'	Total/NA	Solid	3550C	
570-113508-23	A-22-04@35'	Total/NA	Solid	3550C	
MB 570-273208/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 570-273208/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 570-273208/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	

### Prep Batch: 273210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-1	A-22-01@5'	Total/NA	Solid	3550C	
570-113508-2	A-22-02@5'	Total/NA	Solid	3550C	

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## GC Semi VOA (Continued)

### Prep Batch: 273210 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-3	A-22-02@10'	Total/NA	Solid	3550C	
570-113508-4	A-22-03@5'	Total/NA	Solid	3550C	
570-113508-5	A-22-03@10'	Total/NA	Solid	3550C	
570-113508-6	A-22-06-@5'	Total/NA	Solid	3550C	
570-113508-7	A-22-06-@10'	Total/NA	Solid	3550C	
570-113508-8	A-22-06-@15'	Total/NA	Solid	3550C	
570-113508-9	A-22-06-@20'	Total/NA	Solid	3550C	
570-113508-10	A-22-05-@5'	Total/NA	Solid	3550C	
570-113508-11	A-22-05-@10'	Total/NA	Solid	3550C	
570-113508-12	A-22-05-@15'	Total/NA	Solid	3550C	
570-113508-13	A-22-05-@20'	Total/NA	Solid	3550C	
570-113508-14	A-22-05-@25'	Total/NA	Solid	3550C	
570-113508-15	A-22-05-@30'	Total/NA	Solid	3550C	
570-113508-16	A-22-05@35'	Total/NA	Solid	3550C	
570-113508-17	A-22-04@5'	Total/NA	Solid	3550C	
570-113508-18	A-22-04@10'	Total/NA	Solid	3550C	
570-113508-19	A-22-04@15'	Total/NA	Solid	3550C	
570-113508-20	A-22-04@20'	Total/NA	Solid	3550C	
MB 570-273210/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 570-273210/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 570-273210/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	
570-113508-1 MS	A-22-01@5'	Total/NA	Solid	3550C	
570-113508-1 MSD	A-22-01@5'	Total/NA	Solid	3550C	

## Metals

### Prep Batch: 273093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-1	A-22-01@5'	Total/NA	Solid	3050B	
570-113508-2	A-22-02@5'	Total/NA	Solid	3050B	
570-113508-3	A-22-02@10'	Total/NA	Solid	3050B	
570-113508-4	A-22-03@5'	Total/NA	Solid	3050B	
570-113508-5	A-22-03@10'	Total/NA	Solid	3050B	
570-113508-6	A-22-06-@5'	Total/NA	Solid	3050B	
570-113508-7	A-22-06-@10'	Total/NA	Solid	3050B	
570-113508-8	A-22-06-@15'	Total/NA	Solid	3050B	
570-113508-9	A-22-06-@20'	Total/NA	Solid	3050B	
570-113508-10	A-22-05-@5'	Total/NA	Solid	3050B	
570-113508-11	A-22-05-@10'	Total/NA	Solid	3050B	
570-113508-13	A-22-05-@20'	Total/NA	Solid	3050B	
570-113508-14	A-22-05-@25'	Total/NA	Solid	3050B	
570-113508-15	A-22-05-@30'	Total/NA	Solid	3050B	
570-113508-16	A-22-05@35'	Total/NA	Solid	3050B	
570-113508-17	A-22-04@5'	Total/NA	Solid	3050B	
570-113508-18	A-22-04@10'	Total/NA	Solid	3050B	
570-113508-19	A-22-04@15'	Total/NA	Solid	3050B	
570-113508-20	A-22-04@20'	Total/NA	Solid	3050B	
MB 570-273093/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-273093/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-273093/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	
570-113508-1 MS	A-22-01@5'	Total/NA	Solid	3050B	

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Metals (Continued)

### Prep Batch: 273093 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-1 MSD	A-22-01@5'	Total/NA	Solid	3050B	

### Prep Batch: 273094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-21	A-22-04@25'	Total/NA	Solid	3050B	
570-113508-22	A-22-04@30'	Total/NA	Solid	3050B	
570-113508-23	A-22-04@35'	Total/NA	Solid	3050B	
MB 570-273094/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-273094/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-273094/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	
570-113508-21 MS	A-22-04@25'	Total/NA	Solid	3050B	
570-113508-21 MSD	A-22-04@25'	Total/NA	Solid	3050B	

### Prep Batch: 273314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-20	A-22-04@20'	Total/NA	Solid	7471A	
570-113508-21	A-22-04@25'	Total/NA	Solid	7471A	
570-113508-22	A-22-04@30'	Total/NA	Solid	7471A	
570-113508-23	A-22-04@35'	Total/NA	Solid	7471A	
MB 570-273314/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-273314/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-273314/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	

### Prep Batch: 273316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-1	A-22-01@5'	Total/NA	Solid	7471A	
570-113508-2	A-22-02@5'	Total/NA	Solid	7471A	
570-113508-3	A-22-02@10'	Total/NA	Solid	7471A	
570-113508-4	A-22-03@5'	Total/NA	Solid	7471A	
570-113508-5	A-22-03@10'	Total/NA	Solid	7471A	
570-113508-6	A-22-06-@5'	Total/NA	Solid	7471A	
570-113508-7	A-22-06-@10'	Total/NA	Solid	7471A	
570-113508-8	A-22-06-@15'	Total/NA	Solid	7471A	
570-113508-9	A-22-06-@20'	Total/NA	Solid	7471A	
570-113508-10	A-22-05-@5'	Total/NA	Solid	7471A	
570-113508-11	A-22-05-@10'	Total/NA	Solid	7471A	
570-113508-12	A-22-05-@15'	Total/NA	Solid	7471A	
570-113508-13	A-22-05-@20'	Total/NA	Solid	7471A	
570-113508-14	A-22-05-@25'	Total/NA	Solid	7471A	
570-113508-15	A-22-05-@30'	Total/NA	Solid	7471A	
570-113508-16	A-22-05@35'	Total/NA	Solid	7471A	
570-113508-17	A-22-04@5'	Total/NA	Solid	7471A	
570-113508-18	A-22-04@10'	Total/NA	Solid	7471A	
570-113508-19	A-22-04@15'	Total/NA	Solid	7471A	
MB 570-273316/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-273316/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-273316/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	

### Analysis Batch: 273334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-21	A-22-04@25'	Total/NA	Solid	6010B	273094

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Metals (Continued)

### Analysis Batch: 273334 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-22	A-22-04@30'	Total/NA	Solid	6010B	273094
570-113508-23	A-22-04@35'	Total/NA	Solid	6010B	273094
MB 570-273094/1-A ^5	Method Blank	Total/NA	Solid	6010B	273094
LCS 570-273094/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	273094
LCSD 570-273094/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	273094
570-113508-21 MS	A-22-04@25'	Total/NA	Solid	6010B	273094
570-113508-21 MSD	A-22-04@25'	Total/NA	Solid	6010B	273094

### Analysis Batch: 273677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-1	A-22-01@5'	Total/NA	Solid	7471A	273316
570-113508-2	A-22-02@5'	Total/NA	Solid	7471A	273316
570-113508-3	A-22-02@10'	Total/NA	Solid	7471A	273316
570-113508-4	A-22-03@5'	Total/NA	Solid	7471A	273316
570-113508-5	A-22-03@10'	Total/NA	Solid	7471A	273316
570-113508-6	A-22-06-@5'	Total/NA	Solid	7471A	273316
570-113508-7	A-22-06-@10'	Total/NA	Solid	7471A	273316
570-113508-8	A-22-06-@15'	Total/NA	Solid	7471A	273316
570-113508-9	A-22-06-@20'	Total/NA	Solid	7471A	273316
570-113508-10	A-22-05-@5'	Total/NA	Solid	7471A	273316
570-113508-11	A-22-05-@10'	Total/NA	Solid	7471A	273316
570-113508-12	A-22-05-@15'	Total/NA	Solid	7471A	273316
570-113508-13	A-22-05-@20'	Total/NA	Solid	7471A	273316
570-113508-14	A-22-05-@25'	Total/NA	Solid	7471A	273316
570-113508-15	A-22-05-@30'	Total/NA	Solid	7471A	273316
570-113508-16	A-22-05@35'	Total/NA	Solid	7471A	273316
570-113508-17	A-22-04@5'	Total/NA	Solid	7471A	273316
570-113508-18	A-22-04@10'	Total/NA	Solid	7471A	273316
570-113508-19	A-22-04@15'	Total/NA	Solid	7471A	273316
570-113508-20	A-22-04@20'	Total/NA	Solid	7471A	273314
570-113508-21	A-22-04@25'	Total/NA	Solid	7471A	273314
570-113508-22	A-22-04@30'	Total/NA	Solid	7471A	273314
570-113508-23	A-22-04@35'	Total/NA	Solid	7471A	273314
MB 570-273314/1-A	Method Blank	Total/NA	Solid	7471A	273314
MB 570-273316/1-A	Method Blank	Total/NA	Solid	7471A	273316
LCS 570-273314/2-A	Lab Control Sample	Total/NA	Solid	7471A	273314
LCS 570-273316/2-A	Lab Control Sample	Total/NA	Solid	7471A	273316
LCSD 570-273314/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	273314
LCSD 570-273316/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	273316

### Analysis Batch: 273818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-1	A-22-01@5'	Total/NA	Solid	6010B	273093
570-113508-2	A-22-02@5'	Total/NA	Solid	6010B	273093
570-113508-3	A-22-02@10'	Total/NA	Solid	6010B	273093
570-113508-4	A-22-03@5'	Total/NA	Solid	6010B	273093
570-113508-5	A-22-03@10'	Total/NA	Solid	6010B	273093
570-113508-6	A-22-06-@5'	Total/NA	Solid	6010B	273093
570-113508-7	A-22-06-@10'	Total/NA	Solid	6010B	273093
570-113508-8	A-22-06-@15'	Total/NA	Solid	6010B	273093
570-113508-9	A-22-06-@20'	Total/NA	Solid	6010B	273093

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

## Metals (Continued)

### Analysis Batch: 273818 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-10	A-22-05-@5'	Total/NA	Solid	6010B	273093
570-113508-11	A-22-05-@10'	Total/NA	Solid	6010B	273093
570-113508-13	A-22-05-@20'	Total/NA	Solid	6010B	273093
570-113508-14	A-22-05-@25'	Total/NA	Solid	6010B	273093
570-113508-15	A-22-05-@30'	Total/NA	Solid	6010B	273093
570-113508-16	A-22-05-@35'	Total/NA	Solid	6010B	273093
570-113508-17	A-22-04-@5'	Total/NA	Solid	6010B	273093
570-113508-18	A-22-04-@10'	Total/NA	Solid	6010B	273093
570-113508-19	A-22-04-@15'	Total/NA	Solid	6010B	273093
570-113508-20	A-22-04-@20'	Total/NA	Solid	6010B	273093
MB 570-273093/1-A ^5	Method Blank	Total/NA	Solid	6010B	273093
LCS 570-273093/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	273093
LCSD 570-273093/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	273093
570-113508-1 MS	A-22-01-@5'	Total/NA	Solid	6010B	273093
570-113508-1 MSD	A-22-01-@5'	Total/NA	Solid	6010B	273093

### Prep Batch: 274386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-12	A-22-05-@15'	Total/NA	Solid	3050B	
MB 570-274386/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-274386/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-274386/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	

### Analysis Batch: 274483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-12	A-22-05-@15'	Total/NA	Solid	6010B	274386
MB 570-274386/1-A ^5	Method Blank	Total/NA	Solid	6010B	274386
LCS 570-274386/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	274386
LCSD 570-274386/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	274386



# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

**Client Sample ID: A-22-01@5'**

**Lab Sample ID: 570-113508-1**

**Date Collected: 10/13/22 07:45**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.10 g	2 mL	273091	10/17/22 06:39	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	273575	10/18/22 14:38	ULLI	EET CAL 4
Instrument ID: GCMSAAA										
Total/NA	Prep	3546			10.10 g	2 mL	273091	10/17/22 06:39	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	273711	10/18/22 19:48	ULLI	EET CAL 4
Instrument ID: GCMSAAA										
Total/NA	Prep	5030C			5.04 g	5 mL	273572	10/18/22 11:33	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	273538	10/18/22 15:11	P1R	EET CAL 4
Instrument ID: GC24										
Total/NA	Prep	3550C			10.21 g	10.00 mL	273210	10/17/22 11:16	USUL	EET CAL 4
Total/NA	Analysis	8015B		10	10 mL	10 mL	273166	10/18/22 02:05	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.98 g	50 mL	273093	10/17/22 06:59	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			273818	10/18/22 19:07	P1R	EET CAL 4
Instrument ID: ICP10										
Total/NA	Prep	7471A			0.50 g	50 mL	273316	10/17/22 16:25	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			273677	10/18/22 16:07	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: A-22-02@5'**

**Lab Sample ID: 570-113508-2**

**Date Collected: 10/13/22 08:10**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			9.97 g	2 mL	273091	10/17/22 06:39	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	273575	10/18/22 14:59	ULLI	EET CAL 4
Instrument ID: GCMSAAA										
Total/NA	Prep	5030C			4.98 g	5 mL	273572	10/18/22 11:33	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	273538	10/18/22 15:37	P1R	EET CAL 4
Instrument ID: GC24										
Total/NA	Prep	3550C			10.26 g	10.00 mL	273210	10/17/22 11:16	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	273166	10/18/22 02:26	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.00 g	50 mL	273093	10/17/22 06:59	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			273818	10/18/22 19:17	P1R	EET CAL 4
Instrument ID: ICP10										
Total/NA	Prep	7471A			0.50 g	50 mL	273316	10/17/22 16:25	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			273677	10/18/22 16:09	C0YH	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

**Client Sample ID: A-22-02@10'**

**Lab Sample ID: 570-113508-3**

**Date Collected: 10/13/22 08:20**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.14 g	2 mL	273091	10/17/22 06:39	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	273575	10/18/22 15:20	ULLI	EET CAL 4
		Instrument ID: GCMSAAA								
Total/NA	Prep	5030C			5.03 g	5 mL	273572	10/18/22 11:33	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	273538	10/18/22 16:02	P1R	EET CAL 4
		Instrument ID: GC24								
Total/NA	Prep	3550C			10.28 g	10.00 mL	273210	10/17/22 11:16	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	273166	10/18/22 02:48	A1W	EET CAL 4
		Instrument ID: GC47								
Total/NA	Prep	3050B			2.04 g	50 mL	273093	10/17/22 06:59	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			273818	10/18/22 19:19	P1R	EET CAL 4
		Instrument ID: ICP10								
Total/NA	Prep	7471A			0.51 g	50 mL	273316	10/17/22 16:25	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			273677	10/18/22 16:11	C0YH	EET CAL 4
		Instrument ID: HG7								

**Client Sample ID: A-22-03@5'**

**Lab Sample ID: 570-113508-4**

**Date Collected: 10/13/22 11:05**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.10 g	2 mL	273091	10/17/22 06:39	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	273575	10/18/22 15:40	ULLI	EET CAL 4
		Instrument ID: GCMSAAA								
Total/NA	Prep	5030C			5.00 g	5 mL	273572	10/18/22 11:33	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	273538	10/18/22 16:30	P1R	EET CAL 4
		Instrument ID: GC24								
Total/NA	Prep	3550C			10.22 g	10.00 mL	273210	10/17/22 11:16	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	273166	10/18/22 03:09	A1W	EET CAL 4
		Instrument ID: GC47								
Total/NA	Prep	3050B			2.00 g	50 mL	273093	10/17/22 06:59	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			273818	10/18/22 19:29	P1R	EET CAL 4
		Instrument ID: ICP10								
Total/NA	Prep	7471A			0.50 g	50 mL	273316	10/17/22 16:25	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			273677	10/18/22 16:13	C0YH	EET CAL 4
		Instrument ID: HG7								

**Client Sample ID: A-22-03@10'**

**Lab Sample ID: 570-113508-5**

**Date Collected: 10/13/22 11:15**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.04 g	2 mL	273091	10/17/22 06:39	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	273575	10/18/22 16:01	ULLI	EET CAL 4
		Instrument ID: GCMSAAA								

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

**Client Sample ID: A-22-03@10'**

**Lab Sample ID: 570-113508-5**

**Date Collected: 10/13/22 11:15**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	273572	10/18/22 11:33	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	273538	10/18/22 16:56	P1R	EET CAL 4
		Instrument ID: GC24								
Total/NA	Prep	3550C			10.24 g	10.00 mL	273210	10/17/22 11:16	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	273166	10/18/22 03:30	A1W	EET CAL 4
		Instrument ID: GC47								
Total/NA	Prep	3050B			1.96 g	50 mL	273093	10/17/22 06:59	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			273818	10/18/22 19:31	P1R	EET CAL 4
		Instrument ID: ICP10								
Total/NA	Prep	7471A			0.49 g	50 mL	273316	10/17/22 16:25	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			273677	10/18/22 16:19	C0YH	EET CAL 4
		Instrument ID: HG7								

**Client Sample ID: A-22-06-@5'**

**Lab Sample ID: 570-113508-6**

**Date Collected: 10/13/22 13:20**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			9.95 g	2 mL	273091	10/17/22 06:39	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	273575	10/18/22 16:21	ULLI	EET CAL 4
		Instrument ID: GCMSAAA								
Total/NA	Prep	5030C			5.02 g	5 mL	273572	10/18/22 11:33	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	273538	10/18/22 17:21	P1R	EET CAL 4
		Instrument ID: GC24								
Total/NA	Prep	3550C			10.20 g	10.00 mL	273210	10/17/22 11:16	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	273166	10/18/22 03:51	A1W	EET CAL 4
		Instrument ID: GC47								
Total/NA	Prep	3050B			2.01 g	50 mL	273093	10/17/22 06:59	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			273818	10/18/22 19:34	P1R	EET CAL 4
		Instrument ID: ICP10								
Total/NA	Prep	7471A			0.50 g	50 mL	273316	10/17/22 16:25	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			273677	10/18/22 16:21	C0YH	EET CAL 4
		Instrument ID: HG7								

**Client Sample ID: A-22-06-@10'**

**Lab Sample ID: 570-113508-7**

**Date Collected: 10/13/22 13:40**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.37 g	2 mL	273091	10/17/22 06:39	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	273575	10/18/22 16:42	ULLI	EET CAL 4
		Instrument ID: GCMSAAA								
Total/NA	Prep	5030C			5.03 g	5 mL	273572	10/18/22 11:33	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	273538	10/18/22 17:47	P1R	EET CAL 4
		Instrument ID: GC24								

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

**Client Sample ID: A-22-06-@10'**

**Lab Sample ID: 570-113508-7**

**Date Collected: 10/13/22 13:40**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			10.16 g	10.00 mL	273210	10/17/22 11:16	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	273166	10/18/22 04:13	A1W	EET CAL 4
		Instrument ID: GC47								
Total/NA	Prep	3050B			1.97 g	50 mL	273093	10/17/22 06:59	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			273818	10/18/22 19:36	P1R	EET CAL 4
		Instrument ID: ICP10								
Total/NA	Prep	7471A			0.49 g	50 mL	273316	10/17/22 16:25	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			273677	10/18/22 16:23	C0YH	EET CAL 4
		Instrument ID: HG7								

**Client Sample ID: A-22-06-@15'**

**Lab Sample ID: 570-113508-8**

**Date Collected: 10/13/22 13:50**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.08 g	2 mL	273091	10/17/22 06:39	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	273711	10/19/22 01:37	ULLI	EET CAL 4
		Instrument ID: GCMSAAA								
Total/NA	Prep	5030C			5.03 g	5 mL	273298	10/17/22 15:25	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	273535	10/18/22 12:05	P1R	EET CAL 4
		Instrument ID: GC56								
Total/NA	Prep	3550C			10.10 g	10.00 mL	273210	10/17/22 11:16	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	273166	10/18/22 04:34	A1W	EET CAL 4
		Instrument ID: GC47								
Total/NA	Prep	3050B			2.01 g	50 mL	273093	10/17/22 06:59	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			273818	10/18/22 19:39	P1R	EET CAL 4
		Instrument ID: ICP10								
Total/NA	Prep	7471A			0.50 g	50 mL	273316	10/17/22 16:25	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			273677	10/18/22 16:25	C0YH	EET CAL 4
		Instrument ID: HG7								

**Client Sample ID: A-22-06-@20'**

**Lab Sample ID: 570-113508-9**

**Date Collected: 10/13/22 14:40**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.04 g	2 mL	273091	10/17/22 06:39	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	273711	10/19/22 01:58	ULLI	EET CAL 4
		Instrument ID: GCMSAAA								
Total/NA	Prep	5030C			5.03 g	5 mL	273298	10/17/22 15:25	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	273535	10/18/22 13:21	P1R	EET CAL 4
		Instrument ID: GC56								
Total/NA	Prep	3550C			10.17 g	10.00 mL	273210	10/17/22 11:16	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	273166	10/18/22 04:55	A1W	EET CAL 4
		Instrument ID: GC47								

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

**Client Sample ID: A-22-06-@20'**

**Lab Sample ID: 570-113508-9**

**Date Collected: 10/13/22 14:40**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.00 g	50 mL	273093	10/17/22 06:59	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			273818	10/18/22 19:41	P1R	EET CAL 4
Instrument ID: ICP10										
Total/NA	Prep	7471A			0.49 g	50 mL	273316	10/17/22 16:25	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			273677	10/18/22 16:27	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: A-22-05-@5'**

**Lab Sample ID: 570-113508-10**

**Date Collected: 10/14/22 08:00**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.03 g	2 mL	273091	10/17/22 06:39	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	273711	10/19/22 02:18	ULLI	EET CAL 4
Instrument ID: GCMSAAA										
Total/NA	Prep	5030C			5.04 g	5 mL	273298	10/17/22 15:25	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	273535	10/18/22 13:46	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.19 g	10.00 mL	273210	10/17/22 11:16	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	273166	10/18/22 05:17	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.96 g	50 mL	273093	10/17/22 06:59	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			273818	10/18/22 19:43	P1R	EET CAL 4
Instrument ID: ICP10										
Total/NA	Prep	7471A			0.50 g	50 mL	273316	10/17/22 16:25	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			273677	10/18/22 16:29	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: A-22-05-@10'**

**Lab Sample ID: 570-113508-11**

**Date Collected: 10/14/22 08:15**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.03 g	2 mL	273091	10/17/22 06:39	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	273711	10/19/22 02:39	ULLI	EET CAL 4
Instrument ID: GCMSAAA										
Total/NA	Prep	5030C			5.06 g	5 mL	273298	10/17/22 15:25	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	273535	10/18/22 14:11	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.26 g	10.00 mL	273210	10/17/22 11:16	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	273166	10/18/22 05:38	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.04 g	50 mL	273093	10/17/22 06:59	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			273818	10/18/22 19:46	P1R	EET CAL 4
Instrument ID: ICP10										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

**Client Sample ID: A-22-05-@10'**

**Lab Sample ID: 570-113508-11**

**Date Collected: 10/14/22 08:15**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.51 g	50 mL	273316	10/17/22 16:25	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			273677	10/18/22 16:30	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: A-22-05-@15'**

**Lab Sample ID: 570-113508-12**

**Date Collected: 10/14/22 08:25**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.22 g	2 mL	273091	10/17/22 06:39	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	273711	10/19/22 02:59	ULLI	EET CAL 4
Instrument ID: GCMSAAA										
Total/NA	Prep	5030C			4.99 g	5 mL	273298	10/17/22 15:25	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	273535	10/18/22 14:36	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.21 g	10.00 mL	273210	10/17/22 11:16	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	273166	10/18/22 05:59	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.99 g	50 mL	274386	10/20/22 12:26	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			274483	10/20/22 17:45	VZ0K	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	273316	10/17/22 16:25	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			273677	10/18/22 16:32	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: A-22-05-@20'**

**Lab Sample ID: 570-113508-13**

**Date Collected: 10/14/22 08:35**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.08 g	2 mL	273091	10/17/22 06:39	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	273711	10/19/22 03:20	ULLI	EET CAL 4
Instrument ID: GCMSAAA										
Total/NA	Prep	5030C			5.02 g	5 mL	273298	10/17/22 15:25	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	273535	10/18/22 15:01	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.28 g	10.00 mL	273210	10/17/22 11:16	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	273166	10/18/22 06:21	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.00 g	50 mL	273093	10/17/22 06:59	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			273818	10/18/22 19:51	P1R	EET CAL 4
Instrument ID: ICP10										
Total/NA	Prep	7471A			0.49 g	50 mL	273316	10/17/22 16:25	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			273677	10/18/22 16:34	C0YH	EET CAL 4
Instrument ID: HG7										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

**Client Sample ID: A-22-05-@25'**

**Lab Sample ID: 570-113508-14**

**Date Collected: 10/14/22 08:45**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.02 g	2 mL	273091	10/17/22 06:39	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	273711	10/19/22 03:40	ULLI	EET CAL 4
		Instrument ID: GCMSAAA								
Total/NA	Prep	5030C			5.01 g	5 mL	273298	10/17/22 15:25	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	273535	10/18/22 15:26	P1R	EET CAL 4
		Instrument ID: GC56								
Total/NA	Prep	3550C			10.23 g	10.00 mL	273210	10/17/22 11:16	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	273166	10/18/22 06:42	A1W	EET CAL 4
		Instrument ID: GC47								
Total/NA	Prep	3050B			2.02 g	50 mL	273093	10/17/22 06:59	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			273818	10/18/22 20:00	P1R	EET CAL 4
		Instrument ID: ICP10								
Total/NA	Prep	7471A			0.50 g	50 mL	273316	10/17/22 16:25	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			273677	10/18/22 16:36	C0YH	EET CAL 4
		Instrument ID: HG7								

**Client Sample ID: A-22-05-@30'**

**Lab Sample ID: 570-113508-15**

**Date Collected: 10/14/22 09:10**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.21 g	2 mL	273091	10/17/22 06:39	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	273711	10/19/22 04:01	ULLI	EET CAL 4
		Instrument ID: GCMSAAA								
Total/NA	Prep	5030C			4.99 g	5 mL	273298	10/17/22 15:25	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	273535	10/18/22 17:55	P1R	EET CAL 4
		Instrument ID: GC56								
Total/NA	Prep	3550C			10.27 g	10.00 mL	273210	10/17/22 11:16	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	273166	10/18/22 07:03	A1W	EET CAL 4
		Instrument ID: GC47								
Total/NA	Prep	3050B			1.98 g	50 mL	273093	10/17/22 06:59	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			273818	10/18/22 20:03	P1R	EET CAL 4
		Instrument ID: ICP10								
Total/NA	Prep	7471A			0.50 g	50 mL	273316	10/17/22 16:25	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			273677	10/18/22 16:42	C0YH	EET CAL 4
		Instrument ID: HG7								

**Client Sample ID: A-22-05@35'**

**Lab Sample ID: 570-113508-16**

**Date Collected: 10/14/22 09:25**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.11 g	2 mL	273091	10/17/22 06:39	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	273711	10/19/22 04:21	ULLI	EET CAL 4
		Instrument ID: GCMSAAA								

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

**Client Sample ID: A-22-05@35'**

**Lab Sample ID: 570-113508-16**

**Date Collected: 10/14/22 09:25**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	273298	10/17/22 15:25	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	273535	10/18/22 18:20	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.25 g	10.00 mL	273210	10/17/22 11:16	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	273166	10/18/22 07:25	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.03 g	50 mL	273093	10/17/22 06:59	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			273818	10/18/22 20:05	P1R	EET CAL 4
Instrument ID: ICP10										
Total/NA	Prep	7471A			0.51 g	50 mL	273316	10/17/22 16:25	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			273677	10/18/22 16:44	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: A-22-04@5'**

**Lab Sample ID: 570-113508-17**

**Date Collected: 10/14/22 12:50**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.05 g	2 mL	273091	10/17/22 06:39	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	273711	10/19/22 04:42	ULLI	EET CAL 4
Instrument ID: GCMSAAA										
Total/NA	Prep	5030C			5.03 g	5 mL	273298	10/17/22 15:25	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	273535	10/18/22 18:45	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.29 g	10.00 mL	273210	10/17/22 11:16	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	273166	10/18/22 07:46	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.04 g	50 mL	273093	10/17/22 06:59	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			273818	10/18/22 20:07	P1R	EET CAL 4
Instrument ID: ICP10										
Total/NA	Prep	7471A			0.49 g	50 mL	273316	10/17/22 16:25	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			273677	10/18/22 16:46	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: A-22-04@10'**

**Lab Sample ID: 570-113508-18**

**Date Collected: 10/14/22 13:00**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.07 g	2 mL	273091	10/17/22 06:39	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	273711	10/19/22 05:02	ULLI	EET CAL 4
Instrument ID: GCMSAAA										
Total/NA	Prep	5030C			5.05 g	5 mL	273298	10/17/22 15:25	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	273535	10/18/22 19:36	P1R	EET CAL 4
Instrument ID: GC56										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

**Client Sample ID: A-22-04@10'**

**Lab Sample ID: 570-113508-18**

**Date Collected: 10/14/22 13:00**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			10.24 g	10.00 mL	273210	10/17/22 11:16	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	273166	10/18/22 08:07	A1W	EET CAL 4
		Instrument ID: GC47								
Total/NA	Prep	3050B			2.03 g	50 mL	273093	10/17/22 06:59	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			273818	10/18/22 20:10	P1R	EET CAL 4
		Instrument ID: ICP10								
Total/NA	Prep	7471A			0.49 g	50 mL	273316	10/17/22 16:25	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			273677	10/18/22 16:48	C0YH	EET CAL 4
		Instrument ID: HG7								

**Client Sample ID: A-22-04@15'**

**Lab Sample ID: 570-113508-19**

**Date Collected: 10/14/22 13:10**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			9.96 g	2 mL	273091	10/17/22 06:39	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	273711	10/19/22 05:23	ULLI	EET CAL 4
		Instrument ID: GCMSAAA								
Total/NA	Prep	5030C			5.04 g	5 mL	273298	10/17/22 15:25	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	273535	10/18/22 20:01	P1R	EET CAL 4
		Instrument ID: GC56								
Total/NA	Prep	3550C			10.27 g	10.00 mL	273210	10/17/22 11:16	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	273166	10/18/22 08:28	A1W	EET CAL 4
		Instrument ID: GC47								
Total/NA	Prep	3050B			2.01 g	50 mL	273093	10/17/22 06:59	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			273818	10/18/22 20:12	P1R	EET CAL 4
		Instrument ID: ICP10								
Total/NA	Prep	7471A			0.49 g	50 mL	273316	10/17/22 16:25	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			273677	10/18/22 16:50	C0YH	EET CAL 4
		Instrument ID: HG7								

**Client Sample ID: A-22-04@20'**

**Lab Sample ID: 570-113508-20**

**Date Collected: 10/14/22 13:18**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.42 g	2 mL	273091	10/17/22 06:39	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	273971	10/19/22 12:28	UJ3K	EET CAL 4
		Instrument ID: GCMSAAA								
Total/NA	Prep	5030C			5.01 g	5 mL	273298	10/17/22 15:25	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	273535	10/18/22 20:26	P1R	EET CAL 4
		Instrument ID: GC56								
Total/NA	Prep	3550C			10.22 g	10.00 mL	273210	10/17/22 11:16	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	273166	10/18/22 08:50	A1W	EET CAL 4
		Instrument ID: GC47								

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

**Client Sample ID: A-22-04@20'**

**Lab Sample ID: 570-113508-20**

**Date Collected: 10/14/22 13:18**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.98 g	50 mL	273093	10/17/22 06:59	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			273818	10/18/22 20:15	P1R	EET CAL 4
Instrument ID: ICP10										
Total/NA	Prep	7471A			0.51 g	50 mL	273314	10/17/22 16:24	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			273677	10/18/22 14:33	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: A-22-04@25'**

**Lab Sample ID: 570-113508-21**

**Date Collected: 10/14/22 13:31**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.38 g	2 mL	273092	10/17/22 06:42	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	273711	10/19/22 00:15	ULLI	EET CAL 4
Instrument ID: GCMSAAA										
Total/NA	Prep	5030C			5.04 g	5 mL	273298	10/17/22 15:25	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	273535	10/18/22 20:51	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.19 g	10.00 mL	273208	10/17/22 11:14	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	273166	10/17/22 22:53	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.00 g	50 mL	273094	10/17/22 07:06	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			273334	10/17/22 16:22	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	273314	10/17/22 16:24	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			273677	10/18/22 14:35	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: A-22-04@30'**

**Lab Sample ID: 570-113508-22**

**Date Collected: 10/14/22 13:46**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.25 g	2 mL	273092	10/17/22 06:42	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	273711	10/19/22 00:36	ULLI	EET CAL 4
Instrument ID: GCMSAAA										
Total/NA	Prep	5030C			5.04 g	5 mL	273298	10/17/22 15:25	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	273535	10/18/22 21:16	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.13 g	10.00 mL	273208	10/17/22 11:14	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	273166	10/17/22 23:15	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.96 g	50 mL	273094	10/17/22 07:06	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			273334	10/17/22 16:47	P1R	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

**Client Sample ID: A-22-04@30'**

**Lab Sample ID: 570-113508-22**

**Date Collected: 10/14/22 13:46**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.51 g	50 mL	273314	10/17/22 16:24	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			273677	10/18/22 14:37	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: A-22-04@35'**

**Lab Sample ID: 570-113508-23**

**Date Collected: 10/14/22 14:02**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.54 g	2 mL	273092	10/17/22 06:42	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	273711	10/19/22 00:56	ULLI	EET CAL 4
Instrument ID: GCMSAAA										
Total/NA	Prep	5030C			4.97 g	5 mL	273298	10/17/22 15:25	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	273535	10/18/22 21:41	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.15 g	10.00 mL	273208	10/17/22 11:14	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	273166	10/17/22 23:36	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.04 g	50 mL	273094	10/17/22 07:06	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			273334	10/17/22 16:49	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	273314	10/17/22 16:24	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			273677	10/18/22 14:39	C0YH	EET CAL 4
Instrument ID: HG7										

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

## Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

Method	Method Description	Protocol	Laboratory
8270C SIM	PAHs (GC/MS SIM)	SW846	EET CAL 4
8015B	Gasoline Range Organics - (GC)	SW846	EET CAL 4
8015B	Diesel Range Organics (DRO) (GC)	SW846	EET CAL 4
6010B	Metals (ICP)	SW846	EET CAL 4
7471A	Mercury (CVAA)	SW846	EET CAL 4
3050B	Preparation, Metals	SW846	EET CAL 4
3546	Microwave Extraction	SW846	EET CAL 4
3550C	Ultrasonic Extraction	SW846	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
7471A	Preparation, Mercury	SW846	EET CAL 4

### Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

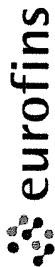
EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

# Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-113508-1	A-22-01@5'	Solid	10/13/22 07:45	10/14/22 18:30
570-113508-2	A-22-02@5'	Solid	10/13/22 08:10	10/14/22 18:30
570-113508-3	A-22-02@10'	Solid	10/13/22 08:20	10/14/22 18:30
570-113508-4	A-22-03@5'	Solid	10/13/22 11:05	10/14/22 18:30
570-113508-5	A-22-03@10'	Solid	10/13/22 11:15	10/14/22 18:30
570-113508-6	A-22-06-@5'	Solid	10/13/22 13:20	10/14/22 18:30
570-113508-7	A-22-06-@10'	Solid	10/13/22 13:40	10/14/22 18:30
570-113508-8	A-22-06-@15'	Solid	10/13/22 13:50	10/14/22 18:30
570-113508-9	A-22-06-@20'	Solid	10/13/22 14:40	10/14/22 18:30
570-113508-10	A-22-05-@5'	Solid	10/14/22 08:00	10/14/22 18:30
570-113508-11	A-22-05-@10'	Solid	10/14/22 08:15	10/14/22 18:30
570-113508-12	A-22-05-@15'	Solid	10/14/22 08:25	10/14/22 18:30
570-113508-13	A-22-05-@20'	Solid	10/14/22 08:35	10/14/22 18:30
570-113508-14	A-22-05-@25'	Solid	10/14/22 08:45	10/14/22 18:30
570-113508-15	A-22-05-@30'	Solid	10/14/22 09:10	10/14/22 18:30
570-113508-16	A-22-05@35'	Solid	10/14/22 09:25	10/14/22 18:30
570-113508-17	A-22-04@5'	Solid	10/14/22 12:50	10/14/22 18:30
570-113508-18	A-22-04@10'	Solid	10/14/22 13:00	10/14/22 18:30
570-113508-19	A-22-04@15'	Solid	10/14/22 13:10	10/14/22 18:30
570-113508-20	A-22-04@20'	Solid	10/14/22 13:18	10/14/22 18:30
570-113508-21	A-22-04@25'	Solid	10/14/22 13:31	10/14/22 18:30
570-113508-22	A-22-04@30'	Solid	10/14/22 13:46	10/14/22 18:30
570-113508-23	A-22-04@35'	Solid	10/14/22 14:02	10/14/22 18:30



Calscience

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For courier service / sample drop off information contact us26\_sales@eurofinsus.com or call us.



570-113508 Chain of Custody

# CHAIN-OF-CUSTODY RECORD

Date 10/13/22  
Page 1 of 3

LABORATORY CLIENT: Group Delta

ADDRESS: 9245 Activity Rd CA 92126

CITY: San Diego STATE: CA ZIP: 92126

TEL: 858 536 1000 E-MAIL: Matth@groupdelta.com

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☒ 72 HR ☐ 5 DAYS ☐ STANDARD

EDD ☐ COELT EDF ☐ OTHER

CLIENT PROJECT NAME / NO: SD754 / science Research Park

PROJECT CONTACT: Matth Fagen

GLOBAL ID:  LOG CODE:

SAMPLER(S) (PRINT): Samuel Nareson

P.O. NO:  Loc: 570

LAB CONTACT OR QUOTE NO: 113508

## REQUESTED ANALYSES

Please check box or fill in blank as needed

SPECIAL INSTRUCTIONS:																												
LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO OF CONT	Unpreserved	Preserved	Field Filtered	TPH (g) <input type="checkbox"/> GRO	TPH (d) <input type="checkbox"/> DRO	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH (A-C12, C13-C22, C23-C46)	BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/> _____	VOCs (8260)	Oxygenates (8260)	Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 <input checked="" type="checkbox"/> 8270 SIM	T22 Metals <input checked="" type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X <i>+ Mercury</i>	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6						
		DATE	TIME																									
1	A-22-01 @ 5'	10/13/22	7:45	Soil	1	/						/																
2	A-22-02 @ 5'	10/13/22	8:10		1	/						/										/						
3	A-22-02 @ 10'	10/13/22	8:20		1	/						/										/						
4	A-22-03 @ 5'	10/13/22	11:05		1	/						/										/						
5	A-22-03 @ 10'	10/13/22	11:15		1	/						/										/						
6	A-22-06 @ 5'	10/13/22	1:20		1	/						/										/						
7	A-22-06 @ 10'	10/13/22	1:40		1	/						/										/						
8	A-22-06 @ 15'	10/13/22	1:50		1	/						/										/						
9	A-22-06 @ 20'	10/13/22	2:00		1	/						/										/						

Relinquished by: (Signature) [Signature] Date: 10/14/22 Time: 1510

Relinquished by: (Signature) William Rivera Date: 10/14/22 Time: 1830

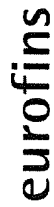
Relinquished by: (Signature) [Signature] Date:  Time:

4.0 / 3.8" SC11









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For counter service / sample drop off information, contact us26\_sales@eurofinsus.com or call us.

Date 10/14/22 Page 3 of 3

[illegible]

## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-113508-1

**Login Number: 113508**

**List Source: Eurofins Calscience**

**List Number: 1**

**Creator: Ortiz-Luis, Michael**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



## Environment Testing

### ANALYTICAL REPORT

Eurofins Calscience  
2841 Dow Avenue, Suite 100  
Tustin, CA 92780  
Tel: (714)895-5494

Laboratory Job ID: 570-113508-2

Client Project/Site: SD754/Science Research Park

For:

Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Attn: Matt Fagan

*Vik Patel*

Authorized for release by:

10/31/2022 12:02:59 PM

Vikas Patel, Project Manager I  
(714)895-5494

[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)

#### LINKS

Review your project  
results through



Have a Question?



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[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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## Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-2

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-2

**Job ID: 570-113508-2**

**Laboratory: Eurofins Calscience**

## Narrative

**Job Narrative**  
**570-113508-2**

## Comments

No additional comments.

## Receipt

The samples were received on 10/14/2022 6:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.8° C.

## Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-2

**Client Sample ID: A-22-05-@15'**

**Lab Sample ID: 570-113508-12**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	1.24		0.500	0.0527	mg/L	1		6010B	TCLP
Lead	74.2		1.00	0.105	mg/L	1		6010B	STLC Citrate

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-2

## Method: SW846 6010B - Metals (ICP) - TCLP

Client Sample ID: A-22-05-@15'

Date Collected: 10/14/22 08:25

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-12

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1.24		0.500	0.0527	mg/L		10/26/22 05:40	10/27/22 15:24	1



# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-2

## Method: SW846 6010B - Metals (ICP) - STLC Citrate

Client Sample ID: A-22-05-@15'

Date Collected: 10/14/22 08:25

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-12

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	74.2		1.00	0.105	mg/L		10/27/22 14:47	10/28/22 08:11	1

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-2

## Method: 6010B - Metals (ICP)

Lab Sample ID: LB 570-275422/1-B

Matrix: Solid

Analysis Batch: 276481

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 275835

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.500	0.0527	mg/L		10/26/22 05:40	10/27/22 14:53	1

Lab Sample ID: LCS 570-275422/2-B

Matrix: Solid

Analysis Batch: 276481

Client Sample ID: Lab Control Sample

Prep Type: TCLP

Prep Batch: 275835

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	2.00	1.893		mg/L		95	80 - 120

Lab Sample ID: LCSD 570-275422/3-B

Matrix: Solid

Analysis Batch: 276481

Client Sample ID: Lab Control Sample Dup

Prep Type: TCLP

Prep Batch: 275835

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	2.00	1.891		mg/L		95	80 - 120	0	20

Lab Sample ID: LB4 570-275442/1-B

Matrix: Solid

Analysis Batch: 276773

Client Sample ID: Method Blank

Prep Type: STLC Citrate

Prep Batch: 276427

Analyte	LB4 Result	LB4 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.00	0.105	mg/L		10/27/22 14:47	10/28/22 07:55	1

Lab Sample ID: LCS 570-275442/2-B

Matrix: Solid

Analysis Batch: 276773

Client Sample ID: Lab Control Sample

Prep Type: STLC Citrate

Prep Batch: 276427

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	20.0	22.74		mg/L		114	80 - 120

Lab Sample ID: LCSD 570-275442/3-B

Matrix: Solid

Analysis Batch: 276773

Client Sample ID: Lab Control Sample Dup

Prep Type: STLC Citrate

Prep Batch: 276427

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	20.0	23.34		mg/L		117	80 - 120	3	20

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-2

## Metals

### Leach Batch: 275422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-12	A-22-05-@15'	TCLP	Solid	1311	
LB 570-275422/1-B	Method Blank	TCLP	Solid	1311	
LCS 570-275422/2-B	Lab Control Sample	TCLP	Solid	1311	
LCSD 570-275422/3-B	Lab Control Sample Dup	TCLP	Solid	1311	

### Leach Batch: 275442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-12	A-22-05-@15'	STLC Citrate	Solid	CA WET Citrate	
LB4 570-275442/1-B	Method Blank	STLC Citrate	Solid	CA WET Citrate	
LCS 570-275442/2-B	Lab Control Sample	STLC Citrate	Solid	CA WET Citrate	
LCSD 570-275442/3-B	Lab Control Sample Dup	STLC Citrate	Solid	CA WET Citrate	

### Prep Batch: 275835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-12	A-22-05-@15'	TCLP	Solid	3010A	275422
LB 570-275422/1-B	Method Blank	TCLP	Solid	3010A	275422
LCS 570-275422/2-B	Lab Control Sample	TCLP	Solid	3010A	275422
LCSD 570-275422/3-B	Lab Control Sample Dup	TCLP	Solid	3010A	275422

### Prep Batch: 276427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-12	A-22-05-@15'	STLC Citrate	Solid	Dilution	275442
LB4 570-275442/1-B	Method Blank	STLC Citrate	Solid	Dilution	275442
LCS 570-275442/2-B	Lab Control Sample	STLC Citrate	Solid	Dilution	275442
LCSD 570-275442/3-B	Lab Control Sample Dup	STLC Citrate	Solid	Dilution	275442

### Analysis Batch: 276481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-12	A-22-05-@15'	TCLP	Solid	6010B	275835
LB 570-275422/1-B	Method Blank	TCLP	Solid	6010B	275835
LCS 570-275422/2-B	Lab Control Sample	TCLP	Solid	6010B	275835
LCSD 570-275422/3-B	Lab Control Sample Dup	TCLP	Solid	6010B	275835

### Analysis Batch: 276773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-12	A-22-05-@15'	STLC Citrate	Solid	6010B	276427
LB4 570-275442/1-B	Method Blank	STLC Citrate	Solid	6010B	276427
LCS 570-275442/2-B	Lab Control Sample	STLC Citrate	Solid	6010B	276427
LCSD 570-275442/3-B	Lab Control Sample Dup	STLC Citrate	Solid	6010B	276427

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-2

**Client Sample ID: A-22-05-@15'**

**Lab Sample ID: 570-113508-12**

**Date Collected: 10/14/22 08:25**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.03 g	500 mL	275442	10/25/22 02:58	XBO9	EET CAL 4
STLC Citrate	Prep	Dilution			2.5 mL	50 mL	276427	10/27/22 14:47	W1BQ	EET CAL 4
STLC Citrate	Analysis	6010B		1			276773	10/28/22 08:11	K1UV	EET CAL 4
		Instrument ID: ICP11								
TCLP	Leach	1311			100.04 g	2000 mL	275422	10/24/22 21:24	XBO9	EET CAL 4
TCLP	Prep	3010A			5 mL	50 mL	275835	10/26/22 05:40	XBO9	EET CAL 4
TCLP	Analysis	6010B		1			276481	10/27/22 15:24	C0YH	EET CAL 4
		Instrument ID: ICP10								

<sup>1</sup> Completion dates and times are reported or not reported per method requirements or individual lab discretion.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

## Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-2

### Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

1

2

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# Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	EET CAL 4
1311	TCLP Extraction	SW846	EET CAL 4
3010A	Preparation, Total Metals	SW846	EET CAL 4
CA WET Citrate	California - Waste Extraction Test with Citrate Leach	CA-WET	EET CAL 4
Dilution	Preparation / Dilution Process	None	EET CAL 4

## Protocol References:

CA-WET = California Waste Extraction Test, from Title 22

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

## Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-113508-12	A-22-05-@15'	Solid	10/14/22 08:25	10/14/22 18:30

1

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## Patel, Vikas

---

**From:** Jack Packwood <jackp@groupdelta.com>  
**Sent:** Monday, October 24, 2022 11:28 AM  
**To:** Patel, Vikas; Accounts Payable (Group Delta); Matt Fagan  
**Subject:** RE: Eurofins Calscience invoice files from 570-113508-1 SD754/Science Research Park  
**Attachments:** J113508-1 UDS Level 2 Report Final Report.pdf

**Importance:** High

Vikas,

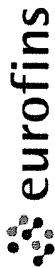
Can you please run STLC and TCLP on **A-22-05-@15** for lead. Please rush it.

Second, when do you anticipate the report 570-113837 to be complete?

Thanks,

**Jack Packwood, CIH**  
**Associate | Group Delta**  
Mobile: (951) 219-5302  
[jackp@groupdelta.com](mailto:jackp@groupdelta.com)





Calscience

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For courier service / sample drop off information contact us26\_sales@eurofinsus.com or call us.



570-113508 Chain of Custody

# CHAIN-OF-CUSTODY RECORD

Date 10/13/22  
Page 1 of 3

LABORATORY CLIENT:	
Group Delta	
ADDRESS	9245 Activity Rd CA 92126
CITY:	San Diego
STATE:	
ZIP:	
TEL:	858 536 1000
E-MAIL:	Matth@groupdelta.com
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):	
<input type="checkbox"/> SAME DAY	<input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input checked="" type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input type="checkbox"/> STANDARD
EDD	
<input type="checkbox"/> COELT EDF	<input type="checkbox"/> OTHER

CLIENT PROJECT NAME / NO	SD754 / science Research Park
PROJECT CONTACT	Math Fagen
GLOBAL ID:	
LOG CODE:	
SAMPLER(S): (PRINT)	Samuel Nareson

Loc: 570  
113508

## REQUESTED ANALYSES

Please check box or fill in blank as needed

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO OF CONT	Unpreserved			Preserved			Field Filtered	TPH (g) <input type="checkbox"/> GRO TPH (d) <input type="checkbox"/> DRO		TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44 TPH (A-C12, C13-C22, C23-C46)	BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/> _____	VOCs (8260)	Oxygenates (8260)	Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 <input checked="" type="checkbox"/> 8270 SIM + Mercury <input checked="" type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6							
		DATE	TIME			Unpreserved	Preserved																								
1	A-22-01 @ 5'	10/13/22	7:45	Soil	1	/																									
2	A-22-02 @ 5'	10/13/22	8:10		1	/																									
3	A-22-02 @ 10'	10/13/22	8:20		1	/																									
4	A-22-03 @ 5'	10/13/22	11:05		1	/																									
5	A-22-03 @ 10'	10/13/22	11:15		1	/																									
6	A-22-06 @ 5'	10/13/22	1:20		1	/																									
7	A-22-06 @ 10'	10/13/22	1:40		1	/																									
8	A-22-06 @ 15'	10/13/22	1:50		1	/																									
9	A-22-06 @ 20'	10/13/22	2:00		1	/																									

SPECIAL INSTRUCTIONS:

Relinquished by: (Signature)	William Rivera	Received by: (Signature/Affiliation)	William Rivera	Date:	10/14/22	Time:	1510
Relinquished by: (Signature)	William Rivera	Received by: (Signature/Affiliation)	William Rivera	Date:	10/14/22	Time:	1830
Relinquished by: (Signature)		Received by: (Signature/Affiliation)		Date:		Time:	

4.0 / 3.8" SC11



eurofins

Calscience

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For courier service / sample drop off information contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT:

ADDRESS: GROUP DELTA  
9245 ACTIVITY RD CA 92126  
CITY: SAN DIEGO STATE: ZIP:  
TEL: E-MAIL: MATT@GROUPDELTA.COM  
858.536.1000  
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):  
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☒ 72 HR ☐ 5 DAYS ☐ STANDARD  
EDO  
☐ COELT EDF ☐ OTHER

SPECIAL INSTRUCTIONS:

# CHAIN-OF-CUSTODY RECORD

WFO NO. / LAB USE ONLY  
Date 10/14/22  
Page 2 of 3

CLIENT PROJECT NAME / NO. SD754 / SCIENCE RESEARCH PARK  
PROJECT CONTACT: MATT FAGEN  
GLOBAL ID:  
LOG CODE:  
SAMPLER(S): (PRINT) SAMUEL HARVESON

P.O. NO.  
LAB CONTACT OR QUOTE NO.

## REQUESTED ANALYSES

Please check box or fill in blank as needed

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT	Field Filtered		TPH (g) □ GRO	TPH (d) □ DRO	TPH □ C6-C36 □ C6-C44	TPH C4-C12, C13-C22, C23-C46	BTX / MTBE □ 8260 □	VOCs (8260)	Oxygenates (8260)	Prep (5035) □ En Core □ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs □ 8270 □ 8270 SIM	T22 Metals 6010/747X □ 6020/747X	Cr(VI) □ 7196 □ 7199 □ 218.6
		DATE	TIME			Unpreserved	Preserved														
10	A-22-05 @ 5'	10/14/22	8:00	SOIL	1	/					/										
11	A-22-05 @ 10'	10/14/22	8:15	SOIL	1	/					/										
12	A-22-05 @ 15'	10/14/22	8:25	SOIL	1	/					/										
13	A-22-05 @ 20'	10/14/22	8:35	SOIL	1	/					/										
14	A-22-05 @ 25'	10/14/22	8:45	SOIL	1	/					/										
15	A-22-05 @ 30'	10/14/22	9:10	SOIL	1	/					/										
16	A-22-05 @ 35'	10/14/22	9:25	SOIL	1	/					/										
	A-22- @	10/14/22		SOIL	1	/					/										
	A-22- @	10/14/22		SOIL	1	/					/										
	A-22- @	10/14/22		SOIL	1	/					/										
	A-22- @	10/14/22		SOIL	1	/					/										

Relinquished by: (Signature) William Rivera  
Relinquished by: (Signature) William Rivera  
Relinquished by: (Signature) William Rivera  
Received by: (Signature/Affiliation) William Rivera  
Date: 10/14/22 Time: 1510  
Received by: (Signature/Affiliation)  
Date: 10/14/22 Time: 1830  
Received by: (Signature/Affiliation)



Calscience

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# CHAIN-OF-CUSTODY RECORD

Date 10/14/22

Page 3 of 3

WO NO. / LAB USE ONLY

LABORATORY CLIENT: <b>GROUP DELTA</b>		CLIENT PROJECT NAME / NO. <b>SD764 / SCIENCE RESEARCH PARK</b>		P O NO.																																																																																																																																																																																																																																																								
ADDRESS: <b>9245 ACTIVITY RD CA</b>		PROJECT CONTACT: <b>MATT FAGEN</b>		LAB CONTACT OR QUOTE NO.																																																																																																																																																																																																																																																								
CITY: <b>SAN DIEGO</b>	STATE: <b>CA</b>	GLOBAL ID:		LOG CODE:																																																																																																																																																																																																																																																								
TEL: <b>858 536 1000</b>	E-MAIL: <b>MATTF@GROUPDELTA.COM</b>	ZIP: <b>92126</b>		SAMPLER(S): (PRINT) <b>SAMUEL NARVESON</b>																																																																																																																																																																																																																																																								
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"): <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input checked="" type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input type="checkbox"/> STANDARD																																																																																																																																																																																																																																																												
EOD <input type="checkbox"/> COELT EDF <input type="checkbox"/> OTHER																																																																																																																																																																																																																																																												
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REQUESTED ANALYSES Please check box or fill in blank as needed.																																																																																																																																																																																																																																																												
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SIM</th><th rowspan="2">T22 Metals <input type="checkbox"/> B010/B47X <input checked="" type="checkbox"/> B6020/B47X</th><th rowspan="2">Cr(VI) <input type="checkbox"/> B7196 <input type="checkbox"/> B7199 <input type="checkbox"/> B2186</th></tr><tr><th>DATE</th><th>TIME</th></tr></thead><tbody><tr><td>1</td><td>A-22-04 @ 5'</td><td>10/14/22</td><td>12:50</td><td>SOIL</td><td>1</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td></tr><tr><td>18</td><td>A-22-04 @ 10'</td><td>10/14/22</td><td>1:00</td><td>SOIL</td><td>1</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td></tr><tr><td>19</td><td>A-22-04 @ 15'</td><td>10/14/22</td><td>1:10</td><td>SOIL</td><td>1</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td></tr><tr><td>20</td><td>A-22-04 @ 20'</td><td>10/14/22</td><td>1:18</td><td>SOIL</td><td>1</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td></tr><tr><td>21</td><td>A-22-04 @ 25'</td><td>10/14/22</td><td>1:31</td><td>SOIL</td><td>1</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td></tr><tr><td>22</td><td>A-22-04 @ 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## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-113508-2

**Login Number: 113508**

**List Source: Eurofins Calscience**

**List Number: 1**

**Creator: Ortiz-Luis, Michael**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## ANALYTICAL REPORT

Eurofins Calscience  
2841 Dow Avenue, Suite 100  
Tustin, CA 92780  
Tel: (714)895-5494

Laboratory Job ID: 570-113837-1

Client Project/Site: SD754/Science Research Park

For:

Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Attn: Matt Fagan

*Vik Patel*

Authorized for release by:

10/25/2022 10:15:57 AM

Vikas Patel, Project Manager I  
(714)895-5494

[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)

### LINKS

Review your project  
results through



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[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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# Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## Qualifiers

### GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Metals

Qualifier	Qualifier Description
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
⌘	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

**Job ID: 570-113837-1**

**Laboratory: Eurofins Calscience**

## Narrative

### Job Narrative 570-113837-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 10/18/2022 7:10 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.0° C.

#### GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### GC VOA

Method 8015B: The method blank for preparation batch 570-274009 and analytical batch 570-274089 contained C4-C12 and C4-C13 above the method detection limit. This target analyte concentration was less than the reporting limit (RL) or greater than 10X the value found in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC Semi VOA

Method 8015B: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with preparation batch 570-274356 and analytical batch 570-274304 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of TPH as Diesel (C13-C22) and TPH as Diesel (C10-C28) in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

Method 6010B: The initial calibration verification (ICV) result of Antimony for batch 570-274130 was above the upper control limit. Sample results were non-detects, and have been reported as qualified data.

Method 6010B: The post digestion spike % recovery for Antimony associated with batch 570-274130 was outside of control limits. The associated sample is: (570-113521-A-1-B PDS ^5).

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Antimony for preparation batch 570-273864 and analytical batch 570-274130 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6010B: The initial calibration verification (ICV) result for batch 570-274292 was above the upper control limit for Antimony. Sample results were non-detects, and have been reported as qualified data.

Method 6010B: The method blank for preparation batch 570-273864 and analytical batch 570-274130 contained Chromium and Nickel above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6010B: The post digestion spike % recovery for Antimony associated with batch 570-274780 was outside of control limits. The associated sample is: (320-93294-A-3-A PDS ^5).

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Copper, Lead, Antimony, Selenium and Zinc for preparation batch 570-274247 and analytical batch 570-274780 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Antimony and Selenium for preparation batch 570-273880 and analytical batch 570-275325 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because



## Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

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### Job ID: 570-113837-1 (Continued)

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#### Laboratory: Eurofins Calscience (Continued)

the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

Client Sample ID: A-22-01 @ 2'

Lab Sample ID: 570-113837-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	16		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	8.01		3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	93.5		3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.354	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Chromium	10.4	B	1.01	0.188	mg/Kg	5		6010B	Total/NA
Cobalt	4.02		1.01	0.208	mg/Kg	5		6010B	Total/NA
Copper	8.91		2.02	0.968	mg/Kg	5		6010B	Total/NA
Lead	12.1		2.02	0.413	mg/Kg	5		6010B	Total/NA
Nickel	5.39	B	2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	24.4		1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	27.8		5.05	1.17	mg/Kg	5		6010B	Total/NA

Client Sample ID: A-22-02 @ 2'

Lab Sample ID: 570-113837-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.0085	J	0.020	0.0079	mg/Kg	1		8270C SIM	Total/NA
Benzo[a]pyrene	0.0081	J	0.020	0.0080	mg/Kg	1		8270C SIM	Total/NA
Chrysene	0.011	J	0.020	0.0064	mg/Kg	1		8270C SIM	Total/NA
Fluoranthene	0.016	J	0.020	0.0079	mg/Kg	1		8270C SIM	Total/NA
Pyrene	0.015	J	0.020	0.0085	mg/Kg	1		8270C SIM	Total/NA
C13-C22	8.1		4.8	3.7	mg/Kg	1		8015B	Total/NA
C23-C40	41		4.8	3.7	mg/Kg	1		8015B	Total/NA
Arsenic	2.66	J	3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	56.6		3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.215	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Chromium	16.4	B	1.01	0.188	mg/Kg	5		6010B	Total/NA
Cobalt	2.84		1.01	0.208	mg/Kg	5		6010B	Total/NA
Copper	5.62		2.02	0.968	mg/Kg	5		6010B	Total/NA
Lead	4.89		2.02	0.413	mg/Kg	5		6010B	Total/NA
Nickel	3.48	B	2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	24.3		1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	12.0		5.05	1.17	mg/Kg	5		6010B	Total/NA

Client Sample ID: A-22-03 @ 2'

Lab Sample ID: 570-113837-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	6.8		4.9	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	11		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	2.85	J	3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	26.9		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.275	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Chromium	7.89		1.00	0.186	mg/Kg	5		6010B	Total/NA
Cobalt	3.34		1.00	0.206	mg/Kg	5		6010B	Total/NA
Copper	4.43		2.00	0.958	mg/Kg	5		6010B	Total/NA
Lead	4.80		2.00	0.409	mg/Kg	5		6010B	Total/NA
Nickel	3.16		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	17.6		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	18.8		5.00	1.16	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

Client Sample ID: A-22-04 @ 2'

Lab Sample ID: 570-113837-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	0.013	J	0.019	0.0086	mg/Kg	1		8270C SIM	Total/NA
Benzo[g,h,i]perylene	0.068		0.019	0.010	mg/Kg	1		8270C SIM	Total/NA
Benzo[k]fluoranthene	0.072		0.019	0.0072	mg/Kg	1		8270C SIM	Total/NA
Benzo[a]anthracene	0.060		0.019	0.0077	mg/Kg	1		8270C SIM	Total/NA
Benzo[a]pyrene	0.076		0.019	0.0079	mg/Kg	1		8270C SIM	Total/NA
Benzo[b]fluoranthene	0.070		0.019	0.014	mg/Kg	1		8270C SIM	Total/NA
Chrysene	0.092		0.019	0.0063	mg/Kg	1		8270C SIM	Total/NA
Dibenz(a,h)anthracene	0.021		0.019	0.011	mg/Kg	1		8270C SIM	Total/NA
Fluoranthene	0.11		0.019	0.0078	mg/Kg	1		8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.052		0.019	0.012	mg/Kg	1		8270C SIM	Total/NA
Phenanthrene	0.047		0.019	0.014	mg/Kg	1		8270C SIM	Total/NA
Pyrene	0.11		0.019	0.0084	mg/Kg	1		8270C SIM	Total/NA
C23-C40	20		4.8	3.7	mg/Kg	1		8015B	Total/NA
Arsenic	6.03		3.05	1.41	mg/Kg	5		6010B	Total/NA
Barium	78.2		3.05	0.144	mg/Kg	5		6010B	Total/NA
Beryllium	0.317	J	0.508	0.0701	mg/Kg	5		6010B	Total/NA
Cadmium	0.127	J	0.508	0.0843	mg/Kg	5		6010B	Total/NA
Chromium	13.7		1.02	0.189	mg/Kg	5		6010B	Total/NA
Cobalt	3.69		1.02	0.209	mg/Kg	5		6010B	Total/NA
Copper	64.9		2.03	0.973	mg/Kg	5		6010B	Total/NA
Lead	169		2.03	0.415	mg/Kg	5		6010B	Total/NA
Molybdenum	0.584	J	2.03	0.523	mg/Kg	5		6010B	Total/NA
Nickel	5.28		2.03	0.368	mg/Kg	5		6010B	Total/NA
Vanadium	21.3		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	69.7		5.08	1.17	mg/Kg	5		6010B	Total/NA
Mercury	0.0164	J	0.0833	0.0135	mg/Kg	1		7471A	Total/NA

Client Sample ID: A-22-05 @ 2'

Lab Sample ID: 570-113837-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[k]fluoranthene	0.011	J	0.020	0.0074	mg/Kg	1		8270C SIM	Total/NA
Benzo[a]anthracene	0.015	J	0.020	0.0079	mg/Kg	1		8270C SIM	Total/NA
Benzo[a]pyrene	0.012	J	0.020	0.0080	mg/Kg	1		8270C SIM	Total/NA
Chrysene	0.016	J	0.020	0.0064	mg/Kg	1		8270C SIM	Total/NA
Fluoranthene	0.026		0.020	0.0079	mg/Kg	1		8270C SIM	Total/NA
Phenanthrene	0.018	J	0.020	0.015	mg/Kg	1		8270C SIM	Total/NA
Pyrene	0.027		0.020	0.0085	mg/Kg	1		8270C SIM	Total/NA
C23-C40	21		4.9	3.8	mg/Kg	1		8015B	Total/NA
Antimony	5.14	J	10.2	2.92	mg/Kg	5		6010B	Total/NA
Arsenic	2.93	J	3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	27.3		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.268	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Chromium	11.4		1.02	0.190	mg/Kg	5		6010B	Total/NA
Cobalt	3.09		1.02	0.210	mg/Kg	5		6010B	Total/NA
Copper	4.53		2.04	0.978	mg/Kg	5		6010B	Total/NA
Lead	5.97		2.04	0.417	mg/Kg	5		6010B	Total/NA
Molybdenum	0.842	J	2.04	0.526	mg/Kg	5		6010B	Total/NA
Nickel	3.00		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	33.4		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	12.8		5.10	1.18	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

Client Sample ID: A-22-06 @ 2'

Lab Sample ID: 570-113837-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	0.010	J	0.020	0.0089	mg/Kg	1		8270C SIM	Total/NA
Benzo[g,h,i]perylene	0.018	J	0.020	0.011	mg/Kg	1		8270C SIM	Total/NA
Benzo[k]fluoranthene	0.015	J	0.020	0.0075	mg/Kg	1		8270C SIM	Total/NA
Benzo[a]anthracene	0.023		0.020	0.0081	mg/Kg	1		8270C SIM	Total/NA
Benzo[a]pyrene	0.021		0.020	0.0082	mg/Kg	1		8270C SIM	Total/NA
Benzo[b]fluoranthene	0.019	J	0.020	0.015	mg/Kg	1		8270C SIM	Total/NA
Chrysene	0.024		0.020	0.0065	mg/Kg	1		8270C SIM	Total/NA
Fluoranthene	0.032		0.020	0.0081	mg/Kg	1		8270C SIM	Total/NA
Phenanthrene	0.026		0.020	0.015	mg/Kg	1		8270C SIM	Total/NA
Pyrene	0.028		0.020	0.0087	mg/Kg	1		8270C SIM	Total/NA
C13-C22	17		4.9	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	250		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	3.57		3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	47.7		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.276	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Chromium	10.4		1.01	0.187	mg/Kg	5		6010B	Total/NA
Cobalt	3.61		1.01	0.207	mg/Kg	5		6010B	Total/NA
Copper	6.57		2.01	0.963	mg/Kg	5		6010B	Total/NA
Lead	13.9		2.01	0.411	mg/Kg	5		6010B	Total/NA
Nickel	3.58		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	29.6		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	18.9		5.03	1.16	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## Method: SW846 8270C SIM - PAHs (GC/MS SIM)

Client Sample ID: A-22-01 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/19/22 06:42	10/21/22 12:24	1
2-Methylnaphthalene	ND		0.020	0.010	mg/Kg		10/19/22 06:42	10/21/22 12:24	1
Acenaphthene	ND		0.020	0.013	mg/Kg		10/19/22 06:42	10/21/22 12:24	1
Acenaphthylene	ND		0.020	0.0095	mg/Kg		10/19/22 06:42	10/21/22 12:24	1
Anthracene	ND		0.020	0.0087	mg/Kg		10/19/22 06:42	10/21/22 12:24	1
Benzo[g,h,i]perylene	ND		0.020	0.010	mg/Kg		10/19/22 06:42	10/21/22 12:24	1
Benzo[k]fluoranthene	ND		0.020	0.0074	mg/Kg		10/19/22 06:42	10/21/22 12:24	1
Benzo[a]anthracene	ND		0.020	0.0079	mg/Kg		10/19/22 06:42	10/21/22 12:24	1
Benzo[a]pyrene	ND		0.020	0.0080	mg/Kg		10/19/22 06:42	10/21/22 12:24	1
Benzo[b]fluoranthene	ND		0.020	0.015	mg/Kg		10/19/22 06:42	10/21/22 12:24	1
Chrysene	ND		0.020	0.0064	mg/Kg		10/19/22 06:42	10/21/22 12:24	1
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/19/22 06:42	10/21/22 12:24	1
Fluoranthene	ND		0.020	0.0079	mg/Kg		10/19/22 06:42	10/21/22 12:24	1
Fluorene	ND		0.020	0.0096	mg/Kg		10/19/22 06:42	10/21/22 12:24	1
Indeno[1,2,3-cd]pyrene	ND		0.020	0.012	mg/Kg		10/19/22 06:42	10/21/22 12:24	1
Naphthalene	ND		0.020	0.0088	mg/Kg		10/19/22 06:42	10/21/22 12:24	1
Phenanthrene	ND		0.020	0.015	mg/Kg		10/19/22 06:42	10/21/22 12:24	1
Pyrene	ND		0.020	0.0085	mg/Kg		10/19/22 06:42	10/21/22 12:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	68		22 - 130	10/19/22 06:42	10/21/22 12:24	1
Nitrobenzene-d5 (Surr)	61		20 - 145	10/19/22 06:42	10/21/22 12:24	1
p-Terphenyl-d14 (Surr)	68		33 - 147	10/19/22 06:42	10/21/22 12:24	1

Client Sample ID: A-22-02 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/19/22 06:42	10/21/22 12:45	1
2-Methylnaphthalene	ND		0.020	0.010	mg/Kg		10/19/22 06:42	10/21/22 12:45	1
Acenaphthene	ND		0.020	0.013	mg/Kg		10/19/22 06:42	10/21/22 12:45	1
Acenaphthylene	ND		0.020	0.0095	mg/Kg		10/19/22 06:42	10/21/22 12:45	1
Anthracene	ND		0.020	0.0087	mg/Kg		10/19/22 06:42	10/21/22 12:45	1
Benzo[g,h,i]perylene	ND		0.020	0.010	mg/Kg		10/19/22 06:42	10/21/22 12:45	1
Benzo[k]fluoranthene	ND		0.020	0.0074	mg/Kg		10/19/22 06:42	10/21/22 12:45	1
Benzo[a]anthracene	0.0085	J	0.020	0.0079	mg/Kg		10/19/22 06:42	10/21/22 12:45	1
Benzo[a]pyrene	0.0081	J	0.020	0.0080	mg/Kg		10/19/22 06:42	10/21/22 12:45	1
Benzo[b]fluoranthene	ND		0.020	0.015	mg/Kg		10/19/22 06:42	10/21/22 12:45	1
Chrysene	0.011	J	0.020	0.0064	mg/Kg		10/19/22 06:42	10/21/22 12:45	1
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/19/22 06:42	10/21/22 12:45	1
Fluoranthene	0.016	J	0.020	0.0079	mg/Kg		10/19/22 06:42	10/21/22 12:45	1
Fluorene	ND		0.020	0.0096	mg/Kg		10/19/22 06:42	10/21/22 12:45	1
Indeno[1,2,3-cd]pyrene	ND		0.020	0.012	mg/Kg		10/19/22 06:42	10/21/22 12:45	1
Naphthalene	ND		0.020	0.0088	mg/Kg		10/19/22 06:42	10/21/22 12:45	1
Phenanthrene	ND		0.020	0.015	mg/Kg		10/19/22 06:42	10/21/22 12:45	1
Pyrene	0.015	J	0.020	0.0085	mg/Kg		10/19/22 06:42	10/21/22 12:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	80		22 - 130	10/19/22 06:42	10/21/22 12:45	1
Nitrobenzene-d5 (Surr)	86		20 - 145	10/19/22 06:42	10/21/22 12:45	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## Method: SW846 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: A-22-02 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-2  
Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl-d14 (Surr)	79		33 - 147	10/19/22 06:42	10/21/22 12:45	1

Client Sample ID: A-22-03 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/19/22 06:42	10/21/22 13:05	1
2-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/19/22 06:42	10/21/22 13:05	1
Acenaphthene	ND		0.020	0.013	mg/Kg		10/19/22 06:42	10/21/22 13:05	1
Acenaphthylene	ND		0.020	0.0097	mg/Kg		10/19/22 06:42	10/21/22 13:05	1
Anthracene	ND		0.020	0.0089	mg/Kg		10/19/22 06:42	10/21/22 13:05	1
Benzo[g,h,i]perylene	ND		0.020	0.011	mg/Kg		10/19/22 06:42	10/21/22 13:05	1
Benzo[k]fluoranthene	ND		0.020	0.0075	mg/Kg		10/19/22 06:42	10/21/22 13:05	1
Benzo[a]anthracene	ND		0.020	0.0081	mg/Kg		10/19/22 06:42	10/21/22 13:05	1
Benzo[a]pyrene	ND		0.020	0.0082	mg/Kg		10/19/22 06:42	10/21/22 13:05	1
Benzo[b]fluoranthene	ND		0.020	0.015	mg/Kg		10/19/22 06:42	10/21/22 13:05	1
Chrysene	ND		0.020	0.0065	mg/Kg		10/19/22 06:42	10/21/22 13:05	1
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/19/22 06:42	10/21/22 13:05	1
Fluoranthene	ND		0.020	0.0081	mg/Kg		10/19/22 06:42	10/21/22 13:05	1
Fluorene	ND		0.020	0.0098	mg/Kg		10/19/22 06:42	10/21/22 13:05	1
Indeno[1,2,3-cd]pyrene	ND		0.020	0.012	mg/Kg		10/19/22 06:42	10/21/22 13:05	1
Naphthalene	ND		0.020	0.0090	mg/Kg		10/19/22 06:42	10/21/22 13:05	1
Phenanthrene	ND		0.020	0.015	mg/Kg		10/19/22 06:42	10/21/22 13:05	1
Pyrene	ND		0.020	0.0087	mg/Kg		10/19/22 06:42	10/21/22 13:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	55		22 - 130	10/19/22 06:42	10/21/22 13:05	1
Nitrobenzene-d5 (Surr)	51		20 - 145	10/19/22 06:42	10/21/22 13:05	1
p-Terphenyl-d14 (Surr)	51		33 - 147	10/19/22 06:42	10/21/22 13:05	1

Client Sample ID: A-22-04 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.019	0.010	mg/Kg		10/19/22 06:42	10/21/22 13:26	1
2-Methylnaphthalene	ND		0.019	0.010	mg/Kg		10/19/22 06:42	10/21/22 13:26	1
Acenaphthene	ND		0.019	0.013	mg/Kg		10/19/22 06:42	10/21/22 13:26	1
Acenaphthylene	ND		0.019	0.0093	mg/Kg		10/19/22 06:42	10/21/22 13:26	1
Anthracene	0.013	J	0.019	0.0086	mg/Kg		10/19/22 06:42	10/21/22 13:26	1
Benzo[g,h,i]perylene	0.068		0.019	0.010	mg/Kg		10/19/22 06:42	10/21/22 13:26	1
Benzo[k]fluoranthene	0.072		0.019	0.0072	mg/Kg		10/19/22 06:42	10/21/22 13:26	1
Benzo[a]anthracene	0.060		0.019	0.0077	mg/Kg		10/19/22 06:42	10/21/22 13:26	1
Benzo[a]pyrene	0.076		0.019	0.0079	mg/Kg		10/19/22 06:42	10/21/22 13:26	1
Benzo[b]fluoranthene	0.070		0.019	0.014	mg/Kg		10/19/22 06:42	10/21/22 13:26	1
Chrysene	0.092		0.019	0.0063	mg/Kg		10/19/22 06:42	10/21/22 13:26	1
Dibenz(a,h)anthracene	0.021		0.019	0.011	mg/Kg		10/19/22 06:42	10/21/22 13:26	1
Fluoranthene	0.11		0.019	0.0078	mg/Kg		10/19/22 06:42	10/21/22 13:26	1
Fluorene	ND		0.019	0.0094	mg/Kg		10/19/22 06:42	10/21/22 13:26	1
Indeno[1,2,3-cd]pyrene	0.052		0.019	0.012	mg/Kg		10/19/22 06:42	10/21/22 13:26	1
Naphthalene	ND		0.019	0.0086	mg/Kg		10/19/22 06:42	10/21/22 13:26	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## Method: SW846 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: A-22-04 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	0.047		0.019	0.014	mg/Kg		10/19/22 06:42	10/21/22 13:26	1
Pyrene	0.11		0.019	0.0084	mg/Kg		10/19/22 06:42	10/21/22 13:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	66		22 - 130				10/19/22 06:42	10/21/22 13:26	1
Nitrobenzene-d5 (Surr)	69		20 - 145				10/19/22 06:42	10/21/22 13:26	1
p-Terphenyl-d14 (Surr)	70		33 - 147				10/19/22 06:42	10/21/22 13:26	1

Client Sample ID: A-22-05 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/19/22 06:42	10/21/22 13:47	1
2-Methylnaphthalene	ND		0.020	0.010	mg/Kg		10/19/22 06:42	10/21/22 13:47	1
Acenaphthene	ND		0.020	0.013	mg/Kg		10/19/22 06:42	10/21/22 13:47	1
Acenaphthylene	ND		0.020	0.0095	mg/Kg		10/19/22 06:42	10/21/22 13:47	1
Anthracene	ND		0.020	0.0087	mg/Kg		10/19/22 06:42	10/21/22 13:47	1
Benzo[g,h,i]perylene	ND		0.020	0.010	mg/Kg		10/19/22 06:42	10/21/22 13:47	1
Benzo[k]fluoranthene	0.011	J	0.020	0.0074	mg/Kg		10/19/22 06:42	10/21/22 13:47	1
Benzo[a]anthracene	0.015	J	0.020	0.0079	mg/Kg		10/19/22 06:42	10/21/22 13:47	1
Benzo[a]pyrene	0.012	J	0.020	0.0080	mg/Kg		10/19/22 06:42	10/21/22 13:47	1
Benzo[b]fluoranthene	ND		0.020	0.015	mg/Kg		10/19/22 06:42	10/21/22 13:47	1
Chrysene	0.016	J	0.020	0.0064	mg/Kg		10/19/22 06:42	10/21/22 13:47	1
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/19/22 06:42	10/21/22 13:47	1
Fluoranthene	0.026		0.020	0.0079	mg/Kg		10/19/22 06:42	10/21/22 13:47	1
Fluorene	ND		0.020	0.0095	mg/Kg		10/19/22 06:42	10/21/22 13:47	1
Indeno[1,2,3-cd]pyrene	ND		0.020	0.012	mg/Kg		10/19/22 06:42	10/21/22 13:47	1
Naphthalene	ND		0.020	0.0088	mg/Kg		10/19/22 06:42	10/21/22 13:47	1
Phenanthrene	0.018	J	0.020	0.015	mg/Kg		10/19/22 06:42	10/21/22 13:47	1
Pyrene	0.027		0.020	0.0085	mg/Kg		10/19/22 06:42	10/21/22 13:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	66		22 - 130				10/19/22 06:42	10/21/22 13:47	1
Nitrobenzene-d5 (Surr)	69		20 - 145				10/19/22 06:42	10/21/22 13:47	1
p-Terphenyl-d14 (Surr)	65		33 - 147				10/19/22 06:42	10/21/22 13:47	1

Client Sample ID: A-22-06 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/19/22 06:42	10/21/22 14:07	1
2-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/19/22 06:42	10/21/22 14:07	1
Acenaphthene	ND		0.020	0.013	mg/Kg		10/19/22 06:42	10/21/22 14:07	1
Acenaphthylene	ND		0.020	0.0097	mg/Kg		10/19/22 06:42	10/21/22 14:07	1
Anthracene	0.010	J	0.020	0.0089	mg/Kg		10/19/22 06:42	10/21/22 14:07	1
Benzo[g,h,i]perylene	0.018	J	0.020	0.011	mg/Kg		10/19/22 06:42	10/21/22 14:07	1
Benzo[k]fluoranthene	0.015	J	0.020	0.0075	mg/Kg		10/19/22 06:42	10/21/22 14:07	1
Benzo[a]anthracene	0.023		0.020	0.0081	mg/Kg		10/19/22 06:42	10/21/22 14:07	1
Benzo[a]pyrene	0.021		0.020	0.0082	mg/Kg		10/19/22 06:42	10/21/22 14:07	1
Benzo[b]fluoranthene	0.019	J	0.020	0.015	mg/Kg		10/19/22 06:42	10/21/22 14:07	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## Method: SW846 8270C SIM - PAHs (GC/MS SIM) (Continued)

Client Sample ID: A-22-06 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chrysene</b>	<b>0.024</b>		0.020	0.0065	mg/Kg		10/19/22 06:42	10/21/22 14:07	1
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/19/22 06:42	10/21/22 14:07	1
<b>Fluoranthene</b>	<b>0.032</b>		0.020	0.0081	mg/Kg		10/19/22 06:42	10/21/22 14:07	1
Fluorene	ND		0.020	0.0098	mg/Kg		10/19/22 06:42	10/21/22 14:07	1
Indeno[1,2,3-cd]pyrene	ND		0.020	0.012	mg/Kg		10/19/22 06:42	10/21/22 14:07	1
Naphthalene	ND		0.020	0.0090	mg/Kg		10/19/22 06:42	10/21/22 14:07	1
<b>Phenanthrene</b>	<b>0.026</b>		0.020	0.015	mg/Kg		10/19/22 06:42	10/21/22 14:07	1
<b>Pyrene</b>	<b>0.028</b>		0.020	0.0087	mg/Kg		10/19/22 06:42	10/21/22 14:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	65		22 - 130				10/19/22 06:42	10/21/22 14:07	1
Nitrobenzene-d5 (Surr)	64		20 - 145				10/19/22 06:42	10/21/22 14:07	1
p-Terphenyl-d14 (Surr)	68		33 - 147				10/19/22 06:42	10/21/22 14:07	1



# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: A-22-01 @ 2'**  
**Date Collected: 10/18/22 00:00**  
**Date Received: 10/18/22 19:10**

**Lab Sample ID: 570-113837-1**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		10/19/22 13:33	10/20/22 19:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	70		42 - 126				10/19/22 13:33	10/20/22 19:43	1

**Client Sample ID: A-22-02 @ 2'**  
**Date Collected: 10/18/22 00:00**  
**Date Received: 10/18/22 19:10**

**Lab Sample ID: 570-113837-2**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		10/19/22 13:33	10/20/22 20:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	61		42 - 126				10/19/22 13:33	10/20/22 20:12	1

**Client Sample ID: A-22-03 @ 2'**  
**Date Collected: 10/18/22 00:00**  
**Date Received: 10/18/22 19:10**

**Lab Sample ID: 570-113837-3**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		10/19/22 13:33	10/20/22 20:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	55		42 - 126				10/19/22 13:33	10/20/22 20:41	1

**Client Sample ID: A-22-04 @ 2'**  
**Date Collected: 10/18/22 00:00**  
**Date Received: 10/18/22 19:10**

**Lab Sample ID: 570-113837-4**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		10/19/22 13:33	10/20/22 21:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	65		42 - 126				10/19/22 13:33	10/20/22 21:10	1

**Client Sample ID: A-22-05 @ 2'**  
**Date Collected: 10/18/22 00:00**  
**Date Received: 10/18/22 19:10**

**Lab Sample ID: 570-113837-5**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		10/19/22 13:33	10/20/22 21:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	67		42 - 126				10/19/22 13:33	10/20/22 21:39	1

**Client Sample ID: A-22-06 @ 2'**  
**Date Collected: 10/18/22 00:00**  
**Date Received: 10/18/22 19:10**

**Lab Sample ID: 570-113837-6**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		10/19/22 13:33	10/20/22 22:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	60		42 - 126				10/19/22 13:33	10/20/22 22:08	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: A-22-01 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		10/20/22 11:36	10/20/22 18:11	1
C23-C40	16		5.0	3.8	mg/Kg		10/20/22 11:36	10/20/22 18:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	97		60 - 138				10/20/22 11:36	10/20/22 18:11	1

Client Sample ID: A-22-02 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	8.1		4.8	3.7	mg/Kg		10/20/22 11:36	10/20/22 19:05	1
C23-C40	41		4.8	3.7	mg/Kg		10/20/22 11:36	10/20/22 19:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	101		60 - 138				10/20/22 11:36	10/20/22 19:05	1

Client Sample ID: A-22-03 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	6.8		4.9	3.8	mg/Kg		10/20/22 11:36	10/20/22 19:32	1
C23-C40	11		4.9	3.8	mg/Kg		10/20/22 11:36	10/20/22 19:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	100		60 - 138				10/20/22 11:36	10/20/22 19:32	1

Client Sample ID: A-22-04 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.8	3.7	mg/Kg		10/20/22 11:36	10/20/22 20:00	1
C23-C40	20		4.8	3.7	mg/Kg		10/20/22 11:36	10/20/22 20:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	100		60 - 138				10/20/22 11:36	10/20/22 20:00	1

Client Sample ID: A-22-05 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		10/20/22 11:36	10/20/22 20:27	1
C23-C40	21		4.9	3.8	mg/Kg		10/20/22 11:36	10/20/22 20:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	111		60 - 138				10/20/22 11:36	10/20/22 20:27	1

Client Sample ID: A-22-06 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	17		4.9	3.8	mg/Kg		10/20/22 11:36	10/24/22 14:38	1
C23-C40	250		4.9	3.8	mg/Kg		10/20/22 11:36	10/24/22 14:38	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	115		60 - 138	10/20/22 11:36	10/24/22 14:38	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: A-22-01 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^1+	10.1	2.89	mg/Kg		10/19/22 07:51	10/20/22 02:15	5
Arsenic	8.01		3.03	1.41	mg/Kg		10/19/22 07:51	10/20/22 02:15	5
Barium	93.5		3.03	0.143	mg/Kg		10/19/22 07:51	10/20/22 02:15	5
Beryllium	0.354	J	0.505	0.0697	mg/Kg		10/19/22 07:51	10/20/22 02:15	5
Cadmium	ND		0.505	0.0838	mg/Kg		10/19/22 07:51	10/20/22 02:15	5
Chromium	10.4	B	1.01	0.188	mg/Kg		10/19/22 07:51	10/20/22 02:15	5
Cobalt	4.02		1.01	0.208	mg/Kg		10/19/22 07:51	10/20/22 02:15	5
Copper	8.91		2.02	0.968	mg/Kg		10/19/22 07:51	10/20/22 02:15	5
Lead	12.1		2.02	0.413	mg/Kg		10/19/22 07:51	10/20/22 02:15	5
Molybdenum	ND		2.02	0.520	mg/Kg		10/19/22 07:51	10/20/22 02:15	5
Nickel	5.39	B	2.02	0.366	mg/Kg		10/19/22 07:51	10/20/22 02:15	5
Selenium	ND		3.03	1.23	mg/Kg		10/19/22 07:51	10/20/22 02:15	5
Silver	ND		1.52	0.145	mg/Kg		10/19/22 07:51	10/20/22 02:15	5
Thallium	ND		10.1	2.13	mg/Kg		10/19/22 07:51	10/20/22 02:15	5
Vanadium	24.4		1.01	0.170	mg/Kg		10/19/22 07:51	10/20/22 02:15	5
Zinc	27.8		5.05	1.17	mg/Kg		10/19/22 07:51	10/20/22 02:15	5

Client Sample ID: A-22-02 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^1+	10.1	2.89	mg/Kg		10/19/22 07:51	10/20/22 02:18	5
Arsenic	2.66	J	3.03	1.41	mg/Kg		10/19/22 07:51	10/20/22 02:18	5
Barium	56.6		3.03	0.143	mg/Kg		10/19/22 07:51	10/20/22 02:18	5
Beryllium	0.215	J	0.505	0.0697	mg/Kg		10/19/22 07:51	10/20/22 02:18	5
Cadmium	ND		0.505	0.0838	mg/Kg		10/19/22 07:51	10/20/22 02:18	5
Chromium	16.4	B	1.01	0.188	mg/Kg		10/19/22 07:51	10/20/22 02:18	5
Cobalt	2.84		1.01	0.208	mg/Kg		10/19/22 07:51	10/20/22 02:18	5
Copper	5.62		2.02	0.968	mg/Kg		10/19/22 07:51	10/20/22 02:18	5
Lead	4.89		2.02	0.413	mg/Kg		10/19/22 07:51	10/20/22 02:18	5
Molybdenum	ND		2.02	0.520	mg/Kg		10/19/22 07:51	10/20/22 02:18	5
Nickel	3.48	B	2.02	0.366	mg/Kg		10/19/22 07:51	10/20/22 02:18	5
Selenium	ND		3.03	1.23	mg/Kg		10/19/22 07:51	10/20/22 02:18	5
Silver	ND		1.52	0.145	mg/Kg		10/19/22 07:51	10/20/22 02:18	5
Thallium	ND		10.1	2.13	mg/Kg		10/19/22 07:51	10/20/22 02:18	5
Vanadium	24.3		1.01	0.170	mg/Kg		10/19/22 07:51	10/20/22 02:18	5
Zinc	12.0		5.05	1.17	mg/Kg		10/19/22 07:51	10/20/22 02:18	5

Client Sample ID: A-22-03 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	F1	10.0	2.86	mg/Kg		10/19/22 08:22	10/24/22 15:13	5
Arsenic	2.85	J	3.00	1.39	mg/Kg		10/19/22 08:22	10/24/22 15:13	5
Barium	26.9		3.00	0.142	mg/Kg		10/19/22 08:22	10/24/22 15:13	5
Beryllium	0.275	J	0.500	0.0690	mg/Kg		10/19/22 08:22	10/24/22 15:13	5
Cadmium	ND		0.500	0.0830	mg/Kg		10/19/22 08:22	10/24/22 15:13	5
Chromium	7.89		1.00	0.186	mg/Kg		10/19/22 08:22	10/24/22 15:13	5
Cobalt	3.34		1.00	0.206	mg/Kg		10/19/22 08:22	10/24/22 15:13	5
Copper	4.43		2.00	0.958	mg/Kg		10/19/22 08:22	10/24/22 15:13	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: A-22-03 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	4.80		2.00	0.409	mg/Kg		10/19/22 08:22	10/24/22 15:13	5
Molybdenum	ND		2.00	0.515	mg/Kg		10/19/22 08:22	10/24/22 15:13	5
Nickel	3.16		2.00	0.362	mg/Kg		10/19/22 08:22	10/24/22 15:13	5
Selenium	ND	F1	3.00	1.22	mg/Kg		10/19/22 08:22	10/24/22 15:13	5
Silver	ND		1.50	0.144	mg/Kg		10/19/22 08:22	10/24/22 15:13	5
Thallium	ND		10.0	2.11	mg/Kg		10/19/22 08:22	10/24/22 15:13	5
Vanadium	17.6		1.00	0.168	mg/Kg		10/19/22 08:22	10/24/22 15:13	5
Zinc	18.8		5.00	1.16	mg/Kg		10/19/22 08:22	10/24/22 15:13	5

Client Sample ID: A-22-04 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10.2	2.90	mg/Kg		10/19/22 08:22	10/24/22 15:22	5
Arsenic	6.03		3.05	1.41	mg/Kg		10/19/22 08:22	10/24/22 15:22	5
Barium	78.2		3.05	0.144	mg/Kg		10/19/22 08:22	10/24/22 15:22	5
Beryllium	0.317	J	0.508	0.0701	mg/Kg		10/19/22 08:22	10/24/22 15:22	5
Cadmium	0.127	J	0.508	0.0843	mg/Kg		10/19/22 08:22	10/24/22 15:22	5
Chromium	13.7		1.02	0.189	mg/Kg		10/19/22 08:22	10/24/22 15:22	5
Cobalt	3.69		1.02	0.209	mg/Kg		10/19/22 08:22	10/24/22 15:22	5
Copper	64.9		2.03	0.973	mg/Kg		10/19/22 08:22	10/24/22 15:22	5
Lead	169		2.03	0.415	mg/Kg		10/19/22 08:22	10/24/22 15:22	5
Molybdenum	0.584	J	2.03	0.523	mg/Kg		10/19/22 08:22	10/24/22 15:22	5
Nickel	5.28		2.03	0.368	mg/Kg		10/19/22 08:22	10/24/22 15:22	5
Selenium	ND		3.05	1.24	mg/Kg		10/19/22 08:22	10/24/22 15:22	5
Silver	ND		1.52	0.146	mg/Kg		10/19/22 08:22	10/24/22 15:22	5
Thallium	ND		10.2	2.14	mg/Kg		10/19/22 08:22	10/24/22 15:22	5
Vanadium	21.3		1.02	0.171	mg/Kg		10/19/22 08:22	10/24/22 15:22	5
Zinc	69.7		5.08	1.17	mg/Kg		10/19/22 08:22	10/24/22 15:22	5

Client Sample ID: A-22-05 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	5.14	J	10.2	2.92	mg/Kg		10/20/22 06:22	10/21/22 13:31	5
Arsenic	2.93	J	3.06	1.42	mg/Kg		10/20/22 06:22	10/21/22 13:31	5
Barium	27.3		3.06	0.145	mg/Kg		10/20/22 06:22	10/21/22 13:31	5
Beryllium	0.268	J	0.510	0.0704	mg/Kg		10/20/22 06:22	10/21/22 13:31	5
Cadmium	ND		0.510	0.0847	mg/Kg		10/20/22 06:22	10/21/22 13:31	5
Chromium	11.4		1.02	0.190	mg/Kg		10/20/22 06:22	10/21/22 13:31	5
Cobalt	3.09		1.02	0.210	mg/Kg		10/20/22 06:22	10/21/22 13:31	5
Copper	4.53		2.04	0.978	mg/Kg		10/20/22 06:22	10/21/22 13:31	5
Lead	5.97		2.04	0.417	mg/Kg		10/20/22 06:22	10/21/22 13:31	5
Molybdenum	0.842	J	2.04	0.526	mg/Kg		10/20/22 06:22	10/21/22 13:31	5
Nickel	3.00		2.04	0.369	mg/Kg		10/20/22 06:22	10/21/22 13:31	5
Selenium	ND		3.06	1.25	mg/Kg		10/20/22 06:22	10/21/22 13:31	5
Silver	ND		1.53	0.147	mg/Kg		10/20/22 06:22	10/21/22 13:31	5
Thallium	ND		10.2	2.15	mg/Kg		10/20/22 06:22	10/21/22 13:31	5
Vanadium	33.4		1.02	0.171	mg/Kg		10/20/22 06:22	10/21/22 13:31	5
Zinc	12.8		5.10	1.18	mg/Kg		10/20/22 06:22	10/21/22 13:31	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: A-22-06 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10.1	2.87	mg/Kg		10/20/22 06:22	10/21/22 13:34	5
Arsenic	3.57		3.02	1.40	mg/Kg		10/20/22 06:22	10/21/22 13:34	5
Barium	47.7		3.02	0.143	mg/Kg		10/20/22 06:22	10/21/22 13:34	5
Beryllium	0.276	J	0.503	0.0693	mg/Kg		10/20/22 06:22	10/21/22 13:34	5
Cadmium	ND		0.503	0.0834	mg/Kg		10/20/22 06:22	10/21/22 13:34	5
Chromium	10.4		1.01	0.187	mg/Kg		10/20/22 06:22	10/21/22 13:34	5
Cobalt	3.61		1.01	0.207	mg/Kg		10/20/22 06:22	10/21/22 13:34	5
Copper	6.57		2.01	0.963	mg/Kg		10/20/22 06:22	10/21/22 13:34	5
Lead	13.9		2.01	0.411	mg/Kg		10/20/22 06:22	10/21/22 13:34	5
Molybdenum	ND		2.01	0.518	mg/Kg		10/20/22 06:22	10/21/22 13:34	5
Nickel	3.58		2.01	0.364	mg/Kg		10/20/22 06:22	10/21/22 13:34	5
Selenium	ND		3.02	1.23	mg/Kg		10/20/22 06:22	10/21/22 13:34	5
Silver	ND		1.51	0.145	mg/Kg		10/20/22 06:22	10/21/22 13:34	5
Thallium	ND		10.1	2.12	mg/Kg		10/20/22 06:22	10/21/22 13:34	5
Vanadium	29.6		1.01	0.169	mg/Kg		10/20/22 06:22	10/21/22 13:34	5
Zinc	18.9		5.03	1.16	mg/Kg		10/20/22 06:22	10/21/22 13:34	5

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## Method: SW846 7471A - Mercury (CVAA)

Client Sample ID: A-22-01 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0801	0.0130	mg/Kg		10/20/22 11:35	10/20/22 18:44	1

Client Sample ID: A-22-02 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0786	0.0127	mg/Kg		10/20/22 11:35	10/20/22 18:50	1

Client Sample ID: A-22-03 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0132	mg/Kg		10/20/22 11:35	10/20/22 18:52	1

Client Sample ID: A-22-04 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0164	J	0.0833	0.0135	mg/Kg		10/20/22 11:35	10/20/22 18:54	1

Client Sample ID: A-22-05 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0135	mg/Kg		10/20/22 18:00	10/21/22 14:43	1

Client Sample ID: A-22-06 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0132	mg/Kg		10/20/22 18:00	10/21/22 14:45	1

# Surrogate Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## Method: 8270C SIM - PAHs (GC/MS SIM)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (22-130)	NBZ (20-145)	TPHd14 (33-147)
570-113837-1	A-22-01 @ 2'	68	61	68
570-113837-2	A-22-02 @ 2'	80	86	79
570-113837-3	A-22-03 @ 2'	55	51	51
570-113837-4	A-22-04 @ 2'	66	69	70
570-113837-5	A-22-05 @ 2'	66	69	65
570-113837-6	A-22-06 @ 2'	65	64	68
LCS 570-273860/2-A	Lab Control Sample	93	85	87
LCSD 570-273860/3-A	Lab Control Sample Dup	93	95	82
MB 570-273860/1-A	Method Blank	96	85	87

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)  
NBZ = Nitrobenzene-d5 (Surr)  
TPHd14 = p-Terphenyl-d14 (Surr)

## Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (42-126)	
570-113837-1	A-22-01 @ 2'	70	
570-113837-2	A-22-02 @ 2'	61	
570-113837-3	A-22-03 @ 2'	55	
570-113837-4	A-22-04 @ 2'	65	
570-113837-5	A-22-05 @ 2'	67	
570-113837-6	A-22-06 @ 2'	60	
LCS 570-274009/1-A	Lab Control Sample	86	
LCSD 570-274009/2-A	Lab Control Sample Dup	81	
MB 570-274009/3-A	Method Blank	68	

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		OTCSN1 (60-138)	
570-113837-1	A-22-01 @ 2'	97	
570-113837-2	A-22-02 @ 2'	101	
570-113837-3	A-22-03 @ 2'	100	
570-113837-4	A-22-04 @ 2'	100	
570-113837-5	A-22-05 @ 2'	111	
570-113837-6	A-22-06 @ 2'	115	
LCS 570-274356/2-A	Lab Control Sample	93	
LCSD 570-274356/3-A	Lab Control Sample Dup	95	
MB 570-274356/1-A	Method Blank	96	

### Surrogate Legend

OTCSN = n-Octacosane (Surr)

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## Method: 8270C SIM - PAHs (GC/MS SIM)

Lab Sample ID: MB 570-273860/1-A

Matrix: Solid

Analysis Batch: 274661

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 273860

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.020	0.011	mg/Kg		10/19/22 06:42	10/21/22 10:20	1
2-Methylnaphthalene	ND		0.020	0.010	mg/Kg		10/19/22 06:42	10/21/22 10:20	1
Acenaphthene	ND		0.020	0.013	mg/Kg		10/19/22 06:42	10/21/22 10:20	1
Acenaphthylene	ND		0.020	0.0096	mg/Kg		10/19/22 06:42	10/21/22 10:20	1
Anthracene	ND		0.020	0.0089	mg/Kg		10/19/22 06:42	10/21/22 10:20	1
Benzo[g,h,i]perylene	ND		0.020	0.011	mg/Kg		10/19/22 06:42	10/21/22 10:20	1
Benzo[k]fluoranthene	ND		0.020	0.0075	mg/Kg		10/19/22 06:42	10/21/22 10:20	1
Benzo[a]anthracene	ND		0.020	0.0080	mg/Kg		10/19/22 06:42	10/21/22 10:20	1
Benzo[a]pyrene	ND		0.020	0.0082	mg/Kg		10/19/22 06:42	10/21/22 10:20	1
Benzo[b]fluoranthene	ND		0.020	0.015	mg/Kg		10/19/22 06:42	10/21/22 10:20	1
Chrysene	ND		0.020	0.0065	mg/Kg		10/19/22 06:42	10/21/22 10:20	1
Dibenz(a,h)anthracene	ND		0.020	0.011	mg/Kg		10/19/22 06:42	10/21/22 10:20	1
Fluoranthene	ND		0.020	0.0080	mg/Kg		10/19/22 06:42	10/21/22 10:20	1
Fluorene	ND		0.020	0.0097	mg/Kg		10/19/22 06:42	10/21/22 10:20	1
Indeno[1,2,3-cd]pyrene	ND		0.020	0.012	mg/Kg		10/19/22 06:42	10/21/22 10:20	1
Naphthalene	ND		0.020	0.0089	mg/Kg		10/19/22 06:42	10/21/22 10:20	1
Phenanthrene	ND		0.020	0.015	mg/Kg		10/19/22 06:42	10/21/22 10:20	1
Pyrene	ND		0.020	0.0087	mg/Kg		10/19/22 06:42	10/21/22 10:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	96		22 - 130	10/19/22 06:42	10/21/22 10:20	1
Nitrobenzene-d5 (Surr)	85		20 - 145	10/19/22 06:42	10/21/22 10:20	1
p-Terphenyl-d14 (Surr)	87		33 - 147	10/19/22 06:42	10/21/22 10:20	1

Lab Sample ID: LCS 570-273860/2-A

Matrix: Solid

Analysis Batch: 274661

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 273860

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.200	0.2052		mg/Kg		103	54 - 132
2-Methylnaphthalene	0.200	0.2290		mg/Kg		115	50 - 127
Acenaphthene	0.200	0.1931		mg/Kg		97	53 - 125
Acenaphthylene	0.200	0.2096		mg/Kg		105	50 - 123
Anthracene	0.200	0.2028		mg/Kg		101	50 - 132
Benzo[g,h,i]perylene	0.200	0.1868		mg/Kg		93	50 - 130
Benzo[k]fluoranthene	0.200	0.1989		mg/Kg		99	49 - 150
Benzo[a]anthracene	0.200	0.1760		mg/Kg		88	50 - 133
Benzo[a]pyrene	0.200	0.1570		mg/Kg		79	50 - 134
Benzo[b]fluoranthene	0.200	0.1459		mg/Kg		73	50 - 142
Chrysene	0.200	0.2154		mg/Kg		108	51 - 129
Dibenz(a,h)anthracene	0.200	0.1834		mg/Kg		92	50 - 133
Fluoranthene	0.200	0.1730		mg/Kg		87	55 - 127
Fluorene	0.200	0.1852		mg/Kg		93	55 - 127
Indeno[1,2,3-cd]pyrene	0.200	0.1678		mg/Kg		84	50 - 148
Naphthalene	0.200	0.1956		mg/Kg		98	51 - 129
Phenanthrene	0.200	0.1904		mg/Kg		95	50 - 122
Pyrene	0.200	0.1946		mg/Kg		97	50 - 134

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## Method: 8270C SIM - PAHs (GC/MS SIM) (Continued)

Lab Sample ID: LCS 570-273860/2-A

Matrix: Solid

Analysis Batch: 274661

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 273860

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	93		22 - 130
Nitrobenzene-d5 (Surr)	85		20 - 145
p-Terphenyl-d14 (Surr)	87		33 - 147

Lab Sample ID: LCSD 570-273860/3-A

Matrix: Solid

Analysis Batch: 274661

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 273860

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	0.200	0.2178		mg/Kg		109	54 - 132	6	20
2-Methylnaphthalene	0.200	0.2317		mg/Kg		116	50 - 127	1	20
Acenaphthene	0.200	0.2049		mg/Kg		102	53 - 125	6	20
Acenaphthylene	0.200	0.2024		mg/Kg		101	50 - 123	3	20
Anthracene	0.200	0.1992		mg/Kg		100	50 - 132	2	20
Benzo[g,h,i]perylene	0.200	0.1754		mg/Kg		88	50 - 130	6	20
Benzo[k]fluoranthene	0.200	0.1909		mg/Kg		95	49 - 150	4	20
Benzo[a]anthracene	0.200	0.1643		mg/Kg		82	50 - 133	7	20
Benzo[a]pyrene	0.200	0.1480		mg/Kg		74	50 - 134	6	20
Benzo[b]fluoranthene	0.200	0.1354		mg/Kg		68	50 - 142	8	20
Chrysene	0.200	0.2023		mg/Kg		101	51 - 129	6	20
Dibenz(a,h)anthracene	0.200	0.1722		mg/Kg		86	50 - 133	6	20
Fluoranthene	0.200	0.1647		mg/Kg		82	55 - 127	5	20
Fluorene	0.200	0.1846		mg/Kg		92	55 - 127	0	20
Indeno[1,2,3-cd]pyrene	0.200	0.1684		mg/Kg		84	50 - 148	0	20
Naphthalene	0.200	0.2028		mg/Kg		101	51 - 129	4	20
Phenanthrene	0.200	0.1862		mg/Kg		93	50 - 122	2	20
Pyrene	0.200	0.1792		mg/Kg		90	50 - 134	8	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	93		22 - 130
Nitrobenzene-d5 (Surr)	95		20 - 145
p-Terphenyl-d14 (Surr)	82		33 - 147

## Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-274009/3-A

Matrix: Solid

Analysis Batch: 274089

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 274009

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	0.05536	J	0.099	0.055	mg/Kg		10/19/22 13:33	10/20/22 06:31	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	68		42 - 126	10/19/22 13:33	10/20/22 06:31	1

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: LCS 570-274009/1-A

Matrix: Solid

Analysis Batch: 274089

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 274009

			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (C4-C13)			1.97	1.829		mg/Kg		93	70 - 124		
Surrogate	LCS %Recovery	LCS Qualifier	Limits								
4-Bromofluorobenzene (Surr)	86		42 - 126								

Lab Sample ID: LCSD 570-274009/2-A

Matrix: Solid

Analysis Batch: 274089

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 274009

Top Data: 27.10.2006							Top Data: 27.10.2006				
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)			1.98	1.780		mg/Kg	-	90	70 - 124	3	18
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	81		42 - 126								

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-274356/1-A

Matrix: Solid

Analysis Batch: 274304

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 274356

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		10/20/22 11:36	10/20/22 14:59	1
C23-C40	ND		5.0	3.8	mg/Kg		10/20/22 11:36	10/20/22 14:59	1
	MB	MB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	96		60 - 138				10/20/22 11:36	10/20/22 14:59	1

Lab Sample ID: LCS 570-274356/2-A

Matrix: Solid

Analysis Batch: 274304

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 274356

			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Diesel Range Organics [C10-C28]			400	428.5		mg/Kg		107	80 - 130		
Surrogate	LCS	LCS									
	%Recovery	Qualifier	Limits								
n-Octacosane (Surr)	93		60 - 138								

Lab Sample ID: LCSD 570-274356/3-A

Matrix: Solid

Analysis Batch: 274304

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 274356

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Diesel Range Organics [C10-C28]	400	443.5		mg/Kg		111	80 - 130	3	20

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 570-274356/3-A

Matrix: Solid

Analysis Batch: 274304

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 274356

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
n-Octacosane (Surr)	95		60 - 138

## Method: 6010B - Metals (ICP)

Lab Sample ID: MB 570-273864/1-A ^5

Matrix: Solid

Analysis Batch: 274130

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 273864

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^1+	9.80	2.80	mg/Kg		10/19/22 07:51	10/19/22 17:09	5
Arsenic	ND		2.94	1.36	mg/Kg		10/19/22 07:51	10/19/22 17:09	5
Barium	ND		2.94	0.139	mg/Kg		10/19/22 07:51	10/19/22 17:09	5
Beryllium	ND		0.490	0.0676	mg/Kg		10/19/22 07:51	10/19/22 17:09	5
Cadmium	ND		0.490	0.0814	mg/Kg		10/19/22 07:51	10/19/22 17:09	5
Chromium	0.4412	J	0.980	0.182	mg/Kg		10/19/22 07:51	10/19/22 17:09	5
Cobalt	ND		0.980	0.202	mg/Kg		10/19/22 07:51	10/19/22 17:09	5
Copper	ND		1.96	0.939	mg/Kg		10/19/22 07:51	10/19/22 17:09	5
Lead	ND		1.96	0.401	mg/Kg		10/19/22 07:51	10/19/22 17:09	5
Molybdenum	ND		1.96	0.505	mg/Kg		10/19/22 07:51	10/19/22 17:09	5
Nickel	0.3554	J	1.96	0.355	mg/Kg		10/19/22 07:51	10/19/22 17:09	5
Selenium	ND		2.94	1.20	mg/Kg		10/19/22 07:51	10/19/22 17:09	5
Silver	ND		1.47	0.141	mg/Kg		10/19/22 07:51	10/19/22 17:09	5
Thallium	ND		9.80	2.06	mg/Kg		10/19/22 07:51	10/19/22 17:09	5
Vanadium	ND		0.980	0.165	mg/Kg		10/19/22 07:51	10/19/22 17:09	5
Zinc	ND		4.90	1.13	mg/Kg		10/19/22 07:51	10/19/22 17:09	5

Lab Sample ID: LCS 570-273864/2-A ^5

Matrix: Solid

Analysis Batch: 274130

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 273864

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	50.5	56.00	^1+	mg/Kg		111	80 - 120
Arsenic	50.5	47.55		mg/Kg		94	80 - 120
Barium	50.5	47.92		mg/Kg		95	80 - 120
Beryllium	50.5	47.88		mg/Kg		95	80 - 120
Cadmium	50.5	48.03		mg/Kg		95	80 - 120
Chromium	50.5	48.72		mg/Kg		96	80 - 120
Cobalt	50.5	48.36		mg/Kg		96	80 - 120
Copper	50.5	48.23		mg/Kg		95	80 - 120
Lead	50.5	47.99		mg/Kg		95	80 - 120
Molybdenum	50.5	48.95		mg/Kg		97	80 - 120
Nickel	50.5	48.71		mg/Kg		96	80 - 120
Selenium	50.5	46.19		mg/Kg		91	80 - 120
Silver	25.3	23.78		mg/Kg		94	80 - 120
Thallium	50.5	48.21		mg/Kg		95	80 - 120
Vanadium	50.5	47.78		mg/Kg		95	80 - 120
Zinc	50.5	47.79		mg/Kg		95	80 - 120

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSD 570-273864/3-A ^5

Matrix: Solid

Analysis Batch: 274130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 273864

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	50.0	54.08	^1+	mg/Kg		108	80 - 120	3	20
Arsenic	50.0	46.81		mg/Kg		94	80 - 120	2	20
Barium	50.0	46.78		mg/Kg		94	80 - 120	2	20
Beryllium	50.0	46.71		mg/Kg		93	80 - 120	2	20
Cadmium	50.0	47.18		mg/Kg		94	80 - 120	2	20
Chromium	50.0	47.43		mg/Kg		95	80 - 120	3	20
Cobalt	50.0	47.36		mg/Kg		95	80 - 120	2	20
Copper	50.0	47.00		mg/Kg		94	80 - 120	3	20
Lead	50.0	46.76		mg/Kg		94	80 - 120	3	20
Molybdenum	50.0	48.04		mg/Kg		96	80 - 120	2	20
Nickel	50.0	47.21		mg/Kg		94	80 - 120	3	20
Selenium	50.0	44.43		mg/Kg		89	80 - 120	4	20
Silver	25.0	23.21		mg/Kg		93	80 - 120	2	20
Thallium	50.0	47.04		mg/Kg		94	80 - 120	2	20
Vanadium	50.0	46.69		mg/Kg		93	80 - 120	2	20
Zinc	50.0	46.80		mg/Kg		94	80 - 120	2	20

Lab Sample ID: MB 570-273880/1-A ^5

Matrix: Solid

Analysis Batch: 275325

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 273880

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10.2	2.90	mg/Kg		10/19/22 08:22	10/24/22 14:58	5
Arsenic	ND		3.05	1.41	mg/Kg		10/19/22 08:22	10/24/22 14:58	5
Barium	ND		3.05	0.144	mg/Kg		10/19/22 08:22	10/24/22 14:58	5
Beryllium	ND		0.508	0.0701	mg/Kg		10/19/22 08:22	10/24/22 14:58	5
Cadmium	ND		0.508	0.0843	mg/Kg		10/19/22 08:22	10/24/22 14:58	5
Chromium	ND		1.02	0.189	mg/Kg		10/19/22 08:22	10/24/22 14:58	5
Cobalt	ND		1.02	0.209	mg/Kg		10/19/22 08:22	10/24/22 14:58	5
Copper	ND		2.03	0.973	mg/Kg		10/19/22 08:22	10/24/22 14:58	5
Lead	ND		2.03	0.415	mg/Kg		10/19/22 08:22	10/24/22 14:58	5
Molybdenum	ND		2.03	0.523	mg/Kg		10/19/22 08:22	10/24/22 14:58	5
Nickel	ND		2.03	0.368	mg/Kg		10/19/22 08:22	10/24/22 14:58	5
Selenium	ND		3.05	1.24	mg/Kg		10/19/22 08:22	10/24/22 14:58	5
Silver	ND		1.52	0.146	mg/Kg		10/19/22 08:22	10/24/22 14:58	5
Thallium	ND		10.2	2.14	mg/Kg		10/19/22 08:22	10/24/22 14:58	5
Vanadium	ND		1.02	0.171	mg/Kg		10/19/22 08:22	10/24/22 14:58	5
Zinc	ND		5.08	1.17	mg/Kg		10/19/22 08:22	10/24/22 14:58	5

Lab Sample ID: LCS 570-273880/2-A ^5

Matrix: Solid

Analysis Batch: 275325

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 273880

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	50.0	52.08		mg/Kg		104	80 - 120
Arsenic	50.0	46.18		mg/Kg		92	80 - 120
Barium	50.0	46.05		mg/Kg		92	80 - 120
Beryllium	50.0	45.88		mg/Kg		92	80 - 120
Cadmium	50.0	45.29		mg/Kg		91	80 - 120

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 570-273880/2-A ^5

Matrix: Solid

Analysis Batch: 275325

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 273880

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium	50.0	46.40		mg/Kg		93	80 - 120
Cobalt	50.0	45.90		mg/Kg		92	80 - 120
Copper	50.0	46.33		mg/Kg		93	80 - 120
Lead	50.0	45.96		mg/Kg		92	80 - 120
Molybdenum	50.0	46.46		mg/Kg		93	80 - 120
Nickel	50.0	46.34		mg/Kg		93	80 - 120
Selenium	50.0	43.76		mg/Kg		88	80 - 120
Silver	25.0	22.71		mg/Kg		91	80 - 120
Thallium	50.0	46.15		mg/Kg		92	80 - 120
Vanadium	50.0	45.80		mg/Kg		92	80 - 120
Zinc	50.0	45.69		mg/Kg		91	80 - 120

Lab Sample ID: LCSD 570-273880/3-A ^5

Matrix: Solid

Analysis Batch: 275325

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 273880

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	49.8	49.25		mg/Kg		99	80 - 120	6	20
Arsenic	49.8	43.28		mg/Kg		87	80 - 120	6	20
Barium	49.8	43.96		mg/Kg		88	80 - 120	5	20
Beryllium	49.8	43.87		mg/Kg		88	80 - 120	4	20
Cadmium	49.8	43.93		mg/Kg		88	80 - 120	3	20
Chromium	49.8	44.23		mg/Kg		89	80 - 120	5	20
Cobalt	49.8	43.98		mg/Kg		88	80 - 120	4	20
Copper	49.8	44.22		mg/Kg		89	80 - 120	5	20
Lead	49.8	44.17		mg/Kg		89	80 - 120	4	20
Molybdenum	49.8	44.53		mg/Kg		89	80 - 120	4	20
Nickel	49.8	43.98		mg/Kg		88	80 - 120	5	20
Selenium	49.8	40.62		mg/Kg		82	80 - 120	7	20
Silver	24.9	21.73		mg/Kg		87	80 - 120	4	20
Thallium	49.8	43.47		mg/Kg		87	80 - 120	6	20
Vanadium	49.8	43.74		mg/Kg		88	80 - 120	5	20
Zinc	49.8	43.67		mg/Kg		88	80 - 120	5	20

Lab Sample ID: 570-113837-3 MS

Matrix: Solid

Analysis Batch: 275325

Client Sample ID: A-22-03 @ 2'

Prep Type: Total/NA

Prep Batch: 273880

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND	F1	49.5	14.21	F1	mg/Kg		29	75 - 125
Arsenic	2.85	J	49.5	40.40		mg/Kg		76	75 - 125
Barium	26.9		49.5	71.98		mg/Kg		91	75 - 125
Beryllium	0.275	J	49.5	39.47		mg/Kg		79	75 - 125
Cadmium	ND		49.5	38.09		mg/Kg		77	75 - 125
Chromium	7.89		49.5	48.53		mg/Kg		82	75 - 125
Cobalt	3.34		49.5	41.71		mg/Kg		78	75 - 125
Copper	4.43		49.5	44.59		mg/Kg		81	75 - 125
Lead	4.80		49.5	44.50		mg/Kg		80	75 - 125
Molybdenum	ND		49.5	37.14		mg/Kg		75	75 - 125

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 570-113837-3 MS

Matrix: Solid

Analysis Batch: 275325

Client Sample ID: A-22-03 @ 2'

Prep Type: Total/NA

Prep Batch: 273880

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nickel	3.16		49.5	42.05		mg/Kg		79	75 - 125
Selenium	ND	F1	49.5	36.73	F1	mg/Kg		74	75 - 125
Silver	ND		24.8	19.26		mg/Kg		78	75 - 125
Thallium	ND		49.5	38.65		mg/Kg		78	75 - 125
Vanadium	17.6		49.5	58.54		mg/Kg		83	75 - 125
Zinc	18.8		49.5	56.62		mg/Kg		76	75 - 125

Lab Sample ID: 570-113837-3 MSD

Matrix: Solid

Analysis Batch: 275325

Client Sample ID: A-22-03 @ 2'

Prep Type: Total/NA

Prep Batch: 273880

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND	F1	50.0	15.58	F1	mg/Kg		31	75 - 125	9	20
Arsenic	2.85	J	50.0	41.28		mg/Kg		77	75 - 125	2	20
Barium	26.9		50.0	67.64		mg/Kg		81	75 - 125	6	20
Beryllium	0.275	J	50.0	40.91		mg/Kg		81	75 - 125	4	20
Cadmium	ND		50.0	39.54		mg/Kg		79	75 - 125	4	20
Chromium	7.89		50.0	49.09		mg/Kg		82	75 - 125	1	20
Cobalt	3.34		50.0	43.14		mg/Kg		80	75 - 125	3	20
Copper	4.43		50.0	45.88		mg/Kg		83	75 - 125	3	20
Lead	4.80		50.0	44.59		mg/Kg		80	75 - 125	0	20
Molybdenum	ND		50.0	38.78		mg/Kg		78	75 - 125	4	20
Nickel	3.16		50.0	43.21		mg/Kg		80	75 - 125	3	20
Selenium	ND	F1	50.0	36.89	F1	mg/Kg		74	75 - 125	0	20
Silver	ND		25.0	19.95		mg/Kg		80	75 - 125	4	20
Thallium	ND		50.0	40.05		mg/Kg		80	75 - 125	4	20
Vanadium	17.6		50.0	58.98		mg/Kg		83	75 - 125	1	20
Zinc	18.8		50.0	56.95		mg/Kg		76	75 - 125	1	20

Lab Sample ID: MB 570-274247/1-A ^5

Matrix: Solid

Analysis Batch: 274780

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 274247

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10.1	2.87	mg/Kg		10/20/22 06:22	10/21/22 12:08	5
Arsenic	ND		3.02	1.40	mg/Kg		10/20/22 06:22	10/21/22 12:08	5
Barium	ND		3.02	0.143	mg/Kg		10/20/22 06:22	10/21/22 12:08	5
Beryllium	ND		0.503	0.0693	mg/Kg		10/20/22 06:22	10/21/22 12:08	5
Cadmium	ND		0.503	0.0834	mg/Kg		10/20/22 06:22	10/21/22 12:08	5
Chromium	ND		1.01	0.187	mg/Kg		10/20/22 06:22	10/21/22 12:08	5
Cobalt	ND		1.01	0.207	mg/Kg		10/20/22 06:22	10/21/22 12:08	5
Copper	ND		2.01	0.963	mg/Kg		10/20/22 06:22	10/21/22 12:08	5
Lead	ND		2.01	0.411	mg/Kg		10/20/22 06:22	10/21/22 12:08	5
Molybdenum	ND		2.01	0.518	mg/Kg		10/20/22 06:22	10/21/22 12:08	5
Nickel	ND		2.01	0.364	mg/Kg		10/20/22 06:22	10/21/22 12:08	5
Selenium	ND		3.02	1.23	mg/Kg		10/20/22 06:22	10/21/22 12:08	5
Silver	ND		1.51	0.145	mg/Kg		10/20/22 06:22	10/21/22 12:08	5
Thallium	ND		10.1	2.12	mg/Kg		10/20/22 06:22	10/21/22 12:08	5
Vanadium	ND		1.01	0.169	mg/Kg		10/20/22 06:22	10/21/22 12:08	5

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 570-274247/1-A ^5

Matrix: Solid

Analysis Batch: 274780

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 274247

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		5.03	1.16	mg/Kg		10/20/22 06:22	10/21/22 12:08	5

Lab Sample ID: LCS 570-274247/2-A ^5

Matrix: Solid

Analysis Batch: 274780

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 274247

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	49.5	46.39		mg/Kg		94	80 - 120
Arsenic	49.5	43.63		mg/Kg		88	80 - 120
Barium	49.5	44.29		mg/Kg		89	80 - 120
Beryllium	49.5	43.86		mg/Kg		89	80 - 120
Cadmium	49.5	43.91		mg/Kg		89	80 - 120
Chromium	49.5	44.29		mg/Kg		89	80 - 120
Cobalt	49.5	44.70		mg/Kg		90	80 - 120
Copper	49.5	44.20		mg/Kg		89	80 - 120
Lead	49.5	44.08		mg/Kg		89	80 - 120
Molybdenum	49.5	44.25		mg/Kg		89	80 - 120
Nickel	49.5	44.41		mg/Kg		90	80 - 120
Selenium	49.5	40.21		mg/Kg		81	80 - 120
Silver	24.8	22.18		mg/Kg		90	80 - 120
Thallium	49.5	43.92		mg/Kg		89	80 - 120
Vanadium	49.5	44.00		mg/Kg		89	80 - 120
Zinc	49.5	43.94		mg/Kg		89	80 - 120

Lab Sample ID: LCSD 570-274247/3-A ^5

Matrix: Solid

Analysis Batch: 274780

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 274247

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Antimony	50.3	46.42		mg/Kg		92	80 - 120	0	20
Arsenic	50.3	43.03		mg/Kg		86	80 - 120	1	20
Barium	50.3	44.41		mg/Kg		88	80 - 120	0	20
Beryllium	50.3	43.96		mg/Kg		87	80 - 120	0	20
Cadmium	50.3	43.86		mg/Kg		87	80 - 120	0	20
Chromium	50.3	44.22		mg/Kg		88	80 - 120	0	20
Cobalt	50.3	44.30		mg/Kg		88	80 - 120	1	20
Copper	50.3	44.40		mg/Kg		88	80 - 120	0	20
Lead	50.3	44.36		mg/Kg		88	80 - 120	1	20
Molybdenum	50.3	44.59		mg/Kg		89	80 - 120	1	20
Nickel	50.3	44.47		mg/Kg		89	80 - 120	0	20
Selenium	50.3	40.35		mg/Kg		80	80 - 120	0	20
Silver	25.1	22.27		mg/Kg		89	80 - 120	0	20
Thallium	50.3	43.69		mg/Kg		87	80 - 120	1	20
Vanadium	50.3	44.05		mg/Kg		88	80 - 120	0	20
Zinc	50.3	43.97		mg/Kg		88	80 - 120	0	20



# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 570-274355/1-A

Matrix: Solid

Analysis Batch: 274390

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 274355

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0135	mg/Kg		10/20/22 11:35	10/20/22 15:26	1

Lab Sample ID: LCS 570-274355/2-A

Matrix: Solid

Analysis Batch: 274390

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 274355

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.392	0.4014		mg/Kg		102	80 - 120

Lab Sample ID: LCSD 570-274355/3-A

Matrix: Solid

Analysis Batch: 274390

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 274355

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.392	0.4076		mg/Kg		104	80 - 120	2	10

Lab Sample ID: MB 570-274541/1-A

Matrix: Solid

Analysis Batch: 274857

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 274541

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0138	mg/Kg		10/20/22 18:00	10/21/22 12:48	1

Lab Sample ID: LCS 570-274541/2-A

Matrix: Solid

Analysis Batch: 274857

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 274541

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.392	0.4236		mg/Kg		108	80 - 120

Lab Sample ID: LCSD 570-274541/3-A

Matrix: Solid

Analysis Batch: 274857

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 274541

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.408	0.4270		mg/Kg		105	80 - 120	1	10

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## GC/MS Semi VOA

### Prep Batch: 273860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113837-1	A-22-01 @ 2'	Total/NA	Solid	3546	
570-113837-2	A-22-02 @ 2'	Total/NA	Solid	3546	
570-113837-3	A-22-03 @ 2'	Total/NA	Solid	3546	
570-113837-4	A-22-04 @ 2'	Total/NA	Solid	3546	
570-113837-5	A-22-05 @ 2'	Total/NA	Solid	3546	
570-113837-6	A-22-06 @ 2'	Total/NA	Solid	3546	
MB 570-273860/1-A	Method Blank	Total/NA	Solid	3546	
LCS 570-273860/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 570-273860/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

### Analysis Batch: 274661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113837-1	A-22-01 @ 2'	Total/NA	Solid	8270C SIM	273860
570-113837-2	A-22-02 @ 2'	Total/NA	Solid	8270C SIM	273860
570-113837-3	A-22-03 @ 2'	Total/NA	Solid	8270C SIM	273860
570-113837-4	A-22-04 @ 2'	Total/NA	Solid	8270C SIM	273860
570-113837-5	A-22-05 @ 2'	Total/NA	Solid	8270C SIM	273860
570-113837-6	A-22-06 @ 2'	Total/NA	Solid	8270C SIM	273860
MB 570-273860/1-A	Method Blank	Total/NA	Solid	8270C SIM	273860
LCS 570-273860/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	273860
LCSD 570-273860/3-A	Lab Control Sample Dup	Total/NA	Solid	8270C SIM	273860

## GC VOA

### Prep Batch: 274009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113837-1	A-22-01 @ 2'	Total/NA	Solid	5030C	
570-113837-2	A-22-02 @ 2'	Total/NA	Solid	5030C	
570-113837-3	A-22-03 @ 2'	Total/NA	Solid	5030C	
570-113837-4	A-22-04 @ 2'	Total/NA	Solid	5030C	
570-113837-5	A-22-05 @ 2'	Total/NA	Solid	5030C	
570-113837-6	A-22-06 @ 2'	Total/NA	Solid	5030C	
MB 570-274009/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-274009/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-274009/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	

### Analysis Batch: 274089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113837-1	A-22-01 @ 2'	Total/NA	Solid	8015B	274009
570-113837-2	A-22-02 @ 2'	Total/NA	Solid	8015B	274009
570-113837-3	A-22-03 @ 2'	Total/NA	Solid	8015B	274009
570-113837-4	A-22-04 @ 2'	Total/NA	Solid	8015B	274009
570-113837-5	A-22-05 @ 2'	Total/NA	Solid	8015B	274009
570-113837-6	A-22-06 @ 2'	Total/NA	Solid	8015B	274009
MB 570-274009/3-A	Method Blank	Total/NA	Solid	8015B	274009
LCS 570-274009/1-A	Lab Control Sample	Total/NA	Solid	8015B	274009
LCSD 570-274009/2-A	Lab Control Sample Dup	Total/NA	Solid	8015B	274009

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## GC Semi VOA

### Analysis Batch: 274304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113837-1	A-22-01 @ 2'	Total/NA	Solid	8015B	274356
570-113837-2	A-22-02 @ 2'	Total/NA	Solid	8015B	274356
570-113837-3	A-22-03 @ 2'	Total/NA	Solid	8015B	274356
570-113837-4	A-22-04 @ 2'	Total/NA	Solid	8015B	274356
570-113837-5	A-22-05 @ 2'	Total/NA	Solid	8015B	274356
MB 570-274356/1-A	Method Blank	Total/NA	Solid	8015B	274356
LCS 570-274356/2-A	Lab Control Sample	Total/NA	Solid	8015B	274356
LCSD 570-274356/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	274356

### Prep Batch: 274356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113837-1	A-22-01 @ 2'	Total/NA	Solid	3550C	
570-113837-2	A-22-02 @ 2'	Total/NA	Solid	3550C	
570-113837-3	A-22-03 @ 2'	Total/NA	Solid	3550C	
570-113837-4	A-22-04 @ 2'	Total/NA	Solid	3550C	
570-113837-5	A-22-05 @ 2'	Total/NA	Solid	3550C	
570-113837-6	A-22-06 @ 2'	Total/NA	Solid	3550C	
MB 570-274356/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 570-274356/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 570-274356/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	

### Analysis Batch: 275233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113837-6	A-22-06 @ 2'	Total/NA	Solid	8015B	274356

## Metals

### Prep Batch: 273864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113837-1	A-22-01 @ 2'	Total/NA	Solid	3050B	
570-113837-2	A-22-02 @ 2'	Total/NA	Solid	3050B	
MB 570-273864/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-273864/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-273864/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	

### Prep Batch: 273880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113837-3	A-22-03 @ 2'	Total/NA	Solid	3050B	
570-113837-4	A-22-04 @ 2'	Total/NA	Solid	3050B	
MB 570-273880/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-273880/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-273880/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	
570-113837-3 MS	A-22-03 @ 2'	Total/NA	Solid	3050B	
570-113837-3 MSD	A-22-03 @ 2'	Total/NA	Solid	3050B	

### Analysis Batch: 274130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-273864/1-A ^5	Method Blank	Total/NA	Solid	6010B	273864
LCS 570-273864/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	273864
LCSD 570-273864/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	273864

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## Metals

### Prep Batch: 274247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113837-5	A-22-05 @ 2'	Total/NA	Solid	3050B	
570-113837-6	A-22-06 @ 2'	Total/NA	Solid	3050B	
MB 570-274247/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-274247/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-274247/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	

### Analysis Batch: 274292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113837-1	A-22-01 @ 2'	Total/NA	Solid	6010B	273864
570-113837-2	A-22-02 @ 2'	Total/NA	Solid	6010B	273864

### Prep Batch: 274355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113837-1	A-22-01 @ 2'	Total/NA	Solid	7471A	
570-113837-2	A-22-02 @ 2'	Total/NA	Solid	7471A	
570-113837-3	A-22-03 @ 2'	Total/NA	Solid	7471A	
570-113837-4	A-22-04 @ 2'	Total/NA	Solid	7471A	
MB 570-274355/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-274355/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-274355/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	

### Analysis Batch: 274390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113837-1	A-22-01 @ 2'	Total/NA	Solid	7471A	274355
570-113837-2	A-22-02 @ 2'	Total/NA	Solid	7471A	274355
570-113837-3	A-22-03 @ 2'	Total/NA	Solid	7471A	274355
570-113837-4	A-22-04 @ 2'	Total/NA	Solid	7471A	274355
MB 570-274355/1-A	Method Blank	Total/NA	Solid	7471A	274355
LCS 570-274355/2-A	Lab Control Sample	Total/NA	Solid	7471A	274355
LCSD 570-274355/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	274355

### Prep Batch: 274541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113837-5	A-22-05 @ 2'	Total/NA	Solid	7471A	
570-113837-6	A-22-06 @ 2'	Total/NA	Solid	7471A	
MB 570-274541/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-274541/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-274541/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	

### Analysis Batch: 274780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113837-5	A-22-05 @ 2'	Total/NA	Solid	6010B	274247
570-113837-6	A-22-06 @ 2'	Total/NA	Solid	6010B	274247
MB 570-274247/1-A ^5	Method Blank	Total/NA	Solid	6010B	274247
LCS 570-274247/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	274247
LCSD 570-274247/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	274247

### Analysis Batch: 274857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113837-5	A-22-05 @ 2'	Total/NA	Solid	7471A	274541
570-113837-6	A-22-06 @ 2'	Total/NA	Solid	7471A	274541

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

## Metals (Continued)

### Analysis Batch: 274857 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-274541/1-A	Method Blank	Total/NA	Solid	7471A	274541
LCS 570-274541/2-A	Lab Control Sample	Total/NA	Solid	7471A	274541
LCSD 570-274541/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	274541

### Analysis Batch: 275325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113837-3	A-22-03 @ 2'	Total/NA	Solid	6010B	273880
570-113837-4	A-22-04 @ 2'	Total/NA	Solid	6010B	273880
MB 570-273880/1-A ^5	Method Blank	Total/NA	Solid	6010B	273880
LCS 570-273880/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	273880
LCSD 570-273880/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	273880
570-113837-3 MS	A-22-03 @ 2'	Total/NA	Solid	6010B	273880
570-113837-3 MSD	A-22-03 @ 2'	Total/NA	Solid	6010B	273880

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

**Client Sample ID: A-22-01 @ 2'**

**Lab Sample ID: 570-113837-1**

**Date Collected: 10/18/22 00:00**

**Matrix: Solid**

**Date Received: 10/18/22 19:10**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.17 g	2 mL	273860	10/19/22 06:42	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	274661	10/21/22 12:24	ULLI	EET CAL 4
Instrument ID: GCMSAAA										
Total/NA	Prep	5030C			5.04 g	5 mL	274009	10/19/22 13:33	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	274089	10/20/22 19:43	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.03 g	10 mL	274356	10/20/22 11:36	RY4P	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	274304	10/20/22 18:11	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.98 g	50 mL	273864	10/19/22 07:51	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			274292	10/20/22 02:15	W1BQ	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.52 g	50 mL	274355	10/20/22 11:35	UWCT	EET CAL 4
Total/NA	Analysis	7471A		1			274390	10/20/22 18:44	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: A-22-02 @ 2'**

**Lab Sample ID: 570-113837-2**

**Date Collected: 10/18/22 00:00**

**Matrix: Solid**

**Date Received: 10/18/22 19:10**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.15 g	2 mL	273860	10/19/22 06:42	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	274661	10/21/22 12:45	ULLI	EET CAL 4
Instrument ID: GCMSAAA										
Total/NA	Prep	5030C			5.07 g	5 mL	274009	10/19/22 13:33	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	274089	10/20/22 20:12	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.41 g	10 mL	274356	10/20/22 11:36	RY4P	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	274304	10/20/22 19:05	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.98 g	50 mL	273864	10/19/22 07:51	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			274292	10/20/22 02:18	W1BQ	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.53 g	50 mL	274355	10/20/22 11:35	UWCT	EET CAL 4
Total/NA	Analysis	7471A		1			274390	10/20/22 18:50	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: A-22-03 @ 2'**

**Lab Sample ID: 570-113837-3**

**Date Collected: 10/18/22 00:00**

**Matrix: Solid**

**Date Received: 10/18/22 19:10**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			9.94 g	2 mL	273860	10/19/22 06:42	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	274661	10/21/22 13:05	ULLI	EET CAL 4
Instrument ID: GCMSAAA										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

**Client Sample ID: A-22-03 @ 2'**

**Date Collected: 10/18/22 00:00**

**Date Received: 10/18/22 19:10**

**Lab Sample ID: 570-113837-3**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.98 g	5 mL	274009	10/19/22 13:33	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	274089	10/20/22 20:41	P1R	EET CAL 4
		Instrument ID: GC25								
Total/NA	Prep	3550C			10.18 g	10 mL	274356	10/20/22 11:36	RY4P	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	274304	10/20/22 19:32	N5Y3	EET CAL 4
		Instrument ID: GC69A								
Total/NA	Prep	3050B			2.00 g	50 mL	273880	10/19/22 08:22	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			275325	10/24/22 15:13	VZ0K	EET CAL 4
		Instrument ID: ICP11								
Total/NA	Prep	7471A			0.51 g	50 mL	274355	10/20/22 11:35	UWCT	EET CAL 4
Total/NA	Analysis	7471A		1			274390	10/20/22 18:52	C0YH	EET CAL 4
		Instrument ID: HG7								

**Client Sample ID: A-22-04 @ 2'**

**Date Collected: 10/18/22 00:00**

**Date Received: 10/18/22 19:10**

**Lab Sample ID: 570-113837-4**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.36 g	2 mL	273860	10/19/22 06:42	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	274661	10/21/22 13:26	ULLI	EET CAL 4
		Instrument ID: GCMSAAA								
Total/NA	Prep	5030C			5.05 g	5 mL	274009	10/19/22 13:33	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	274089	10/20/22 21:10	P1R	EET CAL 4
		Instrument ID: GC25								
Total/NA	Prep	3550C			10.35 g	10 mL	274356	10/20/22 11:36	RY4P	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	274304	10/20/22 20:00	N5Y3	EET CAL 4
		Instrument ID: GC69A								
Total/NA	Prep	3050B			1.97 g	50 mL	273880	10/19/22 08:22	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			275325	10/24/22 15:22	VZ0K	EET CAL 4
		Instrument ID: ICP11								
Total/NA	Prep	7471A			0.50 g	50 mL	274355	10/20/22 11:35	UWCT	EET CAL 4
Total/NA	Analysis	7471A		1			274390	10/20/22 18:54	C0YH	EET CAL 4
		Instrument ID: HG7								

**Client Sample ID: A-22-05 @ 2'**

**Date Collected: 10/18/22 00:00**

**Date Received: 10/18/22 19:10**

**Lab Sample ID: 570-113837-5**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.19 g	2 mL	273860	10/19/22 06:42	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	274661	10/21/22 13:47	ULLI	EET CAL 4
		Instrument ID: GCMSAAA								
Total/NA	Prep	5030C			5.04 g	5 mL	274009	10/19/22 13:33	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	274089	10/20/22 21:39	P1R	EET CAL 4
		Instrument ID: GC25								

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

**Client Sample ID: A-22-05 @ 2'**

**Lab Sample ID: 570-113837-5**

**Date Collected: 10/18/22 00:00**

**Matrix: Solid**

**Date Received: 10/18/22 19:10**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			10.12 g	10 mL	274356	10/20/22 11:36	RY4P	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	274304	10/20/22 20:27	N5Y3	EET CAL 4
		Instrument ID: GC69A								
Total/NA	Prep	3050B			1.96 g	50 mL	274247	10/20/22 06:22	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			274780	10/21/22 13:31	VZ0K	EET CAL 4
		Instrument ID: ICP11								
Total/NA	Prep	7471A			0.50 g	50 mL	274541	10/20/22 18:00	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			274857	10/21/22 14:43	C0YH	EET CAL 4
		Instrument ID: HG7								

**Client Sample ID: A-22-06 @ 2'**

**Lab Sample ID: 570-113837-6**

**Date Collected: 10/18/22 00:00**

**Matrix: Solid**

**Date Received: 10/18/22 19:10**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			9.95 g	2 mL	273860	10/19/22 06:42	VB5S	EET CAL 4
Total/NA	Analysis	8270C SIM		1	1 mL	1 mL	274661	10/21/22 14:07	ULLI	EET CAL 4
		Instrument ID: GCMSAAA								
Total/NA	Prep	5030C			5.01 g	5 mL	274009	10/19/22 13:33	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	274089	10/20/22 22:08	P1R	EET CAL 4
		Instrument ID: GC25								
Total/NA	Prep	3550C			10.11 g	10 mL	274356	10/20/22 11:36	RY4P	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	275233	10/24/22 14:38	N5Y3	EET CAL 4
		Instrument ID: GC69A								
Total/NA	Prep	3050B			1.99 g	50 mL	274247	10/20/22 06:22	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			274780	10/21/22 13:34	VZ0K	EET CAL 4
		Instrument ID: ICP11								
Total/NA	Prep	7471A			0.51 g	50 mL	274541	10/20/22 18:00	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			274857	10/21/22 14:45	C0YH	EET CAL 4
		Instrument ID: HG7								

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494



## Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

### Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

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# Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

Method	Method Description	Protocol	Laboratory
8270C SIM	PAHs (GC/MS SIM)	SW846	EET CAL 4
8015B	Gasoline Range Organics - (GC)	SW846	EET CAL 4
8015B	Diesel Range Organics (DRO) (GC)	SW846	EET CAL 4
6010B	Metals (ICP)	SW846	EET CAL 4
7471A	Mercury (CVAA)	SW846	EET CAL 4
3050B	Preparation, Metals	SW846	EET CAL 4
3546	Microwave Extraction	SW846	EET CAL 4
3550C	Ultrasonic Extraction	SW846	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
7471A	Preparation, Mercury	SW846	EET CAL 4

## Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

# Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-113837-1	A-22-01 @ 2'	Solid	10/18/22 00:00	10/18/22 19:10
570-113837-2	A-22-02 @ 2'	Solid	10/18/22 00:00	10/18/22 19:10
570-113837-3	A-22-03 @ 2'	Solid	10/18/22 00:00	10/18/22 19:10
570-113837-4	A-22-04 @ 2'	Solid	10/18/22 00:00	10/18/22 19:10
570-113837-5	A-22-05 @ 2'	Solid	10/18/22 00:00	10/18/22 19:10
570-113837-6	A-22-06 @ 2'	Solid	10/18/22 00:00	10/18/22 19:10

## Patel, Vikas

---

**From:** Matt Fagan <mattf@groupdelta.com>  
**Sent:** Wednesday, October 19, 2022 10:11 AM  
**To:** Patel, Vikas; Jack Packwood  
**Subject:** RE: Eurofins Calscience sample confirmation files from 570-113837-1 UCSD Science Research Park (SD754)

Vikas,

We wanted the rush (72-hour) TAT on these samples as well.

Thanks,



**Matthew A. Fagan, PE, GE | Senior Geotechnical Engineer**

Group Delta Consultants, Inc.

9245 Activity Road, Suite 103

San Diego, CA 92126

Office: (858) 536-1000

Mobile: (619) 520-0114

Fax: (858) 536-8311

E-mail: [mattf@groupdelta.com](mailto:mattf@groupdelta.com)

Visit us on the web at <http://www.GroupDelta.com>



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---

**From:** Vikas Patel <[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)>

**Sent:** Wednesday, October 19, 2022 9:56 AM

**To:** Jack Packwood <[jackp@groupdelta.com](mailto:jackp@groupdelta.com)>; Matt Fagan <[mattf@groupdelta.com](mailto:mattf@groupdelta.com)>

**Subject:** Eurofins Calscience sample confirmation files from 570-113837-1 UCSD Science Research Park (SD754)

Hello,

Attached please find the sample confirmation files for job 570-113837-1; UCSD Science Research Park (SD754)

Please feel free to contact me if you have any questions.

Thank you.

**Vikas Patel**  
Project Manager

Eurofins Calscience  
Phone: 714-895-5494



## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-113837-1

**Login Number: 113837**

**List Number: 1**

**Creator: Patel, Jayesh**

**List Source: Eurofins Calscience**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



## Environment Testing

### ANALYTICAL REPORT

Eurofins Calscience  
2841 Dow Avenue, Suite 100  
Tustin, CA 92780  
Tel: (714)895-5494

Laboratory Job ID: 570-113837-2

Client Project/Site: SD754/Science Research Park

For:

Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Attn: Matt Fagan

*Vik Patel*

Authorized for release by:

11/1/2022 1:51:19 PM

Vikas Patel, Project Manager I  
(714)895-5494

[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)

#### LINKS

Review your project  
results through



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[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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## Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-2

### Qualifiers

#### Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-2

**Job ID: 570-113837-2**

**Laboratory: Eurofins Calscience**

## Narrative

**Job Narrative**  
**570-113837-2**

## Comments

No additional comments.

## Receipt

The samples were received on 10/18/2022 7:10 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.0° C.

## Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-2

**Client Sample ID: A-22-04 @ 2'**

**Lab Sample ID: 570-113837-4**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.263	J	0.500	0.0527	mg/L	1		6010B	TCLP
Lead	10.8		1.00	0.105	mg/L	1		6010B	STLC Citrate

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-2

## Method: SW846 6010B - Metals (ICP) - TCLP

Client Sample ID: A-22-04 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.263	J	0.500	0.0527	mg/L		10/28/22 06:05	10/28/22 21:47	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-2

## Method: SW846 6010B - Metals (ICP) - STLC Citrate

Client Sample ID: A-22-04 @ 2'  
Date Collected: 10/18/22 00:00  
Date Received: 10/18/22 19:10

Lab Sample ID: 570-113837-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	10.8		1.00	0.105	mg/L		10/31/22 13:20	10/31/22 14:46	1

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-2

## Method: 6010B - Metals (ICP)

Lab Sample ID: LB 570-276198/1-B

Matrix: Solid

Analysis Batch: 277351

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 276668

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.500	0.0527	mg/L		10/28/22 06:05	10/28/22 18:13	1

Lab Sample ID: LCS 570-276198/2-B

Matrix: Solid

Analysis Batch: 277351

Client Sample ID: Lab Control Sample

Prep Type: TCLP

Prep Batch: 276668

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	2.00	1.918		mg/L		96	80 - 120

Lab Sample ID: LCSD 570-276198/3-B

Matrix: Solid

Analysis Batch: 277351

Client Sample ID: Lab Control Sample Dup

Prep Type: TCLP

Prep Batch: 276668

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Lead	2.00	1.914		mg/L		96	80 - 120	0	20

Lab Sample ID: LB4 570-275872/1-B

Matrix: Solid

Analysis Batch: 277441

Client Sample ID: Method Blank

Prep Type: STLC Citrate

Prep Batch: 277359

Analyte	LB4 Result	LB4 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.00	0.105	mg/L		10/31/22 13:20	10/31/22 14:24	1

Lab Sample ID: LCS 570-275872/2-B

Matrix: Solid

Analysis Batch: 277441

Client Sample ID: Lab Control Sample

Prep Type: STLC Citrate

Prep Batch: 277359

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	20.0	18.67		mg/L		93	80 - 120

Lab Sample ID: LCSD 570-275872/3-B

Matrix: Solid

Analysis Batch: 277441

Client Sample ID: Lab Control Sample Dup

Prep Type: STLC Citrate

Prep Batch: 277359

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Lead	20.0	18.35		mg/L		92	80 - 120	2	20

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-2

## Metals

### Leach Batch: 275872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113837-4	A-22-04 @ 2'	STLC Citrate	Solid	CA WET Citrate	
LB4 570-275872/1-B	Method Blank	STLC Citrate	Solid	CA WET Citrate	
LCS 570-275872/2-B	Lab Control Sample	STLC Citrate	Solid	CA WET Citrate	
LCSD 570-275872/3-B	Lab Control Sample Dup	STLC Citrate	Solid	CA WET Citrate	

### Leach Batch: 276198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113837-4	A-22-04 @ 2'	TCLP	Solid	1311	
LB 570-276198/1-B	Method Blank	TCLP	Solid	1311	
LCS 570-276198/2-B	Lab Control Sample	TCLP	Solid	1311	
LCSD 570-276198/3-B	Lab Control Sample Dup	TCLP	Solid	1311	

### Prep Batch: 276668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113837-4	A-22-04 @ 2'	TCLP	Solid	3010A	276198
LB 570-276198/1-B	Method Blank	TCLP	Solid	3010A	276198
LCS 570-276198/2-B	Lab Control Sample	TCLP	Solid	3010A	276198
LCSD 570-276198/3-B	Lab Control Sample Dup	TCLP	Solid	3010A	276198

### Analysis Batch: 276962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113837-4	A-22-04 @ 2'	TCLP	Solid	6010B	276668

### Analysis Batch: 277351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 570-276198/1-B	Method Blank	TCLP	Solid	6010B	276668
LCS 570-276198/2-B	Lab Control Sample	TCLP	Solid	6010B	276668
LCSD 570-276198/3-B	Lab Control Sample Dup	TCLP	Solid	6010B	276668

### Prep Batch: 277359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113837-4	A-22-04 @ 2'	STLC Citrate	Solid	Dilution	275872
LB4 570-275872/1-B	Method Blank	STLC Citrate	Solid	Dilution	275872
LCS 570-275872/2-B	Lab Control Sample	STLC Citrate	Solid	Dilution	275872
LCSD 570-275872/3-B	Lab Control Sample Dup	STLC Citrate	Solid	Dilution	275872

### Analysis Batch: 277441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113837-4	A-22-04 @ 2'	STLC Citrate	Solid	6010B	277359
LB4 570-275872/1-B	Method Blank	STLC Citrate	Solid	6010B	277359
LCS 570-275872/2-B	Lab Control Sample	STLC Citrate	Solid	6010B	277359
LCSD 570-275872/3-B	Lab Control Sample Dup	STLC Citrate	Solid	6010B	277359

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-2

**Client Sample ID: A-22-04 @ 2'**

**Lab Sample ID: 570-113837-4**

**Date Collected: 10/18/22 00:00**

**Matrix: Solid**

**Date Received: 10/18/22 19:10**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.03 g	500 mL	275872	10/26/22 16:00	XBO9	EET CAL 4
STLC Citrate	Prep	Dilution			0.5 mL	10 mL	277359	10/31/22 13:20	W1BQ	EET CAL 4
STLC Citrate	Analysis	6010B		1	1.0 mL	1.0 mL	277441	10/31/22 14:46	P1R	EET CAL 4
Instrument ID: ICP10										
TCLP	Leach	1311			100.02 g	2000 mL	276198	10/26/22 21:00	XBO9	EET CAL 4
TCLP	Prep	3010A			5 mL	50 mL	276668	10/28/22 06:05	XBO9	EET CAL 4
TCLP	Analysis	6010B		1			276962	10/28/22 21:47	P1R	EET CAL 4
Instrument ID: ICP10										

<sup>1</sup> Completion dates and times are reported or not reported per method requirements or individual lab discretion.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494



## Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-2

### Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	3082	07-31-23
Oregon	NELAP	4175	02-02-23

1

2

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# Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	EET CAL 4
1311	TCLP Extraction	SW846	EET CAL 4
3010A	Preparation, Total Metals	SW846	EET CAL 4
CA WET Citrate	California - Waste Extraction Test with Citrate Leach	CA-WET	EET CAL 4
Dilution	Preparation / Dilution Process	None	EET CAL 4

## Protocol References:

CA-WET = California Waste Extraction Test, from Title 22

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

## Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113837-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-113837-4	A-22-04 @ 2'	Solid	10/18/22 00:00	10/18/22 19:10

1

2

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14

## Patel, Vikas

---

**From:** Jack Packwood <jackp@groupdelta.com>  
**Sent:** Tuesday, October 25, 2022 12:07 PM  
**To:** Patel, Vikas; Matt Fagan  
**Subject:** RE: Eurofins Calscience report and EDD files from 570-113837-1 SD754/Science Research Park

**Importance:** High

Vikas,

Can you please run STLC and TCLP on **A-22-04-@2** for lead. Total concentration = 169. Please rush it.

Thanks,

**Jack Packwood, CIH**  
**Associate | Group Delta**  
Mobile: (951) 219-5302  
[jackp@groupdelta.com](mailto:jackp@groupdelta.com)



Calscience

7440 Lincoln Way Garden Grove CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT:

GROUP Delta Consultants  
ADDRESS: 9245 Activity Road Suite 103  
CITY: San Diego STATE: CA ZIP: 92126  
TEL: 658 826 1000 EMAIL: Matt@groupdelta.com

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ STANDARD

EDD

☐ COELT EDF ☐ OTHER

SPECIAL INSTRUCTIONS:



570-113837 Chain of Custody

# CHAIN-OF-CUSTODY RECORD

Date 10/1/22

Page 1 of 1

CLIENT PROJECT NAME / NO. Science Research Park		P O NO SD754
PROJECT CONTACT Matt Fagan		LAB CONTACT OR QUOTE NO:
GLOBAL ID:	LOG CODE:	SAMPLER(S): (PRINT) Sam Narveson

## REQUESTED ANALYSES

Please check box or fill in blank as needed

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT	Preserved		Unpreserved		TPH (g) <input type="checkbox"/> GRO	TPH (d) <input type="checkbox"/> DRO	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH C4-C12, C13-C22, C25-C46	BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>	VOCs (8260)	Oxygenates (8260)	Prep (6035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6		
		DATE	TIME			Field Filtered	Field Preserved																		
1	A-22-01 @ 2'	10/14	9:25	Soil	1			X																	
2	A-22-02 @ 2'	10/13	7:35		1			X																	
3	A-22-03 @ 2'	10/13	10:35		1			X																	
4	A-22-04 @ 2'	10/14	12:35		1			X																	
5	A-22-05 @ 2'	10/14	7:45		1			X																	
6	A-22-06 @ 2'	10/13	13:05		1			X																	
Relinquished by (Signature) Sam Narveson		Received by (Signature/Affiliation) William Rivera																							
Relinquished by (Signature) William Rivera		Received by (Signature/Affiliation) William Rivera																							
Relinquished by (Signature)		Received by (Signature/Affiliation)																							

1.2' / 1.0' SC11

## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-113837-2

Login Number: 113837

List Number: 1

Creator: Patel, Jayesh

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



## Environment Testing

### ANALYTICAL REPORT

Eurofins Calscience  
2841 Dow Avenue, Suite 100  
Tustin, CA 92780  
Tel: (714)895-5494

Laboratory Job ID: 570-113508-2

Client Project/Site: SD754/Science Research Park

For:

Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Attn: Matt Fagan

*Vik Patel*

Authorized for release by:

10/31/2022 12:02:59 PM

Vikas Patel, Project Manager I  
(714)895-5494

[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)

#### LINKS

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results through



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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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## Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-2

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-2

**Job ID: 570-113508-2**

**Laboratory: Eurofins Calscience**

## Narrative

**Job Narrative**  
**570-113508-2**

## Comments

No additional comments.

## Receipt

The samples were received on 10/14/2022 6:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.8° C.

## Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-2

**Client Sample ID: A-22-05-@15'**

**Lab Sample ID: 570-113508-12**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	1.24		0.500	0.0527	mg/L	1		6010B	TCLP
Lead	74.2		1.00	0.105	mg/L	1		6010B	STLC Citrate

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-2

## Method: SW846 6010B - Metals (ICP) - TCLP

Client Sample ID: A-22-05-@15'

Date Collected: 10/14/22 08:25

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-12

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1.24		0.500	0.0527	mg/L		10/26/22 05:40	10/27/22 15:24	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-2

## Method: SW846 6010B - Metals (ICP) - STLC Citrate

Client Sample ID: A-22-05-@15'

Date Collected: 10/14/22 08:25

Date Received: 10/14/22 18:30

Lab Sample ID: 570-113508-12

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	74.2		1.00	0.105	mg/L		10/27/22 14:47	10/28/22 08:11	1

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-2

## Method: 6010B - Metals (ICP)

Lab Sample ID: LB 570-275422/1-B

Matrix: Solid

Analysis Batch: 276481

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 275835

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.500	0.0527	mg/L		10/26/22 05:40	10/27/22 14:53	1

Lab Sample ID: LCS 570-275422/2-B

Matrix: Solid

Analysis Batch: 276481

Client Sample ID: Lab Control Sample

Prep Type: TCLP

Prep Batch: 275835

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	2.00	1.893		mg/L		95	80 - 120

Lab Sample ID: LCSD 570-275422/3-B

Matrix: Solid

Analysis Batch: 276481

Client Sample ID: Lab Control Sample Dup

Prep Type: TCLP

Prep Batch: 275835

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	2.00	1.891		mg/L		95	80 - 120	0	20

Lab Sample ID: LB4 570-275442/1-B

Matrix: Solid

Analysis Batch: 276773

Client Sample ID: Method Blank

Prep Type: STLC Citrate

Prep Batch: 276427

Analyte	LB4 Result	LB4 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.00	0.105	mg/L		10/27/22 14:47	10/28/22 07:55	1

Lab Sample ID: LCS 570-275442/2-B

Matrix: Solid

Analysis Batch: 276773

Client Sample ID: Lab Control Sample

Prep Type: STLC Citrate

Prep Batch: 276427

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	20.0	22.74		mg/L		114	80 - 120

Lab Sample ID: LCSD 570-275442/3-B

Matrix: Solid

Analysis Batch: 276773

Client Sample ID: Lab Control Sample Dup

Prep Type: STLC Citrate

Prep Batch: 276427

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	20.0	23.34		mg/L		117	80 - 120	3	20

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-2

## Metals

### Leach Batch: 275422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-12	A-22-05-@15'	TCLP	Solid	1311	
LB 570-275422/1-B	Method Blank	TCLP	Solid	1311	
LCS 570-275422/2-B	Lab Control Sample	TCLP	Solid	1311	
LCSD 570-275422/3-B	Lab Control Sample Dup	TCLP	Solid	1311	

### Leach Batch: 275442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-12	A-22-05-@15'	STLC Citrate	Solid	CA WET Citrate	
LB4 570-275442/1-B	Method Blank	STLC Citrate	Solid	CA WET Citrate	
LCS 570-275442/2-B	Lab Control Sample	STLC Citrate	Solid	CA WET Citrate	
LCSD 570-275442/3-B	Lab Control Sample Dup	STLC Citrate	Solid	CA WET Citrate	

### Prep Batch: 275835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-12	A-22-05-@15'	TCLP	Solid	3010A	275422
LB 570-275422/1-B	Method Blank	TCLP	Solid	3010A	275422
LCS 570-275422/2-B	Lab Control Sample	TCLP	Solid	3010A	275422
LCSD 570-275422/3-B	Lab Control Sample Dup	TCLP	Solid	3010A	275422

### Prep Batch: 276427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-12	A-22-05-@15'	STLC Citrate	Solid	Dilution	275442
LB4 570-275442/1-B	Method Blank	STLC Citrate	Solid	Dilution	275442
LCS 570-275442/2-B	Lab Control Sample	STLC Citrate	Solid	Dilution	275442
LCSD 570-275442/3-B	Lab Control Sample Dup	STLC Citrate	Solid	Dilution	275442

### Analysis Batch: 276481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-12	A-22-05-@15'	TCLP	Solid	6010B	275835
LB 570-275422/1-B	Method Blank	TCLP	Solid	6010B	275835
LCS 570-275422/2-B	Lab Control Sample	TCLP	Solid	6010B	275835
LCSD 570-275422/3-B	Lab Control Sample Dup	TCLP	Solid	6010B	275835

### Analysis Batch: 276773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-113508-12	A-22-05-@15'	STLC Citrate	Solid	6010B	276427
LB4 570-275442/1-B	Method Blank	STLC Citrate	Solid	6010B	276427
LCS 570-275442/2-B	Lab Control Sample	STLC Citrate	Solid	6010B	276427
LCSD 570-275442/3-B	Lab Control Sample Dup	STLC Citrate	Solid	6010B	276427

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-2

**Client Sample ID: A-22-05-@15'**

**Lab Sample ID: 570-113508-12**

**Date Collected: 10/14/22 08:25**

**Matrix: Solid**

**Date Received: 10/14/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.03 g	500 mL	275442	10/25/22 02:58	XBO9	EET CAL 4
STLC Citrate	Prep	Dilution			2.5 mL	50 mL	276427	10/27/22 14:47	W1BQ	EET CAL 4
STLC Citrate	Analysis	6010B		1			276773	10/28/22 08:11	K1UV	EET CAL 4
		Instrument ID: ICP11								
TCLP	Leach	1311			100.04 g	2000 mL	275422	10/24/22 21:24	XBO9	EET CAL 4
TCLP	Prep	3010A			5 mL	50 mL	275835	10/26/22 05:40	XBO9	EET CAL 4
TCLP	Analysis	6010B		1			276481	10/27/22 15:24	C0YH	EET CAL 4
		Instrument ID: ICP10								

<sup>1</sup> Completion dates and times are reported or not reported per method requirements or individual lab discretion.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494



## Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-2

### Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

1

2

3

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# Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	EET CAL 4
1311	TCLP Extraction	SW846	EET CAL 4
3010A	Preparation, Total Metals	SW846	EET CAL 4
CA WET Citrate	California - Waste Extraction Test with Citrate Leach	CA-WET	EET CAL 4
Dilution	Preparation / Dilution Process	None	EET CAL 4

## Protocol References:

CA-WET = California Waste Extraction Test, from Title 22

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

## Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: SD754/Science Research Park

Job ID: 570-113508-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-113508-12	A-22-05-@15'	Solid	10/14/22 08:25	10/14/22 18:30

1

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14

## Patel, Vikas

---

**From:** Jack Packwood <jackp@groupdelta.com>  
**Sent:** Monday, October 24, 2022 11:28 AM  
**To:** Patel, Vikas; Accounts Payable (Group Delta); Matt Fagan  
**Subject:** RE: Eurofins Calscience invoice files from 570-113508-1 SD754/Science Research Park  
**Attachments:** J113508-1 UDS Level 2 Report Final Report.pdf

**Importance:** High

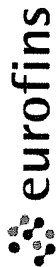
Vikas,

Can you please run STLC and TCLP on **A-22-05-@15** for lead. Please rush it.

Second, when do you anticipate the report 570-113837 to be complete?

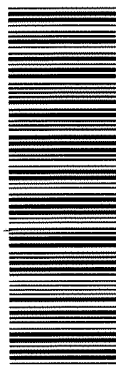
Thanks,

**Jack Packwood, CIH**  
**Associate | Group Delta**  
Mobile: (951) 219-5302  
[jackp@groupdelta.com](mailto:jackp@groupdelta.com)



Calscience

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570-113508 Chain of Custody

# CHAIN-OF-CUSTODY RECORD

Date 10/13/22  
Page 1 of 3

LABORATORY CLIENT:	
Group Delta	
ADDRESS	9245 Activity Rd CA 92126
CITY:	San Diego
STATE:	
ZIP:	
TEL:	858 536 1000
E-MAIL:	Matth@groupdelta.com
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):	
<input type="checkbox"/> SAME DAY	<input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input checked="" type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input type="checkbox"/> STANDARD
EDD	
<input type="checkbox"/> COELT EDF	<input type="checkbox"/> OTHER

CLIENT PROJECT NAME / NO	SD754 / science Research Park
PROJECT CONTACT	Math Fagen
GLOBAL ID:	
LOG CODE:	
SAMPLER(S): (PRINT)	Samuel Nareson
Loc: 570	113508
LAB CONTACT OR QUOTE NO:	

REQUESTED ANALYSES	
Please check box or fill in blank as needed	

SPECIAL INSTRUCTIONS:																											
LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO OF CONT	Unpreserved	Preserved	Field Filtered	<input type="checkbox"/> TPH(g) <input type="checkbox"/> GRO	<input type="checkbox"/> TPH(d) <input type="checkbox"/> DRO	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH <u>A-C12, C13-C22, C23-C46</u>	BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/> _____	VOCs (8260)	Oxygenates (8260)	Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 <input checked="" type="checkbox"/> 8270 SIM	T22 Metals <input checked="" type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X <u>+ Mercury</u>	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6					
		DATE	TIME																								
1	A-22-01 @ 5'	10/13/22	7:45	Soil	1	/						/															
2	A-22-02 @ 5'	10/13/22	8:10	/	1	/						/															
3	A-22-02 @ 10'	10/13/22	8:20	/	1	/						/															
4	A-22-03 @ 5'	10/13/22	11:05	/	1	/						/															
5	A-22-03 @ 10'	10/13/22	11:15	/	1	/						/															
6	A-22-06 @ 5'	10/13/22	1:20	/	1	/						/															
7	A-22-06 @ 10'	10/13/22	1:40	/	1	/						/															
8	A-22-06 @ 15'	10/13/22	1:50	/	1	/						/															
9	A-22-06 @ 20'	10/13/22	2:00	/	1	/						/															

Relinquished by: (Signature)	William Rivera	Received by: (Signature/Affiliation)	William Rivera	Date:	10/14/22	Time:	1510
Relinquished by: (Signature)	William Rivera	Received by: (Signature/Affiliation)	William Rivera	Date:	10/14/22	Time:	1830
Relinquished by: (Signature)		Received by: (Signature/Affiliation)		Date:		Time:	

4.0 / 3.8 / 5.01



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Calscience

7440 Lincoln Way Garden Grove CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT:

ADDRESS: **GROUP DELTA**  
**9245 ACTIVITY RD CA 92126**  
CITY: **SAN DIEGO** STATE: **CA** ZIP: **92126**  
TEL: **858 536 1000** E-MAIL: **MATTF@GROUPDELTA.COM**  
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):  
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☒ 72 HR ☐ 5 DAYS ☐ STANDARD  
EDO  
☐ COELT EDF ☐ OTHER

SPECIAL INSTRUCTIONS:

# CHAIN-OF-CUSTODY RECORD

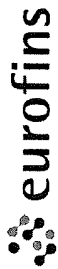
WFO NO. / LAB USE ONLY  
Date **10/14/22**  
Page **2** of **3**

CLIENT PROJECT NAME / NO. **SD754 / SCIENCE RESEARCH PARK**  
P O NO  
PROJECT CONTACT: **MATT FAGEN**  
LAB CONTACT OR QUOTE NO.  
GLOBAL ID:  
LOG CODE:  
SAMPLER(S): (PRINT) **SAMUEL HARVESON**

REQUESTED ANALYSES  
Please check box or fill in blank as needed

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT	Field Filtered		TPH (g) □ GRO	TPH (d) □ DRO	TPH □ C6-C36 □ C6-C44	TPH <b>C4-C12, C13-C14, C23-C46</b>	BTEX / MTBE □ 8260 □	VOCs (8260)	Oxygenates (8260)	Prep (5035) □ En Core □ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs □ 8270 □ 8270 SIM	T22 Metals <b>+ Mercury</b> 6010/747X □ 6020/747X	Cr(VI) □ 7196 □ 7199 □ 218.6
		DATE	TIME			Unpreserved	Preserved														
10	A-22-05 @ 5'	10/14/22	8:00	SOIL	1	/					/								/		
11	A-22-05 @ 10'	10/14/22	8:15	SOIL	1	/					/								/		
12	A-22-05 @ 15'	10/14/22	8:25	SOIL	1	/					/								/		
13	A-22-05 @ 20'	10/14/22	8:35	SOIL	1	/					/								/		
14	A-22-05 @ 25'	10/14/22	8:45	SOIL	1	/					/								/		
15	A-22-05 @ 30'	10/14/22	9:10	SOIL	1	/					/								/		
16	A-22-05 @ 35'	10/14/22	9:25	SOIL	1	/					/								/		
	A-22- @	10/14/22		SOIL	1	/					/								/		
	A-22- @	10/14/22		SOIL	1	/					/								/		
	A-22- @	10/14/22		SOIL	1	/					/								/		
	A-22- @	10/14/22		SOIL	1	/					/								/		

Relinquished by: (Signature) *[Signature]* Received by: (Signature/Affiliation) **William Rivera** Date: **10/14/22** Time: **1510**  
Relinquished by: (Signature) **William Rivera** Received by: (Signature/Affiliation) Date: **10/14/22** Time: **1830**  
Relinquished by: (Signature) Received by: (Signature/Affiliation) Date: Time:



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# CHAIN-OF-CUSTODY RECORD

Date 10/14/22  
Page 3 of 3

WO NO. / LAB USE ONLY

LABORATORY CLIENT: <b>GROUP DELTA</b>		CLIENT PROJECT NAME / NO. <b>SD764 / SCIENCE RESEARCH PARK</b>		P O NO.																																																																																																																																																																																																		
ADDRESS: <b>9245 ACTIVITY RD CA</b>		PROJECT CONTACT: <b>MATT FAGEN</b>		LAB CONTACT OR QUOTE NO.																																																																																																																																																																																																		
CITY: <b>SAN DIEGO</b>	STATE: <b>CA</b>	GLOBAL ID:		LOG CODE:																																																																																																																																																																																																		
TEL: <b>858 536 1000</b>	E-MAIL: <b>MATTF@GROUPDELTA.COM</b>	ZIP: <b>92126</b>		SAMPLER(S): (PRINT) <b>SAMUEL NARVESON</b>																																																																																																																																																																																																		
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"): <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input checked="" type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input type="checkbox"/> STANDARD																																																																																																																																																																																																						
EOD <input type="checkbox"/> COELT EDF <input type="checkbox"/> OTHER																																																																																																																																																																																																						
SPECIAL INSTRUCTIONS:																																																																																																																																																																																																						
REQUESTED ANALYSES Please check box or fill in blank as needed.																																																																																																																																																																																																						
<table><thead><tr><th rowspan="2">LAB USE ONLY</th><th rowspan="2">SAMPLE ID</th><th colspan="2">SAMPLING</th><th rowspan="2">MATRIX</th><th rowspan="2">NO OF CONT</th><th rowspan="2">Unpreserved</th><th rowspan="2">Preserved</th><th rowspan="2">Field Filtered</th><th rowspan="2">TPH (g) <input type="checkbox"/> GRO</th><th rowspan="2">TPH (d) <input type="checkbox"/> DRO</th><th rowspan="2">TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44</th><th rowspan="2">TPH <input type="checkbox"/> C6-C12, C13-C22, C23-C46</th><th rowspan="2">BTEX / MTBE <input type="checkbox"/> B260 <input type="checkbox"/></th><th rowspan="2">VOCs (B260)</th><th rowspan="2">Oxygenates (B280)</th><th rowspan="2">Prep (B035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core</th><th rowspan="2">SVOCs (B270)</th><th rowspan="2">Pesticides (B081)</th><th rowspan="2">PCBs (B082)</th><th rowspan="2">PAHs <input checked="" type="checkbox"/> B270 SIM</th><th rowspan="2">T22 Metals <input checked="" type="checkbox"/> B010/47X <input checked="" type="checkbox"/> B020/47X</th><th rowspan="2">Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6</th></tr><tr><th>DATE</th><th>TIME</th></tr></thead><tbody><tr><td>1</td><td>A-22-04 @ 5'</td><td>10/14/22</td><td>12:50</td><td>SOIL</td><td>1</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td></tr><tr><td>18</td><td>A-22-04 @ 10'</td><td>10/14/22</td><td>1:00</td><td>SOIL</td><td>1</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td></tr><tr><td>19</td><td>A-22-04 @ 15'</td><td>10/14/22</td><td>1:10</td><td>SOIL</td><td>1</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td></tr><tr><td>20</td><td>A-22-04 @ 20'</td><td>10/14/22</td><td>1:18</td><td>SOIL</td><td>1</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td></tr><tr><td>21</td><td>A-22-04 @ 25'</td><td>10/14/22</td><td>1:31</td><td>SOIL</td><td>1</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td></tr><tr><td>22</td><td>A-22-04 @ 30'</td><td>10/14/22</td><td>1:46</td><td>SOIL</td><td>1</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td></tr><tr><td>23</td><td>A-22-04 @ 35'</td><td>10/14/22</td><td>2:02</td><td>SOIL</td><td>1</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td></tr></tbody></table>						LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO OF CONT	Unpreserved	Preserved	Field Filtered	TPH (g) <input type="checkbox"/> GRO	TPH (d) <input type="checkbox"/> DRO	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH <input type="checkbox"/> C6-C12, C13-C22, C23-C46	BTEX / MTBE <input type="checkbox"/> B260 <input type="checkbox"/>	VOCs (B260)	Oxygenates (B280)	Prep (B035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	SVOCs (B270)	Pesticides (B081)	PCBs (B082)	PAHs <input checked="" type="checkbox"/> B270 SIM	T22 Metals <input checked="" type="checkbox"/> B010/47X <input checked="" type="checkbox"/> B020/47X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6	DATE	TIME	1	A-22-04 @ 5'	10/14/22	12:50	SOIL	1	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	18	A-22-04 @ 10'	10/14/22	1:00	SOIL	1	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	19	A-22-04 @ 15'	10/14/22	1:10	SOIL	1	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	20	A-22-04 @ 20'	10/14/22	1:18	SOIL	1	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	21	A-22-04 @ 25'	10/14/22	1:31	SOIL	1	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	22	A-22-04 @ 30'	10/14/22	1:46	SOIL	1	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	23	A-22-04 @ 35'	10/14/22	2:02	SOIL	1	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
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Relinquished by (Signature) <i>[Signature]</i>		Received by (Signature/Affiliation) <b>William Rivera</b>		Date: <b>10/14/22</b>		Time: <b>1510</b>																																																																																																																																																																																																
Relinquished by (Signature) <b>William Rivera</b>		Received by (Signature/Affiliation) <i>[Signature]</i>		Date: <b>10/14/22</b>		Time: <b>1830</b>																																																																																																																																																																																																
Relinquished by (Signature)		Received by (Signature/Affiliation)		Date:		Time:																																																																																																																																																																																																

## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-113508-2

**Login Number: 113508**

**List Source: Eurofins Calscience**

**List Number: 1**

**Creator: Ortiz-Luis, Michael**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





# ANALYTICAL REPORT

## PREPARED FOR

Attn: Matt Fagan  
Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Generated 12/20/2022 3:38:33 PM

## JOB DESCRIPTION

UCSD Science Research Park (SD754)

## JOB NUMBER

570-120610-1

# Eurofins Calscience

## Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

## Authorization



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## Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

### Qualifiers

#### GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

## Job ID: 570-120610-1

### Laboratory: Eurofins Calscience

#### Narrative

#### Job Narrative 570-120610-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 12/12/2022 6:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.7° C.

#### GC VOA

Method 8015B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Gasoline Range Organics (C4-C13) for preparation batch 570-288913 and analytical batch 570-288885 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Metals

Method 6010B: The method blank for preparation batch 570-289211 and analytical batch 570-289520 contained Chromium above the method detection limit. This target analyte concentration was less than the reporting limit (RL) or greater than 10X the value found in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6010B: The serial dilution performed for the following sample associated with batch 570-289520 was outside control limits for Barium, Chromium and Vanadium: (570-120854-B-1-B SD ^25)

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Barium, Antimony, Vanadium and Zinc for preparation batch 570-289211 and analytical batch 570-289520 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6010B: The post digestion spike % recovery for Barium and Antimony associated with batch 570-289520 was outside of control limits.

Method 6010B: The continuing calibration blank (CCB) for 570-289520 contained Potassium above the method detection limit (MDL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed. (CCB 570-289520/41)

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Antimony for preparation batch 570-289212 and analytical batch 570-289910 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 7471A: The following samples were diluted due to the nature of the sample matrix: B-13@2.5' (570-120610-2), B-14@2.5' (570-120610-3), B-15@2.5' (570-120610-4), B-16@2.5' (570-120610-5), B-16@5' (570-120610-6), B-17@2.5' (570-120610-7), B-17@5' (570-120610-8), B-17@10' (570-120610-9), B-17@15' (570-120610-10) and B-19@2.5' (570-120610-11). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### VOA Prep

## Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

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### Job ID: 570-120610-1 (Continued)

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#### Laboratory: Eurofins Calscience (Continued)

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

## Client Sample ID: B-12@2.5'

## Lab Sample ID: 570-120610-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	9.9		5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	35.1		3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	157		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.425	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	3.15		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	12.0	B	1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	9.38		2.00	0.958	mg/Kg	5		6010B	Total/NA
Nickel	4.71		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	48.6		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	27.7		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	21.0		2.00	0.409	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-13@2.5'

## Lab Sample ID: 570-120610-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	38		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	6.59		3.05	1.41	mg/Kg	5		6010B	Total/NA
Barium	62.2		3.05	0.144	mg/Kg	5		6010B	Total/NA
Beryllium	0.330	J	0.508	0.0701	mg/Kg	5		6010B	Total/NA
Cobalt	4.16		1.02	0.209	mg/Kg	5		6010B	Total/NA
Chromium	16.2	B	1.02	0.189	mg/Kg	5		6010B	Total/NA
Copper	14.9		2.03	0.973	mg/Kg	5		6010B	Total/NA
Molybdenum	0.723	J	2.03	0.523	mg/Kg	5		6010B	Total/NA
Nickel	5.44		2.03	0.368	mg/Kg	5		6010B	Total/NA
Vanadium	24.4		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	36.6		5.08	1.17	mg/Kg	5		6010B	Total/NA
Lead	51.3		2.03	0.415	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-14@2.5'

## Lab Sample ID: 570-120610-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	4.1	J	5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	7.40		3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	99.8		3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.328	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Cobalt	3.84		1.01	0.208	mg/Kg	5		6010B	Total/NA
Chromium	9.53		1.01	0.188	mg/Kg	5		6010B	Total/NA
Copper	5.34		2.02	0.968	mg/Kg	5		6010B	Total/NA
Nickel	3.89		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	25.5		1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	17.3		5.05	1.17	mg/Kg	5		6010B	Total/NA
Lead	7.17		2.02	0.413	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-15@2.5'

## Lab Sample ID: 570-120610-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22 - RA	12		4.9	3.8	mg/Kg	1		8015B	Total/NA
C23-C40 - RA	260		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	4.33		3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	41.9		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.200	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	1.93		1.00	0.206	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

## Client Sample ID: B-15@2.5' (Continued)

## Lab Sample ID: 570-120610-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	9.34		1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	10.3		2.00	0.958	mg/Kg	5		6010B	Total/NA
Nickel	3.20		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	12.3		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	18.4		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	10.7		2.00	0.409	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-16@2.5'

## Lab Sample ID: 570-120610-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	4.3	J	4.8	3.7	mg/Kg	1		8015B	Total/NA
Arsenic	8.55		3.05	1.41	mg/Kg	5		6010B	Total/NA
Barium	103		3.05	0.144	mg/Kg	5		6010B	Total/NA
Beryllium	0.279	J	0.508	0.0701	mg/Kg	5		6010B	Total/NA
Cobalt	2.77		1.02	0.209	mg/Kg	5		6010B	Total/NA
Chromium	6.68		1.02	0.189	mg/Kg	5		6010B	Total/NA
Copper	4.10		2.03	0.973	mg/Kg	5		6010B	Total/NA
Nickel	3.27		2.03	0.368	mg/Kg	5		6010B	Total/NA
Vanadium	17.0		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	21.6		5.08	1.17	mg/Kg	5		6010B	Total/NA
Lead	4.64		2.03	0.415	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-16@5'

## Lab Sample ID: 570-120610-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	6.0		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	5.67		3.05	1.41	mg/Kg	5		6010B	Total/NA
Barium	87.8		3.05	0.144	mg/Kg	5		6010B	Total/NA
Beryllium	0.254	J	0.508	0.0701	mg/Kg	5		6010B	Total/NA
Cobalt	3.45		1.02	0.209	mg/Kg	5		6010B	Total/NA
Chromium	8.67		1.02	0.189	mg/Kg	5		6010B	Total/NA
Copper	120		2.03	0.973	mg/Kg	5		6010B	Total/NA
Nickel	3.85		2.03	0.368	mg/Kg	5		6010B	Total/NA
Vanadium	22.6		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	76.6		5.08	1.17	mg/Kg	5		6010B	Total/NA
Lead	54.0		2.03	0.415	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-17@2.5'

## Lab Sample ID: 570-120610-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.25		3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	92.6		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.338	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	3.59		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	6.99		1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	4.10		2.00	0.958	mg/Kg	5		6010B	Total/NA
Nickel	3.51		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	17.8		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	22.3		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	5.23		2.00	0.409	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

## Client Sample ID: B-17@5'

## Lab Sample ID: 570-120610-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.93		2.97	1.38	mg/Kg	5		6010B	Total/NA
Barium	93.8		2.97	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.297	J	0.495	0.0683	mg/Kg	5		6010B	Total/NA
Cobalt	4.11		0.990	0.204	mg/Kg	5		6010B	Total/NA
Chromium	7.10		0.990	0.184	mg/Kg	5		6010B	Total/NA
Copper	23.6		1.98	0.949	mg/Kg	5		6010B	Total/NA
Nickel	3.61		1.98	0.358	mg/Kg	5		6010B	Total/NA
Vanadium	17.8		0.990	0.166	mg/Kg	5		6010B	Total/NA
Zinc	26.9		4.95	1.14	mg/Kg	5		6010B	Total/NA
Lead	20.8		1.98	0.405	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-17@10'

## Lab Sample ID: 570-120610-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	42.6		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	172		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.969		0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	3.58		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	7.28		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	9.31		2.04	0.978	mg/Kg	5		6010B	Total/NA
Molybdenum	0.548	J	2.04	0.526	mg/Kg	5		6010B	Total/NA
Nickel	4.25		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	43.0		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	29.6		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	8.69		2.04	0.417	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-17@15'

## Lab Sample ID: 570-120610-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	12.7		3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	150		3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.316	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Cobalt	3.47		1.01	0.208	mg/Kg	5		6010B	Total/NA
Chromium	7.47		1.01	0.188	mg/Kg	5		6010B	Total/NA
Copper	9.52		2.02	0.968	mg/Kg	5		6010B	Total/NA
Nickel	3.61		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	19.5		1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	23.0		5.05	1.17	mg/Kg	5		6010B	Total/NA
Lead	14.6		2.02	0.413	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-19@2.5'

## Lab Sample ID: 570-120610-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	6.84		3.05	1.41	mg/Kg	5		6010B	Total/NA
Barium	94.7		3.05	0.144	mg/Kg	5		6010B	Total/NA
Beryllium	0.254	J	0.508	0.0701	mg/Kg	5		6010B	Total/NA
Cobalt	2.78		1.02	0.209	mg/Kg	5		6010B	Total/NA
Chromium	7.39		1.02	0.189	mg/Kg	5		6010B	Total/NA
Copper	4.16		2.03	0.973	mg/Kg	5		6010B	Total/NA
Nickel	2.97		2.03	0.368	mg/Kg	5		6010B	Total/NA
Vanadium	17.7		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	18.8		5.08	1.17	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

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## Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

**Client Sample ID: B-19@2.5' (Continued)**

**Lab Sample ID: 570-120610-11**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	6.54		2.03	0.415	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-12@2.5'**  
**Date Collected: 12/12/22 08:13**  
**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-1**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/14/22 12:39	12/14/22 16:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		42 - 126				12/14/22 12:39	12/14/22 16:41	1

**Client Sample ID: B-13@2.5'**  
**Date Collected: 12/12/22 08:50**  
**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-2**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/14/22 12:39	12/14/22 17:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		42 - 126				12/14/22 12:39	12/14/22 17:06	1

**Client Sample ID: B-14@2.5'**  
**Date Collected: 12/12/22 10:00**  
**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-3**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/14/22 12:39	12/14/22 17:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		42 - 126				12/14/22 12:39	12/14/22 17:32	1

**Client Sample ID: B-15@2.5'**  
**Date Collected: 12/12/22 10:55**  
**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-4**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/14/22 12:39	12/14/22 17:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		42 - 126				12/14/22 12:39	12/14/22 17:57	1

**Client Sample ID: B-16@2.5'**  
**Date Collected: 12/12/22 11:47**  
**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-5**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/15/22 10:36	12/15/22 12:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		42 - 126				12/15/22 10:36	12/15/22 12:41	1

**Client Sample ID: B-16@5'**  
**Date Collected: 12/12/22 11:55**  
**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-6**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/15/22 10:36	12/15/22 14:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		42 - 126				12/15/22 10:36	12/15/22 14:31	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-17@2.5'**  
**Date Collected: 12/12/22 12:53**  
**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-7**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/15/22 10:36	12/15/22 14:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		42 - 126				12/15/22 10:36	12/15/22 14:57	1

**Client Sample ID: B-17@5'**  
**Date Collected: 12/12/22 13:00**  
**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-8**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/15/22 10:36	12/15/22 15:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		42 - 126				12/15/22 10:36	12/15/22 15:22	1

**Client Sample ID: B-17@10'**  
**Date Collected: 12/12/22 13:08**  
**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-9**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/15/22 10:36	12/15/22 15:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		42 - 126				12/15/22 10:36	12/15/22 15:48	1

**Client Sample ID: B-17@15'**  
**Date Collected: 12/12/22 13:16**  
**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-10**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/15/22 10:36	12/15/22 16:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		42 - 126				12/15/22 10:36	12/15/22 16:13	1

**Client Sample ID: B-19@2.5'**  
**Date Collected: 12/12/22 14:25**  
**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-11**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/15/22 10:36	12/15/22 16:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		42 - 126				12/15/22 10:36	12/15/22 16:39	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B-12@2.5'  
Date Collected: 12/12/22 08:13  
Date Received: 12/12/22 18:30

Lab Sample ID: 570-120610-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.9	mg/Kg		12/14/22 12:50	12/15/22 01:06	1
C23-C40	9.9		5.0	3.9	mg/Kg		12/14/22 12:50	12/15/22 01:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	84		60 - 138				12/14/22 12:50	12/15/22 01:06	1

Client Sample ID: B-13@2.5'  
Date Collected: 12/12/22 08:50  
Date Received: 12/12/22 18:30

Lab Sample ID: 570-120610-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		12/14/22 12:50	12/15/22 01:28	1
C23-C40	38		4.9	3.8	mg/Kg		12/14/22 12:50	12/15/22 01:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	96		60 - 138				12/14/22 12:50	12/15/22 01:28	1

Client Sample ID: B-14@2.5'  
Date Collected: 12/12/22 10:00  
Date Received: 12/12/22 18:30

Lab Sample ID: 570-120610-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/14/22 12:50	12/15/22 01:49	1
C23-C40	4.1 J		5.0	3.8	mg/Kg		12/14/22 12:50	12/15/22 01:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	108		60 - 138				12/14/22 12:50	12/15/22 01:49	1

Client Sample ID: B-16@2.5'  
Date Collected: 12/12/22 11:47  
Date Received: 12/12/22 18:30

Lab Sample ID: 570-120610-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.8	3.7	mg/Kg		12/14/22 12:50	12/15/22 02:55	1
C23-C40	4.3 J		4.8	3.7	mg/Kg		12/14/22 12:50	12/15/22 02:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	107		60 - 138				12/14/22 12:50	12/15/22 02:55	1

Client Sample ID: B-16@5'  
Date Collected: 12/12/22 11:55  
Date Received: 12/12/22 18:30

Lab Sample ID: 570-120610-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		12/14/22 12:50	12/15/22 03:17	1
C23-C40	6.0		4.9	3.8	mg/Kg		12/14/22 12:50	12/15/22 03:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	96		60 - 138				12/14/22 12:50	12/15/22 03:17	1

Client Sample ID: B-17@2.5'  
Date Collected: 12/12/22 12:53  
Date Received: 12/12/22 18:30

Lab Sample ID: 570-120610-7  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/14/22 12:50	12/15/22 03:38	1
C23-C40	ND		5.0	3.8	mg/Kg		12/14/22 12:50	12/15/22 03:38	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC) - RA

Client Sample ID: B-15@2.5'  
Date Collected: 12/12/22 10:55  
Date Received: 12/12/22 18:30

Lab Sample ID: 570-120610-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	12		4.9	3.8	mg/Kg		12/14/22 12:50	12/15/22 12:57	1
C23-C40	260		4.9	3.8	mg/Kg		12/14/22 12:50	12/15/22 12:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	116		60 - 138				12/14/22 12:50	12/15/22 12:57	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-12@2.5'  
Date Collected: 12/12/22 08:13  
Date Received: 12/12/22 18:30

Lab Sample ID: 570-120610-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/15/22 06:22	12/15/22 17:43	5
Arsenic	35.1		3.00	1.39	mg/Kg		12/15/22 06:22	12/15/22 17:43	5
Barium	157		3.00	0.142	mg/Kg		12/15/22 06:22	12/15/22 17:43	5
Beryllium	0.425	J	0.500	0.0690	mg/Kg		12/15/22 06:22	12/15/22 17:43	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/15/22 06:22	12/15/22 17:43	5
Cobalt	3.15		1.00	0.206	mg/Kg		12/15/22 06:22	12/15/22 17:43	5
Chromium	12.0	B	1.00	0.186	mg/Kg		12/15/22 06:22	12/15/22 17:43	5
Copper	9.38		2.00	0.958	mg/Kg		12/15/22 06:22	12/15/22 17:43	5
Molybdenum	ND		2.00	0.515	mg/Kg		12/15/22 06:22	12/15/22 17:43	5
Nickel	4.71		2.00	0.362	mg/Kg		12/15/22 06:22	12/15/22 17:43	5
Antimony	ND		10.0	2.86	mg/Kg		12/15/22 06:22	12/15/22 17:43	5
Selenium	ND		3.00	1.22	mg/Kg		12/15/22 06:22	12/15/22 17:43	5
Thallium	ND		10.0	2.11	mg/Kg		12/15/22 06:22	12/15/22 17:43	5
Vanadium	48.6		1.00	0.168	mg/Kg		12/15/22 06:22	12/15/22 17:43	5
Zinc	27.7		5.00	1.16	mg/Kg		12/15/22 06:22	12/15/22 17:43	5
Lead	21.0		2.00	0.409	mg/Kg		12/15/22 06:22	12/15/22 17:43	5

Client Sample ID: B-13@2.5'  
Date Collected: 12/12/22 08:50  
Date Received: 12/12/22 18:30

Lab Sample ID: 570-120610-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.146	mg/Kg		12/15/22 06:22	12/15/22 17:53	5
Arsenic	6.59		3.05	1.41	mg/Kg		12/15/22 06:22	12/15/22 17:53	5
Barium	62.2		3.05	0.144	mg/Kg		12/15/22 06:22	12/15/22 17:53	5
Beryllium	0.330	J	0.508	0.0701	mg/Kg		12/15/22 06:22	12/15/22 17:53	5
Cadmium	ND		0.508	0.0843	mg/Kg		12/15/22 06:22	12/15/22 17:53	5
Cobalt	4.16		1.02	0.209	mg/Kg		12/15/22 06:22	12/15/22 17:53	5
Chromium	16.2	B	1.02	0.189	mg/Kg		12/15/22 06:22	12/15/22 17:53	5
Copper	14.9		2.03	0.973	mg/Kg		12/15/22 06:22	12/15/22 17:53	5
Molybdenum	0.723	J	2.03	0.523	mg/Kg		12/15/22 06:22	12/15/22 17:53	5
Nickel	5.44		2.03	0.368	mg/Kg		12/15/22 06:22	12/15/22 17:53	5
Antimony	ND		10.2	2.90	mg/Kg		12/15/22 06:22	12/15/22 17:53	5
Selenium	ND		3.05	1.24	mg/Kg		12/15/22 06:22	12/15/22 17:53	5
Thallium	ND		10.2	2.14	mg/Kg		12/15/22 06:22	12/15/22 17:53	5
Vanadium	24.4		1.02	0.171	mg/Kg		12/15/22 06:22	12/15/22 17:53	5
Zinc	36.6		5.08	1.17	mg/Kg		12/15/22 06:22	12/15/22 17:53	5
Lead	51.3		2.03	0.415	mg/Kg		12/15/22 06:22	12/15/22 17:53	5

Client Sample ID: B-14@2.5'  
Date Collected: 12/12/22 10:00  
Date Received: 12/12/22 18:30

Lab Sample ID: 570-120610-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/15/22 06:31	12/16/22 22:20	5
Arsenic	7.40		3.03	1.41	mg/Kg		12/15/22 06:31	12/16/22 22:20	5
Barium	99.8		3.03	0.143	mg/Kg		12/15/22 06:31	12/16/22 22:20	5
Beryllium	0.328	J	0.505	0.0697	mg/Kg		12/15/22 06:31	12/16/22 22:20	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/15/22 06:31	12/16/22 22:20	5
Cobalt	3.84		1.01	0.208	mg/Kg		12/15/22 06:31	12/16/22 22:20	5
Chromium	9.53		1.01	0.188	mg/Kg		12/15/22 06:31	12/16/22 22:20	5
Copper	5.34		2.02	0.968	mg/Kg		12/15/22 06:31	12/16/22 22:20	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-14@2.5'  
Date Collected: 12/12/22 10:00  
Date Received: 12/12/22 18:30

Lab Sample ID: 570-120610-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		2.02	0.520	mg/Kg		12/15/22 06:31	12/16/22 22:20	5
Nickel	3.89		2.02	0.366	mg/Kg		12/15/22 06:31	12/16/22 22:20	5
Antimony	ND		10.1	2.89	mg/Kg		12/15/22 06:31	12/16/22 22:20	5
Selenium	ND		3.03	1.23	mg/Kg		12/15/22 06:31	12/16/22 22:20	5
Thallium	ND		10.1	2.13	mg/Kg		12/15/22 06:31	12/16/22 22:20	5
Vanadium	25.5		1.01	0.170	mg/Kg		12/15/22 06:31	12/16/22 22:20	5
Zinc	17.3		5.05	1.17	mg/Kg		12/15/22 06:31	12/16/22 22:20	5
Lead	7.17		2.02	0.413	mg/Kg		12/15/22 06:31	12/16/22 22:20	5

Client Sample ID: B-15@2.5'  
Date Collected: 12/12/22 10:55  
Date Received: 12/12/22 18:30

Lab Sample ID: 570-120610-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/15/22 06:31	12/16/22 22:22	5
Arsenic	4.33		3.00	1.39	mg/Kg		12/15/22 06:31	12/16/22 22:22	5
Barium	41.9		3.00	0.142	mg/Kg		12/15/22 06:31	12/16/22 22:22	5
Beryllium	0.200	J	0.500	0.0690	mg/Kg		12/15/22 06:31	12/16/22 22:22	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/15/22 06:31	12/16/22 22:22	5
Cobalt	1.93		1.00	0.206	mg/Kg		12/15/22 06:31	12/16/22 22:22	5
Chromium	9.34		1.00	0.186	mg/Kg		12/15/22 06:31	12/16/22 22:22	5
Copper	10.3		2.00	0.958	mg/Kg		12/15/22 06:31	12/16/22 22:22	5
Molybdenum	ND		2.00	0.515	mg/Kg		12/15/22 06:31	12/16/22 22:22	5
Nickel	3.20		2.00	0.362	mg/Kg		12/15/22 06:31	12/16/22 22:22	5
Antimony	ND		10.0	2.86	mg/Kg		12/15/22 06:31	12/16/22 22:22	5
Selenium	ND		3.00	1.22	mg/Kg		12/15/22 06:31	12/16/22 22:22	5
Thallium	ND		10.0	2.11	mg/Kg		12/15/22 06:31	12/16/22 22:22	5
Vanadium	12.3		1.00	0.168	mg/Kg		12/15/22 06:31	12/16/22 22:22	5
Zinc	18.4		5.00	1.16	mg/Kg		12/15/22 06:31	12/16/22 22:22	5
Lead	10.7		2.00	0.409	mg/Kg		12/15/22 06:31	12/16/22 22:22	5

Client Sample ID: B-16@2.5'  
Date Collected: 12/12/22 11:47  
Date Received: 12/12/22 18:30

Lab Sample ID: 570-120610-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.146	mg/Kg		12/15/22 06:31	12/16/22 22:25	5
Arsenic	8.55		3.05	1.41	mg/Kg		12/15/22 06:31	12/16/22 22:25	5
Barium	103		3.05	0.144	mg/Kg		12/15/22 06:31	12/16/22 22:25	5
Beryllium	0.279	J	0.508	0.0701	mg/Kg		12/15/22 06:31	12/16/22 22:25	5
Cadmium	ND		0.508	0.0843	mg/Kg		12/15/22 06:31	12/16/22 22:25	5
Cobalt	2.77		1.02	0.209	mg/Kg		12/15/22 06:31	12/16/22 22:25	5
Chromium	6.68		1.02	0.189	mg/Kg		12/15/22 06:31	12/16/22 22:25	5
Copper	4.10		2.03	0.973	mg/Kg		12/15/22 06:31	12/16/22 22:25	5
Molybdenum	ND		2.03	0.523	mg/Kg		12/15/22 06:31	12/16/22 22:25	5
Nickel	3.27		2.03	0.368	mg/Kg		12/15/22 06:31	12/16/22 22:25	5
Antimony	ND		10.2	2.90	mg/Kg		12/15/22 06:31	12/16/22 22:25	5
Selenium	ND		3.05	1.24	mg/Kg		12/15/22 06:31	12/16/22 22:25	5
Thallium	ND		10.2	2.14	mg/Kg		12/15/22 06:31	12/16/22 22:25	5
Vanadium	17.0		1.02	0.171	mg/Kg		12/15/22 06:31	12/16/22 22:25	5
Zinc	21.6		5.08	1.17	mg/Kg		12/15/22 06:31	12/16/22 22:25	5
Lead	4.64		2.03	0.415	mg/Kg		12/15/22 06:31	12/16/22 22:25	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-16@5'  
Date Collected: 12/12/22 11:55  
Date Received: 12/12/22 18:30

Lab Sample ID: 570-120610-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.146	mg/Kg		12/15/22 06:31	12/16/22 22:27	5
Arsenic	5.67		3.05	1.41	mg/Kg		12/15/22 06:31	12/16/22 22:27	5
Barium	87.8		3.05	0.144	mg/Kg		12/15/22 06:31	12/16/22 22:27	5
Beryllium	0.254	J	0.508	0.0701	mg/Kg		12/15/22 06:31	12/16/22 22:27	5
Cadmium	ND		0.508	0.0843	mg/Kg		12/15/22 06:31	12/16/22 22:27	5
Cobalt	3.45		1.02	0.209	mg/Kg		12/15/22 06:31	12/16/22 22:27	5
Chromium	8.67		1.02	0.189	mg/Kg		12/15/22 06:31	12/16/22 22:27	5
Copper	120		2.03	0.973	mg/Kg		12/15/22 06:31	12/16/22 22:27	5
Molybdenum	ND		2.03	0.523	mg/Kg		12/15/22 06:31	12/16/22 22:27	5
Nickel	3.85		2.03	0.368	mg/Kg		12/15/22 06:31	12/16/22 22:27	5
Antimony	ND		10.2	2.90	mg/Kg		12/15/22 06:31	12/16/22 22:27	5
Selenium	ND		3.05	1.24	mg/Kg		12/15/22 06:31	12/16/22 22:27	5
Thallium	ND		10.2	2.14	mg/Kg		12/15/22 06:31	12/16/22 22:27	5
Vanadium	22.6		1.02	0.171	mg/Kg		12/15/22 06:31	12/16/22 22:27	5
Zinc	76.6		5.08	1.17	mg/Kg		12/15/22 06:31	12/16/22 22:27	5
Lead	54.0		2.03	0.415	mg/Kg		12/15/22 06:31	12/16/22 22:27	5

Client Sample ID: B-17@2.5'  
Date Collected: 12/12/22 12:53  
Date Received: 12/12/22 18:30

Lab Sample ID: 570-120610-7  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/15/22 06:31	12/16/22 22:30	5
Arsenic	7.25		3.00	1.39	mg/Kg		12/15/22 06:31	12/16/22 22:30	5
Barium	92.6		3.00	0.142	mg/Kg		12/15/22 06:31	12/16/22 22:30	5
Beryllium	0.338	J	0.500	0.0690	mg/Kg		12/15/22 06:31	12/16/22 22:30	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/15/22 06:31	12/16/22 22:30	5
Cobalt	3.59		1.00	0.206	mg/Kg		12/15/22 06:31	12/16/22 22:30	5
Chromium	6.99		1.00	0.186	mg/Kg		12/15/22 06:31	12/16/22 22:30	5
Copper	4.10		2.00	0.958	mg/Kg		12/15/22 06:31	12/16/22 22:30	5
Molybdenum	ND		2.00	0.515	mg/Kg		12/15/22 06:31	12/16/22 22:30	5
Nickel	3.51		2.00	0.362	mg/Kg		12/15/22 06:31	12/16/22 22:30	5
Antimony	ND		10.0	2.86	mg/Kg		12/15/22 06:31	12/16/22 22:30	5
Selenium	ND		3.00	1.22	mg/Kg		12/15/22 06:31	12/16/22 22:30	5
Thallium	ND		10.0	2.11	mg/Kg		12/15/22 06:31	12/16/22 22:30	5
Vanadium	17.8		1.00	0.168	mg/Kg		12/15/22 06:31	12/16/22 22:30	5
Zinc	22.3		5.00	1.16	mg/Kg		12/15/22 06:31	12/16/22 22:30	5
Lead	5.23		2.00	0.409	mg/Kg		12/15/22 06:31	12/16/22 22:30	5

Client Sample ID: B-17@5'  
Date Collected: 12/12/22 13:00  
Date Received: 12/12/22 18:30

Lab Sample ID: 570-120610-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/15/22 06:31	12/16/22 22:32	5
Arsenic	5.93		2.97	1.38	mg/Kg		12/15/22 06:31	12/16/22 22:32	5
Barium	93.8		2.97	0.141	mg/Kg		12/15/22 06:31	12/16/22 22:32	5
Beryllium	0.297	J	0.495	0.0683	mg/Kg		12/15/22 06:31	12/16/22 22:32	5
Cadmium	ND		0.495	0.0822	mg/Kg		12/15/22 06:31	12/16/22 22:32	5
Cobalt	4.11		0.990	0.204	mg/Kg		12/15/22 06:31	12/16/22 22:32	5
Chromium	7.10		0.990	0.184	mg/Kg		12/15/22 06:31	12/16/22 22:32	5
Copper	23.6		1.98	0.949	mg/Kg		12/15/22 06:31	12/16/22 22:32	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-17@5'  
Date Collected: 12/12/22 13:00  
Date Received: 12/12/22 18:30

Lab Sample ID: 570-120610-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		1.98	0.510	mg/Kg		12/15/22 06:31	12/16/22 22:32	5
Nickel	3.61		1.98	0.358	mg/Kg		12/15/22 06:31	12/16/22 22:32	5
Antimony	ND		9.90	2.83	mg/Kg		12/15/22 06:31	12/16/22 22:32	5
Selenium	ND		2.97	1.21	mg/Kg		12/15/22 06:31	12/16/22 22:32	5
Thallium	ND		9.90	2.09	mg/Kg		12/15/22 06:31	12/16/22 22:32	5
Vanadium	17.8		0.990	0.166	mg/Kg		12/15/22 06:31	12/16/22 22:32	5
Zinc	26.9		4.95	1.14	mg/Kg		12/15/22 06:31	12/16/22 22:32	5
Lead	20.8		1.98	0.405	mg/Kg		12/15/22 06:31	12/16/22 22:32	5

Client Sample ID: B-17@10'  
Date Collected: 12/12/22 13:08  
Date Received: 12/12/22 18:30

Lab Sample ID: 570-120610-9  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/15/22 06:31	12/16/22 22:35	5
Arsenic	42.6		3.06	1.42	mg/Kg		12/15/22 06:31	12/16/22 22:35	5
Barium	172		3.06	0.145	mg/Kg		12/15/22 06:31	12/16/22 22:35	5
Beryllium	0.969		0.510	0.0704	mg/Kg		12/15/22 06:31	12/16/22 22:35	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/15/22 06:31	12/16/22 22:35	5
Cobalt	3.58		1.02	0.210	mg/Kg		12/15/22 06:31	12/16/22 22:35	5
Chromium	7.28		1.02	0.190	mg/Kg		12/15/22 06:31	12/16/22 22:35	5
Copper	9.31		2.04	0.978	mg/Kg		12/15/22 06:31	12/16/22 22:35	5
Molybdenum	0.548	J	2.04	0.526	mg/Kg		12/15/22 06:31	12/16/22 22:35	5
Nickel	4.25		2.04	0.369	mg/Kg		12/15/22 06:31	12/16/22 22:35	5
Antimony	ND		10.2	2.92	mg/Kg		12/15/22 06:31	12/16/22 22:35	5
Selenium	ND		3.06	1.25	mg/Kg		12/15/22 06:31	12/16/22 22:35	5
Thallium	ND		10.2	2.15	mg/Kg		12/15/22 06:31	12/16/22 22:35	5
Vanadium	43.0		1.02	0.171	mg/Kg		12/15/22 06:31	12/16/22 22:35	5
Zinc	29.6		5.10	1.18	mg/Kg		12/15/22 06:31	12/16/22 22:35	5
Lead	8.69		2.04	0.417	mg/Kg		12/15/22 06:31	12/16/22 22:35	5

Client Sample ID: B-17@15'  
Date Collected: 12/12/22 13:16  
Date Received: 12/12/22 18:30

Lab Sample ID: 570-120610-10  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/15/22 06:31	12/16/22 22:44	5
Arsenic	12.7		3.03	1.41	mg/Kg		12/15/22 06:31	12/16/22 22:44	5
Barium	150		3.03	0.143	mg/Kg		12/15/22 06:31	12/16/22 22:44	5
Beryllium	0.316	J	0.505	0.0697	mg/Kg		12/15/22 06:31	12/16/22 22:44	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/15/22 06:31	12/16/22 22:44	5
Cobalt	3.47		1.01	0.208	mg/Kg		12/15/22 06:31	12/16/22 22:44	5
Chromium	7.47		1.01	0.188	mg/Kg		12/15/22 06:31	12/16/22 22:44	5
Copper	9.52		2.02	0.968	mg/Kg		12/15/22 06:31	12/16/22 22:44	5
Molybdenum	ND		2.02	0.520	mg/Kg		12/15/22 06:31	12/16/22 22:44	5
Nickel	3.61		2.02	0.366	mg/Kg		12/15/22 06:31	12/16/22 22:44	5
Antimony	ND		10.1	2.89	mg/Kg		12/15/22 06:31	12/16/22 22:44	5
Selenium	ND		3.03	1.23	mg/Kg		12/15/22 06:31	12/16/22 22:44	5
Thallium	ND		10.1	2.13	mg/Kg		12/15/22 06:31	12/16/22 22:44	5
Vanadium	19.5		1.01	0.170	mg/Kg		12/15/22 06:31	12/16/22 22:44	5
Zinc	23.0		5.05	1.17	mg/Kg		12/15/22 06:31	12/16/22 22:44	5
Lead	14.6		2.02	0.413	mg/Kg		12/15/22 06:31	12/16/22 22:44	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-19@2.5'  
Date Collected: 12/12/22 14:25  
Date Received: 12/12/22 18:30

Lab Sample ID: 570-120610-11  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.146	mg/Kg		12/15/22 06:31	12/16/22 22:47	5
Arsenic	6.84		3.05	1.41	mg/Kg		12/15/22 06:31	12/16/22 22:47	5
Barium	94.7		3.05	0.144	mg/Kg		12/15/22 06:31	12/16/22 22:47	5
Beryllium	0.254	J	0.508	0.0701	mg/Kg		12/15/22 06:31	12/16/22 22:47	5
Cadmium	ND		0.508	0.0843	mg/Kg		12/15/22 06:31	12/16/22 22:47	5
Cobalt	2.78		1.02	0.209	mg/Kg		12/15/22 06:31	12/16/22 22:47	5
Chromium	7.39		1.02	0.189	mg/Kg		12/15/22 06:31	12/16/22 22:47	5
Copper	4.16		2.03	0.973	mg/Kg		12/15/22 06:31	12/16/22 22:47	5
Molybdenum	ND		2.03	0.523	mg/Kg		12/15/22 06:31	12/16/22 22:47	5
Nickel	2.97		2.03	0.368	mg/Kg		12/15/22 06:31	12/16/22 22:47	5
Antimony	ND		10.2	2.90	mg/Kg		12/15/22 06:31	12/16/22 22:47	5
Selenium	ND		3.05	1.24	mg/Kg		12/15/22 06:31	12/16/22 22:47	5
Thallium	ND		10.2	2.14	mg/Kg		12/15/22 06:31	12/16/22 22:47	5
Vanadium	17.7		1.02	0.171	mg/Kg		12/15/22 06:31	12/16/22 22:47	5
Zinc	18.8		5.08	1.17	mg/Kg		12/15/22 06:31	12/16/22 22:47	5
Lead	6.54		2.03	0.415	mg/Kg		12/15/22 06:31	12/16/22 22:47	5

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

## Method: SW846 7471A - Mercury (CVAA)

**Client Sample ID: B-12@2.5'**  
**Date Collected: 12/12/22 08:13**  
**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-1**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg	-	12/14/22 22:30	12/15/22 13:52	1

**Client Sample ID: B-13@2.5'**  
**Date Collected: 12/12/22 08:50**  
**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-2**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.401	0.154	mg/Kg	-	12/14/22 22:30	12/15/22 18:23	5

**Client Sample ID: B-14@2.5'**  
**Date Collected: 12/12/22 10:00**  
**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-3**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.425	0.163	mg/Kg	-	12/14/22 22:30	12/15/22 18:25	5

**Client Sample ID: B-15@2.5'**  
**Date Collected: 12/12/22 10:55**  
**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-4**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.409	0.157	mg/Kg	-	12/14/22 22:30	12/15/22 18:27	5

**Client Sample ID: B-16@2.5'**  
**Date Collected: 12/12/22 11:47**  
**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-5**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.425	0.163	mg/Kg	-	12/14/22 22:30	12/15/22 18:29	5

**Client Sample ID: B-16@5'**  
**Date Collected: 12/12/22 11:55**  
**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-6**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.425	0.163	mg/Kg	-	12/14/22 22:30	12/15/22 18:30	5

**Client Sample ID: B-17@2.5'**  
**Date Collected: 12/12/22 12:53**  
**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-7**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.417	0.160	mg/Kg	-	12/14/22 22:30	12/15/22 18:32	5

**Client Sample ID: B-17@5'**  
**Date Collected: 12/12/22 13:00**  
**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-8**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.417	0.160	mg/Kg	-	12/14/22 22:30	12/15/22 18:34	5

**Client Sample ID: B-17@10'**  
**Date Collected: 12/12/22 13:08**  
**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-9**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.425	0.163	mg/Kg	-	12/14/22 22:30	12/15/22 18:36	5

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

## Method: SW846 7471A - Mercury (CVAA)

Client Sample ID: B-17@15'  
Date Collected: 12/12/22 13:16  
Date Received: 12/12/22 18:30

Lab Sample ID: 570-120610-10  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.425	0.163	mg/Kg		12/14/22 22:30	12/15/22 18:38	5

Client Sample ID: B-19@2.5'  
Date Collected: 12/12/22 14:25  
Date Received: 12/12/22 18:30

Lab Sample ID: 570-120610-11  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.425	0.163	mg/Kg		12/14/22 22:30	12/15/22 19:46	5

# Surrogate Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

## Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	BFB1 (42-126)
570-120610-1	B-12@2.5'	93
570-120610-2	B-13@2.5'	93
570-120610-3	B-14@2.5'	89
570-120610-4	B-15@2.5'	89
570-120610-5	B-16@2.5'	84
570-120610-5 MS	B-16@2.5'	104
570-120610-5 MSD	B-16@2.5'	105
570-120610-6	B-16@5'	85
570-120610-7	B-17@2.5'	89
570-120610-8	B-17@5'	89
570-120610-9	B-17@10'	90
570-120610-10	B-17@15'	87
570-120610-11	B-19@2.5'	91
LCS 570-288913/1-A	Lab Control Sample	107
LCS 570-289272/1-A	Lab Control Sample	105
LCSD 570-288913/2-A	Lab Control Sample Dup	105
LCSD 570-289272/2-A	Lab Control Sample Dup	106
MB 570-288913/3-A	Method Blank	89
MB 570-289272/3-A	Method Blank	87
<b>Surrogate Legend</b>		
BFB = 4-Bromofluorobenzene (Surr)		

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	OTCSN1 (60-138)
570-120610-1	B-12@2.5'	84
570-120610-2	B-13@2.5'	96
570-120610-3	B-14@2.5'	108
570-120610-4 - RA	B-15@2.5'	116
570-120610-5	B-16@2.5'	107
570-120610-6	B-16@5'	96
570-120610-7	B-17@2.5'	113
570-120610-8	B-17@5'	111
570-120610-9	B-17@10'	98
570-120610-10	B-17@15'	110
570-120610-11	B-19@2.5'	114
LCS 570-288980/2-A	Lab Control Sample	110
LCSD 570-288980/3-A	Lab Control Sample Dup	80
MB 570-288980/1-A	Method Blank	107
<b>Surrogate Legend</b>		
OTCSN = n-Octacosane (Surr)		

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

## Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-288913/3-A

Matrix: Solid

Analysis Batch: 288885

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 288913

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/14/22 10:17	12/14/22 11:04	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		42 - 126				12/14/22 10:17	12/14/22 11:04	1

Lab Sample ID: LCS 570-288913/1-A

Matrix: Solid

Analysis Batch: 288885

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 288913

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (C4-C13)	1.93	1.996		mg/Kg		104	70 - 124	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	107		42 - 126					

Lab Sample ID: LCSD 570-288913/2-A

Matrix: Solid

Analysis Batch: 288885

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 288913

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	1.91	2.070		mg/Kg		108	70 - 124	4	18
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	105		42 - 126						

Lab Sample ID: MB 570-289272/3-A

Matrix: Solid

Analysis Batch: 289245

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289272

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/15/22 10:14	12/15/22 11:25	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		42 - 126				12/15/22 10:14	12/15/22 11:25	1

Lab Sample ID: LCS 570-289272/1-A

Matrix: Solid

Analysis Batch: 289245

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289272

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (C4-C13)	1.91	2.163		mg/Kg		113	70 - 124	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	105		42 - 126					

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

## Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: LCSD 570-289272/2-A

Matrix: Solid

Analysis Batch: 289245

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289272

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	1.91	2.176		mg/Kg		114	70 - 124	1	18
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	106		42 - 126						

Lab Sample ID: 570-120610-5 MS

Matrix: Solid

Analysis Batch: 289245

Client Sample ID: B-16@2.5'

Prep Type: Total/NA

Prep Batch: 289272

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	ND		1.93	2.036		mg/Kg		106	48 - 114		
Surrogate	MS %Recovery	MS Qualifier	Limits								
4-Bromofluorobenzene (Surr)	104		42 - 126								

Lab Sample ID: 570-120610-5 MSD

Matrix: Solid

Analysis Batch: 289245

Client Sample ID: B-16@2.5'

Prep Type: Total/NA

Prep Batch: 289272

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	ND		1.92	2.125		mg/Kg		111	48 - 114	4	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	105		42 - 126								

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-288980/1-A

Matrix: Solid

Analysis Batch: 289043

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 288980

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/14/22 12:50	12/14/22 19:37	1
C23-C40	ND		5.0	3.8	mg/Kg		12/14/22 12:50	12/14/22 19:37	1
Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac			
n-Octacosane (Surr)	107		60 - 138	12/14/22 12:50	12/14/22 19:37	1			

Lab Sample ID: LCS 570-288980/2-A

Matrix: Solid

Analysis Batch: 289043

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 288980

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	400	504.7		mg/Kg		126	80 - 130		

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 570-288980/2-A

Matrix: Solid

Analysis Batch: 289043

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 288980

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	110		60 - 138

Lab Sample ID: LCSD 570-288980/3-A

Matrix: Solid

Analysis Batch: 289043

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 288980

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	400	431.6		mg/Kg		108	80 - 130	16	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	80		60 - 138

## Method: 6010B - Metals (ICP)

Lab Sample ID: MB 570-289211/1-A ^5

Matrix: Solid

Analysis Batch: 289520

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289211

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.146	mg/Kg		12/15/22 06:22	12/15/22 17:22	5
Arsenic	ND		3.05	1.41	mg/Kg		12/15/22 06:22	12/15/22 17:22	5
Barium	ND		3.05	0.144	mg/Kg		12/15/22 06:22	12/15/22 17:22	5
Beryllium	ND		0.508	0.0701	mg/Kg		12/15/22 06:22	12/15/22 17:22	5
Cadmium	ND		0.508	0.0843	mg/Kg		12/15/22 06:22	12/15/22 17:22	5
Cobalt	ND		1.02	0.209	mg/Kg		12/15/22 06:22	12/15/22 17:22	5
Chromium	0.4315	J	1.02	0.189	mg/Kg		12/15/22 06:22	12/15/22 17:22	5
Copper	ND		2.03	0.973	mg/Kg		12/15/22 06:22	12/15/22 17:22	5
Molybdenum	ND		2.03	0.523	mg/Kg		12/15/22 06:22	12/15/22 17:22	5
Nickel	ND		2.03	0.368	mg/Kg		12/15/22 06:22	12/15/22 17:22	5
Antimony	ND		10.2	2.90	mg/Kg		12/15/22 06:22	12/15/22 17:22	5
Selenium	ND		3.05	1.24	mg/Kg		12/15/22 06:22	12/15/22 17:22	5
Thallium	ND		10.2	2.14	mg/Kg		12/15/22 06:22	12/15/22 17:22	5
Vanadium	ND		1.02	0.171	mg/Kg		12/15/22 06:22	12/15/22 17:22	5
Zinc	ND		5.08	1.17	mg/Kg		12/15/22 06:22	12/15/22 17:22	5
Lead	ND		2.03	0.415	mg/Kg		12/15/22 06:22	12/15/22 17:22	5

Lab Sample ID: LCS 570-289211/2-A ^5

Matrix: Solid

Analysis Batch: 289520

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289211

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	25.3	23.65		mg/Kg		94	80 - 120
Arsenic	50.5	47.54		mg/Kg		94	80 - 120
Barium	50.5	47.66		mg/Kg		94	80 - 120
Beryllium	50.5	48.23		mg/Kg		95	80 - 120
Cadmium	50.5	47.82		mg/Kg		95	80 - 120
Cobalt	50.5	48.32		mg/Kg		96	80 - 120
Chromium	50.5	47.83		mg/Kg		95	80 - 120

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 570-289211/2-A ^5

Matrix: Solid

Analysis Batch: 289520

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289211

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Copper	50.5	47.22		mg/Kg		93	80 - 120
Molybdenum	50.5	48.19		mg/Kg		95	80 - 120
Nickel	50.5	47.66		mg/Kg		94	80 - 120
Antimony	50.5	52.51		mg/Kg		104	80 - 120
Selenium	50.5	43.54		mg/Kg		86	80 - 120
Thallium	50.5	47.42		mg/Kg		94	80 - 120
Vanadium	50.5	47.68		mg/Kg		94	80 - 120
Zinc	50.5	47.02		mg/Kg		93	80 - 120
Lead	50.5	47.82		mg/Kg		95	80 - 120

Lab Sample ID: LCSD 570-289211/3-A ^5

Matrix: Solid

Analysis Batch: 289520

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289211

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	25.3	24.39		mg/Kg		97	80 - 120	3	20
Arsenic	50.5	49.08		mg/Kg		97	80 - 120	3	20
Barium	50.5	48.83		mg/Kg		97	80 - 120	2	20
Beryllium	50.5	49.44		mg/Kg		98	80 - 120	2	20
Cadmium	50.5	48.60		mg/Kg		96	80 - 120	2	20
Cobalt	50.5	49.52		mg/Kg		98	80 - 120	2	20
Chromium	50.5	49.00		mg/Kg		97	80 - 120	2	20
Copper	50.5	48.36		mg/Kg		96	80 - 120	2	20
Molybdenum	50.5	50.09		mg/Kg		99	80 - 120	4	20
Nickel	50.5	48.84		mg/Kg		97	80 - 120	2	20
Antimony	50.5	54.18		mg/Kg		107	80 - 120	3	20
Selenium	50.5	45.24		mg/Kg		90	80 - 120	4	20
Thallium	50.5	48.72		mg/Kg		96	80 - 120	3	20
Vanadium	50.5	48.98		mg/Kg		97	80 - 120	3	20
Zinc	50.5	47.87		mg/Kg		95	80 - 120	2	20
Lead	50.5	48.74		mg/Kg		96	80 - 120	2	20

Lab Sample ID: MB 570-289212/1-A ^5

Matrix: Solid

Analysis Batch: 289910

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289212

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/15/22 06:31	12/16/22 21:43	5
Arsenic	ND		3.03	1.41	mg/Kg		12/15/22 06:31	12/16/22 21:43	5
Barium	ND		3.03	0.143	mg/Kg		12/15/22 06:31	12/16/22 21:43	5
Beryllium	ND		0.505	0.0697	mg/Kg		12/15/22 06:31	12/16/22 21:43	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/15/22 06:31	12/16/22 21:43	5
Cobalt	ND		1.01	0.208	mg/Kg		12/15/22 06:31	12/16/22 21:43	5
Chromium	ND		1.01	0.188	mg/Kg		12/15/22 06:31	12/16/22 21:43	5
Copper	ND		2.02	0.968	mg/Kg		12/15/22 06:31	12/16/22 21:43	5
Molybdenum	ND		2.02	0.520	mg/Kg		12/15/22 06:31	12/16/22 21:43	5
Nickel	ND		2.02	0.366	mg/Kg		12/15/22 06:31	12/16/22 21:43	5
Antimony	ND		10.1	2.89	mg/Kg		12/15/22 06:31	12/16/22 21:43	5
Selenium	ND		3.03	1.23	mg/Kg		12/15/22 06:31	12/16/22 21:43	5

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 570-289212/1-A ^5

Matrix: Solid

Analysis Batch: 289910

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289212

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	ND		10.1	2.13	mg/Kg		12/15/22 06:31	12/16/22 21:43	5
Vanadium	ND		1.01	0.170	mg/Kg		12/15/22 06:31	12/16/22 21:43	5
Zinc	ND		5.05	1.17	mg/Kg		12/15/22 06:31	12/16/22 21:43	5
Lead	ND		2.02	0.413	mg/Kg		12/15/22 06:31	12/16/22 21:43	5

Lab Sample ID: LCS 570-289212/2-A ^5

Matrix: Solid

Analysis Batch: 289910

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289212

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	25.1	20.93		mg/Kg		83	80 - 120
Arsenic	50.3	42.50		mg/Kg		85	80 - 120
Barium	50.3	42.16		mg/Kg		84	80 - 120
Beryllium	50.3	42.17		mg/Kg		84	80 - 120
Cadmium	50.3	42.17		mg/Kg		84	80 - 120
Cobalt	50.3	42.12		mg/Kg		84	80 - 120
Chromium	50.3	41.96		mg/Kg		84	80 - 120
Copper	50.3	41.83		mg/Kg		83	80 - 120
Molybdenum	50.3	42.65		mg/Kg		85	80 - 120
Nickel	50.3	42.36		mg/Kg		84	80 - 120
Antimony	50.3	48.19		mg/Kg		96	80 - 120
Selenium	50.3	39.97		mg/Kg		80	80 - 120
Thallium	50.3	41.75		mg/Kg		83	80 - 120
Vanadium	50.3	41.63		mg/Kg		83	80 - 120
Zinc	50.3	41.71		mg/Kg		83	80 - 120
Lead	50.3	42.07		mg/Kg		84	80 - 120

Lab Sample ID: LCSD 570-289212/3-A ^5

Matrix: Solid

Analysis Batch: 289910

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289212

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Silver	25.4	21.87		mg/Kg		86	80 - 120	4	20
Arsenic	50.8	43.65		mg/Kg		86	80 - 120	3	20
Barium	50.8	44.00		mg/Kg		87	80 - 120	4	20
Beryllium	50.8	43.96		mg/Kg		87	80 - 120	4	20
Cadmium	50.8	43.57		mg/Kg		86	80 - 120	3	20
Cobalt	50.8	43.86		mg/Kg		86	80 - 120	4	20
Chromium	50.8	43.78		mg/Kg		86	80 - 120	4	20
Copper	50.8	43.68		mg/Kg		86	80 - 120	4	20
Molybdenum	50.8	44.75		mg/Kg		88	80 - 120	5	20
Nickel	50.8	44.12		mg/Kg		87	80 - 120	4	20
Antimony	50.8	50.80		mg/Kg		100	80 - 120	5	20
Selenium	50.8	41.38		mg/Kg		82	80 - 120	3	20
Thallium	50.8	43.31		mg/Kg		85	80 - 120	4	20
Vanadium	50.8	43.46		mg/Kg		86	80 - 120	4	20
Zinc	50.8	43.15		mg/Kg		85	80 - 120	3	20
Lead	50.8	43.74		mg/Kg		86	80 - 120	4	20

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

## Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 570-289169/1-A

Matrix: Solid

Analysis Batch: 289367

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289169

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/14/22 22:30	12/15/22 13:46	1

Lab Sample ID: LCS 570-289169/2-A

Matrix: Solid

Analysis Batch: 289367

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289169

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.408	0.4263		mg/Kg		104	80 - 120

Lab Sample ID: LCSD 570-289169/3-A

Matrix: Solid

Analysis Batch: 289367

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289169

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.392	0.3926		mg/Kg		100	80 - 120	8	10

Lab Sample ID: 570-120610-1 MS

Matrix: Solid

Analysis Batch: 289367

Client Sample ID: B-12@2.5'

Prep Type: Total/NA

Prep Batch: 289169

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.400	0.3757		mg/Kg		94	80 - 120

Lab Sample ID: 570-120610-1 MSD

Matrix: Solid

Analysis Batch: 289367

Client Sample ID: B-12@2.5'

Prep Type: Total/NA

Prep Batch: 289169

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.392	0.3682		mg/Kg		94	80 - 120	2	20

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

## GC VOA

### Analysis Batch: 288885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120610-1	B-12@2.5'	Total/NA	Solid	8015B	288913
570-120610-2	B-13@2.5'	Total/NA	Solid	8015B	288913
570-120610-3	B-14@2.5'	Total/NA	Solid	8015B	288913
570-120610-4	B-15@2.5'	Total/NA	Solid	8015B	288913
MB 570-288913/3-A	Method Blank	Total/NA	Solid	8015B	288913
LCS 570-288913/1-A	Lab Control Sample	Total/NA	Solid	8015B	288913
LCSD 570-288913/2-A	Lab Control Sample Dup	Total/NA	Solid	8015B	288913

### Prep Batch: 288913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120610-1	B-12@2.5'	Total/NA	Solid	5030C	
570-120610-2	B-13@2.5'	Total/NA	Solid	5030C	
570-120610-3	B-14@2.5'	Total/NA	Solid	5030C	
570-120610-4	B-15@2.5'	Total/NA	Solid	5030C	
MB 570-288913/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-288913/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-288913/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	

### Analysis Batch: 289245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120610-5	B-16@2.5'	Total/NA	Solid	8015B	289272
570-120610-6	B-16@5'	Total/NA	Solid	8015B	289272
570-120610-7	B-17@2.5'	Total/NA	Solid	8015B	289272
570-120610-8	B-17@5'	Total/NA	Solid	8015B	289272
570-120610-9	B-17@10'	Total/NA	Solid	8015B	289272
570-120610-10	B-17@15'	Total/NA	Solid	8015B	289272
570-120610-11	B-19@2.5'	Total/NA	Solid	8015B	289272
MB 570-289272/3-A	Method Blank	Total/NA	Solid	8015B	289272
LCS 570-289272/1-A	Lab Control Sample	Total/NA	Solid	8015B	289272
LCSD 570-289272/2-A	Lab Control Sample Dup	Total/NA	Solid	8015B	289272
570-120610-5 MS	B-16@2.5'	Total/NA	Solid	8015B	289272
570-120610-5 MSD	B-16@2.5'	Total/NA	Solid	8015B	289272

### Prep Batch: 289272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120610-5	B-16@2.5'	Total/NA	Solid	5030C	
570-120610-6	B-16@5'	Total/NA	Solid	5030C	
570-120610-7	B-17@2.5'	Total/NA	Solid	5030C	
570-120610-8	B-17@5'	Total/NA	Solid	5030C	
570-120610-9	B-17@10'	Total/NA	Solid	5030C	
570-120610-10	B-17@15'	Total/NA	Solid	5030C	
570-120610-11	B-19@2.5'	Total/NA	Solid	5030C	
MB 570-289272/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-289272/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-289272/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	
570-120610-5 MS	B-16@2.5'	Total/NA	Solid	5030C	
570-120610-5 MSD	B-16@2.5'	Total/NA	Solid	5030C	

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

## GC Semi VOA

### Prep Batch: 288980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120610-1	B-12@2.5'	Total/NA	Solid	3550C	
570-120610-2	B-13@2.5'	Total/NA	Solid	3550C	
570-120610-3	B-14@2.5'	Total/NA	Solid	3550C	
570-120610-4 - RA	B-15@2.5'	Total/NA	Solid	3550C	
570-120610-5	B-16@2.5'	Total/NA	Solid	3550C	
570-120610-6	B-16@5'	Total/NA	Solid	3550C	
570-120610-7	B-17@2.5'	Total/NA	Solid	3550C	
570-120610-8	B-17@5'	Total/NA	Solid	3550C	
570-120610-9	B-17@10'	Total/NA	Solid	3550C	
570-120610-10	B-17@15'	Total/NA	Solid	3550C	
570-120610-11	B-19@2.5'	Total/NA	Solid	3550C	
MB 570-288980/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 570-288980/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 570-288980/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	

### Analysis Batch: 289043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120610-1	B-12@2.5'	Total/NA	Solid	8015B	288980
570-120610-2	B-13@2.5'	Total/NA	Solid	8015B	288980
570-120610-3	B-14@2.5'	Total/NA	Solid	8015B	288980
570-120610-4 - RA	B-15@2.5'	Total/NA	Solid	8015B	288980
570-120610-5	B-16@2.5'	Total/NA	Solid	8015B	288980
570-120610-6	B-16@5'	Total/NA	Solid	8015B	288980
570-120610-7	B-17@2.5'	Total/NA	Solid	8015B	288980
570-120610-8	B-17@5'	Total/NA	Solid	8015B	288980
570-120610-9	B-17@10'	Total/NA	Solid	8015B	288980
570-120610-10	B-17@15'	Total/NA	Solid	8015B	288980
570-120610-11	B-19@2.5'	Total/NA	Solid	8015B	288980
MB 570-288980/1-A	Method Blank	Total/NA	Solid	8015B	288980
LCS 570-288980/2-A	Lab Control Sample	Total/NA	Solid	8015B	288980
LCSD 570-288980/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	288980

## Metals

### Prep Batch: 289169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120610-1	B-12@2.5'	Total/NA	Solid	7471A	
570-120610-2	B-13@2.5'	Total/NA	Solid	7471A	
570-120610-3	B-14@2.5'	Total/NA	Solid	7471A	
570-120610-4	B-15@2.5'	Total/NA	Solid	7471A	
570-120610-5	B-16@2.5'	Total/NA	Solid	7471A	
570-120610-6	B-16@5'	Total/NA	Solid	7471A	
570-120610-7	B-17@2.5'	Total/NA	Solid	7471A	
570-120610-8	B-17@5'	Total/NA	Solid	7471A	
570-120610-9	B-17@10'	Total/NA	Solid	7471A	
570-120610-10	B-17@15'	Total/NA	Solid	7471A	
570-120610-11	B-19@2.5'	Total/NA	Solid	7471A	
MB 570-289169/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-289169/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-289169/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
570-120610-1 MS	B-12@2.5'	Total/NA	Solid	7471A	

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

## Metals (Continued)

### Prep Batch: 289169 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120610-1 MSD	B-12@2.5'	Total/NA	Solid	7471A	

### Prep Batch: 289211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120610-1	B-12@2.5'	Total/NA	Solid	3050B	
570-120610-2	B-13@2.5'	Total/NA	Solid	3050B	
MB 570-289211/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-289211/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-289211/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	

### Prep Batch: 289212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120610-3	B-14@2.5'	Total/NA	Solid	3050B	
570-120610-4	B-15@2.5'	Total/NA	Solid	3050B	
570-120610-5	B-16@2.5'	Total/NA	Solid	3050B	
570-120610-6	B-16@5'	Total/NA	Solid	3050B	
570-120610-7	B-17@2.5'	Total/NA	Solid	3050B	
570-120610-8	B-17@5'	Total/NA	Solid	3050B	
570-120610-9	B-17@10'	Total/NA	Solid	3050B	
570-120610-10	B-17@15'	Total/NA	Solid	3050B	
570-120610-11	B-19@2.5'	Total/NA	Solid	3050B	
MB 570-289212/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-289212/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-289212/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	

### Analysis Batch: 289367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120610-1	B-12@2.5'	Total/NA	Solid	7471A	289169
MB 570-289169/1-A	Method Blank	Total/NA	Solid	7471A	289169
LCS 570-289169/2-A	Lab Control Sample	Total/NA	Solid	7471A	289169
LCSD 570-289169/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	289169
570-120610-1 MS	B-12@2.5'	Total/NA	Solid	7471A	289169
570-120610-1 MSD	B-12@2.5'	Total/NA	Solid	7471A	289169

### Analysis Batch: 289520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120610-1	B-12@2.5'	Total/NA	Solid	6010B	289211
570-120610-2	B-13@2.5'	Total/NA	Solid	6010B	289211
MB 570-289211/1-A ^5	Method Blank	Total/NA	Solid	6010B	289211
LCS 570-289211/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	289211
LCSD 570-289211/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	289211

### Analysis Batch: 289689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120610-2	B-13@2.5'	Total/NA	Solid	7471A	289169
570-120610-3	B-14@2.5'	Total/NA	Solid	7471A	289169
570-120610-4	B-15@2.5'	Total/NA	Solid	7471A	289169
570-120610-5	B-16@2.5'	Total/NA	Solid	7471A	289169
570-120610-6	B-16@5'	Total/NA	Solid	7471A	289169
570-120610-7	B-17@2.5'	Total/NA	Solid	7471A	289169
570-120610-8	B-17@5'	Total/NA	Solid	7471A	289169

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## QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

### Metals (Continued)

#### Analysis Batch: 289689 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120610-9	B-17@10'	Total/NA	Solid	7471A	289169
570-120610-10	B-17@15'	Total/NA	Solid	7471A	289169
570-120610-11	B-19@2.5'	Total/NA	Solid	7471A	289169

#### Analysis Batch: 289910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-289212/1-A ^5	Method Blank	Total/NA	Solid	6010B	289212
LCS 570-289212/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	289212
LCSD 570-289212/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	289212

#### Analysis Batch: 289919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120610-3	B-14@2.5'	Total/NA	Solid	6010B	289212
570-120610-4	B-15@2.5'	Total/NA	Solid	6010B	289212
570-120610-5	B-16@2.5'	Total/NA	Solid	6010B	289212
570-120610-6	B-16@5'	Total/NA	Solid	6010B	289212
570-120610-7	B-17@2.5'	Total/NA	Solid	6010B	289212
570-120610-8	B-17@5'	Total/NA	Solid	6010B	289212
570-120610-9	B-17@10'	Total/NA	Solid	6010B	289212
570-120610-10	B-17@15'	Total/NA	Solid	6010B	289212
570-120610-11	B-19@2.5'	Total/NA	Solid	6010B	289212

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

**Client Sample ID: B-12@2.5'**

**Lab Sample ID: 570-120610-1**

**Date Collected: 12/12/22 08:13**

**Matrix: Solid**

**Date Received: 12/12/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	288913	12/14/22 12:39	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	288885	12/14/22 16:41	P1R	EET CAL 4
Instrument ID: GC24										
Total/NA	Prep	3550C			9.98 g	10 mL	288980	12/14/22 12:50	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289043	12/15/22 01:06	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.00 g	50 mL	289211	12/15/22 06:22	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289520	12/15/22 17:43	P1R	EET CAL 4
Instrument ID: ICP10										
Total/NA	Prep	7471A			0.50 g	50 mL	289169	12/14/22 22:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			289367	12/15/22 13:52	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-13@2.5'**

**Lab Sample ID: 570-120610-2**

**Date Collected: 12/12/22 08:50**

**Matrix: Solid**

**Date Received: 12/12/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	288913	12/14/22 12:39	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	288885	12/14/22 17:06	P1R	EET CAL 4
Instrument ID: GC24										
Total/NA	Prep	3550C			10.12 g	10 mL	288980	12/14/22 12:50	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289043	12/15/22 01:28	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.97 g	50 mL	289211	12/15/22 06:22	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289520	12/15/22 17:53	P1R	EET CAL 4
Instrument ID: ICP10										
Total/NA	Prep	7471A			0.52 g	50 mL	289169	12/14/22 22:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		5			289689	12/15/22 18:23	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-14@2.5'**

**Lab Sample ID: 570-120610-3**

**Date Collected: 12/12/22 10:00**

**Matrix: Solid**

**Date Received: 12/12/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	288913	12/14/22 12:39	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	288885	12/14/22 17:32	P1R	EET CAL 4
Instrument ID: GC24										
Total/NA	Prep	3550C			10.01 g	10 mL	288980	12/14/22 12:50	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289043	12/15/22 01:49	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.98 g	50 mL	289212	12/15/22 06:31	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/16/22 22:20	P1R	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

**Client Sample ID: B-14@2.5'**

**Lab Sample ID: 570-120610-3**

**Date Collected: 12/12/22 10:00**

**Matrix: Solid**

**Date Received: 12/12/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.49 g	50 mL	289169	12/14/22 22:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		5			289689	12/15/22 18:25	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-15@2.5'**

**Lab Sample ID: 570-120610-4**

**Date Collected: 12/12/22 10:55**

**Matrix: Solid**

**Date Received: 12/12/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.00 g	5 mL	288913	12/14/22 12:39	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	288885	12/14/22 17:57	P1R	EET CAL 4
Instrument ID: GC24										
Total/NA	Prep	3550C	RA		10.13 g	10 mL	288980	12/14/22 12:50	KH3Z	EET CAL 4
Total/NA	Analysis	8015B	RA	1	10 mL	10 mL	289043	12/15/22 12:57	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.00 g	50 mL	289212	12/15/22 06:31	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/16/22 22:22	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	289169	12/14/22 22:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		5			289689	12/15/22 18:27	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-16@2.5'**

**Lab Sample ID: 570-120610-5**

**Date Collected: 12/12/22 11:47**

**Matrix: Solid**

**Date Received: 12/12/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.99 g	5 mL	289272	12/15/22 10:36	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289245	12/15/22 12:41	P1R	EET CAL 4
Instrument ID: GC24										
Total/NA	Prep	3550C			10.38 g	10 mL	288980	12/14/22 12:50	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289043	12/15/22 02:55	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.97 g	50 mL	289212	12/15/22 06:31	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/16/22 22:25	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	289169	12/14/22 22:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		5			289689	12/15/22 18:29	C0YH	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

**Client Sample ID: B-16@5'**

**Date Collected: 12/12/22 11:55**

**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-6**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	289272	12/15/22 10:36	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289245	12/15/22 14:31	P1R	EET CAL 4
Instrument ID: GC24										
Total/NA	Prep	3550C			10.16 g	10 mL	288980	12/14/22 12:50	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289043	12/15/22 03:17	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.97 g	50 mL	289212	12/15/22 06:31	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/16/22 22:27	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	289169	12/14/22 22:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		5			289689	12/15/22 18:30	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-17@2.5'**

**Date Collected: 12/12/22 12:53**

**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-7**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.06 g	5 mL	289272	12/15/22 10:36	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289245	12/15/22 14:57	P1R	EET CAL 4
Instrument ID: GC24										
Total/NA	Prep	3550C			10.01 g	10 mL	288980	12/14/22 12:50	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289043	12/15/22 03:38	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.00 g	50 mL	289212	12/15/22 06:31	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/16/22 22:30	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	289169	12/14/22 22:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		5			289689	12/15/22 18:32	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-17@5'**

**Date Collected: 12/12/22 13:00**

**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-8**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.04 g	5 mL	289272	12/15/22 10:36	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289245	12/15/22 15:22	P1R	EET CAL 4
Instrument ID: GC24										
Total/NA	Prep	3550C			10.47 g	10 mL	288980	12/14/22 12:50	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289043	12/15/22 04:00	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.02 g	50 mL	289212	12/15/22 06:31	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/16/22 22:32	P1R	EET CAL 4
Instrument ID: ICP11										

Eurofins Calscience

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

**Client Sample ID: B-17@5'**

**Date Collected: 12/12/22 13:00**

**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-8**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.50 g	50 mL	289169	12/14/22 22:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		5			289689	12/15/22 18:34	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-17@10'**

**Date Collected: 12/12/22 13:08**

**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-9**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.98 g	5 mL	289272	12/15/22 10:36	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289245	12/15/22 15:48	P1R	EET CAL 4
Instrument ID: GC24										
Total/NA	Prep	3550C			9.96 g	10 mL	288980	12/14/22 12:50	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289043	12/15/22 04:22	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.96 g	50 mL	289212	12/15/22 06:31	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/16/22 22:35	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	289169	12/14/22 22:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		5			289689	12/15/22 18:36	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-17@15'**

**Date Collected: 12/12/22 13:16**

**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-10**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.99 g	5 mL	289272	12/15/22 10:36	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289245	12/15/22 16:13	P1R	EET CAL 4
Instrument ID: GC24										
Total/NA	Prep	3550C			10.06 g	10 mL	288980	12/14/22 12:50	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289043	12/15/22 04:44	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.98 g	50 mL	289212	12/15/22 06:31	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/16/22 22:44	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	289169	12/14/22 22:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		5			289689	12/15/22 18:38	C0YH	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

**Client Sample ID: B-19@2.5'**

**Lab Sample ID: 570-120610-11**

**Date Collected: 12/12/22 14:25**

**Matrix: Solid**

**Date Received: 12/12/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.97 g	5 mL	289272	12/15/22 10:36	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289245	12/15/22 16:39	P1R	EET CAL 4
		Instrument ID: GC24								
Total/NA	Prep	3550C			10.34 g	10 mL	288980	12/14/22 12:50	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289043	12/15/22 05:05	A1W	EET CAL 4
		Instrument ID: GC47								
Total/NA	Prep	3050B			1.97 g	50 mL	289212	12/15/22 06:31	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/16/22 22:47	P1R	EET CAL 4
		Instrument ID: ICP11								
Total/NA	Prep	7471A			0.49 g	50 mL	289169	12/14/22 22:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		5			289689	12/15/22 19:46	C0YH	EET CAL 4
		Instrument ID: HG7								

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

## Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

### Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

1

2

3

4

5

6

7

8

9

10

11

12

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14

15

## Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

Method	Method Description	Protocol	Laboratory
8015B	Gasoline Range Organics - (GC)	SW846	EET CAL 4
8015B	Diesel Range Organics (DRO) (GC)	SW846	EET CAL 4
6010B	Metals (ICP)	SW846	EET CAL 4
7471A	Mercury (CVAA)	SW846	EET CAL 4
3050B	Preparation, Metals	SW846	EET CAL 4
3550C	Ultrasonic Extraction	SW846	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
7471A	Preparation, Mercury	SW846	EET CAL 4

### Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494



# Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-120610-1	B-12@2.5'	Solid	12/12/22 08:13	12/12/22 18:30
570-120610-2	B-13@2.5'	Solid	12/12/22 08:50	12/12/22 18:30
570-120610-3	B-14@2.5'	Solid	12/12/22 10:00	12/12/22 18:30
570-120610-4	B-15@2.5'	Solid	12/12/22 10:55	12/12/22 18:30
570-120610-5	B-16@2.5'	Solid	12/12/22 11:47	12/12/22 18:30
570-120610-6	B-16@5'	Solid	12/12/22 11:55	12/12/22 18:30
570-120610-7	B-17@2.5'	Solid	12/12/22 12:53	12/12/22 18:30
570-120610-8	B-17@5'	Solid	12/12/22 13:00	12/12/22 18:30
570-120610-9	B-17@10'	Solid	12/12/22 13:08	12/12/22 18:30
570-120610-10	B-17@15'	Solid	12/12/22 13:16	12/12/22 18:30
570-120610-11	B-19@2.5'	Solid	12/12/22 14:25	12/12/22 18:30



Calscience



570-120610 Chain of Custody

# CHAIN OF CUSTODY RECORD

DATE: 12/12/22

PAGE: 1 OF 2

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofinsus.com or call us.

LABORATORY CLIENT		CLIENT PROJECT NAME / NUMBER: Science Research Park / SD754		P.O. NO.	
ADDRESS: 9245 Activity Road Suite 103		PROJECT CONTACT: Matt Fagan		SAMPLER(S): (PRINT) Sam Navarro	
CITY: San Diego		STATE: CA		ZIP: 92126	
TEL: 858 536 1000		E-MAIL: mattf@groupdelta.com			
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"): <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD		LOG CODE:			
<input type="checkbox"/> COELT EDF					
SPECIAL INSTRUCTIONS: in lot run PAH testing					
LAB USE ONLY	SAMPLE ID	SAMPLING DATE	TIME	MATRIX	NO. OF CONT
1	B-12 @ 2.5'	12/12	8:13	Soil	1
2	B-13 @ 2.5'	12/12	8:40	Soil	1
3	B-14 @ 2.5'	12/12	10:00	Soil	1
4	B-15 @ 2.5'	12/12	10:55	Soil	1
5	B-16 @ 2.5'	12/12	11:47	Soil	1
6	B-16 @ 5'	12/12	11:55	Soil	1
7	B-17 @ 2.5'	12/12	12:53	Soil	1
8	B-17 @ 5'	12/12	13:00	Soil	1
9	B-17 @ 10'	12/12	13:08	Soil	1
10	B-17 @ 15'	12/12	13:16	Soil	1
Relinquished by (Signature): <i>Sam Navarro</i>		Received by (Signature/Affiliation): <i>William Rivera</i>		Date: 12/12/22 Time: 1650	
Relinquished by (Signature): <i>William Rivera</i>		Received by (Signature/Affiliation): <i>EC</i>		Date: 12/12/22 Time: 1830	
Relinquished by (Signature):		Received by (Signature/Affiliation):		Date: Time:	

0.9 / 0.7 5C11

## CHAIN OF CUSTODY RECORD

DATE: 12/12/2022  
PAGE: 2 OF 2

7440 Lincoln Way Garden Grove, CA 92841-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@

[illegible]

## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-120610-1

**Login Number: 120610**

**List Source: Eurofins Calscience**

**List Number: 1**

**Creator: Patel, Vikas**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Matt Fagan  
Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Generated 1/5/2023 2:00:30 PM

## JOB DESCRIPTION

UCSD Science Research Park (SD754)

## JOB NUMBER

570-120610-2

## Job Notes

This report is issued solely for the use of the person or company to whom it is addressed. Any use, copying or disclosure other than by the intended recipient is unauthorized. If you have received this report in error, please notify the sender and destroy this report immediately. This report shall not be reproduced except in full, without prior express written approval by the laboratory.

The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

## Authorization



Generated  
1/5/2023 2:00:30 PM

Authorized for release by  
Erick Ovalle, Project Manager  
[Erick.Ovalle@et.eurofinsus.com](mailto:Erick.Ovalle@et.eurofinsus.com)  
Designee for  
Vikas Patel, Project Manager I  
[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)  
(714)895-5494

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## Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-2

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count



# Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-2

**Job ID: 570-120610-2**

**Laboratory: Eurofins Calscience**

## Narrative

**Job Narrative**  
**570-120610-2**

## Comments

No additional comments.

## Receipt

The samples were received on 12/12/2022 6:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.7° C.

## Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-2

**Client Sample ID: B-13@2.5'**

**Lab Sample ID: 570-120610-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	1.31		1.00	0.105	mg/L	1		6010B	STLC Citrate

**Client Sample ID: B-16@5'**

**Lab Sample ID: 570-120610-6**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	1.94		1.00	0.105	mg/L	1		6010B	STLC Citrate

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-2

## Method: SW846 6010B - Metals (ICP) - STLC Citrate

Client Sample ID: B-13@2.5'  
Date Collected: 12/12/22 08:50  
Date Received: 12/12/22 18:30

Lab Sample ID: 570-120610-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1.31		1.00	0.105	mg/L		01/03/23 15:46	01/04/23 14:34	1

Client Sample ID: B-16@5'  
Date Collected: 12/12/22 11:55  
Date Received: 12/12/22 18:30

Lab Sample ID: 570-120610-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1.94		1.00	0.105	mg/L		01/03/23 15:46	01/04/23 14:36	1

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-2

## Method: 6010B - Metals (ICP)

Lab Sample ID: LB4 570-292642/1-C  
Matrix: Solid  
Analysis Batch: 293685

Client Sample ID: Method Blank  
Prep Type: STLC Citrate  
Prep Batch: 293407

Analyte	LB4 Result	LB4 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.00	0.105	mg/L		01/03/23 15:46	01/04/23 13:41	1

Lab Sample ID: LCS 570-292642/2-C  
Matrix: Solid  
Analysis Batch: 293685

Client Sample ID: Lab Control Sample  
Prep Type: STLC Citrate  
Prep Batch: 293407

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	20.0	18.99		mg/L		95	80 - 120

Lab Sample ID: LCSD 570-292642/3-C  
Matrix: Solid  
Analysis Batch: 293685

Client Sample ID: Lab Control Sample Dup  
Prep Type: STLC Citrate  
Prep Batch: 293407

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	20.0	19.01		mg/L		95	80 - 120	0	20

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-2

## Metals

### Leach Batch: 292642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120610-2	B-13@2.5'	STLC Citrate	Solid	CA WET Citrate	
570-120610-6	B-16@5'	STLC Citrate	Solid	CA WET Citrate	
LB4 570-292642/1-C	Method Blank	STLC Citrate	Solid	CA WET Citrate	
LCS 570-292642/2-C	Lab Control Sample	STLC Citrate	Solid	CA WET Citrate	
LCSD 570-292642/3-C	Lab Control Sample Dup	STLC Citrate	Solid	CA WET Citrate	

### Prep Batch: 293407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120610-2	B-13@2.5'	STLC Citrate	Solid	Dilution	292642
570-120610-6	B-16@5'	STLC Citrate	Solid	Dilution	292642
LB4 570-292642/1-C	Method Blank	STLC Citrate	Solid	Dilution	292642
LCS 570-292642/2-C	Lab Control Sample	STLC Citrate	Solid	Dilution	292642
LCSD 570-292642/3-C	Lab Control Sample Dup	STLC Citrate	Solid	Dilution	292642

### Analysis Batch: 293685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120610-2	B-13@2.5'	STLC Citrate	Solid	6010B	293407
570-120610-6	B-16@5'	STLC Citrate	Solid	6010B	293407
LB4 570-292642/1-C	Method Blank	STLC Citrate	Solid	6010B	293407
LCS 570-292642/2-C	Lab Control Sample	STLC Citrate	Solid	6010B	293407
LCSD 570-292642/3-C	Lab Control Sample Dup	STLC Citrate	Solid	6010B	293407

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-2

**Client Sample ID: B-13@2.5'**

**Date Collected: 12/12/22 08:50**

**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-2**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.07 g	500 mL	292642	12/29/22 14:11	ECX6	EET CAL 4
STLC Citrate	Prep	Dilution			2.5 mL	50 mL	293407	01/03/23 15:46	VZOK	EET CAL 4
STLC Citrate	Analysis	6010B		1			293685	01/04/23 14:34	K1UV	EET CAL 4
Instrument ID: ICP11										

**Client Sample ID: B-16@5'**

**Date Collected: 12/12/22 11:55**

**Date Received: 12/12/22 18:30**

**Lab Sample ID: 570-120610-6**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.01 g	500 mL	292642	12/29/22 14:11	ECX6	EET CAL 4
STLC Citrate	Prep	Dilution			2.5 mL	50 mL	293407	01/03/23 15:46	VZOK	EET CAL 4
STLC Citrate	Analysis	6010B		1			293685	01/04/23 14:36	K1UV	EET CAL 4
Instrument ID: ICP11										

<sup>1</sup> Completion dates and times are reported or not reported per method requirements or individual lab discretion.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-2

Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

## Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	EET CAL 4
CA WET Citrate	California - Waste Extraction Test with Citrate Leach	CA-WET	EET CAL 4
Dilution	Preparation / Dilution Process	None	EET CAL 4

### Protocol References:

CA-WET = California Waste Extraction Test, from Title 22

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494



## Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120610-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-120610-2	B-13@2.5'	Solid	12/12/22 08:50	12/12/22 18:30
570-120610-6	B-16@5'	Solid	12/12/22 11:55	12/12/22 18:30

1

2

3

4

5

6

7

8

9

10

11

12

13

14

## Erick Ovalle

---

**From:** Alexandre Santini <alexandres@groupdelta.com>  
**Sent:** Tuesday, December 27, 2022 5:06 PM  
**To:** Erick Ovalle; Jack Packwood; Matt Fagan  
**Cc:** Vikas Patel  
**Subject:** RE: Eurofins Calscience report and EDD files from 570-120610-1 UCSD Science Research Park (SD754)

EXTERNAL EMAIL\*

Erick – Please analyze for lead STLC samples:

B-13@2.5'

B-16@5'

Please confirm it.

Thanks,

Alex Santini, P.E. | [Senior Project Engineer](#)

Office: (858) 536-1000

Mobile: (310) 310-5686

Email: [AlexandreS@groupdelta.com](mailto:AlexandreS@groupdelta.com)

---

**From:** Erick Ovalle <Erick.Ovalle@et.eurofinsus.com>  
**Sent:** Tuesday, December 20, 2022 3:41 PM  
**To:** Jack Packwood <jackp@groupdelta.com>; Matt Fagan <mattf@groupdelta.com>  
**Cc:** Vikas Patel <vikas.patel@et.eurofinsus.com>  
**Subject:** Eurofins Calscience report and EDD files from 570-120610-1 UCSD Science Research Park (SD754)

Hello,

Attached please find the report and EDD files for job 570-120610-1; UCSD Science Research Park (SD754)

Please feel free to contact me or your PM Vikas Patel if you have any questions.

Thank you.

Erick Ovalle

Project Manager

Eurofins Calscience

Phone: 657-210-6331

Mobile: 657-250-2681

E-mail: [Erick.Ovalle@et.eurofinsus.com](mailto:Erick.Ovalle@et.eurofinsus.com)

[www.eurofinsus.com/env](http://www.eurofinsus.com/env)



Reference: [570-403141]

Attachments: 2

> > Bank information has changed, please refer to remittance information on invoice. < <

\* WARNING - EXTERNAL: This email originated from outside of Eurofins Environment Testing America. Do not click any links or open any attachments unless you trust the sender and know that the content is safe!



Calscience



570-120610 Chain of Custody

# CHAIN OF CUSTODY RECORD

DATE: 12/12/22

PAGE: 1 OF 2

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofinsus.com or call us.

LABORATORY CLIENT		CLIENT PROJECT NAME / NUMBER: Science Research Park / SD754		P.O. NO.	
ADDRESS: 9245 Activity Road Suite 103		PROJECT CONTACT: Matt Fagan		SAMPLER(S): (PRINT) Sam Navarro	
CITY: San Diego		STATE: CA		ZIP: 92126	
TEL: 858 536 1000		E-MAIL: mattf@groupdelta.com			
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"): <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD		LOG CODE:			
<input type="checkbox"/> COELT EDF					
SPECIAL INSTRUCTIONS: in lot run PAH testing					
LAB USE ONLY	SAMPLE ID	SAMPLING DATE	TIME	MATRIX	NO. OF CONT
1	B-12 @ 2.5'	12/12	8:13	Soil	1
2	B-13 @ 2.5'	12/12	8:40	Soil	1
3	B-14 @ 2.5'	12/12	10:00	Soil	1
4	B-15 @ 2.5'	12/12	10:55	Soil	1
5	B-16 @ 2.5'	12/12	11:47	Soil	1
6	B-16 @ 5'	12/12	11:55	Soil	1
7	B-17 @ 2.5'	12/12	12:53	Soil	1
8	B-17 @ 5'	12/12	13:00	Soil	1
9	B-17 @ 10'	12/12	13:08	Soil	1
10	B-17 @ 15'	12/12	13:16	Soil	1
Relinquished by (Signature): <i>Sam Navarro</i>		Received by (Signature/Affiliation): <i>William Rivera</i>		Date: 12/12/22 Time: 1650	
Relinquished by (Signature): <i>William Rivera</i>		Received by (Signature/Affiliation): <i>EC</i>		Date: 12/12/22 Time: 1830	
Relinquished by (Signature):		Received by (Signature/Affiliation):		Date: Time:	

0.9 / 0.7 5C11

## CHAIN OF CUSTODY RECORD

DATE: 12/12/2022

PAGE: 2 OF 2

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26 sales@

For courier service / sample drop off information, contact us26 sales@eurofinsus.com or call us.

LABORATORY CLIENT:		ADDRESS: 9245 Activity Road Suite 103		CITY: San Diego		TEL: 858 536 1000		E-MAIL: mattf@groupdelta.com		ZIP: 92126		STATE: CA		CLIENT PROJECT NAME / NUMBER: Science Research Park / SD754		P.O. NO.			
GROUP DELTA CONSULTANTS		9245 Activity Road Suite 103		San Diego		858 536 1000		mattf@groupdelta.com		92126		CA		PROJECT CONTACT: Matt Fagan		SAMPLER(S): (PRINT) Sam Aburveton			
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):		SAME DAY		24 HR		48 HR		72 HR		5 DAYS		STANDARD		REQUESTED ANALYSES					
COELT EDF		GLOBAL ID:		SAMPLING		DATE		TIME		MATRIX		NO. OF CONT		Please check box or fill in blank as needed					
SPECIAL INSTRUCTIONS:		Do not run PAH testing		SAMPLE ID		11 B19 e 2 s'		12/12/22		14:25		Soil		1		TPH (g) □ GRO			
												Soil		1		TPH (d) □ DRO			
												Soil		1		TPH □ C6-C36 □ C6-C44			
												Soil		1		TPH (4-12, 13-22, 25-44)			
												Soil		1		BTEX / MTBE □ 8260 □			
												Soil		1		VOCs (8260)			
												Soil		1		Oxygenates (8260)			
												Soil		1		Prep (5035) □ En Core □ Terra Core			
												Soil		1		SVOCs (8270)			
												Soil		1		Pesticides (8081)			
												Soil		1		PCBs (8082)			
												Soil		1		PAHs □ 8270 □ 8270 SIM			
												Soil		1		T22 Metals □ 6010/747X □ 6020/747X			
												Soil		1		Cr(VI) □ 7196 □ 7199 □ 218.6			
Relinquished by (Signature)		[Signature]		SAMPLE ID		11 B19 e 2 s'		12/12/22		14:25		Soil		1		Field Filtered			
Relinquished by (Signature)		[Signature]		SAMPLE ID		11 B19 e 2 s'		12/12/22		14:25		Soil		1		Preserved			
Relinquished by (Signature)		[Signature]		SAMPLE ID		11 B19 e 2 s'		12/12/22		14:25		Soil		1		Unpreserved			
Relinquished by (Signature)		[Signature]		SAMPLE ID		11 B19 e 2 s'		12/12/22		14:25		Soil		1		LOG CODE:			
Relinquished by (Signature)		[Signature]		SAMPLE ID		11 B19 e 2 s'		12/12/22		14:25		Soil		1		LOG CODE:			
Relinquished by (Signature)		[Signature]		SAMPLE ID		11 B19 e 2 s'		12/12/22		14:25		Soil		1		LOG CODE:			
Relinquished by (Signature)		[Signature]		SAMPLE ID		11 B19 e 2 s'		12/12/22		14:25		Soil		1		LOG CODE:			
Relinquished by (Signature)		[Signature]		SAMPLE ID		11 B19 e 2 s'		12/12/22		14:25		Soil		1		LOG CODE:			
Relinquished by (Signature)		[Signature]		SAMPLE ID		11 B19 e 2 s'		12/12/22		14:25		Soil		1		LOG CODE:			
Relinquished by (Signature)		[Signature]		SAMPLE ID		11 B19 e 2 s'		12/12/22		14:25		Soil		1		LOG CODE:			
Relinquished by (Signature)		[Signature]		SAMPLE ID		11 B19 e 2 s'		12/12/22		14:25		Soil		1		LOG CODE:			
Relinquished by (Signature)		[Signature]		SAMPLE ID		11 B19 e 2 s'		12/12/22		14:25		Soil		1		LOG CODE:			
Relinquished by (Signature)		[Signature]		SAMPLE ID		11 B19 e 2 s'		12/12/22		14:25		Soil		1		LOG CODE:			
Relinquished by (Signature)		[Signature]		SAMPLE ID		11 B19 e 2 s'		12/12/22		14:25		Soil		1		LOG CODE:			
Relinquished by (Signature)		[Signature]		SAMPLE ID		11 B19 e 2 s'		12/12/22		14:25		Soil		1		LOG CODE:			
Relinquished by (Signature)		[Signature]		SAMPLE ID		11 B19 e 2 s'		12/12/22		14:25		Soil		1		LOG CODE:			
Relinquished by (Signature)		[Signature]		SAMPLE ID		11 B19 e 2 s'		12/12/22		14:25		Soil		1		LOG CODE:			
Relinquished by (Signature)		[Signature]		SAMPLE ID		11 B19 e 2 s'		12/12/22		14:25		Soil		1		LOG CODE:			
Relinquished by (Signature)		[Signature]		SAMPLE ID		11 B19 e 2 s'		12/12/22		14:25		Soil		1		LOG CODE:			
Relinquished by (Signature)		[Signature]		SAMPLE ID		11 B19 e 2 s'		12/12/22		14:25		Soil		1		LOG CODE:			
Relinquished by (Signature)		[Signature]		SAMPLE ID		11 B19 e 2 s'		12/12/22											

## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-120610-2

**Login Number: 120610**

**List Number: 1**

**Creator: Patel, Vikas**

**List Source: Eurofins Calscience**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Matt Fagan  
Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Generated 12/20/2022 4:35:29 PM

## JOB DESCRIPTION

UCSD Science Research Park (SD754)

## JOB NUMBER

570-120771-1

# Eurofins Calscience

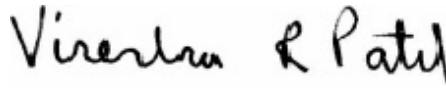
## Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

## Authorization



Generated  
12/20/2022 4:35:29 PM

Authorized for release by  
Virendra Patel, Project Manager I  
[Virendra.Patel@et.eurofinsus.com](mailto:Virendra.Patel@et.eurofinsus.com)  
Designee for  
Vikas Patel, Project Manager I  
[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)  
(714)895-5494



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# Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Qualifiers

### GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

**Job ID: 570-120771-1**

**Laboratory: Eurofins Calscience**

## Narrative

### Job Narrative 570-120771-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 12/13/2022 7:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.1° C.

#### GC VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### GC Semi VOA

Method 8015B: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 570-289299 and analytical batch 570-289480 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Barium and Antimony for preparation batch 570-289221 and analytical batch 570-289521 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6010B: The method blank for preparation batch 570-289221 and analytical batch 570-289521 contained Chromium above the method detection limit. This target analyte concentration was less than the reporting limit (RL) or greater than 10X the value found in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6010B: The serial dilution performed for the following sample associated with batch 570-289919 was outside control limits for Chromium: (570-120771-A-21-C SD ^25)

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Antimony for preparation batch 570-289571 and analytical batch 570-289919 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

Client Sample ID: B-20@2.5"

Lab Sample ID: 570-120771-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	41		5.0	3.9	mg/Kg	1		8015B	Total/NA
C23-C40	3.9	J	5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	3.14		3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	45.7		3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.240	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Cobalt	1.62		1.01	0.208	mg/Kg	5		6010B	Total/NA
Chromium	10.7	B	1.01	0.188	mg/Kg	5		6010B	Total/NA
Copper	4.52		2.02	0.968	mg/Kg	5		6010B	Total/NA
Nickel	2.61		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	29.8		1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	9.70		5.05	1.17	mg/Kg	5		6010B	Total/NA
Lead	12.6		2.02	0.413	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-20@5"

Lab Sample ID: 570-120771-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	7.7		5.0	3.9	mg/Kg	1		8015B	Total/NA
C23-C40	9.5		5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	3.70		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	110		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.242	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	2.00		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	11.5	B	1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	4.81		2.04	0.978	mg/Kg	5		6010B	Total/NA
Molybdenum	0.587	J	2.04	0.526	mg/Kg	5		6010B	Total/NA
Nickel	3.00		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	24.7		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	11.4		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	11.1		2.04	0.417	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-22@2.5"

Lab Sample ID: 570-120771-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	10		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	130		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	3.99		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	49.0		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.281	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	3.27		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	9.23	B	1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	6.35		2.04	0.978	mg/Kg	5		6010B	Total/NA
Nickel	4.21		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	22.5		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	20.4		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	12.3		2.04	0.417	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-22@5"

Lab Sample ID: 570-120771-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	13		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	1.64	J	3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	68.1		3.00	0.142	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Client Sample ID: B-22@5" (Continued)

## Lab Sample ID: 570-120771-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.250	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	3.15		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	8.69	B	1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	11.0		2.00	0.958	mg/Kg	5		6010B	Total/NA
Nickel	3.68		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	19.8		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	14.7		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	10.3		2.00	0.409	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-22@10'

## Lab Sample ID: 570-120771-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	15		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	2.29	J	2.97	1.38	mg/Kg	5		6010B	Total/NA
Barium	61.8		2.97	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.235	J	0.495	0.0683	mg/Kg	5		6010B	Total/NA
Cobalt	1.73		0.990	0.204	mg/Kg	5		6010B	Total/NA
Chromium	8.30	B	0.990	0.184	mg/Kg	5		6010B	Total/NA
Copper	4.38		1.98	0.949	mg/Kg	5		6010B	Total/NA
Nickel	2.52		1.98	0.358	mg/Kg	5		6010B	Total/NA
Vanadium	22.4		0.990	0.166	mg/Kg	5		6010B	Total/NA
Zinc	9.22		4.95	1.14	mg/Kg	5		6010B	Total/NA
Lead	11.8		1.98	0.405	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-22@15'

## Lab Sample ID: 570-120771-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	6.8		5.0	3.8	mg/Kg	1		8015B	Total/NA
Barium	9.76		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.115	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	0.918	J	1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	8.94	B	1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	15.6		2.04	0.978	mg/Kg	5		6010B	Total/NA
Nickel	1.76	J	2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	19.3		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	4.35	J	5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	3.32		2.04	0.417	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-24@2.5'

## Lab Sample ID: 570-120771-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	15		5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	4.45		3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	28.3		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.275	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	2.80		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	8.03	B	1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	7.59		2.00	0.958	mg/Kg	5		6010B	Total/NA
Nickel	3.50		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	21.8		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	22.7		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	10.4		2.00	0.409	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

Client Sample ID: B-24@5'

Lab Sample ID: 570-120771-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	12		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	6.05		2.97	1.38	mg/Kg	5		6010B	Total/NA
Barium	45.8		2.97	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.334	J	0.495	0.0683	mg/Kg	5		6010B	Total/NA
Cobalt	4.39		0.990	0.204	mg/Kg	5		6010B	Total/NA
Chromium	9.86		0.990	0.184	mg/Kg	5		6010B	Total/NA
Copper	7.43		1.98	0.949	mg/Kg	5		6010B	Total/NA
Molybdenum	0.619	J	1.98	0.510	mg/Kg	5		6010B	Total/NA
Nickel	5.15		1.98	0.358	mg/Kg	5		6010B	Total/NA
Vanadium	23.8		0.990	0.166	mg/Kg	5		6010B	Total/NA
Zinc	24.4		4.95	1.14	mg/Kg	5		6010B	Total/NA
Lead	7.80		1.98	0.405	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-24@10'

Lab Sample ID: 570-120771-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	29		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	2.03	J	2.99	1.38	mg/Kg	5		6010B	Total/NA
Barium	30.1		2.99	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.299	J	0.498	0.0687	mg/Kg	5		6010B	Total/NA
Cobalt	3.69		0.995	0.205	mg/Kg	5		6010B	Total/NA
Chromium	11.5	B	0.995	0.185	mg/Kg	5		6010B	Total/NA
Copper	4.13		1.99	0.953	mg/Kg	5		6010B	Total/NA
Nickel	3.56		1.99	0.360	mg/Kg	5		6010B	Total/NA
Vanadium	32.4		0.995	0.167	mg/Kg	5		6010B	Total/NA
Zinc	11.3		4.98	1.15	mg/Kg	5		6010B	Total/NA
Lead	5.98		1.99	0.407	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-24@15'

Lab Sample ID: 570-120771-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	17		5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	4.82		3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	48.7		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.427	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	4.45		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	18.2	B	1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	5.41		2.01	0.963	mg/Kg	5		6010B	Total/NA
Molybdenum	0.540	J	2.01	0.518	mg/Kg	5		6010B	Total/NA
Nickel	5.25		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	42.0		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	16.3		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	9.79		2.01	0.411	mg/Kg	5		6010B	Total/NA
Mercury	0.0327	J	0.0833	0.0320	mg/Kg	1		7471A	Total/NA

Client Sample ID: B-24@20'

Lab Sample ID: 570-120771-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	6.8		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	52		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	2.56	J	3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	25.7		3.06	0.145	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Client Sample ID: B-24@20' (Continued)

## Lab Sample ID: 570-120771-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.153	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	3.11		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	5.01		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	5.80		2.04	0.978	mg/Kg	5		6010B	Total/NA
Nickel	2.79		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	14.6		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	11.6		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	6.51		2.04	0.417	mg/Kg	5		6010B	Total/NA
Mercury	0.0370	J	0.0817	0.0314	mg/Kg	1		7471A	Total/NA

## Client Sample ID: B-42@2.5'

## Lab Sample ID: 570-120771-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	18		5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	7.28		2.96	1.37	mg/Kg	5		6010B	Total/NA
Barium	32.8		2.96	0.140	mg/Kg	5		6010B	Total/NA
Beryllium	0.283	J	0.493	0.0680	mg/Kg	5		6010B	Total/NA
Cobalt	18.6		0.985	0.203	mg/Kg	5		6010B	Total/NA
Chromium	13.6		0.985	0.183	mg/Kg	5		6010B	Total/NA
Copper	4.67		1.97	0.944	mg/Kg	5		6010B	Total/NA
Nickel	4.80		1.97	0.357	mg/Kg	5		6010B	Total/NA
Vanadium	42.7		0.985	0.166	mg/Kg	5		6010B	Total/NA
Zinc	13.6		4.93	1.14	mg/Kg	5		6010B	Total/NA
Lead	6.95		1.97	0.403	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-42@5'

## Lab Sample ID: 570-120771-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	13		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	2.36	J	3.05	1.41	mg/Kg	5		6010B	Total/NA
Barium	27.3		3.05	0.144	mg/Kg	5		6010B	Total/NA
Beryllium	0.279	J	0.508	0.0701	mg/Kg	5		6010B	Total/NA
Cobalt	3.98		1.02	0.209	mg/Kg	5		6010B	Total/NA
Chromium	14.1		1.02	0.189	mg/Kg	5		6010B	Total/NA
Copper	4.29		2.03	0.973	mg/Kg	5		6010B	Total/NA
Nickel	3.74		2.03	0.368	mg/Kg	5		6010B	Total/NA
Vanadium	38.9		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	11.4		5.08	1.17	mg/Kg	5		6010B	Total/NA
Lead	6.65		2.03	0.415	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-42@10'

## Lab Sample ID: 570-120771-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	17		5.0	3.9	mg/Kg	1		8015B	Total/NA
C23-C40	260		5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	3.13		2.99	1.38	mg/Kg	5		6010B	Total/NA
Barium	43.0		2.99	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.323	J	0.498	0.0687	mg/Kg	5		6010B	Total/NA
Cobalt	3.91		0.995	0.205	mg/Kg	5		6010B	Total/NA
Chromium	11.8		0.995	0.185	mg/Kg	5		6010B	Total/NA
Copper	6.92		1.99	0.953	mg/Kg	5		6010B	Total/NA
Nickel	4.69		1.99	0.360	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Client Sample ID: B-42@10' (Continued)

## Lab Sample ID: 570-120771-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	30.9		0.995	0.167	mg/Kg	5		6010B	Total/NA
Zinc	21.8		4.98	1.15	mg/Kg	5		6010B	Total/NA
Lead	8.79		1.99	0.407	mg/Kg	5		6010B	Total/NA
Mercury	0.0326	J	0.0817	0.0314	mg/Kg	1		7471A	Total/NA

## Client Sample ID: B-42@15'

## Lab Sample ID: 570-120771-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	5.4		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	37		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	3.81		2.96	1.37	mg/Kg	5		6010B	Total/NA
Barium	44.0		2.96	0.140	mg/Kg	5		6010B	Total/NA
Beryllium	0.308	J	0.493	0.0680	mg/Kg	5		6010B	Total/NA
Cobalt	3.87		0.985	0.203	mg/Kg	5		6010B	Total/NA
Chromium	12.7		0.985	0.183	mg/Kg	5		6010B	Total/NA
Copper	7.89		1.97	0.944	mg/Kg	5		6010B	Total/NA
Nickel	4.68		1.97	0.357	mg/Kg	5		6010B	Total/NA
Vanadium	31.0		0.985	0.166	mg/Kg	5		6010B	Total/NA
Zinc	20.3		4.93	1.14	mg/Kg	5		6010B	Total/NA
Lead	7.76		1.97	0.403	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-42@20'

## Lab Sample ID: 570-120771-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	8.4		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	23		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	4.05		3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	51.8		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.250	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	2.94		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	9.73		1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	8.10		2.00	0.958	mg/Kg	5		6010B	Total/NA
Nickel	3.74		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	23.6		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	19.9		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	12.9		2.00	0.409	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-42@25'

## Lab Sample ID: 570-120771-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	14		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	4.36		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	77.3		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.268	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	3.20		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	9.58		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	15.8		2.04	0.978	mg/Kg	5		6010B	Total/NA
Molybdenum	0.536	J	2.04	0.526	mg/Kg	5		6010B	Total/NA
Nickel	3.62		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	24.1		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	27.7		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	28.2		2.04	0.417	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience



# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Client Sample ID: B-42@30'

## Lab Sample ID: 570-120771-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	7.8		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	8.95		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	317		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.370	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	4.30		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	8.69		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	9.97		2.04	0.978	mg/Kg	5		6010B	Total/NA
Nickel	4.78		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	21.6		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	30.5		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	42.2		2.04	0.417	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-42@35'

## Lab Sample ID: 570-120771-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	11		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	10		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	6.21		3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	64.3		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.363	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	4.48		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	13.9		1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	19.4		2.00	0.958	mg/Kg	5		6010B	Total/NA
Molybdenum	0.925	J	2.00	0.515	mg/Kg	5		6010B	Total/NA
Nickel	6.49		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	22.4		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	35.9		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	23.1		2.00	0.409	mg/Kg	5		6010B	Total/NA
Mercury	0.0347	J	0.0817	0.0314	mg/Kg	1		7471A	Total/NA

## Client Sample ID: B-42@40'

## Lab Sample ID: 570-120771-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	4.6	J	5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	5.91		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	117		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.306	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	3.02		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	8.05		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	7.17		2.04	0.978	mg/Kg	5		6010B	Total/NA
Molybdenum	1.26	J	2.04	0.526	mg/Kg	5		6010B	Total/NA
Nickel	3.38		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	21.2		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	16.4		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	20.8		2.04	0.417	mg/Kg	5		6010B	Total/NA
Mercury	0.0330	J	0.0833	0.0320	mg/Kg	1		7471A	Total/NA

## Client Sample ID: B-42@45'

## Lab Sample ID: 570-120771-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Gasoline Range Organics (C4-C12)	0.20		0.10	0.055	mg/Kg	1		8015B	Total/NA
C13-C22	150		5.0	3.8	mg/Kg	1		8015B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

Client Sample ID: B-42@45' (Continued)

Lab Sample ID: 570-120771-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	36		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	7.38		3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	74.8		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.325	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cadmium	0.0875	J	0.500	0.0830	mg/Kg	5		6010B	Total/NA
Cobalt	3.79		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	21.7		1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	24.5		2.00	0.958	mg/Kg	5		6010B	Total/NA
Molybdenum	3.09		2.00	0.515	mg/Kg	5		6010B	Total/NA
Nickel	7.28		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	25.6		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	40.5		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	19.4		2.00	0.409	mg/Kg	5		6010B	Total/NA
Mercury	0.0424	J	0.0850	0.0327	mg/Kg	1		7471A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-20@2.5"**  
**Date Collected: 12/13/22 07:13**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-1**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/15/22 16:19	12/16/22 04:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		42 - 126				12/15/22 16:19	12/16/22 04:30	1

**Client Sample ID: B-20@5"**  
**Date Collected: 12/13/22 07:22**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-2**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/15/22 16:19	12/16/22 05:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		42 - 126				12/15/22 16:19	12/16/22 05:41	1

**Client Sample ID: B-22@2.5"**  
**Date Collected: 12/13/22 08:20**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-3**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/15/22 16:19	12/16/22 06:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		42 - 126				12/15/22 16:19	12/16/22 06:04	1

**Client Sample ID: B-22@5"**  
**Date Collected: 12/13/22 08:25**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-4**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/15/22 16:19	12/16/22 06:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		42 - 126				12/15/22 16:19	12/16/22 06:28	1

**Client Sample ID: B-22@10'**  
**Date Collected: 12/13/22 08:32**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-5**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/15/22 16:19	12/16/22 06:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		42 - 126				12/15/22 16:19	12/16/22 06:51	1

**Client Sample ID: B-22@15'**  
**Date Collected: 12/13/22 08:40**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-6**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/15/22 16:19	12/16/22 07:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		42 - 126				12/15/22 16:19	12/16/22 07:15	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-24@2.5'**  
**Date Collected: 12/13/22 09:31**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-7**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/15/22 16:19	12/16/22 07:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		42 - 126				12/15/22 16:19	12/16/22 07:39	1

**Client Sample ID: B-24@5'**  
**Date Collected: 12/13/22 09:35**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-8**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/15/22 16:19	12/16/22 08:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		42 - 126				12/15/22 16:19	12/16/22 08:02	1

**Client Sample ID: B-24@10'**  
**Date Collected: 12/13/22 09:40**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-9**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/15/22 16:19	12/16/22 08:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		42 - 126				12/15/22 16:19	12/16/22 08:26	1

**Client Sample ID: B-24@15'**  
**Date Collected: 12/13/22 09:47**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-10**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/15/22 16:19	12/16/22 08:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		42 - 126				12/15/22 16:19	12/16/22 08:50	1

**Client Sample ID: B-24@20'**  
**Date Collected: 12/13/22 09:53**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-11**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/15/22 16:19	12/16/22 09:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		42 - 126				12/15/22 16:19	12/16/22 09:37	1

**Client Sample ID: B-42@2.5'**  
**Date Collected: 12/13/22 11:30**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-12**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/15/22 16:19	12/16/22 10:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	77		42 - 126				12/15/22 16:19	12/16/22 10:00	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-42@5'**  
**Date Collected: 12/13/22 11:35**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-13**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/15/22 16:19	12/16/22 10:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		42 - 126				12/15/22 16:19	12/16/22 10:24	1

**Client Sample ID: B-42@10'**  
**Date Collected: 12/13/22 11:43**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-14**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/15/22 16:19	12/16/22 10:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	77		42 - 126				12/15/22 16:19	12/16/22 10:47	1

**Client Sample ID: B-42@15'**  
**Date Collected: 12/13/22 11:50**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-15**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/15/22 16:19	12/16/22 11:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		42 - 126				12/15/22 16:19	12/16/22 11:11	1

**Client Sample ID: B-42@20'**  
**Date Collected: 12/13/22 11:59**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-16**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/15/22 16:19	12/16/22 11:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		42 - 126				12/15/22 16:19	12/16/22 11:34	1

**Client Sample ID: B-42@25'**  
**Date Collected: 12/13/22 12:07**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-17**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/15/22 16:19	12/16/22 11:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		42 - 126				12/15/22 16:19	12/16/22 11:58	1

**Client Sample ID: B-42@30'**  
**Date Collected: 12/13/22 12:17**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-18**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/15/22 16:19	12/16/22 12:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	77		42 - 126				12/15/22 16:19	12/16/22 12:21	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-42@35'**  
**Date Collected: 12/13/22 12:40**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-19**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/15/22 16:19	12/16/22 12:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		42 - 126				12/15/22 16:19	12/16/22 12:45	1

**Client Sample ID: B-42@40'**  
**Date Collected: 12/13/22 12:51**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-20**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/15/22 16:19	12/16/22 13:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		42 - 126				12/15/22 16:19	12/16/22 13:09	1

**Client Sample ID: B-42@45'**  
**Date Collected: 12/13/22 13:07**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-21**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	0.20		0.10	0.055	mg/Kg		12/19/22 09:41	12/19/22 14:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		42 - 126				12/19/22 09:41	12/19/22 14:26	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B-20@2.5"  
Date Collected: 12/13/22 07:13  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	41		5.0	3.9	mg/Kg		12/15/22 16:23	12/16/22 20:52	1
C23-C40	3.9	J	5.0	3.9	mg/Kg		12/15/22 16:23	12/16/22 20:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	126		60 - 138				12/15/22 16:23	12/16/22 20:52	1

Client Sample ID: B-20@5"  
Date Collected: 12/13/22 07:22  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	7.7		5.0	3.9	mg/Kg		12/15/22 16:23	12/16/22 21:18	1
C23-C40	9.5		5.0	3.9	mg/Kg		12/15/22 16:23	12/16/22 21:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	130		60 - 138				12/15/22 16:23	12/16/22 21:18	1

Client Sample ID: B-22@2.5"  
Date Collected: 12/13/22 08:20  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	10		5.0	3.8	mg/Kg		12/15/22 16:23	12/16/22 21:44	1
C23-C40	130		5.0	3.8	mg/Kg		12/15/22 16:23	12/16/22 21:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	128		60 - 138				12/15/22 16:23	12/16/22 21:44	1

Client Sample ID: B-22@5"  
Date Collected: 12/13/22 08:25  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/15/22 16:23	12/16/22 22:10	1
C23-C40	13		5.0	3.8	mg/Kg		12/15/22 16:23	12/16/22 22:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	126		60 - 138				12/15/22 16:23	12/16/22 22:10	1

Client Sample ID: B-22@10'  
Date Collected: 12/13/22 08:32  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/15/22 16:23	12/16/22 22:36	1
C23-C40	15		5.0	3.8	mg/Kg		12/15/22 16:23	12/16/22 22:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	124		60 - 138				12/15/22 16:23	12/16/22 22:36	1

Client Sample ID: B-22@15'  
Date Collected: 12/13/22 08:40  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/15/22 16:23	12/16/22 23:03	1
C23-C40	6.8		5.0	3.8	mg/Kg		12/15/22 16:23	12/16/22 23:03	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	122		60 - 138	12/15/22 16:23	12/16/22 23:03	1
<div> <div>Client Sample ID: B-24@2.5'</div> <div>Date Collected: 12/13/22 09:31</div> <div>Date Received: 12/13/22 17:10</div> </div> <div> <div>Lab Sample ID: 570-120771-7</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		5.0	3.9	mg/Kg	
C23-C40	15		5.0	3.9	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	119		60 - 138	12/15/22 16:23	12/16/22 23:29	1
<div> <div>Client Sample ID: B-24@5'</div> <div>Date Collected: 12/13/22 09:35</div> <div>Date Received: 12/13/22 17:10</div> </div> <div> <div>Lab Sample ID: 570-120771-8</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		5.0	3.8	mg/Kg	
C23-C40	12		5.0	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	121		60 - 138	12/15/22 16:23	12/16/22 23:56	1
<div> <div>Client Sample ID: B-24@10'</div> <div>Date Collected: 12/13/22 09:40</div> <div>Date Received: 12/13/22 17:10</div> </div> <div> <div>Lab Sample ID: 570-120771-9</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		5.0	3.8	mg/Kg	
C23-C40	29		5.0	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	124		60 - 138	12/15/22 16:23	12/17/22 00:22	1
<div> <div>Client Sample ID: B-24@15'</div> <div>Date Collected: 12/13/22 09:47</div> <div>Date Received: 12/13/22 17:10</div> </div> <div> <div>Lab Sample ID: 570-120771-10</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		5.0	3.9	mg/Kg	
C23-C40	17		5.0	3.9	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	123		60 - 138	12/15/22 16:23	12/17/22 00:49	1
<div> <div>Client Sample ID: B-24@20'</div> <div>Date Collected: 12/13/22 09:53</div> <div>Date Received: 12/13/22 17:10</div> </div> <div> <div>Lab Sample ID: 570-120771-11</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	6.8		5.0	3.8	mg/Kg	
C23-C40	52		5.0	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	114		60 - 138	12/15/22 16:23	12/17/22 01:15	1



# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B-42@2.5'  
Date Collected: 12/13/22 11:30  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.9	mg/Kg		12/15/22 16:23	12/17/22 01:42	1
C23-C40	18		5.0	3.9	mg/Kg		12/15/22 16:23	12/17/22 01:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	125		60 - 138				12/15/22 16:23	12/17/22 01:42	1

Client Sample ID: B-42@5'  
Date Collected: 12/13/22 11:35  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/15/22 16:23	12/17/22 02:08	1
C23-C40	13		5.0	3.8	mg/Kg		12/15/22 16:23	12/17/22 02:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	123		60 - 138				12/15/22 16:23	12/17/22 02:08	1

Client Sample ID: B-42@10'  
Date Collected: 12/13/22 11:43  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-14  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	17		5.0	3.9	mg/Kg		12/15/22 16:23	12/17/22 03:01	1
C23-C40	260		5.0	3.9	mg/Kg		12/15/22 16:23	12/17/22 03:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	125		60 - 138				12/15/22 16:23	12/17/22 03:01	1

Client Sample ID: B-42@15'  
Date Collected: 12/13/22 11:50  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-15  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	5.4		5.0	3.8	mg/Kg		12/15/22 16:23	12/17/22 03:27	1
C23-C40	37		5.0	3.8	mg/Kg		12/15/22 16:23	12/17/22 03:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	124		60 - 138				12/15/22 16:23	12/17/22 03:27	1

Client Sample ID: B-42@20'  
Date Collected: 12/13/22 11:59  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-16  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	8.4		5.0	3.8	mg/Kg		12/15/22 16:23	12/17/22 04:46	1
C23-C40	23		5.0	3.8	mg/Kg		12/15/22 16:23	12/17/22 04:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	123		60 - 138				12/15/22 16:23	12/17/22 04:46	1

Client Sample ID: B-42@25'  
Date Collected: 12/13/22 12:07  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-17  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/15/22 16:23	12/17/22 05:13	1
C23-C40	14		5.0	3.8	mg/Kg		12/15/22 16:23	12/17/22 05:13	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	117		60 - 138			12/15/22 16:23	12/17/22 05:13	1	
Client Sample ID: B-42@30' Date Collected: 12/13/22 12:17 Date Received: 12/13/22 17:10						Lab Sample ID: 570-120771-18 Matrix: Solid			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/15/22 16:23	12/17/22 05:39	1
C23-C40	7.8		5.0	3.8	mg/Kg		12/15/22 16:23	12/17/22 05:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	117		60 - 138			12/15/22 16:23	12/17/22 05:39	1	
Client Sample ID: B-42@35' Date Collected: 12/13/22 12:40 Date Received: 12/13/22 17:10						Lab Sample ID: 570-120771-19 Matrix: Solid			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	11		5.0	3.8	mg/Kg		12/15/22 16:23	12/17/22 06:05	1
C23-C40	10		5.0	3.8	mg/Kg		12/15/22 16:23	12/17/22 06:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	118		60 - 138			12/15/22 16:23	12/17/22 06:05	1	
Client Sample ID: B-42@40' Date Collected: 12/13/22 12:51 Date Received: 12/13/22 17:10						Lab Sample ID: 570-120771-20 Matrix: Solid			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/15/22 16:23	12/17/22 06:31	1
C23-C40	4.6	J	5.0	3.8	mg/Kg		12/15/22 16:23	12/17/22 06:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	117		60 - 138			12/15/22 16:23	12/17/22 06:31	1	
Client Sample ID: B-42@45' Date Collected: 12/13/22 13:07 Date Received: 12/13/22 17:10						Lab Sample ID: 570-120771-21 Matrix: Solid			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	150		5.0	3.8	mg/Kg		12/15/22 16:27	12/16/22 12:13	1
C23-C40	36		5.0	3.8	mg/Kg		12/15/22 16:27	12/16/22 12:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	126		60 - 138			12/15/22 16:27	12/16/22 12:13	1	

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-20@2.5"  
Date Collected: 12/13/22 07:13  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/15/22 06:46	12/15/22 19:16	5
Arsenic	3.14		3.03	1.41	mg/Kg		12/15/22 06:46	12/15/22 19:16	5
Barium	45.7		3.03	0.143	mg/Kg		12/15/22 06:46	12/15/22 19:16	5
Beryllium	0.240	J	0.505	0.0697	mg/Kg		12/15/22 06:46	12/15/22 19:16	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/15/22 06:46	12/15/22 19:16	5
Cobalt	1.62		1.01	0.208	mg/Kg		12/15/22 06:46	12/15/22 19:16	5
Chromium	10.7	B	1.01	0.188	mg/Kg		12/15/22 06:46	12/15/22 19:16	5
Copper	4.52		2.02	0.968	mg/Kg		12/15/22 06:46	12/15/22 19:16	5
Molybdenum	ND		2.02	0.520	mg/Kg		12/15/22 06:46	12/15/22 19:16	5
Nickel	2.61		2.02	0.366	mg/Kg		12/15/22 06:46	12/15/22 19:16	5
Antimony	ND		10.1	2.89	mg/Kg		12/15/22 06:46	12/15/22 19:16	5
Selenium	ND		3.03	1.23	mg/Kg		12/15/22 06:46	12/15/22 19:16	5
Thallium	ND		10.1	2.13	mg/Kg		12/15/22 06:46	12/15/22 19:16	5
Vanadium	29.8		1.01	0.170	mg/Kg		12/15/22 06:46	12/15/22 19:16	5
Zinc	9.70		5.05	1.17	mg/Kg		12/15/22 06:46	12/15/22 19:16	5
Lead	12.6		2.02	0.413	mg/Kg		12/15/22 06:46	12/15/22 19:16	5

Client Sample ID: B-20@5"  
Date Collected: 12/13/22 07:22  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/15/22 06:46	12/15/22 19:18	5
Arsenic	3.70		3.06	1.42	mg/Kg		12/15/22 06:46	12/15/22 19:18	5
Barium	110		3.06	0.145	mg/Kg		12/15/22 06:46	12/15/22 19:18	5
Beryllium	0.242	J	0.510	0.0704	mg/Kg		12/15/22 06:46	12/15/22 19:18	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/15/22 06:46	12/15/22 19:18	5
Cobalt	2.00		1.02	0.210	mg/Kg		12/15/22 06:46	12/15/22 19:18	5
Chromium	11.5	B	1.02	0.190	mg/Kg		12/15/22 06:46	12/15/22 19:18	5
Copper	4.81		2.04	0.978	mg/Kg		12/15/22 06:46	12/15/22 19:18	5
Molybdenum	0.587	J	2.04	0.526	mg/Kg		12/15/22 06:46	12/15/22 19:18	5
Nickel	3.00		2.04	0.369	mg/Kg		12/15/22 06:46	12/15/22 19:18	5
Antimony	ND		10.2	2.92	mg/Kg		12/15/22 06:46	12/15/22 19:18	5
Selenium	ND		3.06	1.25	mg/Kg		12/15/22 06:46	12/15/22 19:18	5
Thallium	ND		10.2	2.15	mg/Kg		12/15/22 06:46	12/15/22 19:18	5
Vanadium	24.7		1.02	0.171	mg/Kg		12/15/22 06:46	12/15/22 19:18	5
Zinc	11.4		5.10	1.18	mg/Kg		12/15/22 06:46	12/15/22 19:18	5
Lead	11.1		2.04	0.417	mg/Kg		12/15/22 06:46	12/15/22 19:18	5

Client Sample ID: B-22@2.5"  
Date Collected: 12/13/22 08:20  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/15/22 06:46	12/15/22 19:20	5
Arsenic	3.99		3.06	1.42	mg/Kg		12/15/22 06:46	12/15/22 19:20	5
Barium	49.0		3.06	0.145	mg/Kg		12/15/22 06:46	12/15/22 19:20	5
Beryllium	0.281	J	0.510	0.0704	mg/Kg		12/15/22 06:46	12/15/22 19:20	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/15/22 06:46	12/15/22 19:20	5
Cobalt	3.27		1.02	0.210	mg/Kg		12/15/22 06:46	12/15/22 19:20	5
Chromium	9.23	B	1.02	0.190	mg/Kg		12/15/22 06:46	12/15/22 19:20	5
Copper	6.35		2.04	0.978	mg/Kg		12/15/22 06:46	12/15/22 19:20	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-22@2.5"  
Date Collected: 12/13/22 08:20  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		2.04	0.526	mg/Kg		12/15/22 06:46	12/15/22 19:20	5
Nickel	4.21		2.04	0.369	mg/Kg		12/15/22 06:46	12/15/22 19:20	5
Antimony	ND		10.2	2.92	mg/Kg		12/15/22 06:46	12/15/22 19:20	5
Selenium	ND		3.06	1.25	mg/Kg		12/15/22 06:46	12/15/22 19:20	5
Thallium	ND		10.2	2.15	mg/Kg		12/15/22 06:46	12/15/22 19:20	5
Vanadium	22.5		1.02	0.171	mg/Kg		12/15/22 06:46	12/15/22 19:20	5
Zinc	20.4		5.10	1.18	mg/Kg		12/15/22 06:46	12/15/22 19:20	5
Lead	12.3		2.04	0.417	mg/Kg		12/15/22 06:46	12/15/22 19:20	5

Client Sample ID: B-22@5"  
Date Collected: 12/13/22 08:25  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/15/22 06:46	12/15/22 19:23	5
Arsenic	1.64	J	3.00	1.39	mg/Kg		12/15/22 06:46	12/15/22 19:23	5
Barium	68.1		3.00	0.142	mg/Kg		12/15/22 06:46	12/15/22 19:23	5
Beryllium	0.250	J	0.500	0.0690	mg/Kg		12/15/22 06:46	12/15/22 19:23	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/15/22 06:46	12/15/22 19:23	5
Cobalt	3.15		1.00	0.206	mg/Kg		12/15/22 06:46	12/15/22 19:23	5
Chromium	8.69	B	1.00	0.186	mg/Kg		12/15/22 06:46	12/15/22 19:23	5
Copper	11.0		2.00	0.958	mg/Kg		12/15/22 06:46	12/15/22 19:23	5
Molybdenum	ND		2.00	0.515	mg/Kg		12/15/22 06:46	12/15/22 19:23	5
Nickel	3.68		2.00	0.362	mg/Kg		12/15/22 06:46	12/15/22 19:23	5
Antimony	ND		10.0	2.86	mg/Kg		12/15/22 06:46	12/15/22 19:23	5
Selenium	ND		3.00	1.22	mg/Kg		12/15/22 06:46	12/15/22 19:23	5
Thallium	ND		10.0	2.11	mg/Kg		12/15/22 06:46	12/15/22 19:23	5
Vanadium	19.8		1.00	0.168	mg/Kg		12/15/22 06:46	12/15/22 19:23	5
Zinc	14.7		5.00	1.16	mg/Kg		12/15/22 06:46	12/15/22 19:23	5
Lead	10.3		2.00	0.409	mg/Kg		12/15/22 06:46	12/15/22 19:23	5

Client Sample ID: B-22@10'  
Date Collected: 12/13/22 08:32  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/15/22 06:46	12/15/22 19:25	5
Arsenic	2.29	J	2.97	1.38	mg/Kg		12/15/22 06:46	12/15/22 19:25	5
Barium	61.8		2.97	0.141	mg/Kg		12/15/22 06:46	12/15/22 19:25	5
Beryllium	0.235	J	0.495	0.0683	mg/Kg		12/15/22 06:46	12/15/22 19:25	5
Cadmium	ND		0.495	0.0822	mg/Kg		12/15/22 06:46	12/15/22 19:25	5
Cobalt	1.73		0.990	0.204	mg/Kg		12/15/22 06:46	12/15/22 19:25	5
Chromium	8.30	B	0.990	0.184	mg/Kg		12/15/22 06:46	12/15/22 19:25	5
Copper	4.38		1.98	0.949	mg/Kg		12/15/22 06:46	12/15/22 19:25	5
Molybdenum	ND		1.98	0.510	mg/Kg		12/15/22 06:46	12/15/22 19:25	5
Nickel	2.52		1.98	0.358	mg/Kg		12/15/22 06:46	12/15/22 19:25	5
Antimony	ND		9.90	2.83	mg/Kg		12/15/22 06:46	12/15/22 19:25	5
Selenium	ND		2.97	1.21	mg/Kg		12/15/22 06:46	12/15/22 19:25	5
Thallium	ND		9.90	2.09	mg/Kg		12/15/22 06:46	12/15/22 19:25	5
Vanadium	22.4		0.990	0.166	mg/Kg		12/15/22 06:46	12/15/22 19:25	5
Zinc	9.22		4.95	1.14	mg/Kg		12/15/22 06:46	12/15/22 19:25	5
Lead	11.8		1.98	0.405	mg/Kg		12/15/22 06:46	12/15/22 19:25	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-22@15'  
Date Collected: 12/13/22 08:40  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/15/22 06:46	12/15/22 19:28	5
Arsenic	ND		3.06	1.42	mg/Kg		12/15/22 06:46	12/15/22 19:28	5
Barium	9.76		3.06	0.145	mg/Kg		12/15/22 06:46	12/15/22 19:28	5
Beryllium	0.115	J	0.510	0.0704	mg/Kg		12/15/22 06:46	12/15/22 19:28	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/15/22 06:46	12/15/22 19:28	5
Cobalt	0.918	J	1.02	0.210	mg/Kg		12/15/22 06:46	12/15/22 19:28	5
Chromium	8.94	B	1.02	0.190	mg/Kg		12/15/22 06:46	12/15/22 19:28	5
Copper	15.6		2.04	0.978	mg/Kg		12/15/22 06:46	12/15/22 19:28	5
Molybdenum	ND		2.04	0.526	mg/Kg		12/15/22 06:46	12/15/22 19:28	5
Nickel	1.76	J	2.04	0.369	mg/Kg		12/15/22 06:46	12/15/22 19:28	5
Antimony	ND		10.2	2.92	mg/Kg		12/15/22 06:46	12/15/22 19:28	5
Selenium	ND		3.06	1.25	mg/Kg		12/15/22 06:46	12/15/22 19:28	5
Thallium	ND		10.2	2.15	mg/Kg		12/15/22 06:46	12/15/22 19:28	5
Vanadium	19.3		1.02	0.171	mg/Kg		12/15/22 06:46	12/15/22 19:28	5
Zinc	4.35	J	5.10	1.18	mg/Kg		12/15/22 06:46	12/15/22 19:28	5
Lead	3.32		2.04	0.417	mg/Kg		12/15/22 06:46	12/15/22 19:28	5

Client Sample ID: B-24@2.5'  
Date Collected: 12/13/22 09:31  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-7  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/15/22 06:46	12/15/22 19:30	5
Arsenic	4.45		3.00	1.39	mg/Kg		12/15/22 06:46	12/15/22 19:30	5
Barium	28.3		3.00	0.142	mg/Kg		12/15/22 06:46	12/15/22 19:30	5
Beryllium	0.275	J	0.500	0.0690	mg/Kg		12/15/22 06:46	12/15/22 19:30	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/15/22 06:46	12/15/22 19:30	5
Cobalt	2.80		1.00	0.206	mg/Kg		12/15/22 06:46	12/15/22 19:30	5
Chromium	8.03	B	1.00	0.186	mg/Kg		12/15/22 06:46	12/15/22 19:30	5
Copper	7.59		2.00	0.958	mg/Kg		12/15/22 06:46	12/15/22 19:30	5
Molybdenum	ND		2.00	0.515	mg/Kg		12/15/22 06:46	12/15/22 19:30	5
Nickel	3.50		2.00	0.362	mg/Kg		12/15/22 06:46	12/15/22 19:30	5
Antimony	ND		10.0	2.86	mg/Kg		12/15/22 06:46	12/15/22 19:30	5
Selenium	ND		3.00	1.22	mg/Kg		12/15/22 06:46	12/15/22 19:30	5
Thallium	ND		10.0	2.11	mg/Kg		12/15/22 06:46	12/15/22 19:30	5
Vanadium	21.8		1.00	0.168	mg/Kg		12/15/22 06:46	12/15/22 19:30	5
Zinc	22.7		5.00	1.16	mg/Kg		12/15/22 06:46	12/15/22 19:30	5
Lead	10.4		2.00	0.409	mg/Kg		12/15/22 06:46	12/15/22 19:30	5

Client Sample ID: B-24@5'  
Date Collected: 12/13/22 09:35  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/16/22 06:39	12/16/22 23:21	5
Arsenic	6.05		2.97	1.38	mg/Kg		12/16/22 06:39	12/16/22 23:21	5
Barium	45.8		2.97	0.141	mg/Kg		12/16/22 06:39	12/16/22 23:21	5
Beryllium	0.334	J	0.495	0.0683	mg/Kg		12/16/22 06:39	12/16/22 23:21	5
Cadmium	ND		0.495	0.0822	mg/Kg		12/16/22 06:39	12/16/22 23:21	5
Cobalt	4.39		0.990	0.204	mg/Kg		12/16/22 06:39	12/16/22 23:21	5
Chromium	9.86		0.990	0.184	mg/Kg		12/16/22 06:39	12/16/22 23:21	5
Copper	7.43		1.98	0.949	mg/Kg		12/16/22 06:39	12/16/22 23:21	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-24@5'  
Date Collected: 12/13/22 09:35  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	0.619	J	1.98	0.510	mg/Kg		12/16/22 06:39	12/16/22 23:21	5
Nickel	5.15		1.98	0.358	mg/Kg		12/16/22 06:39	12/16/22 23:21	5
Antimony	ND		9.90	2.83	mg/Kg		12/16/22 06:39	12/16/22 23:21	5
Selenium	ND		2.97	1.21	mg/Kg		12/16/22 06:39	12/16/22 23:21	5
Thallium	ND		9.90	2.09	mg/Kg		12/16/22 06:39	12/16/22 23:21	5
Vanadium	23.8		0.990	0.166	mg/Kg		12/16/22 06:39	12/16/22 23:21	5
Zinc	24.4		4.95	1.14	mg/Kg		12/16/22 06:39	12/16/22 23:21	5
Lead	7.80		1.98	0.405	mg/Kg		12/16/22 06:39	12/16/22 23:21	5

Client Sample ID: B-24@10'  
Date Collected: 12/13/22 09:40  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-9  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/15/22 06:46	12/15/22 19:33	5
Arsenic	2.03	J	2.99	1.38	mg/Kg		12/15/22 06:46	12/15/22 19:33	5
Barium	30.1		2.99	0.141	mg/Kg		12/15/22 06:46	12/15/22 19:33	5
Beryllium	0.299	J	0.498	0.0687	mg/Kg		12/15/22 06:46	12/15/22 19:33	5
Cadmium	ND		0.498	0.0826	mg/Kg		12/15/22 06:46	12/15/22 19:33	5
Cobalt	3.69		0.995	0.205	mg/Kg		12/15/22 06:46	12/15/22 19:33	5
Chromium	11.5	B	0.995	0.185	mg/Kg		12/15/22 06:46	12/15/22 19:33	5
Copper	4.13		1.99	0.953	mg/Kg		12/15/22 06:46	12/15/22 19:33	5
Molybdenum	ND		1.99	0.512	mg/Kg		12/15/22 06:46	12/15/22 19:33	5
Nickel	3.56		1.99	0.360	mg/Kg		12/15/22 06:46	12/15/22 19:33	5
Antimony	ND		9.95	2.84	mg/Kg		12/15/22 06:46	12/15/22 19:33	5
Selenium	ND		2.99	1.22	mg/Kg		12/15/22 06:46	12/15/22 19:33	5
Thallium	ND		9.95	2.10	mg/Kg		12/15/22 06:46	12/15/22 19:33	5
Vanadium	32.4		0.995	0.167	mg/Kg		12/15/22 06:46	12/15/22 19:33	5
Zinc	11.3		4.98	1.15	mg/Kg		12/15/22 06:46	12/15/22 19:33	5
Lead	5.98		1.99	0.407	mg/Kg		12/15/22 06:46	12/15/22 19:33	5

Client Sample ID: B-24@15'  
Date Collected: 12/13/22 09:47  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-10  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/15/22 06:46	12/15/22 19:35	5
Arsenic	4.82		3.02	1.40	mg/Kg		12/15/22 06:46	12/15/22 19:35	5
Barium	48.7		3.02	0.143	mg/Kg		12/15/22 06:46	12/15/22 19:35	5
Beryllium	0.427	J	0.503	0.0693	mg/Kg		12/15/22 06:46	12/15/22 19:35	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/15/22 06:46	12/15/22 19:35	5
Cobalt	4.45		1.01	0.207	mg/Kg		12/15/22 06:46	12/15/22 19:35	5
Chromium	18.2	B	1.01	0.187	mg/Kg		12/15/22 06:46	12/15/22 19:35	5
Copper	5.41		2.01	0.963	mg/Kg		12/15/22 06:46	12/15/22 19:35	5
Molybdenum	0.540	J	2.01	0.518	mg/Kg		12/15/22 06:46	12/15/22 19:35	5
Nickel	5.25		2.01	0.364	mg/Kg		12/15/22 06:46	12/15/22 19:35	5
Antimony	ND		10.1	2.87	mg/Kg		12/15/22 06:46	12/15/22 19:35	5
Selenium	ND		3.02	1.23	mg/Kg		12/15/22 06:46	12/15/22 19:35	5
Thallium	ND		10.1	2.12	mg/Kg		12/15/22 06:46	12/15/22 19:35	5
Vanadium	42.0		1.01	0.169	mg/Kg		12/15/22 06:46	12/15/22 19:35	5
Zinc	16.3		5.03	1.16	mg/Kg		12/15/22 06:46	12/15/22 19:35	5
Lead	9.79		2.01	0.411	mg/Kg		12/15/22 06:46	12/15/22 19:35	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-24@20'  
Date Collected: 12/13/22 09:53  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-11  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/16/22 06:39	12/16/22 23:23	5
Arsenic	2.56	J	3.06	1.42	mg/Kg		12/16/22 06:39	12/16/22 23:23	5
Barium	25.7		3.06	0.145	mg/Kg		12/16/22 06:39	12/16/22 23:23	5
Beryllium	0.153	J	0.510	0.0704	mg/Kg		12/16/22 06:39	12/16/22 23:23	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/16/22 06:39	12/16/22 23:23	5
Cobalt	3.11		1.02	0.210	mg/Kg		12/16/22 06:39	12/16/22 23:23	5
Chromium	5.01		1.02	0.190	mg/Kg		12/16/22 06:39	12/16/22 23:23	5
Copper	5.80		2.04	0.978	mg/Kg		12/16/22 06:39	12/16/22 23:23	5
Molybdenum	ND		2.04	0.526	mg/Kg		12/16/22 06:39	12/16/22 23:23	5
Nickel	2.79		2.04	0.369	mg/Kg		12/16/22 06:39	12/16/22 23:23	5
Antimony	ND		10.2	2.92	mg/Kg		12/16/22 06:39	12/16/22 23:23	5
Selenium	ND		3.06	1.25	mg/Kg		12/16/22 06:39	12/16/22 23:23	5
Thallium	ND		10.2	2.15	mg/Kg		12/16/22 06:39	12/16/22 23:23	5
Vanadium	14.6		1.02	0.171	mg/Kg		12/16/22 06:39	12/16/22 23:23	5
Zinc	11.6		5.10	1.18	mg/Kg		12/16/22 06:39	12/16/22 23:23	5
Lead	6.51		2.04	0.417	mg/Kg		12/16/22 06:39	12/16/22 23:23	5

Client Sample ID: B-42@2.5'  
Date Collected: 12/13/22 11:30  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.48	0.142	mg/Kg		12/16/22 06:39	12/16/22 23:26	5
Arsenic	7.28		2.96	1.37	mg/Kg		12/16/22 06:39	12/16/22 23:26	5
Barium	32.8		2.96	0.140	mg/Kg		12/16/22 06:39	12/16/22 23:26	5
Beryllium	0.283	J	0.493	0.0680	mg/Kg		12/16/22 06:39	12/16/22 23:26	5
Cadmium	ND		0.493	0.0818	mg/Kg		12/16/22 06:39	12/16/22 23:26	5
Cobalt	18.6		0.985	0.203	mg/Kg		12/16/22 06:39	12/16/22 23:26	5
Chromium	13.6		0.985	0.183	mg/Kg		12/16/22 06:39	12/16/22 23:26	5
Copper	4.67		1.97	0.944	mg/Kg		12/16/22 06:39	12/16/22 23:26	5
Molybdenum	ND		1.97	0.507	mg/Kg		12/16/22 06:39	12/16/22 23:26	5
Nickel	4.80		1.97	0.357	mg/Kg		12/16/22 06:39	12/16/22 23:26	5
Antimony	ND		9.85	2.81	mg/Kg		12/16/22 06:39	12/16/22 23:26	5
Selenium	ND		2.96	1.20	mg/Kg		12/16/22 06:39	12/16/22 23:26	5
Thallium	ND		9.85	2.07	mg/Kg		12/16/22 06:39	12/16/22 23:26	5
Vanadium	42.7		0.985	0.166	mg/Kg		12/16/22 06:39	12/16/22 23:26	5
Zinc	13.6		4.93	1.14	mg/Kg		12/16/22 06:39	12/16/22 23:26	5
Lead	6.95		1.97	0.403	mg/Kg		12/16/22 06:39	12/16/22 23:26	5

Client Sample ID: B-42@5'  
Date Collected: 12/13/22 11:35  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.146	mg/Kg		12/16/22 06:39	12/16/22 23:28	5
Arsenic	2.36	J	3.05	1.41	mg/Kg		12/16/22 06:39	12/16/22 23:28	5
Barium	27.3		3.05	0.144	mg/Kg		12/16/22 06:39	12/16/22 23:28	5
Beryllium	0.279	J	0.508	0.0701	mg/Kg		12/16/22 06:39	12/16/22 23:28	5
Cadmium	ND		0.508	0.0843	mg/Kg		12/16/22 06:39	12/16/22 23:28	5
Cobalt	3.98		1.02	0.209	mg/Kg		12/16/22 06:39	12/16/22 23:28	5
Chromium	14.1		1.02	0.189	mg/Kg		12/16/22 06:39	12/16/22 23:28	5
Copper	4.29		2.03	0.973	mg/Kg		12/16/22 06:39	12/16/22 23:28	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-42@5'  
Date Collected: 12/13/22 11:35  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		2.03	0.523	mg/Kg		12/16/22 06:39	12/16/22 23:28	5
Nickel	3.74		2.03	0.368	mg/Kg		12/16/22 06:39	12/16/22 23:28	5
Antimony	ND		10.2	2.90	mg/Kg		12/16/22 06:39	12/16/22 23:28	5
Selenium	ND		3.05	1.24	mg/Kg		12/16/22 06:39	12/16/22 23:28	5
Thallium	ND		10.2	2.14	mg/Kg		12/16/22 06:39	12/16/22 23:28	5
Vanadium	38.9		1.02	0.171	mg/Kg		12/16/22 06:39	12/16/22 23:28	5
Zinc	11.4		5.08	1.17	mg/Kg		12/16/22 06:39	12/16/22 23:28	5
Lead	6.65		2.03	0.415	mg/Kg		12/16/22 06:39	12/16/22 23:28	5

Client Sample ID: B-42@10'  
Date Collected: 12/13/22 11:43  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-14  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/16/22 06:39	12/16/22 23:31	5
Arsenic	3.13		2.99	1.38	mg/Kg		12/16/22 06:39	12/16/22 23:31	5
Barium	43.0		2.99	0.141	mg/Kg		12/16/22 06:39	12/16/22 23:31	5
Beryllium	0.323	J	0.498	0.0687	mg/Kg		12/16/22 06:39	12/16/22 23:31	5
Cadmium	ND		0.498	0.0826	mg/Kg		12/16/22 06:39	12/16/22 23:31	5
Cobalt	3.91		0.995	0.205	mg/Kg		12/16/22 06:39	12/16/22 23:31	5
Chromium	11.8		0.995	0.185	mg/Kg		12/16/22 06:39	12/16/22 23:31	5
Copper	6.92		1.99	0.953	mg/Kg		12/16/22 06:39	12/16/22 23:31	5
Molybdenum	ND		1.99	0.512	mg/Kg		12/16/22 06:39	12/16/22 23:31	5
Nickel	4.69		1.99	0.360	mg/Kg		12/16/22 06:39	12/16/22 23:31	5
Antimony	ND		9.95	2.84	mg/Kg		12/16/22 06:39	12/16/22 23:31	5
Selenium	ND		2.99	1.22	mg/Kg		12/16/22 06:39	12/16/22 23:31	5
Thallium	ND		9.95	2.10	mg/Kg		12/16/22 06:39	12/16/22 23:31	5
Vanadium	30.9		0.995	0.167	mg/Kg		12/16/22 06:39	12/16/22 23:31	5
Zinc	21.8		4.98	1.15	mg/Kg		12/16/22 06:39	12/16/22 23:31	5
Lead	8.79		1.99	0.407	mg/Kg		12/16/22 06:39	12/16/22 23:31	5

Client Sample ID: B-42@15'  
Date Collected: 12/13/22 11:50  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-15  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.48	0.142	mg/Kg		12/16/22 06:39	12/16/22 23:33	5
Arsenic	3.81		2.96	1.37	mg/Kg		12/16/22 06:39	12/16/22 23:33	5
Barium	44.0		2.96	0.140	mg/Kg		12/16/22 06:39	12/16/22 23:33	5
Beryllium	0.308	J	0.493	0.0680	mg/Kg		12/16/22 06:39	12/16/22 23:33	5
Cadmium	ND		0.493	0.0818	mg/Kg		12/16/22 06:39	12/16/22 23:33	5
Cobalt	3.87		0.985	0.203	mg/Kg		12/16/22 06:39	12/16/22 23:33	5
Chromium	12.7		0.985	0.183	mg/Kg		12/16/22 06:39	12/16/22 23:33	5
Copper	7.89		1.97	0.944	mg/Kg		12/16/22 06:39	12/16/22 23:33	5
Molybdenum	ND		1.97	0.507	mg/Kg		12/16/22 06:39	12/16/22 23:33	5
Nickel	4.68		1.97	0.357	mg/Kg		12/16/22 06:39	12/16/22 23:33	5
Antimony	ND		9.85	2.81	mg/Kg		12/16/22 06:39	12/16/22 23:33	5
Selenium	ND		2.96	1.20	mg/Kg		12/16/22 06:39	12/16/22 23:33	5
Thallium	ND		9.85	2.07	mg/Kg		12/16/22 06:39	12/16/22 23:33	5
Vanadium	31.0		0.985	0.166	mg/Kg		12/16/22 06:39	12/16/22 23:33	5
Zinc	20.3		4.93	1.14	mg/Kg		12/16/22 06:39	12/16/22 23:33	5
Lead	7.76		1.97	0.403	mg/Kg		12/16/22 06:39	12/16/22 23:33	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-42@20'  
Date Collected: 12/13/22 11:59  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-16  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/16/22 06:39	12/16/22 23:35	5
Arsenic	4.05		3.00	1.39	mg/Kg		12/16/22 06:39	12/16/22 23:35	5
Barium	51.8		3.00	0.142	mg/Kg		12/16/22 06:39	12/16/22 23:35	5
Beryllium	0.250	J	0.500	0.0690	mg/Kg		12/16/22 06:39	12/16/22 23:35	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/16/22 06:39	12/16/22 23:35	5
Cobalt	2.94		1.00	0.206	mg/Kg		12/16/22 06:39	12/16/22 23:35	5
Chromium	9.73		1.00	0.186	mg/Kg		12/16/22 06:39	12/16/22 23:35	5
Copper	8.10		2.00	0.958	mg/Kg		12/16/22 06:39	12/16/22 23:35	5
Molybdenum	ND		2.00	0.515	mg/Kg		12/16/22 06:39	12/16/22 23:35	5
Nickel	3.74		2.00	0.362	mg/Kg		12/16/22 06:39	12/16/22 23:35	5
Antimony	ND		10.0	2.86	mg/Kg		12/16/22 06:39	12/16/22 23:35	5
Selenium	ND		3.00	1.22	mg/Kg		12/16/22 06:39	12/16/22 23:35	5
Thallium	ND		10.0	2.11	mg/Kg		12/16/22 06:39	12/16/22 23:35	5
Vanadium	23.6		1.00	0.168	mg/Kg		12/16/22 06:39	12/16/22 23:35	5
Zinc	19.9		5.00	1.16	mg/Kg		12/16/22 06:39	12/16/22 23:35	5
Lead	12.9		2.00	0.409	mg/Kg		12/16/22 06:39	12/16/22 23:35	5

Client Sample ID: B-42@25'  
Date Collected: 12/13/22 12:07  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-17  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/16/22 06:39	12/16/22 23:38	5
Arsenic	4.36		3.06	1.42	mg/Kg		12/16/22 06:39	12/16/22 23:38	5
Barium	77.3		3.06	0.145	mg/Kg		12/16/22 06:39	12/16/22 23:38	5
Beryllium	0.268	J	0.510	0.0704	mg/Kg		12/16/22 06:39	12/16/22 23:38	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/16/22 06:39	12/16/22 23:38	5
Cobalt	3.20		1.02	0.210	mg/Kg		12/16/22 06:39	12/16/22 23:38	5
Chromium	9.58		1.02	0.190	mg/Kg		12/16/22 06:39	12/16/22 23:38	5
Copper	15.8		2.04	0.978	mg/Kg		12/16/22 06:39	12/16/22 23:38	5
Molybdenum	0.536	J	2.04	0.526	mg/Kg		12/16/22 06:39	12/16/22 23:38	5
Nickel	3.62		2.04	0.369	mg/Kg		12/16/22 06:39	12/16/22 23:38	5
Antimony	ND		10.2	2.92	mg/Kg		12/16/22 06:39	12/16/22 23:38	5
Selenium	ND		3.06	1.25	mg/Kg		12/16/22 06:39	12/16/22 23:38	5
Thallium	ND		10.2	2.15	mg/Kg		12/16/22 06:39	12/16/22 23:38	5
Vanadium	24.1		1.02	0.171	mg/Kg		12/16/22 06:39	12/16/22 23:38	5
Zinc	27.7		5.10	1.18	mg/Kg		12/16/22 06:39	12/16/22 23:38	5
Lead	28.2		2.04	0.417	mg/Kg		12/16/22 06:39	12/16/22 23:38	5

Client Sample ID: B-42@30'  
Date Collected: 12/13/22 12:17  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-18  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/16/22 06:39	12/16/22 23:48	5
Arsenic	8.95		3.06	1.42	mg/Kg		12/16/22 06:39	12/16/22 23:48	5
Barium	317		3.06	0.145	mg/Kg		12/16/22 06:39	12/16/22 23:48	5
Beryllium	0.370	J	0.510	0.0704	mg/Kg		12/16/22 06:39	12/16/22 23:48	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/16/22 06:39	12/16/22 23:48	5
Cobalt	4.30		1.02	0.210	mg/Kg		12/16/22 06:39	12/16/22 23:48	5
Chromium	8.69		1.02	0.190	mg/Kg		12/16/22 06:39	12/16/22 23:48	5
Copper	9.97		2.04	0.978	mg/Kg		12/16/22 06:39	12/16/22 23:48	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-42@30'  
Date Collected: 12/13/22 12:17  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-18  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		2.04	0.526	mg/Kg		12/16/22 06:39	12/16/22 23:48	5
Nickel	4.78		2.04	0.369	mg/Kg		12/16/22 06:39	12/16/22 23:48	5
Antimony	ND		10.2	2.92	mg/Kg		12/16/22 06:39	12/16/22 23:48	5
Selenium	ND		3.06	1.25	mg/Kg		12/16/22 06:39	12/16/22 23:48	5
Thallium	ND		10.2	2.15	mg/Kg		12/16/22 06:39	12/16/22 23:48	5
Vanadium	21.6		1.02	0.171	mg/Kg		12/16/22 06:39	12/16/22 23:48	5
Zinc	30.5		5.10	1.18	mg/Kg		12/16/22 06:39	12/16/22 23:48	5
Lead	42.2		2.04	0.417	mg/Kg		12/16/22 06:39	12/16/22 23:48	5

Client Sample ID: B-42@35'  
Date Collected: 12/13/22 12:40  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-19  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/16/22 06:39	12/16/22 23:50	5
Arsenic	6.21		3.00	1.39	mg/Kg		12/16/22 06:39	12/16/22 23:50	5
Barium	64.3		3.00	0.142	mg/Kg		12/16/22 06:39	12/16/22 23:50	5
Beryllium	0.363	J	0.500	0.0690	mg/Kg		12/16/22 06:39	12/16/22 23:50	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/16/22 06:39	12/16/22 23:50	5
Cobalt	4.48		1.00	0.206	mg/Kg		12/16/22 06:39	12/16/22 23:50	5
Chromium	13.9		1.00	0.186	mg/Kg		12/16/22 06:39	12/16/22 23:50	5
Copper	19.4		2.00	0.958	mg/Kg		12/16/22 06:39	12/16/22 23:50	5
Molybdenum	0.925	J	2.00	0.515	mg/Kg		12/16/22 06:39	12/16/22 23:50	5
Nickel	6.49		2.00	0.362	mg/Kg		12/16/22 06:39	12/16/22 23:50	5
Antimony	ND		10.0	2.86	mg/Kg		12/16/22 06:39	12/16/22 23:50	5
Selenium	ND		3.00	1.22	mg/Kg		12/16/22 06:39	12/16/22 23:50	5
Thallium	ND		10.0	2.11	mg/Kg		12/16/22 06:39	12/16/22 23:50	5
Vanadium	22.4		1.00	0.168	mg/Kg		12/16/22 06:39	12/16/22 23:50	5
Zinc	35.9		5.00	1.16	mg/Kg		12/16/22 06:39	12/16/22 23:50	5
Lead	23.1		2.00	0.409	mg/Kg		12/16/22 06:39	12/16/22 23:50	5

Client Sample ID: B-42@40'  
Date Collected: 12/13/22 12:51  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-20  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/16/22 06:39	12/16/22 23:52	5
Arsenic	5.91		3.06	1.42	mg/Kg		12/16/22 06:39	12/16/22 23:52	5
Barium	117		3.06	0.145	mg/Kg		12/16/22 06:39	12/16/22 23:52	5
Beryllium	0.306	J	0.510	0.0704	mg/Kg		12/16/22 06:39	12/16/22 23:52	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/16/22 06:39	12/16/22 23:52	5
Cobalt	3.02		1.02	0.210	mg/Kg		12/16/22 06:39	12/16/22 23:52	5
Chromium	8.05		1.02	0.190	mg/Kg		12/16/22 06:39	12/16/22 23:52	5
Copper	7.17		2.04	0.978	mg/Kg		12/16/22 06:39	12/16/22 23:52	5
Molybdenum	1.26	J	2.04	0.526	mg/Kg		12/16/22 06:39	12/16/22 23:52	5
Nickel	3.38		2.04	0.369	mg/Kg		12/16/22 06:39	12/16/22 23:52	5
Antimony	ND		10.2	2.92	mg/Kg		12/16/22 06:39	12/16/22 23:52	5
Selenium	ND		3.06	1.25	mg/Kg		12/16/22 06:39	12/16/22 23:52	5
Thallium	ND		10.2	2.15	mg/Kg		12/16/22 06:39	12/16/22 23:52	5
Vanadium	21.2		1.02	0.171	mg/Kg		12/16/22 06:39	12/16/22 23:52	5
Zinc	16.4		5.10	1.18	mg/Kg		12/16/22 06:39	12/16/22 23:52	5
Lead	20.8		2.04	0.417	mg/Kg		12/16/22 06:39	12/16/22 23:52	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-42@45'  
Date Collected: 12/13/22 13:07  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-21  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/16/22 06:39	12/16/22 23:04	5
Arsenic	7.38		3.00	1.39	mg/Kg		12/16/22 06:39	12/16/22 23:04	5
Barium	74.8		3.00	0.142	mg/Kg		12/16/22 06:39	12/16/22 23:04	5
Beryllium	0.325	J	0.500	0.0690	mg/Kg		12/16/22 06:39	12/16/22 23:04	5
Cadmium	0.0875	J	0.500	0.0830	mg/Kg		12/16/22 06:39	12/16/22 23:04	5
Cobalt	3.79		1.00	0.206	mg/Kg		12/16/22 06:39	12/16/22 23:04	5
Chromium	21.7		1.00	0.186	mg/Kg		12/16/22 06:39	12/16/22 23:04	5
Copper	24.5		2.00	0.958	mg/Kg		12/16/22 06:39	12/16/22 23:04	5
Molybdenum	3.09		2.00	0.515	mg/Kg		12/16/22 06:39	12/16/22 23:04	5
Nickel	7.28		2.00	0.362	mg/Kg		12/16/22 06:39	12/16/22 23:04	5
Antimony	ND	F1	10.0	2.86	mg/Kg		12/16/22 06:39	12/16/22 23:04	5
Selenium	ND		3.00	1.22	mg/Kg		12/16/22 06:39	12/16/22 23:04	5
Thallium	ND		10.0	2.11	mg/Kg		12/16/22 06:39	12/16/22 23:04	5
Vanadium	25.6		1.00	0.168	mg/Kg		12/16/22 06:39	12/16/22 23:04	5
Zinc	40.5		5.00	1.16	mg/Kg		12/16/22 06:39	12/16/22 23:04	5
Lead	19.4		2.00	0.409	mg/Kg		12/16/22 06:39	12/16/22 23:04	5

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: SW846 7471A - Mercury (CVAA)

**Client Sample ID: B-20@2.5"**  
**Date Collected: 12/13/22 07:13**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-1**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg	-	12/19/22 16:28	12/20/22 12:53	1

**Client Sample ID: B-20@5"**  
**Date Collected: 12/13/22 07:22**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-2**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg	-	12/19/22 16:28	12/20/22 12:59	1

**Client Sample ID: B-22@2.5"**  
**Date Collected: 12/13/22 08:20**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-3**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg	-	12/19/22 16:28	12/20/22 13:01	1

**Client Sample ID: B-22@5"**  
**Date Collected: 12/13/22 08:25**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-4**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg	-	12/19/22 16:28	12/20/22 13:03	1

**Client Sample ID: B-22@10'**  
**Date Collected: 12/13/22 08:32**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-5**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg	-	12/19/22 16:28	12/20/22 13:05	1

**Client Sample ID: B-22@15'**  
**Date Collected: 12/13/22 08:40**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-6**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg	-	12/19/22 16:28	12/20/22 13:07	1

**Client Sample ID: B-24@2.5'**  
**Date Collected: 12/13/22 09:31**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-7**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg	-	12/19/22 17:48	12/20/22 13:14	1

**Client Sample ID: B-24@5'**  
**Date Collected: 12/13/22 09:35**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-8**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg	-	12/19/22 17:48	12/20/22 13:24	1

**Client Sample ID: B-24@10'**  
**Date Collected: 12/13/22 09:40**  
**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-9**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg	-	12/19/22 17:48	12/20/22 13:26	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: SW846 7471A - Mercury (CVAA)

Client Sample ID: B-24@15'  
Date Collected: 12/13/22 09:47  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-10  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0327	J	0.0833	0.0320	mg/Kg	—	12/19/22 17:48	12/20/22 13:27	1

Client Sample ID: B-24@20'  
Date Collected: 12/13/22 09:53  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-11  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0370	J	0.0817	0.0314	mg/Kg	—	12/19/22 17:48	12/20/22 13:29	1

Client Sample ID: B-42@2.5'  
Date Collected: 12/13/22 11:30  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg	—	12/19/22 17:48	12/20/22 13:31	1

Client Sample ID: B-42@5'  
Date Collected: 12/13/22 11:35  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg	—	12/19/22 17:48	12/20/22 13:33	1

Client Sample ID: B-42@10'  
Date Collected: 12/13/22 11:43  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-14  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0326	J	0.0817	0.0314	mg/Kg	—	12/19/22 17:48	12/20/22 13:35	1

Client Sample ID: B-42@15'  
Date Collected: 12/13/22 11:50  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-15  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg	—	12/19/22 17:48	12/20/22 13:37	1

Client Sample ID: B-42@20'  
Date Collected: 12/13/22 11:59  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-16  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg	—	12/19/22 17:48	12/20/22 13:39	1

Client Sample ID: B-42@25'  
Date Collected: 12/13/22 12:07  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-17  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg	—	12/19/22 17:48	12/20/22 13:44	1

Client Sample ID: B-42@30'  
Date Collected: 12/13/22 12:17  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-18  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg	—	12/19/22 17:48	12/20/22 13:46	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: SW846 7471A - Mercury (CVAA)

Client Sample ID: B-42@35'  
Date Collected: 12/13/22 12:40  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-19  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0347	J	0.0817	0.0314	mg/Kg		12/19/22 17:48	12/20/22 13:48	1

Client Sample ID: B-42@40'  
Date Collected: 12/13/22 12:51  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-20  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0330	J	0.0833	0.0320	mg/Kg		12/19/22 17:48	12/20/22 13:50	1

Client Sample ID: B-42@45'  
Date Collected: 12/13/22 13:07  
Date Received: 12/13/22 17:10

Lab Sample ID: 570-120771-21  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0424	J	0.0850	0.0327	mg/Kg		12/19/22 17:48	12/20/22 13:52	1

# Surrogate Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1 (42-126)
570-120771-1	B-20@2.5"	86
570-120771-1 MS	B-20@2.5"	96
570-120771-1 MSD	B-20@2.5"	92
570-120771-2	B-20@5"	82
570-120771-3	B-22@2.5"	87
570-120771-4	B-22@5"	82
570-120771-5	B-22@10'	75
570-120771-6	B-22@15'	80
570-120771-7	B-24@2.5'	84
570-120771-8	B-24@5'	82
570-120771-9	B-24@10'	84
570-120771-10	B-24@15'	78
570-120771-11	B-24@20'	81
570-120771-12	B-42@2.5'	77
570-120771-13	B-42@5'	82
570-120771-14	B-42@10'	77
570-120771-15	B-42@15'	83
570-120771-16	B-42@20'	78
570-120771-17	B-42@25'	83
570-120771-18	B-42@30'	77
570-120771-19	B-42@35'	85
570-120771-20	B-42@40'	82
570-120771-21	B-42@45'	76
LCS 570-289402/1-A	Lab Control Sample	99
LCS 570-290192/1-A	Lab Control Sample	78
LCSD 570-289402/2-A	Lab Control Sample Dup	101
LCSD 570-290192/2-A	Lab Control Sample Dup	82
MB 570-289402/3-A	Method Blank	85
MB 570-290192/3-A	Method Blank	50

#### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (60-138)
570-120771-1	B-20@2.5"	126
570-120771-1 MS	B-20@2.5"	117
570-120771-1 MSD	B-20@2.5"	125
570-120771-2	B-20@5"	130
570-120771-3	B-22@2.5"	128
570-120771-4	B-22@5"	126
570-120771-5	B-22@10'	124
570-120771-6	B-22@15'	122
570-120771-7	B-24@2.5'	119
570-120771-8	B-24@5'	121
570-120771-9	B-24@10'	124

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# Surrogate Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

**Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)**

**Matrix: Solid**

**Prep Type: Total/NA**

## Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (60-138)
570-120771-10	B-24@15'	123
570-120771-11	B-24@20'	114
570-120771-12	B-42@2.5'	125
570-120771-13	B-42@5'	123
570-120771-14	B-42@10'	125
570-120771-15	B-42@15'	124
570-120771-16	B-42@20'	123
570-120771-17	B-42@25'	117
570-120771-18	B-42@30'	117
570-120771-19	B-42@35'	118
570-120771-20	B-42@40'	117
570-120771-21	B-42@45'	126
LCS 570-289299/2-A	Lab Control Sample	103
LCS 570-289403/2-A	Lab Control Sample	121
LCSD 570-289299/3-A	Lab Control Sample Dup	101
LCSD 570-289403/3-A	Lab Control Sample Dup	117
MB 570-289299/1-A	Method Blank	98
MB 570-289403/1-A	Method Blank	111

### Surrogate Legend

OTCSN = n-Octacosane (Surr)



# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-289402/3-A

Matrix: Solid

Analysis Batch: 289421

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289402

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/15/22 16:19	12/16/22 04:06	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		42 - 126				12/15/22 16:19	12/16/22 04:06	1

Lab Sample ID: LCS 570-289402/1-A

Matrix: Solid

Analysis Batch: 289421

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289402

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	1.91	1.706		mg/Kg		89	70 - 124
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	99		42 - 126				

Lab Sample ID: LCSD 570-289402/2-A

Matrix: Solid

Analysis Batch: 289421

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289402

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	1.90	1.726		mg/Kg		91	70 - 124	1	18
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	101		42 - 126						

Lab Sample ID: 570-120771-1 MS

Matrix: Solid

Analysis Batch: 289421

Client Sample ID: B-20@2.5"

Prep Type: Total/NA

Prep Batch: 289402

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	ND		1.91	1.504		mg/Kg		79	48 - 114
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	96		42 - 126						

Lab Sample ID: 570-120771-1 MSD

Matrix: Solid

Analysis Batch: 289421

Client Sample ID: B-20@2.5"

Prep Type: Total/NA

Prep Batch: 289402

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	ND		1.92	1.236		mg/Kg		64	48 - 114	20	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	92		42 - 126								

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-290192/3-A

Matrix: Solid

Analysis Batch: 290189

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290192

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/19/22 09:41	12/19/22 12:02	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	50		42 - 126				12/19/22 09:41	12/19/22 12:02	1

Lab Sample ID: LCS 570-290192/1-A

Matrix: Solid

Analysis Batch: 290189

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290192

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	1.92	1.868		mg/Kg		97	70 - 124
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	78		42 - 126				

Lab Sample ID: LCSD 570-290192/2-A

Matrix: Solid

Analysis Batch: 290189

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290192

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	1.92	1.905		mg/Kg		99	70 - 124	2	18
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	82		42 - 126						

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-289299/1-A

Matrix: Solid

Analysis Batch: 289480

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289299

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/15/22 11:29	12/15/22 23:45	1
C23-C40	ND		5.0	3.8	mg/Kg		12/15/22 11:29	12/15/22 23:45	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	98		60 - 138				12/15/22 11:29	12/15/22 23:45	1

Lab Sample ID: LCS 570-289299/2-A

Matrix: Solid

Analysis Batch: 289480

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289299

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	400	486.8		mg/Kg		122	80 - 130

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 570-289299/2-A

Matrix: Solid

Analysis Batch: 289480

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289299

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	103		60 - 138

Lab Sample ID: LCSD 570-289299/3-A

Matrix: Solid

Analysis Batch: 289480

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289299

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	400	474.1		mg/Kg		119	80 - 130	3	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	101		60 - 138

Lab Sample ID: MB 570-289403/1-A

Matrix: Solid

Analysis Batch: 290079

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289403

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/15/22 16:23	12/19/22 15:59	1
C23-C40	ND		5.0	3.8	mg/Kg		12/15/22 16:23	12/19/22 15:59	1

	MB	MB	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	111		60 - 138

	Prepared	Analyzed	Dil Fac
	12/15/22 16:23	12/19/22 15:59	1

Lab Sample ID: LCS 570-289403/2-A

Matrix: Solid

Analysis Batch: 289779

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289403

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	400	442.6		mg/Kg		111	80 - 130

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	121		60 - 138

Lab Sample ID: LCSD 570-289403/3-A

Matrix: Solid

Analysis Batch: 289779

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289403

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	400	441.1		mg/Kg		110	80 - 130	0	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	117		60 - 138

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 570-120771-1 MS

Matrix: Solid

Analysis Batch: 289779

Client Sample ID: B-20@2.5"

Prep Type: Total/NA

Prep Batch: 289403

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	43		401	432.5		mg/Kg		97	43 - 165		
Surrogate	MS %Recovery	MS Qualifier	MS Limits								
n-Octacosane (Surr)	117		60 - 138								

Lab Sample ID: 570-120771-1 MSD

Matrix: Solid

Analysis Batch: 289779

Client Sample ID: B-20@2.5"

Prep Type: Total/NA

Prep Batch: 289403

Top Data: 200-400											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	43		402	452.7		mg/Kg		102	43 - 165	5	35
Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits								
n-Octacosane (Surr)	125		60 - 138								

## Method: 6010B - Metals (ICP)

Lab Sample ID: MB 570-289221/1-A ^5

Matrix: Solid

Analysis Batch: 289521

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289221

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/15/22 06:46	12/15/22 18:27	5
Arsenic	ND		2.99	1.38	mg/Kg		12/15/22 06:46	12/15/22 18:27	5
Barium	ND		2.99	0.141	mg/Kg		12/15/22 06:46	12/15/22 18:27	5
Beryllium	ND		0.498	0.0687	mg/Kg		12/15/22 06:46	12/15/22 18:27	5
Cadmium	ND		0.498	0.0826	mg/Kg		12/15/22 06:46	12/15/22 18:27	5
Cobalt	ND		0.995	0.205	mg/Kg		12/15/22 06:46	12/15/22 18:27	5
Chromium	0.3607	J	0.995	0.185	mg/Kg		12/15/22 06:46	12/15/22 18:27	5
Copper	ND		1.99	0.953	mg/Kg		12/15/22 06:46	12/15/22 18:27	5
Molybdenum	ND		1.99	0.512	mg/Kg		12/15/22 06:46	12/15/22 18:27	5
Nickel	ND		1.99	0.360	mg/Kg		12/15/22 06:46	12/15/22 18:27	5
Antimony	ND		9.95	2.84	mg/Kg		12/15/22 06:46	12/15/22 18:27	5
Selenium	ND		2.99	1.22	mg/Kg		12/15/22 06:46	12/15/22 18:27	5
Thallium	ND		9.95	2.10	mg/Kg		12/15/22 06:46	12/15/22 18:27	5
Vanadium	ND		0.995	0.167	mg/Kg		12/15/22 06:46	12/15/22 18:27	5
Zinc	ND		4.98	1.15	mg/Kg		12/15/22 06:46	12/15/22 18:27	5
Lead	ND		1.99	0.407	mg/Kg		12/15/22 06:46	12/15/22 18:27	5

Lab Sample ID: LCS 570-289221/2-A ^5

Matrix: Solid

Analysis Batch: 289521

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289221

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	25.4	22.69		mg/Kg		89	80 - 120
Arsenic	50.8	44.97		mg/Kg		89	80 - 120
Barium	50.8	46.43		mg/Kg		91	80 - 120

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 570-289221/2-A ^5

Matrix: Solid

Analysis Batch: 289521

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289221

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium	50.8	45.80		mg/Kg		90	80 - 120
Cadmium	50.8	45.57		mg/Kg		90	80 - 120
Cobalt	50.8	45.56		mg/Kg		90	80 - 120
Chromium	50.8	46.12		mg/Kg		91	80 - 120
Copper	50.8	45.69		mg/Kg		90	80 - 120
Molybdenum	50.8	47.13		mg/Kg		93	80 - 120
Nickel	50.8	46.28		mg/Kg		91	80 - 120
Antimony	50.8	50.23		mg/Kg		99	80 - 120
Selenium	50.8	42.98		mg/Kg		85	80 - 120
Thallium	50.8	45.41		mg/Kg		89	80 - 120
Vanadium	50.8	45.57		mg/Kg		90	80 - 120
Zinc	50.8	45.00		mg/Kg		89	80 - 120
Lead	50.8	45.65		mg/Kg		90	80 - 120

Lab Sample ID: LCSD 570-289221/3-A ^5

Matrix: Solid

Analysis Batch: 289521

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289221

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	24.9	21.78		mg/Kg		88	80 - 120	4	20
Arsenic	49.8	43.17		mg/Kg		87	80 - 120	4	20
Barium	49.8	44.60		mg/Kg		90	80 - 120	4	20
Beryllium	49.8	44.04		mg/Kg		89	80 - 120	4	20
Cadmium	49.8	43.98		mg/Kg		88	80 - 120	4	20
Cobalt	49.8	44.50		mg/Kg		89	80 - 120	2	20
Chromium	49.8	44.43		mg/Kg		89	80 - 120	4	20
Copper	49.8	43.93		mg/Kg		88	80 - 120	4	20
Molybdenum	49.8	45.35		mg/Kg		91	80 - 120	4	20
Nickel	49.8	44.53		mg/Kg		89	80 - 120	4	20
Antimony	49.8	48.20		mg/Kg		97	80 - 120	4	20
Selenium	49.8	41.27		mg/Kg		83	80 - 120	4	20
Thallium	49.8	43.98		mg/Kg		88	80 - 120	3	20
Vanadium	49.8	43.86		mg/Kg		88	80 - 120	4	20
Zinc	49.8	43.12		mg/Kg		87	80 - 120	4	20
Lead	49.8	43.83		mg/Kg		88	80 - 120	4	20

Lab Sample ID: MB 570-289571/1-A ^5

Matrix: Solid

Analysis Batch: 289919

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289571

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Arsenic	ND		2.99	1.38	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Barium	ND		2.99	0.141	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Beryllium	ND		0.498	0.0687	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Cadmium	ND		0.498	0.0826	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Cobalt	ND		0.995	0.205	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Chromium	ND		0.995	0.185	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Copper	ND		1.99	0.953	mg/Kg		12/16/22 06:39	12/16/22 22:54	5

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 570-289571/1-A ^5

Matrix: Solid

Analysis Batch: 289919

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289571

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		1.99	0.512	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Nickel	ND		1.99	0.360	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Antimony	ND		9.95	2.84	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Selenium	ND		2.99	1.22	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Thallium	ND		9.95	2.10	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Vanadium	ND		0.995	0.167	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Zinc	ND		4.98	1.15	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Lead	ND		1.99	0.407	mg/Kg		12/16/22 06:39	12/16/22 22:54	5

Lab Sample ID: LCS 570-289571/2-A ^5

Matrix: Solid

Analysis Batch: 289919

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289571

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	25.5	22.98		mg/Kg		90	80 - 120
Arsenic	51.0	45.66		mg/Kg		90	80 - 120
Barium	51.0	46.15		mg/Kg		90	80 - 120
Beryllium	51.0	46.24		mg/Kg		91	80 - 120
Cadmium	51.0	46.10		mg/Kg		90	80 - 120
Cobalt	51.0	46.08		mg/Kg		90	80 - 120
Chromium	51.0	45.97		mg/Kg		90	80 - 120
Copper	51.0	45.82		mg/Kg		90	80 - 120
Molybdenum	51.0	47.22		mg/Kg		93	80 - 120
Nickel	51.0	46.14		mg/Kg		90	80 - 120
Antimony	51.0	52.19		mg/Kg		102	80 - 120
Selenium	51.0	43.44		mg/Kg		85	80 - 120
Thallium	51.0	45.45		mg/Kg		89	80 - 120
Vanadium	51.0	45.64		mg/Kg		89	80 - 120
Zinc	51.0	45.28		mg/Kg		89	80 - 120
Lead	51.0	45.55		mg/Kg		89	80 - 120

Lab Sample ID: LCSD 570-289571/3-A ^5

Matrix: Solid

Analysis Batch: 289919

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289571

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	25.0	22.71		mg/Kg		91	80 - 120	1	20
Arsenic	50.0	45.39		mg/Kg		91	80 - 120	1	20
Barium	50.0	45.63		mg/Kg		91	80 - 120	1	20
Beryllium	50.0	45.76		mg/Kg		92	80 - 120	1	20
Cadmium	50.0	45.33		mg/Kg		91	80 - 120	2	20
Cobalt	50.0	45.44		mg/Kg		91	80 - 120	1	20
Chromium	50.0	45.39		mg/Kg		91	80 - 120	1	20
Copper	50.0	45.44		mg/Kg		91	80 - 120	1	20
Molybdenum	50.0	46.60		mg/Kg		93	80 - 120	1	20
Nickel	50.0	45.73		mg/Kg		91	80 - 120	1	20
Antimony	50.0	51.11		mg/Kg		102	80 - 120	2	20
Selenium	50.0	43.11		mg/Kg		86	80 - 120	1	20
Thallium	50.0	45.25		mg/Kg		91	80 - 120	0	20

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSD 570-289571/3-A ^5

Matrix: Solid

Analysis Batch: 289919

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289571

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Vanadium	50.0	45.19		mg/Kg		90	80 - 120	1	20
Zinc	50.0	44.75		mg/Kg		90	80 - 120	1	20
Lead	50.0	45.23		mg/Kg		90	80 - 120	1	20

Lab Sample ID: 570-120771-21 MS

Matrix: Solid

Analysis Batch: 289919

Client Sample ID: B-42@45'

Prep Type: Total/NA

Prep Batch: 289571

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	ND		25.1	22.17		mg/Kg		88	75 - 125		
Arsenic	7.38		50.3	50.84		mg/Kg		86	75 - 125		
Barium	74.8		50.3	121.1		mg/Kg		92	75 - 125		
Beryllium	0.325	J	50.3	44.89		mg/Kg		89	75 - 125		
Cadmium	0.0875	J	50.3	43.02		mg/Kg		85	75 - 125		
Cobalt	3.79		50.3	47.19		mg/Kg		86	75 - 125		
Chromium	21.7		50.3	67.96		mg/Kg		92	75 - 125		
Copper	24.5		50.3	64.27		mg/Kg		79	75 - 125		
Molybdenum	3.09		50.3	45.95		mg/Kg		85	75 - 125		
Nickel	7.28		50.3	50.84		mg/Kg		87	75 - 125		
Antimony	ND	F1	50.3	23.82	F1	mg/Kg		47	75 - 125		
Selenium	ND		50.3	40.23		mg/Kg		80	75 - 125		
Thallium	ND		50.3	43.74		mg/Kg		87	75 - 125		
Vanadium	25.6		50.3	75.05		mg/Kg		99	75 - 125		
Zinc	40.5		50.3	79.86		mg/Kg		78	75 - 125		
Lead	19.4		50.3	63.00		mg/Kg		87	75 - 125		

Lab Sample ID: 570-120771-21 MSD

Matrix: Solid

Analysis Batch: 289919

Client Sample ID: B-42@45'

Prep Type: Total/NA

Prep Batch: 289571

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	ND		25.1	21.61		mg/Kg		86	75 - 125	3	20
Arsenic	7.38		50.3	49.71		mg/Kg		84	75 - 125	2	20
Barium	74.8		50.3	120.2		mg/Kg		90	75 - 125	1	20
Beryllium	0.325	J	50.3	43.91		mg/Kg		87	75 - 125	2	20
Cadmium	0.0875	J	50.3	42.09		mg/Kg		84	75 - 125	2	20
Cobalt	3.79		50.3	45.85		mg/Kg		84	75 - 125	3	20
Chromium	21.7		50.3	67.98		mg/Kg		92	75 - 125	0	20
Copper	24.5		50.3	77.79		mg/Kg		106	75 - 125	19	20
Molybdenum	3.09		50.3	45.11		mg/Kg		84	75 - 125	2	20
Nickel	7.28		50.3	50.40		mg/Kg		86	75 - 125	1	20
Antimony	ND	F1	50.3	23.66	F1	mg/Kg		47	75 - 125	1	20
Selenium	ND		50.3	39.80		mg/Kg		79	75 - 125	1	20
Thallium	ND		50.3	43.12		mg/Kg		86	75 - 125	1	20
Vanadium	25.6		50.3	73.18		mg/Kg		95	75 - 125	3	20
Zinc	40.5		50.3	83.00		mg/Kg		85	75 - 125	4	20
Lead	19.4		50.3	64.97		mg/Kg		91	75 - 125	3	20

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 570-290347/1-A

Matrix: Solid

Analysis Batch: 290720

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290347

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/19/22 16:28	12/20/22 12:14	1

Lab Sample ID: LCS 570-290347/2-A

Matrix: Solid

Analysis Batch: 290720

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290347

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.408	0.4286		mg/Kg		105	80 - 120

Lab Sample ID: LCSD 570-290347/3-A

Matrix: Solid

Analysis Batch: 290720

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290347

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.392	0.4124		mg/Kg		105	80 - 120	4	10

Lab Sample ID: MB 570-290375/1-A

Matrix: Solid

Analysis Batch: 290720

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290375

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/19/22 17:48	12/20/22 13:09	1

Lab Sample ID: LCS 570-290375/2-A

Matrix: Solid

Analysis Batch: 290720

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290375

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.408	0.4496		mg/Kg		110	80 - 120

Lab Sample ID: LCSD 570-290375/3-A

Matrix: Solid

Analysis Batch: 290720

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290375

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.408	0.4652		mg/Kg		114	80 - 120	3	10

Lab Sample ID: 570-120771-7 MS

Matrix: Solid

Analysis Batch: 290720

Client Sample ID: B-24@2.5'

Prep Type: Total/NA

Prep Batch: 290375

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.408	0.4629		mg/Kg		113	80 - 120

Lab Sample ID: 570-120771-7 MSD

Matrix: Solid

Analysis Batch: 290720

Client Sample ID: B-24@2.5'

Prep Type: Total/NA

Prep Batch: 290375

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.408	0.4423		mg/Kg		108	80 - 120	5	20

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## GC VOA

### Prep Batch: 289402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120771-1	B-20@2.5"	Total/NA	Solid	5030C	
570-120771-2	B-20@5"	Total/NA	Solid	5030C	
570-120771-3	B-22@2.5"	Total/NA	Solid	5030C	
570-120771-4	B-22@5"	Total/NA	Solid	5030C	
570-120771-5	B-22@10'	Total/NA	Solid	5030C	
570-120771-6	B-22@15'	Total/NA	Solid	5030C	
570-120771-7	B-24@2.5'	Total/NA	Solid	5030C	
570-120771-8	B-24@5'	Total/NA	Solid	5030C	
570-120771-9	B-24@10'	Total/NA	Solid	5030C	
570-120771-10	B-24@15'	Total/NA	Solid	5030C	
570-120771-11	B-24@20'	Total/NA	Solid	5030C	
570-120771-12	B-42@2.5'	Total/NA	Solid	5030C	
570-120771-13	B-42@5'	Total/NA	Solid	5030C	
570-120771-14	B-42@10'	Total/NA	Solid	5030C	
570-120771-15	B-42@15'	Total/NA	Solid	5030C	
570-120771-16	B-42@20'	Total/NA	Solid	5030C	
570-120771-17	B-42@25'	Total/NA	Solid	5030C	
570-120771-18	B-42@30'	Total/NA	Solid	5030C	
570-120771-19	B-42@35'	Total/NA	Solid	5030C	
570-120771-20	B-42@40'	Total/NA	Solid	5030C	
MB 570-289402/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-289402/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-289402/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	
570-120771-1 MS	B-20@2.5"	Total/NA	Solid	5030C	
570-120771-1 MSD	B-20@2.5"	Total/NA	Solid	5030C	

### Analysis Batch: 289421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120771-1	B-20@2.5"	Total/NA	Solid	8015B	289402
570-120771-2	B-20@5"	Total/NA	Solid	8015B	289402
570-120771-3	B-22@2.5"	Total/NA	Solid	8015B	289402
570-120771-4	B-22@5"	Total/NA	Solid	8015B	289402
570-120771-5	B-22@10'	Total/NA	Solid	8015B	289402
570-120771-6	B-22@15'	Total/NA	Solid	8015B	289402
570-120771-7	B-24@2.5'	Total/NA	Solid	8015B	289402
570-120771-8	B-24@5'	Total/NA	Solid	8015B	289402
570-120771-9	B-24@10'	Total/NA	Solid	8015B	289402
570-120771-10	B-24@15'	Total/NA	Solid	8015B	289402
570-120771-11	B-24@20'	Total/NA	Solid	8015B	289402
570-120771-12	B-42@2.5'	Total/NA	Solid	8015B	289402
570-120771-13	B-42@5'	Total/NA	Solid	8015B	289402
570-120771-14	B-42@10'	Total/NA	Solid	8015B	289402
570-120771-15	B-42@15'	Total/NA	Solid	8015B	289402
570-120771-16	B-42@20'	Total/NA	Solid	8015B	289402
570-120771-17	B-42@25'	Total/NA	Solid	8015B	289402
570-120771-18	B-42@30'	Total/NA	Solid	8015B	289402
570-120771-19	B-42@35'	Total/NA	Solid	8015B	289402
570-120771-20	B-42@40'	Total/NA	Solid	8015B	289402
MB 570-289402/3-A	Method Blank	Total/NA	Solid	8015B	289402
LCS 570-289402/1-A	Lab Control Sample	Total/NA	Solid	8015B	289402
LCSD 570-289402/2-A	Lab Control Sample Dup	Total/NA	Solid	8015B	289402

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## GC VOA (Continued)

### Analysis Batch: 289421 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120771-1 MS	B-20@2.5"	Total/NA	Solid	8015B	289402
570-120771-1 MSD	B-20@2.5"	Total/NA	Solid	8015B	289402

### Analysis Batch: 290189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120771-21	B-42@45'	Total/NA	Solid	8015B	290192
MB 570-290192/3-A	Method Blank	Total/NA	Solid	8015B	290192
LCS 570-290192/1-A	Lab Control Sample	Total/NA	Solid	8015B	290192
LCSD 570-290192/2-A	Lab Control Sample Dup	Total/NA	Solid	8015B	290192

### Prep Batch: 290192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120771-21	B-42@45'	Total/NA	Solid	5030C	
MB 570-290192/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-290192/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-290192/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	

## GC Semi VOA

### Prep Batch: 289299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120771-21	B-42@45'	Total/NA	Solid	3550C	
MB 570-289299/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 570-289299/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 570-289299/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	

### Prep Batch: 289403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120771-1	B-20@2.5"	Total/NA	Solid	3550C	
570-120771-2	B-20@5"	Total/NA	Solid	3550C	
570-120771-3	B-22@2.5"	Total/NA	Solid	3550C	
570-120771-4	B-22@5"	Total/NA	Solid	3550C	
570-120771-5	B-22@10'	Total/NA	Solid	3550C	
570-120771-6	B-22@15'	Total/NA	Solid	3550C	
570-120771-7	B-24@2.5'	Total/NA	Solid	3550C	
570-120771-8	B-24@5'	Total/NA	Solid	3550C	
570-120771-9	B-24@10'	Total/NA	Solid	3550C	
570-120771-10	B-24@15'	Total/NA	Solid	3550C	
570-120771-11	B-24@20'	Total/NA	Solid	3550C	
570-120771-12	B-42@2.5'	Total/NA	Solid	3550C	
570-120771-13	B-42@5'	Total/NA	Solid	3550C	
570-120771-14	B-42@10'	Total/NA	Solid	3550C	
570-120771-15	B-42@15'	Total/NA	Solid	3550C	
570-120771-16	B-42@20'	Total/NA	Solid	3550C	
570-120771-17	B-42@25'	Total/NA	Solid	3550C	
570-120771-18	B-42@30'	Total/NA	Solid	3550C	
570-120771-19	B-42@35'	Total/NA	Solid	3550C	
570-120771-20	B-42@40'	Total/NA	Solid	3550C	
MB 570-289403/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 570-289403/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 570-289403/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## GC Semi VOA (Continued)

### Prep Batch: 289403 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120771-1 MS	B-20@2.5"	Total/NA	Solid	3550C	
570-120771-1 MSD	B-20@2.5"	Total/NA	Solid	3550C	

### Analysis Batch: 289480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120771-21	B-42@45'	Total/NA	Solid	8015B	289299
MB 570-289299/1-A	Method Blank	Total/NA	Solid	8015B	289299
LCS 570-289299/2-A	Lab Control Sample	Total/NA	Solid	8015B	289299
LCSD 570-289299/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	289299

### Analysis Batch: 289779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120771-1	B-20@2.5"	Total/NA	Solid	8015B	289403
570-120771-2	B-20@5"	Total/NA	Solid	8015B	289403
570-120771-3	B-22@2.5"	Total/NA	Solid	8015B	289403
570-120771-4	B-22@5"	Total/NA	Solid	8015B	289403
570-120771-5	B-22@10'	Total/NA	Solid	8015B	289403
570-120771-6	B-22@15'	Total/NA	Solid	8015B	289403
570-120771-7	B-24@2.5'	Total/NA	Solid	8015B	289403
570-120771-8	B-24@5'	Total/NA	Solid	8015B	289403
570-120771-9	B-24@10'	Total/NA	Solid	8015B	289403
570-120771-10	B-24@15'	Total/NA	Solid	8015B	289403
570-120771-11	B-24@20'	Total/NA	Solid	8015B	289403
570-120771-12	B-42@2.5'	Total/NA	Solid	8015B	289403
570-120771-13	B-42@5'	Total/NA	Solid	8015B	289403
570-120771-14	B-42@10'	Total/NA	Solid	8015B	289403
570-120771-15	B-42@15'	Total/NA	Solid	8015B	289403
570-120771-16	B-42@20'	Total/NA	Solid	8015B	289403
570-120771-17	B-42@25'	Total/NA	Solid	8015B	289403
570-120771-18	B-42@30'	Total/NA	Solid	8015B	289403
570-120771-19	B-42@35'	Total/NA	Solid	8015B	289403
570-120771-20	B-42@40'	Total/NA	Solid	8015B	289403
LCS 570-289403/2-A	Lab Control Sample	Total/NA	Solid	8015B	289403
LCSD 570-289403/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	289403
570-120771-1 MS	B-20@2.5"	Total/NA	Solid	8015B	289403
570-120771-1 MSD	B-20@2.5"	Total/NA	Solid	8015B	289403

### Analysis Batch: 290079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-289403/1-A	Method Blank	Total/NA	Solid	8015B	289403

## Metals

### Prep Batch: 289221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120771-1	B-20@2.5"	Total/NA	Solid	3050B	
570-120771-2	B-20@5"	Total/NA	Solid	3050B	
570-120771-3	B-22@2.5"	Total/NA	Solid	3050B	
570-120771-4	B-22@5"	Total/NA	Solid	3050B	
570-120771-5	B-22@10'	Total/NA	Solid	3050B	
570-120771-6	B-22@15'	Total/NA	Solid	3050B	

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Metals (Continued)

### Prep Batch: 289221 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120771-7	B-24@2.5'	Total/NA	Solid	3050B	
570-120771-9	B-24@10'	Total/NA	Solid	3050B	
570-120771-10	B-24@15'	Total/NA	Solid	3050B	
MB 570-289221/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-289221/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-289221/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	

### Analysis Batch: 289521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120771-1	B-20@2.5"	Total/NA	Solid	6010B	289221
570-120771-2	B-20@5"	Total/NA	Solid	6010B	289221
570-120771-3	B-22@2.5"	Total/NA	Solid	6010B	289221
570-120771-4	B-22@5"	Total/NA	Solid	6010B	289221
570-120771-5	B-22@10'	Total/NA	Solid	6010B	289221
570-120771-6	B-22@15'	Total/NA	Solid	6010B	289221
570-120771-7	B-24@2.5'	Total/NA	Solid	6010B	289221
570-120771-9	B-24@10'	Total/NA	Solid	6010B	289221
570-120771-10	B-24@15'	Total/NA	Solid	6010B	289221
MB 570-289221/1-A ^5	Method Blank	Total/NA	Solid	6010B	289221
LCS 570-289221/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	289221
LCSD 570-289221/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	289221

### Prep Batch: 289571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120771-8	B-24@5'	Total/NA	Solid	3050B	
570-120771-11	B-24@20'	Total/NA	Solid	3050B	
570-120771-12	B-42@2.5'	Total/NA	Solid	3050B	
570-120771-13	B-42@5'	Total/NA	Solid	3050B	
570-120771-14	B-42@10'	Total/NA	Solid	3050B	
570-120771-15	B-42@15'	Total/NA	Solid	3050B	
570-120771-16	B-42@20'	Total/NA	Solid	3050B	
570-120771-17	B-42@25'	Total/NA	Solid	3050B	
570-120771-18	B-42@30'	Total/NA	Solid	3050B	
570-120771-19	B-42@35'	Total/NA	Solid	3050B	
570-120771-20	B-42@40'	Total/NA	Solid	3050B	
570-120771-21	B-42@45'	Total/NA	Solid	3050B	
MB 570-289571/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-289571/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-289571/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	
570-120771-21 MS	B-42@45'	Total/NA	Solid	3050B	
570-120771-21 MSD	B-42@45'	Total/NA	Solid	3050B	

### Analysis Batch: 289919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120771-8	B-24@5'	Total/NA	Solid	6010B	289571
570-120771-11	B-24@20'	Total/NA	Solid	6010B	289571
570-120771-12	B-42@2.5'	Total/NA	Solid	6010B	289571
570-120771-13	B-42@5'	Total/NA	Solid	6010B	289571
570-120771-14	B-42@10'	Total/NA	Solid	6010B	289571
570-120771-15	B-42@15'	Total/NA	Solid	6010B	289571
570-120771-16	B-42@20'	Total/NA	Solid	6010B	289571

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Metals (Continued)

### Analysis Batch: 289919 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120771-17	B-42@25'	Total/NA	Solid	6010B	289571
570-120771-18	B-42@30'	Total/NA	Solid	6010B	289571
570-120771-19	B-42@35'	Total/NA	Solid	6010B	289571
570-120771-20	B-42@40'	Total/NA	Solid	6010B	289571
570-120771-21	B-42@45'	Total/NA	Solid	6010B	289571
MB 570-289571/1-A ^5	Method Blank	Total/NA	Solid	6010B	289571
LCS 570-289571/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	289571
LCSD 570-289571/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	289571
570-120771-21 MS	B-42@45'	Total/NA	Solid	6010B	289571
570-120771-21 MSD	B-42@45'	Total/NA	Solid	6010B	289571

### Prep Batch: 290347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120771-1	B-20@2.5"	Total/NA	Solid	7471A	
570-120771-2	B-20@5"	Total/NA	Solid	7471A	
570-120771-3	B-22@2.5"	Total/NA	Solid	7471A	
570-120771-4	B-22@5"	Total/NA	Solid	7471A	
570-120771-5	B-22@10'	Total/NA	Solid	7471A	
570-120771-6	B-22@15'	Total/NA	Solid	7471A	
MB 570-290347/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-290347/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-290347/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	

### Prep Batch: 290375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120771-7	B-24@2.5'	Total/NA	Solid	7471A	
570-120771-8	B-24@5'	Total/NA	Solid	7471A	
570-120771-9	B-24@10'	Total/NA	Solid	7471A	
570-120771-10	B-24@15'	Total/NA	Solid	7471A	
570-120771-11	B-24@20'	Total/NA	Solid	7471A	
570-120771-12	B-42@2.5'	Total/NA	Solid	7471A	
570-120771-13	B-42@5'	Total/NA	Solid	7471A	
570-120771-14	B-42@10'	Total/NA	Solid	7471A	
570-120771-15	B-42@15'	Total/NA	Solid	7471A	
570-120771-16	B-42@20'	Total/NA	Solid	7471A	
570-120771-17	B-42@25'	Total/NA	Solid	7471A	
570-120771-18	B-42@30'	Total/NA	Solid	7471A	
570-120771-19	B-42@35'	Total/NA	Solid	7471A	
570-120771-20	B-42@40'	Total/NA	Solid	7471A	
570-120771-21	B-42@45'	Total/NA	Solid	7471A	
MB 570-290375/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-290375/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-290375/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
570-120771-7 MS	B-24@2.5'	Total/NA	Solid	7471A	
570-120771-7 MSD	B-24@2.5'	Total/NA	Solid	7471A	

### Analysis Batch: 290720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120771-1	B-20@2.5"	Total/NA	Solid	7471A	290347
570-120771-2	B-20@5"	Total/NA	Solid	7471A	290347
570-120771-3	B-22@2.5"	Total/NA	Solid	7471A	290347

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

## Metals (Continued)

### Analysis Batch: 290720 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120771-4	B-22@5"	Total/NA	Solid	7471A	290347
570-120771-5	B-22@10'	Total/NA	Solid	7471A	290347
570-120771-6	B-22@15'	Total/NA	Solid	7471A	290347
570-120771-7	B-24@2.5'	Total/NA	Solid	7471A	290375
570-120771-8	B-24@5'	Total/NA	Solid	7471A	290375
570-120771-9	B-24@10'	Total/NA	Solid	7471A	290375
570-120771-10	B-24@15'	Total/NA	Solid	7471A	290375
570-120771-11	B-24@20'	Total/NA	Solid	7471A	290375
570-120771-12	B-42@2.5'	Total/NA	Solid	7471A	290375
570-120771-13	B-42@5'	Total/NA	Solid	7471A	290375
570-120771-14	B-42@10'	Total/NA	Solid	7471A	290375
570-120771-15	B-42@15'	Total/NA	Solid	7471A	290375
570-120771-16	B-42@20'	Total/NA	Solid	7471A	290375
570-120771-17	B-42@25'	Total/NA	Solid	7471A	290375
570-120771-18	B-42@30'	Total/NA	Solid	7471A	290375
570-120771-19	B-42@35'	Total/NA	Solid	7471A	290375
570-120771-20	B-42@40'	Total/NA	Solid	7471A	290375
570-120771-21	B-42@45'	Total/NA	Solid	7471A	290375
MB 570-290347/1-A	Method Blank	Total/NA	Solid	7471A	290347
MB 570-290375/1-A	Method Blank	Total/NA	Solid	7471A	290375
LCS 570-290347/2-A	Lab Control Sample	Total/NA	Solid	7471A	290347
LCS 570-290375/2-A	Lab Control Sample	Total/NA	Solid	7471A	290375
LCSD 570-290347/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	290347
LCSD 570-290375/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	290375
570-120771-7 MS	B-24@2.5'	Total/NA	Solid	7471A	290375
570-120771-7 MSD	B-24@2.5'	Total/NA	Solid	7471A	290375

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

**Client Sample ID: B-20@2.5"**

**Lab Sample ID: 570-120771-1**

**Date Collected: 12/13/22 07:13**

**Matrix: Solid**

**Date Received: 12/13/22 17:10**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.99 g	5 mL	289402	12/15/22 16:19	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289421	12/16/22 04:30	P1R	EET CAL 4
Instrument ID: GC1										
Total/NA	Prep	3550C			9.97 g	10 mL	289403	12/15/22 16:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289779	12/16/22 20:52	N1A	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.98 g	50 mL	289221	12/15/22 06:46	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289521	12/15/22 19:16	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	290347	12/19/22 16:28	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 12:53	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-20@5"**

**Lab Sample ID: 570-120771-2**

**Date Collected: 12/13/22 07:22**

**Matrix: Solid**

**Date Received: 12/13/22 17:10**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.98 g	5 mL	289402	12/15/22 16:19	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289421	12/16/22 05:41	P1R	EET CAL 4
Instrument ID: GC1										
Total/NA	Prep	3550C			9.96 g	10 mL	289403	12/15/22 16:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289779	12/16/22 21:18	N1A	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.96 g	50 mL	289221	12/15/22 06:46	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289521	12/15/22 19:18	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	290347	12/19/22 16:28	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 12:59	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-22@2.5"**

**Lab Sample ID: 570-120771-3**

**Date Collected: 12/13/22 08:20**

**Matrix: Solid**

**Date Received: 12/13/22 17:10**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.97 g	5 mL	289402	12/15/22 16:19	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289421	12/16/22 06:04	P1R	EET CAL 4
Instrument ID: GC1										
Total/NA	Prep	3550C			10.05 g	10 mL	289403	12/15/22 16:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289779	12/16/22 21:44	N1A	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.96 g	50 mL	289221	12/15/22 06:46	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289521	12/15/22 19:20	P1R	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

**Client Sample ID: B-22@2.5"**

**Date Collected: 12/13/22 08:20**

**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-3**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.50 g	50 mL	290347	12/19/22 16:28	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 13:01	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-22@5"**

**Date Collected: 12/13/22 08:25**

**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-4**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	289402	12/15/22 16:19	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289421	12/16/22 06:28	P1R	EET CAL 4
Instrument ID: GC1										
Total/NA	Prep	3550C			9.99 g	10 mL	289403	12/15/22 16:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289779	12/16/22 22:10	N1A	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.00 g	50 mL	289221	12/15/22 06:46	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289521	12/15/22 19:23	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	290347	12/19/22 16:28	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 13:03	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-22@10"**

**Date Collected: 12/13/22 08:32**

**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-5**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.98 g	5 mL	289402	12/15/22 16:19	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289421	12/16/22 06:51	P1R	EET CAL 4
Instrument ID: GC1										
Total/NA	Prep	3550C			10.01 g	10 mL	289403	12/15/22 16:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289779	12/16/22 22:36	N1A	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.02 g	50 mL	289221	12/15/22 06:46	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289521	12/15/22 19:25	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	290347	12/19/22 16:28	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 13:05	C0YH	EET CAL 4
Instrument ID: HG7										



# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

**Client Sample ID: B-22@15'**

**Date Collected: 12/13/22 08:40**

**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-6**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	289402	12/15/22 16:19	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289421	12/16/22 07:15	P1R	EET CAL 4
Instrument ID: GC1										
Total/NA	Prep	3550C			10.04 g	10 mL	289403	12/15/22 16:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289779	12/16/22 23:03	N1A	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.96 g	50 mL	289221	12/15/22 06:46	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289521	12/15/22 19:28	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	290347	12/19/22 16:28	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 13:07	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-24@2.5'**

**Date Collected: 12/13/22 09:31**

**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-7**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	289402	12/15/22 16:19	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289421	12/16/22 07:39	P1R	EET CAL 4
Instrument ID: GC1										
Total/NA	Prep	3550C			9.98 g	10 mL	289403	12/15/22 16:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289779	12/16/22 23:29	N1A	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.00 g	50 mL	289221	12/15/22 06:46	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289521	12/15/22 19:30	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	290375	12/19/22 17:48	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 13:14	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-24@5'**

**Date Collected: 12/13/22 09:35**

**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-8**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	289402	12/15/22 16:19	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289421	12/16/22 08:02	P1R	EET CAL 4
Instrument ID: GC1										
Total/NA	Prep	3550C			10.01 g	10 mL	289403	12/15/22 16:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289779	12/16/22 23:56	N1A	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.02 g	50 mL	289571	12/16/22 06:39	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/16/22 23:21	P1R	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

**Client Sample ID: B-24@5'**

**Date Collected: 12/13/22 09:35**

**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-8**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.49 g	50 mL	290375	12/19/22 17:48	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 13:24	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-24@10'**

**Date Collected: 12/13/22 09:40**

**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-9**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	289402	12/15/22 16:19	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289421	12/16/22 08:26	P1R	EET CAL 4
Instrument ID: GC1										
Total/NA	Prep	3550C			10.00 g	10 mL	289403	12/15/22 16:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289779	12/17/22 00:22	N1A	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.01 g	50 mL	289221	12/15/22 06:46	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289521	12/15/22 19:33	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	290375	12/19/22 17:48	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 13:26	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-24@15'**

**Date Collected: 12/13/22 09:47**

**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-10**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.98 g	5 mL	289402	12/15/22 16:19	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289421	12/16/22 08:50	P1R	EET CAL 4
Instrument ID: GC1										
Total/NA	Prep	3550C			9.94 g	10 mL	289403	12/15/22 16:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289779	12/17/22 00:49	N1A	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.99 g	50 mL	289221	12/15/22 06:46	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289521	12/15/22 19:35	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	290375	12/19/22 17:48	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 13:27	C0YH	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

**Client Sample ID: B-24@20'**

**Date Collected: 12/13/22 09:53**

**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-11**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	289402	12/15/22 16:19	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289421	12/16/22 09:37	P1R	EET CAL 4
Instrument ID: GC1										
Total/NA	Prep	3550C			10.07 g	10 mL	289403	12/15/22 16:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289779	12/17/22 01:15	N1A	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.96 g	50 mL	289571	12/16/22 06:39	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/16/22 23:23	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	290375	12/19/22 17:48	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 13:29	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-42@2.5'**

**Date Collected: 12/13/22 11:30**

**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-12**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.06 g	5 mL	289402	12/15/22 16:19	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289421	12/16/22 10:00	P1R	EET CAL 4
Instrument ID: GC1										
Total/NA	Prep	3550C			9.98 g	10 mL	289403	12/15/22 16:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289779	12/17/22 01:42	N1A	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.03 g	50 mL	289571	12/16/22 06:39	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/16/22 23:26	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	290375	12/19/22 17:48	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 13:31	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-42@5'**

**Date Collected: 12/13/22 11:35**

**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-13**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.98 g	5 mL	289402	12/15/22 16:19	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289421	12/16/22 10:24	P1R	EET CAL 4
Instrument ID: GC1										
Total/NA	Prep	3550C			10.02 g	10 mL	289403	12/15/22 16:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289779	12/17/22 02:08	N1A	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.97 g	50 mL	289571	12/16/22 06:39	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/16/22 23:28	P1R	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

**Client Sample ID: B-42@5'**

**Date Collected: 12/13/22 11:35**

**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-13**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.49 g	50 mL	290375	12/19/22 17:48	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 13:33	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-42@10'**

**Date Collected: 12/13/22 11:43**

**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-14**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	289402	12/15/22 16:19	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289421	12/16/22 10:47	P1R	EET CAL 4
Instrument ID: GC1										
Total/NA	Prep	3550C			9.97 g	10 mL	289403	12/15/22 16:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289779	12/17/22 03:01	N1A	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.01 g	50 mL	289571	12/16/22 06:39	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/16/22 23:31	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	290375	12/19/22 17:48	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 13:35	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-42@15'**

**Date Collected: 12/13/22 11:50**

**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-15**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	289402	12/15/22 16:19	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289421	12/16/22 11:11	P1R	EET CAL 4
Instrument ID: GC1										
Total/NA	Prep	3550C			10.06 g	10 mL	289403	12/15/22 16:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289779	12/17/22 03:27	N1A	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.03 g	50 mL	289571	12/16/22 06:39	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/16/22 23:33	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	290375	12/19/22 17:48	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 13:37	C0YH	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

**Client Sample ID: B-42@20'**

**Date Collected: 12/13/22 11:59**

**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-16**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.04 g	5 mL	289402	12/15/22 16:19	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289421	12/16/22 11:34	P1R	EET CAL 4
Instrument ID: GC1										
Total/NA	Prep	3550C			10.00 g	10 mL	289403	12/15/22 16:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289779	12/17/22 04:46	N1A	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.00 g	50 mL	289571	12/16/22 06:39	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/16/22 23:35	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	290375	12/19/22 17:48	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 13:39	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-42@25'**

**Date Collected: 12/13/22 12:07**

**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-17**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	289402	12/15/22 16:19	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289421	12/16/22 11:58	P1R	EET CAL 4
Instrument ID: GC1										
Total/NA	Prep	3550C			10.05 g	10 mL	289403	12/15/22 16:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289779	12/17/22 05:13	N1A	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.96 g	50 mL	289571	12/16/22 06:39	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/16/22 23:38	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	290375	12/19/22 17:48	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 13:44	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-42@30'**

**Date Collected: 12/13/22 12:17**

**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-18**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	289402	12/15/22 16:19	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289421	12/16/22 12:21	P1R	EET CAL 4
Instrument ID: GC1										
Total/NA	Prep	3550C			10.05 g	10 mL	289403	12/15/22 16:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289779	12/17/22 05:39	N1A	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.96 g	50 mL	289571	12/16/22 06:39	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/16/22 23:48	P1R	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

**Client Sample ID: B-42@30'**

**Date Collected: 12/13/22 12:17**

**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-18**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.50 g	50 mL	290375	12/19/22 17:48	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 13:46	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-42@35'**

**Date Collected: 12/13/22 12:40**

**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-19**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	289402	12/15/22 16:19	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289421	12/16/22 12:45	P1R	EET CAL 4
Instrument ID: GC1										
Total/NA	Prep	3550C			10.01 g	10 mL	289403	12/15/22 16:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289779	12/17/22 06:05	N1A	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.00 g	50 mL	289571	12/16/22 06:39	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/16/22 23:50	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	290375	12/19/22 17:48	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 13:48	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-42@40'**

**Date Collected: 12/13/22 12:51**

**Date Received: 12/13/22 17:10**

**Lab Sample ID: 570-120771-20**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	289402	12/15/22 16:19	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289421	12/16/22 13:09	P1R	EET CAL 4
Instrument ID: GC1										
Total/NA	Prep	3550C			10.05 g	10 mL	289403	12/15/22 16:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289779	12/17/22 06:31	N1A	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.96 g	50 mL	289571	12/16/22 06:39	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/16/22 23:52	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	290375	12/19/22 17:48	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 13:50	C0YH	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

**Client Sample ID: B-42@45'**

**Lab Sample ID: 570-120771-21**

**Date Collected: 12/13/22 13:07**

**Matrix: Solid**

**Date Received: 12/13/22 17:10**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	290192	12/19/22 09:41	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290189	12/19/22 14:26	A9VE	EET CAL 4
		Instrument ID: GC25								
Total/NA	Prep	3550C			10.00 g	10 mL	289299	12/15/22 16:27	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	289480	12/16/22 12:13	A1W	EET CAL 4
		Instrument ID: GC69A								
Total/NA	Prep	3050B			2.00 g	50 mL	289571	12/16/22 06:39	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/16/22 23:04	P1R	EET CAL 4
		Instrument ID: ICP11								
Total/NA	Prep	7471A			0.49 g	50 mL	290375	12/19/22 17:48	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 13:52	C0YH	EET CAL 4
		Instrument ID: HG7								

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

## Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

### Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

1

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## Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

Method	Method Description	Protocol	Laboratory
8015B	Gasoline Range Organics - (GC)	SW846	EET CAL 4
8015B	Diesel Range Organics (DRO) (GC)	SW846	EET CAL 4
6010B	Metals (ICP)	SW846	EET CAL 4
7471A	Mercury (CVAA)	SW846	EET CAL 4
3050B	Preparation, Metals	SW846	EET CAL 4
3550C	Ultrasonic Extraction	SW846	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
7471A	Preparation, Mercury	SW846	EET CAL 4

### Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

# Sample Summary

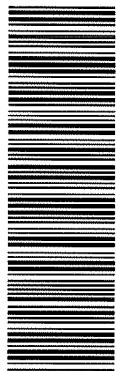
Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-120771-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-120771-1	B-20@2.5"	Solid	12/13/22 07:13	12/13/22 17:10
570-120771-2	B-20@5"	Solid	12/13/22 07:22	12/13/22 17:10
570-120771-3	B-22@2.5"	Solid	12/13/22 08:20	12/13/22 17:10
570-120771-4	B-22@5"	Solid	12/13/22 08:25	12/13/22 17:10
570-120771-5	B-22@10'	Solid	12/13/22 08:32	12/13/22 17:10
570-120771-6	B-22@15'	Solid	12/13/22 08:40	12/13/22 17:10
570-120771-7	B-24@2.5'	Solid	12/13/22 09:31	12/13/22 17:10
570-120771-8	B-24@5'	Solid	12/13/22 09:35	12/13/22 17:10
570-120771-9	B-24@10'	Solid	12/13/22 09:40	12/13/22 17:10
570-120771-10	B-24@15'	Solid	12/13/22 09:47	12/13/22 17:10
570-120771-11	B-24@20'	Solid	12/13/22 09:53	12/13/22 17:10
570-120771-12	B-42@2.5'	Solid	12/13/22 11:30	12/13/22 17:10
570-120771-13	B-42@5'	Solid	12/13/22 11:35	12/13/22 17:10
570-120771-14	B-42@10'	Solid	12/13/22 11:43	12/13/22 17:10
570-120771-15	B-42@15'	Solid	12/13/22 11:50	12/13/22 17:10
570-120771-16	B-42@20'	Solid	12/13/22 11:59	12/13/22 17:10
570-120771-17	B-42@25'	Solid	12/13/22 12:07	12/13/22 17:10
570-120771-18	B-42@30'	Solid	12/13/22 12:17	12/13/22 17:10
570-120771-19	B-42@35'	Solid	12/13/22 12:40	12/13/22 17:10
570-120771-20	B-42@40'	Solid	12/13/22 12:51	12/13/22 17:10
570-120771-21	B-42@45'	Solid	12/13/22 13:07	12/13/22 17:10



Calscience



# CHAIN OF CUSTODY RECORD

DATE: 12/13/22

PAGE: 1 OF 2

570-120771 Chain of Custody

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494

For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT:		CLIENT PROJECT NAME / NUMBER:		P.O. NO.	
ADDRESS: 9245 Activity Road Suite 103		Science Research Park / SD754			
CITY: San Diego		PROJECT CONTACT: Matt Fagan		SAMPLER(S): (PRINT) Sam Narveson	
TEL: 858 536 1000		E-MAIL: mattf@groupdelta.com		STATE: CA ZIP: 92126	
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):		GLOBAL ID:		LOG CODE:	
<input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD		<input type="checkbox"/> COELT EDF			
SPECIAL INSTRUCTIONS:		UNPRESERVED		PRESERVED	
FIELD FILTERED		NO. OF CONT.		MATRIX	
SAMPLE ID		DATE		TIME	
1 B-20 @ 2.5'		12/13		7:13	
2 B-20 @ 5'		12/13		7:22	
3 B-22 @ 2.5'		12/13		8:20	
4 B-22 @ 5'		12/13		8:25	
5 B-22 @ 10'		12/13		8:32	
6 B-22 @ 15'		12/13		8:40	
7 B-24 @ 2.5'		12/13		9:31	
8 B-24 @ 5'		12/13		9:35	
9 B-24 @ 10'		12/13		9:40	
10 B-24 @ 15'		12/13		9:47	
Relinquished by (Signature)		Received by (Signature/Affiliation)		Date: 12/13/22 Time: 1710	
Relinquished by (Signature)		Received by (Signature/Affiliation)		Date: 12/13/22 Time: 1900	
Relinquished by (Signature)		Received by (Signature/Affiliation)		Date: 12/13/22 Time: 1900	

4.3 / 4.1 SC11



Calscience

CHAIN OF CUSTODY RECORD

DATE: 12/13/22  
PAGE: 2 OF 3

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT:		Group Delta Consultants		ADDRESS: 9245 Activity Road Suite 103		CITY: San Diego		STATE: CA		ZIP: 92126	
TEL: 858 536 1000		E-MAIL: mattf@groupdelta.com		TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):		GLOBAL ID:		LOG CODE:			
<input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD		<input type="checkbox"/> COELT EDF		SPECIAL INSTRUCTIONS:							
CLIENT PROJECT NAME / NUMBER:		Science Research Park / SD754		PROJECT CONTACT:		Matt Fagan		P.O. NO:			
SAMPLER(S): (PRINT)		Sam Narveson		REQUESTED ANALYSES							
Please check box or fill in blank as needed											
TPH (g) <input type="checkbox"/> GRO				TPH (g) <input type="checkbox"/> DRD		TPH (g) <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44		TPH (g) <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44		TPH (g) <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	
VOCs (8260)				VOCs (8260)		VOCs (8260)		VOCs (8260)		VOCs (8260)	
SVOcs (8270)				SVOcs (8270)		SVOcs (8270)		SVOcs (8270)		SVOcs (8270)	
Pesticides (8081)				Pesticides (8081)		Pesticides (8081)		Pesticides (8081)		Pesticides (8081)	
PCBs (8082)				PCBs (8082)		PCBs (8082)		PCBs (8082)		PCBs (8082)	
PAHs (8270)				PAHs (8270)		PAHs (8270)		PAHs (8270)		PAHs (8270)	
T22 Metals (6010/747X)				T22 Metals (6010/747X)		T22 Metals (6010/747X)		T22 Metals (6010/747X)		T22 Metals (6010/747X)	
Cr(VI) (7196)				Cr(VI) (7196)		Cr(VI) (7196)		Cr(VI) (7196)		Cr(VI) (7196)	
Cr(VI) (218.6)				Cr(VI) (218.6)		Cr(VI) (218.6)		Cr(VI) (218.6)		Cr(VI) (218.6)	
BTEX / MTBE (8260)				BTEX / MTBE (8260)		BTEX / MTBE (8260)		BTEX / MTBE (8260)		BTEX / MTBE (8260)	
Oxygenates (8260)				Oxygenates (8260)		Oxygenates (8260)		Oxygenates (8260)		Oxygenates (8260)	
Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core				Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core		Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core		Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core		Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	
Field Filtered				Field Filtered		Field Filtered		Field Filtered		Field Filtered	
Preserved				Preserved		Preserved		Preserved		Preserved	
Unpreserved				Unpreserved		Unpreserved		Unpreserved		Unpreserved	
NO. OF CONT.				NO. OF CONT.		NO. OF CONT.		NO. OF CONT.		NO. OF CONT.	
MATRIX				MATRIX		MATRIX		MATRIX		MATRIX	
DATE				DATE		DATE		DATE		DATE	
TIME				TIME		TIME		TIME		TIME	
11		B-24 @ 20'		12/13 9:53		Soil		1		X	
12		B-42 @ 2.5'		12/13 11:30		Soil		1		X	
13		B-42 @ 5'		12/13 11:35		Soil		1		X	
14		B-42 @ 10'		12/13 11:43		Soil		1		X	
15		B-42 @ 15'		12/13 11:50		Soil		1		X	
16		B-42 @ 20'		12/13 11:59		Soil		1		X	
17		B-42 @ 25'		12/13 12:07		Soil		1		X	
18		B-42 @ 30'		12/13 12:17		Soil		1		X	
19		B-42 @ 35'		12/13 12:40		Soil		1		X	
20		B-42 @ 40'		12/13 12:51		Soil		1		X	
Relinquished by (Signature)		Sam Narveson		Received by (Signature/Affiliation)		William Rivera		Date: 12/13/22		Time: 1710	
Relinquished by (Signature)		William Rivera		Received by (Signature/Affiliation)		William Rivera		Date: 12/13/22		Time: 1900	
Relinquished by (Signature)				Received by (Signature/Affiliation)				Date:		Time:	

4.3/4.1 SC11



## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-120771-1

**Login Number: 120771**

**List Number: 1**

**Creator: Patel, Vikas**

**List Source: Eurofins Calscience**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Matt Fagan  
Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Generated 12/22/2022 1:57:16 PM

## JOB DESCRIPTION

Science Research Park / SD754

## JOB NUMBER

570-120930-1



# Eurofins Calscience

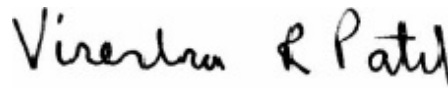
## Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

## Authorization



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12/22/2022 1:57:16 PM

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# Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Qualifiers

### GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Metals

Qualifier	Qualifier Description
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

**Job ID: 570-120930-1**

**Laboratory: Eurofins Calscience**

## Narrative

### Job Narrative 570-120930-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 12/14/2022 7:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.0° C.

#### Receipt Exceptions

The following sample was submitted; however, it was not listed on the Chain-of-Custody (COC): B-47 @ 15 (570-120930-23)

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): B-44 @ 10' (570-120930-11). The container label lists B-44@15, while the COC lists B-44@10'. (collection date and time match).

#### GC VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Metals

Method 6010B: The serial dilution performed for the following sample associated with batch 570-289919 was outside control limits for Chromium: (570-120771-A-21-C SD ^25)

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Antimony for preparation batch 570-289571 and analytical batch 570-289919 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6010B: The initial calibration verification (ICV) result for batch 570-290332 was above the upper control limit for Antimony. Sample results were non-detects, and have been reported as qualified data.

Method 6010B: The method blank for preparation batch 570-289631 and analytical batch 570-290332 contained Barium above the method detection limit. This target analyte concentration was less than the reporting limit (RL) or greater than 10X the value found in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Antimony for preparation batch 570-289631 and analytical batch 570-290332 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision of Antimony and Lead for preparation batch 570-289576 and analytical batch 570-290646 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.(570-121046-A-1-E MS ^5) and (570-121046-A-1-F MSD ^5)

Method 6010B: The initial calibration verification (ICV) result for batch 570-290646 was above the upper control limit for Antimony. Sample results were non-detects, and have been reported as qualified data.(ICV 570-290646/6)

## Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

### Job ID: 570-120930-1 (Continued)

#### Laboratory: Eurofins Calscience (Continued)

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Antimony for preparation batch 570-289631 and analytical batch 570-290654 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits. (570-120930-A-20-C MS ^5) and (570-120930-A-20-D MSD ^5)

Method 6010B: The method blank for preparation batch 570-289631 and analytical batch 570-290654 contained Barium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed. (MB 570-289631/1-A ^5)

Methods 200.7 Rev 4.4, 6010B: The following sample was diluted due to the nature of the sample matrix: B-44 @ 15' (570-120930-12). Elevated reporting limits (RLs) are provided.

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Antimony for preparation batch 570-290635 and analytical batch 570-290962 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Client Sample ID: B-18 @ 2.5'

## Lab Sample ID: 570-120930-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	14		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	2.91	J	2.97	1.38	mg/Kg	5		6010B	Total/NA
Barium	14.9		2.97	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.210	J	0.495	0.0683	mg/Kg	5		6010B	Total/NA
Cobalt	2.28		0.990	0.204	mg/Kg	5		6010B	Total/NA
Chromium	9.29		0.990	0.184	mg/Kg	5		6010B	Total/NA
Copper	3.87		1.98	0.949	mg/Kg	5		6010B	Total/NA
Nickel	2.86		1.98	0.358	mg/Kg	5		6010B	Total/NA
Vanadium	30.6		0.990	0.166	mg/Kg	5		6010B	Total/NA
Zinc	10.5		4.95	1.14	mg/Kg	5		6010B	Total/NA
Lead	3.09		1.98	0.405	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-18 @ 5'

## Lab Sample ID: 570-120930-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	20		5.1	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	4.24		2.94	1.36	mg/Kg	5		6010B	Total/NA
Barium	32.9		2.94	0.139	mg/Kg	5		6010B	Total/NA
Beryllium	0.270	J	0.490	0.0676	mg/Kg	5		6010B	Total/NA
Cobalt	3.24		0.980	0.202	mg/Kg	5		6010B	Total/NA
Chromium	11.3		0.980	0.182	mg/Kg	5		6010B	Total/NA
Copper	7.82		1.96	0.939	mg/Kg	5		6010B	Total/NA
Nickel	3.73		1.96	0.355	mg/Kg	5		6010B	Total/NA
Vanadium	25.6		0.980	0.165	mg/Kg	5		6010B	Total/NA
Zinc	17.7		4.90	1.13	mg/Kg	5		6010B	Total/NA
Lead	5.15		1.96	0.401	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-18 @ 10'

## Lab Sample ID: 570-120930-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	6.8		4.8	3.7	mg/Kg	1		8015B	Total/NA
C23-C40	7.9		4.8	3.7	mg/Kg	1		8015B	Total/NA
Arsenic	8.55		2.96	1.37	mg/Kg	5		6010B	Total/NA
Barium	35.6		2.96	0.140	mg/Kg	5		6010B	Total/NA
Beryllium	0.493		0.493	0.0680	mg/Kg	5		6010B	Total/NA
Cobalt	3.58		0.985	0.203	mg/Kg	5		6010B	Total/NA
Chromium	7.75		0.985	0.183	mg/Kg	5		6010B	Total/NA
Copper	4.89		1.97	0.944	mg/Kg	5		6010B	Total/NA
Nickel	4.42		1.97	0.357	mg/Kg	5		6010B	Total/NA
Vanadium	21.7		0.985	0.166	mg/Kg	5		6010B	Total/NA
Zinc	27.9		4.93	1.14	mg/Kg	5		6010B	Total/NA
Lead	3.45		1.97	0.403	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-23 @ 2.5'

## Lab Sample ID: 570-120930-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	8.4		5.1	3.9	mg/Kg	1		8015B	Total/NA
C23-C40	34		5.1	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	4.02		3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	31.5		3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.240	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Cobalt	3.07		1.01	0.208	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Client Sample ID: B-23 @ 2.5' (Continued)

## Lab Sample ID: 570-120930-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	8.64		1.01	0.188	mg/Kg	5		6010B	Total/NA
Copper	21.0		2.02	0.968	mg/Kg	5		6010B	Total/NA
Nickel	4.56		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	20.7		1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	35.6		5.05	1.17	mg/Kg	5		6010B	Total/NA
Lead	6.54		2.02	0.413	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-23 @ 5'

## Lab Sample ID: 570-120930-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	6.2		4.8	3.7	mg/Kg	1		8015B	Total/NA
C23-C40	25		4.8	3.7	mg/Kg	1		8015B	Total/NA
Arsenic	2.17	J	3.05	1.41	mg/Kg	5		6010B	Total/NA
Barium	36.8		3.05	0.144	mg/Kg	5		6010B	Total/NA
Beryllium	0.114	J	0.508	0.0701	mg/Kg	5		6010B	Total/NA
Cobalt	1.27		1.02	0.209	mg/Kg	5		6010B	Total/NA
Chromium	3.83		1.02	0.189	mg/Kg	5		6010B	Total/NA
Copper	2.87		2.03	0.973	mg/Kg	5		6010B	Total/NA
Nickel	2.36		2.03	0.368	mg/Kg	5		6010B	Total/NA
Vanadium	11.0		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	10.5		5.08	1.17	mg/Kg	5		6010B	Total/NA
Lead	5.93		2.03	0.415	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-23 @ 10'

## Lab Sample ID: 570-120930-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	21		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	6.05		2.96	1.37	mg/Kg	5		6010B	Total/NA
Barium	56.3		2.96	0.140	mg/Kg	5		6010B	Total/NA
Beryllium	0.456	J	0.493	0.0680	mg/Kg	5		6010B	Total/NA
Cobalt	5.28		0.985	0.203	mg/Kg	5		6010B	Total/NA
Chromium	13.3		0.985	0.183	mg/Kg	5		6010B	Total/NA
Copper	33.3		1.97	0.944	mg/Kg	5		6010B	Total/NA
Nickel	6.53		1.97	0.357	mg/Kg	5		6010B	Total/NA
Vanadium	31.8		0.985	0.166	mg/Kg	5		6010B	Total/NA
Zinc	31.1		4.93	1.14	mg/Kg	5		6010B	Total/NA
Lead	10.4		1.97	0.403	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-23 @ 15'

## Lab Sample ID: 570-120930-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	6.7		4.8	3.7	mg/Kg	1		8015B	Total/NA
Arsenic	5.00		2.94	1.36	mg/Kg	5		6010B	Total/NA
Barium	53.7		2.94	0.139	mg/Kg	5		6010B	Total/NA
Beryllium	0.294	J	0.490	0.0676	mg/Kg	5		6010B	Total/NA
Cobalt	3.06		0.980	0.202	mg/Kg	5		6010B	Total/NA
Chromium	9.25		0.980	0.182	mg/Kg	5		6010B	Total/NA
Copper	8.98		1.96	0.939	mg/Kg	5		6010B	Total/NA
Nickel	4.38		1.96	0.355	mg/Kg	5		6010B	Total/NA
Vanadium	22.7		0.980	0.165	mg/Kg	5		6010B	Total/NA
Zinc	19.6		4.90	1.13	mg/Kg	5		6010B	Total/NA
Lead	20.3		1.96	0.401	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Client Sample ID: B-23 @ 20'

## Lab Sample ID: 570-120930-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	4.9		4.8	3.7	mg/Kg	1		8015B	Total/NA
C23-C40	20		4.8	3.7	mg/Kg	1		8015B	Total/NA
Arsenic	6.32		3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	59.5		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.377	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	4.66		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	11.5		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	11.5		2.01	0.963	mg/Kg	5		6010B	Total/NA
Nickel	5.43		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	28.3		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	30.2		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	17.9		2.01	0.411	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-44 @ 2.5'

## Lab Sample ID: 570-120930-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	10		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	2.08	J	3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	12.3		3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.240	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Cobalt	3.90		1.01	0.208	mg/Kg	5		6010B	Total/NA
Chromium	13.2		1.01	0.188	mg/Kg	5		6010B	Total/NA
Copper	1.94	J	2.02	0.968	mg/Kg	5		6010B	Total/NA
Nickel	3.21		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	44.7		1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	7.97		5.05	1.17	mg/Kg	5		6010B	Total/NA
Lead	1.70	J	2.02	0.413	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-44 @ 5'

## Lab Sample ID: 570-120930-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	14		10	7.8	mg/Kg	2		8015B	Total/NA
C23-C40	260		10	7.8	mg/Kg	2		8015B	Total/NA
Arsenic	3.51		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	33.5		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.319	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	4.07		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	15.4		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	8.71		2.04	0.978	mg/Kg	5		6010B	Total/NA
Molybdenum	0.561	J	2.04	0.526	mg/Kg	5		6010B	Total/NA
Nickel	4.69		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	36.7		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	18.5		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	8.78		2.04	0.417	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-44 @ 10'

## Lab Sample ID: 570-120930-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	4.4	J	4.9	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	19		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	2.29	J	3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	61.0		3.02	0.143	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Client Sample ID: B-44 @ 10' (Continued)

## Lab Sample ID: 570-120930-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.302	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	3.71		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	14.1		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	4.79		2.01	0.963	mg/Kg	5		6010B	Total/NA
Nickel	4.60		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	30.8		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	9.74		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	6.80		2.01	0.411	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-44 @ 15'

## Lab Sample ID: 570-120930-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	4.1	J	4.8	3.7	mg/Kg	1		8015B	Total/NA
C23-C40	15		4.8	3.7	mg/Kg	1		8015B	Total/NA
Arsenic	7.40		6.12	2.84	mg/Kg	10		6010B	Total/NA
Barium	69.8		6.12	0.290	mg/Kg	10		6010B	Total/NA
Beryllium	0.306	J	1.02	0.141	mg/Kg	10		6010B	Total/NA
Cobalt	4.13		2.04	0.420	mg/Kg	10		6010B	Total/NA
Chromium	8.37		2.04	0.380	mg/Kg	10		6010B	Total/NA
Copper	143		4.08	1.96	mg/Kg	10		6010B	Total/NA
Nickel	4.85		4.08	0.739	mg/Kg	10		6010B	Total/NA
Antimony	30.7		20.4	5.83	mg/Kg	10		6010B	Total/NA
Vanadium	21.7		2.04	0.343	mg/Kg	10		6010B	Total/NA
Zinc	38.6		10.2	2.36	mg/Kg	10		6010B	Total/NA
Lead	5420		4.08	0.835	mg/Kg	10		6010B	Total/NA

## Client Sample ID: B-44 @ 20'

## Lab Sample ID: 570-120930-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	17		4.9	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	21		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	4.08		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	48.6		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.319	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	3.38		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	10.9		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	9.17		2.04	0.978	mg/Kg	5		6010B	Total/NA
Molybdenum	0.829	J	2.04	0.526	mg/Kg	5		6010B	Total/NA
Nickel	5.31		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	17.4		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	26.8		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	7.93		2.04	0.417	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-44 @ 25'

## Lab Sample ID: 570-120930-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	44		5.3	4.0	mg/Kg	1		8015B	Total/NA
C23-C40	25		5.3	4.0	mg/Kg	1		8015B	Total/NA
Arsenic	3.81		3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	57.2		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.302	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	3.39		1.01	0.207	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Client Sample ID: B-44 @ 25' (Continued)

Lab Sample ID: 570-120930-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	31.1		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	29.5		2.01	0.963	mg/Kg	5		6010B	Total/NA
Molybdenum	3.39		2.01	0.518	mg/Kg	5		6010B	Total/NA
Nickel	5.21		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	30.0		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	64.9		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	20.6		2.01	0.411	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-47 @ 2.5'

Lab Sample ID: 570-120930-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	9.5	J	9.7	7.5	mg/Kg	2		8015B	Total/NA
C23-C40	100		9.7	7.5	mg/Kg	2		8015B	Total/NA
Arsenic	6.30		3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	62.0		3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.341	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Cobalt	3.46		1.01	0.208	mg/Kg	5		6010B	Total/NA
Chromium	8.28		1.01	0.188	mg/Kg	5		6010B	Total/NA
Copper	9.48		2.02	0.968	mg/Kg	5		6010B	Total/NA
Molybdenum	1.15	J	2.02	0.520	mg/Kg	5		6010B	Total/NA
Nickel	4.12		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	21.8		1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	22.4		5.05	1.17	mg/Kg	5		6010B	Total/NA
Lead	25.5		2.02	0.413	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-47 @ 5'

Lab Sample ID: 570-120930-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	49		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	1.97	J	3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	32.8		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.226	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	3.10		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	11.1		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	4.45		2.01	0.963	mg/Kg	5		6010B	Total/NA
Nickel	2.98		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	30.3		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	12.5		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	10.6		2.01	0.411	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-47 @ 10'

Lab Sample ID: 570-120930-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	5.9		4.8	3.7	mg/Kg	1		8015B	Total/NA
C23-C40	37		4.8	3.7	mg/Kg	1		8015B	Total/NA
Arsenic	2.19	J	3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	27.8	B	3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.289	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	3.82		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	24.7		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	7.93		2.01	0.963	mg/Kg	5		6010B	Total/NA
Molybdenum	2.76		2.01	0.518	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Client Sample ID: B-47 @ 10' (Continued)

Lab Sample ID: 570-120930-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	4.67		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	41.7		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	11.5		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	7.61		2.01	0.411	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-49 @ 2.5'

Lab Sample ID: 570-120930-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	8.9		5.2	4.0	mg/Kg	1		8015B	Total/NA
C23-C40	11		5.2	4.0	mg/Kg	1		8015B	Total/NA
Arsenic	4.40		3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	80.7		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.201	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	2.10		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	5.93		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	2.99		2.01	0.963	mg/Kg	5		6010B	Total/NA
Nickel	1.97	J	2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	12.3		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	13.7		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	4.07		2.01	0.411	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-48 @ 2.5'

Lab Sample ID: 570-120930-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	13		10	8.0	mg/Kg	2		8015B	Total/NA
C23-C40	160		10	8.0	mg/Kg	2		8015B	Total/NA
Arsenic	3.64		3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	47.8		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.275	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	3.19		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	9.85		1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	8.74		2.00	0.958	mg/Kg	5		6010B	Total/NA
Nickel	4.18		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	22.6		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	18.2		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	6.48		2.00	0.409	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-45 @ 2.5'

Lab Sample ID: 570-120930-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	12		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	5.35		3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	42.0	B	3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.366	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Cobalt	4.14		1.01	0.208	mg/Kg	5		6010B	Total/NA
Chromium	9.46		1.01	0.188	mg/Kg	5		6010B	Total/NA
Copper	6.29		2.02	0.968	mg/Kg	5		6010B	Total/NA
Nickel	4.29		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	23.2		1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	20.4		5.05	1.17	mg/Kg	5		6010B	Total/NA
Lead	9.04		2.02	0.413	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

Client Sample ID: B-45 @ 10'

Lab Sample ID: 570-120930-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	4.1	J	5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	12		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	6.37		2.97	1.38	mg/Kg	5		6010B	Total/NA
Barium	69.2		2.97	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.371	J	0.495	0.0683	mg/Kg	5		6010B	Total/NA
Cobalt	4.27		0.990	0.204	mg/Kg	5		6010B	Total/NA
Chromium	8.80		0.990	0.184	mg/Kg	5		6010B	Total/NA
Copper	11.0		1.98	0.949	mg/Kg	5		6010B	Total/NA
Molybdenum	0.532	J	1.98	0.510	mg/Kg	5		6010B	Total/NA
Nickel	4.79		1.98	0.358	mg/Kg	5		6010B	Total/NA
Vanadium	20.5		0.990	0.166	mg/Kg	5		6010B	Total/NA
Zinc	30.4		4.95	1.14	mg/Kg	5		6010B	Total/NA
Lead	30.2		1.98	0.405	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-45 @ 5'

Lab Sample ID: 570-120930-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	12		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	6.12		3.05	1.41	mg/Kg	5		6010B	Total/NA
Barium	74.7		3.05	0.144	mg/Kg	5		6010B	Total/NA
Beryllium	0.305	J	0.508	0.0701	mg/Kg	5		6010B	Total/NA
Cobalt	3.50		1.02	0.209	mg/Kg	5		6010B	Total/NA
Chromium	9.23		1.02	0.189	mg/Kg	5		6010B	Total/NA
Copper	99.3		2.03	0.973	mg/Kg	5		6010B	Total/NA
Molybdenum	0.571	J	2.03	0.523	mg/Kg	5		6010B	Total/NA
Nickel	4.61		2.03	0.368	mg/Kg	5		6010B	Total/NA
Antimony	7.30	J	10.2	2.90	mg/Kg	5		6010B	Total/NA
Vanadium	21.6		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	44.0		5.08	1.17	mg/Kg	5		6010B	Total/NA
Lead	3300		2.03	0.415	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-18 @ 2.5'**  
**Date Collected: 12/14/22 07:20**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-1**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/19/22 09:41	12/19/22 16:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	68		42 - 126				12/19/22 09:41	12/19/22 16:35	1

**Client Sample ID: B-18 @ 5'**  
**Date Collected: 12/14/22 07:25**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-2**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/19/22 09:41	12/19/22 17:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	62		42 - 126				12/19/22 09:41	12/19/22 17:04	1

**Client Sample ID: B-18 @ 10'**  
**Date Collected: 12/14/22 07:30**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-3**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/19/22 09:41	12/19/22 17:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	63		42 - 126				12/19/22 09:41	12/19/22 17:33	1

**Client Sample ID: B-23 @ 2.5'**  
**Date Collected: 12/14/22 08:20**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-4**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/19/22 09:41	12/19/22 18:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	62		42 - 126				12/19/22 09:41	12/19/22 18:02	1

**Client Sample ID: B-23 @ 5'**  
**Date Collected: 12/14/22 08:25**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-5**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/20/22 10:25	12/20/22 17:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	72		42 - 126				12/20/22 10:25	12/20/22 17:17	1

**Client Sample ID: B-23 @ 10'**  
**Date Collected: 12/14/22 08:30**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-6**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/20/22 10:25	12/20/22 16:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		42 - 126				12/20/22 10:25	12/20/22 16:52	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-23 @ 15'**  
**Date Collected: 12/14/22 08:38**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-7**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/20/22 10:25	12/20/22 16:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	63		42 - 126				12/20/22 10:25	12/20/22 16:26	1

**Client Sample ID: B-23 @ 20'**  
**Date Collected: 12/14/22 08:45**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-8**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/20/22 10:25	12/20/22 16:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		42 - 126				12/20/22 10:25	12/20/22 16:01	1

**Client Sample ID: B-44 @ 2.5'**  
**Date Collected: 12/14/22 09:53**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-9**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/20/22 10:25	12/20/22 14:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		42 - 126				12/20/22 10:25	12/20/22 14:19	1

**Client Sample ID: B-44 @ 5'**  
**Date Collected: 12/14/22 09:57**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-10**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/16/22 17:47	12/17/22 07:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		42 - 126				12/16/22 17:47	12/17/22 07:18	1

**Client Sample ID: B-44 @ 10'**  
**Date Collected: 12/14/22 10:04**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-11**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/16/22 17:47	12/17/22 06:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	73		42 - 126				12/16/22 17:47	12/17/22 06:03	1

**Client Sample ID: B-44 @ 15'**  
**Date Collected: 12/14/22 10:14**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-12**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/16/22 17:47	12/17/22 07:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	77		42 - 126				12/16/22 17:47	12/17/22 07:43	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-44 @ 20'**  
**Date Collected: 12/14/22 10:21**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-13**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/16/22 17:47	12/17/22 08:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		42 - 126				12/16/22 17:47	12/17/22 08:08	1

**Client Sample ID: B-44 @ 25'**  
**Date Collected: 12/14/22 10:32**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-14**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/16/22 17:47	12/17/22 08:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		42 - 126				12/16/22 17:47	12/17/22 08:33	1

**Client Sample ID: B-47 @ 2.5'**  
**Date Collected: 12/14/22 12:09**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-15**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/16/22 17:47	12/17/22 08:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		42 - 126				12/16/22 17:47	12/17/22 08:58	1

**Client Sample ID: B-47 @ 5'**  
**Date Collected: 12/14/22 12:14**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-16**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/16/22 17:47	12/17/22 09:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	72		42 - 126				12/16/22 17:47	12/17/22 09:23	1

**Client Sample ID: B-47 @ 10'**  
**Date Collected: 12/14/22 12:20**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-17**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/16/22 17:47	12/17/22 09:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74		42 - 126				12/16/22 17:47	12/17/22 09:48	1

**Client Sample ID: B-49 @ 2.5'**  
**Date Collected: 12/14/22 13:28**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-18**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/16/22 17:47	12/17/22 10:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		42 - 126				12/16/22 17:47	12/17/22 10:14	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-48 @ 2.5'**  
**Date Collected: 12/14/22 13:56**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-19**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/16/22 17:47	12/17/22 10:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	77		42 - 126				12/16/22 17:47	12/17/22 10:39	1

**Client Sample ID: B-45 @ 2.5'**  
**Date Collected: 12/14/22 14:27**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-20**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/16/22 17:47	12/17/22 11:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		42 - 126				12/16/22 17:47	12/17/22 11:29	1

**Client Sample ID: B-45 @ 10'**  
**Date Collected: 12/14/22 14:40**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-21**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/16/22 17:47	12/17/22 11:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	73		42 - 126				12/16/22 17:47	12/17/22 11:54	1

**Client Sample ID: B-45 @ 5'**  
**Date Collected: 12/14/22 14:32**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-22**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/16/22 17:47	12/17/22 12:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		42 - 126				12/16/22 17:47	12/17/22 12:19	1



# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B-18 @ 2.5'  
Date Collected: 12/14/22 07:20  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		12/16/22 13:56	12/18/22 20:27	1
C23-C40	14		4.9	3.8	mg/Kg		12/16/22 13:56	12/18/22 20:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	103		60 - 138				12/16/22 13:56	12/18/22 20:27	1

Client Sample ID: B-18 @ 5'  
Date Collected: 12/14/22 07:25  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.1	3.9	mg/Kg		12/16/22 13:56	12/18/22 20:54	1
C23-C40	20		5.1	3.9	mg/Kg		12/16/22 13:56	12/18/22 20:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	102		60 - 138				12/16/22 13:56	12/18/22 20:54	1

Client Sample ID: B-18 @ 10'  
Date Collected: 12/14/22 07:30  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	6.8		4.8	3.7	mg/Kg		12/16/22 13:56	12/18/22 21:20	1
C23-C40	7.9		4.8	3.7	mg/Kg		12/16/22 13:56	12/18/22 21:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	101		60 - 138				12/16/22 13:56	12/18/22 21:20	1

Client Sample ID: B-23 @ 2.5'  
Date Collected: 12/14/22 08:20  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	8.4		5.1	3.9	mg/Kg		12/16/22 13:56	12/18/22 21:47	1
C23-C40	34		5.1	3.9	mg/Kg		12/16/22 13:56	12/18/22 21:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	105		60 - 138				12/16/22 13:56	12/18/22 21:47	1

Client Sample ID: B-23 @ 5'  
Date Collected: 12/14/22 08:25  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	6.2		4.8	3.7	mg/Kg		12/16/22 13:56	12/18/22 22:14	1
C23-C40	25		4.8	3.7	mg/Kg		12/16/22 13:56	12/18/22 22:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	109		60 - 138				12/16/22 13:56	12/18/22 22:14	1

Client Sample ID: B-23 @ 10'  
Date Collected: 12/14/22 08:30  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		12/16/22 13:56	12/18/22 22:40	1
C23-C40	21		4.9	3.8	mg/Kg		12/16/22 13:56	12/18/22 22:40	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	102		60 - 138				12/16/22 13:56	12/18/22 22:40	1
Client Sample ID: B-23 @ 15' Date Collected: 12/14/22 08:38 Date Received: 12/14/22 19:20							Lab Sample ID: 570-120930-7 Matrix: Solid		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.8	3.7	mg/Kg		12/16/22 13:56	12/18/22 23:07	1
C23-C40	6.7		4.8	3.7	mg/Kg		12/16/22 13:56	12/18/22 23:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	104		60 - 138				12/16/22 13:56	12/18/22 23:07	1
Client Sample ID: B-23 @ 20' Date Collected: 12/14/22 08:45 Date Received: 12/14/22 19:20							Lab Sample ID: 570-120930-8 Matrix: Solid		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	4.9		4.8	3.7	mg/Kg		12/16/22 13:56	12/18/22 23:34	1
C23-C40	20		4.8	3.7	mg/Kg		12/16/22 13:56	12/18/22 23:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	104		60 - 138				12/16/22 13:56	12/18/22 23:34	1
Client Sample ID: B-44 @ 2.5' Date Collected: 12/14/22 09:53 Date Received: 12/14/22 19:20							Lab Sample ID: 570-120930-9 Matrix: Solid		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		12/16/22 13:56	12/19/22 00:00	1
C23-C40	10		4.9	3.8	mg/Kg		12/16/22 13:56	12/19/22 00:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	106		60 - 138				12/16/22 13:56	12/19/22 00:00	1
Client Sample ID: B-44 @ 5' Date Collected: 12/14/22 09:57 Date Received: 12/14/22 19:20							Lab Sample ID: 570-120930-10 Matrix: Solid		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	14		10	7.8	mg/Kg		12/16/22 13:56	12/19/22 00:27	2
C23-C40	260		10	7.8	mg/Kg		12/16/22 13:56	12/19/22 00:27	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	107		60 - 138				12/16/22 13:56	12/19/22 00:27	2
Client Sample ID: B-44 @ 10' Date Collected: 12/14/22 10:04 Date Received: 12/14/22 19:20							Lab Sample ID: 570-120930-11 Matrix: Solid		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	4.4 J		4.9	3.8	mg/Kg		12/16/22 13:56	12/19/22 00:53	1
C23-C40	19		4.9	3.8	mg/Kg		12/16/22 13:56	12/19/22 00:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	109		60 - 138				12/16/22 13:56	12/19/22 00:53	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B-44 @ 15'  
Date Collected: 12/14/22 10:14  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	4.1	J	4.8	3.7	mg/Kg		12/16/22 13:56	12/19/22 01:20	1
C23-C40	15		4.8	3.7	mg/Kg		12/16/22 13:56	12/19/22 01:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	110		60 - 138				12/16/22 13:56	12/19/22 01:20	1

Client Sample ID: B-44 @ 20'  
Date Collected: 12/14/22 10:21  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	17		4.9	3.8	mg/Kg		12/16/22 13:56	12/19/22 01:46	1
C23-C40	21		4.9	3.8	mg/Kg		12/16/22 13:56	12/19/22 01:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	112		60 - 138				12/16/22 13:56	12/19/22 01:46	1

Client Sample ID: B-44 @ 25'  
Date Collected: 12/14/22 10:32  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-14  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	44		5.3	4.0	mg/Kg		12/16/22 13:56	12/19/22 02:13	1
C23-C40	25		5.3	4.0	mg/Kg		12/16/22 13:56	12/19/22 02:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	113		60 - 138				12/16/22 13:56	12/19/22 02:13	1

Client Sample ID: B-47 @ 2.5'  
Date Collected: 12/14/22 12:09  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-15  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	9.5	J	9.7	7.5	mg/Kg		12/16/22 13:56	12/19/22 02:39	2
C23-C40	100		9.7	7.5	mg/Kg		12/16/22 13:56	12/19/22 02:39	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	108		60 - 138				12/16/22 13:56	12/19/22 02:39	2

Client Sample ID: B-47 @ 5'  
Date Collected: 12/14/22 12:14  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-16  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/16/22 13:56	12/19/22 03:32	1
C23-C40	49		5.0	3.8	mg/Kg		12/16/22 13:56	12/19/22 03:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	109		60 - 138				12/16/22 13:56	12/19/22 03:32	1

Client Sample ID: B-47 @ 10'  
Date Collected: 12/14/22 12:20  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-17  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	5.9		4.8	3.7	mg/Kg		12/16/22 13:56	12/19/22 03:58	1
C23-C40	37		4.8	3.7	mg/Kg		12/16/22 13:56	12/19/22 03:58	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	115		60 - 138	12/16/22 13:56	12/19/22 03:58	1
<div> <div>Client Sample ID: B-49 @ 2.5'</div> <div>Date Collected: 12/14/22 13:28</div> <div>Date Received: 12/14/22 19:20</div> </div> <div> <div>Lab Sample ID: 570-120930-18</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	8.9		5.2	4.0	mg/Kg	
C23-C40	11		5.2	4.0	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	108		60 - 138	12/16/22 13:56	12/19/22 04:24	1
<div> <div>Client Sample ID: B-48 @ 2.5'</div> <div>Date Collected: 12/14/22 13:56</div> <div>Date Received: 12/14/22 19:20</div> </div> <div> <div>Lab Sample ID: 570-120930-19</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	13		10	8.0	mg/Kg	
C23-C40	160		10	8.0	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	101		60 - 138	12/16/22 13:57	12/19/22 04:51	2
<div> <div>Client Sample ID: B-45 @ 2.5'</div> <div>Date Collected: 12/14/22 14:27</div> <div>Date Received: 12/14/22 19:20</div> </div> <div> <div>Lab Sample ID: 570-120930-20</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		5.0	3.8	mg/Kg	
C23-C40	12		5.0	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	114		60 - 138	12/16/22 13:57	12/19/22 05:17	1
<div> <div>Client Sample ID: B-45 @ 10'</div> <div>Date Collected: 12/14/22 14:40</div> <div>Date Received: 12/14/22 19:20</div> </div> <div> <div>Lab Sample ID: 570-120930-21</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	4.1	J	5.0	3.8	mg/Kg	
C23-C40	12		5.0	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	103		60 - 138	12/16/22 18:38	12/19/22 19:49	1
<div> <div>Client Sample ID: B-45 @ 5'</div> <div>Date Collected: 12/14/22 14:32</div> <div>Date Received: 12/14/22 19:20</div> </div> <div> <div>Lab Sample ID: 570-120930-22</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		5.0	3.8	mg/Kg	
C23-C40	12		5.0	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	104		60 - 138	12/16/22 18:38	12/19/22 20:15	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-18 @ 2.5'  
Date Collected: 12/14/22 07:20  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/16/22 06:39	12/16/22 23:55	5
Arsenic	2.91	J	2.97	1.38	mg/Kg		12/16/22 06:39	12/16/22 23:55	5
Barium	14.9		2.97	0.141	mg/Kg		12/16/22 06:39	12/16/22 23:55	5
Beryllium	0.210	J	0.495	0.0683	mg/Kg		12/16/22 06:39	12/16/22 23:55	5
Cadmium	ND		0.495	0.0822	mg/Kg		12/16/22 06:39	12/16/22 23:55	5
Cobalt	2.28		0.990	0.204	mg/Kg		12/16/22 06:39	12/16/22 23:55	5
Chromium	9.29		0.990	0.184	mg/Kg		12/16/22 06:39	12/16/22 23:55	5
Copper	3.87		1.98	0.949	mg/Kg		12/16/22 06:39	12/16/22 23:55	5
Molybdenum	ND		1.98	0.510	mg/Kg		12/16/22 06:39	12/16/22 23:55	5
Nickel	2.86		1.98	0.358	mg/Kg		12/16/22 06:39	12/16/22 23:55	5
Antimony	ND		9.90	2.83	mg/Kg		12/16/22 06:39	12/16/22 23:55	5
Selenium	ND		2.97	1.21	mg/Kg		12/16/22 06:39	12/16/22 23:55	5
Thallium	ND		9.90	2.09	mg/Kg		12/16/22 06:39	12/16/22 23:55	5
Vanadium	30.6		0.990	0.166	mg/Kg		12/16/22 06:39	12/16/22 23:55	5
Zinc	10.5		4.95	1.14	mg/Kg		12/16/22 06:39	12/16/22 23:55	5
Lead	3.09		1.98	0.405	mg/Kg		12/16/22 06:39	12/16/22 23:55	5

Client Sample ID: B-18 @ 5'  
Date Collected: 12/14/22 07:25  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.47	0.141	mg/Kg		12/16/22 06:39	12/16/22 23:57	5
Arsenic	4.24		2.94	1.36	mg/Kg		12/16/22 06:39	12/16/22 23:57	5
Barium	32.9		2.94	0.139	mg/Kg		12/16/22 06:39	12/16/22 23:57	5
Beryllium	0.270	J	0.490	0.0676	mg/Kg		12/16/22 06:39	12/16/22 23:57	5
Cadmium	ND		0.490	0.0814	mg/Kg		12/16/22 06:39	12/16/22 23:57	5
Cobalt	3.24		0.980	0.202	mg/Kg		12/16/22 06:39	12/16/22 23:57	5
Chromium	11.3		0.980	0.182	mg/Kg		12/16/22 06:39	12/16/22 23:57	5
Copper	7.82		1.96	0.939	mg/Kg		12/16/22 06:39	12/16/22 23:57	5
Molybdenum	ND		1.96	0.505	mg/Kg		12/16/22 06:39	12/16/22 23:57	5
Nickel	3.73		1.96	0.355	mg/Kg		12/16/22 06:39	12/16/22 23:57	5
Antimony	ND		9.80	2.80	mg/Kg		12/16/22 06:39	12/16/22 23:57	5
Selenium	ND		2.94	1.20	mg/Kg		12/16/22 06:39	12/16/22 23:57	5
Thallium	ND		9.80	2.06	mg/Kg		12/16/22 06:39	12/16/22 23:57	5
Vanadium	25.6		0.980	0.165	mg/Kg		12/16/22 06:39	12/16/22 23:57	5
Zinc	17.7		4.90	1.13	mg/Kg		12/16/22 06:39	12/16/22 23:57	5
Lead	5.15		1.96	0.401	mg/Kg		12/16/22 06:39	12/16/22 23:57	5

Client Sample ID: B-18 @ 10'  
Date Collected: 12/14/22 07:30  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.48	0.142	mg/Kg		12/16/22 06:39	12/17/22 00:00	5
Arsenic	8.55		2.96	1.37	mg/Kg		12/16/22 06:39	12/17/22 00:00	5
Barium	35.6		2.96	0.140	mg/Kg		12/16/22 06:39	12/17/22 00:00	5
Beryllium	0.493		0.493	0.0680	mg/Kg		12/16/22 06:39	12/17/22 00:00	5
Cadmium	ND		0.493	0.0818	mg/Kg		12/16/22 06:39	12/17/22 00:00	5
Cobalt	3.58		0.985	0.203	mg/Kg		12/16/22 06:39	12/17/22 00:00	5
Chromium	7.75		0.985	0.183	mg/Kg		12/16/22 06:39	12/17/22 00:00	5
Copper	4.89		1.97	0.944	mg/Kg		12/16/22 06:39	12/17/22 00:00	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-18 @ 10'  
Date Collected: 12/14/22 07:30  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		1.97	0.507	mg/Kg		12/16/22 06:39	12/17/22 00:00	5
Nickel	4.42		1.97	0.357	mg/Kg		12/16/22 06:39	12/17/22 00:00	5
Antimony	ND		9.85	2.81	mg/Kg		12/16/22 06:39	12/17/22 00:00	5
Selenium	ND		2.96	1.20	mg/Kg		12/16/22 06:39	12/17/22 00:00	5
Thallium	ND		9.85	2.07	mg/Kg		12/16/22 06:39	12/17/22 00:00	5
Vanadium	21.7		0.985	0.166	mg/Kg		12/16/22 06:39	12/17/22 00:00	5
Zinc	27.9		4.93	1.14	mg/Kg		12/16/22 06:39	12/17/22 00:00	5
Lead	3.45		1.97	0.403	mg/Kg		12/16/22 06:39	12/17/22 00:00	5

Client Sample ID: B-23 @ 2.5'  
Date Collected: 12/14/22 08:20  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/16/22 06:39	12/17/22 00:02	5
Arsenic	4.02		3.03	1.41	mg/Kg		12/16/22 06:39	12/17/22 00:02	5
Barium	31.5		3.03	0.143	mg/Kg		12/16/22 06:39	12/17/22 00:02	5
Beryllium	0.240	J	0.505	0.0697	mg/Kg		12/16/22 06:39	12/17/22 00:02	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/16/22 06:39	12/17/22 00:02	5
Cobalt	3.07		1.01	0.208	mg/Kg		12/16/22 06:39	12/17/22 00:02	5
Chromium	8.64		1.01	0.188	mg/Kg		12/16/22 06:39	12/17/22 00:02	5
Copper	21.0		2.02	0.968	mg/Kg		12/16/22 06:39	12/17/22 00:02	5
Molybdenum	ND		2.02	0.520	mg/Kg		12/16/22 06:39	12/17/22 00:02	5
Nickel	4.56		2.02	0.366	mg/Kg		12/16/22 06:39	12/17/22 00:02	5
Antimony	ND		10.1	2.89	mg/Kg		12/16/22 06:39	12/17/22 00:02	5
Selenium	ND		3.03	1.23	mg/Kg		12/16/22 06:39	12/17/22 00:02	5
Thallium	ND		10.1	2.13	mg/Kg		12/16/22 06:39	12/17/22 00:02	5
Vanadium	20.7		1.01	0.170	mg/Kg		12/16/22 06:39	12/17/22 00:02	5
Zinc	35.6		5.05	1.17	mg/Kg		12/16/22 06:39	12/17/22 00:02	5
Lead	6.54		2.02	0.413	mg/Kg		12/16/22 06:39	12/17/22 00:02	5

Client Sample ID: B-23 @ 5'  
Date Collected: 12/14/22 08:25  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.146	mg/Kg		12/16/22 06:39	12/17/22 00:05	5
Arsenic	2.17	J	3.05	1.41	mg/Kg		12/16/22 06:39	12/17/22 00:05	5
Barium	36.8		3.05	0.144	mg/Kg		12/16/22 06:39	12/17/22 00:05	5
Beryllium	0.114	J	0.508	0.0701	mg/Kg		12/16/22 06:39	12/17/22 00:05	5
Cadmium	ND		0.508	0.0843	mg/Kg		12/16/22 06:39	12/17/22 00:05	5
Cobalt	1.27		1.02	0.209	mg/Kg		12/16/22 06:39	12/17/22 00:05	5
Chromium	3.83		1.02	0.189	mg/Kg		12/16/22 06:39	12/17/22 00:05	5
Copper	2.87		2.03	0.973	mg/Kg		12/16/22 06:39	12/17/22 00:05	5
Molybdenum	ND		2.03	0.523	mg/Kg		12/16/22 06:39	12/17/22 00:05	5
Nickel	2.36		2.03	0.368	mg/Kg		12/16/22 06:39	12/17/22 00:05	5
Antimony	ND		10.2	2.90	mg/Kg		12/16/22 06:39	12/17/22 00:05	5
Selenium	ND		3.05	1.24	mg/Kg		12/16/22 06:39	12/17/22 00:05	5
Thallium	ND		10.2	2.14	mg/Kg		12/16/22 06:39	12/17/22 00:05	5
Vanadium	11.0		1.02	0.171	mg/Kg		12/16/22 06:39	12/17/22 00:05	5
Zinc	10.5		5.08	1.17	mg/Kg		12/16/22 06:39	12/17/22 00:05	5
Lead	5.93		2.03	0.415	mg/Kg		12/16/22 06:39	12/17/22 00:05	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-23 @ 10'  
Date Collected: 12/14/22 08:30  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.48	0.142	mg/Kg		12/16/22 06:39	12/17/22 00:07	5
Arsenic	6.05		2.96	1.37	mg/Kg		12/16/22 06:39	12/17/22 00:07	5
Barium	56.3		2.96	0.140	mg/Kg		12/16/22 06:39	12/17/22 00:07	5
Beryllium	0.456	J	0.493	0.0680	mg/Kg		12/16/22 06:39	12/17/22 00:07	5
Cadmium	ND		0.493	0.0818	mg/Kg		12/16/22 06:39	12/17/22 00:07	5
Cobalt	5.28		0.985	0.203	mg/Kg		12/16/22 06:39	12/17/22 00:07	5
Chromium	13.3		0.985	0.183	mg/Kg		12/16/22 06:39	12/17/22 00:07	5
Copper	33.3		1.97	0.944	mg/Kg		12/16/22 06:39	12/17/22 00:07	5
Molybdenum	ND		1.97	0.507	mg/Kg		12/16/22 06:39	12/17/22 00:07	5
Nickel	6.53		1.97	0.357	mg/Kg		12/16/22 06:39	12/17/22 00:07	5
Antimony	ND		9.85	2.81	mg/Kg		12/16/22 06:39	12/17/22 00:07	5
Selenium	ND		2.96	1.20	mg/Kg		12/16/22 06:39	12/17/22 00:07	5
Thallium	ND		9.85	2.07	mg/Kg		12/16/22 06:39	12/17/22 00:07	5
Vanadium	31.8		0.985	0.166	mg/Kg		12/16/22 06:39	12/17/22 00:07	5
Zinc	31.1		4.93	1.14	mg/Kg		12/16/22 06:39	12/17/22 00:07	5
Lead	10.4		1.97	0.403	mg/Kg		12/16/22 06:39	12/17/22 00:07	5

Client Sample ID: B-23 @ 15'  
Date Collected: 12/14/22 08:38  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-7  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.47	0.141	mg/Kg		12/16/22 06:39	12/17/22 00:10	5
Arsenic	5.00		2.94	1.36	mg/Kg		12/16/22 06:39	12/17/22 00:10	5
Barium	53.7		2.94	0.139	mg/Kg		12/16/22 06:39	12/17/22 00:10	5
Beryllium	0.294	J	0.490	0.0676	mg/Kg		12/16/22 06:39	12/17/22 00:10	5
Cadmium	ND		0.490	0.0814	mg/Kg		12/16/22 06:39	12/17/22 00:10	5
Cobalt	3.06		0.980	0.202	mg/Kg		12/16/22 06:39	12/17/22 00:10	5
Chromium	9.25		0.980	0.182	mg/Kg		12/16/22 06:39	12/17/22 00:10	5
Copper	8.98		1.96	0.939	mg/Kg		12/16/22 06:39	12/17/22 00:10	5
Molybdenum	ND		1.96	0.505	mg/Kg		12/16/22 06:39	12/17/22 00:10	5
Nickel	4.38		1.96	0.355	mg/Kg		12/16/22 06:39	12/17/22 00:10	5
Antimony	ND		9.80	2.80	mg/Kg		12/16/22 06:39	12/17/22 00:10	5
Selenium	ND		2.94	1.20	mg/Kg		12/16/22 06:39	12/17/22 00:10	5
Thallium	ND		9.80	2.06	mg/Kg		12/16/22 06:39	12/17/22 00:10	5
Vanadium	22.7		0.980	0.165	mg/Kg		12/16/22 06:39	12/17/22 00:10	5
Zinc	19.6		4.90	1.13	mg/Kg		12/16/22 06:39	12/17/22 00:10	5
Lead	20.3		1.96	0.401	mg/Kg		12/16/22 06:39	12/17/22 00:10	5

Client Sample ID: B-23 @ 20'  
Date Collected: 12/14/22 08:45  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/16/22 06:39	12/17/22 00:19	5
Arsenic	6.32		3.02	1.40	mg/Kg		12/16/22 06:39	12/17/22 00:19	5
Barium	59.5		3.02	0.143	mg/Kg		12/16/22 06:39	12/17/22 00:19	5
Beryllium	0.377	J	0.503	0.0693	mg/Kg		12/16/22 06:39	12/17/22 00:19	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/16/22 06:39	12/17/22 00:19	5
Cobalt	4.66		1.01	0.207	mg/Kg		12/16/22 06:39	12/17/22 00:19	5
Chromium	11.5		1.01	0.187	mg/Kg		12/16/22 06:39	12/17/22 00:19	5
Copper	11.5		2.01	0.963	mg/Kg		12/16/22 06:39	12/17/22 00:19	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-23 @ 20'  
Date Collected: 12/14/22 08:45  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		2.01	0.518	mg/Kg		12/16/22 06:39	12/17/22 00:19	5
Nickel	5.43		2.01	0.364	mg/Kg		12/16/22 06:39	12/17/22 00:19	5
Antimony	ND		10.1	2.87	mg/Kg		12/16/22 06:39	12/17/22 00:19	5
Selenium	ND		3.02	1.23	mg/Kg		12/16/22 06:39	12/17/22 00:19	5
Thallium	ND		10.1	2.12	mg/Kg		12/16/22 06:39	12/17/22 00:19	5
Vanadium	28.3		1.01	0.169	mg/Kg		12/16/22 06:39	12/17/22 00:19	5
Zinc	30.2		5.03	1.16	mg/Kg		12/16/22 06:39	12/17/22 00:19	5
Lead	17.9		2.01	0.411	mg/Kg		12/16/22 06:39	12/17/22 00:19	5

Client Sample ID: B-44 @ 2.5'  
Date Collected: 12/14/22 09:53  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-9  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/16/22 07:31	12/19/22 23:22	5
Arsenic	2.08	J	3.03	1.41	mg/Kg		12/16/22 07:31	12/19/22 23:22	5
Barium	12.3		3.03	0.143	mg/Kg		12/16/22 07:31	12/19/22 23:22	5
Beryllium	0.240	J	0.505	0.0697	mg/Kg		12/16/22 07:31	12/19/22 23:22	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/16/22 07:31	12/19/22 23:22	5
Cobalt	3.90		1.01	0.208	mg/Kg		12/16/22 07:31	12/19/22 23:22	5
Chromium	13.2		1.01	0.188	mg/Kg		12/16/22 07:31	12/19/22 23:22	5
Copper	1.94	J	2.02	0.968	mg/Kg		12/16/22 07:31	12/19/22 23:22	5
Molybdenum	ND		2.02	0.520	mg/Kg		12/16/22 07:31	12/19/22 23:22	5
Nickel	3.21		2.02	0.366	mg/Kg		12/16/22 07:31	12/19/22 23:22	5
Antimony	ND	^1+	10.1	2.89	mg/Kg		12/16/22 07:31	12/19/22 23:22	5
Selenium	ND		3.03	1.23	mg/Kg		12/16/22 07:31	12/19/22 23:22	5
Thallium	ND		10.1	2.13	mg/Kg		12/16/22 07:31	12/19/22 23:22	5
Vanadium	44.7		1.01	0.170	mg/Kg		12/16/22 07:31	12/19/22 23:22	5
Zinc	7.97		5.05	1.17	mg/Kg		12/16/22 07:31	12/19/22 23:22	5
Lead	1.70	J	2.02	0.413	mg/Kg		12/16/22 07:31	12/19/22 23:22	5

Client Sample ID: B-44 @ 5'  
Date Collected: 12/14/22 09:57  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-10  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/16/22 07:31	12/19/22 23:29	5
Arsenic	3.51		3.06	1.42	mg/Kg		12/16/22 07:31	12/19/22 23:29	5
Barium	33.5		3.06	0.145	mg/Kg		12/16/22 07:31	12/19/22 23:29	5
Beryllium	0.319	J	0.510	0.0704	mg/Kg		12/16/22 07:31	12/19/22 23:29	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/16/22 07:31	12/19/22 23:29	5
Cobalt	4.07		1.02	0.210	mg/Kg		12/16/22 07:31	12/19/22 23:29	5
Chromium	15.4		1.02	0.190	mg/Kg		12/16/22 07:31	12/19/22 23:29	5
Copper	8.71		2.04	0.978	mg/Kg		12/16/22 07:31	12/19/22 23:29	5
Molybdenum	0.561	J	2.04	0.526	mg/Kg		12/16/22 07:31	12/19/22 23:29	5
Nickel	4.69		2.04	0.369	mg/Kg		12/16/22 07:31	12/19/22 23:29	5
Antimony	ND	^1+	10.2	2.92	mg/Kg		12/16/22 07:31	12/19/22 23:29	5
Selenium	ND		3.06	1.25	mg/Kg		12/16/22 07:31	12/19/22 23:29	5
Thallium	ND		10.2	2.15	mg/Kg		12/16/22 07:31	12/19/22 23:29	5
Vanadium	36.7		1.02	0.171	mg/Kg		12/16/22 07:31	12/19/22 23:29	5
Zinc	18.5		5.10	1.18	mg/Kg		12/16/22 07:31	12/19/22 23:29	5
Lead	8.78		2.04	0.417	mg/Kg		12/16/22 07:31	12/19/22 23:29	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-44 @ 10'  
Date Collected: 12/14/22 10:04  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-11  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/20/22 11:29	12/20/22 21:42	5
Arsenic	2.29	J	3.02	1.40	mg/Kg		12/20/22 11:29	12/20/22 21:42	5
Barium	61.0		3.02	0.143	mg/Kg		12/20/22 11:29	12/20/22 21:42	5
Beryllium	0.302	J	0.503	0.0693	mg/Kg		12/20/22 11:29	12/20/22 21:42	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/20/22 11:29	12/20/22 21:42	5
Cobalt	3.71		1.01	0.207	mg/Kg		12/20/22 11:29	12/20/22 21:42	5
Chromium	14.1		1.01	0.187	mg/Kg		12/20/22 11:29	12/20/22 21:42	5
Copper	4.79		2.01	0.963	mg/Kg		12/20/22 11:29	12/20/22 21:42	5
Molybdenum	ND		2.01	0.518	mg/Kg		12/20/22 11:29	12/20/22 21:42	5
Nickel	4.60		2.01	0.364	mg/Kg		12/20/22 11:29	12/20/22 21:42	5
Antimony	ND		10.1	2.87	mg/Kg		12/20/22 11:29	12/20/22 21:42	5
Selenium	ND		3.02	1.23	mg/Kg		12/20/22 11:29	12/20/22 21:42	5
Thallium	ND		10.1	2.12	mg/Kg		12/20/22 11:29	12/20/22 21:42	5
Vanadium	30.8		1.01	0.169	mg/Kg		12/20/22 11:29	12/20/22 21:42	5
Zinc	9.74		5.03	1.16	mg/Kg		12/20/22 11:29	12/20/22 21:42	5
Lead	6.80		2.01	0.411	mg/Kg		12/20/22 11:29	12/20/22 21:42	5

Client Sample ID: B-44 @ 15'  
Date Collected: 12/14/22 10:14  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		3.06	0.294	mg/Kg		12/16/22 07:31	12/20/22 15:00	10
Arsenic	7.40		6.12	2.84	mg/Kg		12/16/22 07:31	12/20/22 15:00	10
Barium	69.8		6.12	0.290	mg/Kg		12/16/22 07:31	12/20/22 15:00	10
Beryllium	0.306	J	1.02	0.141	mg/Kg		12/16/22 07:31	12/20/22 15:00	10
Cadmium	ND		1.02	0.169	mg/Kg		12/16/22 07:31	12/20/22 15:00	10
Cobalt	4.13		2.04	0.420	mg/Kg		12/16/22 07:31	12/20/22 15:00	10
Chromium	8.37		2.04	0.380	mg/Kg		12/16/22 07:31	12/20/22 15:00	10
Copper	143		4.08	1.96	mg/Kg		12/16/22 07:31	12/20/22 15:00	10
Molybdenum	ND		4.08	1.05	mg/Kg		12/16/22 07:31	12/20/22 15:00	10
Nickel	4.85		4.08	0.739	mg/Kg		12/16/22 07:31	12/20/22 15:00	10
Antimony	30.7		20.4	5.83	mg/Kg		12/16/22 07:31	12/20/22 15:00	10
Selenium	ND		6.12	2.49	mg/Kg		12/16/22 07:31	12/20/22 15:00	10
Thallium	ND		20.4	4.30	mg/Kg		12/16/22 07:31	12/20/22 15:00	10
Vanadium	21.7		2.04	0.343	mg/Kg		12/16/22 07:31	12/20/22 15:00	10
Zinc	38.6		10.2	2.36	mg/Kg		12/16/22 07:31	12/20/22 15:00	10
Lead	5420		4.08	0.835	mg/Kg		12/16/22 07:31	12/20/22 15:00	10

Client Sample ID: B-44 @ 20'  
Date Collected: 12/14/22 10:21  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/16/22 07:31	12/20/22 15:02	5
Arsenic	4.08		3.06	1.42	mg/Kg		12/16/22 07:31	12/20/22 15:02	5
Barium	48.6		3.06	0.145	mg/Kg		12/16/22 07:31	12/20/22 15:02	5
Beryllium	0.319	J	0.510	0.0704	mg/Kg		12/16/22 07:31	12/20/22 15:02	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/16/22 07:31	12/20/22 15:02	5
Cobalt	3.38		1.02	0.210	mg/Kg		12/16/22 07:31	12/20/22 15:02	5
Chromium	10.9		1.02	0.190	mg/Kg		12/16/22 07:31	12/20/22 15:02	5
Copper	9.17		2.04	0.978	mg/Kg		12/16/22 07:31	12/20/22 15:02	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-44 @ 20'  
Date Collected: 12/14/22 10:21  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	0.829	J	2.04	0.526	mg/Kg		12/16/22 07:31	12/20/22 15:02	5
Nickel	5.31		2.04	0.369	mg/Kg		12/16/22 07:31	12/20/22 15:02	5
Antimony	ND		10.2	2.92	mg/Kg		12/16/22 07:31	12/20/22 15:02	5
Selenium	ND		3.06	1.25	mg/Kg		12/16/22 07:31	12/20/22 15:02	5
Thallium	ND		10.2	2.15	mg/Kg		12/16/22 07:31	12/20/22 15:02	5
Vanadium	17.4		1.02	0.171	mg/Kg		12/16/22 07:31	12/20/22 15:02	5
Zinc	26.8		5.10	1.18	mg/Kg		12/16/22 07:31	12/20/22 15:02	5
Lead	7.93		2.04	0.417	mg/Kg		12/16/22 07:31	12/20/22 15:02	5

Client Sample ID: B-44 @ 25'  
Date Collected: 12/14/22 10:32  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-14  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/16/22 07:31	12/19/22 23:36	5
Arsenic	3.81		3.02	1.40	mg/Kg		12/16/22 07:31	12/19/22 23:36	5
Barium	57.2		3.02	0.143	mg/Kg		12/16/22 07:31	12/19/22 23:36	5
Beryllium	0.302	J	0.503	0.0693	mg/Kg		12/16/22 07:31	12/19/22 23:36	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/16/22 07:31	12/19/22 23:36	5
Cobalt	3.39		1.01	0.207	mg/Kg		12/16/22 07:31	12/19/22 23:36	5
Chromium	31.1		1.01	0.187	mg/Kg		12/16/22 07:31	12/19/22 23:36	5
Copper	29.5		2.01	0.963	mg/Kg		12/16/22 07:31	12/19/22 23:36	5
Molybdenum	3.39		2.01	0.518	mg/Kg		12/16/22 07:31	12/19/22 23:36	5
Nickel	5.21		2.01	0.364	mg/Kg		12/16/22 07:31	12/19/22 23:36	5
Antimony	ND	^1+	10.1	2.87	mg/Kg		12/16/22 07:31	12/19/22 23:36	5
Selenium	ND		3.02	1.23	mg/Kg		12/16/22 07:31	12/19/22 23:36	5
Thallium	ND		10.1	2.12	mg/Kg		12/16/22 07:31	12/19/22 23:36	5
Vanadium	30.0		1.01	0.169	mg/Kg		12/16/22 07:31	12/19/22 23:36	5
Zinc	64.9		5.03	1.16	mg/Kg		12/16/22 07:31	12/19/22 23:36	5
Lead	20.6		2.01	0.411	mg/Kg		12/16/22 07:31	12/19/22 23:36	5

Client Sample ID: B-47 @ 2.5'  
Date Collected: 12/14/22 12:09  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-15  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/16/22 07:31	12/19/22 23:39	5
Arsenic	6.30		3.03	1.41	mg/Kg		12/16/22 07:31	12/19/22 23:39	5
Barium	62.0		3.03	0.143	mg/Kg		12/16/22 07:31	12/19/22 23:39	5
Beryllium	0.341	J	0.505	0.0697	mg/Kg		12/16/22 07:31	12/19/22 23:39	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/16/22 07:31	12/19/22 23:39	5
Cobalt	3.46		1.01	0.208	mg/Kg		12/16/22 07:31	12/19/22 23:39	5
Chromium	8.28		1.01	0.188	mg/Kg		12/16/22 07:31	12/19/22 23:39	5
Copper	9.48		2.02	0.968	mg/Kg		12/16/22 07:31	12/19/22 23:39	5
Molybdenum	1.15	J	2.02	0.520	mg/Kg		12/16/22 07:31	12/19/22 23:39	5
Nickel	4.12		2.02	0.366	mg/Kg		12/16/22 07:31	12/19/22 23:39	5
Antimony	ND	^1+	10.1	2.89	mg/Kg		12/16/22 07:31	12/19/22 23:39	5
Selenium	ND		3.03	1.23	mg/Kg		12/16/22 07:31	12/19/22 23:39	5
Thallium	ND		10.1	2.13	mg/Kg		12/16/22 07:31	12/19/22 23:39	5
Vanadium	21.8		1.01	0.170	mg/Kg		12/16/22 07:31	12/19/22 23:39	5
Zinc	22.4		5.05	1.17	mg/Kg		12/16/22 07:31	12/19/22 23:39	5
Lead	25.5		2.02	0.413	mg/Kg		12/16/22 07:31	12/19/22 23:39	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-47 @ 5'  
Date Collected: 12/14/22 12:14  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-16  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/16/22 07:31	12/19/22 23:41	5
Arsenic	1.97	J	3.02	1.40	mg/Kg		12/16/22 07:31	12/19/22 23:41	5
Barium	32.8		3.02	0.143	mg/Kg		12/16/22 07:31	12/19/22 23:41	5
Beryllium	0.226	J	0.503	0.0693	mg/Kg		12/16/22 07:31	12/19/22 23:41	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/16/22 07:31	12/19/22 23:41	5
Cobalt	3.10		1.01	0.207	mg/Kg		12/16/22 07:31	12/19/22 23:41	5
Chromium	11.1		1.01	0.187	mg/Kg		12/16/22 07:31	12/19/22 23:41	5
Copper	4.45		2.01	0.963	mg/Kg		12/16/22 07:31	12/19/22 23:41	5
Molybdenum	ND		2.01	0.518	mg/Kg		12/16/22 07:31	12/19/22 23:41	5
Nickel	2.98		2.01	0.364	mg/Kg		12/16/22 07:31	12/19/22 23:41	5
Antimony	ND	^1+	10.1	2.87	mg/Kg		12/16/22 07:31	12/19/22 23:41	5
Selenium	ND		3.02	1.23	mg/Kg		12/16/22 07:31	12/19/22 23:41	5
Thallium	ND		10.1	2.12	mg/Kg		12/16/22 07:31	12/19/22 23:41	5
Vanadium	30.3		1.01	0.169	mg/Kg		12/16/22 07:31	12/19/22 23:41	5
Zinc	12.5		5.03	1.16	mg/Kg		12/16/22 07:31	12/19/22 23:41	5
Lead	10.6		2.01	0.411	mg/Kg		12/16/22 07:31	12/19/22 23:41	5

Client Sample ID: B-47 @ 10'  
Date Collected: 12/14/22 12:20  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-17  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/16/22 09:16	12/20/22 05:00	5
Arsenic	2.19	J	3.02	1.40	mg/Kg		12/16/22 09:16	12/20/22 05:00	5
Barium	27.8	B	3.02	0.143	mg/Kg		12/16/22 09:16	12/20/22 05:00	5
Beryllium	0.289	J	0.503	0.0693	mg/Kg		12/16/22 09:16	12/20/22 05:00	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/16/22 09:16	12/20/22 05:00	5
Cobalt	3.82		1.01	0.207	mg/Kg		12/16/22 09:16	12/20/22 05:00	5
Chromium	24.7		1.01	0.187	mg/Kg		12/16/22 09:16	12/20/22 05:00	5
Copper	7.93		2.01	0.963	mg/Kg		12/16/22 09:16	12/20/22 05:00	5
Molybdenum	2.76		2.01	0.518	mg/Kg		12/16/22 09:16	12/20/22 05:00	5
Nickel	4.67		2.01	0.364	mg/Kg		12/16/22 09:16	12/20/22 05:00	5
Antimony	ND	^1+	10.1	2.87	mg/Kg		12/16/22 09:16	12/20/22 05:00	5
Selenium	ND		3.02	1.23	mg/Kg		12/16/22 09:16	12/20/22 05:00	5
Thallium	ND		10.1	2.12	mg/Kg		12/16/22 09:16	12/20/22 05:00	5
Vanadium	41.7		1.01	0.169	mg/Kg		12/16/22 09:16	12/20/22 05:00	5
Zinc	11.5		5.03	1.16	mg/Kg		12/16/22 09:16	12/20/22 05:00	5
Lead	7.61		2.01	0.411	mg/Kg		12/16/22 09:16	12/20/22 05:00	5

Client Sample ID: B-49 @ 2.5'  
Date Collected: 12/14/22 13:28  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-18  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/20/22 11:29	12/20/22 21:49	5
Arsenic	4.40		3.02	1.40	mg/Kg		12/20/22 11:29	12/20/22 21:49	5
Barium	80.7		3.02	0.143	mg/Kg		12/20/22 11:29	12/20/22 21:49	5
Beryllium	0.201	J	0.503	0.0693	mg/Kg		12/20/22 11:29	12/20/22 21:49	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/20/22 11:29	12/20/22 21:49	5
Cobalt	2.10		1.01	0.207	mg/Kg		12/20/22 11:29	12/20/22 21:49	5
Chromium	5.93		1.01	0.187	mg/Kg		12/20/22 11:29	12/20/22 21:49	5
Copper	2.99		2.01	0.963	mg/Kg		12/20/22 11:29	12/20/22 21:49	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-49 @ 2.5'  
Date Collected: 12/14/22 13:28  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-18  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		2.01	0.518	mg/Kg		12/20/22 11:29	12/20/22 21:49	5
Nickel	1.97	J	2.01	0.364	mg/Kg		12/20/22 11:29	12/20/22 21:49	5
Antimony	ND		10.1	2.87	mg/Kg		12/20/22 11:29	12/20/22 21:49	5
Selenium	ND		3.02	1.23	mg/Kg		12/20/22 11:29	12/20/22 21:49	5
Thallium	ND		10.1	2.12	mg/Kg		12/20/22 11:29	12/20/22 21:49	5
Vanadium	12.3		1.01	0.169	mg/Kg		12/20/22 11:29	12/20/22 21:49	5
Zinc	13.7		5.03	1.16	mg/Kg		12/20/22 11:29	12/20/22 21:49	5
Lead	4.07		2.01	0.411	mg/Kg		12/20/22 11:29	12/20/22 21:49	5

Client Sample ID: B-48 @ 2.5'  
Date Collected: 12/14/22 13:56  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-19  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/20/22 11:29	12/20/22 21:52	5
Arsenic	3.64		3.00	1.39	mg/Kg		12/20/22 11:29	12/20/22 21:52	5
Barium	47.8		3.00	0.142	mg/Kg		12/20/22 11:29	12/20/22 21:52	5
Beryllium	0.275	J	0.500	0.0690	mg/Kg		12/20/22 11:29	12/20/22 21:52	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/20/22 11:29	12/20/22 21:52	5
Cobalt	3.19		1.00	0.206	mg/Kg		12/20/22 11:29	12/20/22 21:52	5
Chromium	9.85		1.00	0.186	mg/Kg		12/20/22 11:29	12/20/22 21:52	5
Copper	8.74		2.00	0.958	mg/Kg		12/20/22 11:29	12/20/22 21:52	5
Molybdenum	ND		2.00	0.515	mg/Kg		12/20/22 11:29	12/20/22 21:52	5
Nickel	4.18		2.00	0.362	mg/Kg		12/20/22 11:29	12/20/22 21:52	5
Antimony	ND		10.0	2.86	mg/Kg		12/20/22 11:29	12/20/22 21:52	5
Selenium	ND		3.00	1.22	mg/Kg		12/20/22 11:29	12/20/22 21:52	5
Thallium	ND		10.0	2.11	mg/Kg		12/20/22 11:29	12/20/22 21:52	5
Vanadium	22.6		1.00	0.168	mg/Kg		12/20/22 11:29	12/20/22 21:52	5
Zinc	18.2		5.00	1.16	mg/Kg		12/20/22 11:29	12/20/22 21:52	5
Lead	6.48		2.00	0.409	mg/Kg		12/20/22 11:29	12/20/22 21:52	5

Client Sample ID: B-45 @ 2.5'  
Date Collected: 12/14/22 14:27  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-20  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/16/22 09:16	12/19/22 15:33	5
Arsenic	5.35		3.03	1.41	mg/Kg		12/16/22 09:16	12/19/22 15:33	5
Barium	42.0	B	3.03	0.143	mg/Kg		12/16/22 09:16	12/19/22 15:33	5
Beryllium	0.366	J	0.505	0.0697	mg/Kg		12/16/22 09:16	12/19/22 15:33	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/16/22 09:16	12/19/22 15:33	5
Cobalt	4.14		1.01	0.208	mg/Kg		12/16/22 09:16	12/19/22 15:33	5
Chromium	9.46		1.01	0.188	mg/Kg		12/16/22 09:16	12/19/22 15:33	5
Copper	6.29		2.02	0.968	mg/Kg		12/16/22 09:16	12/19/22 15:33	5
Molybdenum	ND		2.02	0.520	mg/Kg		12/16/22 09:16	12/19/22 15:33	5
Nickel	4.29		2.02	0.366	mg/Kg		12/16/22 09:16	12/19/22 15:33	5
Antimony	ND	F1 ^1+	10.1	2.89	mg/Kg		12/16/22 09:16	12/19/22 15:33	5
Selenium	ND		3.03	1.23	mg/Kg		12/16/22 09:16	12/19/22 15:33	5
Thallium	ND		10.1	2.13	mg/Kg		12/16/22 09:16	12/19/22 15:33	5
Vanadium	23.2		1.01	0.170	mg/Kg		12/16/22 09:16	12/19/22 15:33	5
Zinc	20.4		5.05	1.17	mg/Kg		12/16/22 09:16	12/19/22 15:33	5
Lead	9.04		2.02	0.413	mg/Kg		12/16/22 09:16	12/19/22 15:33	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-45 @ 10'  
Date Collected: 12/14/22 14:40  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-21  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/20/22 11:29	12/20/22 21:54	5
Arsenic	6.37		2.97	1.38	mg/Kg		12/20/22 11:29	12/20/22 21:54	5
Barium	69.2		2.97	0.141	mg/Kg		12/20/22 11:29	12/20/22 21:54	5
Beryllium	0.371	J	0.495	0.0683	mg/Kg		12/20/22 11:29	12/20/22 21:54	5
Cadmium	ND		0.495	0.0822	mg/Kg		12/20/22 11:29	12/20/22 21:54	5
Cobalt	4.27		0.990	0.204	mg/Kg		12/20/22 11:29	12/20/22 21:54	5
Chromium	8.80		0.990	0.184	mg/Kg		12/20/22 11:29	12/20/22 21:54	5
Copper	11.0		1.98	0.949	mg/Kg		12/20/22 11:29	12/20/22 21:54	5
Molybdenum	0.532	J	1.98	0.510	mg/Kg		12/20/22 11:29	12/20/22 21:54	5
Nickel	4.79		1.98	0.358	mg/Kg		12/20/22 11:29	12/20/22 21:54	5
Antimony	ND		9.90	2.83	mg/Kg		12/20/22 11:29	12/20/22 21:54	5
Selenium	ND		2.97	1.21	mg/Kg		12/20/22 11:29	12/20/22 21:54	5
Thallium	ND		9.90	2.09	mg/Kg		12/20/22 11:29	12/20/22 21:54	5
Vanadium	20.5		0.990	0.166	mg/Kg		12/20/22 11:29	12/20/22 21:54	5
Zinc	30.4		4.95	1.14	mg/Kg		12/20/22 11:29	12/20/22 21:54	5
Lead	30.2		1.98	0.405	mg/Kg		12/20/22 11:29	12/20/22 21:54	5

Client Sample ID: B-45 @ 5'  
Date Collected: 12/14/22 14:32  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-22  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.146	mg/Kg		12/20/22 11:29	12/20/22 21:57	5
Arsenic	6.12		3.05	1.41	mg/Kg		12/20/22 11:29	12/20/22 21:57	5
Barium	74.7		3.05	0.144	mg/Kg		12/20/22 11:29	12/20/22 21:57	5
Beryllium	0.305	J	0.508	0.0701	mg/Kg		12/20/22 11:29	12/20/22 21:57	5
Cadmium	ND		0.508	0.0843	mg/Kg		12/20/22 11:29	12/20/22 21:57	5
Cobalt	3.50		1.02	0.209	mg/Kg		12/20/22 11:29	12/20/22 21:57	5
Chromium	9.23		1.02	0.189	mg/Kg		12/20/22 11:29	12/20/22 21:57	5
Copper	99.3		2.03	0.973	mg/Kg		12/20/22 11:29	12/20/22 21:57	5
Molybdenum	0.571	J	2.03	0.523	mg/Kg		12/20/22 11:29	12/20/22 21:57	5
Nickel	4.61		2.03	0.368	mg/Kg		12/20/22 11:29	12/20/22 21:57	5
Antimony	7.30	J	10.2	2.90	mg/Kg		12/20/22 11:29	12/20/22 21:57	5
Selenium	ND		3.05	1.24	mg/Kg		12/20/22 11:29	12/20/22 21:57	5
Thallium	ND		10.2	2.14	mg/Kg		12/20/22 11:29	12/20/22 21:57	5
Vanadium	21.6		1.02	0.171	mg/Kg		12/20/22 11:29	12/20/22 21:57	5
Zinc	44.0		5.08	1.17	mg/Kg		12/20/22 11:29	12/20/22 21:57	5
Lead	3300		2.03	0.415	mg/Kg		12/20/22 11:29	12/20/22 21:57	5

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: SW846 7471A - Mercury (CVAA)

**Client Sample ID: B-18 @ 2.5'**  
**Date Collected: 12/14/22 07:20**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-1**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/15/22 21:13	12/16/22 14:39	1

**Client Sample ID: B-18 @ 5'**  
**Date Collected: 12/14/22 07:25**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-2**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/15/22 21:13	12/16/22 15:50	1

**Client Sample ID: B-18 @ 10'**  
**Date Collected: 12/14/22 07:30**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-3**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0801	0.0308	mg/Kg		12/15/22 21:13	12/16/22 15:52	1

**Client Sample ID: B-23 @ 2.5'**  
**Date Collected: 12/14/22 08:20**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-4**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/15/22 21:13	12/16/22 15:54	1

**Client Sample ID: B-23 @ 5'**  
**Date Collected: 12/14/22 08:25**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-5**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/15/22 21:13	12/16/22 15:56	1

**Client Sample ID: B-23 @ 10'**  
**Date Collected: 12/14/22 08:30**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-6**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/15/22 21:13	12/16/22 15:58	1

**Client Sample ID: B-23 @ 15'**  
**Date Collected: 12/14/22 08:38**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-7**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/15/22 21:13	12/16/22 16:00	1

**Client Sample ID: B-23 @ 20'**  
**Date Collected: 12/14/22 08:45**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-8**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/15/22 21:13	12/16/22 16:02	1

**Client Sample ID: B-44 @ 2.5'**  
**Date Collected: 12/14/22 09:53**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-9**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/15/22 21:13	12/16/22 16:04	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: SW846 7471A - Mercury (CVAA)

**Client Sample ID: B-44 @ 5'**  
**Date Collected: 12/14/22 09:57**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-10**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/15/22 21:13	12/16/22 16:06	1

**Client Sample ID: B-44 @ 10'**  
**Date Collected: 12/14/22 10:04**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-11**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/19/22 20:15	12/20/22 16:44	1

**Client Sample ID: B-44 @ 15'**  
**Date Collected: 12/14/22 10:14**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-12**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/15/22 21:13	12/16/22 16:16	1

**Client Sample ID: B-44 @ 20'**  
**Date Collected: 12/14/22 10:21**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-13**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/15/22 21:13	12/16/22 16:18	1

**Client Sample ID: B-44 @ 25'**  
**Date Collected: 12/14/22 10:32**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-14**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/15/22 21:13	12/16/22 16:20	1

**Client Sample ID: B-47 @ 2.5'**  
**Date Collected: 12/14/22 12:09**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-15**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/15/22 21:13	12/16/22 16:22	1

**Client Sample ID: B-47 @ 5'**  
**Date Collected: 12/14/22 12:14**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-16**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/15/22 21:13	12/16/22 16:23	1

**Client Sample ID: B-47 @ 10'**  
**Date Collected: 12/14/22 12:20**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-17**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0868	0.0333	mg/Kg		12/15/22 21:13	12/16/22 16:25	1

**Client Sample ID: B-49 @ 2.5'**  
**Date Collected: 12/14/22 13:28**  
**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-18**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/19/22 20:15	12/20/22 16:46	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: SW846 7471A - Mercury (CVAA)

Client Sample ID: B-48 @ 2.5'  
Date Collected: 12/14/22 13:56  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-19  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/19/22 20:15	12/20/22 16:52	1

Client Sample ID: B-45 @ 2.5'  
Date Collected: 12/14/22 14:27  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-20  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/15/22 21:13	12/16/22 16:27	1

Client Sample ID: B-45 @ 10'  
Date Collected: 12/14/22 14:40  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-21  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/19/22 20:15	12/20/22 16:54	1

Client Sample ID: B-45 @ 5'  
Date Collected: 12/14/22 14:32  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-22  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/19/22 20:15	12/20/22 16:55	1



# Surrogate Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	BFB1 (42-126)
570-120930-1	B-18 @ 2.5'	68
570-120930-2	B-18 @ 5'	62
570-120930-3	B-18 @ 10'	63
570-120930-4	B-23 @ 2.5'	62
570-120930-5	B-23 @ 5'	72
570-120930-6	B-23 @ 10'	78
570-120930-7	B-23 @ 15'	63
570-120930-8	B-23 @ 20'	75
570-120930-9	B-44 @ 2.5'	78
570-120930-9 MS	B-44 @ 2.5'	96
570-120930-9 MSD	B-44 @ 2.5'	95
570-120930-10	B-44 @ 5'	78
570-120930-11	B-44 @ 10'	73
570-120930-11 MS	B-44 @ 10'	89
570-120930-11 MSD	B-44 @ 10'	90
570-120930-12	B-44 @ 15'	77
570-120930-13	B-44 @ 20'	81
570-120930-14	B-44 @ 25'	79
570-120930-15	B-47 @ 2.5'	79
570-120930-16	B-47 @ 5'	72
570-120930-17	B-47 @ 10'	74
570-120930-18	B-49 @ 2.5'	76
570-120930-19	B-48 @ 2.5'	77
570-120930-20	B-45 @ 2.5'	81
570-120930-21	B-45 @ 10'	73
570-120930-22	B-45 @ 5'	82
LCS 570-289854/1-A	Lab Control Sample	92
LCS 570-290192/1-A	Lab Control Sample	78
LCS 570-290603/1-A	Lab Control Sample	98
LCSD 570-289854/2-A	Lab Control Sample Dup	95
LCSD 570-290192/2-A	Lab Control Sample Dup	82
LCSD 570-290603/2-A	Lab Control Sample Dup	102
MB 570-289854/3-A	Method Blank	76
MB 570-290192/3-A	Method Blank	50
MB 570-290603/3-A	Method Blank	76

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	OTCSN1 (60-138)
570-120930-1	B-18 @ 2.5'	103
570-120930-1 MS	B-18 @ 2.5'	98
570-120930-1 MSD	B-18 @ 2.5'	108
570-120930-2	B-18 @ 5'	102
570-120930-3	B-18 @ 10'	101

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# Surrogate Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

**Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)**

**Matrix: Solid**

**Prep Type: Total/NA**

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	OTCSN1 (60-138)
570-120930-4	B-23 @ 2.5'	105
570-120930-5	B-23 @ 5'	109
570-120930-6	B-23 @ 10'	102
570-120930-7	B-23 @ 15'	104
570-120930-8	B-23 @ 20'	104
570-120930-9	B-44 @ 2.5'	106
570-120930-10	B-44 @ 5'	107
570-120930-11	B-44 @ 10'	109
570-120930-12	B-44 @ 15'	110
570-120930-13	B-44 @ 20'	112
570-120930-14	B-44 @ 25'	113
570-120930-15	B-47 @ 2.5'	108
570-120930-16	B-47 @ 5'	109
570-120930-17	B-47 @ 10'	115
570-120930-18	B-49 @ 2.5'	108
570-120930-19	B-48 @ 2.5'	101
570-120930-20	B-45 @ 2.5'	114
570-120930-21	B-45 @ 10'	103
570-120930-22	B-45 @ 5'	104
LCS 570-289754/2-A	Lab Control Sample	80
LCS 570-289868/2-A	Lab Control Sample	108
LCSD 570-289754/3-A	Lab Control Sample Dup	78
LCSD 570-289868/3-A	Lab Control Sample Dup	105
MB 570-289754/1-A	Method Blank	73
MB 570-289868/1-A	Method Blank	125

## Surrogate Legend

OTCSN = n-Octacosane (Surr)

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-289854/3-A

Matrix: Solid

Analysis Batch: 289873

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289854

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/16/22 17:47	12/17/22 05:37	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		42 - 126				12/16/22 17:47	12/17/22 05:37	1

Lab Sample ID: LCS 570-289854/1-A

Matrix: Solid

Analysis Batch: 289873

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289854

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	1.92	2.025		mg/Kg		105	70 - 124
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	92		42 - 126				

Lab Sample ID: LCSD 570-289854/2-A

Matrix: Solid

Analysis Batch: 289873

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289854

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	1.93	2.296		mg/Kg		119	70 - 124	13	18
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	95		42 - 126						

Lab Sample ID: 570-120930-11 MS

Matrix: Solid

Analysis Batch: 289873

Client Sample ID: B-44 @ 10'

Prep Type: Total/NA

Prep Batch: 289854

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	ND		1.91	1.613		mg/Kg		85	48 - 114
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	89		42 - 126						

Lab Sample ID: 570-120930-11 MSD

Matrix: Solid

Analysis Batch: 289873

Client Sample ID: B-44 @ 10'

Prep Type: Total/NA

Prep Batch: 289854

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	ND		1.93	1.778		mg/Kg		92	48 - 114	10	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	90		42 - 126								

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-290192/3-A

Matrix: Solid

Analysis Batch: 290189

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290192

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/19/22 09:41	12/19/22 12:02	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	50		42 - 126				12/19/22 09:41	12/19/22 12:02	1

Lab Sample ID: LCS 570-290192/1-A

Matrix: Solid

Analysis Batch: 290189

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290192

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (C4-C13)	1.92	1.868		mg/Kg		97	70 - 124	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	78		42 - 126					

Lab Sample ID: LCSD 570-290192/2-A

Matrix: Solid

Analysis Batch: 290189

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290192

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Gasoline Range Organics (C4-C13)	1.92	1.905		mg/Kg		99	70 - 124	2	18
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	82		42 - 126						

Lab Sample ID: MB 570-290603/3-A

Matrix: Solid

Analysis Batch: 290554

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290603

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/20/22 10:25	12/20/22 11:44	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		42 - 126				12/20/22 10:25	12/20/22 11:44	1

Lab Sample ID: LCS 570-290603/1-A

Matrix: Solid

Analysis Batch: 290554

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290603

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (C4-C13)	1.92	1.908		mg/Kg		99	70 - 124	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	98		42 - 126					

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: LCSD 570-290603/2-A

Matrix: Solid

Analysis Batch: 290554

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290603

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	1.93	1.965		mg/Kg		102	70 - 124	3	18
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	102		42 - 126						

Lab Sample ID: 570-120930-9 MS

Matrix: Solid

Analysis Batch: 290554

Client Sample ID: B-44 @ 2.5'

Prep Type: Total/NA

Prep Batch: 290603

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	ND		1.90	1.713		mg/Kg		90	48 - 114		
Surrogate	MS %Recovery	MS Qualifier	Limits								
4-Bromofluorobenzene (Surr)	96		42 - 126								

Lab Sample ID: 570-120930-9 MSD

Matrix: Solid

Analysis Batch: 290554

Client Sample ID: B-44 @ 2.5'

Prep Type: Total/NA

Prep Batch: 290603

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	ND		1.91	1.734		mg/Kg		91	48 - 114	1	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	95		42 - 126								

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-289754/1-A

Matrix: Solid

Analysis Batch: 290079

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289754

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/16/22 13:56	12/18/22 18:17	1
C23-C40	ND		5.0	3.8	mg/Kg		12/16/22 13:56	12/18/22 18:17	1
Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac			
n-Octacosane (Surr)	73		60 - 138	12/16/22 13:56	12/18/22 18:17	1			

Lab Sample ID: LCS 570-289754/2-A

Matrix: Solid

Analysis Batch: 290079

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289754

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	400	412.5		mg/Kg		103	80 - 130		

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 570-289754/2-A

Matrix: Solid

Analysis Batch: 290079

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289754

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	80		60 - 138

Lab Sample ID: LCSD 570-289754/3-A

Matrix: Solid

Analysis Batch: 290079

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289754

			Spike	LCSD	LCSD				%Rec	RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Diesel Range Organics [C10-C28]			400	396.6		mg/Kg		99	80 - 130	4	20
Surrogate		LCSD	LCSD								
	%Recovery	Qualifier	Limits								
n-Octacosane (Surr)	78		60 - 138								

Lab Sample ID: 570-120930-1 MS

Matrix: Solid

Analysis Batch: 290079

Client Sample ID: B-18 @ 2.5'

Prep Type: Total/NA

Prep Batch: 289754

	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Diesel Range Organics [C10-C28]	6.0		386	428.3		mg/Kg		109	43 - 165		
Surrogate		MS	MS								
	%Recovery	Qualifier	Limits								
n-Octacosane (Surr)	98		60 - 138								

Lab Sample ID: 570-120930-1 MSD

Matrix: Solid

Analysis Batch: 290079

Client Sample ID: B-18 @ 2.5'

Prep Type: Total/NA

Prep Batch: 289754

	Sample	Sample	Spike	MSD	MSD				%Rec	RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Diesel Range Organics [C10-C28]	6.0		395	385.4		mg/Kg		96	43 - 165	11	35
Surrogate		MSD	MSD								
	%Recovery	Qualifier	Limits								
n-Octacosane (Surr)	108		60 - 138								

Lab Sample ID: MB 570-289868/1-A

Matrix: Solid

Analysis Batch: 290079

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289868

	MB	MB									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
C13-C22	ND		5.0	3.8	mg/Kg		12/16/22 18:38	12/19/22 15:34	1		
C23-C40	ND		5.0	3.8	mg/Kg		12/16/22 18:38	12/19/22 15:34	1		
Surrogate		MB	MB								
	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac		
n-Octacosane (Surr)	125		60 - 138				12/16/22 18:38	12/19/22 15:34	1		

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 570-289868/2-A

Matrix: Solid

Analysis Batch: 290079

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289868

			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Diesel Range Organics [C10-C28]			400	405.9		mg/Kg		101	80 - 130		
			LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits								
n-Octacosane (Surr)	108		60 - 138								

Lab Sample ID: LCSD 570-289868/3-A

Matrix: Solid

Analysis Batch: 290079

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289868

Top Data: 20000											
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			400	404.4		mg/Kg	-	101	80 - 130	0	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits								
n-Octacosane (Surr)	105		60 - 138								

## Method: 6010B - Metals (ICP)

Lab Sample ID: MB 570-289571/1-A ^5

Matrix: Solid

Analysis Batch: 289919

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289571

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Arsenic	ND		2.99	1.38	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Barium	ND		2.99	0.141	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Beryllium	ND		0.498	0.0687	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Cadmium	ND		0.498	0.0826	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Cobalt	ND		0.995	0.205	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Chromium	ND		0.995	0.185	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Copper	ND		1.99	0.953	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Molybdenum	ND		1.99	0.512	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Nickel	ND		1.99	0.360	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Antimony	ND		9.95	2.84	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Selenium	ND		2.99	1.22	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Thallium	ND		9.95	2.10	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Vanadium	ND		0.995	0.167	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Zinc	ND		4.98	1.15	mg/Kg		12/16/22 06:39	12/16/22 22:54	5
Lead	ND		1.99	0.407	mg/Kg		12/16/22 06:39	12/16/22 22:54	5

Lab Sample ID: LCS 570-289571/2-A ^5

Matrix: Solid

Analysis Batch: 289919

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289571

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	25.5	22.98		mg/Kg		90	80 - 120
Arsenic	51.0	45.66		mg/Kg		90	80 - 120
Barium	51.0	46.15		mg/Kg		90	80 - 120

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 570-289571/2-A ^5

Matrix: Solid

Analysis Batch: 289919

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289571

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium	51.0	46.24		mg/Kg		91	80 - 120
Cadmium	51.0	46.10		mg/Kg		90	80 - 120
Cobalt	51.0	46.08		mg/Kg		90	80 - 120
Chromium	51.0	45.97		mg/Kg		90	80 - 120
Copper	51.0	45.82		mg/Kg		90	80 - 120
Molybdenum	51.0	47.22		mg/Kg		93	80 - 120
Nickel	51.0	46.14		mg/Kg		90	80 - 120
Antimony	51.0	52.19		mg/Kg		102	80 - 120
Selenium	51.0	43.44		mg/Kg		85	80 - 120
Thallium	51.0	45.45		mg/Kg		89	80 - 120
Vanadium	51.0	45.64		mg/Kg		89	80 - 120
Zinc	51.0	45.28		mg/Kg		89	80 - 120
Lead	51.0	45.55		mg/Kg		89	80 - 120

Lab Sample ID: LCSD 570-289571/3-A ^5

Matrix: Solid

Analysis Batch: 289919

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289571

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	25.0	22.71		mg/Kg		91	80 - 120	1	20
Arsenic	50.0	45.39		mg/Kg		91	80 - 120	1	20
Barium	50.0	45.63		mg/Kg		91	80 - 120	1	20
Beryllium	50.0	45.76		mg/Kg		92	80 - 120	1	20
Cadmium	50.0	45.33		mg/Kg		91	80 - 120	2	20
Cobalt	50.0	45.44		mg/Kg		91	80 - 120	1	20
Chromium	50.0	45.39		mg/Kg		91	80 - 120	1	20
Copper	50.0	45.44		mg/Kg		91	80 - 120	1	20
Molybdenum	50.0	46.60		mg/Kg		93	80 - 120	1	20
Nickel	50.0	45.73		mg/Kg		91	80 - 120	1	20
Antimony	50.0	51.11		mg/Kg		102	80 - 120	2	20
Selenium	50.0	43.11		mg/Kg		86	80 - 120	1	20
Thallium	50.0	45.25		mg/Kg		91	80 - 120	0	20
Vanadium	50.0	45.19		mg/Kg		90	80 - 120	1	20
Zinc	50.0	44.75		mg/Kg		90	80 - 120	1	20
Lead	50.0	45.23		mg/Kg		90	80 - 120	1	20

Lab Sample ID: MB 570-289576/1-A ^5

Matrix: Solid

Analysis Batch: 290646

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289576

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/16/22 07:31	12/19/22 22:31	5
Arsenic	ND		3.02	1.40	mg/Kg		12/16/22 07:31	12/19/22 22:31	5
Barium	ND		3.02	0.143	mg/Kg		12/16/22 07:31	12/19/22 22:31	5
Beryllium	ND		0.503	0.0693	mg/Kg		12/16/22 07:31	12/19/22 22:31	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/16/22 07:31	12/19/22 22:31	5
Cobalt	ND		1.01	0.207	mg/Kg		12/16/22 07:31	12/19/22 22:31	5
Chromium	ND		1.01	0.187	mg/Kg		12/16/22 07:31	12/19/22 22:31	5
Copper	ND		2.01	0.963	mg/Kg		12/16/22 07:31	12/19/22 22:31	5

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 570-289576/1-A ^5

Matrix: Solid

Analysis Batch: 290646

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289576

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		2.01	0.518	mg/Kg		12/16/22 07:31	12/19/22 22:31	5
Nickel	ND		2.01	0.364	mg/Kg		12/16/22 07:31	12/19/22 22:31	5
Antimony	ND	^1+	10.1	2.87	mg/Kg		12/16/22 07:31	12/19/22 22:31	5
Selenium	ND		3.02	1.23	mg/Kg		12/16/22 07:31	12/19/22 22:31	5
Thallium	ND		10.1	2.12	mg/Kg		12/16/22 07:31	12/19/22 22:31	5
Vanadium	ND		1.01	0.169	mg/Kg		12/16/22 07:31	12/19/22 22:31	5
Zinc	ND		5.03	1.16	mg/Kg		12/16/22 07:31	12/19/22 22:31	5
Lead	ND		2.01	0.411	mg/Kg		12/16/22 07:31	12/19/22 22:31	5

Lab Sample ID: LCS 570-289576/2-A ^5

Matrix: Solid

Analysis Batch: 290646

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289576

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	25.4	22.45		mg/Kg		88	80 - 120
Arsenic	50.8	44.49		mg/Kg		88	80 - 120
Barium	50.8	45.77		mg/Kg		90	80 - 120
Beryllium	50.8	45.65		mg/Kg		90	80 - 120
Cadmium	50.8	44.95		mg/Kg		89	80 - 120
Cobalt	50.8	45.25		mg/Kg		89	80 - 120
Chromium	50.8	46.00		mg/Kg		91	80 - 120
Copper	50.8	45.55		mg/Kg		90	80 - 120
Molybdenum	50.8	46.45		mg/Kg		92	80 - 120
Nickel	50.8	45.84		mg/Kg		90	80 - 120
Antimony	50.8	52.27	^1+	mg/Kg		103	80 - 120
Selenium	50.8	42.45		mg/Kg		84	80 - 120
Thallium	50.8	44.67		mg/Kg		88	80 - 120
Vanadium	50.8	45.29		mg/Kg		89	80 - 120
Zinc	50.8	45.22		mg/Kg		89	80 - 120
Lead	50.8	44.96		mg/Kg		89	80 - 120

Lab Sample ID: LCSD 570-289576/3-A ^5

Matrix: Solid

Analysis Batch: 290646

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289576

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	25.1	22.15		mg/Kg		88	80 - 120	1	20
Arsenic	50.3	44.48		mg/Kg		89	80 - 120	0	20
Barium	50.3	45.30		mg/Kg		90	80 - 120	1	20
Beryllium	50.3	45.13		mg/Kg		90	80 - 120	1	20
Cadmium	50.3	44.64		mg/Kg		89	80 - 120	1	20
Cobalt	50.3	45.05		mg/Kg		90	80 - 120	0	20
Chromium	50.3	45.44		mg/Kg		90	80 - 120	1	20
Copper	50.3	45.05		mg/Kg		90	80 - 120	1	20
Molybdenum	50.3	46.02		mg/Kg		92	80 - 120	1	20
Nickel	50.3	45.44		mg/Kg		90	80 - 120	1	20
Antimony	50.3	51.52	^1+	mg/Kg		103	80 - 120	1	20
Selenium	50.3	42.12		mg/Kg		84	80 - 120	1	20
Thallium	50.3	44.10		mg/Kg		88	80 - 120	1	20

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSD 570-289576/3-A ^5

Matrix: Solid

Analysis Batch: 290646

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289576

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Vanadium	50.3	44.72		mg/Kg		89	80 - 120	1	20
Zinc	50.3	44.90		mg/Kg		89	80 - 120	1	20
Lead	50.3	45.20		mg/Kg		90	80 - 120	1	20

Lab Sample ID: MB 570-289631/1-A ^5

Matrix: Solid

Analysis Batch: 290332

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289631

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/16/22 09:16	12/19/22 15:18	5
Arsenic	ND		2.99	1.38	mg/Kg		12/16/22 09:16	12/19/22 15:18	5
Barium	0.2612	J	2.99	0.141	mg/Kg		12/16/22 09:16	12/19/22 15:18	5
Beryllium	ND		0.498	0.0687	mg/Kg		12/16/22 09:16	12/19/22 15:18	5
Cadmium	ND		0.498	0.0826	mg/Kg		12/16/22 09:16	12/19/22 15:18	5
Cobalt	ND		0.995	0.205	mg/Kg		12/16/22 09:16	12/19/22 15:18	5
Chromium	ND		0.995	0.185	mg/Kg		12/16/22 09:16	12/19/22 15:18	5
Copper	ND		1.99	0.953	mg/Kg		12/16/22 09:16	12/19/22 15:18	5
Molybdenum	ND		1.99	0.512	mg/Kg		12/16/22 09:16	12/19/22 15:18	5
Nickel	ND		1.99	0.360	mg/Kg		12/16/22 09:16	12/19/22 15:18	5
Antimony	ND	^1+	9.95	2.84	mg/Kg		12/16/22 09:16	12/19/22 15:18	5
Selenium	ND		2.99	1.22	mg/Kg		12/16/22 09:16	12/19/22 15:18	5
Thallium	ND		9.95	2.10	mg/Kg		12/16/22 09:16	12/19/22 15:18	5
Vanadium	ND		0.995	0.167	mg/Kg		12/16/22 09:16	12/19/22 15:18	5
Zinc	ND		4.98	1.15	mg/Kg		12/16/22 09:16	12/19/22 15:18	5
Lead	ND		1.99	0.407	mg/Kg		12/16/22 09:16	12/19/22 15:18	5

Lab Sample ID: MB 570-289631/1-A ^5

Matrix: Solid

Analysis Batch: 290654

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289631

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/16/22 09:16	12/20/22 04:35	5
Arsenic	ND		2.99	1.38	mg/Kg		12/16/22 09:16	12/20/22 04:35	5
Barium	0.2612	J	2.99	0.141	mg/Kg		12/16/22 09:16	12/20/22 04:35	5
Beryllium	ND		0.498	0.0687	mg/Kg		12/16/22 09:16	12/20/22 04:35	5
Cadmium	ND		0.498	0.0826	mg/Kg		12/16/22 09:16	12/20/22 04:35	5
Cobalt	ND		0.995	0.205	mg/Kg		12/16/22 09:16	12/20/22 04:35	5
Chromium	ND		0.995	0.185	mg/Kg		12/16/22 09:16	12/20/22 04:35	5
Copper	ND		1.99	0.953	mg/Kg		12/16/22 09:16	12/20/22 04:35	5
Molybdenum	ND		1.99	0.512	mg/Kg		12/16/22 09:16	12/20/22 04:35	5
Nickel	ND		1.99	0.360	mg/Kg		12/16/22 09:16	12/20/22 04:35	5
Antimony	ND	^1+	9.95	2.84	mg/Kg		12/16/22 09:16	12/20/22 04:35	5
Selenium	ND		2.99	1.22	mg/Kg		12/16/22 09:16	12/20/22 04:35	5
Thallium	ND		9.95	2.10	mg/Kg		12/16/22 09:16	12/20/22 04:35	5
Vanadium	ND		0.995	0.167	mg/Kg		12/16/22 09:16	12/20/22 04:35	5
Zinc	ND		4.98	1.15	mg/Kg		12/16/22 09:16	12/20/22 04:35	5
Lead	ND		1.99	0.407	mg/Kg		12/16/22 09:16	12/20/22 04:35	5

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 570-289631/2-A ^5

Matrix: Solid

Analysis Batch: 290332

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289631

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	25.1	24.13		mg/Kg		96	80 - 120
Arsenic	50.3	47.63		mg/Kg		95	80 - 120
Barium	50.3	48.96		mg/Kg		97	80 - 120
Beryllium	50.3	49.11		mg/Kg		98	80 - 120
Cadmium	50.3	48.38		mg/Kg		96	80 - 120
Cobalt	50.3	49.11		mg/Kg		98	80 - 120
Chromium	50.3	49.28		mg/Kg		98	80 - 120
Copper	50.3	49.05		mg/Kg		98	80 - 120
Molybdenum	50.3	49.86		mg/Kg		99	80 - 120
Nickel	50.3	49.30		mg/Kg		98	80 - 120
Antimony	50.3	55.84	^1+	mg/Kg		111	80 - 120
Selenium	50.3	45.93		mg/Kg		91	80 - 120
Thallium	50.3	48.23		mg/Kg		96	80 - 120
Vanadium	50.3	48.67		mg/Kg		97	80 - 120
Zinc	50.3	48.32		mg/Kg		96	80 - 120
Lead	50.3	48.84		mg/Kg		97	80 - 120

Lab Sample ID: LCS 570-289631/2-A ^5

Matrix: Solid

Analysis Batch: 290654

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289631

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	25.1	22.56		mg/Kg		90	80 - 120
Arsenic	50.3	44.72		mg/Kg		89	80 - 120
Barium	50.3	45.84		mg/Kg		91	80 - 120
Beryllium	50.3	45.74		mg/Kg		91	80 - 120
Cadmium	50.3	45.31		mg/Kg		90	80 - 120
Cobalt	50.3	45.40		mg/Kg		90	80 - 120
Chromium	50.3	46.12		mg/Kg		92	80 - 120
Copper	50.3	45.68		mg/Kg		91	80 - 120
Molybdenum	50.3	46.72		mg/Kg		93	80 - 120
Nickel	50.3	45.67		mg/Kg		91	80 - 120
Antimony	50.3	52.37	^1+	mg/Kg		104	80 - 120
Selenium	50.3	42.58		mg/Kg		85	80 - 120
Thallium	50.3	45.34		mg/Kg		90	80 - 120
Vanadium	50.3	45.31		mg/Kg		90	80 - 120
Zinc	50.3	45.39		mg/Kg		90	80 - 120
Lead	50.3	45.55		mg/Kg		91	80 - 120

Lab Sample ID: LCSD 570-289631/3-A ^5

Matrix: Solid

Analysis Batch: 290332

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289631

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Silver	25.4	23.86		mg/Kg		94	80 - 120	1	20
Arsenic	50.8	46.98		mg/Kg		93	80 - 120	1	20
Barium	50.8	48.68		mg/Kg		96	80 - 120	1	20
Beryllium	50.8	48.53		mg/Kg		96	80 - 120	1	20
Cadmium	50.8	48.26		mg/Kg		95	80 - 120	0	20

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSD 570-289631/3-A ^5

Matrix: Solid

Analysis Batch: 290332

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289631

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cobalt	50.8	48.07		mg/Kg		95	80 - 120	2	20
Chromium	50.8	48.60		mg/Kg		96	80 - 120	1	20
Copper	50.8	48.44		mg/Kg		95	80 - 120	1	20
Molybdenum	50.8	49.45		mg/Kg		97	80 - 120	1	20
Nickel	50.8	48.87		mg/Kg		96	80 - 120	1	20
Antimony	50.8	55.00	^1+	mg/Kg		108	80 - 120	2	20
Selenium	50.8	45.29		mg/Kg		89	80 - 120	1	20
Thallium	50.8	47.72		mg/Kg		94	80 - 120	1	20
Vanadium	50.8	48.07		mg/Kg		95	80 - 120	1	20
Zinc	50.8	47.63		mg/Kg		94	80 - 120	1	20
Lead	50.8	47.69		mg/Kg		94	80 - 120	2	20

Lab Sample ID: LCSD 570-289631/3-A ^5

Matrix: Solid

Analysis Batch: 290654

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289631

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	25.4	22.54		mg/Kg		89	80 - 120	0	20
Arsenic	50.8	44.89		mg/Kg		88	80 - 120	0	20
Barium	50.8	45.99		mg/Kg		91	80 - 120	0	20
Beryllium	50.8	45.85		mg/Kg		90	80 - 120	0	20
Cadmium	50.8	45.42		mg/Kg		89	80 - 120	0	20
Cobalt	50.8	45.80		mg/Kg		90	80 - 120	1	20
Chromium	50.8	46.21		mg/Kg		91	80 - 120	0	20
Copper	50.8	45.69		mg/Kg		90	80 - 120	0	20
Molybdenum	50.8	46.93		mg/Kg		92	80 - 120	0	20
Nickel	50.8	45.88		mg/Kg		90	80 - 120	0	20
Antimony	50.8	52.40	^1+	mg/Kg		103	80 - 120	0	20
Selenium	50.8	42.69		mg/Kg		84	80 - 120	0	20
Thallium	50.8	45.47		mg/Kg		90	80 - 120	0	20
Vanadium	50.8	45.49		mg/Kg		90	80 - 120	0	20
Zinc	50.8	45.46		mg/Kg		90	80 - 120	0	20
Lead	50.8	45.37		mg/Kg		89	80 - 120	0	20

Lab Sample ID: 570-120930-20 MS

Matrix: Solid

Analysis Batch: 290332

Client Sample ID: B-45 @ 2.5'

Prep Type: Total/NA

Prep Batch: 289631

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	ND		25.1	22.15		mg/Kg		88	75 - 125
Arsenic	5.35		50.3	48.33		mg/Kg		86	75 - 125
Barium	42.0	B	50.3	102.9		mg/Kg		121	75 - 125
Beryllium	0.366	J	50.3	46.29		mg/Kg		91	75 - 125
Cadmium	ND		50.3	44.31		mg/Kg		88	75 - 125
Cobalt	4.14		50.3	49.23		mg/Kg		90	75 - 125
Chromium	9.46		50.3	56.75		mg/Kg		94	75 - 125
Copper	6.29		50.3	53.19		mg/Kg		93	75 - 125
Molybdenum	ND		50.3	44.65		mg/Kg		89	75 - 125
Nickel	4.29		50.3	49.45		mg/Kg		90	75 - 125

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 570-120930-20 MS

Matrix: Solid

Analysis Batch: 290332

Client Sample ID: B-45 @ 2.5'

Prep Type: Total/NA

Prep Batch: 289631

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND	F1 ^1+	50.3	20.98	F1 ^1+	mg/Kg		42	75 - 125
Selenium	ND		50.3	40.39		mg/Kg		80	75 - 125
Thallium	ND		50.3	44.85		mg/Kg		89	75 - 125
Vanadium	23.2		50.3	70.97		mg/Kg		95	75 - 125
Zinc	20.4		50.3	63.66		mg/Kg		86	75 - 125
Lead	9.04		50.3	51.60		mg/Kg		85	75 - 125

Lab Sample ID: 570-120930-20 MS

Matrix: Solid

Analysis Batch: 290654

Client Sample ID: B-45 @ 2.5'

Prep Type: Total/NA

Prep Batch: 289631

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	ND		25.1	21.19		mg/Kg		84	75 - 125
Arsenic	4.27		50.3	46.83		mg/Kg		85	75 - 125
Barium	38.0	B	50.3	97.98		mg/Kg		119	75 - 125
Beryllium	0.328	J	50.3	44.07		mg/Kg		87	75 - 125
Cadmium	ND		50.3	42.06		mg/Kg		84	75 - 125
Cobalt	3.76		50.3	46.29		mg/Kg		85	75 - 125
Chromium	8.69		50.3	54.12		mg/Kg		90	75 - 125
Copper	5.64		50.3	50.45		mg/Kg		89	75 - 125
Molybdenum	0.568	J	50.3	42.71		mg/Kg		84	75 - 125
Nickel	4.13		50.3	47.14		mg/Kg		86	75 - 125
Antimony	ND	F1 ^1+	50.3	19.86	^1+ F1	mg/Kg		40	75 - 125
Selenium	ND		50.3	39.76		mg/Kg		79	75 - 125
Thallium	ND		50.3	43.08		mg/Kg		86	75 - 125
Vanadium	21.1		50.3	67.49		mg/Kg		92	75 - 125
Zinc	18.9		50.3	61.53		mg/Kg		85	75 - 125
Lead	8.35		50.3	49.36		mg/Kg		82	75 - 125

Lab Sample ID: 570-120930-20 MSD

Matrix: Solid

Analysis Batch: 290332

Client Sample ID: B-45 @ 2.5'

Prep Type: Total/NA

Prep Batch: 289631

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Silver	ND		25.1	21.97		mg/Kg		87	75 - 125	1	20
Arsenic	5.35		50.3	49.42		mg/Kg		88	75 - 125	2	20
Barium	42.0	B	50.3	86.02		mg/Kg		88	75 - 125	18	20
Beryllium	0.366	J	50.3	46.29		mg/Kg		91	75 - 125	0	20
Cadmium	ND		50.3	44.05		mg/Kg		88	75 - 125	1	20
Cobalt	4.14		50.3	47.83		mg/Kg		87	75 - 125	3	20
Chromium	9.46		50.3	56.67		mg/Kg		94	75 - 125	0	20
Copper	6.29		50.3	53.24		mg/Kg		93	75 - 125	0	20
Molybdenum	ND		50.3	43.99		mg/Kg		88	75 - 125	1	20
Nickel	4.29		50.3	49.47		mg/Kg		90	75 - 125	0	20
Antimony	ND	F1 ^1+	50.3	20.29	^1+ F1	mg/Kg		40	75 - 125	3	20
Selenium	ND		50.3	40.90		mg/Kg		81	75 - 125	1	20
Thallium	ND		50.3	45.14		mg/Kg		90	75 - 125	1	20
Vanadium	23.2		50.3	71.24		mg/Kg		96	75 - 125	0	20
Zinc	20.4		50.3	64.45		mg/Kg		88	75 - 125	1	20

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 570-120930-20 MSD

Matrix: Solid

Analysis Batch: 290332

Client Sample ID: B-45 @ 2.5'

Prep Type: Total/NA

Prep Batch: 289631

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	9.04		50.3	51.76		mg/Kg		85	75 - 125	0	20

Lab Sample ID: 570-120930-20 MSD

Matrix: Solid

Analysis Batch: 290654

Client Sample ID: B-45 @ 2.5'

Prep Type: Total/NA

Prep Batch: 289631

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	ND		25.1	20.99		mg/Kg		84	75 - 125	1	20
Arsenic	4.27		50.3	47.12		mg/Kg		85	75 - 125	1	20
Barium	38.0	B	50.3	81.87		mg/Kg		87	75 - 125	18	20
Beryllium	0.328	J	50.3	44.01		mg/Kg		87	75 - 125	0	20
Cadmium	ND		50.3	42.07		mg/Kg		84	75 - 125	0	20
Cobalt	3.76		50.3	45.55		mg/Kg		83	75 - 125	2	20
Chromium	8.69		50.3	54.35		mg/Kg		91	75 - 125	0	20
Copper	5.64		50.3	50.40		mg/Kg		89	75 - 125	0	20
Molybdenum	0.568	J	50.3	42.24		mg/Kg		83	75 - 125	1	20
Nickel	4.13		50.3	47.02		mg/Kg		85	75 - 125	0	20
Antimony	ND	F1 ^1+	50.3	19.46	^1+ F1	mg/Kg		39	75 - 125	2	20
Selenium	ND		50.3	39.08		mg/Kg		78	75 - 125	2	20
Thallium	ND		50.3	43.44		mg/Kg		86	75 - 125	1	20
Vanadium	21.1		50.3	67.86		mg/Kg		93	75 - 125	1	20
Zinc	18.9		50.3	61.57		mg/Kg		85	75 - 125	0	20
Lead	8.35		50.3	49.51		mg/Kg		82	75 - 125	0	20

Lab Sample ID: MB 570-290635/1-A ^5

Matrix: Solid

Analysis Batch: 290962

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290635

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/20/22 11:29	12/20/22 20:59	5
Arsenic	ND		3.03	1.41	mg/Kg		12/20/22 11:29	12/20/22 20:59	5
Barium	ND		3.03	0.143	mg/Kg		12/20/22 11:29	12/20/22 20:59	5
Beryllium	ND		0.505	0.0697	mg/Kg		12/20/22 11:29	12/20/22 20:59	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/20/22 11:29	12/20/22 20:59	5
Cobalt	ND		1.01	0.208	mg/Kg		12/20/22 11:29	12/20/22 20:59	5
Chromium	ND		1.01	0.188	mg/Kg		12/20/22 11:29	12/20/22 20:59	5
Copper	ND		2.02	0.968	mg/Kg		12/20/22 11:29	12/20/22 20:59	5
Molybdenum	ND		2.02	0.520	mg/Kg		12/20/22 11:29	12/20/22 20:59	5
Nickel	ND		2.02	0.366	mg/Kg		12/20/22 11:29	12/20/22 20:59	5
Antimony	ND		10.1	2.89	mg/Kg		12/20/22 11:29	12/20/22 20:59	5
Selenium	ND		3.03	1.23	mg/Kg		12/20/22 11:29	12/20/22 20:59	5
Thallium	ND		10.1	2.13	mg/Kg		12/20/22 11:29	12/20/22 20:59	5
Vanadium	ND		1.01	0.170	mg/Kg		12/20/22 11:29	12/20/22 20:59	5
Zinc	ND		5.05	1.17	mg/Kg		12/20/22 11:29	12/20/22 20:59	5
Lead	ND		2.02	0.413	mg/Kg		12/20/22 11:29	12/20/22 20:59	5

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 570-290635/2-A ^5

Matrix: Solid

Analysis Batch: 290962

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290635

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	25.1	22.83		mg/Kg		91	80 - 120
Arsenic	50.3	45.35		mg/Kg		90	80 - 120
Barium	50.3	46.34		mg/Kg		92	80 - 120
Beryllium	50.3	46.21		mg/Kg		92	80 - 120
Cadmium	50.3	46.03		mg/Kg		92	80 - 120
Cobalt	50.3	45.92		mg/Kg		91	80 - 120
Chromium	50.3	46.38		mg/Kg		92	80 - 120
Copper	50.3	46.18		mg/Kg		92	80 - 120
Molybdenum	50.3	46.73		mg/Kg		93	80 - 120
Nickel	50.3	46.32		mg/Kg		92	80 - 120
Antimony	50.3	49.81		mg/Kg		99	80 - 120
Selenium	50.3	43.25		mg/Kg		86	80 - 120
Thallium	50.3	46.62		mg/Kg		93	80 - 120
Vanadium	50.3	45.95		mg/Kg		91	80 - 120
Zinc	50.3	45.69		mg/Kg		91	80 - 120
Lead	50.3	45.46		mg/Kg		90	80 - 120

Lab Sample ID: LCSD 570-290635/3-A ^5

Matrix: Solid

Analysis Batch: 290962

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290635

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Silver	24.6	21.90		mg/Kg		89	80 - 120	4	20
Arsenic	49.3	43.89		mg/Kg		89	80 - 120	3	20
Barium	49.3	44.61		mg/Kg		91	80 - 120	4	20
Beryllium	49.3	44.47		mg/Kg		90	80 - 120	4	20
Cadmium	49.3	44.35		mg/Kg		90	80 - 120	4	20
Cobalt	49.3	44.82		mg/Kg		91	80 - 120	2	20
Chromium	49.3	44.75		mg/Kg		91	80 - 120	4	20
Copper	49.3	44.42		mg/Kg		90	80 - 120	4	20
Molybdenum	49.3	44.89		mg/Kg		91	80 - 120	4	20
Nickel	49.3	44.91		mg/Kg		91	80 - 120	3	20
Antimony	49.3	48.00		mg/Kg		97	80 - 120	4	20
Selenium	49.3	41.77		mg/Kg		85	80 - 120	3	20
Thallium	49.3	44.32		mg/Kg		90	80 - 120	5	20
Vanadium	49.3	44.19		mg/Kg		90	80 - 120	4	20
Zinc	49.3	43.92		mg/Kg		89	80 - 120	4	20
Lead	49.3	43.84		mg/Kg		89	80 - 120	4	20

## Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 570-289503/1-A

Matrix: Solid

Analysis Batch: 289789

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289503

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/15/22 21:13	12/16/22 14:34	1

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 570-289503/2-A

Matrix: Solid

Analysis Batch: 289789

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289503

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.392	0.3971		mg/Kg		101	80 - 120

Lab Sample ID: LCSD 570-289503/3-A

Matrix: Solid

Analysis Batch: 289789

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289503

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Mercury	0.408	0.4213		mg/Kg		103	80 - 120	6	10

Lab Sample ID: 570-120930-1 MS

Matrix: Solid

Analysis Batch: 289789

Client Sample ID: B-18 @ 2.5'

Prep Type: Total/NA

Prep Batch: 289503

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.392	0.3900		mg/Kg		99	80 - 120

Lab Sample ID: 570-120930-1 MSD

Matrix: Solid

Analysis Batch: 289789

Client Sample ID: B-18 @ 2.5'

Prep Type: Total/NA

Prep Batch: 289503

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Mercury	ND		0.408	0.3938		mg/Kg		96	80 - 120	1	20

Lab Sample ID: MB 570-290425/1-A

Matrix: Solid

Analysis Batch: 290720

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290425

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/19/22 20:15	12/20/22 16:07	1

Lab Sample ID: LCS 570-290425/2-A

Matrix: Solid

Analysis Batch: 290720

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290425

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.408	0.4410		mg/Kg		108	80 - 120

Lab Sample ID: LCSD 570-290425/3-A

Matrix: Solid

Analysis Batch: 290720

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290425

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Mercury	0.408	0.4270		mg/Kg		105	80 - 120	3	10



# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## GC VOA

### Prep Batch: 289854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-10	B-44 @ 5'	Total/NA	Solid	5030C	
570-120930-11	B-44 @ 10'	Total/NA	Solid	5030C	
570-120930-12	B-44 @ 15'	Total/NA	Solid	5030C	
570-120930-13	B-44 @ 20'	Total/NA	Solid	5030C	
570-120930-14	B-44 @ 25'	Total/NA	Solid	5030C	
570-120930-15	B-47 @ 2.5'	Total/NA	Solid	5030C	
570-120930-16	B-47 @ 5'	Total/NA	Solid	5030C	
570-120930-17	B-47 @ 10'	Total/NA	Solid	5030C	
570-120930-18	B-49 @ 2.5'	Total/NA	Solid	5030C	
570-120930-19	B-48 @ 2.5'	Total/NA	Solid	5030C	
570-120930-20	B-45 @ 2.5'	Total/NA	Solid	5030C	
570-120930-21	B-45 @ 10'	Total/NA	Solid	5030C	
570-120930-22	B-45 @ 5'	Total/NA	Solid	5030C	
MB 570-289854/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-289854/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-289854/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	
570-120930-11 MS	B-44 @ 10'	Total/NA	Solid	5030C	
570-120930-11 MSD	B-44 @ 10'	Total/NA	Solid	5030C	

### Analysis Batch: 289873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-10	B-44 @ 5'	Total/NA	Solid	8015B	289854
570-120930-11	B-44 @ 10'	Total/NA	Solid	8015B	289854
570-120930-12	B-44 @ 15'	Total/NA	Solid	8015B	289854
570-120930-13	B-44 @ 20'	Total/NA	Solid	8015B	289854
570-120930-14	B-44 @ 25'	Total/NA	Solid	8015B	289854
570-120930-15	B-47 @ 2.5'	Total/NA	Solid	8015B	289854
570-120930-16	B-47 @ 5'	Total/NA	Solid	8015B	289854
570-120930-17	B-47 @ 10'	Total/NA	Solid	8015B	289854
570-120930-18	B-49 @ 2.5'	Total/NA	Solid	8015B	289854
570-120930-19	B-48 @ 2.5'	Total/NA	Solid	8015B	289854
570-120930-20	B-45 @ 2.5'	Total/NA	Solid	8015B	289854
570-120930-21	B-45 @ 10'	Total/NA	Solid	8015B	289854
570-120930-22	B-45 @ 5'	Total/NA	Solid	8015B	289854
MB 570-289854/3-A	Method Blank	Total/NA	Solid	8015B	289854
LCS 570-289854/1-A	Lab Control Sample	Total/NA	Solid	8015B	289854
LCSD 570-289854/2-A	Lab Control Sample Dup	Total/NA	Solid	8015B	289854
570-120930-11 MS	B-44 @ 10'	Total/NA	Solid	8015B	289854
570-120930-11 MSD	B-44 @ 10'	Total/NA	Solid	8015B	289854

### Analysis Batch: 290189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-1	B-18 @ 2.5'	Total/NA	Solid	8015B	290192
570-120930-2	B-18 @ 5'	Total/NA	Solid	8015B	290192
570-120930-3	B-18 @ 10'	Total/NA	Solid	8015B	290192
570-120930-4	B-23 @ 2.5'	Total/NA	Solid	8015B	290192
MB 570-290192/3-A	Method Blank	Total/NA	Solid	8015B	290192
LCS 570-290192/1-A	Lab Control Sample	Total/NA	Solid	8015B	290192
LCSD 570-290192/2-A	Lab Control Sample Dup	Total/NA	Solid	8015B	290192



# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## GC VOA

### Prep Batch: 290192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-1	B-18 @ 2.5'	Total/NA	Solid	5030C	
570-120930-2	B-18 @ 5'	Total/NA	Solid	5030C	
570-120930-3	B-18 @ 10'	Total/NA	Solid	5030C	
570-120930-4	B-23 @ 2.5'	Total/NA	Solid	5030C	
MB 570-290192/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-290192/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-290192/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	

### Analysis Batch: 290554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-5	B-23 @ 5'	Total/NA	Solid	8015B	290603
570-120930-6	B-23 @ 10'	Total/NA	Solid	8015B	290603
570-120930-7	B-23 @ 15'	Total/NA	Solid	8015B	290603
570-120930-8	B-23 @ 20'	Total/NA	Solid	8015B	290603
570-120930-9	B-44 @ 2.5'	Total/NA	Solid	8015B	290603
MB 570-290603/3-A	Method Blank	Total/NA	Solid	8015B	290603
LCS 570-290603/1-A	Lab Control Sample	Total/NA	Solid	8015B	290603
LCSD 570-290603/2-A	Lab Control Sample Dup	Total/NA	Solid	8015B	290603
570-120930-9 MS	B-44 @ 2.5'	Total/NA	Solid	8015B	290603
570-120930-9 MSD	B-44 @ 2.5'	Total/NA	Solid	8015B	290603

### Prep Batch: 290603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-5	B-23 @ 5'	Total/NA	Solid	5030C	
570-120930-6	B-23 @ 10'	Total/NA	Solid	5030C	
570-120930-7	B-23 @ 15'	Total/NA	Solid	5030C	
570-120930-8	B-23 @ 20'	Total/NA	Solid	5030C	
570-120930-9	B-44 @ 2.5'	Total/NA	Solid	5030C	
MB 570-290603/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-290603/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-290603/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	
570-120930-9 MS	B-44 @ 2.5'	Total/NA	Solid	5030C	
570-120930-9 MSD	B-44 @ 2.5'	Total/NA	Solid	5030C	

## GC Semi VOA

### Prep Batch: 289754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-1	B-18 @ 2.5'	Total/NA	Solid	3550C	
570-120930-2	B-18 @ 5'	Total/NA	Solid	3550C	
570-120930-3	B-18 @ 10'	Total/NA	Solid	3550C	
570-120930-4	B-23 @ 2.5'	Total/NA	Solid	3550C	
570-120930-5	B-23 @ 5'	Total/NA	Solid	3550C	
570-120930-6	B-23 @ 10'	Total/NA	Solid	3550C	
570-120930-7	B-23 @ 15'	Total/NA	Solid	3550C	
570-120930-8	B-23 @ 20'	Total/NA	Solid	3550C	
570-120930-9	B-44 @ 2.5'	Total/NA	Solid	3550C	
570-120930-10	B-44 @ 5'	Total/NA	Solid	3550C	
570-120930-11	B-44 @ 10'	Total/NA	Solid	3550C	
570-120930-12	B-44 @ 15'	Total/NA	Solid	3550C	
570-120930-13	B-44 @ 20'	Total/NA	Solid	3550C	

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## GC Semi VOA (Continued)

### Prep Batch: 289754 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-14	B-44 @ 25'	Total/NA	Solid	3550C	
570-120930-15	B-47 @ 2.5'	Total/NA	Solid	3550C	
570-120930-16	B-47 @ 5'	Total/NA	Solid	3550C	
570-120930-17	B-47 @ 10'	Total/NA	Solid	3550C	
570-120930-18	B-49 @ 2.5'	Total/NA	Solid	3550C	
570-120930-19	B-48 @ 2.5'	Total/NA	Solid	3550C	
570-120930-20	B-45 @ 2.5'	Total/NA	Solid	3550C	
MB 570-289754/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 570-289754/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 570-289754/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	
570-120930-1 MS	B-18 @ 2.5'	Total/NA	Solid	3550C	
570-120930-1 MSD	B-18 @ 2.5'	Total/NA	Solid	3550C	

### Prep Batch: 289868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-21	B-45 @ 10'	Total/NA	Solid	3550C	
570-120930-22	B-45 @ 5'	Total/NA	Solid	3550C	
MB 570-289868/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 570-289868/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 570-289868/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	

### Analysis Batch: 290079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-1	B-18 @ 2.5'	Total/NA	Solid	8015B	289754
570-120930-2	B-18 @ 5'	Total/NA	Solid	8015B	289754
570-120930-3	B-18 @ 10'	Total/NA	Solid	8015B	289754
570-120930-4	B-23 @ 2.5'	Total/NA	Solid	8015B	289754
570-120930-5	B-23 @ 5'	Total/NA	Solid	8015B	289754
570-120930-6	B-23 @ 10'	Total/NA	Solid	8015B	289754
570-120930-7	B-23 @ 15'	Total/NA	Solid	8015B	289754
570-120930-8	B-23 @ 20'	Total/NA	Solid	8015B	289754
570-120930-9	B-44 @ 2.5'	Total/NA	Solid	8015B	289754
570-120930-10	B-44 @ 5'	Total/NA	Solid	8015B	289754
570-120930-11	B-44 @ 10'	Total/NA	Solid	8015B	289754
570-120930-12	B-44 @ 15'	Total/NA	Solid	8015B	289754
570-120930-13	B-44 @ 20'	Total/NA	Solid	8015B	289754
570-120930-14	B-44 @ 25'	Total/NA	Solid	8015B	289754
570-120930-15	B-47 @ 2.5'	Total/NA	Solid	8015B	289754
570-120930-16	B-47 @ 5'	Total/NA	Solid	8015B	289754
570-120930-17	B-47 @ 10'	Total/NA	Solid	8015B	289754
570-120930-18	B-49 @ 2.5'	Total/NA	Solid	8015B	289754
570-120930-19	B-48 @ 2.5'	Total/NA	Solid	8015B	289754
570-120930-20	B-45 @ 2.5'	Total/NA	Solid	8015B	289754
570-120930-21	B-45 @ 10'	Total/NA	Solid	8015B	289868
570-120930-22	B-45 @ 5'	Total/NA	Solid	8015B	289868
MB 570-289754/1-A	Method Blank	Total/NA	Solid	8015B	289754
MB 570-289868/1-A	Method Blank	Total/NA	Solid	8015B	289868
LCS 570-289754/2-A	Lab Control Sample	Total/NA	Solid	8015B	289754
LCS 570-289868/2-A	Lab Control Sample	Total/NA	Solid	8015B	289868
LCSD 570-289754/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	289754
LCSD 570-289868/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	289868

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## GC Semi VOA (Continued)

### Analysis Batch: 290079 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-1 MS	B-18 @ 2.5'	Total/NA	Solid	8015B	289754
570-120930-1 MSD	B-18 @ 2.5'	Total/NA	Solid	8015B	289754

## Metals

### Prep Batch: 289503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-1	B-18 @ 2.5'	Total/NA	Solid	7471A	
570-120930-2	B-18 @ 5'	Total/NA	Solid	7471A	
570-120930-3	B-18 @ 10'	Total/NA	Solid	7471A	
570-120930-4	B-23 @ 2.5'	Total/NA	Solid	7471A	
570-120930-5	B-23 @ 5'	Total/NA	Solid	7471A	
570-120930-6	B-23 @ 10'	Total/NA	Solid	7471A	
570-120930-7	B-23 @ 15'	Total/NA	Solid	7471A	
570-120930-8	B-23 @ 20'	Total/NA	Solid	7471A	
570-120930-9	B-44 @ 2.5'	Total/NA	Solid	7471A	
570-120930-10	B-44 @ 5'	Total/NA	Solid	7471A	
570-120930-12	B-44 @ 15'	Total/NA	Solid	7471A	
570-120930-13	B-44 @ 20'	Total/NA	Solid	7471A	
570-120930-14	B-44 @ 25'	Total/NA	Solid	7471A	
570-120930-15	B-47 @ 2.5'	Total/NA	Solid	7471A	
570-120930-16	B-47 @ 5'	Total/NA	Solid	7471A	
570-120930-17	B-47 @ 10'	Total/NA	Solid	7471A	
570-120930-20	B-45 @ 2.5'	Total/NA	Solid	7471A	
MB 570-289503/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-289503/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-289503/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
570-120930-1 MS	B-18 @ 2.5'	Total/NA	Solid	7471A	
570-120930-1 MSD	B-18 @ 2.5'	Total/NA	Solid	7471A	

### Prep Batch: 289571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-1	B-18 @ 2.5'	Total/NA	Solid	3050B	
570-120930-2	B-18 @ 5'	Total/NA	Solid	3050B	
570-120930-3	B-18 @ 10'	Total/NA	Solid	3050B	
570-120930-4	B-23 @ 2.5'	Total/NA	Solid	3050B	
570-120930-5	B-23 @ 5'	Total/NA	Solid	3050B	
570-120930-6	B-23 @ 10'	Total/NA	Solid	3050B	
570-120930-7	B-23 @ 15'	Total/NA	Solid	3050B	
570-120930-8	B-23 @ 20'	Total/NA	Solid	3050B	
MB 570-289571/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-289571/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-289571/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	

### Prep Batch: 289576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-9	B-44 @ 2.5'	Total/NA	Solid	3050B	
570-120930-10	B-44 @ 5'	Total/NA	Solid	3050B	
570-120930-12	B-44 @ 15'	Total/NA	Solid	3050B	
570-120930-13	B-44 @ 20'	Total/NA	Solid	3050B	
570-120930-14	B-44 @ 25'	Total/NA	Solid	3050B	

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Metals (Continued)

### Prep Batch: 289576 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-15	B-47 @ 2.5'	Total/NA	Solid	3050B	
570-120930-16	B-47 @ 5'	Total/NA	Solid	3050B	
MB 570-289576/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-289576/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-289576/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	

### Prep Batch: 289631

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-17	B-47 @ 10'	Total/NA	Solid	3050B	
570-120930-20	B-45 @ 2.5'	Total/NA	Solid	3050B	
MB 570-289631/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-289631/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-289631/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	
570-120930-20 MS	B-45 @ 2.5'	Total/NA	Solid	3050B	
570-120930-20 MSD	B-45 @ 2.5'	Total/NA	Solid	3050B	

### Analysis Batch: 289789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-1	B-18 @ 2.5'	Total/NA	Solid	7471A	289503
570-120930-2	B-18 @ 5'	Total/NA	Solid	7471A	289503
570-120930-3	B-18 @ 10'	Total/NA	Solid	7471A	289503
570-120930-4	B-23 @ 2.5'	Total/NA	Solid	7471A	289503
570-120930-5	B-23 @ 5'	Total/NA	Solid	7471A	289503
570-120930-6	B-23 @ 10'	Total/NA	Solid	7471A	289503
570-120930-7	B-23 @ 15'	Total/NA	Solid	7471A	289503
570-120930-8	B-23 @ 20'	Total/NA	Solid	7471A	289503
570-120930-9	B-44 @ 2.5'	Total/NA	Solid	7471A	289503
570-120930-10	B-44 @ 5'	Total/NA	Solid	7471A	289503
570-120930-12	B-44 @ 15'	Total/NA	Solid	7471A	289503
570-120930-13	B-44 @ 20'	Total/NA	Solid	7471A	289503
570-120930-14	B-44 @ 25'	Total/NA	Solid	7471A	289503
570-120930-15	B-47 @ 2.5'	Total/NA	Solid	7471A	289503
570-120930-16	B-47 @ 5'	Total/NA	Solid	7471A	289503
570-120930-17	B-47 @ 10'	Total/NA	Solid	7471A	289503
570-120930-20	B-45 @ 2.5'	Total/NA	Solid	7471A	289503
MB 570-289503/1-A	Method Blank	Total/NA	Solid	7471A	289503
LCS 570-289503/2-A	Lab Control Sample	Total/NA	Solid	7471A	289503
LCSD 570-289503/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	289503
570-120930-1 MS	B-18 @ 2.5'	Total/NA	Solid	7471A	289503
570-120930-1 MSD	B-18 @ 2.5'	Total/NA	Solid	7471A	289503

### Analysis Batch: 289919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-1	B-18 @ 2.5'	Total/NA	Solid	6010B	289571
570-120930-2	B-18 @ 5'	Total/NA	Solid	6010B	289571
570-120930-3	B-18 @ 10'	Total/NA	Solid	6010B	289571
570-120930-4	B-23 @ 2.5'	Total/NA	Solid	6010B	289571
570-120930-5	B-23 @ 5'	Total/NA	Solid	6010B	289571
570-120930-6	B-23 @ 10'	Total/NA	Solid	6010B	289571
570-120930-7	B-23 @ 15'	Total/NA	Solid	6010B	289571
570-120930-8	B-23 @ 20'	Total/NA	Solid	6010B	289571

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Metals (Continued)

### Analysis Batch: 289919 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-289571/1-A ^5	Method Blank	Total/NA	Solid	6010B	289571
LCS 570-289571/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	289571
LCSD 570-289571/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	289571

### Analysis Batch: 290332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-20	B-45 @ 2.5'	Total/NA	Solid	6010B	289631
MB 570-289631/1-A ^5	Method Blank	Total/NA	Solid	6010B	289631
LCS 570-289631/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	289631
LCSD 570-289631/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	289631
570-120930-20 MS	B-45 @ 2.5'	Total/NA	Solid	6010B	289631
570-120930-20 MSD	B-45 @ 2.5'	Total/NA	Solid	6010B	289631

### Prep Batch: 290425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-11	B-44 @ 10'	Total/NA	Solid	7471A	
570-120930-18	B-49 @ 2.5'	Total/NA	Solid	7471A	
570-120930-19	B-48 @ 2.5'	Total/NA	Solid	7471A	
570-120930-21	B-45 @ 10'	Total/NA	Solid	7471A	
570-120930-22	B-45 @ 5'	Total/NA	Solid	7471A	
MB 570-290425/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-290425/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-290425/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	

### Prep Batch: 290635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-11	B-44 @ 10'	Total/NA	Solid	3050B	
570-120930-18	B-49 @ 2.5'	Total/NA	Solid	3050B	
570-120930-19	B-48 @ 2.5'	Total/NA	Solid	3050B	
570-120930-21	B-45 @ 10'	Total/NA	Solid	3050B	
570-120930-22	B-45 @ 5'	Total/NA	Solid	3050B	
MB 570-290635/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-290635/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-290635/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	

### Analysis Batch: 290646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-9	B-44 @ 2.5'	Total/NA	Solid	6010B	289576
570-120930-10	B-44 @ 5'	Total/NA	Solid	6010B	289576
570-120930-14	B-44 @ 25'	Total/NA	Solid	6010B	289576
570-120930-15	B-47 @ 2.5'	Total/NA	Solid	6010B	289576
570-120930-16	B-47 @ 5'	Total/NA	Solid	6010B	289576
MB 570-289576/1-A ^5	Method Blank	Total/NA	Solid	6010B	289576
LCS 570-289576/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	289576
LCSD 570-289576/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	289576

### Analysis Batch: 290654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-17	B-47 @ 10'	Total/NA	Solid	6010B	289631
MB 570-289631/1-A ^5	Method Blank	Total/NA	Solid	6010B	289631
LCS 570-289631/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	289631

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

## Metals (Continued)

### Analysis Batch: 290654 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 570-289631/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	289631
570-120930-20 MS	B-45 @ 2.5'	Total/NA	Solid	6010B	289631
570-120930-20 MSD	B-45 @ 2.5'	Total/NA	Solid	6010B	289631

### Analysis Batch: 290720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-11	B-44 @ 10'	Total/NA	Solid	7471A	290425
570-120930-18	B-49 @ 2.5'	Total/NA	Solid	7471A	290425
570-120930-19	B-48 @ 2.5'	Total/NA	Solid	7471A	290425
570-120930-21	B-45 @ 10'	Total/NA	Solid	7471A	290425
570-120930-22	B-45 @ 5'	Total/NA	Solid	7471A	290425
MB 570-290425/1-A	Method Blank	Total/NA	Solid	7471A	290425
LCS 570-290425/2-A	Lab Control Sample	Total/NA	Solid	7471A	290425
LCSD 570-290425/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	290425

### Analysis Batch: 290738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-12	B-44 @ 15'	Total/NA	Solid	6010B	289576
570-120930-13	B-44 @ 20'	Total/NA	Solid	6010B	289576

### Analysis Batch: 290962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-11	B-44 @ 10'	Total/NA	Solid	6010B	290635
570-120930-18	B-49 @ 2.5'	Total/NA	Solid	6010B	290635
570-120930-19	B-48 @ 2.5'	Total/NA	Solid	6010B	290635
570-120930-21	B-45 @ 10'	Total/NA	Solid	6010B	290635
570-120930-22	B-45 @ 5'	Total/NA	Solid	6010B	290635
MB 570-290635/1-A ^5	Method Blank	Total/NA	Solid	6010B	290635
LCS 570-290635/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	290635
LCSD 570-290635/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	290635



# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

**Client Sample ID: B-18 @ 2.5'**

**Lab Sample ID: 570-120930-1**

**Date Collected: 12/14/22 07:20**

**Matrix: Solid**

**Date Received: 12/14/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	290192	12/19/22 09:41	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290189	12/19/22 16:35	A9VE	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.22 g	10 mL	289754	12/16/22 13:56	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290079	12/18/22 20:27	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.02 g	50 mL	289571	12/16/22 06:39	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/16/22 23:55	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	289503	12/15/22 21:13	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			289789	12/16/22 14:39	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-18 @ 5'**

**Lab Sample ID: 570-120930-2**

**Date Collected: 12/14/22 07:25**

**Matrix: Solid**

**Date Received: 12/14/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	290192	12/19/22 09:41	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290189	12/19/22 17:04	A9VE	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			9.83 g	10 mL	289754	12/16/22 13:56	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290079	12/18/22 20:54	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.04 g	50 mL	289571	12/16/22 06:39	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/16/22 23:57	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	289503	12/15/22 21:13	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			289789	12/16/22 15:50	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-18 @ 10'**

**Lab Sample ID: 570-120930-3**

**Date Collected: 12/14/22 07:30**

**Matrix: Solid**

**Date Received: 12/14/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.97 g	5 mL	290192	12/19/22 09:41	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290189	12/19/22 17:33	A9VE	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.36 g	10 mL	289754	12/16/22 13:56	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290079	12/18/22 21:20	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.03 g	50 mL	289571	12/16/22 06:39	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/17/22 00:00	P1R	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

**Client Sample ID: B-18 @ 10'**

**Lab Sample ID: 570-120930-3**

**Date Collected: 12/14/22 07:30**

**Matrix: Solid**

**Date Received: 12/14/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.52 g	50 mL	289503	12/15/22 21:13	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			289789	12/16/22 15:52	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-23 @ 2.5'**

**Lab Sample ID: 570-120930-4**

**Date Collected: 12/14/22 08:20**

**Matrix: Solid**

**Date Received: 12/14/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.06 g	5 mL	290192	12/19/22 09:41	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290189	12/19/22 18:02	A9VE	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			9.77 g	10 mL	289754	12/16/22 13:56	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290079	12/18/22 21:47	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.98 g	50 mL	289571	12/16/22 06:39	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/17/22 00:02	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	289503	12/15/22 21:13	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			289789	12/16/22 15:54	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-23 @ 5'**

**Lab Sample ID: 570-120930-5**

**Date Collected: 12/14/22 08:25**

**Matrix: Solid**

**Date Received: 12/14/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.99 g	5 mL	290603	12/20/22 10:25	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290554	12/20/22 17:17	A9VE	EET CAL 4
Instrument ID: GC24										
Total/NA	Prep	3550C			10.36 g	10 mL	289754	12/16/22 13:56	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290079	12/18/22 22:14	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.97 g	50 mL	289571	12/16/22 06:39	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/17/22 00:05	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	289503	12/15/22 21:13	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			289789	12/16/22 15:56	C0YH	EET CAL 4
Instrument ID: HG7										



# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

**Client Sample ID: B-23 @ 10'**

**Lab Sample ID: 570-120930-6**

**Date Collected: 12/14/22 08:30**

**Matrix: Solid**

**Date Received: 12/14/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.99 g	5 mL	290603	12/20/22 10:25	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290554	12/20/22 16:52	A9VE	EET CAL 4
Instrument ID: GC24										
Total/NA	Prep	3550C			10.20 g	10 mL	289754	12/16/22 13:56	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290079	12/18/22 22:40	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.03 g	50 mL	289571	12/16/22 06:39	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/17/22 00:07	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	289503	12/15/22 21:13	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			289789	12/16/22 15:58	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-23 @ 15'**

**Lab Sample ID: 570-120930-7**

**Date Collected: 12/14/22 08:38**

**Matrix: Solid**

**Date Received: 12/14/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.06 g	5 mL	290603	12/20/22 10:25	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290554	12/20/22 16:26	A9VE	EET CAL 4
Instrument ID: GC24										
Total/NA	Prep	3550C			10.40 g	10 mL	289754	12/16/22 13:56	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290079	12/18/22 23:07	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.04 g	50 mL	289571	12/16/22 06:39	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/17/22 00:10	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	289503	12/15/22 21:13	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			289789	12/16/22 16:00	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-23 @ 20'**

**Lab Sample ID: 570-120930-8**

**Date Collected: 12/14/22 08:45**

**Matrix: Solid**

**Date Received: 12/14/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	290603	12/20/22 10:25	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290554	12/20/22 16:01	A9VE	EET CAL 4
Instrument ID: GC24										
Total/NA	Prep	3550C			10.41 g	10 mL	289754	12/16/22 13:56	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290079	12/18/22 23:34	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.99 g	50 mL	289571	12/16/22 06:39	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			289919	12/17/22 00:19	P1R	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

**Client Sample ID: B-23 @ 20'**

**Date Collected: 12/14/22 08:45**

**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-8**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.51 g	50 mL	289503	12/15/22 21:13	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			289789	12/16/22 16:02	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-44 @ 2.5'**

**Date Collected: 12/14/22 09:53**

**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-9**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	290603	12/20/22 10:25	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290554	12/20/22 14:19	A9VE	EET CAL 4
Instrument ID: GC24										
Total/NA	Prep	3550C			10.13 g	10 mL	289754	12/16/22 13:56	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290079	12/19/22 00:00	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.98 g	50 mL	289576	12/16/22 07:31	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290646	12/19/22 23:22	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	289503	12/15/22 21:13	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			289789	12/16/22 16:04	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-44 @ 5'**

**Date Collected: 12/14/22 09:57**

**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-10**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	289854	12/16/22 17:47	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289873	12/17/22 07:18	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			9.92 g	10 mL	289754	12/16/22 13:56	USUL	EET CAL 4
Total/NA	Analysis	8015B		2	10 mL	10 mL	290079	12/19/22 00:27	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.96 g	50 mL	289576	12/16/22 07:31	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290646	12/19/22 23:29	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	289503	12/15/22 21:13	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			289789	12/16/22 16:06	C0YH	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

**Client Sample ID: B-44 @ 10'**

**Lab Sample ID: 570-120930-11**

**Date Collected: 12/14/22 10:04**

**Matrix: Solid**

**Date Received: 12/14/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.99 g	5 mL	289854	12/16/22 17:47	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289873	12/17/22 06:03	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.21 g	10 mL	289754	12/16/22 13:56	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290079	12/19/22 00:53	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.99 g	50 mL	290635	12/20/22 11:29	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290962	12/20/22 21:42	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	290425	12/19/22 20:15	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 16:44	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-44 @ 15'**

**Lab Sample ID: 570-120930-12**

**Date Collected: 12/14/22 10:14**

**Matrix: Solid**

**Date Received: 12/14/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.00 g	5 mL	289854	12/16/22 17:47	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289873	12/17/22 07:43	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.42 g	10 mL	289754	12/16/22 13:56	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290079	12/19/22 01:20	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.96 g	50 mL	289576	12/16/22 07:31	GYR8	EET CAL 4
Total/NA	Analysis	6010B		10			290738	12/20/22 15:00	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	289503	12/15/22 21:13	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			289789	12/16/22 16:16	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-44 @ 20'**

**Lab Sample ID: 570-120930-13**

**Date Collected: 12/14/22 10:21**

**Matrix: Solid**

**Date Received: 12/14/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.99 g	5 mL	289854	12/16/22 17:47	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289873	12/17/22 08:08	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.11 g	10 mL	289754	12/16/22 13:56	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290079	12/19/22 01:46	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.96 g	50 mL	289576	12/16/22 07:31	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290738	12/20/22 15:02	P1R	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

**Client Sample ID: B-44 @ 20'**

**Date Collected: 12/14/22 10:21**

**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-13**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.49 g	50 mL	289503	12/15/22 21:13	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			289789	12/16/22 16:18	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-44 @ 25'**

**Date Collected: 12/14/22 10:32**

**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-14**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	289854	12/16/22 17:47	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289873	12/17/22 08:33	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			9.52 g	10 mL	289754	12/16/22 13:56	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290079	12/19/22 02:13	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.99 g	50 mL	289576	12/16/22 07:31	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290646	12/19/22 23:36	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	289503	12/15/22 21:13	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			289789	12/16/22 16:20	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-47 @ 2.5'**

**Date Collected: 12/14/22 12:09**

**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-15**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	289854	12/16/22 17:47	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289873	12/17/22 08:58	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.29 g	10 mL	289754	12/16/22 13:56	USUL	EET CAL 4
Total/NA	Analysis	8015B		2	10 mL	10 mL	290079	12/19/22 02:39	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.98 g	50 mL	289576	12/16/22 07:31	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290646	12/19/22 23:39	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	289503	12/15/22 21:13	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			289789	12/16/22 16:22	C0YH	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

**Client Sample ID: B-47 @ 5'**

**Date Collected: 12/14/22 12:14**

**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-16**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	289854	12/16/22 17:47	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289873	12/17/22 09:23	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.06 g	10 mL	289754	12/16/22 13:56	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290079	12/19/22 03:32	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.99 g	50 mL	289576	12/16/22 07:31	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290646	12/19/22 23:41	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	289503	12/15/22 21:13	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			289789	12/16/22 16:23	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-47 @ 10'**

**Date Collected: 12/14/22 12:20**

**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-17**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	289854	12/16/22 17:47	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289873	12/17/22 09:48	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.48 g	10 mL	289754	12/16/22 13:56	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290079	12/19/22 03:58	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.99 g	50 mL	289631	12/16/22 09:16	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290654	12/20/22 05:00	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.48 g	50 mL	289503	12/15/22 21:13	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			289789	12/16/22 16:25	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-49 @ 2.5'**

**Date Collected: 12/14/22 13:28**

**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-18**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	289854	12/16/22 17:47	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289873	12/17/22 10:14	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			9.63 g	10 mL	289754	12/16/22 13:56	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290079	12/19/22 04:24	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.99 g	50 mL	290635	12/20/22 11:29	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290962	12/20/22 21:49	K1UV	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

**Client Sample ID: B-49 @ 2.5'**

**Lab Sample ID: 570-120930-18**

**Date Collected: 12/14/22 13:28**

**Matrix: Solid**

**Date Received: 12/14/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.49 g	50 mL	290425	12/19/22 20:15	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 16:46	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-48 @ 2.5'**

**Lab Sample ID: 570-120930-19**

**Date Collected: 12/14/22 13:56**

**Matrix: Solid**

**Date Received: 12/14/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	289854	12/16/22 17:47	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289873	12/17/22 10:39	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			9.60 g	10 mL	289754	12/16/22 13:57	USUL	EET CAL 4
Total/NA	Analysis	8015B		2	10 mL	10 mL	290079	12/19/22 04:51	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.00 g	50 mL	290635	12/20/22 11:29	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290962	12/20/22 21:52	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	290425	12/19/22 20:15	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 16:52	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-45 @ 2.5'**

**Lab Sample ID: 570-120930-20**

**Date Collected: 12/14/22 14:27**

**Matrix: Solid**

**Date Received: 12/14/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	289854	12/16/22 17:47	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289873	12/17/22 11:29	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.07 g	10 mL	289754	12/16/22 13:57	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290079	12/19/22 05:17	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.98 g	50 mL	289631	12/16/22 09:16	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290332	12/19/22 15:33	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	289503	12/15/22 21:13	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			289789	12/16/22 16:27	C0YH	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

**Client Sample ID: B-45 @ 10'**

**Date Collected: 12/14/22 14:40**

**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-21**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	289854	12/16/22 17:47	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289873	12/17/22 11:54	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.00 g	10 mL	289868	12/16/22 18:38	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290079	12/19/22 19:49	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.02 g	50 mL	290635	12/20/22 11:29	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290962	12/20/22 21:54	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	290425	12/19/22 20:15	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 16:54	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-45 @ 5'**

**Date Collected: 12/14/22 14:32**

**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-22**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.98 g	5 mL	289854	12/16/22 17:47	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289873	12/17/22 12:19	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.07 g	10 mL	289868	12/16/22 18:38	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290079	12/19/22 20:15	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.97 g	50 mL	290635	12/20/22 11:29	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290962	12/20/22 21:57	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	290425	12/19/22 20:15	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 16:55	C0YH	EET CAL 4
Instrument ID: HG7										

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15



# Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

Method	Method Description	Protocol	Laboratory
8015B	Gasoline Range Organics - (GC)	SW846	EET CAL 4
8015B	Diesel Range Organics (DRO) (GC)	SW846	EET CAL 4
6010B	Metals (ICP)	SW846	EET CAL 4
7471A	Mercury (CVAA)	SW846	EET CAL 4
3050B	Preparation, Metals	SW846	EET CAL 4
3550C	Ultrasonic Extraction	SW846	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
7471A	Preparation, Mercury	SW846	EET CAL 4

## Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

# Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-120930-1	B-18 @ 2.5'	Solid	12/14/22 07:20	12/14/22 19:20
570-120930-2	B-18 @ 5'	Solid	12/14/22 07:25	12/14/22 19:20
570-120930-3	B-18 @ 10'	Solid	12/14/22 07:30	12/14/22 19:20
570-120930-4	B-23 @ 2.5'	Solid	12/14/22 08:20	12/14/22 19:20
570-120930-5	B-23 @ 5'	Solid	12/14/22 08:25	12/14/22 19:20
570-120930-6	B-23 @ 10'	Solid	12/14/22 08:30	12/14/22 19:20
570-120930-7	B-23 @ 15'	Solid	12/14/22 08:38	12/14/22 19:20
570-120930-8	B-23 @ 20'	Solid	12/14/22 08:45	12/14/22 19:20
570-120930-9	B-44 @ 2.5'	Solid	12/14/22 09:53	12/14/22 19:20
570-120930-10	B-44 @ 5'	Solid	12/14/22 09:57	12/14/22 19:20
570-120930-11	B-44 @ 10'	Solid	12/14/22 10:04	12/14/22 19:20
570-120930-12	B-44 @ 15'	Solid	12/14/22 10:14	12/14/22 19:20
570-120930-13	B-44 @ 20'	Solid	12/14/22 10:21	12/14/22 19:20
570-120930-14	B-44 @ 25'	Solid	12/14/22 10:32	12/14/22 19:20
570-120930-15	B-47 @ 2.5'	Solid	12/14/22 12:09	12/14/22 19:20
570-120930-16	B-47 @ 5'	Solid	12/14/22 12:14	12/14/22 19:20
570-120930-17	B-47 @ 10'	Solid	12/14/22 12:20	12/14/22 19:20
570-120930-18	B-49 @ 2.5'	Solid	12/14/22 13:28	12/14/22 19:20
570-120930-19	B-48 @ 2.5'	Solid	12/14/22 13:56	12/14/22 19:20
570-120930-20	B-45 @ 2.5'	Solid	12/14/22 14:27	12/14/22 19:20
570-120930-21	B-45 @ 10'	Solid	12/14/22 14:40	12/14/22 19:20
570-120930-22	B-45 @ 5'	Solid	12/14/22 14:32	12/14/22 19:20



Calscience

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For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT:

Group Delta Consultants

ADDRESS: 9245 Activity Road Suite 103

CITY: San Diego

STATE: CA

ZIP: 92126

TEL: 858 536 1000

E-MAIL:

matf@groupdelta.com

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID:

LOG CODE:

SPECIAL INSTRUCTIONS:



570-120930 Chain of Custody

120930

# CHAIN OF CUSTODY RECORD

DATE: 12/14/22

PAGE: 1 OF 3

CLIENT PROJECT NAME / NUMBER: Science Research Park / SD754		P.O. NO.	
PROJECT CONTACT: Matt Fagan		SAMPLER(S): (PRINT) Casey Rausset-Johnson Sam Narveson	
REQUESTED ANALYSES			
Please check box or fill in blank as needed			
<input type="checkbox"/> TPH(g) <input type="checkbox"/> GRO	<input type="checkbox"/> TPH(d) <input type="checkbox"/> DRO	<input type="checkbox"/> TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	<input type="checkbox"/> BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>
<input type="checkbox"/> VOCs (8260)	<input type="checkbox"/> Oxygenates (8260)	<input type="checkbox"/> Peps (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	<input type="checkbox"/> SVOCs (8270)
<input type="checkbox"/> Pesticides (8081)	<input type="checkbox"/> PCBs (8082)	<input type="checkbox"/> PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	<input type="checkbox"/> T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X
<input type="checkbox"/> Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218 6			
Field Filtered			
Preserved			
Unpreserved			
LAB USE ONLY	SAMPLE ID	SAMPLING DATE	TIME
1	B-18 @ 2.5'	12/14	7:20
2	B-18 @ 5'	12/14	7:25
3	B-18 @ 10'	12/14	7:30
4	B-23 @ 2.5'	12/14	8:20
5	B-23 @ 5'	12/14	8:25
6	B-23 @ 10'	12/14	8:30
7	B-23 @ 15'	12/14	8:38
8	B-23 @ 20'	12/14	8:45
9	B-44 @ 2.5'	12/14	9:53
10	B-44 @ 5'	12/14	1:57
Relinquished by: (Signature) William Rivera		Received by: (Signature/Affiliation) William Rivera	
Relinquished by: (Signature) William Rivera		Received by: (Signature/Affiliation) William Rivera	
Relinquished by: (Signature)		Received by: (Signature/Affiliation)	
Date: 12/14/22		Time: 1644	
Date: 12/14/22		Time: 1920	
Date:		Time:	

2.2' / 2.0' SC12

05/02/14 Revision



Calscience

CHAIN OF CUSTODY RECORD

DATE: 12/14/2022

PAGE: 2 OF 3

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For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT:		CLIENT PROJECT NAME / NUMBER:	
ADDRESS: 9245 Activity Road Suite 103		Science Research Park / SD754	
CITY: San Diego	STATE: CA	PROJECT CONTACT: Matt Fagan	SAMPLER(S): (PRINT) Casey Rausser-Johnson
TEL: 858 536 1000	E-MAIL: mattf@groupdelta.com	P.O. NO.	

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):	
<input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD	LOG CODE:

SPECIAL INSTRUCTIONS:	
Please check box or fill in blank as needed	

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	Field Filtered		TPH (g) <input type="checkbox"/> GRO	TPH (d) <input type="checkbox"/> DRO	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH C-4-C12, C13-C22, C23-C29	BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>	VOCs (8260)	Oxygenates (8260)	Pep (5035), <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs, <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	T22 Metals, <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI): <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6
		DATE	TIME			Unpreserved	Preserved														
11	B-44 @ 10'	12/14	10:04	Soil	1	X															
12	B-44 @ 15'	12/14	10:14	Soil	1	X															
13	B-44 @ 20'	12/14	10:21	Soil	1	X															
14	B-44 @ 2.5'	12/14	10:32	Soil	1	X															
15	B-47 @ 2.5'	12/14	12:09	Soil	1	X															
16	B-47 @ 5'	12/14	12:14	Soil	1	X															
17	B-47 @ 10'	12/14	12:20	Soil	1	X															
18	B-49 @ 2.5'	12/14	1:28	Soil	1	X															
19	B-48 @ 2.5'	12/14	1:56	Soil	1	X															
20	B-45 @ 2.5'	12/14	2:27	Soil	1	X															

Relinquished by (Signature)	Received by (Signature/Affiliation)	Date: 12/14/22	Time: 1644
Relinquished by (Signature)	Received by (Signature/Affiliation)	Date: 12/14/22	Time: 1920
Relinquished by (Signature)	Received by (Signature/Affiliation)	Date:	Time:

[illegible]

## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-120930-1

Login Number: 120930

List Number: 1

Creator: Tat, Sandy

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Matt Fagan  
Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Generated 1/5/2023 2:26:47 PM

## JOB DESCRIPTION

Science Research Park / SD754

## JOB NUMBER

570-120930-2



# Eurofins Calscience

## Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

## Authorization



Generated  
1/5/2023 2:26:47 PM

Authorized for release by  
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[Erick.Ovalle@et.eurofinsus.com](mailto:Erick.Ovalle@et.eurofinsus.com)  
Designee for  
Vikas Patel, Project Manager I  
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(714)895-5494



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## Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-2

### Qualifiers

#### Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-2

## Job ID: 570-120930-2

### Laboratory: Eurofins Calscience

#### Narrative

#### Job Narrative 570-120930-2

#### Comments

No additional comments.

#### Receipt

The samples were received on 12/14/2022 7:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.0° C.

#### Receipt Exceptions

The following sample was submitted; however, it was not listed on the Chain-of-Custody (COC): B-47 @ 15 (570-120930-23)

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): B-44 @ 10' (570-120930-11). The container label lists B-44@15, while the COC lists B-44@10'. (collection date and time match).

#### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-2

### Client Sample ID: B-44 @ 15'

### Lab Sample ID: 570-120930-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	128		0.500	0.0527	mg/L	1		6010B	TCLP
Lead	43.4		1.00	0.105	mg/L	1		6010B	STLC Citrate

### Client Sample ID: B-45 @ 5'

### Lab Sample ID: 570-120930-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.242	J	1.00	0.105	mg/L	1		6010B	STLC Citrate

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-2

## Method: SW846 6010B - Metals (ICP) - TCLP

Client Sample ID: B-44 @ 15'  
Date Collected: 12/14/22 10:14  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	128		0.500	0.0527	mg/L		12/30/22 08:30	12/30/22 16:57	1

Client Sample ID: B-45 @ 5'  
Date Collected: 12/14/22 14:32  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-22  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.500	0.0527	mg/L		12/30/22 08:30	12/30/22 16:59	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-2

## Method: SW846 6010B - Metals (ICP) - STLC Citrate

Client Sample ID: B-44 @ 15'  
Date Collected: 12/14/22 10:14  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	43.4		1.00	0.105	mg/L		01/03/23 15:46	01/04/23 14:17	1

Client Sample ID: B-45 @ 5'  
Date Collected: 12/14/22 14:32  
Date Received: 12/14/22 19:20

Lab Sample ID: 570-120930-22  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.242	J	1.00	0.105	mg/L		01/03/23 15:46	01/04/23 14:19	1

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-2

## Method: 6010B - Metals (ICP)

Lab Sample ID: LB 570-292539/1-B  
Matrix: Solid  
Analysis Batch: 293078

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 292838

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.500	0.0527	mg/L		12/30/22 08:30	12/30/22 16:21	1

Lab Sample ID: LCS 570-292539/2-B  
Matrix: Solid  
Analysis Batch: 293078

Client Sample ID: Lab Control Sample  
Prep Type: TCLP  
Prep Batch: 292838

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	2.00	1.889		mg/L		94	80 - 120

Lab Sample ID: LCSD 570-292539/3-B  
Matrix: Solid  
Analysis Batch: 293078

Client Sample ID: Lab Control Sample Dup  
Prep Type: TCLP  
Prep Batch: 292838

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	2.00	1.937		mg/L		97	80 - 120	3	20

Lab Sample ID: LB4 570-292642/1-C  
Matrix: Solid  
Analysis Batch: 293685

Client Sample ID: Method Blank  
Prep Type: STLC Citrate  
Prep Batch: 293407

Analyte	LB4 Result	LB4 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.00	0.105	mg/L		01/03/23 15:46	01/04/23 13:41	1

Lab Sample ID: LCS 570-292642/2-C  
Matrix: Solid  
Analysis Batch: 293685

Client Sample ID: Lab Control Sample  
Prep Type: STLC Citrate  
Prep Batch: 293407

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	20.0	18.99		mg/L		95	80 - 120

Lab Sample ID: LCSD 570-292642/3-C  
Matrix: Solid  
Analysis Batch: 293685

Client Sample ID: Lab Control Sample Dup  
Prep Type: STLC Citrate  
Prep Batch: 293407

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	20.0	19.01		mg/L		95	80 - 120	0	20

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-2

## Metals

### Leach Batch: 292539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-12	B-44 @ 15'	TCLP	Solid	1311	
570-120930-22	B-45 @ 5'	TCLP	Solid	1311	
LB 570-292539/1-B	Method Blank	TCLP	Solid	1311	
LCS 570-292539/2-B	Lab Control Sample	TCLP	Solid	1311	
LCSD 570-292539/3-B	Lab Control Sample Dup	TCLP	Solid	1311	

### Leach Batch: 292642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-12	B-44 @ 15'	STLC Citrate	Solid	CA WET Citrate	
570-120930-22	B-45 @ 5'	STLC Citrate	Solid	CA WET Citrate	
LB4 570-292642/1-C	Method Blank	STLC Citrate	Solid	CA WET Citrate	
LCS 570-292642/2-C	Lab Control Sample	STLC Citrate	Solid	CA WET Citrate	
LCSD 570-292642/3-C	Lab Control Sample Dup	STLC Citrate	Solid	CA WET Citrate	

### Prep Batch: 292838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-12	B-44 @ 15'	TCLP	Solid	3010A	292539
570-120930-22	B-45 @ 5'	TCLP	Solid	3010A	292539
LB 570-292539/1-B	Method Blank	TCLP	Solid	3010A	292539
LCS 570-292539/2-B	Lab Control Sample	TCLP	Solid	3010A	292539
LCSD 570-292539/3-B	Lab Control Sample Dup	TCLP	Solid	3010A	292539

### Analysis Batch: 293078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-12	B-44 @ 15'	TCLP	Solid	6010B	292838
570-120930-22	B-45 @ 5'	TCLP	Solid	6010B	292838
LB 570-292539/1-B	Method Blank	TCLP	Solid	6010B	292838
LCS 570-292539/2-B	Lab Control Sample	TCLP	Solid	6010B	292838
LCSD 570-292539/3-B	Lab Control Sample Dup	TCLP	Solid	6010B	292838

### Prep Batch: 293407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-12	B-44 @ 15'	STLC Citrate	Solid	Dilution	292642
570-120930-22	B-45 @ 5'	STLC Citrate	Solid	Dilution	292642
LB4 570-292642/1-C	Method Blank	STLC Citrate	Solid	Dilution	292642
LCS 570-292642/2-C	Lab Control Sample	STLC Citrate	Solid	Dilution	292642
LCSD 570-292642/3-C	Lab Control Sample Dup	STLC Citrate	Solid	Dilution	292642

### Analysis Batch: 293685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-120930-12	B-44 @ 15'	STLC Citrate	Solid	6010B	293407
570-120930-22	B-45 @ 5'	STLC Citrate	Solid	6010B	293407
LB4 570-292642/1-C	Method Blank	STLC Citrate	Solid	6010B	293407
LCS 570-292642/2-C	Lab Control Sample	STLC Citrate	Solid	6010B	293407
LCSD 570-292642/3-C	Lab Control Sample Dup	STLC Citrate	Solid	6010B	293407



# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-2

**Client Sample ID: B-44 @ 15'**

**Date Collected: 12/14/22 10:14**

**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-12**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.05 g	500 mL	292642	12/29/22 14:11	ECX6	EET CAL 4
STLC Citrate	Prep	Dilution			2.5 mL	50 mL	293407	01/03/23 15:46	VZOK	EET CAL 4
STLC Citrate	Analysis	6010B		1			293685	01/04/23 14:17	K1UV	EET CAL 4
Instrument ID: ICP11										
TCLP	Leach	1311			100.01 g	2000 mL	292539	12/29/22 08:00	XBO9	EET CAL 4
TCLP	Prep	3010A			5 mL	50 mL	292838	12/30/22 08:30	ECX6	EET CAL 4
TCLP	Analysis	6010B		1			293078	12/30/22 16:57	P1R	EET CAL 4
Instrument ID: ICP11										

**Client Sample ID: B-45 @ 5'**

**Date Collected: 12/14/22 14:32**

**Date Received: 12/14/22 19:20**

**Lab Sample ID: 570-120930-22**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.22 g	500 mL	292642	12/29/22 14:11	ECX6	EET CAL 4
STLC Citrate	Prep	Dilution			2.5 mL	50 mL	293407	01/03/23 15:46	VZOK	EET CAL 4
STLC Citrate	Analysis	6010B		1			293685	01/04/23 14:19	K1UV	EET CAL 4
Instrument ID: ICP11										
TCLP	Leach	1311			100.29 g	2000 mL	292539	12/29/22 08:00	XBO9	EET CAL 4
TCLP	Prep	3010A			5 mL	50 mL	292838	12/30/22 08:30	ECX6	EET CAL 4
TCLP	Analysis	6010B		1			293078	12/30/22 16:59	P1R	EET CAL 4
Instrument ID: ICP11										

<sup>1</sup> Completion dates and times are reported or not reported per method requirements or individual lab discretion.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

## Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-2

### Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

1

2

3

4

5

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14

# Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	EET CAL 4
1311	TCLP Extraction	SW846	EET CAL 4
3010A	Preparation, Total Metals	SW846	EET CAL 4
CA WET Citrate	California - Waste Extraction Test with Citrate Leach	CA-WET	EET CAL 4
Dilution	Preparation / Dilution Process	None	EET CAL 4

## Protocol References:

CA-WET = California Waste Extraction Test, from Title 22

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

## Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-120930-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-120930-12	B-44 @ 15'	Solid	12/14/22 10:14	12/14/22 19:20
570-120930-22	B-45 @ 5'	Solid	12/14/22 14:32	12/14/22 19:20

## Virendra Patel

---

**From:** Alexandre Santini <alexandres@groupdelta.com>  
**Sent:** Tuesday, December 27, 2022 5:10 PM  
**To:** Virendra Patel; Jack Packwood; Matt Fagan; Erick Ovalle  
**Subject:** RE: Eurofins Calscience report and EDD files from 570-120930-1 Science Research Park / SD754

EXTERNAL EMAIL\*

Erick – Please analyze for lead STLC and TCLP samples:

B-44 @ 15'

B-45 @ 5'

Please confirm it.

Thanks,

Alex Santini, P.E. | [Senior Project Engineer](#)

Office: (858) 536-1000

Mobile: (310) 310-5686

Email: [AlexandreS@groupdelta.com](mailto:AlexandreS@groupdelta.com)

---

**From:** Virendra Patel <Virendra.Patel@et.eurofinsus.com>  
**Sent:** Thursday, December 22, 2022 2:01 PM  
**To:** Jack Packwood <jackp@groupdelta.com>; Matt Fagan <mattf@groupdelta.com>  
**Subject:** Eurofins Calscience report and EDD files from 570-120930-1 Science Research Park / SD754

Hello,

Attached please find the report and EDD files for job 570-120930-1; Science Research Park / SD754

Please feel free to contact me or your PM Vikas Patel if you have any questions.

Thank you.

**Virendra Patel**  
Project Manager

Eurofins Calscience  
Phone: 714-895-5494  
Mobile: 714-887-9901

E-mail: [Virendra.Patel@et.eurofinsus.com](mailto:Virendra.Patel@et.eurofinsus.com)  
[www.eurofinsus.com/env](http://www.eurofinsus.com/env)



Reference: [570-404213]  
Attachments: 2

> > Bank information has changed, please refer to remittance information on invoice. < <

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31/5/20

## CHAIN OF CUSTODY RECORD

DATE: 12/14/2022

PAGE: 2 OF 3

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For courier service / sample drop off information, contact us26 sales@eurofinsus.com or call us.

<b>LABORATORY CLIENT:</b> Group Delta Consultants 9245 Activity Road Suite 103 San Diego, CA 92126 TEL: 858 536 1000 E-MAIL: mattf@groupdelta.com				<b>CLIENT PROJECT NAME / NUMBER:</b> Science Research Park / SD754 <b>PROJECT CONTACT:</b> Matt Fagan				<b>P.O. NO.</b>  <b>SAMPLER(S): (PRINT)</b> Casey Roussel-John																																																																																																																																																																																																																		
<b>REQUESTED ANALYSES</b> Please check box or fill in blank as needed																																																																																																																																																																																																																										
<b>LOG CODE:</b> <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COELTED F <b>SPECIAL INSTRUCTIONS:</b>				<b>GLOBAL ID:</b>  <b>LOG CODE:</b> Unpreserved Preserved Field Filtered		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>LAB USE ONLY</th> <th>SAMPLE ID</th> <th colspan="2">SAMPLING</th> <th>MATRIX</th> <th>NO. OF CONT</th> <th><input type="checkbox"/> TPH(g) <input type="checkbox"/> GRO</th> <th><input type="checkbox"/> TPH(d) <input type="checkbox"/> DRO</th> <th>TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44</th> <th>TPH <input type="checkbox"/> C-4-C12, C13-C22, C23-C29</th> <th>VOCs (8260)</th> <th>Oxygenates (8260)</th> <th>Prep (5035), <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core</th> <th>SVOCs (8270)</th> <th>Pesticides (8081)</th> <th>PCBs (8082)</th> <th>PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM</th> <th>T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X</th> <th>Cr(VI): <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6</th> </tr> <tr><td>11</td><td>B-47 @ 10'</td><td>12/14</td><td>10:04</td><td>Soil</td><td>1</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>12</td><td>B-44 @ 15'</td><td>12/14</td><td>10:11</td><td>Soil</td><td>1</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>13</td><td>B-44 @ 20'</td><td>12/14</td><td>10:12</td><td>Soil</td><td>1</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>14</td><td>B-44 @ 25'</td><td>12/14</td><td>10:32</td><td>Soil</td><td>1</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>15</td><td>B-47 @ 2.5'</td><td>12/14</td><td>12:09</td><td>Soil</td><td>1</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>16</td><td>B-47 @ 5'</td><td>12/14</td><td>12:14</td><td>Soil</td><td>1</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>17</td><td>B-47 @ 10'</td><td>12/14</td><td>12:20</td><td>Soil</td><td>1</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>18</td><td>B-49 @ 2.5'</td><td>12/14</td><td>1:28</td><td>Soil</td><td>1</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>19</td><td>B-48 @ 2.5'</td><td>12/14</td><td>1:56</td><td>Soil</td><td>1</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>20</td><td>B-45 @ 2.5'</td><td>12/14</td><td>2:27</td><td>Soil</td><td>1</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>				LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT	<input type="checkbox"/> TPH(g) <input type="checkbox"/> GRO	<input type="checkbox"/> TPH(d) <input type="checkbox"/> DRO	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH <input type="checkbox"/> C-4-C12, C13-C22, C23-C29	VOCs (8260)	Oxygenates (8260)	Prep (5035), <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI): <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6	11	B-47 @ 10'	12/14	10:04	Soil	1	X													12	B-44 @ 15'	12/14	10:11	Soil	1	X													13	B-44 @ 20'	12/14	10:12	Soil	1	X													14	B-44 @ 25'	12/14	10:32	Soil	1	X													15	B-47 @ 2.5'	12/14	12:09	Soil	1	X													16	B-47 @ 5'	12/14	12:14	Soil	1	X													17	B-47 @ 10'	12/14	12:20	Soil	1	X													18	B-49 @ 2.5'	12/14	1:28	Soil	1	X													19	B-48 @ 2.5'	12/14	1:56	Soil	1	X													20	B-45 @ 2.5'	12/14	2:27	Soil	1	X												
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Calscience

CHAIN OF CUSTODY RECORD

DATE: 12/14/2022

PAGE: 3 OF 3

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT:		CLIENT PROJECT NAME / NUMBER:	
Group Delta Consultants		Science Research Park / SD754	
ADDRESS:	9245 Activity Road Suite 103	P.O. NO.	
CITY:	San Diego	STATE:	CA
ZIP:	92126	PROJECT CONTACT:	Matt Fagan
TEL:	858 536 1000	E-MAIL:	mattf@groupdelta.com
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):		SAMPLER(S), (PRINT)	
<input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD		Cathy Russell-Johnson	
<input type="checkbox"/> COELT EDF			

SPECIAL INSTRUCTIONS:		REQUESTED ANALYSES	
GLOBAL ID:		Please check box or fill in blank as needed	
LOG CODE:			

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	LOG CODE:		Requested Analyses															
		DATE	TIME			Unpreserved	Preserved	Field Filtered	TPH (g) <input type="checkbox"/> GRO	TPH (d) <input type="checkbox"/> DRO	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH C4-C12 / C13-C22, C25-C46	BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>	VOCs (8260)	Oxygenates (8260)	Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 8020/747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6	
24	B-45@10'	12/14	2:40	Soil	1	X																	
22	B-45@5'	12/14	2:32	Soil	1	X																	
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Relinquished by (Signature)	Received by (Signature/Affiliation)	Date:	Time:
	William Rivera	12/14/22	1:54
Relinquished by (Signature)	Received by (Signature/Affiliation)	Date:	Time:
	William Rivera	12/14/22	1:50
Relinquished by (Signature)	Received by (Signature/Affiliation)	Date:	Time:

## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-120930-2

**Login Number: 120930**

**List Source: Eurofins Calscience**

**List Number: 1**

**Creator: Tat, Sandy**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Matt Fagan  
Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Generated 12/22/2022 2:10:18 PM

## JOB DESCRIPTION

Science Research Park / SD754

## JOB NUMBER

570-121068-1

# Eurofins Calscience

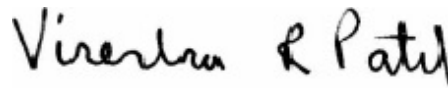
## Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

## Authorization



Generated  
12/22/2022 2:10:18 PM

Authorized for release by  
Virendra Patel, Project Manager I  
[Virendra.Patel@et.eurofinsus.com](mailto:Virendra.Patel@et.eurofinsus.com)  
Designee for  
Vikas Patel, Project Manager I  
[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)  
(714)895-5494



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# Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Qualifiers

### GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Metals

Qualifier	Qualifier Description
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

**Job ID: 570-121068-1**

**Laboratory: Eurofins Calscience**

## Narrative

### Job Narrative 570-121068-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 12/15/2022 7:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.2° C.

#### GC VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Metals

Method 6010B: The initial calibration verification (ICV) result for batch 570-290424 was above the upper control limit for Antimony. Sample results were non-detects, and have been reported as qualified data.

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Barium and Antimony for preparation batch 570-289930 and analytical batch 570-290424 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision of Antimony and Lead for preparation batch 570-289932 and analytical batch 570-290646 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.(570-121068-A-18-D MS ^5) and (570-121068-A-18-E MSD ^5)

Method 6010B: The initial calibration verification (ICV) result for batch 570-290646 was above the upper control limit for Antimony. Sample results were non-detects, and have been reported as qualified data.(ICV 570-290646/6)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Client Sample ID: B-45@15'

## Lab Sample ID: 570-121068-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	12.8		3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	77.8	F1	3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.253	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Cobalt	2.23		1.01	0.208	mg/Kg	5		6010B	Total/NA
Chromium	6.41		1.01	0.188	mg/Kg	5		6010B	Total/NA
Copper	4.14		2.02	0.968	mg/Kg	5		6010B	Total/NA
Molybdenum	0.644	J	2.02	0.520	mg/Kg	5		6010B	Total/NA
Nickel	2.50		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	17.9		1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	15.1		5.05	1.17	mg/Kg	5		6010B	Total/NA
Lead	5.45		2.02	0.413	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-43@2.5'

## Lab Sample ID: 570-121068-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	8.0		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	110		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	6.42		2.99	1.38	mg/Kg	5		6010B	Total/NA
Barium	64.1		2.99	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.386	J	0.498	0.0687	mg/Kg	5		6010B	Total/NA
Cobalt	4.38		0.995	0.205	mg/Kg	5		6010B	Total/NA
Chromium	11.2		0.995	0.185	mg/Kg	5		6010B	Total/NA
Copper	8.07		1.99	0.953	mg/Kg	5		6010B	Total/NA
Nickel	5.71		1.99	0.360	mg/Kg	5		6010B	Total/NA
Vanadium	25.6		0.995	0.167	mg/Kg	5		6010B	Total/NA
Zinc	26.3		4.98	1.15	mg/Kg	5		6010B	Total/NA
Lead	7.95		1.99	0.407	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-43@5'

## Lab Sample ID: 570-121068-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	4.2	J	5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	13		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	4.76		2.99	1.38	mg/Kg	5		6010B	Total/NA
Barium	40.0		2.99	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.348	J	0.498	0.0687	mg/Kg	5		6010B	Total/NA
Cobalt	4.49		0.995	0.205	mg/Kg	5		6010B	Total/NA
Chromium	13.6		0.995	0.185	mg/Kg	5		6010B	Total/NA
Copper	5.73		1.99	0.953	mg/Kg	5		6010B	Total/NA
Nickel	5.29		1.99	0.360	mg/Kg	5		6010B	Total/NA
Vanadium	35.8		0.995	0.167	mg/Kg	5		6010B	Total/NA
Zinc	17.4		4.98	1.15	mg/Kg	5		6010B	Total/NA
Lead	6.79		1.99	0.407	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-43@10'

## Lab Sample ID: 570-121068-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	33		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	5.73		2.97	1.38	mg/Kg	5		6010B	Total/NA
Barium	114		2.97	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.322	J	0.495	0.0683	mg/Kg	5		6010B	Total/NA
Cobalt	3.84		0.990	0.204	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience



# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Client Sample ID: B-43@10' (Continued)

## Lab Sample ID: 570-121068-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	14.8		0.990	0.184	mg/Kg	5		6010B	Total/NA
Copper	13.7		1.98	0.949	mg/Kg	5		6010B	Total/NA
Molybdenum	1.14	J	1.98	0.510	mg/Kg	5		6010B	Total/NA
Nickel	5.26		1.98	0.358	mg/Kg	5		6010B	Total/NA
Vanadium	30.0		0.990	0.166	mg/Kg	5		6010B	Total/NA
Zinc	23.8		4.95	1.14	mg/Kg	5		6010B	Total/NA
Lead	13.6		1.98	0.405	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-43@15'

## Lab Sample ID: 570-121068-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	29		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	94		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	2.69	J	3.05	1.41	mg/Kg	5		6010B	Total/NA
Barium	43.6		3.05	0.144	mg/Kg	5		6010B	Total/NA
Beryllium	0.241	J	0.508	0.0701	mg/Kg	5		6010B	Total/NA
Cobalt	2.49		1.02	0.209	mg/Kg	5		6010B	Total/NA
Chromium	11.7		1.02	0.189	mg/Kg	5		6010B	Total/NA
Copper	5.67		2.03	0.973	mg/Kg	5		6010B	Total/NA
Nickel	3.78		2.03	0.368	mg/Kg	5		6010B	Total/NA
Vanadium	25.3		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	15.7		5.08	1.17	mg/Kg	5		6010B	Total/NA
Lead	10.6		2.03	0.415	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-43@20'

## Lab Sample ID: 570-121068-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	4.2	J	5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	48		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	3.71		3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	49.6		3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.366	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Cobalt	3.23		1.01	0.208	mg/Kg	5		6010B	Total/NA
Chromium	13.4		1.01	0.188	mg/Kg	5		6010B	Total/NA
Copper	5.62		2.02	0.968	mg/Kg	5		6010B	Total/NA
Nickel	4.67		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	35.9		1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	16.7		5.05	1.17	mg/Kg	5		6010B	Total/NA
Lead	7.02		2.02	0.413	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-43@25'

## Lab Sample ID: 570-121068-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	4.3	J	5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	8.8		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	11.0		2.94	1.36	mg/Kg	5		6010B	Total/NA
Barium	90.9		2.94	0.139	mg/Kg	5		6010B	Total/NA
Beryllium	0.490		0.490	0.0676	mg/Kg	5		6010B	Total/NA
Cobalt	4.14		0.980	0.202	mg/Kg	5		6010B	Total/NA
Chromium	10.9		0.980	0.182	mg/Kg	5		6010B	Total/NA
Copper	8.32		1.96	0.939	mg/Kg	5		6010B	Total/NA
Molybdenum	0.600	J	1.96	0.505	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Client Sample ID: B-43@25' (Continued)

## Lab Sample ID: 570-121068-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	5.31		1.96	0.355	mg/Kg	5		6010B	Total/NA
Vanadium	25.7		0.980	0.165	mg/Kg	5		6010B	Total/NA
Zinc	26.7		4.90	1.13	mg/Kg	5		6010B	Total/NA
Lead	15.3		1.96	0.401	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-43@30'

## Lab Sample ID: 570-121068-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	4.3	J	5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	7.56		3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	136		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.350	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	3.65		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	19.4		1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	58.4		2.00	0.958	mg/Kg	5		6010B	Total/NA
Molybdenum	2.41		2.00	0.515	mg/Kg	5		6010B	Total/NA
Nickel	5.44		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	23.2		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	51.8		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	173		2.00	0.409	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-43@35'

## Lab Sample ID: 570-121068-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	5.7		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	29		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	8.22		3.05	1.41	mg/Kg	5		6010B	Total/NA
Barium	50.3		3.05	0.144	mg/Kg	5		6010B	Total/NA
Beryllium	0.571		0.508	0.0701	mg/Kg	5		6010B	Total/NA
Cobalt	6.64		1.02	0.209	mg/Kg	5		6010B	Total/NA
Chromium	16.5		1.02	0.189	mg/Kg	5		6010B	Total/NA
Copper	19.4		2.03	0.973	mg/Kg	5		6010B	Total/NA
Molybdenum	0.622	J	2.03	0.523	mg/Kg	5		6010B	Total/NA
Nickel	11.3		2.03	0.368	mg/Kg	5		6010B	Total/NA
Vanadium	30.7		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	59.4		5.08	1.17	mg/Kg	5		6010B	Total/NA
Lead	14.8		2.03	0.415	mg/Kg	5		6010B	Total/NA
Mercury	0.0531	J	0.0833	0.0320	mg/Kg	1		7471A	Total/NA

## Client Sample ID: B-43@40'

## Lab Sample ID: 570-121068-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	4.8	J	5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	6.7		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	3.51		2.97	1.38	mg/Kg	5		6010B	Total/NA
Barium	66.8		2.97	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.297	J	0.495	0.0683	mg/Kg	5		6010B	Total/NA
Cobalt	2.70		0.990	0.204	mg/Kg	5		6010B	Total/NA
Chromium	7.24		0.990	0.184	mg/Kg	5		6010B	Total/NA
Copper	9.42		1.98	0.949	mg/Kg	5		6010B	Total/NA
Molybdenum	0.743	J	1.98	0.510	mg/Kg	5		6010B	Total/NA
Nickel	3.08		1.98	0.358	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Client Sample ID: B-43@40' (Continued)

## Lab Sample ID: 570-121068-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	18.1		0.990	0.166	mg/Kg	5		6010B	Total/NA
Zinc	21.1		4.95	1.14	mg/Kg	5		6010B	Total/NA
Lead	9.81		1.98	0.405	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-46@2.5'

## Lab Sample ID: 570-121068-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	5.5		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	38		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	2.61	J	3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	32.4		3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.328	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Cobalt	3.78		1.01	0.208	mg/Kg	5		6010B	Total/NA
Chromium	13.2		1.01	0.188	mg/Kg	5		6010B	Total/NA
Copper	5.11		2.02	0.968	mg/Kg	5		6010B	Total/NA
Nickel	4.24		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	34.1		1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	15.1		5.05	1.17	mg/Kg	5		6010B	Total/NA
Lead	5.81		2.02	0.413	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-46@5'

## Lab Sample ID: 570-121068-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	12		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	4.63		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	60.3		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.306	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	4.20		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	10.9		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	8.53		2.04	0.978	mg/Kg	5		6010B	Total/NA
Nickel	4.26		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	28.0		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	22.2		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	7.95		2.04	0.417	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-50@2.5'

## Lab Sample ID: 570-121068-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	4.2	J	5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	4.7	J	5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	7.94		3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	118		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.375	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	5.78		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	11.7		1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	11.5		2.00	0.958	mg/Kg	5		6010B	Total/NA
Molybdenum	1.20	J	2.00	0.515	mg/Kg	5		6010B	Total/NA
Nickel	4.06		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	21.8		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	21.5		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	49.1		2.00	0.409	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

Client Sample ID: B-39@2'

Lab Sample ID: 570-121068-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	5.8		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	23		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	6.01		3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	65.6		3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.404	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Cobalt	5.06		1.01	0.208	mg/Kg	5		6010B	Total/NA
Chromium	12.6		1.01	0.188	mg/Kg	5		6010B	Total/NA
Copper	12.2		2.02	0.968	mg/Kg	5		6010B	Total/NA
Molybdenum	0.543	J	2.02	0.520	mg/Kg	5		6010B	Total/NA
Nickel	6.04		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	29.0		1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	37.8		5.05	1.17	mg/Kg	5		6010B	Total/NA
Lead	18.8		2.02	0.413	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-39@5'

Lab Sample ID: 570-121068-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	3.8	J	5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	8.7		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	3.24		2.96	1.37	mg/Kg	5		6010B	Total/NA
Barium	36.3		2.96	0.140	mg/Kg	5		6010B	Total/NA
Beryllium	0.308	J	0.493	0.0680	mg/Kg	5		6010B	Total/NA
Cobalt	3.46		0.985	0.203	mg/Kg	5		6010B	Total/NA
Chromium	13.9		0.985	0.183	mg/Kg	5		6010B	Total/NA
Copper	94.4		1.97	0.944	mg/Kg	5		6010B	Total/NA
Nickel	4.51		1.97	0.357	mg/Kg	5		6010B	Total/NA
Vanadium	36.8		0.985	0.166	mg/Kg	5		6010B	Total/NA
Zinc	45.6		4.93	1.14	mg/Kg	5		6010B	Total/NA
Lead	6.01		1.97	0.403	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-39@10'

Lab Sample ID: 570-121068-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	5.0		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	17		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	3.79		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	66.7		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.255	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	2.68		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	7.04		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	29.2		2.04	0.978	mg/Kg	5		6010B	Total/NA
Molybdenum	0.587	J	2.04	0.526	mg/Kg	5		6010B	Total/NA
Nickel	3.06		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	18.1		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	20.7		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	18.8		2.04	0.417	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-39@15'

Lab Sample ID: 570-121068-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	4.2	J	5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	7.5		5.0	3.8	mg/Kg	1		8015B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Client Sample ID: B-39@15' (Continued)

## Lab Sample ID: 570-121068-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.59		3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	191		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.275	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	2.89		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	7.84		1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	13.0		2.00	0.958	mg/Kg	5		6010B	Total/NA
Molybdenum	1.35	J	2.00	0.515	mg/Kg	5		6010B	Total/NA
Nickel	3.43		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	18.8		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	27.3		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	19.7		2.00	0.409	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-39@20'

## Lab Sample ID: 570-121068-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	10		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	4.0	J	5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	8.56		2.99	1.38	mg/Kg	5		6010B	Total/NA
Barium	31.8		2.99	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.485	J	0.498	0.0687	mg/Kg	5		6010B	Total/NA
Cobalt	5.32		0.995	0.205	mg/Kg	5		6010B	Total/NA
Chromium	7.30		0.995	0.185	mg/Kg	5		6010B	Total/NA
Copper	3.01		1.99	0.953	mg/Kg	5		6010B	Total/NA
Nickel	3.98		1.99	0.360	mg/Kg	5		6010B	Total/NA
Vanadium	19.1		0.995	0.167	mg/Kg	5		6010B	Total/NA
Zinc	21.0		4.98	1.15	mg/Kg	5		6010B	Total/NA
Lead	4.17		1.99	0.407	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-39@25'

## Lab Sample ID: 570-121068-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	4.0	J	5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	15.0		3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	310		3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.795		0.505	0.0697	mg/Kg	5		6010B	Total/NA
Cobalt	2.74		1.01	0.208	mg/Kg	5		6010B	Total/NA
Chromium	10.4		1.01	0.188	mg/Kg	5		6010B	Total/NA
Copper	9.15		2.02	0.968	mg/Kg	5		6010B	Total/NA
Molybdenum	0.530	J	2.02	0.520	mg/Kg	5		6010B	Total/NA
Nickel	5.10		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	32.8		1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	46.2		5.05	1.17	mg/Kg	5		6010B	Total/NA
Lead	7.20		2.02	0.413	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-40@2'

## Lab Sample ID: 570-121068-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	9.3		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	18		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	4.95		3.05	1.41	mg/Kg	5		6010B	Total/NA
Barium	57.2		3.05	0.144	mg/Kg	5		6010B	Total/NA
Beryllium	0.317	J	0.508	0.0701	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Client Sample ID: B-40@2' (Continued)

## Lab Sample ID: 570-121068-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	3.53		1.02	0.209	mg/Kg	5		6010B	Total/NA
Chromium	9.96		1.02	0.189	mg/Kg	5		6010B	Total/NA
Copper	22.3		2.03	0.973	mg/Kg	5		6010B	Total/NA
Molybdenum	0.673	J	2.03	0.523	mg/Kg	5		6010B	Total/NA
Nickel	4.16		2.03	0.368	mg/Kg	5		6010B	Total/NA
Vanadium	25.1		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	43.2		5.08	1.17	mg/Kg	5		6010B	Total/NA
Lead	38.8		2.03	0.415	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-40@5'

## Lab Sample ID: 570-121068-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	12		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	4.38		3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	52.7		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.250	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	2.39		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	12.9		1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	6.18		2.00	0.958	mg/Kg	5		6010B	Total/NA
Molybdenum	0.550	J	2.00	0.515	mg/Kg	5		6010B	Total/NA
Nickel	3.75		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	32.0		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	15.8		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	12.4		2.00	0.409	mg/Kg	5		6010B	Total/NA
Mercury	0.0413	J	0.0850	0.0327	mg/Kg	1		7471A	Total/NA

## Client Sample ID: B-40@10'

## Lab Sample ID: 570-121068-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	28		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	15		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	3.12		2.99	1.38	mg/Kg	5		6010B	Total/NA
Barium	47.1		2.99	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.211	J	0.498	0.0687	mg/Kg	5		6010B	Total/NA
Cobalt	2.45		0.995	0.205	mg/Kg	5		6010B	Total/NA
Chromium	6.04		0.995	0.185	mg/Kg	5		6010B	Total/NA
Copper	7.04		1.99	0.953	mg/Kg	5		6010B	Total/NA
Nickel	2.49		1.99	0.360	mg/Kg	5		6010B	Total/NA
Vanadium	15.9		0.995	0.167	mg/Kg	5		6010B	Total/NA
Zinc	14.6		4.98	1.15	mg/Kg	5		6010B	Total/NA
Lead	14.5		1.99	0.407	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-40@15'

## Lab Sample ID: 570-121068-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	4.1	J	5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	7.4		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	1.89	J	3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	24.6		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.113	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	1.49		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	4.08		1.00	0.186	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience



# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Client Sample ID: B-40@15' (Continued)

Lab Sample ID: 570-121068-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	2.36		2.00	0.958	mg/Kg	5		6010B	Total/NA
Nickel	1.56	J	2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	10.8		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	7.56		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	3.45		2.00	0.409	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-40@20'

Lab Sample ID: 570-121068-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	6.7		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	10		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	3.34		3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	48.3		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.176	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	2.46		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	7.91		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	8.04		2.01	0.963	mg/Kg	5		6010B	Total/NA
Molybdenum	1.12	J	2.01	0.518	mg/Kg	5		6010B	Total/NA
Nickel	2.55		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	14.5		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	15.4		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	5.40		2.01	0.411	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-40@25'

Lab Sample ID: 570-121068-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	4.5	J	5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	6.2		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	1.63	J	3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	46.2		3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.215	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Cobalt	2.61		1.01	0.208	mg/Kg	5		6010B	Total/NA
Chromium	5.38		1.01	0.188	mg/Kg	5		6010B	Total/NA
Copper	4.90		2.02	0.968	mg/Kg	5		6010B	Total/NA
Nickel	2.65		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	12.9		1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	12.6		5.05	1.17	mg/Kg	5		6010B	Total/NA
Lead	2.93		2.02	0.413	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-40@30'

Lab Sample ID: 570-121068-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	3.8	J	5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	4.43		2.96	1.37	mg/Kg	5		6010B	Total/NA
Barium	36.1		2.96	0.140	mg/Kg	5		6010B	Total/NA
Beryllium	0.308	J	0.493	0.0680	mg/Kg	5		6010B	Total/NA
Cobalt	3.40		0.985	0.203	mg/Kg	5		6010B	Total/NA
Chromium	7.41		0.985	0.183	mg/Kg	5		6010B	Total/NA
Copper	9.74		1.97	0.944	mg/Kg	5		6010B	Total/NA
Nickel	3.00		1.97	0.357	mg/Kg	5		6010B	Total/NA
Vanadium	19.4		0.985	0.166	mg/Kg	5		6010B	Total/NA
Zinc	15.1		4.93	1.14	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Client Sample ID: B-40@30' (Continued)

Lab Sample ID: 570-121068-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	3.93		1.97	0.403	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-38@2'

Lab Sample ID: 570-121068-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	56		50	38	mg/Kg	10		8015B	Total/NA
C23-C40	350		50	38	mg/Kg	10		8015B	Total/NA
Arsenic	3.12		3.05	1.41	mg/Kg	5		6010B	Total/NA
Barium	75.5		3.05	0.144	mg/Kg	5		6010B	Total/NA
Beryllium	0.266	J	0.508	0.0701	mg/Kg	5		6010B	Total/NA
Cobalt	2.66		1.02	0.209	mg/Kg	5		6010B	Total/NA
Chromium	13.6		1.02	0.189	mg/Kg	5		6010B	Total/NA
Copper	8.41		2.03	0.973	mg/Kg	5		6010B	Total/NA
Molybdenum	0.558	J	2.03	0.523	mg/Kg	5		6010B	Total/NA
Nickel	4.16		2.03	0.368	mg/Kg	5		6010B	Total/NA
Vanadium	25.6		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	19.7		5.08	1.17	mg/Kg	5		6010B	Total/NA
Lead	16.6		2.03	0.415	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience



# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-45@15'**  
**Date Collected: 12/15/22 07:00**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-1**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/16/22 16:08	12/16/22 17:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	68		42 - 126				12/16/22 16:08	12/16/22 17:53	1

**Client Sample ID: B-43@2.5'**  
**Date Collected: 12/15/22 07:50**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-2**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/16/22 16:08	12/16/22 19:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	77		42 - 126				12/16/22 16:08	12/16/22 19:59	1

**Client Sample ID: B-43@5'**  
**Date Collected: 12/15/22 07:55**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-3**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/16/22 16:08	12/16/22 20:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	77		42 - 126				12/16/22 16:08	12/16/22 20:24	1

**Client Sample ID: B-43@10'**  
**Date Collected: 12/15/22 08:04**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-4**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/16/22 16:08	12/16/22 20:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74		42 - 126				12/16/22 16:08	12/16/22 20:49	1

**Client Sample ID: B-43@15'**  
**Date Collected: 12/15/22 08:10**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-5**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/16/22 16:08	12/16/22 21:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	70		42 - 126				12/16/22 16:08	12/16/22 21:14	1

**Client Sample ID: B-43@20'**  
**Date Collected: 12/15/22 08:15**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-6**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/16/22 16:08	12/16/22 21:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	77		42 - 126				12/16/22 16:08	12/16/22 21:39	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-43@25'**  
**Date Collected: 12/15/22 08:25**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-7**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/16/22 16:08	12/16/22 22:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	70		42 - 126				12/16/22 16:08	12/16/22 22:04	1

**Client Sample ID: B-43@30'**  
**Date Collected: 12/15/22 08:30**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-8**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/16/22 16:08	12/16/22 22:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	77		42 - 126				12/16/22 16:08	12/16/22 22:30	1

**Client Sample ID: B-43@35'**  
**Date Collected: 12/15/22 08:40**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-9**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/16/22 16:08	12/16/22 22:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74		42 - 126				12/16/22 16:08	12/16/22 22:55	1

**Client Sample ID: B-43@40'**  
**Date Collected: 12/15/22 08:45**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-10**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/16/22 16:08	12/16/22 23:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		42 - 126				12/16/22 16:08	12/16/22 23:20	1

**Client Sample ID: B-46@2.5'**  
**Date Collected: 12/15/22 10:00**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-11**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/16/22 16:08	12/17/22 00:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		42 - 126				12/16/22 16:08	12/17/22 00:10	1

**Client Sample ID: B-46@5'**  
**Date Collected: 12/15/22 10:05**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-12**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/16/22 16:08	12/17/22 00:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	68		42 - 126				12/16/22 16:08	12/17/22 00:36	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-50@2.5'**  
**Date Collected: 12/15/22 10:46**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-13**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/16/22 16:08	12/17/22 01:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	66		42 - 126				12/16/22 16:08	12/17/22 01:01	1

**Client Sample ID: B-39@2'**  
**Date Collected: 12/15/22 11:34**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-14**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/16/22 16:08	12/17/22 01:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	64		42 - 126				12/16/22 16:08	12/17/22 01:26	1

**Client Sample ID: B-39@5'**  
**Date Collected: 12/15/22 11:38**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-15**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/16/22 16:08	12/17/22 01:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	64		42 - 126				12/16/22 16:08	12/17/22 01:51	1

**Client Sample ID: B-39@10'**  
**Date Collected: 12/15/22 11:50**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-16**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/16/22 16:08	12/17/22 02:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	63		42 - 126				12/16/22 16:08	12/17/22 02:16	1

**Client Sample ID: B-39@15'**  
**Date Collected: 12/15/22 11:54**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-17**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/16/22 16:08	12/17/22 02:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		42 - 126				12/16/22 16:08	12/17/22 02:41	1

**Client Sample ID: B-39@20'**  
**Date Collected: 12/15/22 12:01**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-18**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/16/22 16:08	12/17/22 03:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	68		42 - 126				12/16/22 16:08	12/17/22 03:07	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-39@25'**  
**Date Collected: 12/15/22 12:14**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-19**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/16/22 16:08	12/17/22 03:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		42 - 126				12/16/22 16:08	12/17/22 03:32	1

**Client Sample ID: B-40@2'**  
**Date Collected: 12/15/22 12:53**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-20**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/16/22 16:08	12/17/22 03:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	66		42 - 126				12/16/22 16:08	12/17/22 03:57	1

**Client Sample ID: B-40@5'**  
**Date Collected: 12/15/22 13:00**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-21**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/16/22 17:47	12/17/22 12:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		42 - 126				12/16/22 17:47	12/17/22 12:44	1

**Client Sample ID: B-40@10'**  
**Date Collected: 12/15/22 13:05**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-22**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/20/22 10:25	12/20/22 17:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		42 - 126				12/20/22 10:25	12/20/22 17:43	1

**Client Sample ID: B-40@15'**  
**Date Collected: 12/15/22 13:10**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-23**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/20/22 10:25	12/20/22 18:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	73		42 - 126				12/20/22 10:25	12/20/22 18:09	1

**Client Sample ID: B-40@20'**  
**Date Collected: 12/15/22 13:15**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-24**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/20/22 10:25	12/20/22 18:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74		42 - 126				12/20/22 10:25	12/20/22 18:34	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-40@25'**  
**Date Collected: 12/15/22 13:21**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-25**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/16/22 17:47	12/17/22 14:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	72		42 - 126				12/16/22 17:47	12/17/22 14:26	1

**Client Sample ID: B-40@30'**  
**Date Collected: 12/15/22 13:33**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-26**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/16/22 17:47	12/17/22 14:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	70		42 - 126				12/16/22 17:47	12/17/22 14:51	1

**Client Sample ID: B-38@2'**  
**Date Collected: 12/15/22 14:38**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-27**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/16/22 17:47	12/17/22 15:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	73		42 - 126				12/16/22 17:47	12/17/22 15:17	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B-45@15'  
Date Collected: 12/15/22 07:00  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 12:49	1
C23-C40	ND		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 12:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	113		60 - 138				12/16/22 18:33	12/19/22 12:49	1

Client Sample ID: B-43@2.5'  
Date Collected: 12/15/22 07:50  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	8.0		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 13:10	1
C23-C40	110		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 13:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	114		60 - 138				12/16/22 18:33	12/19/22 13:10	1

Client Sample ID: B-43@5'  
Date Collected: 12/15/22 07:55  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	4.2	J	5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 13:31	1
C23-C40	13		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 13:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	117		60 - 138				12/16/22 18:33	12/19/22 13:31	1

Client Sample ID: B-43@10'  
Date Collected: 12/15/22 08:04  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 13:51	1
C23-C40	33		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 13:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	117		60 - 138				12/16/22 18:33	12/19/22 13:51	1

Client Sample ID: B-43@15'  
Date Collected: 12/15/22 08:10  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	29		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 14:12	1
C23-C40	94		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 14:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	123		60 - 138				12/16/22 18:33	12/19/22 14:12	1

Client Sample ID: B-43@20'  
Date Collected: 12/15/22 08:15  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	4.2	J	5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 14:33	1
C23-C40	48		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 14:33	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	119		60 - 138			12/16/22 18:33	12/19/22 14:33	1	
Client Sample ID: B-43@25' Date Collected: 12/15/22 08:25 Date Received: 12/15/22 19:00									
Lab Sample ID: 570-121068-7 Matrix: Solid									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	4.3	J	5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 14:54	1
C23-C40	8.8		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 14:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	114		60 - 138			12/16/22 18:33	12/19/22 14:54	1	
Client Sample ID: B-43@30' Date Collected: 12/15/22 08:30 Date Received: 12/15/22 19:00									
Lab Sample ID: 570-121068-8 Matrix: Solid									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 15:15	1
C23-C40	4.3	J	5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 15:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	117		60 - 138			12/16/22 18:33	12/19/22 15:15	1	
Client Sample ID: B-43@35' Date Collected: 12/15/22 08:40 Date Received: 12/15/22 19:00									
Lab Sample ID: 570-121068-9 Matrix: Solid									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	5.7		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 15:36	1
C23-C40	29		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 15:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	111		60 - 138			12/16/22 18:33	12/19/22 15:36	1	
Client Sample ID: B-43@40' Date Collected: 12/15/22 08:45 Date Received: 12/15/22 19:00									
Lab Sample ID: 570-121068-10 Matrix: Solid									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	4.8	J	5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 16:17	1
C23-C40	6.7		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 16:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	118		60 - 138			12/16/22 18:33	12/19/22 16:17	1	
Client Sample ID: B-46@2.5' Date Collected: 12/15/22 10:00 Date Received: 12/15/22 19:00									
Lab Sample ID: 570-121068-11 Matrix: Solid									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	5.5		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 16:38	1
C23-C40	38		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 16:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	119		60 - 138			12/16/22 18:33	12/19/22 16:38	1	



# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B-46@5'  
Date Collected: 12/15/22 10:05  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 16:59	1
C23-C40	12		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 16:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	118		60 - 138				12/16/22 18:33	12/19/22 16:59	1

Client Sample ID: B-50@2.5'  
Date Collected: 12/15/22 10:46  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	4.2	J	5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 17:20	1
C23-C40	4.7	J	5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 17:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	118		60 - 138				12/16/22 18:33	12/19/22 17:20	1

Client Sample ID: B-39@2'  
Date Collected: 12/15/22 11:34  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-14  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	5.8		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 17:41	1
C23-C40	23		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 17:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	118		60 - 138				12/16/22 18:33	12/19/22 17:41	1

Client Sample ID: B-39@5'  
Date Collected: 12/15/22 11:38  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-15  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	3.8	J	5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 18:02	1
C23-C40	8.7		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 18:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	119		60 - 138				12/16/22 18:33	12/19/22 18:02	1

Client Sample ID: B-39@10'  
Date Collected: 12/15/22 11:50  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-16  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	5.0		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 18:24	1
C23-C40	17		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 18:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	116		60 - 138				12/16/22 18:33	12/19/22 18:24	1

Client Sample ID: B-39@15'  
Date Collected: 12/15/22 11:54  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-17  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	4.2	J	5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 18:45	1
C23-C40	7.5		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 18:45	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	115		60 - 138	12/16/22 18:33	12/19/22 18:45	1

**Client Sample ID: B-39@20'**  
**Date Collected: 12/15/22 12:01**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-18**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	10		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 19:06	1
C23-C40	4.0	J	5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 19:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	115		60 - 138	12/16/22 18:33	12/19/22 19:06	1

**Client Sample ID: B-39@25'**  
**Date Collected: 12/15/22 12:14**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-19**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	4.0	J	5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 19:27	1
C23-C40	ND		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 19:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	113		60 - 138	12/16/22 18:33	12/19/22 19:27	1

**Client Sample ID: B-40@2'**  
**Date Collected: 12/15/22 12:53**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-20**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	9.3		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 19:49	1
C23-C40	18		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 19:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	117		60 - 138	12/16/22 18:33	12/19/22 19:49	1

**Client Sample ID: B-40@5'**  
**Date Collected: 12/15/22 13:00**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-21**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/16/22 18:38	12/19/22 22:03	1
C23-C40	12		5.0	3.8	mg/Kg		12/16/22 18:38	12/19/22 22:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	110		60 - 138	12/16/22 18:38	12/19/22 22:03	1

**Client Sample ID: B-40@10'**  
**Date Collected: 12/15/22 13:05**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-22**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	28		5.0	3.8	mg/Kg		12/16/22 18:38	12/19/22 22:30	1
C23-C40	15		5.0	3.8	mg/Kg		12/16/22 18:38	12/19/22 22:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	106		60 - 138	12/16/22 18:38	12/19/22 22:30	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B-40@15'  
Date Collected: 12/15/22 13:10  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-23  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	4.1	J	5.0	3.8	mg/Kg		12/16/22 18:38	12/19/22 22:57	1
C23-C40	7.4		5.0	3.8	mg/Kg		12/16/22 18:38	12/19/22 22:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	104		60 - 138				12/16/22 18:38	12/19/22 22:57	1

Client Sample ID: B-40@20'  
Date Collected: 12/15/22 13:15  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-24  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	6.7		5.0	3.8	mg/Kg		12/16/22 18:38	12/19/22 23:24	1
C23-C40	10		5.0	3.8	mg/Kg		12/16/22 18:38	12/19/22 23:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	107		60 - 138				12/16/22 18:38	12/19/22 23:24	1

Client Sample ID: B-40@25'  
Date Collected: 12/15/22 13:21  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-25  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	4.5	J	5.0	3.8	mg/Kg		12/16/22 18:38	12/19/22 23:51	1
C23-C40	6.2		5.0	3.8	mg/Kg		12/16/22 18:38	12/19/22 23:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	95		60 - 138				12/16/22 18:38	12/19/22 23:51	1

Client Sample ID: B-40@30'  
Date Collected: 12/15/22 13:33  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-26  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/16/22 18:38	12/20/22 00:18	1
C23-C40	3.8	J	5.0	3.8	mg/Kg		12/16/22 18:38	12/20/22 00:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	96		60 - 138				12/16/22 18:38	12/20/22 00:18	1

Client Sample ID: B-38@2'  
Date Collected: 12/15/22 14:38  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-27  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	56		50	38	mg/Kg		12/16/22 18:38	12/20/22 00:45	10
C23-C40	350		50	38	mg/Kg		12/16/22 18:38	12/20/22 00:45	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	62		60 - 138				12/16/22 18:38	12/20/22 00:45	10

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-45@15'  
Date Collected: 12/15/22 07:00  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/17/22 05:58	12/19/22 18:37	5
Arsenic	12.8		3.03	1.41	mg/Kg		12/17/22 05:58	12/19/22 18:37	5
Barium	77.8	F1	3.03	0.143	mg/Kg		12/17/22 05:58	12/19/22 18:37	5
Beryllium	0.253	J	0.505	0.0697	mg/Kg		12/17/22 05:58	12/19/22 18:37	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/17/22 05:58	12/19/22 18:37	5
Cobalt	2.23		1.01	0.208	mg/Kg		12/17/22 05:58	12/19/22 18:37	5
Chromium	6.41		1.01	0.188	mg/Kg		12/17/22 05:58	12/19/22 18:37	5
Copper	4.14		2.02	0.968	mg/Kg		12/17/22 05:58	12/19/22 18:37	5
Molybdenum	0.644	J	2.02	0.520	mg/Kg		12/17/22 05:58	12/19/22 18:37	5
Nickel	2.50		2.02	0.366	mg/Kg		12/17/22 05:58	12/19/22 18:37	5
Antimony	ND	F1 ^1+	10.1	2.89	mg/Kg		12/17/22 05:58	12/19/22 18:37	5
Selenium	ND		3.03	1.23	mg/Kg		12/17/22 05:58	12/19/22 18:37	5
Thallium	ND		10.1	2.13	mg/Kg		12/17/22 05:58	12/19/22 18:37	5
Vanadium	17.9		1.01	0.170	mg/Kg		12/17/22 05:58	12/19/22 18:37	5
Zinc	15.1		5.05	1.17	mg/Kg		12/17/22 05:58	12/19/22 18:37	5
Lead	5.45		2.02	0.413	mg/Kg		12/17/22 05:58	12/19/22 18:37	5

Client Sample ID: B-43@2.5'  
Date Collected: 12/15/22 07:50  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/17/22 05:58	12/19/22 18:54	5
Arsenic	6.42		2.99	1.38	mg/Kg		12/17/22 05:58	12/19/22 18:54	5
Barium	64.1		2.99	0.141	mg/Kg		12/17/22 05:58	12/19/22 18:54	5
Beryllium	0.386	J	0.498	0.0687	mg/Kg		12/17/22 05:58	12/19/22 18:54	5
Cadmium	ND		0.498	0.0826	mg/Kg		12/17/22 05:58	12/19/22 18:54	5
Cobalt	4.38		0.995	0.205	mg/Kg		12/17/22 05:58	12/19/22 18:54	5
Chromium	11.2		0.995	0.185	mg/Kg		12/17/22 05:58	12/19/22 18:54	5
Copper	8.07		1.99	0.953	mg/Kg		12/17/22 05:58	12/19/22 18:54	5
Molybdenum	ND		1.99	0.512	mg/Kg		12/17/22 05:58	12/19/22 18:54	5
Nickel	5.71		1.99	0.360	mg/Kg		12/17/22 05:58	12/19/22 18:54	5
Antimony	ND	^1+	9.95	2.84	mg/Kg		12/17/22 05:58	12/19/22 18:54	5
Selenium	ND		2.99	1.22	mg/Kg		12/17/22 05:58	12/19/22 18:54	5
Thallium	ND		9.95	2.10	mg/Kg		12/17/22 05:58	12/19/22 18:54	5
Vanadium	25.6		0.995	0.167	mg/Kg		12/17/22 05:58	12/19/22 18:54	5
Zinc	26.3		4.98	1.15	mg/Kg		12/17/22 05:58	12/19/22 18:54	5
Lead	7.95		1.99	0.407	mg/Kg		12/17/22 05:58	12/19/22 18:54	5

Client Sample ID: B-43@5'  
Date Collected: 12/15/22 07:55  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/17/22 05:58	12/19/22 18:57	5
Arsenic	4.76		2.99	1.38	mg/Kg		12/17/22 05:58	12/19/22 18:57	5
Barium	40.0		2.99	0.141	mg/Kg		12/17/22 05:58	12/19/22 18:57	5
Beryllium	0.348	J	0.498	0.0687	mg/Kg		12/17/22 05:58	12/19/22 18:57	5
Cadmium	ND		0.498	0.0826	mg/Kg		12/17/22 05:58	12/19/22 18:57	5
Cobalt	4.49		0.995	0.205	mg/Kg		12/17/22 05:58	12/19/22 18:57	5
Chromium	13.6		0.995	0.185	mg/Kg		12/17/22 05:58	12/19/22 18:57	5
Copper	5.73		1.99	0.953	mg/Kg		12/17/22 05:58	12/19/22 18:57	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-43@5'  
Date Collected: 12/15/22 07:55  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		1.99	0.512	mg/Kg		12/17/22 05:58	12/19/22 18:57	5
Nickel	5.29		1.99	0.360	mg/Kg		12/17/22 05:58	12/19/22 18:57	5
Antimony	ND	^1+	9.95	2.84	mg/Kg		12/17/22 05:58	12/19/22 18:57	5
Selenium	ND		2.99	1.22	mg/Kg		12/17/22 05:58	12/19/22 18:57	5
Thallium	ND		9.95	2.10	mg/Kg		12/17/22 05:58	12/19/22 18:57	5
Vanadium	35.8		0.995	0.167	mg/Kg		12/17/22 05:58	12/19/22 18:57	5
Zinc	17.4		4.98	1.15	mg/Kg		12/17/22 05:58	12/19/22 18:57	5
Lead	6.79		1.99	0.407	mg/Kg		12/17/22 05:58	12/19/22 18:57	5

Client Sample ID: B-43@10'  
Date Collected: 12/15/22 08:04  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/17/22 05:58	12/19/22 18:59	5
Arsenic	5.73		2.97	1.38	mg/Kg		12/17/22 05:58	12/19/22 18:59	5
Barium	114		2.97	0.141	mg/Kg		12/17/22 05:58	12/19/22 18:59	5
Beryllium	0.322	J	0.495	0.0683	mg/Kg		12/17/22 05:58	12/19/22 18:59	5
Cadmium	ND		0.495	0.0822	mg/Kg		12/17/22 05:58	12/19/22 18:59	5
Cobalt	3.84		0.990	0.204	mg/Kg		12/17/22 05:58	12/19/22 18:59	5
Chromium	14.8		0.990	0.184	mg/Kg		12/17/22 05:58	12/19/22 18:59	5
Copper	13.7		1.98	0.949	mg/Kg		12/17/22 05:58	12/19/22 18:59	5
Molybdenum	1.14	J	1.98	0.510	mg/Kg		12/17/22 05:58	12/19/22 18:59	5
Nickel	5.26		1.98	0.358	mg/Kg		12/17/22 05:58	12/19/22 18:59	5
Antimony	ND	^1+	9.90	2.83	mg/Kg		12/17/22 05:58	12/19/22 18:59	5
Selenium	ND		2.97	1.21	mg/Kg		12/17/22 05:58	12/19/22 18:59	5
Thallium	ND		9.90	2.09	mg/Kg		12/17/22 05:58	12/19/22 18:59	5
Vanadium	30.0		0.990	0.166	mg/Kg		12/17/22 05:58	12/19/22 18:59	5
Zinc	23.8		4.95	1.14	mg/Kg		12/17/22 05:58	12/19/22 18:59	5
Lead	13.6		1.98	0.405	mg/Kg		12/17/22 05:58	12/19/22 18:59	5

Client Sample ID: B-43@15'  
Date Collected: 12/15/22 08:10  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.146	mg/Kg		12/17/22 05:58	12/19/22 19:02	5
Arsenic	2.69	J	3.05	1.41	mg/Kg		12/17/22 05:58	12/19/22 19:02	5
Barium	43.6		3.05	0.144	mg/Kg		12/17/22 05:58	12/19/22 19:02	5
Beryllium	0.241	J	0.508	0.0701	mg/Kg		12/17/22 05:58	12/19/22 19:02	5
Cadmium	ND		0.508	0.0843	mg/Kg		12/17/22 05:58	12/19/22 19:02	5
Cobalt	2.49		1.02	0.209	mg/Kg		12/17/22 05:58	12/19/22 19:02	5
Chromium	11.7		1.02	0.189	mg/Kg		12/17/22 05:58	12/19/22 19:02	5
Copper	5.67		2.03	0.973	mg/Kg		12/17/22 05:58	12/19/22 19:02	5
Molybdenum	ND		2.03	0.523	mg/Kg		12/17/22 05:58	12/19/22 19:02	5
Nickel	3.78		2.03	0.368	mg/Kg		12/17/22 05:58	12/19/22 19:02	5
Antimony	ND	^1+	10.2	2.90	mg/Kg		12/17/22 05:58	12/19/22 19:02	5
Selenium	ND		3.05	1.24	mg/Kg		12/17/22 05:58	12/19/22 19:02	5
Thallium	ND		10.2	2.14	mg/Kg		12/17/22 05:58	12/19/22 19:02	5
Vanadium	25.3		1.02	0.171	mg/Kg		12/17/22 05:58	12/19/22 19:02	5
Zinc	15.7		5.08	1.17	mg/Kg		12/17/22 05:58	12/19/22 19:02	5
Lead	10.6		2.03	0.415	mg/Kg		12/17/22 05:58	12/19/22 19:02	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-43@20'  
Date Collected: 12/15/22 08:15  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/17/22 05:58	12/19/22 19:04	5
Arsenic	3.71		3.03	1.41	mg/Kg		12/17/22 05:58	12/19/22 19:04	5
Barium	49.6		3.03	0.143	mg/Kg		12/17/22 05:58	12/19/22 19:04	5
Beryllium	0.366	J	0.505	0.0697	mg/Kg		12/17/22 05:58	12/19/22 19:04	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/17/22 05:58	12/19/22 19:04	5
Cobalt	3.23		1.01	0.208	mg/Kg		12/17/22 05:58	12/19/22 19:04	5
Chromium	13.4		1.01	0.188	mg/Kg		12/17/22 05:58	12/19/22 19:04	5
Copper	5.62		2.02	0.968	mg/Kg		12/17/22 05:58	12/19/22 19:04	5
Molybdenum	ND		2.02	0.520	mg/Kg		12/17/22 05:58	12/19/22 19:04	5
Nickel	4.67		2.02	0.366	mg/Kg		12/17/22 05:58	12/19/22 19:04	5
Antimony	ND	^1+	10.1	2.89	mg/Kg		12/17/22 05:58	12/19/22 19:04	5
Selenium	ND		3.03	1.23	mg/Kg		12/17/22 05:58	12/19/22 19:04	5
Thallium	ND		10.1	2.13	mg/Kg		12/17/22 05:58	12/19/22 19:04	5
Vanadium	35.9		1.01	0.170	mg/Kg		12/17/22 05:58	12/19/22 19:04	5
Zinc	16.7		5.05	1.17	mg/Kg		12/17/22 05:58	12/19/22 19:04	5
Lead	7.02		2.02	0.413	mg/Kg		12/17/22 05:58	12/19/22 19:04	5

Client Sample ID: B-43@25'  
Date Collected: 12/15/22 08:25  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-7  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.47	0.141	mg/Kg		12/17/22 05:58	12/19/22 19:07	5
Arsenic	11.0		2.94	1.36	mg/Kg		12/17/22 05:58	12/19/22 19:07	5
Barium	90.9		2.94	0.139	mg/Kg		12/17/22 05:58	12/19/22 19:07	5
Beryllium	0.490		0.490	0.0676	mg/Kg		12/17/22 05:58	12/19/22 19:07	5
Cadmium	ND		0.490	0.0814	mg/Kg		12/17/22 05:58	12/19/22 19:07	5
Cobalt	4.14		0.980	0.202	mg/Kg		12/17/22 05:58	12/19/22 19:07	5
Chromium	10.9		0.980	0.182	mg/Kg		12/17/22 05:58	12/19/22 19:07	5
Copper	8.32		1.96	0.939	mg/Kg		12/17/22 05:58	12/19/22 19:07	5
Molybdenum	0.600	J	1.96	0.505	mg/Kg		12/17/22 05:58	12/19/22 19:07	5
Nickel	5.31		1.96	0.355	mg/Kg		12/17/22 05:58	12/19/22 19:07	5
Antimony	ND	^1+	9.80	2.80	mg/Kg		12/17/22 05:58	12/19/22 19:07	5
Selenium	ND		2.94	1.20	mg/Kg		12/17/22 05:58	12/19/22 19:07	5
Thallium	ND		9.80	2.06	mg/Kg		12/17/22 05:58	12/19/22 19:07	5
Vanadium	25.7		0.980	0.165	mg/Kg		12/17/22 05:58	12/19/22 19:07	5
Zinc	26.7		4.90	1.13	mg/Kg		12/17/22 05:58	12/19/22 19:07	5
Lead	15.3		1.96	0.401	mg/Kg		12/17/22 05:58	12/19/22 19:07	5

Client Sample ID: B-43@30'  
Date Collected: 12/15/22 08:30  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/17/22 05:58	12/19/22 19:09	5
Arsenic	7.56		3.00	1.39	mg/Kg		12/17/22 05:58	12/19/22 19:09	5
Barium	136		3.00	0.142	mg/Kg		12/17/22 05:58	12/19/22 19:09	5
Beryllium	0.350	J	0.500	0.0690	mg/Kg		12/17/22 05:58	12/19/22 19:09	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/17/22 05:58	12/19/22 19:09	5
Cobalt	3.65		1.00	0.206	mg/Kg		12/17/22 05:58	12/19/22 19:09	5
Chromium	19.4		1.00	0.186	mg/Kg		12/17/22 05:58	12/19/22 19:09	5
Copper	58.4		2.00	0.958	mg/Kg		12/17/22 05:58	12/19/22 19:09	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-43@30'  
Date Collected: 12/15/22 08:30  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	2.41		2.00	0.515	mg/Kg		12/17/22 05:58	12/19/22 19:09	5
Nickel	5.44		2.00	0.362	mg/Kg		12/17/22 05:58	12/19/22 19:09	5
Antimony	ND	^1+	10.0	2.86	mg/Kg		12/17/22 05:58	12/19/22 19:09	5
Selenium	ND		3.00	1.22	mg/Kg		12/17/22 05:58	12/19/22 19:09	5
Thallium	ND		10.0	2.11	mg/Kg		12/17/22 05:58	12/19/22 19:09	5
Vanadium	23.2		1.00	0.168	mg/Kg		12/17/22 05:58	12/19/22 19:09	5
Zinc	51.8		5.00	1.16	mg/Kg		12/17/22 05:58	12/19/22 19:09	5
Lead	173		2.00	0.409	mg/Kg		12/17/22 05:58	12/19/22 19:09	5

Client Sample ID: B-43@35'  
Date Collected: 12/15/22 08:40  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-9  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.146	mg/Kg		12/17/22 05:58	12/19/22 19:18	5
Arsenic	8.22		3.05	1.41	mg/Kg		12/17/22 05:58	12/19/22 19:18	5
Barium	50.3		3.05	0.144	mg/Kg		12/17/22 05:58	12/19/22 19:18	5
Beryllium	0.571		0.508	0.0701	mg/Kg		12/17/22 05:58	12/19/22 19:18	5
Cadmium	ND		0.508	0.0843	mg/Kg		12/17/22 05:58	12/19/22 19:18	5
Cobalt	6.64		1.02	0.209	mg/Kg		12/17/22 05:58	12/19/22 19:18	5
Chromium	16.5		1.02	0.189	mg/Kg		12/17/22 05:58	12/19/22 19:18	5
Copper	19.4		2.03	0.973	mg/Kg		12/17/22 05:58	12/19/22 19:18	5
Molybdenum	0.622	J	2.03	0.523	mg/Kg		12/17/22 05:58	12/19/22 19:18	5
Nickel	11.3		2.03	0.368	mg/Kg		12/17/22 05:58	12/19/22 19:18	5
Antimony	ND	^1+	10.2	2.90	mg/Kg		12/17/22 05:58	12/19/22 19:18	5
Selenium	ND		3.05	1.24	mg/Kg		12/17/22 05:58	12/19/22 19:18	5
Thallium	ND		10.2	2.14	mg/Kg		12/17/22 05:58	12/19/22 19:18	5
Vanadium	30.7		1.02	0.171	mg/Kg		12/17/22 05:58	12/19/22 19:18	5
Zinc	59.4		5.08	1.17	mg/Kg		12/17/22 05:58	12/19/22 19:18	5
Lead	14.8		2.03	0.415	mg/Kg		12/17/22 05:58	12/19/22 19:18	5

Client Sample ID: B-43@40'  
Date Collected: 12/15/22 08:45  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-10  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/17/22 05:58	12/19/22 19:20	5
Arsenic	3.51		2.97	1.38	mg/Kg		12/17/22 05:58	12/19/22 19:20	5
Barium	66.8		2.97	0.141	mg/Kg		12/17/22 05:58	12/19/22 19:20	5
Beryllium	0.297	J	0.495	0.0683	mg/Kg		12/17/22 05:58	12/19/22 19:20	5
Cadmium	ND		0.495	0.0822	mg/Kg		12/17/22 05:58	12/19/22 19:20	5
Cobalt	2.70		0.990	0.204	mg/Kg		12/17/22 05:58	12/19/22 19:20	5
Chromium	7.24		0.990	0.184	mg/Kg		12/17/22 05:58	12/19/22 19:20	5
Copper	9.42		1.98	0.949	mg/Kg		12/17/22 05:58	12/19/22 19:20	5
Molybdenum	0.743	J	1.98	0.510	mg/Kg		12/17/22 05:58	12/19/22 19:20	5
Nickel	3.08		1.98	0.358	mg/Kg		12/17/22 05:58	12/19/22 19:20	5
Antimony	ND	^1+	9.90	2.83	mg/Kg		12/17/22 05:58	12/19/22 19:20	5
Selenium	ND		2.97	1.21	mg/Kg		12/17/22 05:58	12/19/22 19:20	5
Thallium	ND		9.90	2.09	mg/Kg		12/17/22 05:58	12/19/22 19:20	5
Vanadium	18.1		0.990	0.166	mg/Kg		12/17/22 05:58	12/19/22 19:20	5
Zinc	21.1		4.95	1.14	mg/Kg		12/17/22 05:58	12/19/22 19:20	5
Lead	9.81		1.98	0.405	mg/Kg		12/17/22 05:58	12/19/22 19:20	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-46@2.5'  
Date Collected: 12/15/22 10:00  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-11  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/17/22 05:58	12/19/22 19:23	5
Arsenic	2.61	J	3.03	1.41	mg/Kg		12/17/22 05:58	12/19/22 19:23	5
Barium	32.4		3.03	0.143	mg/Kg		12/17/22 05:58	12/19/22 19:23	5
Beryllium	0.328	J	0.505	0.0697	mg/Kg		12/17/22 05:58	12/19/22 19:23	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/17/22 05:58	12/19/22 19:23	5
Cobalt	3.78		1.01	0.208	mg/Kg		12/17/22 05:58	12/19/22 19:23	5
Chromium	13.2		1.01	0.188	mg/Kg		12/17/22 05:58	12/19/22 19:23	5
Copper	5.11		2.02	0.968	mg/Kg		12/17/22 05:58	12/19/22 19:23	5
Molybdenum	ND		2.02	0.520	mg/Kg		12/17/22 05:58	12/19/22 19:23	5
Nickel	4.24		2.02	0.366	mg/Kg		12/17/22 05:58	12/19/22 19:23	5
Antimony	ND	^1+	10.1	2.89	mg/Kg		12/17/22 05:58	12/19/22 19:23	5
Selenium	ND		3.03	1.23	mg/Kg		12/17/22 05:58	12/19/22 19:23	5
Thallium	ND		10.1	2.13	mg/Kg		12/17/22 05:58	12/19/22 19:23	5
Vanadium	34.1		1.01	0.170	mg/Kg		12/17/22 05:58	12/19/22 19:23	5
Zinc	15.1		5.05	1.17	mg/Kg		12/17/22 05:58	12/19/22 19:23	5
Lead	5.81		2.02	0.413	mg/Kg		12/17/22 05:58	12/19/22 19:23	5

Client Sample ID: B-46@5'  
Date Collected: 12/15/22 10:05  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/17/22 05:58	12/19/22 19:25	5
Arsenic	4.63		3.06	1.42	mg/Kg		12/17/22 05:58	12/19/22 19:25	5
Barium	60.3		3.06	0.145	mg/Kg		12/17/22 05:58	12/19/22 19:25	5
Beryllium	0.306	J	0.510	0.0704	mg/Kg		12/17/22 05:58	12/19/22 19:25	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/17/22 05:58	12/19/22 19:25	5
Cobalt	4.20		1.02	0.210	mg/Kg		12/17/22 05:58	12/19/22 19:25	5
Chromium	10.9		1.02	0.190	mg/Kg		12/17/22 05:58	12/19/22 19:25	5
Copper	8.53		2.04	0.978	mg/Kg		12/17/22 05:58	12/19/22 19:25	5
Molybdenum	ND		2.04	0.526	mg/Kg		12/17/22 05:58	12/19/22 19:25	5
Nickel	4.26		2.04	0.369	mg/Kg		12/17/22 05:58	12/19/22 19:25	5
Antimony	ND	^1+	10.2	2.92	mg/Kg		12/17/22 05:58	12/19/22 19:25	5
Selenium	ND		3.06	1.25	mg/Kg		12/17/22 05:58	12/19/22 19:25	5
Thallium	ND		10.2	2.15	mg/Kg		12/17/22 05:58	12/19/22 19:25	5
Vanadium	28.0		1.02	0.171	mg/Kg		12/17/22 05:58	12/19/22 19:25	5
Zinc	22.2		5.10	1.18	mg/Kg		12/17/22 05:58	12/19/22 19:25	5
Lead	7.95		2.04	0.417	mg/Kg		12/17/22 05:58	12/19/22 19:25	5

Client Sample ID: B-50@2.5'  
Date Collected: 12/15/22 10:46  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/17/22 05:58	12/19/22 19:28	5
Arsenic	7.94		3.00	1.39	mg/Kg		12/17/22 05:58	12/19/22 19:28	5
Barium	118		3.00	0.142	mg/Kg		12/17/22 05:58	12/19/22 19:28	5
Beryllium	0.375	J	0.500	0.0690	mg/Kg		12/17/22 05:58	12/19/22 19:28	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/17/22 05:58	12/19/22 19:28	5
Cobalt	5.78		1.00	0.206	mg/Kg		12/17/22 05:58	12/19/22 19:28	5
Chromium	11.7		1.00	0.186	mg/Kg		12/17/22 05:58	12/19/22 19:28	5
Copper	11.5		2.00	0.958	mg/Kg		12/17/22 05:58	12/19/22 19:28	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-50@2.5'  
Date Collected: 12/15/22 10:46  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	1.20	J	2.00	0.515	mg/Kg		12/17/22 05:58	12/19/22 19:28	5
Nickel	4.06		2.00	0.362	mg/Kg		12/17/22 05:58	12/19/22 19:28	5
Antimony	ND	^1+	10.0	2.86	mg/Kg		12/17/22 05:58	12/19/22 19:28	5
Selenium	ND		3.00	1.22	mg/Kg		12/17/22 05:58	12/19/22 19:28	5
Thallium	ND		10.0	2.11	mg/Kg		12/17/22 05:58	12/19/22 19:28	5
Vanadium	21.8		1.00	0.168	mg/Kg		12/17/22 05:58	12/19/22 19:28	5
Zinc	21.5		5.00	1.16	mg/Kg		12/17/22 05:58	12/19/22 19:28	5
Lead	49.1		2.00	0.409	mg/Kg		12/17/22 05:58	12/19/22 19:28	5

Client Sample ID: B-39@2'  
Date Collected: 12/15/22 11:34  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-14  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/17/22 05:58	12/19/22 19:30	5
Arsenic	6.01		3.03	1.41	mg/Kg		12/17/22 05:58	12/19/22 19:30	5
Barium	65.6		3.03	0.143	mg/Kg		12/17/22 05:58	12/19/22 19:30	5
Beryllium	0.404	J	0.505	0.0697	mg/Kg		12/17/22 05:58	12/19/22 19:30	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/17/22 05:58	12/19/22 19:30	5
Cobalt	5.06		1.01	0.208	mg/Kg		12/17/22 05:58	12/19/22 19:30	5
Chromium	12.6		1.01	0.188	mg/Kg		12/17/22 05:58	12/19/22 19:30	5
Copper	12.2		2.02	0.968	mg/Kg		12/17/22 05:58	12/19/22 19:30	5
Molybdenum	0.543	J	2.02	0.520	mg/Kg		12/17/22 05:58	12/19/22 19:30	5
Nickel	6.04		2.02	0.366	mg/Kg		12/17/22 05:58	12/19/22 19:30	5
Antimony	ND	^1+	10.1	2.89	mg/Kg		12/17/22 05:58	12/19/22 19:30	5
Selenium	ND		3.03	1.23	mg/Kg		12/17/22 05:58	12/19/22 19:30	5
Thallium	ND		10.1	2.13	mg/Kg		12/17/22 05:58	12/19/22 19:30	5
Vanadium	29.0		1.01	0.170	mg/Kg		12/17/22 05:58	12/19/22 19:30	5
Zinc	37.8		5.05	1.17	mg/Kg		12/17/22 05:58	12/19/22 19:30	5
Lead	18.8		2.02	0.413	mg/Kg		12/17/22 05:58	12/19/22 19:30	5

Client Sample ID: B-39@5'  
Date Collected: 12/15/22 11:38  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-15  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.48	0.142	mg/Kg		12/17/22 05:58	12/19/22 19:32	5
Arsenic	3.24		2.96	1.37	mg/Kg		12/17/22 05:58	12/19/22 19:32	5
Barium	36.3		2.96	0.140	mg/Kg		12/17/22 05:58	12/19/22 19:32	5
Beryllium	0.308	J	0.493	0.0680	mg/Kg		12/17/22 05:58	12/19/22 19:32	5
Cadmium	ND		0.493	0.0818	mg/Kg		12/17/22 05:58	12/19/22 19:32	5
Cobalt	3.46		0.985	0.203	mg/Kg		12/17/22 05:58	12/19/22 19:32	5
Chromium	13.9		0.985	0.183	mg/Kg		12/17/22 05:58	12/19/22 19:32	5
Copper	94.4		1.97	0.944	mg/Kg		12/17/22 05:58	12/19/22 19:32	5
Molybdenum	ND		1.97	0.507	mg/Kg		12/17/22 05:58	12/19/22 19:32	5
Nickel	4.51		1.97	0.357	mg/Kg		12/17/22 05:58	12/19/22 19:32	5
Antimony	ND	^1+	9.85	2.81	mg/Kg		12/17/22 05:58	12/19/22 19:32	5
Selenium	ND		2.96	1.20	mg/Kg		12/17/22 05:58	12/19/22 19:32	5
Thallium	ND		9.85	2.07	mg/Kg		12/17/22 05:58	12/19/22 19:32	5
Vanadium	36.8		0.985	0.166	mg/Kg		12/17/22 05:58	12/19/22 19:32	5
Zinc	45.6		4.93	1.14	mg/Kg		12/17/22 05:58	12/19/22 19:32	5
Lead	6.01		1.97	0.403	mg/Kg		12/17/22 05:58	12/19/22 19:32	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-39@10'  
Date Collected: 12/15/22 11:50  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-16  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/17/22 05:58	12/19/22 19:35	5
Arsenic	3.79		3.06	1.42	mg/Kg		12/17/22 05:58	12/19/22 19:35	5
Barium	66.7		3.06	0.145	mg/Kg		12/17/22 05:58	12/19/22 19:35	5
Beryllium	0.255	J	0.510	0.0704	mg/Kg		12/17/22 05:58	12/19/22 19:35	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/17/22 05:58	12/19/22 19:35	5
Cobalt	2.68		1.02	0.210	mg/Kg		12/17/22 05:58	12/19/22 19:35	5
Chromium	7.04		1.02	0.190	mg/Kg		12/17/22 05:58	12/19/22 19:35	5
Copper	29.2		2.04	0.978	mg/Kg		12/17/22 05:58	12/19/22 19:35	5
Molybdenum	0.587	J	2.04	0.526	mg/Kg		12/17/22 05:58	12/19/22 19:35	5
Nickel	3.06		2.04	0.369	mg/Kg		12/17/22 05:58	12/19/22 19:35	5
Antimony	ND	^1+	10.2	2.92	mg/Kg		12/17/22 05:58	12/19/22 19:35	5
Selenium	ND		3.06	1.25	mg/Kg		12/17/22 05:58	12/19/22 19:35	5
Thallium	ND		10.2	2.15	mg/Kg		12/17/22 05:58	12/19/22 19:35	5
Vanadium	18.1		1.02	0.171	mg/Kg		12/17/22 05:58	12/19/22 19:35	5
Zinc	20.7		5.10	1.18	mg/Kg		12/17/22 05:58	12/19/22 19:35	5
Lead	18.8		2.04	0.417	mg/Kg		12/17/22 05:58	12/19/22 19:35	5

Client Sample ID: B-39@15'  
Date Collected: 12/15/22 11:54  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-17  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/17/22 05:58	12/19/22 19:37	5
Arsenic	5.59		3.00	1.39	mg/Kg		12/17/22 05:58	12/19/22 19:37	5
Barium	191		3.00	0.142	mg/Kg		12/17/22 05:58	12/19/22 19:37	5
Beryllium	0.275	J	0.500	0.0690	mg/Kg		12/17/22 05:58	12/19/22 19:37	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/17/22 05:58	12/19/22 19:37	5
Cobalt	2.89		1.00	0.206	mg/Kg		12/17/22 05:58	12/19/22 19:37	5
Chromium	7.84		1.00	0.186	mg/Kg		12/17/22 05:58	12/19/22 19:37	5
Copper	13.0		2.00	0.958	mg/Kg		12/17/22 05:58	12/19/22 19:37	5
Molybdenum	1.35	J	2.00	0.515	mg/Kg		12/17/22 05:58	12/19/22 19:37	5
Nickel	3.43		2.00	0.362	mg/Kg		12/17/22 05:58	12/19/22 19:37	5
Antimony	ND	^1+	10.0	2.86	mg/Kg		12/17/22 05:58	12/19/22 19:37	5
Selenium	ND		3.00	1.22	mg/Kg		12/17/22 05:58	12/19/22 19:37	5
Thallium	ND		10.0	2.11	mg/Kg		12/17/22 05:58	12/19/22 19:37	5
Vanadium	18.8		1.00	0.168	mg/Kg		12/17/22 05:58	12/19/22 19:37	5
Zinc	27.3		5.00	1.16	mg/Kg		12/17/22 05:58	12/19/22 19:37	5
Lead	19.7		2.00	0.409	mg/Kg		12/17/22 05:58	12/19/22 19:37	5

Client Sample ID: B-39@20'  
Date Collected: 12/15/22 12:01  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-18  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/17/22 06:04	12/19/22 23:58	5
Arsenic	8.56		2.99	1.38	mg/Kg		12/17/22 06:04	12/19/22 23:58	5
Barium	31.8		2.99	0.141	mg/Kg		12/17/22 06:04	12/19/22 23:58	5
Beryllium	0.485	J	0.498	0.0687	mg/Kg		12/17/22 06:04	12/19/22 23:58	5
Cadmium	ND		0.498	0.0826	mg/Kg		12/17/22 06:04	12/19/22 23:58	5
Cobalt	5.32		0.995	0.205	mg/Kg		12/17/22 06:04	12/19/22 23:58	5
Chromium	7.30		0.995	0.185	mg/Kg		12/17/22 06:04	12/19/22 23:58	5
Copper	3.01		1.99	0.953	mg/Kg		12/17/22 06:04	12/19/22 23:58	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-39@20'  
Date Collected: 12/15/22 12:01  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-18  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		1.99	0.512	mg/Kg		12/17/22 06:04	12/19/22 23:58	5
Nickel	3.98		1.99	0.360	mg/Kg		12/17/22 06:04	12/19/22 23:58	5
Antimony	ND	F1 ^1+	9.95	2.84	mg/Kg		12/17/22 06:04	12/19/22 23:58	5
Selenium	ND		2.99	1.22	mg/Kg		12/17/22 06:04	12/19/22 23:58	5
Thallium	ND		9.95	2.10	mg/Kg		12/17/22 06:04	12/19/22 23:58	5
Vanadium	19.1		0.995	0.167	mg/Kg		12/17/22 06:04	12/19/22 23:58	5
Zinc	21.0		4.98	1.15	mg/Kg		12/17/22 06:04	12/19/22 23:58	5
Lead	4.17		1.99	0.407	mg/Kg		12/17/22 06:04	12/19/22 23:58	5

Client Sample ID: B-39@25'  
Date Collected: 12/15/22 12:14  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-19  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/17/22 06:04	12/20/22 00:08	5
Arsenic	15.0		3.03	1.41	mg/Kg		12/17/22 06:04	12/20/22 00:08	5
Barium	310		3.03	0.143	mg/Kg		12/17/22 06:04	12/20/22 00:08	5
Beryllium	0.795		0.505	0.0697	mg/Kg		12/17/22 06:04	12/20/22 00:08	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/17/22 06:04	12/20/22 00:08	5
Cobalt	2.74		1.01	0.208	mg/Kg		12/17/22 06:04	12/20/22 00:08	5
Chromium	10.4		1.01	0.188	mg/Kg		12/17/22 06:04	12/20/22 00:08	5
Copper	9.15		2.02	0.968	mg/Kg		12/17/22 06:04	12/20/22 00:08	5
Molybdenum	0.530	J	2.02	0.520	mg/Kg		12/17/22 06:04	12/20/22 00:08	5
Nickel	5.10		2.02	0.366	mg/Kg		12/17/22 06:04	12/20/22 00:08	5
Antimony	ND	^1+	10.1	2.89	mg/Kg		12/17/22 06:04	12/20/22 00:08	5
Selenium	ND		3.03	1.23	mg/Kg		12/17/22 06:04	12/20/22 00:08	5
Thallium	ND		10.1	2.13	mg/Kg		12/17/22 06:04	12/20/22 00:08	5
Vanadium	32.8		1.01	0.170	mg/Kg		12/17/22 06:04	12/20/22 00:08	5
Zinc	46.2		5.05	1.17	mg/Kg		12/17/22 06:04	12/20/22 00:08	5
Lead	7.20		2.02	0.413	mg/Kg		12/17/22 06:04	12/20/22 00:08	5

Client Sample ID: B-40@2'  
Date Collected: 12/15/22 12:53  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-20  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.146	mg/Kg		12/17/22 06:04	12/20/22 00:10	5
Arsenic	4.95		3.05	1.41	mg/Kg		12/17/22 06:04	12/20/22 00:10	5
Barium	57.2		3.05	0.144	mg/Kg		12/17/22 06:04	12/20/22 00:10	5
Beryllium	0.317	J	0.508	0.0701	mg/Kg		12/17/22 06:04	12/20/22 00:10	5
Cadmium	ND		0.508	0.0843	mg/Kg		12/17/22 06:04	12/20/22 00:10	5
Cobalt	3.53		1.02	0.209	mg/Kg		12/17/22 06:04	12/20/22 00:10	5
Chromium	9.96		1.02	0.189	mg/Kg		12/17/22 06:04	12/20/22 00:10	5
Copper	22.3		2.03	0.973	mg/Kg		12/17/22 06:04	12/20/22 00:10	5
Molybdenum	0.673	J	2.03	0.523	mg/Kg		12/17/22 06:04	12/20/22 00:10	5
Nickel	4.16		2.03	0.368	mg/Kg		12/17/22 06:04	12/20/22 00:10	5
Antimony	ND	^1+	10.2	2.90	mg/Kg		12/17/22 06:04	12/20/22 00:10	5
Selenium	ND		3.05	1.24	mg/Kg		12/17/22 06:04	12/20/22 00:10	5
Thallium	ND		10.2	2.14	mg/Kg		12/17/22 06:04	12/20/22 00:10	5
Vanadium	25.1		1.02	0.171	mg/Kg		12/17/22 06:04	12/20/22 00:10	5
Zinc	43.2		5.08	1.17	mg/Kg		12/17/22 06:04	12/20/22 00:10	5
Lead	38.8		2.03	0.415	mg/Kg		12/17/22 06:04	12/20/22 00:10	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-40@5'  
Date Collected: 12/15/22 13:00  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-21  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/17/22 06:04	12/20/22 00:13	5
Arsenic	4.38		3.00	1.39	mg/Kg		12/17/22 06:04	12/20/22 00:13	5
Barium	52.7		3.00	0.142	mg/Kg		12/17/22 06:04	12/20/22 00:13	5
Beryllium	0.250	J	0.500	0.0690	mg/Kg		12/17/22 06:04	12/20/22 00:13	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/17/22 06:04	12/20/22 00:13	5
Cobalt	2.39		1.00	0.206	mg/Kg		12/17/22 06:04	12/20/22 00:13	5
Chromium	12.9		1.00	0.186	mg/Kg		12/17/22 06:04	12/20/22 00:13	5
Copper	6.18		2.00	0.958	mg/Kg		12/17/22 06:04	12/20/22 00:13	5
Molybdenum	0.550	J	2.00	0.515	mg/Kg		12/17/22 06:04	12/20/22 00:13	5
Nickel	3.75		2.00	0.362	mg/Kg		12/17/22 06:04	12/20/22 00:13	5
Antimony	ND	^1+	10.0	2.86	mg/Kg		12/17/22 06:04	12/20/22 00:13	5
Selenium	ND		3.00	1.22	mg/Kg		12/17/22 06:04	12/20/22 00:13	5
Thallium	ND		10.0	2.11	mg/Kg		12/17/22 06:04	12/20/22 00:13	5
Vanadium	32.0		1.00	0.168	mg/Kg		12/17/22 06:04	12/20/22 00:13	5
Zinc	15.8		5.00	1.16	mg/Kg		12/17/22 06:04	12/20/22 00:13	5
Lead	12.4		2.00	0.409	mg/Kg		12/17/22 06:04	12/20/22 00:13	5

Client Sample ID: B-40@10'  
Date Collected: 12/15/22 13:05  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-22  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/17/22 06:04	12/20/22 00:15	5
Arsenic	3.12		2.99	1.38	mg/Kg		12/17/22 06:04	12/20/22 00:15	5
Barium	47.1		2.99	0.141	mg/Kg		12/17/22 06:04	12/20/22 00:15	5
Beryllium	0.211	J	0.498	0.0687	mg/Kg		12/17/22 06:04	12/20/22 00:15	5
Cadmium	ND		0.498	0.0826	mg/Kg		12/17/22 06:04	12/20/22 00:15	5
Cobalt	2.45		0.995	0.205	mg/Kg		12/17/22 06:04	12/20/22 00:15	5
Chromium	6.04		0.995	0.185	mg/Kg		12/17/22 06:04	12/20/22 00:15	5
Copper	7.04		1.99	0.953	mg/Kg		12/17/22 06:04	12/20/22 00:15	5
Molybdenum	ND		1.99	0.512	mg/Kg		12/17/22 06:04	12/20/22 00:15	5
Nickel	2.49		1.99	0.360	mg/Kg		12/17/22 06:04	12/20/22 00:15	5
Antimony	ND	^1+	9.95	2.84	mg/Kg		12/17/22 06:04	12/20/22 00:15	5
Selenium	ND		2.99	1.22	mg/Kg		12/17/22 06:04	12/20/22 00:15	5
Thallium	ND		9.95	2.10	mg/Kg		12/17/22 06:04	12/20/22 00:15	5
Vanadium	15.9		0.995	0.167	mg/Kg		12/17/22 06:04	12/20/22 00:15	5
Zinc	14.6		4.98	1.15	mg/Kg		12/17/22 06:04	12/20/22 00:15	5
Lead	14.5		1.99	0.407	mg/Kg		12/17/22 06:04	12/20/22 00:15	5

Client Sample ID: B-40@15'  
Date Collected: 12/15/22 13:10  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-23  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/17/22 06:04	12/20/22 00:17	5
Arsenic	1.89	J	3.00	1.39	mg/Kg		12/17/22 06:04	12/20/22 00:17	5
Barium	24.6		3.00	0.142	mg/Kg		12/17/22 06:04	12/20/22 00:17	5
Beryllium	0.113	J	0.500	0.0690	mg/Kg		12/17/22 06:04	12/20/22 00:17	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/17/22 06:04	12/20/22 00:17	5
Cobalt	1.49		1.00	0.206	mg/Kg		12/17/22 06:04	12/20/22 00:17	5
Chromium	4.08		1.00	0.186	mg/Kg		12/17/22 06:04	12/20/22 00:17	5
Copper	2.36		2.00	0.958	mg/Kg		12/17/22 06:04	12/20/22 00:17	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-40@15'  
Date Collected: 12/15/22 13:10  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-23  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		2.00	0.515	mg/Kg		12/17/22 06:04	12/20/22 00:17	5
Nickel	1.56	J	2.00	0.362	mg/Kg		12/17/22 06:04	12/20/22 00:17	5
Antimony	ND	^1+	10.0	2.86	mg/Kg		12/17/22 06:04	12/20/22 00:17	5
Selenium	ND		3.00	1.22	mg/Kg		12/17/22 06:04	12/20/22 00:17	5
Thallium	ND		10.0	2.11	mg/Kg		12/17/22 06:04	12/20/22 00:17	5
Vanadium	10.8		1.00	0.168	mg/Kg		12/17/22 06:04	12/20/22 00:17	5
Zinc	7.56		5.00	1.16	mg/Kg		12/17/22 06:04	12/20/22 00:17	5
Lead	3.45		2.00	0.409	mg/Kg		12/17/22 06:04	12/20/22 00:17	5

Client Sample ID: B-40@20'  
Date Collected: 12/15/22 13:15  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-24  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/17/22 06:04	12/20/22 00:20	5
Arsenic	3.34		3.02	1.40	mg/Kg		12/17/22 06:04	12/20/22 00:20	5
Barium	48.3		3.02	0.143	mg/Kg		12/17/22 06:04	12/20/22 00:20	5
Beryllium	0.176	J	0.503	0.0693	mg/Kg		12/17/22 06:04	12/20/22 00:20	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/17/22 06:04	12/20/22 00:20	5
Cobalt	2.46		1.01	0.207	mg/Kg		12/17/22 06:04	12/20/22 00:20	5
Chromium	7.91		1.01	0.187	mg/Kg		12/17/22 06:04	12/20/22 00:20	5
Copper	8.04		2.01	0.963	mg/Kg		12/17/22 06:04	12/20/22 00:20	5
Molybdenum	1.12	J	2.01	0.518	mg/Kg		12/17/22 06:04	12/20/22 00:20	5
Nickel	2.55		2.01	0.364	mg/Kg		12/17/22 06:04	12/20/22 00:20	5
Antimony	ND	^1+	10.1	2.87	mg/Kg		12/17/22 06:04	12/20/22 00:20	5
Selenium	ND		3.02	1.23	mg/Kg		12/17/22 06:04	12/20/22 00:20	5
Thallium	ND		10.1	2.12	mg/Kg		12/17/22 06:04	12/20/22 00:20	5
Vanadium	14.5		1.01	0.169	mg/Kg		12/17/22 06:04	12/20/22 00:20	5
Zinc	15.4		5.03	1.16	mg/Kg		12/17/22 06:04	12/20/22 00:20	5
Lead	5.40		2.01	0.411	mg/Kg		12/17/22 06:04	12/20/22 00:20	5

Client Sample ID: B-40@25'  
Date Collected: 12/15/22 13:21  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-25  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/17/22 06:04	12/20/22 00:27	5
Arsenic	1.63	J	3.03	1.41	mg/Kg		12/17/22 06:04	12/20/22 00:27	5
Barium	46.2		3.03	0.143	mg/Kg		12/17/22 06:04	12/20/22 00:27	5
Beryllium	0.215	J	0.505	0.0697	mg/Kg		12/17/22 06:04	12/20/22 00:27	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/17/22 06:04	12/20/22 00:27	5
Cobalt	2.61		1.01	0.208	mg/Kg		12/17/22 06:04	12/20/22 00:27	5
Chromium	5.38		1.01	0.188	mg/Kg		12/17/22 06:04	12/20/22 00:27	5
Copper	4.90		2.02	0.968	mg/Kg		12/17/22 06:04	12/20/22 00:27	5
Molybdenum	ND		2.02	0.520	mg/Kg		12/17/22 06:04	12/20/22 00:27	5
Nickel	2.65		2.02	0.366	mg/Kg		12/17/22 06:04	12/20/22 00:27	5
Antimony	ND	^1+	10.1	2.89	mg/Kg		12/17/22 06:04	12/20/22 00:27	5
Selenium	ND		3.03	1.23	mg/Kg		12/17/22 06:04	12/20/22 00:27	5
Thallium	ND		10.1	2.13	mg/Kg		12/17/22 06:04	12/20/22 00:27	5
Vanadium	12.9		1.01	0.170	mg/Kg		12/17/22 06:04	12/20/22 00:27	5
Zinc	12.6		5.05	1.17	mg/Kg		12/17/22 06:04	12/20/22 00:27	5
Lead	2.93		2.02	0.413	mg/Kg		12/17/22 06:04	12/20/22 00:27	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-40@30'  
Date Collected: 12/15/22 13:33  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-26  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.48	0.142	mg/Kg		12/17/22 06:04	12/20/22 00:30	5
Arsenic	4.43		2.96	1.37	mg/Kg		12/17/22 06:04	12/20/22 00:30	5
Barium	36.1		2.96	0.140	mg/Kg		12/17/22 06:04	12/20/22 00:30	5
Beryllium	0.308	J	0.493	0.0680	mg/Kg		12/17/22 06:04	12/20/22 00:30	5
Cadmium	ND		0.493	0.0818	mg/Kg		12/17/22 06:04	12/20/22 00:30	5
Cobalt	3.40		0.985	0.203	mg/Kg		12/17/22 06:04	12/20/22 00:30	5
Chromium	7.41		0.985	0.183	mg/Kg		12/17/22 06:04	12/20/22 00:30	5
Copper	9.74		1.97	0.944	mg/Kg		12/17/22 06:04	12/20/22 00:30	5
Molybdenum	ND		1.97	0.507	mg/Kg		12/17/22 06:04	12/20/22 00:30	5
Nickel	3.00		1.97	0.357	mg/Kg		12/17/22 06:04	12/20/22 00:30	5
Antimony	ND	^1+	9.85	2.81	mg/Kg		12/17/22 06:04	12/20/22 00:30	5
Selenium	ND		2.96	1.20	mg/Kg		12/17/22 06:04	12/20/22 00:30	5
Thallium	ND		9.85	2.07	mg/Kg		12/17/22 06:04	12/20/22 00:30	5
Vanadium	19.4		0.985	0.166	mg/Kg		12/17/22 06:04	12/20/22 00:30	5
Zinc	15.1		4.93	1.14	mg/Kg		12/17/22 06:04	12/20/22 00:30	5
Lead	3.93		1.97	0.403	mg/Kg		12/17/22 06:04	12/20/22 00:30	5

Client Sample ID: B-38@2'  
Date Collected: 12/15/22 14:38  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-27  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.146	mg/Kg		12/17/22 06:04	12/20/22 00:32	5
Arsenic	3.12		3.05	1.41	mg/Kg		12/17/22 06:04	12/20/22 00:32	5
Barium	75.5		3.05	0.144	mg/Kg		12/17/22 06:04	12/20/22 00:32	5
Beryllium	0.266	J	0.508	0.0701	mg/Kg		12/17/22 06:04	12/20/22 00:32	5
Cadmium	ND		0.508	0.0843	mg/Kg		12/17/22 06:04	12/20/22 00:32	5
Cobalt	2.66		1.02	0.209	mg/Kg		12/17/22 06:04	12/20/22 00:32	5
Chromium	13.6		1.02	0.189	mg/Kg		12/17/22 06:04	12/20/22 00:32	5
Copper	8.41		2.03	0.973	mg/Kg		12/17/22 06:04	12/20/22 00:32	5
Molybdenum	0.558	J	2.03	0.523	mg/Kg		12/17/22 06:04	12/20/22 00:32	5
Nickel	4.16		2.03	0.368	mg/Kg		12/17/22 06:04	12/20/22 00:32	5
Antimony	ND	^1+	10.2	2.90	mg/Kg		12/17/22 06:04	12/20/22 00:32	5
Selenium	ND		3.05	1.24	mg/Kg		12/17/22 06:04	12/20/22 00:32	5
Thallium	ND		10.2	2.14	mg/Kg		12/17/22 06:04	12/20/22 00:32	5
Vanadium	25.6		1.02	0.171	mg/Kg		12/17/22 06:04	12/20/22 00:32	5
Zinc	19.7		5.08	1.17	mg/Kg		12/17/22 06:04	12/20/22 00:32	5
Lead	16.6		2.03	0.415	mg/Kg		12/17/22 06:04	12/20/22 00:32	5

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: SW846 7471A - Mercury (CVAA)

Client Sample ID: B-45@15'  
Date Collected: 12/15/22 07:00  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/19/22 16:26	12/20/22 15:14	1

Client Sample ID: B-43@2.5'  
Date Collected: 12/15/22 07:50  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/19/22 16:26	12/20/22 15:23	1

Client Sample ID: B-43@5'  
Date Collected: 12/15/22 07:55  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/19/22 16:26	12/20/22 15:25	1

Client Sample ID: B-43@10'  
Date Collected: 12/15/22 08:04  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/19/22 16:26	12/20/22 15:27	1

Client Sample ID: B-43@15'  
Date Collected: 12/15/22 08:10  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/19/22 16:26	12/20/22 15:29	1

Client Sample ID: B-43@20'  
Date Collected: 12/15/22 08:15  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/19/22 16:26	12/20/22 15:31	1

Client Sample ID: B-43@25'  
Date Collected: 12/15/22 08:25  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-7  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/19/22 16:26	12/20/22 15:33	1

Client Sample ID: B-43@30'  
Date Collected: 12/15/22 08:30  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/19/22 16:26	12/20/22 15:35	1

Client Sample ID: B-43@35'  
Date Collected: 12/15/22 08:40  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-9  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0531	J	0.0833	0.0320	mg/Kg		12/19/22 16:26	12/20/22 15:37	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: SW846 7471A - Mercury (CVAA)

**Client Sample ID: B-43@40'**  
**Date Collected: 12/15/22 08:45**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-10**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/19/22 16:26	12/20/22 15:39	1

**Client Sample ID: B-46@2.5'**  
**Date Collected: 12/15/22 10:00**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-11**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/19/22 16:26	12/20/22 15:44	1

**Client Sample ID: B-46@5'**  
**Date Collected: 12/15/22 10:05**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-12**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/19/22 16:26	12/20/22 15:46	1

**Client Sample ID: B-50@2.5'**  
**Date Collected: 12/15/22 10:46**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-13**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/19/22 16:26	12/20/22 15:48	1

**Client Sample ID: B-39@2'**  
**Date Collected: 12/15/22 11:34**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-14**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/19/22 16:26	12/20/22 17:01	1

**Client Sample ID: B-39@5'**  
**Date Collected: 12/15/22 11:38**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-15**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/19/22 16:26	12/20/22 15:52	1

**Client Sample ID: B-39@10'**  
**Date Collected: 12/15/22 11:50**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-16**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/19/22 16:26	12/20/22 15:54	1

**Client Sample ID: B-39@15'**  
**Date Collected: 12/15/22 11:54**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-17**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/19/22 16:26	12/20/22 15:55	1

**Client Sample ID: B-39@20'**  
**Date Collected: 12/15/22 12:01**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-18**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/19/22 16:26	12/20/22 15:57	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: SW846 7471A - Mercury (CVAA)

**Client Sample ID: B-39@25'**  
**Date Collected: 12/15/22 12:14**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-19**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/19/22 16:26	12/20/22 15:59	1

**Client Sample ID: B-40@2'**  
**Date Collected: 12/15/22 12:53**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-20**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/19/22 16:26	12/20/22 16:01	1

**Client Sample ID: B-40@5'**  
**Date Collected: 12/15/22 13:00**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-21**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0413	J	0.0850	0.0327	mg/Kg		12/19/22 16:28	12/20/22 12:19	1

**Client Sample ID: B-40@10'**  
**Date Collected: 12/15/22 13:05**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-22**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/19/22 16:28	12/20/22 12:25	1

**Client Sample ID: B-40@15'**  
**Date Collected: 12/15/22 13:10**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-23**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/19/22 16:28	12/20/22 12:27	1

**Client Sample ID: B-40@20'**  
**Date Collected: 12/15/22 13:15**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-24**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/19/22 16:28	12/20/22 12:29	1

**Client Sample ID: B-40@25'**  
**Date Collected: 12/15/22 13:21**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-25**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/19/22 16:28	12/20/22 12:31	1

**Client Sample ID: B-40@30'**  
**Date Collected: 12/15/22 13:33**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-26**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/19/22 16:28	12/20/22 12:36	1

**Client Sample ID: B-38@2'**  
**Date Collected: 12/15/22 14:38**  
**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-27**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/19/22 16:28	12/20/22 12:38	1



# Surrogate Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	BFB1 (42-126)
570-121068-1	B-45@15'	68
570-121068-1 MS	B-45@15'	94
570-121068-1 MSD	B-45@15'	94
570-121068-2	B-43@2.5'	77
570-121068-3	B-43@5'	77
570-121068-4	B-43@10'	74
570-121068-5	B-43@15'	70
570-121068-6	B-43@20'	77
570-121068-7	B-43@25'	70
570-121068-8	B-43@30'	77
570-121068-9	B-43@35'	74
570-121068-10	B-43@40'	75
570-121068-11	B-46@2.5'	78
570-121068-12	B-46@5'	68
570-121068-13	B-50@2.5'	66
570-121068-14	B-39@2'	64
570-121068-15	B-39@5'	64
570-121068-16	B-39@10'	63
570-121068-17	B-39@15'	79
570-121068-18	B-39@20'	68
570-121068-19	B-39@25'	71
570-121068-20	B-40@2'	66
570-121068-21	B-40@5'	83
570-121068-22	B-40@10'	71
570-121068-23	B-40@15'	73
570-121068-24	B-40@20'	74
570-121068-25	B-40@25'	72
570-121068-26	B-40@30'	70
570-121068-27	B-38@2'	73
LCS 570-289793/26-A	Lab Control Sample	95
LCS 570-289854/1-A	Lab Control Sample	92
LCS 570-290603/1-A	Lab Control Sample	98
LCSD 570-289793/27-A	Lab Control Sample Dup	94
LCSD 570-289854/2-A	Lab Control Sample Dup	95
LCSD 570-290603/2-A	Lab Control Sample Dup	102
MB 570-289793/3-A	Method Blank	77
MB 570-289854/3-A	Method Blank	76
MB 570-290603/3-A	Method Blank	76

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	OTCSN1 (60-138)
570-121068-1	B-45@15'	113
570-121068-1 MS	B-45@15'	114

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# Surrogate Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

**Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)**

**Matrix: Solid**

**Prep Type: Total/NA**

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	OTCSN1 (60-138)
570-121068-1 MSD	B-45@15'	120
570-121068-2	B-43@2.5'	114
570-121068-3	B-43@5'	117
570-121068-4	B-43@10'	117
570-121068-5	B-43@15'	123
570-121068-6	B-43@20'	119
570-121068-7	B-43@25'	114
570-121068-8	B-43@30'	117
570-121068-9	B-43@35'	111
570-121068-10	B-43@40'	118
570-121068-11	B-46@2.5'	119
570-121068-12	B-46@5'	118
570-121068-13	B-50@2.5'	118
570-121068-14	B-39@2'	118
570-121068-15	B-39@5'	119
570-121068-16	B-39@10'	116
570-121068-17	B-39@15'	115
570-121068-18	B-39@20'	115
570-121068-19	B-39@25'	113
570-121068-20	B-40@2'	117
570-121068-21	B-40@5'	110
570-121068-22	B-40@10'	106
570-121068-23	B-40@15'	104
570-121068-24	B-40@20'	107
570-121068-25	B-40@25'	95
570-121068-26	B-40@30'	96
570-121068-27	B-38@2'	62
LCS 570-289867/2-A	Lab Control Sample	108
LCS 570-289868/2-A	Lab Control Sample	108
LCSD 570-289867/3-A	Lab Control Sample Dup	106
LCSD 570-289868/3-A	Lab Control Sample Dup	105
MB 570-289867/1-A	Method Blank	108
MB 570-289868/1-A	Method Blank	125

## Surrogate Legend

OTCSN = n-Octacosane (Surr)

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-289793/3-A

Matrix: Solid

Analysis Batch: 289786

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289793

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/16/22 15:15	12/16/22 17:21	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	77		42 - 126				12/16/22 15:15	12/16/22 17:21	1

Lab Sample ID: LCS 570-289793/26-A

Matrix: Solid

Analysis Batch: 289786

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289793

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	1.90	2.172		mg/Kg		114	70 - 124
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	95		42 - 126				

Lab Sample ID: LCSD 570-289793/27-A

Matrix: Solid

Analysis Batch: 289786

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289793

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Gasoline Range Organics (C4-C13)	1.92	2.100		mg/Kg		109	70 - 124	3	18
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	94		42 - 126						

Lab Sample ID: 570-121068-1 MS

Matrix: Solid

Analysis Batch: 289786

Client Sample ID: B-45@15'

Prep Type: Total/NA

Prep Batch: 289793

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	ND		1.93	2.024		mg/Kg		105	48 - 114
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	94		42 - 126						

Lab Sample ID: 570-121068-1 MSD

Matrix: Solid

Analysis Batch: 289786

Client Sample ID: B-45@15'

Prep Type: Total/NA

Prep Batch: 289793

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Gasoline Range Organics (C4-C13)	ND		1.92	1.987		mg/Kg		103	48 - 114	2	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	94		42 - 126								

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-289854/3-A

Matrix: Solid

Analysis Batch: 289873

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289854

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/16/22 17:47	12/17/22 05:37	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		42 - 126				12/16/22 17:47	12/17/22 05:37	1

Lab Sample ID: LCS 570-289854/1-A

Matrix: Solid

Analysis Batch: 289873

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289854

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (C4-C13)	1.92	2.025		mg/Kg		105	70 - 124	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	92		42 - 126					

Lab Sample ID: LCSD 570-289854/2-A

Matrix: Solid

Analysis Batch: 289873

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289854

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	1.93	2.296		mg/Kg		119	70 - 124	13	18
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	95		42 - 126						

Lab Sample ID: MB 570-290603/3-A

Matrix: Solid

Analysis Batch: 290554

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290603

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/20/22 10:25	12/20/22 11:44	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		42 - 126				12/20/22 10:25	12/20/22 11:44	1

Lab Sample ID: LCS 570-290603/1-A

Matrix: Solid

Analysis Batch: 290554

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290603

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (C4-C13)	1.92	1.908		mg/Kg		99	70 - 124	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	98		42 - 126					

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: LCSD 570-290603/2-A

Matrix: Solid

Analysis Batch: 290554

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290603

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	1.93	1.965		mg/Kg		102	70 - 124	3	18
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	102		42 - 126						

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-289867/1-A

Matrix: Solid

Analysis Batch: 290077

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289867

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 08:58	1
C23-C40	ND		5.0	3.8	mg/Kg		12/16/22 18:33	12/19/22 08:58	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	108		60 - 138				12/16/22 18:33	12/19/22 08:58	1

Lab Sample ID: LCS 570-289867/2-A

Matrix: Solid

Analysis Batch: 290077

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289867

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	400	378.9		mg/Kg		95	80 - 130		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
n-Octacosane (Surr)	108		60 - 138						

Lab Sample ID: LCSD 570-289867/3-A

Matrix: Solid

Analysis Batch: 290077

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289867

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	400	383.7		mg/Kg		96	80 - 130	1	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
n-Octacosane (Surr)	106		60 - 138						

Lab Sample ID: 570-121068-1 MS

Matrix: Solid

Analysis Batch: 290077

Client Sample ID: B-45@15'

Prep Type: Total/NA

Prep Batch: 289867

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		398	386.9		mg/Kg		97	43 - 165		

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 570-121068-1 MS

Matrix: Solid

Analysis Batch: 290077

Client Sample ID: B-45@15'

Prep Type: Total/NA

Prep Batch: 289867

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	114		60 - 138

Lab Sample ID: 570-121068-1 MSD

Matrix: Solid

Analysis Batch: 290077

Client Sample ID: B-45@15'

Prep Type: Total/NA

Prep Batch: 289867

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		398	402.8		mg/Kg		101	43 - 165	4	35
Surrogate	MSD	MSD									
	%Recovery	Qualifier	Limits								
n-Octacosane (Surr)	120		60 - 138								

Lab Sample ID: MB 570-289868/1-A

Matrix: Solid

Analysis Batch: 290079

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/16/22 18:38	12/19/22 15:34	1
C23-C40	ND		5.0	3.8	mg/Kg		12/16/22 18:38	12/19/22 15:34	1
Surrogate	MB	MB	Limits				Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier							
n-Octacosane (Surr)	125		60 - 138				12/16/22 18:38	12/19/22 15:34	1

Lab Sample ID: LCS 570-289868/2-A

Matrix: Solid

Analysis Batch: 290079

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	400	405.9		mg/Kg		101	80 - 130		
Surrogate	LCS	LCS	Limits						
	%Recovery	Qualifier							
n-Octacosane (Surr)	108		60 - 138						

Lab Sample ID: LCSD 570-289868/3-A

Matrix: Solid

Analysis Batch: 290079

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289868

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	400	404.4		mg/Kg		101	80 - 130	0	20
Surrogate	LCSD	LCSD	Limits						
	%Recovery	Qualifier							
n-Octacosane (Surr)	105		60 - 138						

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: 6010B - Metals (ICP)

Lab Sample ID: MB 570-289930/1-A ^5

Matrix: Solid

Analysis Batch: 290424

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289930

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/17/22 05:58	12/19/22 18:28	5
Arsenic	ND		3.03	1.41	mg/Kg		12/17/22 05:58	12/19/22 18:28	5
Barium	ND		3.03	0.143	mg/Kg		12/17/22 05:58	12/19/22 18:28	5
Beryllium	ND		0.505	0.0697	mg/Kg		12/17/22 05:58	12/19/22 18:28	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/17/22 05:58	12/19/22 18:28	5
Cobalt	ND		1.01	0.208	mg/Kg		12/17/22 05:58	12/19/22 18:28	5
Chromium	ND		1.01	0.188	mg/Kg		12/17/22 05:58	12/19/22 18:28	5
Copper	ND		2.02	0.968	mg/Kg		12/17/22 05:58	12/19/22 18:28	5
Molybdenum	ND		2.02	0.520	mg/Kg		12/17/22 05:58	12/19/22 18:28	5
Nickel	ND		2.02	0.366	mg/Kg		12/17/22 05:58	12/19/22 18:28	5
Antimony	ND	^1+	10.1	2.89	mg/Kg		12/17/22 05:58	12/19/22 18:28	5
Selenium	ND		3.03	1.23	mg/Kg		12/17/22 05:58	12/19/22 18:28	5
Thallium	ND		10.1	2.13	mg/Kg		12/17/22 05:58	12/19/22 18:28	5
Vanadium	ND		1.01	0.170	mg/Kg		12/17/22 05:58	12/19/22 18:28	5
Zinc	ND		5.05	1.17	mg/Kg		12/17/22 05:58	12/19/22 18:28	5
Lead	ND		2.02	0.413	mg/Kg		12/17/22 05:58	12/19/22 18:28	5

Lab Sample ID: LCS 570-289930/2-A ^5

Matrix: Solid

Analysis Batch: 290424

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289930

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Silver	25.1	22.93		mg/Kg		91	80 - 120
Arsenic	50.3	45.10		mg/Kg		90	80 - 120
Barium	50.3	46.71		mg/Kg		93	80 - 120
Beryllium	50.3	46.67		mg/Kg		93	80 - 120
Cadmium	50.3	46.36		mg/Kg		92	80 - 120
Cobalt	50.3	46.52		mg/Kg		93	80 - 120
Chromium	50.3	46.83		mg/Kg		93	80 - 120
Copper	50.3	46.57		mg/Kg		93	80 - 120
Molybdenum	50.3	47.29		mg/Kg		94	80 - 120
Nickel	50.3	46.93		mg/Kg		93	80 - 120
Antimony	50.3	53.24	^1+	mg/Kg		106	80 - 120
Selenium	50.3	44.37		mg/Kg		88	80 - 120
Thallium	50.3	45.59		mg/Kg		91	80 - 120
Vanadium	50.3	46.21		mg/Kg		92	80 - 120
Zinc	50.3	46.29		mg/Kg		92	80 - 120
Lead	50.3	45.98		mg/Kg		92	80 - 120

Lab Sample ID: LCSD 570-289930/3-A ^5

Matrix: Solid

Analysis Batch: 290424

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289930

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Silver	25.1	22.78		mg/Kg		91	80 - 120	1	20
Arsenic	50.3	45.05		mg/Kg		90	80 - 120	0	20
Barium	50.3	46.27		mg/Kg		92	80 - 120	1	20
Beryllium	50.3	46.19		mg/Kg		92	80 - 120	1	20
Cadmium	50.3	45.79		mg/Kg		91	80 - 120	1	20

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSD 570-289930/3-A ^5

Matrix: Solid

Analysis Batch: 290424

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289930

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cobalt	50.3	45.55		mg/Kg		91	80 - 120	2	20
Chromium	50.3	46.42		mg/Kg		92	80 - 120	1	20
Copper	50.3	46.13		mg/Kg		92	80 - 120	1	20
Molybdenum	50.3	47.31		mg/Kg		94	80 - 120	0	20
Nickel	50.3	46.53		mg/Kg		93	80 - 120	1	20
Antimony	50.3	53.15	^1+	mg/Kg		106	80 - 120	0	20
Selenium	50.3	43.66		mg/Kg		87	80 - 120	2	20
Thallium	50.3	45.57		mg/Kg		91	80 - 120	0	20
Vanadium	50.3	45.73		mg/Kg		91	80 - 120	1	20
Zinc	50.3	45.63		mg/Kg		91	80 - 120	1	20
Lead	50.3	45.95		mg/Kg		91	80 - 120	0	20

Lab Sample ID: 570-121068-1 MS

Matrix: Solid

Analysis Batch: 290424

Client Sample ID: B-45@15'

Prep Type: Total/NA

Prep Batch: 289930

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	ND		25.3	21.94		mg/Kg		87	75 - 125
Arsenic	12.8		50.5	52.12		mg/Kg		78	75 - 125
Barium	77.8	F1	50.5	259.6	F1	mg/Kg		360	75 - 125
Beryllium	0.253	J	50.5	45.16		mg/Kg		89	75 - 125
Cadmium	ND		50.5	42.89		mg/Kg		85	75 - 125
Cobalt	2.23		50.5	45.77		mg/Kg		86	75 - 125
Chromium	6.41		50.5	55.15		mg/Kg		96	75 - 125
Copper	4.14		50.5	51.24		mg/Kg		93	75 - 125
Molybdenum	0.644	J	50.5	44.24		mg/Kg		86	75 - 125
Nickel	2.50		50.5	47.36		mg/Kg		89	75 - 125
Antimony	ND	F1 ^1+	50.5	27.37	F1 ^1+	mg/Kg		54	75 - 125
Selenium	ND		50.5	39.95		mg/Kg		79	75 - 125
Thallium	ND		50.5	43.70		mg/Kg		87	75 - 125
Vanadium	17.9		50.5	70.39		mg/Kg		104	75 - 125
Zinc	15.1		50.5	59.36		mg/Kg		88	75 - 125
Lead	5.45		50.5	50.27		mg/Kg		89	75 - 125

Lab Sample ID: 570-121068-1 MSD

Matrix: Solid

Analysis Batch: 290424

Client Sample ID: B-45@15'

Prep Type: Total/NA

Prep Batch: 289930

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	ND		25.4	22.89		mg/Kg		90	75 - 125	4	20
Arsenic	12.8		50.8	54.38		mg/Kg		82	75 - 125	4	20
Barium	77.8	F1	50.8	279.2	F1	mg/Kg		397	75 - 125	7	20
Beryllium	0.253	J	50.8	47.13		mg/Kg		92	75 - 125	4	20
Cadmium	ND		50.8	45.04		mg/Kg		89	75 - 125	5	20
Cobalt	2.23		50.8	47.86		mg/Kg		90	75 - 125	4	20
Chromium	6.41		50.8	56.80		mg/Kg		99	75 - 125	3	20
Copper	4.14		50.8	53.02		mg/Kg		96	75 - 125	3	20
Molybdenum	0.644	J	50.8	46.32		mg/Kg		90	75 - 125	5	20
Nickel	2.50		50.8	49.39		mg/Kg		92	75 - 125	4	20

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 570-121068-1 MSD

Matrix: Solid

Analysis Batch: 290424

Client Sample ID: B-45@15'

Prep Type: Total/NA

Prep Batch: 289930

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND	F1 ^1+	50.8	27.07	^1+ F1	mg/Kg		53	75 - 125	1	20
Selenium	ND		50.8	41.15		mg/Kg		81	75 - 125	3	20
Thallium	ND		50.8	45.49		mg/Kg		90	75 - 125	4	20
Vanadium	17.9		50.8	71.19		mg/Kg		105	75 - 125	1	20
Zinc	15.1		50.8	61.14		mg/Kg		91	75 - 125	3	20
Lead	5.45		50.8	51.94		mg/Kg		92	75 - 125	3	20

Lab Sample ID: MB 570-289932/1-A ^5

Matrix: Solid

Analysis Batch: 290646

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 289932

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/17/22 06:04	12/19/22 23:44	5
Arsenic	ND		3.00	1.39	mg/Kg		12/17/22 06:04	12/19/22 23:44	5
Barium	ND		3.00	0.142	mg/Kg		12/17/22 06:04	12/19/22 23:44	5
Beryllium	ND		0.500	0.0690	mg/Kg		12/17/22 06:04	12/19/22 23:44	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/17/22 06:04	12/19/22 23:44	5
Cobalt	ND		1.00	0.206	mg/Kg		12/17/22 06:04	12/19/22 23:44	5
Chromium	ND		1.00	0.186	mg/Kg		12/17/22 06:04	12/19/22 23:44	5
Copper	ND		2.00	0.958	mg/Kg		12/17/22 06:04	12/19/22 23:44	5
Molybdenum	ND		2.00	0.515	mg/Kg		12/17/22 06:04	12/19/22 23:44	5
Nickel	ND		2.00	0.362	mg/Kg		12/17/22 06:04	12/19/22 23:44	5
Antimony	ND	^1+	10.0	2.86	mg/Kg		12/17/22 06:04	12/19/22 23:44	5
Selenium	ND		3.00	1.22	mg/Kg		12/17/22 06:04	12/19/22 23:44	5
Thallium	ND		10.0	2.11	mg/Kg		12/17/22 06:04	12/19/22 23:44	5
Vanadium	ND		1.00	0.168	mg/Kg		12/17/22 06:04	12/19/22 23:44	5
Zinc	ND		5.00	1.16	mg/Kg		12/17/22 06:04	12/19/22 23:44	5
Lead	ND		2.00	0.409	mg/Kg		12/17/22 06:04	12/19/22 23:44	5

Lab Sample ID: LCS 570-289932/2-A ^5

Matrix: Solid

Analysis Batch: 290646

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289932

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	25.1	22.36		mg/Kg		89	80 - 120
Arsenic	50.3	45.01		mg/Kg		90	80 - 120
Barium	50.3	45.62		mg/Kg		91	80 - 120
Beryllium	50.3	45.48		mg/Kg		91	80 - 120
Cadmium	50.3	45.16		mg/Kg		90	80 - 120
Cobalt	50.3	45.39		mg/Kg		90	80 - 120
Chromium	50.3	45.80		mg/Kg		91	80 - 120
Copper	50.3	45.39		mg/Kg		90	80 - 120
Molybdenum	50.3	46.51		mg/Kg		93	80 - 120
Nickel	50.3	45.45		mg/Kg		90	80 - 120
Antimony	50.3	52.30	^1+	mg/Kg		104	80 - 120
Selenium	50.3	42.17		mg/Kg		84	80 - 120
Thallium	50.3	44.82		mg/Kg		89	80 - 120
Vanadium	50.3	45.16		mg/Kg		90	80 - 120
Zinc	50.3	44.97		mg/Kg		90	80 - 120

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 570-289932/2-A ^5

Matrix: Solid

Analysis Batch: 290646

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 289932

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	50.3	45.59		mg/Kg		91	80 - 120

Lab Sample ID: LCSD 570-289932/3-A ^5

Matrix: Solid

Analysis Batch: 290646

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 289932

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	24.8	21.88		mg/Kg		88	80 - 120	2	20
Arsenic	49.5	43.47		mg/Kg		88	80 - 120	3	20
Barium	49.5	44.64		mg/Kg		90	80 - 120	2	20
Beryllium	49.5	44.54		mg/Kg		90	80 - 120	2	20
Cadmium	49.5	44.12		mg/Kg		89	80 - 120	2	20
Cobalt	49.5	44.62		mg/Kg		90	80 - 120	2	20
Chromium	49.5	45.07		mg/Kg		91	80 - 120	2	20
Copper	49.5	44.50		mg/Kg		90	80 - 120	2	20
Molybdenum	49.5	45.69		mg/Kg		92	80 - 120	2	20
Nickel	49.5	44.46		mg/Kg		90	80 - 120	2	20
Antimony	49.5	50.94	^1+	mg/Kg		103	80 - 120	3	20
Selenium	49.5	41.78		mg/Kg		84	80 - 120	1	20
Thallium	49.5	44.10		mg/Kg		89	80 - 120	2	20
Vanadium	49.5	44.15		mg/Kg		89	80 - 120	2	20
Zinc	49.5	44.01		mg/Kg		89	80 - 120	2	20
Lead	49.5	44.36		mg/Kg		90	80 - 120	3	20

Lab Sample ID: 570-121068-18 MS

Matrix: Solid

Analysis Batch: 290646

Client Sample ID: B-39@20'

Prep Type: Total/NA

Prep Batch: 289932

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	ND		25.1	21.39		mg/Kg		85	75 - 125
Arsenic	8.56		50.3	51.77		mg/Kg		86	75 - 125
Barium	31.8		50.3	73.38		mg/Kg		83	75 - 125
Beryllium	0.485	J	50.3	45.20		mg/Kg		89	75 - 125
Cadmium	ND		50.3	43.03		mg/Kg		86	75 - 125
Cobalt	5.32		50.3	48.83		mg/Kg		87	75 - 125
Chromium	7.30		50.3	54.02		mg/Kg		93	75 - 125
Copper	3.01		50.3	49.10		mg/Kg		92	75 - 125
Molybdenum	ND		50.3	44.02		mg/Kg		88	75 - 125
Nickel	3.98		50.3	48.27		mg/Kg		88	75 - 125
Antimony	ND	F1 ^1+	50.3	24.54	F1 ^1+	mg/Kg		49	75 - 125
Selenium	ND		50.3	39.84		mg/Kg		79	75 - 125
Thallium	ND		50.3	43.98		mg/Kg		88	75 - 125
Vanadium	19.1		50.3	67.96		mg/Kg		97	75 - 125
Zinc	21.0		50.3	67.63		mg/Kg		93	75 - 125
Lead	4.17		50.3	47.26		mg/Kg		86	75 - 125

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 570-121068-18 MSD

Matrix: Solid

Analysis Batch: 290646

Client Sample ID: B-39@20'

Prep Type: Total/NA

Prep Batch: 289932

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	ND		25.5	21.85		mg/Kg		86	75 - 125	2	20
Arsenic	8.56		51.0	51.52		mg/Kg		84	75 - 125	0	20
Barium	31.8		51.0	79.39		mg/Kg		93	75 - 125	8	20
Beryllium	0.485	J	51.0	45.47		mg/Kg		88	75 - 125	1	20
Cadmium	ND		51.0	43.32		mg/Kg		85	75 - 125	1	20
Cobalt	5.32		51.0	49.57		mg/Kg		87	75 - 125	1	20
Chromium	7.30		51.0	53.98		mg/Kg		91	75 - 125	0	20
Copper	3.01		51.0	49.15		mg/Kg		90	75 - 125	0	20
Molybdenum	ND		51.0	44.18		mg/Kg		87	75 - 125	0	20
Nickel	3.98		51.0	48.35		mg/Kg		87	75 - 125	0	20
Antimony	ND	F1 ^1+	51.0	23.05	^1+ F1	mg/Kg		45	75 - 125	6	20
Selenium	ND		51.0	40.23		mg/Kg		79	75 - 125	1	20
Thallium	ND		51.0	44.53		mg/Kg		87	75 - 125	1	20
Vanadium	19.1		51.0	66.14		mg/Kg		92	75 - 125	3	20
Zinc	21.0		51.0	67.96		mg/Kg		92	75 - 125	0	20
Lead	4.17		51.0	47.24		mg/Kg		84	75 - 125	0	20

## Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 570-290345/1-A

Matrix: Solid

Analysis Batch: 290720

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290345

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/19/22 16:26	12/20/22 15:08	1

Lab Sample ID: LCS 570-290345/2-A

Matrix: Solid

Analysis Batch: 290720

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290345

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.392	0.3835		mg/Kg		98	80 - 120

Lab Sample ID: LCSD 570-290345/3-A

Matrix: Solid

Analysis Batch: 290720

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290345

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.392	0.3950		mg/Kg		101	80 - 120	3	10

Lab Sample ID: 570-121068-1 MS

Matrix: Solid

Analysis Batch: 290720

Client Sample ID: B-45@15'

Prep Type: Total/NA

Prep Batch: 290345

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.408	0.3965		mg/Kg		97	80 - 120

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: 570-121068-1 MSD

Matrix: Solid

Analysis Batch: 290720

Client Sample ID: B-45@15'

Prep Type: Total/NA

Prep Batch: 290345

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.408	0.4021		mg/Kg		99	80 - 120	1	20

Lab Sample ID: MB 570-290347/1-A

Matrix: Solid

Analysis Batch: 290720

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290347

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/19/22 16:28	12/20/22 12:14	1

Lab Sample ID: LCS 570-290347/2-A

Matrix: Solid

Analysis Batch: 290720

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290347

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.408	0.4286		mg/Kg		105	80 - 120

Lab Sample ID: LCSD 570-290347/3-A

Matrix: Solid

Analysis Batch: 290720

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290347

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.392	0.4124		mg/Kg		105	80 - 120	4	10

Lab Sample ID: 570-121068-21 MS

Matrix: Solid

Analysis Batch: 290720

Client Sample ID: B-40@5'

Prep Type: Total/NA

Prep Batch: 290347

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.0413	J	0.392	0.4175		mg/Kg		96	80 - 120

Lab Sample ID: 570-121068-21 MSD

Matrix: Solid

Analysis Batch: 290720

Client Sample ID: B-40@5'

Prep Type: Total/NA

Prep Batch: 290347

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.0413	J	0.392	0.4334		mg/Kg		100	80 - 120	4	20

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## GC VOA

### Analysis Batch: 289786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-1	B-45@15'	Total/NA	Solid	8015B	289793
570-121068-2	B-43@2.5'	Total/NA	Solid	8015B	289793
570-121068-3	B-43@5'	Total/NA	Solid	8015B	289793
570-121068-4	B-43@10'	Total/NA	Solid	8015B	289793
570-121068-5	B-43@15'	Total/NA	Solid	8015B	289793
570-121068-6	B-43@20'	Total/NA	Solid	8015B	289793
570-121068-7	B-43@25'	Total/NA	Solid	8015B	289793
570-121068-8	B-43@30'	Total/NA	Solid	8015B	289793
570-121068-9	B-43@35'	Total/NA	Solid	8015B	289793
570-121068-10	B-43@40'	Total/NA	Solid	8015B	289793
570-121068-11	B-46@2.5'	Total/NA	Solid	8015B	289793
570-121068-12	B-46@5'	Total/NA	Solid	8015B	289793
570-121068-13	B-50@2.5'	Total/NA	Solid	8015B	289793
570-121068-14	B-39@2'	Total/NA	Solid	8015B	289793
570-121068-15	B-39@5'	Total/NA	Solid	8015B	289793
570-121068-16	B-39@10'	Total/NA	Solid	8015B	289793
570-121068-17	B-39@15'	Total/NA	Solid	8015B	289793
570-121068-18	B-39@20'	Total/NA	Solid	8015B	289793
570-121068-19	B-39@25'	Total/NA	Solid	8015B	289793
570-121068-20	B-40@2'	Total/NA	Solid	8015B	289793
MB 570-289793/3-A	Method Blank	Total/NA	Solid	8015B	289793
LCS 570-289793/26-A	Lab Control Sample	Total/NA	Solid	8015B	289793
LCSD 570-289793/27-A	Lab Control Sample Dup	Total/NA	Solid	8015B	289793
570-121068-1 MS	B-45@15'	Total/NA	Solid	8015B	289793
570-121068-1 MSD	B-45@15'	Total/NA	Solid	8015B	289793

### Prep Batch: 289793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-1	B-45@15'	Total/NA	Solid	5030C	
570-121068-2	B-43@2.5'	Total/NA	Solid	5030C	
570-121068-3	B-43@5'	Total/NA	Solid	5030C	
570-121068-4	B-43@10'	Total/NA	Solid	5030C	
570-121068-5	B-43@15'	Total/NA	Solid	5030C	
570-121068-6	B-43@20'	Total/NA	Solid	5030C	
570-121068-7	B-43@25'	Total/NA	Solid	5030C	
570-121068-8	B-43@30'	Total/NA	Solid	5030C	
570-121068-9	B-43@35'	Total/NA	Solid	5030C	
570-121068-10	B-43@40'	Total/NA	Solid	5030C	
570-121068-11	B-46@2.5'	Total/NA	Solid	5030C	
570-121068-12	B-46@5'	Total/NA	Solid	5030C	
570-121068-13	B-50@2.5'	Total/NA	Solid	5030C	
570-121068-14	B-39@2'	Total/NA	Solid	5030C	
570-121068-15	B-39@5'	Total/NA	Solid	5030C	
570-121068-16	B-39@10'	Total/NA	Solid	5030C	
570-121068-17	B-39@15'	Total/NA	Solid	5030C	
570-121068-18	B-39@20'	Total/NA	Solid	5030C	
570-121068-19	B-39@25'	Total/NA	Solid	5030C	
570-121068-20	B-40@2'	Total/NA	Solid	5030C	
MB 570-289793/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-289793/26-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-289793/27-A	Lab Control Sample Dup	Total/NA	Solid	5030C	

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## GC VOA (Continued)

### Prep Batch: 289793 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-1 MS	B-45@15'	Total/NA	Solid	5030C	
570-121068-1 MSD	B-45@15'	Total/NA	Solid	5030C	

### Prep Batch: 289854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-21	B-40@5'	Total/NA	Solid	5030C	
570-121068-25	B-40@25'	Total/NA	Solid	5030C	
570-121068-26	B-40@30'	Total/NA	Solid	5030C	
570-121068-27	B-38@2'	Total/NA	Solid	5030C	
MB 570-289854/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-289854/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-289854/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	

### Analysis Batch: 289873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-21	B-40@5'	Total/NA	Solid	8015B	289854
570-121068-25	B-40@25'	Total/NA	Solid	8015B	289854
570-121068-26	B-40@30'	Total/NA	Solid	8015B	289854
570-121068-27	B-38@2'	Total/NA	Solid	8015B	289854
MB 570-289854/3-A	Method Blank	Total/NA	Solid	8015B	289854
LCS 570-289854/1-A	Lab Control Sample	Total/NA	Solid	8015B	289854
LCSD 570-289854/2-A	Lab Control Sample Dup	Total/NA	Solid	8015B	289854

### Analysis Batch: 290554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-22	B-40@10'	Total/NA	Solid	8015B	290603
570-121068-23	B-40@15'	Total/NA	Solid	8015B	290603
570-121068-24	B-40@20'	Total/NA	Solid	8015B	290603
MB 570-290603/3-A	Method Blank	Total/NA	Solid	8015B	290603
LCS 570-290603/1-A	Lab Control Sample	Total/NA	Solid	8015B	290603
LCSD 570-290603/2-A	Lab Control Sample Dup	Total/NA	Solid	8015B	290603

### Prep Batch: 290603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-22	B-40@10'	Total/NA	Solid	5030C	
570-121068-23	B-40@15'	Total/NA	Solid	5030C	
570-121068-24	B-40@20'	Total/NA	Solid	5030C	
MB 570-290603/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-290603/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-290603/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	

## GC Semi VOA

### Prep Batch: 289867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-1	B-45@15'	Total/NA	Solid	3550C	
570-121068-2	B-43@2.5'	Total/NA	Solid	3550C	
570-121068-3	B-43@5'	Total/NA	Solid	3550C	
570-121068-4	B-43@10'	Total/NA	Solid	3550C	
570-121068-5	B-43@15'	Total/NA	Solid	3550C	
570-121068-6	B-43@20'	Total/NA	Solid	3550C	

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## GC Semi VOA (Continued)

### Prep Batch: 289867 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-7	B-43@25'	Total/NA	Solid	3550C	
570-121068-8	B-43@30'	Total/NA	Solid	3550C	
570-121068-9	B-43@35'	Total/NA	Solid	3550C	
570-121068-10	B-43@40'	Total/NA	Solid	3550C	
570-121068-11	B-46@2.5'	Total/NA	Solid	3550C	
570-121068-12	B-46@5'	Total/NA	Solid	3550C	
570-121068-13	B-50@2.5'	Total/NA	Solid	3550C	
570-121068-14	B-39@2'	Total/NA	Solid	3550C	
570-121068-15	B-39@5'	Total/NA	Solid	3550C	
570-121068-16	B-39@10'	Total/NA	Solid	3550C	
570-121068-17	B-39@15'	Total/NA	Solid	3550C	
570-121068-18	B-39@20'	Total/NA	Solid	3550C	
570-121068-19	B-39@25'	Total/NA	Solid	3550C	
570-121068-20	B-40@2'	Total/NA	Solid	3550C	
MB 570-289867/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 570-289867/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 570-289867/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	
570-121068-1 MS	B-45@15'	Total/NA	Solid	3550C	
570-121068-1 MSD	B-45@15'	Total/NA	Solid	3550C	

### Prep Batch: 289868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-21	B-40@5'	Total/NA	Solid	3550C	
570-121068-22	B-40@10'	Total/NA	Solid	3550C	
570-121068-23	B-40@15'	Total/NA	Solid	3550C	
570-121068-24	B-40@20'	Total/NA	Solid	3550C	
570-121068-25	B-40@25'	Total/NA	Solid	3550C	
570-121068-26	B-40@30'	Total/NA	Solid	3550C	
570-121068-27	B-38@2'	Total/NA	Solid	3550C	
MB 570-289868/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 570-289868/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 570-289868/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	

### Analysis Batch: 290077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-1	B-45@15'	Total/NA	Solid	8015B	289867
570-121068-2	B-43@2.5'	Total/NA	Solid	8015B	289867
570-121068-3	B-43@5'	Total/NA	Solid	8015B	289867
570-121068-4	B-43@10'	Total/NA	Solid	8015B	289867
570-121068-5	B-43@15'	Total/NA	Solid	8015B	289867
570-121068-6	B-43@20'	Total/NA	Solid	8015B	289867
570-121068-7	B-43@25'	Total/NA	Solid	8015B	289867
570-121068-8	B-43@30'	Total/NA	Solid	8015B	289867
570-121068-9	B-43@35'	Total/NA	Solid	8015B	289867
570-121068-10	B-43@40'	Total/NA	Solid	8015B	289867
570-121068-11	B-46@2.5'	Total/NA	Solid	8015B	289867
570-121068-12	B-46@5'	Total/NA	Solid	8015B	289867
570-121068-13	B-50@2.5'	Total/NA	Solid	8015B	289867
570-121068-14	B-39@2'	Total/NA	Solid	8015B	289867
570-121068-15	B-39@5'	Total/NA	Solid	8015B	289867
570-121068-16	B-39@10'	Total/NA	Solid	8015B	289867

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## GC Semi VOA (Continued)

### Analysis Batch: 290077 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-17	B-39@15'	Total/NA	Solid	8015B	289867
570-121068-18	B-39@20'	Total/NA	Solid	8015B	289867
570-121068-19	B-39@25'	Total/NA	Solid	8015B	289867
570-121068-20	B-40@2'	Total/NA	Solid	8015B	289867
MB 570-289867/1-A	Method Blank	Total/NA	Solid	8015B	289867
LCS 570-289867/2-A	Lab Control Sample	Total/NA	Solid	8015B	289867
LCSD 570-289867/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	289867
570-121068-1 MS	B-45@15'	Total/NA	Solid	8015B	289867
570-121068-1 MSD	B-45@15'	Total/NA	Solid	8015B	289867

### Analysis Batch: 290079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-21	B-40@5'	Total/NA	Solid	8015B	289868
570-121068-22	B-40@10'	Total/NA	Solid	8015B	289868
570-121068-23	B-40@15'	Total/NA	Solid	8015B	289868
570-121068-24	B-40@20'	Total/NA	Solid	8015B	289868
570-121068-25	B-40@25'	Total/NA	Solid	8015B	289868
570-121068-26	B-40@30'	Total/NA	Solid	8015B	289868
570-121068-27	B-38@2'	Total/NA	Solid	8015B	289868
MB 570-289868/1-A	Method Blank	Total/NA	Solid	8015B	289868
LCS 570-289868/2-A	Lab Control Sample	Total/NA	Solid	8015B	289868
LCSD 570-289868/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	289868

## Metals

### Prep Batch: 289930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-1	B-45@15'	Total/NA	Solid	3050B	
570-121068-2	B-43@2.5'	Total/NA	Solid	3050B	
570-121068-3	B-43@5'	Total/NA	Solid	3050B	
570-121068-4	B-43@10'	Total/NA	Solid	3050B	
570-121068-5	B-43@15'	Total/NA	Solid	3050B	
570-121068-6	B-43@20'	Total/NA	Solid	3050B	
570-121068-7	B-43@25'	Total/NA	Solid	3050B	
570-121068-8	B-43@30'	Total/NA	Solid	3050B	
570-121068-9	B-43@35'	Total/NA	Solid	3050B	
570-121068-10	B-43@40'	Total/NA	Solid	3050B	
570-121068-11	B-46@2.5'	Total/NA	Solid	3050B	
570-121068-12	B-46@5'	Total/NA	Solid	3050B	
570-121068-13	B-50@2.5'	Total/NA	Solid	3050B	
570-121068-14	B-39@2'	Total/NA	Solid	3050B	
570-121068-15	B-39@5'	Total/NA	Solid	3050B	
570-121068-16	B-39@10'	Total/NA	Solid	3050B	
570-121068-17	B-39@15'	Total/NA	Solid	3050B	
MB 570-289930/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-289930/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-289930/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	
570-121068-1 MS	B-45@15'	Total/NA	Solid	3050B	
570-121068-1 MSD	B-45@15'	Total/NA	Solid	3050B	



# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Metals

### Prep Batch: 289932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-18	B-39@20'	Total/NA	Solid	3050B	
570-121068-19	B-39@25'	Total/NA	Solid	3050B	
570-121068-20	B-40@2'	Total/NA	Solid	3050B	
570-121068-21	B-40@5'	Total/NA	Solid	3050B	
570-121068-22	B-40@10'	Total/NA	Solid	3050B	
570-121068-23	B-40@15'	Total/NA	Solid	3050B	
570-121068-24	B-40@20'	Total/NA	Solid	3050B	
570-121068-25	B-40@25'	Total/NA	Solid	3050B	
570-121068-26	B-40@30'	Total/NA	Solid	3050B	
570-121068-27	B-38@2'	Total/NA	Solid	3050B	
MB 570-289932/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-289932/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-289932/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	
570-121068-18 MS	B-39@20'	Total/NA	Solid	3050B	
570-121068-18 MSD	B-39@20'	Total/NA	Solid	3050B	

### Prep Batch: 290345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-1	B-45@15'	Total/NA	Solid	7471A	
570-121068-2	B-43@2.5'	Total/NA	Solid	7471A	
570-121068-3	B-43@5'	Total/NA	Solid	7471A	
570-121068-4	B-43@10'	Total/NA	Solid	7471A	
570-121068-5	B-43@15'	Total/NA	Solid	7471A	
570-121068-6	B-43@20'	Total/NA	Solid	7471A	
570-121068-7	B-43@25'	Total/NA	Solid	7471A	
570-121068-8	B-43@30'	Total/NA	Solid	7471A	
570-121068-9	B-43@35'	Total/NA	Solid	7471A	
570-121068-10	B-43@40'	Total/NA	Solid	7471A	
570-121068-11	B-46@2.5'	Total/NA	Solid	7471A	
570-121068-12	B-46@5'	Total/NA	Solid	7471A	
570-121068-13	B-50@2.5'	Total/NA	Solid	7471A	
570-121068-14	B-39@2'	Total/NA	Solid	7471A	
570-121068-15	B-39@5'	Total/NA	Solid	7471A	
570-121068-16	B-39@10'	Total/NA	Solid	7471A	
570-121068-17	B-39@15'	Total/NA	Solid	7471A	
570-121068-18	B-39@20'	Total/NA	Solid	7471A	
570-121068-19	B-39@25'	Total/NA	Solid	7471A	
570-121068-20	B-40@2'	Total/NA	Solid	7471A	
MB 570-290345/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-290345/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-290345/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
570-121068-1 MS	B-45@15'	Total/NA	Solid	7471A	
570-121068-1 MSD	B-45@15'	Total/NA	Solid	7471A	

### Prep Batch: 290347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-21	B-40@5'	Total/NA	Solid	7471A	
570-121068-22	B-40@10'	Total/NA	Solid	7471A	
570-121068-23	B-40@15'	Total/NA	Solid	7471A	
570-121068-24	B-40@20'	Total/NA	Solid	7471A	
570-121068-25	B-40@25'	Total/NA	Solid	7471A	

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Metals (Continued)

### Prep Batch: 290347 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-26	B-40@30'	Total/NA	Solid	7471A	
570-121068-27	B-38@2'	Total/NA	Solid	7471A	
MB 570-290347/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-290347/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-290347/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
570-121068-21 MS	B-40@5'	Total/NA	Solid	7471A	
570-121068-21 MSD	B-40@5'	Total/NA	Solid	7471A	

### Analysis Batch: 290424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-1	B-45@15'	Total/NA	Solid	6010B	289930
570-121068-2	B-43@2.5'	Total/NA	Solid	6010B	289930
570-121068-3	B-43@5'	Total/NA	Solid	6010B	289930
570-121068-4	B-43@10'	Total/NA	Solid	6010B	289930
570-121068-5	B-43@15'	Total/NA	Solid	6010B	289930
570-121068-6	B-43@20'	Total/NA	Solid	6010B	289930
570-121068-7	B-43@25'	Total/NA	Solid	6010B	289930
570-121068-8	B-43@30'	Total/NA	Solid	6010B	289930
570-121068-9	B-43@35'	Total/NA	Solid	6010B	289930
570-121068-10	B-43@40'	Total/NA	Solid	6010B	289930
570-121068-11	B-46@2.5'	Total/NA	Solid	6010B	289930
570-121068-12	B-46@5'	Total/NA	Solid	6010B	289930
570-121068-13	B-50@2.5'	Total/NA	Solid	6010B	289930
570-121068-14	B-39@2'	Total/NA	Solid	6010B	289930
570-121068-15	B-39@5'	Total/NA	Solid	6010B	289930
570-121068-16	B-39@10'	Total/NA	Solid	6010B	289930
570-121068-17	B-39@15'	Total/NA	Solid	6010B	289930
MB 570-289930/1-A ^5	Method Blank	Total/NA	Solid	6010B	289930
LCS 570-289930/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	289930
LCSD 570-289930/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	289930
570-121068-1 MS	B-45@15'	Total/NA	Solid	6010B	289930
570-121068-1 MSD	B-45@15'	Total/NA	Solid	6010B	289930

### Analysis Batch: 290646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-18	B-39@20'	Total/NA	Solid	6010B	289932
570-121068-19	B-39@25'	Total/NA	Solid	6010B	289932
570-121068-20	B-40@2'	Total/NA	Solid	6010B	289932
570-121068-21	B-40@5'	Total/NA	Solid	6010B	289932
570-121068-22	B-40@10'	Total/NA	Solid	6010B	289932
570-121068-23	B-40@15'	Total/NA	Solid	6010B	289932
570-121068-24	B-40@20'	Total/NA	Solid	6010B	289932
570-121068-25	B-40@25'	Total/NA	Solid	6010B	289932
570-121068-26	B-40@30'	Total/NA	Solid	6010B	289932
570-121068-27	B-38@2'	Total/NA	Solid	6010B	289932
MB 570-289932/1-A ^5	Method Blank	Total/NA	Solid	6010B	289932
LCS 570-289932/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	289932
LCSD 570-289932/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	289932
570-121068-18 MS	B-39@20'	Total/NA	Solid	6010B	289932
570-121068-18 MSD	B-39@20'	Total/NA	Solid	6010B	289932

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

## Metals

### Analysis Batch: 290720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-1	B-45@15'	Total/NA	Solid	7471A	290345
570-121068-2	B-43@2.5'	Total/NA	Solid	7471A	290345
570-121068-3	B-43@5'	Total/NA	Solid	7471A	290345
570-121068-4	B-43@10'	Total/NA	Solid	7471A	290345
570-121068-5	B-43@15'	Total/NA	Solid	7471A	290345
570-121068-6	B-43@20'	Total/NA	Solid	7471A	290345
570-121068-7	B-43@25'	Total/NA	Solid	7471A	290345
570-121068-8	B-43@30'	Total/NA	Solid	7471A	290345
570-121068-9	B-43@35'	Total/NA	Solid	7471A	290345
570-121068-10	B-43@40'	Total/NA	Solid	7471A	290345
570-121068-11	B-46@2.5'	Total/NA	Solid	7471A	290345
570-121068-12	B-46@5'	Total/NA	Solid	7471A	290345
570-121068-13	B-50@2.5'	Total/NA	Solid	7471A	290345
570-121068-14	B-39@2'	Total/NA	Solid	7471A	290345
570-121068-15	B-39@5'	Total/NA	Solid	7471A	290345
570-121068-16	B-39@10'	Total/NA	Solid	7471A	290345
570-121068-17	B-39@15'	Total/NA	Solid	7471A	290345
570-121068-18	B-39@20'	Total/NA	Solid	7471A	290345
570-121068-19	B-39@25'	Total/NA	Solid	7471A	290345
570-121068-20	B-40@2'	Total/NA	Solid	7471A	290345
570-121068-21	B-40@5'	Total/NA	Solid	7471A	290347
570-121068-22	B-40@10'	Total/NA	Solid	7471A	290347
570-121068-23	B-40@15'	Total/NA	Solid	7471A	290347
570-121068-24	B-40@20'	Total/NA	Solid	7471A	290347
570-121068-25	B-40@25'	Total/NA	Solid	7471A	290347
570-121068-26	B-40@30'	Total/NA	Solid	7471A	290347
570-121068-27	B-38@2'	Total/NA	Solid	7471A	290347
MB 570-290345/1-A	Method Blank	Total/NA	Solid	7471A	290345
MB 570-290347/1-A	Method Blank	Total/NA	Solid	7471A	290347
LCS 570-290345/2-A	Lab Control Sample	Total/NA	Solid	7471A	290345
LCS 570-290347/2-A	Lab Control Sample	Total/NA	Solid	7471A	290347
LCSD 570-290345/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	290345
LCSD 570-290347/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	290347
570-121068-1 MS	B-45@15'	Total/NA	Solid	7471A	290345
570-121068-1 MSD	B-45@15'	Total/NA	Solid	7471A	290345
570-121068-21 MS	B-40@5'	Total/NA	Solid	7471A	290347
570-121068-21 MSD	B-40@5'	Total/NA	Solid	7471A	290347

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

**Client Sample ID: B-45@15'**

**Lab Sample ID: 570-121068-1**

**Date Collected: 12/15/22 07:00**

**Matrix: Solid**

**Date Received: 12/15/22 19:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	289793	12/16/22 16:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289786	12/16/22 17:53	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.07 g	10 mL	289867	12/16/22 18:33	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290077	12/19/22 12:49	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.98 g	50 mL	289930	12/17/22 05:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290424	12/19/22 18:37	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	290345	12/19/22 16:26	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 15:14	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-43@2.5'**

**Lab Sample ID: 570-121068-2**

**Date Collected: 12/15/22 07:50**

**Matrix: Solid**

**Date Received: 12/15/22 19:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.98 g	5 mL	289793	12/16/22 16:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289786	12/16/22 19:59	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.09 g	10 mL	289867	12/16/22 18:33	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290077	12/19/22 13:10	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.01 g	50 mL	289930	12/17/22 05:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290424	12/19/22 18:54	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	290345	12/19/22 16:26	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 15:23	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-43@5'**

**Lab Sample ID: 570-121068-3**

**Date Collected: 12/15/22 07:55**

**Matrix: Solid**

**Date Received: 12/15/22 19:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.07 g	5 mL	289793	12/16/22 16:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289786	12/16/22 20:24	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.10 g	10 mL	289867	12/16/22 18:33	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290077	12/19/22 13:31	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.01 g	50 mL	289930	12/17/22 05:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290424	12/19/22 18:57	P1R	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

**Client Sample ID: B-43@5'**

**Date Collected: 12/15/22 07:55**

**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-3**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.50 g	50 mL	290345	12/19/22 16:26	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 15:25	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-43@10'**

**Date Collected: 12/15/22 08:04**

**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-4**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.98 g	5 mL	289793	12/16/22 16:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289786	12/16/22 20:49	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.07 g	10 mL	289867	12/16/22 18:33	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290077	12/19/22 13:51	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.02 g	50 mL	289930	12/17/22 05:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290424	12/19/22 18:59	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	290345	12/19/22 16:26	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 15:27	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-43@15'**

**Date Collected: 12/15/22 08:10**

**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-5**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.04 g	5 mL	289793	12/16/22 16:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289786	12/16/22 21:14	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.04 g	10 mL	289867	12/16/22 18:33	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290077	12/19/22 14:12	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.97 g	50 mL	289930	12/17/22 05:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290424	12/19/22 19:02	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	290345	12/19/22 16:26	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 15:29	C0YH	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

**Client Sample ID: B-43@20'**

**Date Collected: 12/15/22 08:15**

**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-6**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	289793	12/16/22 16:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289786	12/16/22 21:39	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.08 g	10 mL	289867	12/16/22 18:33	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290077	12/19/22 14:33	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.98 g	50 mL	289930	12/17/22 05:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290424	12/19/22 19:04	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	290345	12/19/22 16:26	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 15:31	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-43@25'**

**Date Collected: 12/15/22 08:25**

**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-7**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	289793	12/16/22 16:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289786	12/16/22 22:04	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.04 g	10 mL	289867	12/16/22 18:33	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290077	12/19/22 14:54	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.04 g	50 mL	289930	12/17/22 05:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290424	12/19/22 19:07	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	290345	12/19/22 16:26	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 15:33	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-43@30'**

**Date Collected: 12/15/22 08:30**

**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-8**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	289793	12/16/22 16:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289786	12/16/22 22:30	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.06 g	10 mL	289867	12/16/22 18:33	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290077	12/19/22 15:15	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.00 g	50 mL	289930	12/17/22 05:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290424	12/19/22 19:09	P1R	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

**Client Sample ID: B-43@30'**

**Date Collected: 12/15/22 08:30**

**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-8**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.51 g	50 mL	290345	12/19/22 16:26	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 15:35	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-43@35'**

**Date Collected: 12/15/22 08:40**

**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-9**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.00 g	5 mL	289793	12/16/22 16:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289786	12/16/22 22:55	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.01 g	10 mL	289867	12/16/22 18:33	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290077	12/19/22 15:36	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.97 g	50 mL	289930	12/17/22 05:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290424	12/19/22 19:18	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	290345	12/19/22 16:26	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 15:37	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-43@40'**

**Date Collected: 12/15/22 08:45**

**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-10**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.04 g	5 mL	289793	12/16/22 16:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289786	12/16/22 23:20	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.08 g	10 mL	289867	12/16/22 18:33	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290077	12/19/22 16:17	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.02 g	50 mL	289930	12/17/22 05:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290424	12/19/22 19:20	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	290345	12/19/22 16:26	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 15:39	C0YH	EET CAL 4
Instrument ID: HG7										



# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

**Client Sample ID: B-46@2.5'**

**Lab Sample ID: 570-121068-11**

**Date Collected: 12/15/22 10:00**

**Matrix: Solid**

**Date Received: 12/15/22 19:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	289793	12/16/22 16:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289786	12/17/22 00:10	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.06 g	10 mL	289867	12/16/22 18:33	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290077	12/19/22 16:38	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.98 g	50 mL	289930	12/17/22 05:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290424	12/19/22 19:23	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	290345	12/19/22 16:26	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 15:44	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-46@5'**

**Lab Sample ID: 570-121068-12**

**Date Collected: 12/15/22 10:05**

**Matrix: Solid**

**Date Received: 12/15/22 19:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	289793	12/16/22 16:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289786	12/17/22 00:36	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.06 g	10 mL	289867	12/16/22 18:33	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290077	12/19/22 16:59	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.96 g	50 mL	289930	12/17/22 05:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290424	12/19/22 19:25	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	290345	12/19/22 16:26	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 15:46	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-50@2.5'**

**Lab Sample ID: 570-121068-13**

**Date Collected: 12/15/22 10:46**

**Matrix: Solid**

**Date Received: 12/15/22 19:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.06 g	5 mL	289793	12/16/22 16:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289786	12/17/22 01:01	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.01 g	10 mL	289867	12/16/22 18:33	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290077	12/19/22 17:20	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.00 g	50 mL	289930	12/17/22 05:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290424	12/19/22 19:28	P1R	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

**Client Sample ID: B-50@2.5'**

**Lab Sample ID: 570-121068-13**

**Date Collected: 12/15/22 10:46**

**Matrix: Solid**

**Date Received: 12/15/22 19:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.49 g	50 mL	290345	12/19/22 16:26	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 15:48	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-39@2'**

**Lab Sample ID: 570-121068-14**

**Date Collected: 12/15/22 11:34**

**Matrix: Solid**

**Date Received: 12/15/22 19:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	289793	12/16/22 16:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289786	12/17/22 01:26	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.04 g	10 mL	289867	12/16/22 18:33	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290077	12/19/22 17:41	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.98 g	50 mL	289930	12/17/22 05:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290424	12/19/22 19:30	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	290345	12/19/22 16:26	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 17:01	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-39@5'**

**Lab Sample ID: 570-121068-15**

**Date Collected: 12/15/22 11:38**

**Matrix: Solid**

**Date Received: 12/15/22 19:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.00 g	5 mL	289793	12/16/22 16:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289786	12/17/22 01:51	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.03 g	10 mL	289867	12/16/22 18:33	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290077	12/19/22 18:02	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.03 g	50 mL	289930	12/17/22 05:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290424	12/19/22 19:32	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	290345	12/19/22 16:26	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 15:52	C0YH	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

**Client Sample ID: B-39@10'**

**Date Collected: 12/15/22 11:50**

**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-16**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	289793	12/16/22 16:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289786	12/17/22 02:16	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.01 g	10 mL	289867	12/16/22 18:33	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290077	12/19/22 18:24	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.96 g	50 mL	289930	12/17/22 05:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290424	12/19/22 19:35	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	290345	12/19/22 16:26	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 15:54	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-39@15'**

**Date Collected: 12/15/22 11:54**

**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-17**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	289793	12/16/22 16:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289786	12/17/22 02:41	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.08 g	10 mL	289867	12/16/22 18:33	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290077	12/19/22 18:45	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.00 g	50 mL	289930	12/17/22 05:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290424	12/19/22 19:37	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	290345	12/19/22 16:26	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 15:55	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-39@20'**

**Date Collected: 12/15/22 12:01**

**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-18**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	289793	12/16/22 16:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289786	12/17/22 03:07	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.04 g	10 mL	289867	12/16/22 18:33	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290077	12/19/22 19:06	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.01 g	50 mL	289932	12/17/22 06:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290646	12/19/22 23:58	K1UV	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

**Client Sample ID: B-39@20'**

**Lab Sample ID: 570-121068-18**

**Date Collected: 12/15/22 12:01**

**Matrix: Solid**

**Date Received: 12/15/22 19:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.49 g	50 mL	290345	12/19/22 16:26	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 15:57	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-39@25'**

**Lab Sample ID: 570-121068-19**

**Date Collected: 12/15/22 12:14**

**Matrix: Solid**

**Date Received: 12/15/22 19:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	289793	12/16/22 16:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289786	12/17/22 03:32	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.08 g	10 mL	289867	12/16/22 18:33	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290077	12/19/22 19:27	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.98 g	50 mL	289932	12/17/22 06:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290646	12/20/22 00:08	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	290345	12/19/22 16:26	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 15:59	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-40@2'**

**Lab Sample ID: 570-121068-20**

**Date Collected: 12/15/22 12:53**

**Matrix: Solid**

**Date Received: 12/15/22 19:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	289793	12/16/22 16:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289786	12/17/22 03:57	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.04 g	10 mL	289867	12/16/22 18:33	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290077	12/19/22 19:49	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.97 g	50 mL	289932	12/17/22 06:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290646	12/20/22 00:10	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	290345	12/19/22 16:26	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 16:01	C0YH	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

**Client Sample ID: B-40@5'**

**Date Collected: 12/15/22 13:00**

**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-21**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.97 g	5 mL	289854	12/16/22 17:47	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289873	12/17/22 12:44	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.05 g	10 mL	289868	12/16/22 18:38	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290079	12/19/22 22:03	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.00 g	50 mL	289932	12/17/22 06:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290646	12/20/22 00:13	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	290347	12/19/22 16:28	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 12:19	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-40@10'**

**Date Collected: 12/15/22 13:05**

**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-22**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.00 g	5 mL	290603	12/20/22 10:25	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290554	12/20/22 17:43	A9VE	EET CAL 4
Instrument ID: GC24										
Total/NA	Prep	3550C			10.03 g	10 mL	289868	12/16/22 18:38	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290079	12/19/22 22:30	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.01 g	50 mL	289932	12/17/22 06:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290646	12/20/22 00:15	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	290347	12/19/22 16:28	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 12:25	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-40@15'**

**Date Collected: 12/15/22 13:10**

**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-23**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.04 g	5 mL	290603	12/20/22 10:25	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290554	12/20/22 18:09	A9VE	EET CAL 4
Instrument ID: GC24										
Total/NA	Prep	3550C			10.03 g	10 mL	289868	12/16/22 18:38	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290079	12/19/22 22:57	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.00 g	50 mL	289932	12/17/22 06:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290646	12/20/22 00:17	K1UV	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

**Client Sample ID: B-40@15'**

**Date Collected: 12/15/22 13:10**

**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-23**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.51 g	50 mL	290347	12/19/22 16:28	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 12:27	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-40@20'**

**Date Collected: 12/15/22 13:15**

**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-24**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	290603	12/20/22 10:25	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290554	12/20/22 18:34	A9VE	EET CAL 4
Instrument ID: GC24										
Total/NA	Prep	3550C			10.09 g	10 mL	289868	12/16/22 18:38	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290079	12/19/22 23:24	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.99 g	50 mL	289932	12/17/22 06:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290646	12/20/22 00:20	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	290347	12/19/22 16:28	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 12:29	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-40@25'**

**Date Collected: 12/15/22 13:21**

**Date Received: 12/15/22 19:00**

**Lab Sample ID: 570-121068-25**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	289854	12/16/22 17:47	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289873	12/17/22 14:26	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.06 g	10 mL	289868	12/16/22 18:38	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290079	12/19/22 23:51	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.98 g	50 mL	289932	12/17/22 06:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290646	12/20/22 00:27	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	290347	12/19/22 16:28	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 12:31	C0YH	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

**Client Sample ID: B-40@30'**

**Lab Sample ID: 570-121068-26**

**Date Collected: 12/15/22 13:33**

**Matrix: Solid**

**Date Received: 12/15/22 19:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.06 g	5 mL	289854	12/16/22 17:47	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289873	12/17/22 14:51	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.10 g	10 mL	289868	12/16/22 18:38	USUL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290079	12/20/22 00:18	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.03 g	50 mL	289932	12/17/22 06:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290646	12/20/22 00:30	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	290347	12/19/22 16:28	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 12:36	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-38@2'**

**Lab Sample ID: 570-121068-27**

**Date Collected: 12/15/22 14:38**

**Matrix: Solid**

**Date Received: 12/15/22 19:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.00 g	5 mL	289854	12/16/22 17:47	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	289873	12/17/22 15:17	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.06 g	10 mL	289868	12/16/22 18:38	USUL	EET CAL 4
Total/NA	Analysis	8015B		10	10 mL	10 mL	290079	12/20/22 00:45	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.97 g	50 mL	289932	12/17/22 06:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			290646	12/20/22 00:32	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	290347	12/19/22 16:28	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 12:38	C0YH	EET CAL 4
Instrument ID: HG7										

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

# Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

Method	Method Description	Protocol	Laboratory
8015B	Gasoline Range Organics - (GC)	SW846	EET CAL 4
8015B	Diesel Range Organics (DRO) (GC)	SW846	EET CAL 4
6010B	Metals (ICP)	SW846	EET CAL 4
7471A	Mercury (CVAA)	SW846	EET CAL 4
3050B	Preparation, Metals	SW846	EET CAL 4
3550C	Ultrasonic Extraction	SW846	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
7471A	Preparation, Mercury	SW846	EET CAL 4

## Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494



# Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-121068-1	B-45@15'	Solid	12/15/22 07:00	12/15/22 19:00
570-121068-2	B-43@2.5'	Solid	12/15/22 07:50	12/15/22 19:00
570-121068-3	B-43@5'	Solid	12/15/22 07:55	12/15/22 19:00
570-121068-4	B-43@10'	Solid	12/15/22 08:04	12/15/22 19:00
570-121068-5	B-43@15'	Solid	12/15/22 08:10	12/15/22 19:00
570-121068-6	B-43@20'	Solid	12/15/22 08:15	12/15/22 19:00
570-121068-7	B-43@25'	Solid	12/15/22 08:25	12/15/22 19:00
570-121068-8	B-43@30'	Solid	12/15/22 08:30	12/15/22 19:00
570-121068-9	B-43@35'	Solid	12/15/22 08:40	12/15/22 19:00
570-121068-10	B-43@40'	Solid	12/15/22 08:45	12/15/22 19:00
570-121068-11	B-46@2.5'	Solid	12/15/22 10:00	12/15/22 19:00
570-121068-12	B-46@5'	Solid	12/15/22 10:05	12/15/22 19:00
570-121068-13	B-50@2.5'	Solid	12/15/22 10:46	12/15/22 19:00
570-121068-14	B-39@2'	Solid	12/15/22 11:34	12/15/22 19:00
570-121068-15	B-39@5'	Solid	12/15/22 11:38	12/15/22 19:00
570-121068-16	B-39@10'	Solid	12/15/22 11:50	12/15/22 19:00
570-121068-17	B-39@15'	Solid	12/15/22 11:54	12/15/22 19:00
570-121068-18	B-39@20'	Solid	12/15/22 12:01	12/15/22 19:00
570-121068-19	B-39@25'	Solid	12/15/22 12:14	12/15/22 19:00
570-121068-20	B-40@2'	Solid	12/15/22 12:53	12/15/22 19:00
570-121068-21	B-40@5'	Solid	12/15/22 13:00	12/15/22 19:00
570-121068-22	B-40@10'	Solid	12/15/22 13:05	12/15/22 19:00
570-121068-23	B-40@15'	Solid	12/15/22 13:10	12/15/22 19:00
570-121068-24	B-40@20'	Solid	12/15/22 13:15	12/15/22 19:00
570-121068-25	B-40@25'	Solid	12/15/22 13:21	12/15/22 19:00
570-121068-26	B-40@30'	Solid	12/15/22 13:33	12/15/22 19:00
570-121068-27	B-38@2'	Solid	12/15/22 14:38	12/15/22 19:00



Calscience



570-121068 Chain of Custody

Loc: 570

121068

# CHAIN OF CUSTODY RECORD

DATE: 12/15/2022

PAGE: 1 OF 3

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT:		CLIENT PROJECT NAME / NUMBER:	
ADDRESS: 9245 Activity Road Suite 103		Science Research Park / SD754	
CITY: San Diego	STATE: CA	PROJECT CONTACT: Matt Fagan	SAMPLER(S) (PRINT): Casey Rousset-Johnson
TEL: 858 536 1000	E-MAIL: mattf@groupdelta.com	ZIP: 92126	DOROTHY GUZMAN

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):	
<input type="checkbox"/> SAME DAY	<input type="checkbox"/> 24 HR
<input type="checkbox"/> 48 HR	<input type="checkbox"/> 72 HR
<input type="checkbox"/> 5 DAYS	<input checked="" type="checkbox"/> STANDARD

SPECIAL INSTRUCTIONS:	
GLOBAL ID:	LOG CODE:

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	Log Code	
		DATE	TIME			Unpreserved	Preserved
1	B-45 @ 15'	12/15	7:00	Soil	1	X	
2	B-43 @ 2.5'	12/15	7:50	Soil	1	X	
3	B-43 @ 5'	12/15	7:55	Soil	1	X	
4	B-43 @ 10'	12/15	8:04	Soil	1	X	
5	B-43 @ 15'	12/15	8:10	Soil	1	X	
6	B-43 @ 20'	12/15	8:18	Soil	1	X	
7	B-43 @ 25'	12/15	8:25	Soil	1	X	
8	B-43 @ 30'	12/15	8:38	Soil	1	X	
9	B-43 @ 35'	12/15	8:45	Soil	1	X	
10	B-43 @ 40'	12/15	8:51	Soil	1	X	

Relinquished by (Signature):	Received by (Signature/Affiliation):
Relinquished by (Signature):	Received by (Signature/Affiliation):
Relinquished by (Signature):	Received by (Signature/Affiliation):

3.4' / 3.2' 5C12

06/02/14 Revision

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- 15



DATE: 12/15/2022

PAGE: 2 OF 2

06/02/14 Revision



Calscience

# CHAIN OF CUSTODY RECORD

DATE: 12/15/2022

PAGE: 3 OF 3

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT:		CLIENT PROJECT NAME / NUMBER:	
ADDRESS: 9245 Activity Road Suite 103		Science Research Park / SD754	
CITY: San Diego	STATE: CA	ZIP: 92126	
TEL: 858 536 1000	E-MAIL: mattf@groupdelta.com		
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):		P.O. NO.	
<input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD			
<input type="checkbox"/> COELT EDF		PROJECT CONTACT: Matt Fagan	
GLOBAL ID:		SAMPLER(S): (PRINT) <i>Dorothy Guzman</i>	

SPECIAL INSTRUCTIONS:		REQUESTED ANALYSES	
Please check box or fill in blank as needed			
LAB USE ONLY	SAMPLE ID	DATE	TIME
21	B-40 @ 5'	12/15	1:00
22	B-40 @ 10'	12/15	1:05
23	B-40 @ 15'	12/15	1:10
24	B-40 @ 20'	12/15	1:15
25	B-40 @ 25'	12/15	1:21
26	B-40 @ 30'	12/15	1:33
27	B-38 @ 2'	12/15	2:38
	B- @	12/15	
	B- @	12/15	
	B @	12/15	
Relinquished by (Signature) <i>[Signature]</i>		Received by (Signature/Affiliation) <i>William Rivera</i>	
Relinquished by (Signature) <i>William Rivera</i>		Received by (Signature/Affiliation) <i>[Signature]</i>	
Relinquished by (Signature)		Received by (Signature/Affiliation)	

Date: 12/15/22	Time: 1320
Date: 12/15/22	Time: 1900
Date:	Time:

## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-121068-1

**Login Number: 121068**

**List Number: 1**

**Creator: Nguyen, Tina**

**List Source: Eurofins Calscience**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Matt Fagan  
Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Generated 1/5/2023 2:28:46 PM

## JOB DESCRIPTION

Science Research Park / SD754

## JOB NUMBER

570-121068-2



## Job Notes

This report is issued solely for the use of the person or company to whom it is addressed. Any use, copying or disclosure other than by the intended recipient is unauthorized. If you have received this report in error, please notify the sender and destroy this report immediately. This report shall not be reproduced except in full, without prior express written approval by the laboratory.

The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

## Authorization



Generated  
1/5/2023 2:28:46 PM

Authorized for release by  
Erick Ovalle, Project Manager  
[Erick.Ovalle@et.eurofinsus.com](mailto:Erick.Ovalle@et.eurofinsus.com)  
Designee for  
Vikas Patel, Project Manager I  
[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)  
(714)895-5494

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## Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-2

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-2

**Job ID: 570-121068-2**

**Laboratory: Eurofins Calscience**

## Narrative

**Job Narrative**  
**570-121068-2**

## Comments

No additional comments.

## Receipt

The samples were received on 12/15/2022 7:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.2° C.

## Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-2

Client Sample ID: B-43@30'

Lab Sample ID: 570-121068-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.699		0.500	0.0527	mg/L	1		6010B	TCLP
Lead	2.33		1.00	0.105	mg/L	1		6010B	STLC Citrate

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-2

## Method: SW846 6010B - Metals (ICP) - TCLP

Client Sample ID: B-43@30'  
Date Collected: 12/15/22 08:30  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.699		0.500	0.0527	mg/L		12/30/22 08:30	12/30/22 17:07	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-2

## Method: SW846 6010B - Metals (ICP) - STLC Citrate

Client Sample ID: B-43@30'  
Date Collected: 12/15/22 08:30  
Date Received: 12/15/22 19:00

Lab Sample ID: 570-121068-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	2.33		1.00	0.105	mg/L		01/03/23 15:46	01/04/23 14:22	1

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-2

## Method: 6010B - Metals (ICP)

Lab Sample ID: LB 570-292539/1-B  
Matrix: Solid  
Analysis Batch: 293078

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 292838

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.500	0.0527	mg/L		12/30/22 08:30	12/30/22 16:21	1

Lab Sample ID: LCS 570-292539/2-B  
Matrix: Solid  
Analysis Batch: 293078

Client Sample ID: Lab Control Sample  
Prep Type: TCLP  
Prep Batch: 292838

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	2.00	1.889		mg/L		94	80 - 120

Lab Sample ID: LCSD 570-292539/3-B  
Matrix: Solid  
Analysis Batch: 293078

Client Sample ID: Lab Control Sample Dup  
Prep Type: TCLP  
Prep Batch: 292838

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	2.00	1.937		mg/L		97	80 - 120	3	20

Lab Sample ID: LB4 570-292642/1-C  
Matrix: Solid  
Analysis Batch: 293685

Client Sample ID: Method Blank  
Prep Type: STLC Citrate  
Prep Batch: 293407

Analyte	LB4 Result	LB4 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.00	0.105	mg/L		01/03/23 15:46	01/04/23 13:41	1

Lab Sample ID: LCS 570-292642/2-C  
Matrix: Solid  
Analysis Batch: 293685

Client Sample ID: Lab Control Sample  
Prep Type: STLC Citrate  
Prep Batch: 293407

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	20.0	18.99		mg/L		95	80 - 120

Lab Sample ID: LCSD 570-292642/3-C  
Matrix: Solid  
Analysis Batch: 293685

Client Sample ID: Lab Control Sample Dup  
Prep Type: STLC Citrate  
Prep Batch: 293407

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	20.0	19.01		mg/L		95	80 - 120	0	20

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-2

## Metals

### Leach Batch: 292539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-8	B-43@30'	TCLP	Solid	1311	
LB 570-292539/1-B	Method Blank	TCLP	Solid	1311	
LCS 570-292539/2-B	Lab Control Sample	TCLP	Solid	1311	
LCSD 570-292539/3-B	Lab Control Sample Dup	TCLP	Solid	1311	

### Leach Batch: 292642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-8	B-43@30'	STLC Citrate	Solid	CA WET Citrate	
LB4 570-292642/1-C	Method Blank	STLC Citrate	Solid	CA WET Citrate	
LCS 570-292642/2-C	Lab Control Sample	STLC Citrate	Solid	CA WET Citrate	
LCSD 570-292642/3-C	Lab Control Sample Dup	STLC Citrate	Solid	CA WET Citrate	

### Prep Batch: 292838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-8	B-43@30'	TCLP	Solid	3010A	292539
LB 570-292539/1-B	Method Blank	TCLP	Solid	3010A	292539
LCS 570-292539/2-B	Lab Control Sample	TCLP	Solid	3010A	292539
LCSD 570-292539/3-B	Lab Control Sample Dup	TCLP	Solid	3010A	292539

### Analysis Batch: 293078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-8	B-43@30'	TCLP	Solid	6010B	292838
LB 570-292539/1-B	Method Blank	TCLP	Solid	6010B	292838
LCS 570-292539/2-B	Lab Control Sample	TCLP	Solid	6010B	292838
LCSD 570-292539/3-B	Lab Control Sample Dup	TCLP	Solid	6010B	292838

### Prep Batch: 293407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-8	B-43@30'	STLC Citrate	Solid	Dilution	292642
LB4 570-292642/1-C	Method Blank	STLC Citrate	Solid	Dilution	292642
LCS 570-292642/2-C	Lab Control Sample	STLC Citrate	Solid	Dilution	292642
LCSD 570-292642/3-C	Lab Control Sample Dup	STLC Citrate	Solid	Dilution	292642

### Analysis Batch: 293685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121068-8	B-43@30'	STLC Citrate	Solid	6010B	293407
LB4 570-292642/1-C	Method Blank	STLC Citrate	Solid	6010B	293407
LCS 570-292642/2-C	Lab Control Sample	STLC Citrate	Solid	6010B	293407
LCSD 570-292642/3-C	Lab Control Sample Dup	STLC Citrate	Solid	6010B	293407

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-2

**Client Sample ID: B-43@30'**

**Lab Sample ID: 570-121068-8**

**Date Collected: 12/15/22 08:30**

**Matrix: Solid**

**Date Received: 12/15/22 19:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.04 g	500 mL	292642	12/29/22 14:11	ECX6	EET CAL 4
STLC Citrate	Prep	Dilution			2.5 mL	50 mL	293407	01/03/23 15:46	VZOK	EET CAL 4
STLC Citrate	Analysis	6010B		1			293685	01/04/23 14:22	K1UV	EET CAL 4
Instrument ID: ICP11										
TCLP	Leach	1311			100.18 g	2000 mL	292539	12/29/22 08:00	XBO9	EET CAL 4
TCLP	Prep	3010A			5 mL	50 mL	292838	12/30/22 08:30	ECX6	EET CAL 4
TCLP	Analysis	6010B		1			293078	12/30/22 17:07	P1R	EET CAL 4
Instrument ID: ICP11										

<sup>1</sup> Completion dates and times are reported or not reported per method requirements or individual lab discretion.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494



Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-2

Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

1
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# Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	EET CAL 4
1311	TCLP Extraction	SW846	EET CAL 4
3010A	Preparation, Total Metals	SW846	EET CAL 4
CA WET Citrate	California - Waste Extraction Test with Citrate Leach	CA-WET	EET CAL 4
Dilution	Preparation / Dilution Process	None	EET CAL 4

## Protocol References:

CA-WET = California Waste Extraction Test, from Title 22

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

## Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121068-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-121068-8	B-43@30'	Solid	12/15/22 08:30	12/15/22 19:00

1

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## Virendra Patel

---

**From:** Alexandre Santini <alexandres@groupdelta.com>  
**Sent:** Tuesday, December 27, 2022 5:12 PM  
**To:** Virendra Patel; Jack Packwood; Matt Fagan; Erick Ovalle  
**Subject:** RE: Eurofins Calscience report and EDD files from 570-121068-1 Science Research Park / SD754

EXTERNAL EMAIL\*

Erick – Please analyze for lead STLC and TCLP sample B-43@30'

Please confirm it.

Thanks,

Alex Santini, P.E. | [Senior Project Engineer](#)

Office: (858) 536-1000  
Mobile: (310) 310-5686  
Email: [AlexandreS@groupdelta.com](mailto:AlexandreS@groupdelta.com)

---

**From:** Virendra Patel <Virendra.Patel@et.eurofinsus.com>  
**Sent:** Thursday, December 22, 2022 2:16 PM  
**To:** Jack Packwood <jackp@groupdelta.com>; Matt Fagan <mattf@groupdelta.com>  
**Subject:** Eurofins Calscience report and EDD files from 570-121068-1 Science Research Park / SD754

Hello,

Attached please find the report and EDD files for job 570-121068-1; Science Research Park / SD754

Please feel free to contact me or your PM Vikas Patel if you have any questions.

Thank you.

**Virendra Patel**  
Project Manager

Eurofins Calscience  
Phone: 714-895-5494  
Mobile: 714-887-9901

E-mail: [Virendra.Patel@et.eurofinsus.com](mailto:Virendra.Patel@et.eurofinsus.com)  
[www.eurofinsus.com/env](http://www.eurofinsus.com/env)



Reference: [570-404222]  
Attachments: 2

> > Bank information has changed, please refer to remittance information on invoice. < <

\* WARNING - EXTERNAL: This email originated from outside of Eurofins Environment Testing America. Do not click any links or open any attachments unless you trust the sender and know that the content is safe!





Calscience

CHAIN OF CUSTODY RECORD

DATE: 12/15/2022  
PAGE: 2 OF 3

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofinsus.com or call us.

LABORATORY CLIENT:		CLIENT PROJECT NAME / NUMBER:		P.O. NO.	
ADDRESS:		Science Research Park / SD754		SAMPLER(S): (PRINT)	
CITY:		Matt Fagan		Casey Rausser-Johnson	
STATE:		92126		Dorothy Guzman	
E-MAIL:		mattf@groupdelta.com			
TEL:		858 536 1000			
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):		LOG CODE:			
<input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD					
<input type="checkbox"/> COELT EDF					
SPECIAL INSTRUCTIONS:					
GLOBAL ID:					
NO. OF CONT					
MATRIX					
SAMPLING DATE					
TIME					
SAMPLE ID					
LAB USE ONLY					
11		B-46 @ 2.5'		12/15 10:00	
12		B-46 @ 5'		12/15 10:05	
13		B-50 @ 2.5'		12/15 10:46	
14		B-39 @ 2'		12/15 11:34	
15		B-39 @ 5'		12/15 11:38	
16		B-39 @ 10'		12/15 11:50	
17		B-39 @ 15'		12/15 11:54	
18		B-39 @ 20'		12/15 12:01	
19		B-39 @ 25'		12/15 12:14	
20		B-40 @ 2'		12/15 12:53	
Relinquished by (Signature)		William Rivera		Received by (Signature/Affiliation)	
Relinquished by (Signature)		William Rivera		Received by (Signature/Affiliation)	
Relinquished by (Signature)		William Rivera		Received by (Signature/Affiliation)	
Date:		12/15/22		Date:	
Time:		1620		Time:	
Date:		12/15/22		Date:	
Time:		1900		Time:	



Calscience

# CHAIN OF CUSTODY RECORD

DATE: 12/15/2022  
PAGE: 3 OF 3

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT:		CLIENT PROJECT NAME / NUMBER:	
ADDRESS: 9245 Activity Road Suite 103		Science Research Park / SD754	
CITY: San Diego	STATE: CA	ZIP: 92126	
TEL: 858 536 1000	E-MAIL: mattf@groupdelta.com	PROJECT CONTACT: Matt Fagan	
P.O. NO.:		SAMPLER(S): (PRINT) <i>Dorothy Guzman</i>	

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):	
<input type="checkbox"/> SAME DAY	<input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD
<input type="checkbox"/> COELT EDF	GLOBAL ID:

SPECIAL INSTRUCTIONS:

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT	LOG CODE:		
		DATE	TIME			Unpreserved	Preserved	Field Filtered
21	B-40 @ 5'	12/15	1:00	Soil	1	X		
22	B-40 @ 10'	12/15	1:05	Soil	1	X		
23	B-40 @ 15'	12/15	1:10	Soil	1	X		
24	B-40 @ 20'	12/15	1:15	Soil	1	X		
25	B-40 @ 25'	12/15	1:21	Soil	1	X		
26	B-40 @ 30'	12/15	1:33	Soil	1	X		
27	B-38 @ 2'	12/15	2:38	Soil	1	X		
	B- @	12/15		Soil	1	X		
	B- @	12/15		Soil	1	X		
	B @	12/15		Soil	1	X		

Relinquished by (Signature): <i>[Signature]</i>	Received by (Signature/Affiliation): <i>William Rivera</i>	Date: 12/15/22	Time: 1320
Relinquished by (Signature): <i>William Rivera</i>	Received by (Signature/Affiliation): <i>[Signature]</i>	Date: 12/15/22	Time: 1900
Relinquished by (Signature):	Received by (Signature/Affiliation):	Date:	Time:



## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-121068-2

Login Number: 121068

List Number: 1

Creator: Nguyen, Tina

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Matt Fagan  
Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Generated 12/25/2022 9:03:28 AM

## JOB DESCRIPTION

Science Research Park SD754

## JOB NUMBER

570-121270-1

# Eurofins Calscience

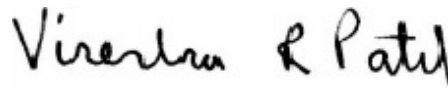
## Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

## Authorization



Generated  
12/25/2022 9:03:28 AM

Authorized for release by  
Virendra Patel, Project Manager I  
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(714)895-5494

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# Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Qualifiers

### GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

### Metals

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Job ID: 570-121270-1

### Laboratory: Eurofins Calscience

#### Narrative

#### Job Narrative 570-121270-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 12/16/2022 7:15 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.9° C.

#### GC VOA

Method 8015B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 570-290981 and analytical batch 570-290951 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC Semi VOA

Method 8015B: Surrogate recovery for the following sample was outside control limits: B-37 @ 30' (570-121270-21). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Antimony for preparation batch 570-290513 and analytical batch 570-290973 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Silver, Barium, Lead and Antimony for preparation batch 570-290515 and analytical batch 570-290973 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Client Sample ID: B-38 @ 5'

## Lab Sample ID: 570-121270-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	6.4		4.9	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	79		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	2.25	J	3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	53.9		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.214	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	2.59		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	11.3		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	14.7		2.01	0.963	mg/Kg	5		6010B	Total/NA
Nickel	3.13		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	23.2		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	27.1		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	11.3		2.01	0.411	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-38 @ 10'

## Lab Sample ID: 570-121270-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	12		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	3.86		3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	59.3		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.288	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	3.19		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	7.78		1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	39.8		2.00	0.958	mg/Kg	5		6010B	Total/NA
Molybdenum	0.538	J	2.00	0.515	mg/Kg	5		6010B	Total/NA
Nickel	3.59		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	18.3		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	26.9		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	151		2.00	0.409	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-38 @ 15'

## Lab Sample ID: 570-121270-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	18		4.9	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	55		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	1.98	J	3.05	1.41	mg/Kg	5		6010B	Total/NA
Barium	33.0		3.05	0.144	mg/Kg	5		6010B	Total/NA
Beryllium	0.228	J	0.508	0.0701	mg/Kg	5		6010B	Total/NA
Cobalt	2.94		1.02	0.209	mg/Kg	5		6010B	Total/NA
Chromium	8.48		1.02	0.189	mg/Kg	5		6010B	Total/NA
Copper	3.62		2.03	0.973	mg/Kg	5		6010B	Total/NA
Nickel	3.11		2.03	0.368	mg/Kg	5		6010B	Total/NA
Vanadium	25.0		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	9.16		5.08	1.17	mg/Kg	5		6010B	Total/NA
Lead	5.25		2.03	0.415	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-38 @ 20'

## Lab Sample ID: 570-121270-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	6.4		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	3.56		3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	36.6		3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.227	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Client Sample ID: B-38 @ 20' (Continued)

## Lab Sample ID: 570-121270-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	1.99		1.01	0.208	mg/Kg	5		6010B	Total/NA
Chromium	15.4		1.01	0.188	mg/Kg	5		6010B	Total/NA
Copper	6.14		2.02	0.968	mg/Kg	5		6010B	Total/NA
Nickel	3.30		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	39.9		1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	9.62		5.05	1.17	mg/Kg	5		6010B	Total/NA
Lead	6.34		2.02	0.413	mg/Kg	5		6010B	Total/NA
Mercury	0.0410	J	0.0833	0.0320	mg/Kg	1		7471A	Total/NA

## Client Sample ID: B-38 @ 25'

## Lab Sample ID: 570-121270-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	8.0		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	5.60		3.05	1.41	mg/Kg	5		6010B	Total/NA
Barium	153		3.05	0.144	mg/Kg	5		6010B	Total/NA
Beryllium	0.343	J	0.508	0.0701	mg/Kg	5		6010B	Total/NA
Cobalt	2.77		1.02	0.209	mg/Kg	5		6010B	Total/NA
Chromium	7.60		1.02	0.189	mg/Kg	5		6010B	Total/NA
Copper	15.1		2.03	0.973	mg/Kg	5		6010B	Total/NA
Nickel	3.39		2.03	0.368	mg/Kg	5		6010B	Total/NA
Vanadium	21.9		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	23.3		5.08	1.17	mg/Kg	5		6010B	Total/NA
Lead	67.2		2.03	0.415	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-38 @ 30'

## Lab Sample ID: 570-121270-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	5.0		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	5.69		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	65.3		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.357	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	3.80		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	9.22		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	14.3		2.04	0.978	mg/Kg	5		6010B	Total/NA
Nickel	5.17		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	21.4		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	27.0		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	48.0		2.04	0.417	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-38 @ 35'

## Lab Sample ID: 570-121270-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	19		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	7.46		3.05	1.41	mg/Kg	5		6010B	Total/NA
Barium	71.0		3.05	0.144	mg/Kg	5		6010B	Total/NA
Beryllium	0.368	J	0.508	0.0701	mg/Kg	5		6010B	Total/NA
Cobalt	4.71		1.02	0.209	mg/Kg	5		6010B	Total/NA
Chromium	10.1		1.02	0.189	mg/Kg	5		6010B	Total/NA
Copper	20.7		2.03	0.973	mg/Kg	5		6010B	Total/NA
Molybdenum	0.609	J	2.03	0.523	mg/Kg	5		6010B	Total/NA
Nickel	5.99		2.03	0.368	mg/Kg	5		6010B	Total/NA
Vanadium	22.8		1.02	0.171	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience



# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Client Sample ID: B-38 @ 35' (Continued)

## Lab Sample ID: 570-121270-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	37.0		5.08	1.17	mg/Kg	5		6010B	Total/NA
Lead	39.2		2.03	0.415	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-38 @ 40'

## Lab Sample ID: 570-121270-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	4.2	J	4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	6.12		3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	40.3		3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.404	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Cobalt	6.00		1.01	0.208	mg/Kg	5		6010B	Total/NA
Chromium	12.1		1.01	0.188	mg/Kg	5		6010B	Total/NA
Copper	14.9		2.02	0.968	mg/Kg	5		6010B	Total/NA
Nickel	9.08		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	21.6		1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	48.2		5.05	1.17	mg/Kg	5		6010B	Total/NA
Lead	16.3		2.02	0.413	mg/Kg	5		6010B	Total/NA
Mercury	0.0486	J	0.0833	0.0320	mg/Kg	1		7471A	Total/NA

## Client Sample ID: B-35 @ 2'

## Lab Sample ID: 570-121270-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	11		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	6.29		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	41.5		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.344	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	3.71		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	10.4		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	12.8		2.04	0.978	mg/Kg	5		6010B	Total/NA
Molybdenum	0.561	J	2.04	0.526	mg/Kg	5		6010B	Total/NA
Nickel	5.17		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	28.5		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	24.9		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	15.8		2.04	0.417	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-35 @ 5'

## Lab Sample ID: 570-121270-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	4.6	J	4.9	3.7	mg/Kg	1		8015B	Total/NA
Arsenic	5.08		3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	65.2		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.540		0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	5.73		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	13.7		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	12.0		2.01	0.963	mg/Kg	5		6010B	Total/NA
Nickel	7.85		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	27.8		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	35.9		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	11.8		2.01	0.411	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Client Sample ID: B-35 @ 10'

## Lab Sample ID: 570-121270-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	17		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	6.19		3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	49.9		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.363	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	4.50		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	11.5		1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	9.83		2.00	0.958	mg/Kg	5		6010B	Total/NA
Nickel	5.91		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	27.8		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	32.4		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	6.36		2.00	0.409	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-35 @ 15'

## Lab Sample ID: 570-121270-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	17		4.8	3.7	mg/Kg	1		8015B	Total/NA
Arsenic	4.93		2.96	1.37	mg/Kg	5		6010B	Total/NA
Barium	67.2		2.96	0.140	mg/Kg	5		6010B	Total/NA
Beryllium	0.283	J	0.493	0.0680	mg/Kg	5		6010B	Total/NA
Cobalt	2.92		0.985	0.203	mg/Kg	5		6010B	Total/NA
Chromium	17.8		0.985	0.183	mg/Kg	5		6010B	Total/NA
Copper	5.36		1.97	0.944	mg/Kg	5		6010B	Total/NA
Nickel	3.02		1.97	0.357	mg/Kg	5		6010B	Total/NA
Vanadium	51.9		0.985	0.166	mg/Kg	5		6010B	Total/NA
Zinc	13.0		4.93	1.14	mg/Kg	5		6010B	Total/NA
Lead	10.3		1.97	0.403	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-35 @ 20'

## Lab Sample ID: 570-121270-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	8.9		4.8	3.7	mg/Kg	1		8015B	Total/NA
Arsenic	6.79		2.97	1.38	mg/Kg	5		6010B	Total/NA
Barium	129		2.97	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.309	J	0.495	0.0683	mg/Kg	5		6010B	Total/NA
Cobalt	3.49		0.990	0.204	mg/Kg	5		6010B	Total/NA
Chromium	7.35		0.990	0.184	mg/Kg	5		6010B	Total/NA
Copper	30.9		1.98	0.949	mg/Kg	5		6010B	Total/NA
Nickel	3.60		1.98	0.358	mg/Kg	5		6010B	Total/NA
Vanadium	19.1		0.990	0.166	mg/Kg	5		6010B	Total/NA
Zinc	28.0		4.95	1.14	mg/Kg	5		6010B	Total/NA
Lead	30.6		1.98	0.405	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-35 @ 25'

## Lab Sample ID: 570-121270-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	13		4.8	3.7	mg/Kg	1		8015B	Total/NA
Arsenic	4.59		3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	99.6		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.263	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	2.79		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	6.40		1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	15.7		2.00	0.958	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Client Sample ID: B-35 @ 25' (Continued)

Lab Sample ID: 570-121270-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	2.79		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	17.1		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	20.3		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	97.0		2.00	0.409	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-37 @ 2'

Lab Sample ID: 570-121270-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	15		4.8	3.7	mg/Kg	1		8015B	Total/NA
Arsenic	2.65	J	2.97	1.38	mg/Kg	5		6010B	Total/NA
Barium	35.7		2.97	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.210	J	0.495	0.0683	mg/Kg	5		6010B	Total/NA
Cobalt	2.59		0.990	0.204	mg/Kg	5		6010B	Total/NA
Chromium	8.47		0.990	0.184	mg/Kg	5		6010B	Total/NA
Copper	4.91		1.98	0.949	mg/Kg	5		6010B	Total/NA
Nickel	2.87		1.98	0.358	mg/Kg	5		6010B	Total/NA
Vanadium	22.2		0.990	0.166	mg/Kg	5		6010B	Total/NA
Zinc	13.1		4.95	1.14	mg/Kg	5		6010B	Total/NA
Lead	9.38		1.98	0.405	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-37 @ 5'

Lab Sample ID: 570-121270-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	42		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	2.00	J	3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	62.5		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.251	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	2.64		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	9.47		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	7.37		2.01	0.963	mg/Kg	5		6010B	Total/NA
Nickel	3.44		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	24.3		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	19.0		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	7.20		2.01	0.411	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-37 @ 10'

Lab Sample ID: 570-121270-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	33		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	4.47		2.99	1.38	mg/Kg	5		6010B	Total/NA
Barium	46.4		2.99	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.398	J	0.498	0.0687	mg/Kg	5		6010B	Total/NA
Cobalt	5.17		0.995	0.205	mg/Kg	5		6010B	Total/NA
Chromium	10.9		0.995	0.185	mg/Kg	5		6010B	Total/NA
Copper	9.80		1.99	0.953	mg/Kg	5		6010B	Total/NA
Nickel	6.78		1.99	0.360	mg/Kg	5		6010B	Total/NA
Vanadium	22.7		0.995	0.167	mg/Kg	5		6010B	Total/NA
Zinc	29.5		4.98	1.15	mg/Kg	5		6010B	Total/NA
Lead	9.79		1.99	0.407	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Client Sample ID: B-37 @ 15'

## Lab Sample ID: 570-121270-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	4.5	J	4.9	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	36		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	4.73		2.99	1.38	mg/Kg	5		6010B	Total/NA
Barium	73.6	F1	2.99	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.336	J	0.498	0.0687	mg/Kg	5		6010B	Total/NA
Cobalt	4.74		0.995	0.205	mg/Kg	5		6010B	Total/NA
Chromium	9.65		0.995	0.185	mg/Kg	5		6010B	Total/NA
Copper	26.4		1.99	0.953	mg/Kg	5		6010B	Total/NA
Nickel	5.58		1.99	0.360	mg/Kg	5		6010B	Total/NA
Vanadium	22.0		0.995	0.167	mg/Kg	5		6010B	Total/NA
Zinc	43.7		4.98	1.15	mg/Kg	5		6010B	Total/NA
Lead	45.0	F1	1.99	0.407	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-37 @ 20'

## Lab Sample ID: 570-121270-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	20		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	97		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	3.49		3.05	1.41	mg/Kg	5		6010B	Total/NA
Barium	44.4		3.05	0.144	mg/Kg	5		6010B	Total/NA
Beryllium	0.228	J	0.508	0.0701	mg/Kg	5		6010B	Total/NA
Cobalt	2.73		1.02	0.209	mg/Kg	5		6010B	Total/NA
Chromium	8.35		1.02	0.189	mg/Kg	5		6010B	Total/NA
Copper	5.53		2.03	0.973	mg/Kg	5		6010B	Total/NA
Nickel	3.08		2.03	0.368	mg/Kg	5		6010B	Total/NA
Vanadium	21.0		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	15.8		5.08	1.17	mg/Kg	5		6010B	Total/NA
Lead	4.95		2.03	0.415	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-37 @ 25'

## Lab Sample ID: 570-121270-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	10		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	2.83	J	2.94	1.36	mg/Kg	5		6010B	Total/NA
Barium	72.3		2.94	0.139	mg/Kg	5		6010B	Total/NA
Beryllium	0.245	J	0.490	0.0676	mg/Kg	5		6010B	Total/NA
Cobalt	1.76		0.980	0.202	mg/Kg	5		6010B	Total/NA
Chromium	8.09		0.980	0.182	mg/Kg	5		6010B	Total/NA
Copper	5.62		1.96	0.939	mg/Kg	5		6010B	Total/NA
Nickel	2.75		1.96	0.355	mg/Kg	5		6010B	Total/NA
Vanadium	24.0		0.980	0.165	mg/Kg	5		6010B	Total/NA
Zinc	14.2		4.90	1.13	mg/Kg	5		6010B	Total/NA
Lead	4.35		1.96	0.401	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-37 @ 30'

## Lab Sample ID: 570-121270-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Gasoline Range Organics (C4-C12)	0.075	J	0.10	0.056	mg/Kg	1		8015B	Total/NA
C13-C22	310		49	38	mg/Kg	10		8015B	Total/NA
C23-C40	1500		49	38	mg/Kg	10		8015B	Total/NA
Arsenic	16.7		2.97	1.38	mg/Kg	5		6010B	Total/NA
Barium	53.0		2.97	0.141	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Client Sample ID: B-37 @ 30' (Continued)

## Lab Sample ID: 570-121270-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.384	J	0.495	0.0683	mg/Kg	5		6010B	Total/NA
Cobalt	2.61		0.990	0.204	mg/Kg	5		6010B	Total/NA
Chromium	9.57		0.990	0.184	mg/Kg	5		6010B	Total/NA
Copper	13.2		1.98	0.949	mg/Kg	5		6010B	Total/NA
Molybdenum	1.86	J	1.98	0.510	mg/Kg	5		6010B	Total/NA
Nickel	4.74		1.98	0.358	mg/Kg	5		6010B	Total/NA
Vanadium	32.9		0.990	0.166	mg/Kg	5		6010B	Total/NA
Zinc	26.6		4.95	1.14	mg/Kg	5		6010B	Total/NA
Lead	9.49		1.98	0.405	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-37 @ 35'

## Lab Sample ID: 570-121270-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	14		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	2.67	J	2.99	1.38	mg/Kg	5		6010B	Total/NA
Barium	107		2.99	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.149	J	0.498	0.0687	mg/Kg	5		6010B	Total/NA
Cobalt	1.36		0.995	0.205	mg/Kg	5		6010B	Total/NA
Chromium	8.53		0.995	0.185	mg/Kg	5		6010B	Total/NA
Copper	32.5		1.99	0.953	mg/Kg	5		6010B	Total/NA
Nickel	2.26		1.99	0.360	mg/Kg	5		6010B	Total/NA
Vanadium	22.2		0.995	0.167	mg/Kg	5		6010B	Total/NA
Zinc	16.3		4.98	1.15	mg/Kg	5		6010B	Total/NA
Lead	5.26		1.99	0.407	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-37 @ 40'

## Lab Sample ID: 570-121270-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	18		4.9	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	39		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	5.28		3.05	1.41	mg/Kg	5		6010B	Total/NA
Barium	50.9		3.05	0.144	mg/Kg	5		6010B	Total/NA
Beryllium	0.305	J	0.508	0.0701	mg/Kg	5		6010B	Total/NA
Cobalt	6.22		1.02	0.209	mg/Kg	5		6010B	Total/NA
Chromium	9.53		1.02	0.189	mg/Kg	5		6010B	Total/NA
Copper	108		2.03	0.973	mg/Kg	5		6010B	Total/NA
Nickel	4.95		2.03	0.368	mg/Kg	5		6010B	Total/NA
Vanadium	20.9		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	34.9		5.08	1.17	mg/Kg	5		6010B	Total/NA
Lead	215		2.03	0.415	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-37 @ 45'

## Lab Sample ID: 570-121270-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	45		4.9	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	20		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	3.88		3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	45.1		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.226	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	2.86		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	15.3		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	11.3		2.01	0.963	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

## Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

**Client Sample ID: B-37 @ 45' (Continued)**

**Lab Sample ID: 570-121270-24**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Molybdenum	1.08	J	2.01	0.518	mg/Kg	5		6010B	Total/NA
Nickel	4.10		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	13.5		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	22.7		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	22.4		2.01	0.411	mg/Kg	5		6010B	Total/NA
Mercury	0.0368	J	0.0817	0.0314	mg/Kg	1		7471A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-38 @ 5'**  
**Date Collected: 12/16/22 07:10**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-1**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/19/22 10:34	12/20/22 15:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	61		42 - 126				12/19/22 10:34	12/20/22 15:44	1

**Client Sample ID: B-38 @ 10'**  
**Date Collected: 12/16/22 07:28**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-2**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/19/22 10:34	12/20/22 17:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	66		42 - 126				12/19/22 10:34	12/20/22 17:13	1

**Client Sample ID: B-38 @ 15'**  
**Date Collected: 12/16/22 07:38**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-3**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/19/22 10:34	12/20/22 17:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	57		42 - 126				12/19/22 10:34	12/20/22 17:42	1

**Client Sample ID: B-38 @ 20'**  
**Date Collected: 12/16/22 07:43**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-4**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/19/22 10:34	12/20/22 18:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	68		42 - 126				12/19/22 10:34	12/20/22 18:12	1

**Client Sample ID: B-38 @ 25'**  
**Date Collected: 12/16/22 07:53**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-5**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/19/22 10:34	12/20/22 18:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	64		42 - 126				12/19/22 10:34	12/20/22 18:41	1

**Client Sample ID: B-38 @ 30'**  
**Date Collected: 12/16/22 07:57**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-6**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/19/22 10:34	12/20/22 19:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	60		42 - 126				12/19/22 10:34	12/20/22 19:11	1



# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-38 @ 35'**  
**Date Collected: 12/16/22 08:07**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-7**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/19/22 10:34	12/20/22 19:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	58		42 - 126				12/19/22 10:34	12/20/22 19:40	1

**Client Sample ID: B-38 @ 40'**  
**Date Collected: 12/16/22 08:13**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-8**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/19/22 10:34	12/20/22 20:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	65		42 - 126				12/19/22 10:34	12/20/22 20:10	1

**Client Sample ID: B-35 @ 2'**  
**Date Collected: 12/16/22 09:45**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-9**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/19/22 10:34	12/20/22 20:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	56		42 - 126				12/19/22 10:34	12/20/22 20:40	1

**Client Sample ID: B-35 @ 5'**  
**Date Collected: 12/16/22 09:50**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-10**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/19/22 10:34	12/20/22 21:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	65		42 - 126				12/19/22 10:34	12/20/22 21:09	1

**Client Sample ID: B-35 @ 10'**  
**Date Collected: 12/16/22 09:55**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-11**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/19/22 10:34	12/20/22 22:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	54		42 - 126				12/19/22 10:34	12/20/22 22:08	1

**Client Sample ID: B-35 @ 15'**  
**Date Collected: 12/16/22 10:03**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-12**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/19/22 10:34	12/20/22 22:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	55		42 - 126				12/19/22 10:34	12/20/22 22:38	1



# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-35 @ 20'**  
**Date Collected: 12/16/22 10:09**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-13**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/19/22 10:34	12/20/22 23:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	60		42 - 126				12/19/22 10:34	12/20/22 23:07	1

**Client Sample ID: B-35 @ 25'**  
**Date Collected: 12/16/22 10:27**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-14**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/19/22 10:34	12/20/22 23:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	48		42 - 126				12/19/22 10:34	12/20/22 23:37	1

**Client Sample ID: B-37 @ 2'**  
**Date Collected: 12/16/22 11:07**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-15**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/19/22 10:34	12/21/22 00:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	58		42 - 126				12/19/22 10:34	12/21/22 00:06	1

**Client Sample ID: B-37 @ 5'**  
**Date Collected: 12/16/22 11:41**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-16**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/19/22 10:34	12/21/22 00:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	65		42 - 126				12/19/22 10:34	12/21/22 00:36	1

**Client Sample ID: B-37 @ 10'**  
**Date Collected: 12/16/22 11:49**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-17**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/19/22 10:34	12/21/22 01:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	60		42 - 126				12/19/22 10:34	12/21/22 01:05	1

**Client Sample ID: B-37 @ 15'**  
**Date Collected: 12/16/22 11:59**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-18**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/19/22 10:34	12/21/22 01:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	57		42 - 126				12/19/22 10:34	12/21/22 01:35	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-37 @ 20'**  
**Date Collected: 12/16/22 12:09**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-19**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/19/22 10:34	12/21/22 02:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	58		42 - 126				12/19/22 10:34	12/21/22 02:04	1

**Client Sample ID: B-37 @ 25'**  
**Date Collected: 12/16/22 12:22**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-20**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/19/22 10:34	12/21/22 02:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	51		42 - 126				12/19/22 10:34	12/21/22 02:34	1

**Client Sample ID: B-37 @ 30'**  
**Date Collected: 12/16/22 12:36**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-21**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	0.075	J	0.10	0.056	mg/Kg		12/21/22 13:15	12/21/22 15:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		42 - 126				12/21/22 13:15	12/21/22 15:08	1

**Client Sample ID: B-37 @ 35'**  
**Date Collected: 12/16/22 12:49**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-22**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/21/22 13:15	12/21/22 15:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		42 - 126				12/21/22 13:15	12/21/22 15:33	1

**Client Sample ID: B-37 @ 40'**  
**Date Collected: 12/16/22 13:16**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-23**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/21/22 13:15	12/21/22 15:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		42 - 126				12/21/22 13:15	12/21/22 15:57	1

**Client Sample ID: B-37 @ 45'**  
**Date Collected: 12/16/22 13:25**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-24**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/21/22 13:15	12/21/22 16:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		42 - 126				12/21/22 13:15	12/21/22 16:21	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B-38 @ 5'  
Date Collected: 12/16/22 07:10  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	6.4		4.9	3.8	mg/Kg		12/19/22 18:23	12/21/22 03:51	1
C23-C40	79		4.9	3.8	mg/Kg		12/19/22 18:23	12/21/22 03:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	114		60 - 138				12/19/22 18:23	12/21/22 03:51	1

Client Sample ID: B-38 @ 10'  
Date Collected: 12/16/22 07:28  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		12/19/22 18:23	12/21/22 04:18	1
C23-C40	12		4.9	3.8	mg/Kg		12/19/22 18:23	12/21/22 04:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	117		60 - 138				12/19/22 18:23	12/21/22 04:18	1

Client Sample ID: B-38 @ 15'  
Date Collected: 12/16/22 07:38  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	18		4.9	3.8	mg/Kg		12/19/22 18:23	12/21/22 04:44	1
C23-C40	55		4.9	3.8	mg/Kg		12/19/22 18:23	12/21/22 04:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	109		60 - 138				12/19/22 18:23	12/21/22 04:44	1

Client Sample ID: B-38 @ 20'  
Date Collected: 12/16/22 07:43  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		12/19/22 18:23	12/21/22 05:11	1
C23-C40	6.4		4.9	3.8	mg/Kg		12/19/22 18:23	12/21/22 05:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	113		60 - 138				12/19/22 18:23	12/21/22 05:11	1

Client Sample ID: B-38 @ 25'  
Date Collected: 12/16/22 07:53  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		12/19/22 18:23	12/21/22 05:37	1
C23-C40	8.0		4.9	3.8	mg/Kg		12/19/22 18:23	12/21/22 05:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	125		60 - 138				12/19/22 18:23	12/21/22 05:37	1

Client Sample ID: B-38 @ 30'  
Date Collected: 12/16/22 07:57  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		12/19/22 18:23	12/21/22 06:03	1
C23-C40	5.0		4.9	3.8	mg/Kg		12/19/22 18:23	12/21/22 06:03	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	109		60 - 138	12/19/22 18:23	12/21/22 06:03	1
<div> <div>Client Sample ID: B-38 @ 35'</div> <div>Date Collected: 12/16/22 08:07</div> <div>Date Received: 12/16/22 19:15</div> </div> <div> <div>Lab Sample ID: 570-121270-7</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		4.9	3.8	mg/Kg	
C23-C40	19		4.9	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	113		60 - 138	12/19/22 18:23	12/21/22 06:30	1
<div> <div>Client Sample ID: B-38 @ 40'</div> <div>Date Collected: 12/16/22 08:13</div> <div>Date Received: 12/16/22 19:15</div> </div> <div> <div>Lab Sample ID: 570-121270-8</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		4.9	3.8	mg/Kg	
C23-C40	4.2 J		4.9	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	110		60 - 138	12/19/22 18:23	12/21/22 07:22	1
<div> <div>Client Sample ID: B-35 @ 2'</div> <div>Date Collected: 12/16/22 09:45</div> <div>Date Received: 12/16/22 19:15</div> </div> <div> <div>Lab Sample ID: 570-121270-9</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		4.9	3.8	mg/Kg	
C23-C40	11		4.9	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	115		60 - 138	12/19/22 18:23	12/21/22 07:48	1
<div> <div>Client Sample ID: B-35 @ 5'</div> <div>Date Collected: 12/16/22 09:50</div> <div>Date Received: 12/16/22 19:15</div> </div> <div> <div>Lab Sample ID: 570-121270-10</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		4.9	3.7	mg/Kg	
C23-C40	4.6 J		4.9	3.7	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	118		60 - 138	12/19/22 18:23	12/21/22 08:15	1
<div> <div>Client Sample ID: B-35 @ 10'</div> <div>Date Collected: 12/16/22 09:55</div> <div>Date Received: 12/16/22 19:15</div> </div> <div> <div>Lab Sample ID: 570-121270-11</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		4.9	3.8	mg/Kg	
C23-C40	17		4.9	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	109		60 - 138	12/19/22 18:23	12/21/22 08:41	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B-35 @ 15'  
Date Collected: 12/16/22 10:03  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.8	3.7	mg/Kg		12/19/22 18:23	12/21/22 09:08	1
C23-C40	17		4.8	3.7	mg/Kg		12/19/22 18:23	12/21/22 09:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	114		60 - 138				12/19/22 18:23	12/21/22 09:08	1

Client Sample ID: B-35 @ 20'  
Date Collected: 12/16/22 10:09  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.8	3.7	mg/Kg		12/19/22 18:23	12/21/22 09:34	1
C23-C40	8.9		4.8	3.7	mg/Kg		12/19/22 18:23	12/21/22 09:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	118		60 - 138				12/19/22 18:23	12/21/22 09:34	1

Client Sample ID: B-35 @ 25'  
Date Collected: 12/16/22 10:27  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-14  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.8	3.7	mg/Kg		12/19/22 18:23	12/21/22 09:59	1
C23-C40	13		4.8	3.7	mg/Kg		12/19/22 18:23	12/21/22 09:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	119		60 - 138				12/19/22 18:23	12/21/22 09:59	1

Client Sample ID: B-37 @ 2'  
Date Collected: 12/16/22 11:07  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-15  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.8	3.7	mg/Kg		12/19/22 18:23	12/21/22 10:24	1
C23-C40	15		4.8	3.7	mg/Kg		12/19/22 18:23	12/21/22 10:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	120		60 - 138				12/19/22 18:23	12/21/22 10:24	1

Client Sample ID: B-37 @ 5'  
Date Collected: 12/16/22 11:41  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-16  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		12/19/22 18:23	12/21/22 10:50	1
C23-C40	42		4.9	3.8	mg/Kg		12/19/22 18:23	12/21/22 10:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	118		60 - 138				12/19/22 18:23	12/21/22 10:50	1

Client Sample ID: B-37 @ 10'  
Date Collected: 12/16/22 11:49  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-17  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		12/19/22 18:23	12/21/22 11:15	1
C23-C40	33		4.9	3.8	mg/Kg		12/19/22 18:23	12/21/22 11:15	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	124		60 - 138			12/19/22 18:23	12/21/22 11:15	1	
Client Sample ID: B-37 @ 15' Date Collected: 12/16/22 11:59 Date Received: 12/16/22 19:15						Lab Sample ID: 570-121270-18 Matrix: Solid			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	4.5	J	4.9	3.8	mg/Kg		12/19/22 18:23	12/21/22 11:40	1
C23-C40	36		4.9	3.8	mg/Kg		12/19/22 18:23	12/21/22 11:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	123		60 - 138			12/19/22 18:23	12/21/22 11:40	1	
Client Sample ID: B-37 @ 20' Date Collected: 12/16/22 12:09 Date Received: 12/16/22 19:15						Lab Sample ID: 570-121270-19 Matrix: Solid			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	20		5.0	3.8	mg/Kg		12/19/22 18:23	12/21/22 12:05	1
C23-C40	97		5.0	3.8	mg/Kg		12/19/22 18:23	12/21/22 12:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	124		60 - 138			12/19/22 18:23	12/21/22 12:05	1	
Client Sample ID: B-37 @ 25' Date Collected: 12/16/22 12:22 Date Received: 12/16/22 19:15						Lab Sample ID: 570-121270-20 Matrix: Solid			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		12/19/22 18:23	12/21/22 12:31	1
C23-C40	10		4.9	3.8	mg/Kg		12/19/22 18:23	12/21/22 12:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	124		60 - 138			12/19/22 18:23	12/21/22 12:31	1	
Client Sample ID: B-37 @ 30' Date Collected: 12/16/22 12:36 Date Received: 12/16/22 19:15						Lab Sample ID: 570-121270-21 Matrix: Solid			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	310		49	38	mg/Kg		12/19/22 18:25	12/21/22 00:16	10
C23-C40	1500		49	38	mg/Kg		12/19/22 18:25	12/21/22 00:16	10
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	145	S1+	60 - 138			12/19/22 18:25	12/21/22 00:16	10	
Client Sample ID: B-37 @ 35' Date Collected: 12/16/22 12:49 Date Received: 12/16/22 19:15						Lab Sample ID: 570-121270-22 Matrix: Solid			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		12/19/22 18:25	12/21/22 00:43	1
C23-C40	14		4.9	3.8	mg/Kg		12/19/22 18:25	12/21/22 00:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	120		60 - 138			12/19/22 18:25	12/21/22 00:43	1	

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B-37 @ 40'  
Date Collected: 12/16/22 13:16  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-23  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	18		4.9	3.8	mg/Kg		12/19/22 18:25	12/21/22 01:10	1
C23-C40	39		4.9	3.8	mg/Kg		12/19/22 18:25	12/21/22 01:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	127		60 - 138				12/19/22 18:25	12/21/22 01:10	1

Client Sample ID: B-37 @ 45'  
Date Collected: 12/16/22 13:25  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-24  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	45		4.9	3.8	mg/Kg		12/19/22 18:25	12/21/22 01:37	1
C23-C40	20		4.9	3.8	mg/Kg		12/19/22 18:25	12/21/22 01:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	125		60 - 138				12/19/22 18:25	12/21/22 01:37	1



# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-38 @ 5'  
Date Collected: 12/16/22 07:10  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/20/22 06:38	12/21/22 05:06	5
Arsenic	2.25	J	3.02	1.40	mg/Kg		12/20/22 06:38	12/21/22 05:06	5
Barium	53.9		3.02	0.143	mg/Kg		12/20/22 06:38	12/21/22 05:06	5
Beryllium	0.214	J	0.503	0.0693	mg/Kg		12/20/22 06:38	12/21/22 05:06	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/20/22 06:38	12/21/22 05:06	5
Cobalt	2.59		1.01	0.207	mg/Kg		12/20/22 06:38	12/21/22 05:06	5
Chromium	11.3		1.01	0.187	mg/Kg		12/20/22 06:38	12/21/22 05:06	5
Copper	14.7		2.01	0.963	mg/Kg		12/20/22 06:38	12/21/22 05:06	5
Molybdenum	ND		2.01	0.518	mg/Kg		12/20/22 06:38	12/21/22 05:06	5
Nickel	3.13		2.01	0.364	mg/Kg		12/20/22 06:38	12/21/22 05:06	5
Antimony	ND	F1	10.1	2.87	mg/Kg		12/20/22 06:38	12/21/22 05:06	5
Selenium	ND		3.02	1.23	mg/Kg		12/20/22 06:38	12/21/22 05:06	5
Thallium	ND		10.1	2.12	mg/Kg		12/20/22 06:38	12/21/22 05:06	5
Vanadium	23.2		1.01	0.169	mg/Kg		12/20/22 06:38	12/21/22 05:06	5
Zinc	27.1		5.03	1.16	mg/Kg		12/20/22 06:38	12/21/22 05:06	5
Lead	11.3		2.01	0.411	mg/Kg		12/20/22 06:38	12/21/22 05:06	5

Client Sample ID: B-38 @ 10'  
Date Collected: 12/16/22 07:28  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/20/22 06:38	12/21/22 05:16	5
Arsenic	3.86		3.00	1.39	mg/Kg		12/20/22 06:38	12/21/22 05:16	5
Barium	59.3		3.00	0.142	mg/Kg		12/20/22 06:38	12/21/22 05:16	5
Beryllium	0.288	J	0.500	0.0690	mg/Kg		12/20/22 06:38	12/21/22 05:16	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/20/22 06:38	12/21/22 05:16	5
Cobalt	3.19		1.00	0.206	mg/Kg		12/20/22 06:38	12/21/22 05:16	5
Chromium	7.78		1.00	0.186	mg/Kg		12/20/22 06:38	12/21/22 05:16	5
Copper	39.8		2.00	0.958	mg/Kg		12/20/22 06:38	12/21/22 05:16	5
Molybdenum	0.538	J	2.00	0.515	mg/Kg		12/20/22 06:38	12/21/22 05:16	5
Nickel	3.59		2.00	0.362	mg/Kg		12/20/22 06:38	12/21/22 05:16	5
Antimony	ND		10.0	2.86	mg/Kg		12/20/22 06:38	12/21/22 05:16	5
Selenium	ND		3.00	1.22	mg/Kg		12/20/22 06:38	12/21/22 05:16	5
Thallium	ND		10.0	2.11	mg/Kg		12/20/22 06:38	12/21/22 05:16	5
Vanadium	18.3		1.00	0.168	mg/Kg		12/20/22 06:38	12/21/22 05:16	5
Zinc	26.9		5.00	1.16	mg/Kg		12/20/22 06:38	12/21/22 05:16	5
Lead	151		2.00	0.409	mg/Kg		12/20/22 06:38	12/21/22 05:16	5

Client Sample ID: B-38 @ 15'  
Date Collected: 12/16/22 07:38  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.146	mg/Kg		12/20/22 06:38	12/21/22 05:19	5
Arsenic	1.98	J	3.05	1.41	mg/Kg		12/20/22 06:38	12/21/22 05:19	5
Barium	33.0		3.05	0.144	mg/Kg		12/20/22 06:38	12/21/22 05:19	5
Beryllium	0.228	J	0.508	0.0701	mg/Kg		12/20/22 06:38	12/21/22 05:19	5
Cadmium	ND		0.508	0.0843	mg/Kg		12/20/22 06:38	12/21/22 05:19	5
Cobalt	2.94		1.02	0.209	mg/Kg		12/20/22 06:38	12/21/22 05:19	5
Chromium	8.48		1.02	0.189	mg/Kg		12/20/22 06:38	12/21/22 05:19	5
Copper	3.62		2.03	0.973	mg/Kg		12/20/22 06:38	12/21/22 05:19	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-38 @ 15'  
Date Collected: 12/16/22 07:38  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		2.03	0.523	mg/Kg		12/20/22 06:38	12/21/22 05:19	5
Nickel	3.11		2.03	0.368	mg/Kg		12/20/22 06:38	12/21/22 05:19	5
Antimony	ND		10.2	2.90	mg/Kg		12/20/22 06:38	12/21/22 05:19	5
Selenium	ND		3.05	1.24	mg/Kg		12/20/22 06:38	12/21/22 05:19	5
Thallium	ND		10.2	2.14	mg/Kg		12/20/22 06:38	12/21/22 05:19	5
Vanadium	25.0		1.02	0.171	mg/Kg		12/20/22 06:38	12/21/22 05:19	5
Zinc	9.16		5.08	1.17	mg/Kg		12/20/22 06:38	12/21/22 05:19	5
Lead	5.25		2.03	0.415	mg/Kg		12/20/22 06:38	12/21/22 05:19	5

Client Sample ID: B-38 @ 20'  
Date Collected: 12/16/22 07:43  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/20/22 06:38	12/21/22 05:21	5
Arsenic	3.56		3.03	1.41	mg/Kg		12/20/22 06:38	12/21/22 05:21	5
Barium	36.6		3.03	0.143	mg/Kg		12/20/22 06:38	12/21/22 05:21	5
Beryllium	0.227	J	0.505	0.0697	mg/Kg		12/20/22 06:38	12/21/22 05:21	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/20/22 06:38	12/21/22 05:21	5
Cobalt	1.99		1.01	0.208	mg/Kg		12/20/22 06:38	12/21/22 05:21	5
Chromium	15.4		1.01	0.188	mg/Kg		12/20/22 06:38	12/21/22 05:21	5
Copper	6.14		2.02	0.968	mg/Kg		12/20/22 06:38	12/21/22 05:21	5
Molybdenum	ND		2.02	0.520	mg/Kg		12/20/22 06:38	12/21/22 05:21	5
Nickel	3.30		2.02	0.366	mg/Kg		12/20/22 06:38	12/21/22 05:21	5
Antimony	ND		10.1	2.89	mg/Kg		12/20/22 06:38	12/21/22 05:21	5
Selenium	ND		3.03	1.23	mg/Kg		12/20/22 06:38	12/21/22 05:21	5
Thallium	ND		10.1	2.13	mg/Kg		12/20/22 06:38	12/21/22 05:21	5
Vanadium	39.9		1.01	0.170	mg/Kg		12/20/22 06:38	12/21/22 05:21	5
Zinc	9.62		5.05	1.17	mg/Kg		12/20/22 06:38	12/21/22 05:21	5
Lead	6.34		2.02	0.413	mg/Kg		12/20/22 06:38	12/21/22 05:21	5

Client Sample ID: B-38 @ 25'  
Date Collected: 12/16/22 07:53  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.146	mg/Kg		12/20/22 06:38	12/21/22 05:23	5
Arsenic	5.60		3.05	1.41	mg/Kg		12/20/22 06:38	12/21/22 05:23	5
Barium	153		3.05	0.144	mg/Kg		12/20/22 06:38	12/21/22 05:23	5
Beryllium	0.343	J	0.508	0.0701	mg/Kg		12/20/22 06:38	12/21/22 05:23	5
Cadmium	ND		0.508	0.0843	mg/Kg		12/20/22 06:38	12/21/22 05:23	5
Cobalt	2.77		1.02	0.209	mg/Kg		12/20/22 06:38	12/21/22 05:23	5
Chromium	7.60		1.02	0.189	mg/Kg		12/20/22 06:38	12/21/22 05:23	5
Copper	15.1		2.03	0.973	mg/Kg		12/20/22 06:38	12/21/22 05:23	5
Molybdenum	ND		2.03	0.523	mg/Kg		12/20/22 06:38	12/21/22 05:23	5
Nickel	3.39		2.03	0.368	mg/Kg		12/20/22 06:38	12/21/22 05:23	5
Antimony	ND		10.2	2.90	mg/Kg		12/20/22 06:38	12/21/22 05:23	5
Selenium	ND		3.05	1.24	mg/Kg		12/20/22 06:38	12/21/22 05:23	5
Thallium	ND		10.2	2.14	mg/Kg		12/20/22 06:38	12/21/22 05:23	5
Vanadium	21.9		1.02	0.171	mg/Kg		12/20/22 06:38	12/21/22 05:23	5
Zinc	23.3		5.08	1.17	mg/Kg		12/20/22 06:38	12/21/22 05:23	5
Lead	67.2		2.03	0.415	mg/Kg		12/20/22 06:38	12/21/22 05:23	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-38 @ 30'  
Date Collected: 12/16/22 07:57  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/20/22 06:38	12/21/22 05:26	5
Arsenic	5.69		3.06	1.42	mg/Kg		12/20/22 06:38	12/21/22 05:26	5
Barium	65.3		3.06	0.145	mg/Kg		12/20/22 06:38	12/21/22 05:26	5
Beryllium	0.357	J	0.510	0.0704	mg/Kg		12/20/22 06:38	12/21/22 05:26	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/20/22 06:38	12/21/22 05:26	5
Cobalt	3.80		1.02	0.210	mg/Kg		12/20/22 06:38	12/21/22 05:26	5
Chromium	9.22		1.02	0.190	mg/Kg		12/20/22 06:38	12/21/22 05:26	5
Copper	14.3		2.04	0.978	mg/Kg		12/20/22 06:38	12/21/22 05:26	5
Molybdenum	ND		2.04	0.526	mg/Kg		12/20/22 06:38	12/21/22 05:26	5
Nickel	5.17		2.04	0.369	mg/Kg		12/20/22 06:38	12/21/22 05:26	5
Antimony	ND		10.2	2.92	mg/Kg		12/20/22 06:38	12/21/22 05:26	5
Selenium	ND		3.06	1.25	mg/Kg		12/20/22 06:38	12/21/22 05:26	5
Thallium	ND		10.2	2.15	mg/Kg		12/20/22 06:38	12/21/22 05:26	5
Vanadium	21.4		1.02	0.171	mg/Kg		12/20/22 06:38	12/21/22 05:26	5
Zinc	27.0		5.10	1.18	mg/Kg		12/20/22 06:38	12/21/22 05:26	5
Lead	48.0		2.04	0.417	mg/Kg		12/20/22 06:38	12/21/22 05:26	5

Client Sample ID: B-38 @ 35'  
Date Collected: 12/16/22 08:07  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-7  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.146	mg/Kg		12/20/22 06:38	12/21/22 05:33	5
Arsenic	7.46		3.05	1.41	mg/Kg		12/20/22 06:38	12/21/22 05:33	5
Barium	71.0		3.05	0.144	mg/Kg		12/20/22 06:38	12/21/22 05:33	5
Beryllium	0.368	J	0.508	0.0701	mg/Kg		12/20/22 06:38	12/21/22 05:33	5
Cadmium	ND		0.508	0.0843	mg/Kg		12/20/22 06:38	12/21/22 05:33	5
Cobalt	4.71		1.02	0.209	mg/Kg		12/20/22 06:38	12/21/22 05:33	5
Chromium	10.1		1.02	0.189	mg/Kg		12/20/22 06:38	12/21/22 05:33	5
Copper	20.7		2.03	0.973	mg/Kg		12/20/22 06:38	12/21/22 05:33	5
Molybdenum	0.609	J	2.03	0.523	mg/Kg		12/20/22 06:38	12/21/22 05:33	5
Nickel	5.99		2.03	0.368	mg/Kg		12/20/22 06:38	12/21/22 05:33	5
Antimony	ND		10.2	2.90	mg/Kg		12/20/22 06:38	12/21/22 05:33	5
Selenium	ND		3.05	1.24	mg/Kg		12/20/22 06:38	12/21/22 05:33	5
Thallium	ND		10.2	2.14	mg/Kg		12/20/22 06:38	12/21/22 05:33	5
Vanadium	22.8		1.02	0.171	mg/Kg		12/20/22 06:38	12/21/22 05:33	5
Zinc	37.0		5.08	1.17	mg/Kg		12/20/22 06:38	12/21/22 05:33	5
Lead	39.2		2.03	0.415	mg/Kg		12/20/22 06:38	12/21/22 05:33	5

Client Sample ID: B-38 @ 40'  
Date Collected: 12/16/22 08:13  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/20/22 06:38	12/21/22 05:36	5
Arsenic	6.12		3.03	1.41	mg/Kg		12/20/22 06:38	12/21/22 05:36	5
Barium	40.3		3.03	0.143	mg/Kg		12/20/22 06:38	12/21/22 05:36	5
Beryllium	0.404	J	0.505	0.0697	mg/Kg		12/20/22 06:38	12/21/22 05:36	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/20/22 06:38	12/21/22 05:36	5
Cobalt	6.00		1.01	0.208	mg/Kg		12/20/22 06:38	12/21/22 05:36	5
Chromium	12.1		1.01	0.188	mg/Kg		12/20/22 06:38	12/21/22 05:36	5
Copper	14.9		2.02	0.968	mg/Kg		12/20/22 06:38	12/21/22 05:36	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-38 @ 40'  
Date Collected: 12/16/22 08:13  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		2.02	0.520	mg/Kg		12/20/22 06:38	12/21/22 05:36	5
Nickel	9.08		2.02	0.366	mg/Kg		12/20/22 06:38	12/21/22 05:36	5
Antimony	ND		10.1	2.89	mg/Kg		12/20/22 06:38	12/21/22 05:36	5
Selenium	ND		3.03	1.23	mg/Kg		12/20/22 06:38	12/21/22 05:36	5
Thallium	ND		10.1	2.13	mg/Kg		12/20/22 06:38	12/21/22 05:36	5
Vanadium	21.6		1.01	0.170	mg/Kg		12/20/22 06:38	12/21/22 05:36	5
Zinc	48.2		5.05	1.17	mg/Kg		12/20/22 06:38	12/21/22 05:36	5
Lead	16.3		2.02	0.413	mg/Kg		12/20/22 06:38	12/21/22 05:36	5

Client Sample ID: B-35 @ 2'  
Date Collected: 12/16/22 09:45  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-9  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/20/22 06:38	12/21/22 05:38	5
Arsenic	6.29		3.06	1.42	mg/Kg		12/20/22 06:38	12/21/22 05:38	5
Barium	41.5		3.06	0.145	mg/Kg		12/20/22 06:38	12/21/22 05:38	5
Beryllium	0.344	J	0.510	0.0704	mg/Kg		12/20/22 06:38	12/21/22 05:38	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/20/22 06:38	12/21/22 05:38	5
Cobalt	3.71		1.02	0.210	mg/Kg		12/20/22 06:38	12/21/22 05:38	5
Chromium	10.4		1.02	0.190	mg/Kg		12/20/22 06:38	12/21/22 05:38	5
Copper	12.8		2.04	0.978	mg/Kg		12/20/22 06:38	12/21/22 05:38	5
Molybdenum	0.561	J	2.04	0.526	mg/Kg		12/20/22 06:38	12/21/22 05:38	5
Nickel	5.17		2.04	0.369	mg/Kg		12/20/22 06:38	12/21/22 05:38	5
Antimony	ND		10.2	2.92	mg/Kg		12/20/22 06:38	12/21/22 05:38	5
Selenium	ND		3.06	1.25	mg/Kg		12/20/22 06:38	12/21/22 05:38	5
Thallium	ND		10.2	2.15	mg/Kg		12/20/22 06:38	12/21/22 05:38	5
Vanadium	28.5		1.02	0.171	mg/Kg		12/20/22 06:38	12/21/22 05:38	5
Zinc	24.9		5.10	1.18	mg/Kg		12/20/22 06:38	12/21/22 05:38	5
Lead	15.8		2.04	0.417	mg/Kg		12/20/22 06:38	12/21/22 05:38	5

Client Sample ID: B-35 @ 5'  
Date Collected: 12/16/22 09:50  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-10  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/20/22 06:38	12/21/22 05:40	5
Arsenic	5.08		3.02	1.40	mg/Kg		12/20/22 06:38	12/21/22 05:40	5
Barium	65.2		3.02	0.143	mg/Kg		12/20/22 06:38	12/21/22 05:40	5
Beryllium	0.540		0.503	0.0693	mg/Kg		12/20/22 06:38	12/21/22 05:40	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/20/22 06:38	12/21/22 05:40	5
Cobalt	5.73		1.01	0.207	mg/Kg		12/20/22 06:38	12/21/22 05:40	5
Chromium	13.7		1.01	0.187	mg/Kg		12/20/22 06:38	12/21/22 05:40	5
Copper	12.0		2.01	0.963	mg/Kg		12/20/22 06:38	12/21/22 05:40	5
Molybdenum	ND		2.01	0.518	mg/Kg		12/20/22 06:38	12/21/22 05:40	5
Nickel	7.85		2.01	0.364	mg/Kg		12/20/22 06:38	12/21/22 05:40	5
Antimony	ND		10.1	2.87	mg/Kg		12/20/22 06:38	12/21/22 05:40	5
Selenium	ND		3.02	1.23	mg/Kg		12/20/22 06:38	12/21/22 05:40	5
Thallium	ND		10.1	2.12	mg/Kg		12/20/22 06:38	12/21/22 05:40	5
Vanadium	27.8		1.01	0.169	mg/Kg		12/20/22 06:38	12/21/22 05:40	5
Zinc	35.9		5.03	1.16	mg/Kg		12/20/22 06:38	12/21/22 05:40	5
Lead	11.8		2.01	0.411	mg/Kg		12/20/22 06:38	12/21/22 05:40	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-35 @ 10'  
Date Collected: 12/16/22 09:55  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-11  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/20/22 06:38	12/21/22 05:43	5
Arsenic	6.19		3.00	1.39	mg/Kg		12/20/22 06:38	12/21/22 05:43	5
Barium	49.9		3.00	0.142	mg/Kg		12/20/22 06:38	12/21/22 05:43	5
Beryllium	0.363	J	0.500	0.0690	mg/Kg		12/20/22 06:38	12/21/22 05:43	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/20/22 06:38	12/21/22 05:43	5
Cobalt	4.50		1.00	0.206	mg/Kg		12/20/22 06:38	12/21/22 05:43	5
Chromium	11.5		1.00	0.186	mg/Kg		12/20/22 06:38	12/21/22 05:43	5
Copper	9.83		2.00	0.958	mg/Kg		12/20/22 06:38	12/21/22 05:43	5
Molybdenum	ND		2.00	0.515	mg/Kg		12/20/22 06:38	12/21/22 05:43	5
Nickel	5.91		2.00	0.362	mg/Kg		12/20/22 06:38	12/21/22 05:43	5
Antimony	ND		10.0	2.86	mg/Kg		12/20/22 06:38	12/21/22 05:43	5
Selenium	ND		3.00	1.22	mg/Kg		12/20/22 06:38	12/21/22 05:43	5
Thallium	ND		10.0	2.11	mg/Kg		12/20/22 06:38	12/21/22 05:43	5
Vanadium	27.8		1.00	0.168	mg/Kg		12/20/22 06:38	12/21/22 05:43	5
Zinc	32.4		5.00	1.16	mg/Kg		12/20/22 06:38	12/21/22 05:43	5
Lead	6.36		2.00	0.409	mg/Kg		12/20/22 06:38	12/21/22 05:43	5

Client Sample ID: B-35 @ 15'  
Date Collected: 12/16/22 10:03  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.48	0.142	mg/Kg		12/20/22 06:38	12/21/22 05:45	5
Arsenic	4.93		2.96	1.37	mg/Kg		12/20/22 06:38	12/21/22 05:45	5
Barium	67.2		2.96	0.140	mg/Kg		12/20/22 06:38	12/21/22 05:45	5
Beryllium	0.283	J	0.493	0.0680	mg/Kg		12/20/22 06:38	12/21/22 05:45	5
Cadmium	ND		0.493	0.0818	mg/Kg		12/20/22 06:38	12/21/22 05:45	5
Cobalt	2.92		0.985	0.203	mg/Kg		12/20/22 06:38	12/21/22 05:45	5
Chromium	17.8		0.985	0.183	mg/Kg		12/20/22 06:38	12/21/22 05:45	5
Copper	5.36		1.97	0.944	mg/Kg		12/20/22 06:38	12/21/22 05:45	5
Molybdenum	ND		1.97	0.507	mg/Kg		12/20/22 06:38	12/21/22 05:45	5
Nickel	3.02		1.97	0.357	mg/Kg		12/20/22 06:38	12/21/22 05:45	5
Antimony	ND		9.85	2.81	mg/Kg		12/20/22 06:38	12/21/22 05:45	5
Selenium	ND		2.96	1.20	mg/Kg		12/20/22 06:38	12/21/22 05:45	5
Thallium	ND		9.85	2.07	mg/Kg		12/20/22 06:38	12/21/22 05:45	5
Vanadium	51.9		0.985	0.166	mg/Kg		12/20/22 06:38	12/21/22 05:45	5
Zinc	13.0		4.93	1.14	mg/Kg		12/20/22 06:38	12/21/22 05:45	5
Lead	10.3		1.97	0.403	mg/Kg		12/20/22 06:38	12/21/22 05:45	5

Client Sample ID: B-35 @ 20'  
Date Collected: 12/16/22 10:09  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/20/22 06:38	12/21/22 05:48	5
Arsenic	6.79		2.97	1.38	mg/Kg		12/20/22 06:38	12/21/22 05:48	5
Barium	129		2.97	0.141	mg/Kg		12/20/22 06:38	12/21/22 05:48	5
Beryllium	0.309	J	0.495	0.0683	mg/Kg		12/20/22 06:38	12/21/22 05:48	5
Cadmium	ND		0.495	0.0822	mg/Kg		12/20/22 06:38	12/21/22 05:48	5
Cobalt	3.49		0.990	0.204	mg/Kg		12/20/22 06:38	12/21/22 05:48	5
Chromium	7.35		0.990	0.184	mg/Kg		12/20/22 06:38	12/21/22 05:48	5
Copper	30.9		1.98	0.949	mg/Kg		12/20/22 06:38	12/21/22 05:48	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-35 @ 20'  
Date Collected: 12/16/22 10:09  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		1.98	0.510	mg/Kg		12/20/22 06:38	12/21/22 05:48	5
Nickel	3.60		1.98	0.358	mg/Kg		12/20/22 06:38	12/21/22 05:48	5
Antimony	ND		9.90	2.83	mg/Kg		12/20/22 06:38	12/21/22 05:48	5
Selenium	ND		2.97	1.21	mg/Kg		12/20/22 06:38	12/21/22 05:48	5
Thallium	ND		9.90	2.09	mg/Kg		12/20/22 06:38	12/21/22 05:48	5
Vanadium	19.1		0.990	0.166	mg/Kg		12/20/22 06:38	12/21/22 05:48	5
Zinc	28.0		4.95	1.14	mg/Kg		12/20/22 06:38	12/21/22 05:48	5
Lead	30.6		1.98	0.405	mg/Kg		12/20/22 06:38	12/21/22 05:48	5

Client Sample ID: B-35 @ 25'  
Date Collected: 12/16/22 10:27  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-14  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/20/22 06:38	12/21/22 05:50	5
Arsenic	4.59		3.00	1.39	mg/Kg		12/20/22 06:38	12/21/22 05:50	5
Barium	99.6		3.00	0.142	mg/Kg		12/20/22 06:38	12/21/22 05:50	5
Beryllium	0.263	J	0.500	0.0690	mg/Kg		12/20/22 06:38	12/21/22 05:50	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/20/22 06:38	12/21/22 05:50	5
Cobalt	2.79		1.00	0.206	mg/Kg		12/20/22 06:38	12/21/22 05:50	5
Chromium	6.40		1.00	0.186	mg/Kg		12/20/22 06:38	12/21/22 05:50	5
Copper	15.7		2.00	0.958	mg/Kg		12/20/22 06:38	12/21/22 05:50	5
Molybdenum	ND		2.00	0.515	mg/Kg		12/20/22 06:38	12/21/22 05:50	5
Nickel	2.79		2.00	0.362	mg/Kg		12/20/22 06:38	12/21/22 05:50	5
Antimony	ND		10.0	2.86	mg/Kg		12/20/22 06:38	12/21/22 05:50	5
Selenium	ND		3.00	1.22	mg/Kg		12/20/22 06:38	12/21/22 05:50	5
Thallium	ND		10.0	2.11	mg/Kg		12/20/22 06:38	12/21/22 05:50	5
Vanadium	17.1		1.00	0.168	mg/Kg		12/20/22 06:38	12/21/22 05:50	5
Zinc	20.3		5.00	1.16	mg/Kg		12/20/22 06:38	12/21/22 05:50	5
Lead	97.0		2.00	0.409	mg/Kg		12/20/22 06:38	12/21/22 05:50	5

Client Sample ID: B-37 @ 2'  
Date Collected: 12/16/22 11:07  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-15  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/20/22 06:38	12/21/22 05:53	5
Arsenic	2.65	J	2.97	1.38	mg/Kg		12/20/22 06:38	12/21/22 05:53	5
Barium	35.7		2.97	0.141	mg/Kg		12/20/22 06:38	12/21/22 05:53	5
Beryllium	0.210	J	0.495	0.0683	mg/Kg		12/20/22 06:38	12/21/22 05:53	5
Cadmium	ND		0.495	0.0822	mg/Kg		12/20/22 06:38	12/21/22 05:53	5
Cobalt	2.59		0.990	0.204	mg/Kg		12/20/22 06:38	12/21/22 05:53	5
Chromium	8.47		0.990	0.184	mg/Kg		12/20/22 06:38	12/21/22 05:53	5
Copper	4.91		1.98	0.949	mg/Kg		12/20/22 06:38	12/21/22 05:53	5
Molybdenum	ND		1.98	0.510	mg/Kg		12/20/22 06:38	12/21/22 05:53	5
Nickel	2.87		1.98	0.358	mg/Kg		12/20/22 06:38	12/21/22 05:53	5
Antimony	ND		9.90	2.83	mg/Kg		12/20/22 06:38	12/21/22 05:53	5
Selenium	ND		2.97	1.21	mg/Kg		12/20/22 06:38	12/21/22 05:53	5
Thallium	ND		9.90	2.09	mg/Kg		12/20/22 06:38	12/21/22 05:53	5
Vanadium	22.2		0.990	0.166	mg/Kg		12/20/22 06:38	12/21/22 05:53	5
Zinc	13.1		4.95	1.14	mg/Kg		12/20/22 06:38	12/21/22 05:53	5
Lead	9.38		1.98	0.405	mg/Kg		12/20/22 06:38	12/21/22 05:53	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-37 @ 5'  
Date Collected: 12/16/22 11:41  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-16  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/20/22 06:38	12/21/22 05:55	5
Arsenic	2.00	J	3.02	1.40	mg/Kg		12/20/22 06:38	12/21/22 05:55	5
Barium	62.5		3.02	0.143	mg/Kg		12/20/22 06:38	12/21/22 05:55	5
Beryllium	0.251	J	0.503	0.0693	mg/Kg		12/20/22 06:38	12/21/22 05:55	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/20/22 06:38	12/21/22 05:55	5
Cobalt	2.64		1.01	0.207	mg/Kg		12/20/22 06:38	12/21/22 05:55	5
Chromium	9.47		1.01	0.187	mg/Kg		12/20/22 06:38	12/21/22 05:55	5
Copper	7.37		2.01	0.963	mg/Kg		12/20/22 06:38	12/21/22 05:55	5
Molybdenum	ND		2.01	0.518	mg/Kg		12/20/22 06:38	12/21/22 05:55	5
Nickel	3.44		2.01	0.364	mg/Kg		12/20/22 06:38	12/21/22 05:55	5
Antimony	ND		10.1	2.87	mg/Kg		12/20/22 06:38	12/21/22 05:55	5
Selenium	ND		3.02	1.23	mg/Kg		12/20/22 06:38	12/21/22 05:55	5
Thallium	ND		10.1	2.12	mg/Kg		12/20/22 06:38	12/21/22 05:55	5
Vanadium	24.3		1.01	0.169	mg/Kg		12/20/22 06:38	12/21/22 05:55	5
Zinc	19.0		5.03	1.16	mg/Kg		12/20/22 06:38	12/21/22 05:55	5
Lead	7.20		2.01	0.411	mg/Kg		12/20/22 06:38	12/21/22 05:55	5

Client Sample ID: B-37 @ 10'  
Date Collected: 12/16/22 11:49  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-17  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/20/22 06:38	12/21/22 06:02	5
Arsenic	4.47		2.99	1.38	mg/Kg		12/20/22 06:38	12/21/22 06:02	5
Barium	46.4		2.99	0.141	mg/Kg		12/20/22 06:38	12/21/22 06:02	5
Beryllium	0.398	J	0.498	0.0687	mg/Kg		12/20/22 06:38	12/21/22 06:02	5
Cadmium	ND		0.498	0.0826	mg/Kg		12/20/22 06:38	12/21/22 06:02	5
Cobalt	5.17		0.995	0.205	mg/Kg		12/20/22 06:38	12/21/22 06:02	5
Chromium	10.9		0.995	0.185	mg/Kg		12/20/22 06:38	12/21/22 06:02	5
Copper	9.80		1.99	0.953	mg/Kg		12/20/22 06:38	12/21/22 06:02	5
Molybdenum	ND		1.99	0.512	mg/Kg		12/20/22 06:38	12/21/22 06:02	5
Nickel	6.78		1.99	0.360	mg/Kg		12/20/22 06:38	12/21/22 06:02	5
Antimony	ND		9.95	2.84	mg/Kg		12/20/22 06:38	12/21/22 06:02	5
Selenium	ND		2.99	1.22	mg/Kg		12/20/22 06:38	12/21/22 06:02	5
Thallium	ND		9.95	2.10	mg/Kg		12/20/22 06:38	12/21/22 06:02	5
Vanadium	22.7		0.995	0.167	mg/Kg		12/20/22 06:38	12/21/22 06:02	5
Zinc	29.5		4.98	1.15	mg/Kg		12/20/22 06:38	12/21/22 06:02	5
Lead	9.79		1.99	0.407	mg/Kg		12/20/22 06:38	12/21/22 06:02	5

Client Sample ID: B-37 @ 15'  
Date Collected: 12/16/22 11:59  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-18  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND	F1	1.49	0.143	mg/Kg		12/20/22 06:58	12/21/22 06:22	5
Arsenic	4.73		2.99	1.38	mg/Kg		12/20/22 06:58	12/21/22 06:22	5
Barium	73.6	F1	2.99	0.141	mg/Kg		12/20/22 06:58	12/21/22 06:22	5
Beryllium	0.336	J	0.498	0.0687	mg/Kg		12/20/22 06:58	12/21/22 06:22	5
Cadmium	ND		0.498	0.0826	mg/Kg		12/20/22 06:58	12/21/22 06:22	5
Cobalt	4.74		0.995	0.205	mg/Kg		12/20/22 06:58	12/21/22 06:22	5
Chromium	9.65		0.995	0.185	mg/Kg		12/20/22 06:58	12/21/22 06:22	5
Copper	26.4		1.99	0.953	mg/Kg		12/20/22 06:58	12/21/22 06:22	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-37 @ 15'  
Date Collected: 12/16/22 11:59  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-18  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		1.99	0.512	mg/Kg		12/20/22 06:58	12/21/22 06:22	5
Nickel	5.58		1.99	0.360	mg/Kg		12/20/22 06:58	12/21/22 06:22	5
Antimony	ND	F1	9.95	2.84	mg/Kg		12/20/22 06:58	12/21/22 06:22	5
Selenium	ND		2.99	1.22	mg/Kg		12/20/22 06:58	12/22/22 11:14	5
Thallium	ND		9.95	2.10	mg/Kg		12/20/22 06:58	12/21/22 06:22	5
Vanadium	22.0		0.995	0.167	mg/Kg		12/20/22 06:58	12/21/22 06:22	5
Zinc	43.7		4.98	1.15	mg/Kg		12/20/22 06:58	12/21/22 06:22	5
Lead	45.0	F1	1.99	0.407	mg/Kg		12/20/22 06:58	12/21/22 06:22	5

Client Sample ID: B-37 @ 20'  
Date Collected: 12/16/22 12:09  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-19  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.146	mg/Kg		12/20/22 06:58	12/21/22 06:36	5
Arsenic	3.49		3.05	1.41	mg/Kg		12/20/22 06:58	12/21/22 06:36	5
Barium	44.4		3.05	0.144	mg/Kg		12/20/22 06:58	12/21/22 06:36	5
Beryllium	0.228	J	0.508	0.0701	mg/Kg		12/20/22 06:58	12/21/22 06:36	5
Cadmium	ND		0.508	0.0843	mg/Kg		12/20/22 06:58	12/21/22 06:36	5
Cobalt	2.73		1.02	0.209	mg/Kg		12/20/22 06:58	12/21/22 06:36	5
Chromium	8.35		1.02	0.189	mg/Kg		12/20/22 06:58	12/21/22 06:36	5
Copper	5.53		2.03	0.973	mg/Kg		12/20/22 06:58	12/21/22 06:36	5
Molybdenum	ND		2.03	0.523	mg/Kg		12/20/22 06:58	12/21/22 06:36	5
Nickel	3.08		2.03	0.368	mg/Kg		12/20/22 06:58	12/21/22 06:36	5
Antimony	ND		10.2	2.90	mg/Kg		12/20/22 06:58	12/21/22 06:36	5
Selenium	ND		3.05	1.24	mg/Kg		12/20/22 06:58	12/22/22 11:24	5
Thallium	ND		10.2	2.14	mg/Kg		12/20/22 06:58	12/21/22 06:36	5
Vanadium	21.0		1.02	0.171	mg/Kg		12/20/22 06:58	12/21/22 06:36	5
Zinc	15.8		5.08	1.17	mg/Kg		12/20/22 06:58	12/21/22 06:36	5
Lead	4.95		2.03	0.415	mg/Kg		12/20/22 06:58	12/21/22 06:36	5

Client Sample ID: B-37 @ 25'  
Date Collected: 12/16/22 12:22  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-20  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.47	0.141	mg/Kg		12/20/22 06:58	12/21/22 06:39	5
Arsenic	2.83	J	2.94	1.36	mg/Kg		12/20/22 06:58	12/21/22 06:39	5
Barium	72.3		2.94	0.139	mg/Kg		12/20/22 06:58	12/21/22 06:39	5
Beryllium	0.245	J	0.490	0.0676	mg/Kg		12/20/22 06:58	12/21/22 06:39	5
Cadmium	ND		0.490	0.0814	mg/Kg		12/20/22 06:58	12/21/22 06:39	5
Cobalt	1.76		0.980	0.202	mg/Kg		12/20/22 06:58	12/21/22 06:39	5
Chromium	8.09		0.980	0.182	mg/Kg		12/20/22 06:58	12/21/22 06:39	5
Copper	5.62		1.96	0.939	mg/Kg		12/20/22 06:58	12/21/22 06:39	5
Molybdenum	ND		1.96	0.505	mg/Kg		12/20/22 06:58	12/21/22 06:39	5
Nickel	2.75		1.96	0.355	mg/Kg		12/20/22 06:58	12/21/22 06:39	5
Antimony	ND		9.80	2.80	mg/Kg		12/20/22 06:58	12/21/22 06:39	5
Selenium	ND		2.94	1.20	mg/Kg		12/20/22 06:58	12/22/22 11:26	5
Thallium	ND		9.80	2.06	mg/Kg		12/20/22 06:58	12/21/22 06:39	5
Vanadium	24.0		0.980	0.165	mg/Kg		12/20/22 06:58	12/21/22 06:39	5
Zinc	14.2		4.90	1.13	mg/Kg		12/20/22 06:58	12/21/22 06:39	5
Lead	4.35		1.96	0.401	mg/Kg		12/20/22 06:58	12/21/22 06:39	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-37 @ 30'  
Date Collected: 12/16/22 12:36  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-21  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/20/22 06:58	12/21/22 06:41	5
Arsenic	16.7		2.97	1.38	mg/Kg		12/20/22 06:58	12/21/22 06:41	5
Barium	53.0		2.97	0.141	mg/Kg		12/20/22 06:58	12/21/22 06:41	5
Beryllium	0.384	J	0.495	0.0683	mg/Kg		12/20/22 06:58	12/21/22 06:41	5
Cadmium	ND		0.495	0.0822	mg/Kg		12/20/22 06:58	12/21/22 06:41	5
Cobalt	2.61		0.990	0.204	mg/Kg		12/20/22 06:58	12/21/22 06:41	5
Chromium	9.57		0.990	0.184	mg/Kg		12/20/22 06:58	12/21/22 06:41	5
Copper	13.2		1.98	0.949	mg/Kg		12/20/22 06:58	12/21/22 06:41	5
Molybdenum	1.86	J	1.98	0.510	mg/Kg		12/20/22 06:58	12/21/22 06:41	5
Nickel	4.74		1.98	0.358	mg/Kg		12/20/22 06:58	12/21/22 06:41	5
Antimony	ND		9.90	2.83	mg/Kg		12/20/22 06:58	12/21/22 06:41	5
Selenium	ND		2.97	1.21	mg/Kg		12/20/22 06:58	12/22/22 11:35	5
Thallium	ND		9.90	2.09	mg/Kg		12/20/22 06:58	12/21/22 06:41	5
Vanadium	32.9		0.990	0.166	mg/Kg		12/20/22 06:58	12/21/22 06:41	5
Zinc	26.6		4.95	1.14	mg/Kg		12/20/22 06:58	12/21/22 06:41	5
Lead	9.49		1.98	0.405	mg/Kg		12/20/22 06:58	12/21/22 06:41	5

Client Sample ID: B-37 @ 35'  
Date Collected: 12/16/22 12:49  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-22  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/20/22 06:58	12/21/22 06:44	5
Arsenic	2.67	J	2.99	1.38	mg/Kg		12/20/22 06:58	12/21/22 06:44	5
Barium	107		2.99	0.141	mg/Kg		12/20/22 06:58	12/21/22 06:44	5
Beryllium	0.149	J	0.498	0.0687	mg/Kg		12/20/22 06:58	12/21/22 06:44	5
Cadmium	ND		0.498	0.0826	mg/Kg		12/20/22 06:58	12/21/22 06:44	5
Cobalt	1.36		0.995	0.205	mg/Kg		12/20/22 06:58	12/21/22 06:44	5
Chromium	8.53		0.995	0.185	mg/Kg		12/20/22 06:58	12/21/22 06:44	5
Copper	32.5		1.99	0.953	mg/Kg		12/20/22 06:58	12/21/22 06:44	5
Molybdenum	ND		1.99	0.512	mg/Kg		12/20/22 06:58	12/21/22 06:44	5
Nickel	2.26		1.99	0.360	mg/Kg		12/20/22 06:58	12/21/22 06:44	5
Antimony	ND		9.95	2.84	mg/Kg		12/20/22 06:58	12/21/22 06:44	5
Selenium	ND		2.99	1.22	mg/Kg		12/20/22 06:58	12/22/22 11:37	5
Thallium	ND		9.95	2.10	mg/Kg		12/20/22 06:58	12/21/22 06:44	5
Vanadium	22.2		0.995	0.167	mg/Kg		12/20/22 06:58	12/21/22 06:44	5
Zinc	16.3		4.98	1.15	mg/Kg		12/20/22 06:58	12/21/22 06:44	5
Lead	5.26		1.99	0.407	mg/Kg		12/20/22 06:58	12/21/22 06:44	5

Client Sample ID: B-37 @ 40'  
Date Collected: 12/16/22 13:16  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-23  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.146	mg/Kg		12/20/22 06:58	12/21/22 06:46	5
Arsenic	5.28		3.05	1.41	mg/Kg		12/20/22 06:58	12/21/22 06:46	5
Barium	50.9		3.05	0.144	mg/Kg		12/20/22 06:58	12/21/22 06:46	5
Beryllium	0.305	J	0.508	0.0701	mg/Kg		12/20/22 06:58	12/21/22 06:46	5
Cadmium	ND		0.508	0.0843	mg/Kg		12/20/22 06:58	12/21/22 06:46	5
Cobalt	6.22		1.02	0.209	mg/Kg		12/20/22 06:58	12/21/22 06:46	5
Chromium	9.53		1.02	0.189	mg/Kg		12/20/22 06:58	12/21/22 06:46	5
Copper	108		2.03	0.973	mg/Kg		12/20/22 06:58	12/21/22 06:46	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-37 @ 40'  
Date Collected: 12/16/22 13:16  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-23  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		2.03	0.523	mg/Kg		12/20/22 06:58	12/21/22 06:46	5
Nickel	4.95		2.03	0.368	mg/Kg		12/20/22 06:58	12/21/22 06:46	5
Antimony	ND		10.2	2.90	mg/Kg		12/20/22 06:58	12/21/22 06:46	5
Selenium	ND		3.05	1.24	mg/Kg		12/20/22 06:58	12/22/22 11:40	5
Thallium	ND		10.2	2.14	mg/Kg		12/20/22 06:58	12/21/22 06:46	5
Vanadium	20.9		1.02	0.171	mg/Kg		12/20/22 06:58	12/21/22 06:46	5
Zinc	34.9		5.08	1.17	mg/Kg		12/20/22 06:58	12/21/22 06:46	5
Lead	215		2.03	0.415	mg/Kg		12/20/22 06:58	12/21/22 06:46	5

Client Sample ID: B-37 @ 45'  
Date Collected: 12/16/22 13:25  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-24  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/20/22 06:58	12/21/22 06:49	5
Arsenic	3.88		3.02	1.40	mg/Kg		12/20/22 06:58	12/21/22 06:49	5
Barium	45.1		3.02	0.143	mg/Kg		12/20/22 06:58	12/21/22 06:49	5
Beryllium	0.226	J	0.503	0.0693	mg/Kg		12/20/22 06:58	12/21/22 06:49	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/20/22 06:58	12/21/22 06:49	5
Cobalt	2.86		1.01	0.207	mg/Kg		12/20/22 06:58	12/21/22 06:49	5
Chromium	15.3		1.01	0.187	mg/Kg		12/20/22 06:58	12/21/22 06:49	5
Copper	11.3		2.01	0.963	mg/Kg		12/20/22 06:58	12/21/22 06:49	5
Molybdenum	1.08	J	2.01	0.518	mg/Kg		12/20/22 06:58	12/21/22 06:49	5
Nickel	4.10		2.01	0.364	mg/Kg		12/20/22 06:58	12/21/22 06:49	5
Antimony	ND		10.1	2.87	mg/Kg		12/20/22 06:58	12/21/22 06:49	5
Selenium	ND		3.02	1.23	mg/Kg		12/20/22 06:58	12/22/22 11:42	5
Thallium	ND		10.1	2.12	mg/Kg		12/20/22 06:58	12/21/22 06:49	5
Vanadium	13.5		1.01	0.169	mg/Kg		12/20/22 06:58	12/21/22 06:49	5
Zinc	22.7		5.03	1.16	mg/Kg		12/20/22 06:58	12/21/22 06:49	5
Lead	22.4		2.01	0.411	mg/Kg		12/20/22 06:58	12/21/22 06:49	5

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: SW846 7471A - Mercury (CVAA)

Client Sample ID: B-38 @ 5'  
Date Collected: 12/16/22 07:10  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/20/22 21:52	12/21/22 15:00	1

Client Sample ID: B-38 @ 10'  
Date Collected: 12/16/22 07:28  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/20/22 21:52	12/21/22 13:03	1

Client Sample ID: B-38 @ 15'  
Date Collected: 12/16/22 07:38  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/20/22 21:52	12/21/22 13:05	1

Client Sample ID: B-38 @ 20'  
Date Collected: 12/16/22 07:43  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0410	J	0.0833	0.0320	mg/Kg		12/20/22 21:52	12/21/22 13:07	1

Client Sample ID: B-38 @ 25'  
Date Collected: 12/16/22 07:53  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/20/22 21:52	12/21/22 13:09	1

Client Sample ID: B-38 @ 30'  
Date Collected: 12/16/22 07:57  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/20/22 21:52	12/21/22 13:10	1

Client Sample ID: B-38 @ 35'  
Date Collected: 12/16/22 08:07  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-7  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/20/22 21:52	12/21/22 13:12	1

Client Sample ID: B-38 @ 40'  
Date Collected: 12/16/22 08:13  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0486	J	0.0833	0.0320	mg/Kg		12/20/22 21:52	12/21/22 13:14	1

Client Sample ID: B-35 @ 2'  
Date Collected: 12/16/22 09:45  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-9  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/20/22 21:52	12/21/22 13:16	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: SW846 7471A - Mercury (CVAA)

**Client Sample ID: B-35 @ 5'**  
**Date Collected: 12/16/22 09:50**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-10**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/20/22 21:52	12/21/22 13:18	1

**Client Sample ID: B-35 @ 10'**  
**Date Collected: 12/16/22 09:55**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-11**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/20/22 21:52	12/21/22 13:23	1

**Client Sample ID: B-35 @ 15'**  
**Date Collected: 12/16/22 10:03**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-12**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/20/22 21:52	12/21/22 13:25	1

**Client Sample ID: B-35 @ 20'**  
**Date Collected: 12/16/22 10:09**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-13**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/20/22 21:52	12/21/22 13:27	1

**Client Sample ID: B-35 @ 25'**  
**Date Collected: 12/16/22 10:27**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-14**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/20/22 21:52	12/21/22 13:29	1

**Client Sample ID: B-37 @ 2'**  
**Date Collected: 12/16/22 11:07**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-15**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/20/22 21:52	12/21/22 13:30	1

**Client Sample ID: B-37 @ 5'**  
**Date Collected: 12/16/22 11:41**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-16**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/20/22 21:52	12/21/22 13:32	1

**Client Sample ID: B-37 @ 10'**  
**Date Collected: 12/16/22 11:49**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-17**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/20/22 21:52	12/21/22 14:52	1

**Client Sample ID: B-37 @ 15'**  
**Date Collected: 12/16/22 11:59**  
**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-18**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/20/22 21:52	12/21/22 14:54	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: SW846 7471A - Mercury (CVAA)

Client Sample ID: B-37 @ 20'  
Date Collected: 12/16/22 12:09  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-19  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/20/22 21:52	12/21/22 14:56	1

Client Sample ID: B-37 @ 25'  
Date Collected: 12/16/22 12:22  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-20  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/20/22 21:52	12/21/22 14:58	1

Client Sample ID: B-37 @ 30'  
Date Collected: 12/16/22 12:36  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-21  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/19/22 16:28	12/20/22 12:46	1

Client Sample ID: B-37 @ 35'  
Date Collected: 12/16/22 12:49  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-22  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/19/22 16:28	12/20/22 12:48	1

Client Sample ID: B-37 @ 40'  
Date Collected: 12/16/22 13:16  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-23  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/19/22 16:28	12/20/22 12:50	1

Client Sample ID: B-37 @ 45'  
Date Collected: 12/16/22 13:25  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-24  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0368	J	0.0817	0.0314	mg/Kg		12/19/22 16:28	12/20/22 12:52	1

# Surrogate Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1 (42-126)
570-121270-1	B-38 @ 5'	61
570-121270-1 MS	B-38 @ 5'	80
570-121270-1 MSD	B-38 @ 5'	72
570-121270-2	B-38 @ 10'	66
570-121270-3	B-38 @ 15'	57
570-121270-4	B-38 @ 20'	68
570-121270-5	B-38 @ 25'	64
570-121270-6	B-38 @ 30'	60
570-121270-7	B-38 @ 35'	58
570-121270-8	B-38 @ 40'	65
570-121270-9	B-35 @ 2'	56
570-121270-10	B-35 @ 5'	65
570-121270-11	B-35 @ 10'	54
570-121270-12	B-35 @ 15'	55
570-121270-13	B-35 @ 20'	60
570-121270-14	B-35 @ 25'	48
570-121270-15	B-37 @ 2'	58
570-121270-16	B-37 @ 5'	65
570-121270-17	B-37 @ 10'	60
570-121270-18	B-37 @ 15'	57
570-121270-19	B-37 @ 20'	58
570-121270-20	B-37 @ 25'	51
570-121270-21	B-37 @ 30'	88
570-121270-22	B-37 @ 35'	82
570-121270-23	B-37 @ 40'	90
570-121270-24	B-37 @ 45'	92
LCS 570-290216/1-A	Lab Control Sample	91
LCS 570-290981/1-A	Lab Control Sample	105
LCSD 570-290216/2-A	Lab Control Sample Dup	88
LCSD 570-290981/2-A	Lab Control Sample Dup	94
MB 570-290216/3-A	Method Blank	64
MB 570-290981/3-A	Method Blank	99

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (60-138)
570-121270-1	B-38 @ 5'	114
570-121270-1 MS	B-38 @ 5'	113
570-121270-1 MSD	B-38 @ 5'	115
570-121270-2	B-38 @ 10'	117
570-121270-3	B-38 @ 15'	109
570-121270-4	B-38 @ 20'	113
570-121270-5	B-38 @ 25'	125
570-121270-6	B-38 @ 30'	109

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# Surrogate Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

**Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)**

**Matrix: Solid**

**Prep Type: Total/NA**

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	OTCSN1 (60-138)
570-121270-7	B-38 @ 35'	113
570-121270-8	B-38 @ 40'	110
570-121270-9	B-35 @ 2'	115
570-121270-10	B-35 @ 5'	118
570-121270-11	B-35 @ 10'	109
570-121270-12	B-35 @ 15'	114
570-121270-13	B-35 @ 20'	118
570-121270-14	B-35 @ 25'	119
570-121270-15	B-37 @ 2'	120
570-121270-16	B-37 @ 5'	118
570-121270-17	B-37 @ 10'	124
570-121270-18	B-37 @ 15'	123
570-121270-19	B-37 @ 20'	124
570-121270-20	B-37 @ 25'	124
570-121270-21	B-37 @ 30'	145 S1+
570-121270-22	B-37 @ 35'	120
570-121270-23	B-37 @ 40'	127
570-121270-24	B-37 @ 45'	125
LCS 570-290259/2-A	Lab Control Sample	107
LCS 570-290394/2-A	Lab Control Sample	115
LCSD 570-290259/3-A	Lab Control Sample Dup	111
LCSD 570-290394/3-A	Lab Control Sample Dup	116
MB 570-290259/1-A	Method Blank	113
MB 570-290394/1-A	Method Blank	118

## Surrogate Legend

OTCSN = n-Octacosane (Surr)

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-290216/3-A

Matrix: Solid

Analysis Batch: 290555

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290216

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/19/22 10:34	12/20/22 14:18	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	64		42 - 126				12/19/22 10:34	12/20/22 14:18	1

Lab Sample ID: LCS 570-290216/1-A

Matrix: Solid

Analysis Batch: 290555

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290216

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	1.91	1.859		mg/Kg		97	70 - 124
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	91		42 - 126				

Lab Sample ID: LCSD 570-290216/2-A

Matrix: Solid

Analysis Batch: 290555

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290216

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	1.92	1.996		mg/Kg		104	70 - 124	7	18
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	88		42 - 126						

Lab Sample ID: 570-121270-1 MS

Matrix: Solid

Analysis Batch: 290555

Client Sample ID: B-38 @ 5'

Prep Type: Total/NA

Prep Batch: 290216

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	ND		1.92	1.139		mg/Kg		59	48 - 114
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	80		42 - 126						

Lab Sample ID: 570-121270-1 MSD

Matrix: Solid

Analysis Batch: 290555

Client Sample ID: B-38 @ 5'

Prep Type: Total/NA

Prep Batch: 290216

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	ND		1.93	1.129		mg/Kg		59	48 - 114	1	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	72		42 - 126								

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-290981/3-A

Matrix: Solid

Analysis Batch: 290951

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290981

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/21/22 10:15	12/21/22 11:28	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		42 - 126				12/21/22 10:15	12/21/22 11:28	1

Lab Sample ID: LCS 570-290981/1-A

Matrix: Solid

Analysis Batch: 290951

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290981

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	1.92	2.146		mg/Kg		112	70 - 124
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	105		42 - 126				

Lab Sample ID: LCSD 570-290981/2-A

Matrix: Solid

Analysis Batch: 290951

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290981

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	1.91	2.013		mg/Kg		106	70 - 124	6	18
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	94		42 - 126						

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-290259/1-A

Matrix: Solid

Analysis Batch: 290580

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290259

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/19/22 12:28	12/20/22 13:50	1
C23-C40	ND		5.0	3.8	mg/Kg		12/19/22 12:28	12/20/22 13:50	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	113		60 - 138				12/19/22 12:28	12/20/22 13:50	1

Lab Sample ID: LCS 570-290259/2-A

Matrix: Solid

Analysis Batch: 290580

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290259

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	400	374.1		mg/Kg		94	80 - 130

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 570-290259/2-A

Matrix: Solid

Analysis Batch: 290580

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290259

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	107		60 - 138

Lab Sample ID: LCSD 570-290259/3-A

Matrix: Solid

Analysis Batch: 290580

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290259

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	400	381.1		mg/Kg		95	80 - 130	2	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	111		60 - 138

Lab Sample ID: MB 570-290394/1-A

Matrix: Solid

Analysis Batch: 290580

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290394

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/19/22 18:23	12/20/22 14:15	1
C23-C40	ND		5.0	3.8	mg/Kg		12/19/22 18:23	12/20/22 14:15	1

	MB	MB		Prepared	Analyzed	Dil Fac
Surrogate	%Recovery	Qualifier	Limits			
n-Octacosane (Surr)	118		60 - 138	12/19/22 18:23	12/20/22 14:15	1

Lab Sample ID: LCS 570-290394/2-A

Matrix: Solid

Analysis Batch: 290580

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290394

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	400	383.9		mg/Kg		96	80 - 130

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	115		60 - 138

Lab Sample ID: LCSD 570-290394/3-A

Matrix: Solid

Analysis Batch: 290580

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290394

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	400	384.3		mg/Kg		96	80 - 130	0	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	116		60 - 138

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 570-121270-1 MS

Matrix: Solid

Analysis Batch: 290580

Client Sample ID: B-38 @ 5'

Prep Type: Total/NA

Prep Batch: 290394

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	23		395	427.9		mg/Kg		103	43 - 165		
Surrogate	MS %Recovery	MS Qualifier	MS Limits								
n-Octacosane (Surr)	113		60 - 138								

Lab Sample ID: 570-121270-1 MSD

Matrix: Solid

Analysis Batch: 290580

Client Sample ID: B-38 @ 5'

Prep Type: Total/NA

Prep Batch: 290394

Top Data: 20000											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	23		393	420.4		mg/Kg	-	101	43 - 165	2	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
n-Octacosane (Surr)	115		60 - 138								

## Method: 6010B - Metals (ICP)

Lab Sample ID: MB 570-290513/1-A ^5

Matrix: Solid

Analysis Batch: 290973

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290513

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/20/22 06:38	12/21/22 04:52	5
Arsenic	ND		2.99	1.38	mg/Kg		12/20/22 06:38	12/21/22 04:52	5
Barium	ND		2.99	0.141	mg/Kg		12/20/22 06:38	12/21/22 04:52	5
Beryllium	ND		0.498	0.0687	mg/Kg		12/20/22 06:38	12/21/22 04:52	5
Cadmium	ND		0.498	0.0826	mg/Kg		12/20/22 06:38	12/21/22 04:52	5
Cobalt	ND		0.995	0.205	mg/Kg		12/20/22 06:38	12/21/22 04:52	5
Chromium	ND		0.995	0.185	mg/Kg		12/20/22 06:38	12/21/22 04:52	5
Copper	ND		1.99	0.953	mg/Kg		12/20/22 06:38	12/21/22 04:52	5
Molybdenum	ND		1.99	0.512	mg/Kg		12/20/22 06:38	12/21/22 04:52	5
Nickel	ND		1.99	0.360	mg/Kg		12/20/22 06:38	12/21/22 04:52	5
Antimony	ND		9.95	2.84	mg/Kg		12/20/22 06:38	12/21/22 04:52	5
Selenium	ND		2.99	1.22	mg/Kg		12/20/22 06:38	12/21/22 04:52	5
Thallium	ND		9.95	2.10	mg/Kg		12/20/22 06:38	12/21/22 04:52	5
Vanadium	ND		0.995	0.167	mg/Kg		12/20/22 06:38	12/21/22 04:52	5
Zinc	ND		4.98	1.15	mg/Kg		12/20/22 06:38	12/21/22 04:52	5
Lead	ND		1.99	0.407	mg/Kg		12/20/22 06:38	12/21/22 04:52	5

Lab Sample ID: LCS 570-290513/2-A ^5

Matrix: Solid

Analysis Batch: 290973

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290513

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	24.9	21.88		mg/Kg		88	80 - 120
Arsenic	49.8	44.05		mg/Kg		89	80 - 120
Barium	49.8	44.51		mg/Kg		89	80 - 120

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 570-290513/2-A ^5

Matrix: Solid

Analysis Batch: 290973

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290513

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium	49.8	44.49		mg/Kg		89	80 - 120
Cadmium	49.8	44.78		mg/Kg		90	80 - 120
Cobalt	49.8	44.58		mg/Kg		90	80 - 120
Chromium	49.8	44.89		mg/Kg		90	80 - 120
Copper	49.8	44.35		mg/Kg		89	80 - 120
Molybdenum	49.8	44.68		mg/Kg		90	80 - 120
Nickel	49.8	44.80		mg/Kg		90	80 - 120
Antimony	49.8	49.18		mg/Kg		99	80 - 120
Selenium	49.8	41.63		mg/Kg		84	80 - 120
Thallium	49.8	44.75		mg/Kg		90	80 - 120
Vanadium	49.8	44.17		mg/Kg		89	80 - 120
Zinc	49.8	44.35		mg/Kg		89	80 - 120
Lead	49.8	44.12		mg/Kg		89	80 - 120

Lab Sample ID: LCSD 570-290513/3-A

Matrix: Solid

Analysis Batch: 290973

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290513

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	25.1	22.16		mg/Kg		88	80 - 120	1	20
Arsenic	50.3	44.79		mg/Kg		89	80 - 120	2	20
Barium	50.3	45.11		mg/Kg		90	80 - 120	1	20
Beryllium	50.3	44.97		mg/Kg		90	80 - 120	1	20
Cadmium	50.3	45.21		mg/Kg		90	80 - 120	1	20
Cobalt	50.3	45.35		mg/Kg		90	80 - 120	2	20
Chromium	50.3	45.24		mg/Kg		90	80 - 120	1	20
Copper	50.3	44.95		mg/Kg		89	80 - 120	1	20
Molybdenum	50.3	45.73		mg/Kg		91	80 - 120	2	20
Nickel	50.3	44.94		mg/Kg		89	80 - 120	0	20
Antimony	50.3	50.25		mg/Kg		100	80 - 120	2	20
Selenium	50.3	42.49		mg/Kg		85	80 - 120	2	20
Thallium	50.3	45.55		mg/Kg		91	80 - 120	2	20
Vanadium	50.3	44.69		mg/Kg		89	80 - 120	1	20
Zinc	50.3	44.55		mg/Kg		89	80 - 120	0	20
Lead	50.3	44.50		mg/Kg		89	80 - 120	1	20

Lab Sample ID: 570-121270-1 MS

Matrix: Solid

Analysis Batch: 290973

Client Sample ID: B-38 @ 5'

Prep Type: Total/NA

Prep Batch: 290513

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	ND		24.9	21.28		mg/Kg		86	75 - 125
Arsenic	2.25	J	49.8	44.79		mg/Kg		86	75 - 125
Barium	53.9		49.8	99.30		mg/Kg		91	75 - 125
Beryllium	0.214	J	49.8	43.63		mg/Kg		87	75 - 125
Cadmium	ND		49.8	42.06		mg/Kg		85	75 - 125
Cobalt	2.59		49.8	44.90		mg/Kg		85	75 - 125
Chromium	11.3		49.8	58.82		mg/Kg		96	75 - 125
Copper	14.7		49.8	57.79		mg/Kg		87	75 - 125

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 570-121270-1 MS

Matrix: Solid

Analysis Batch: 290973

Client Sample ID: B-38 @ 5'

Prep Type: Total/NA

Prep Batch: 290513

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Molybdenum	ND		49.8	41.53		mg/Kg		83	75 - 125
Nickel	3.13		49.8	46.65		mg/Kg		87	75 - 125
Antimony	ND	F1	49.8	23.22	F1	mg/Kg		47	75 - 125
Selenium	ND		49.8	40.09		mg/Kg		81	75 - 125
Thallium	ND		49.8	43.12		mg/Kg		87	75 - 125
Vanadium	23.2		49.8	67.91		mg/Kg		90	75 - 125
Zinc	27.1		49.8	68.28		mg/Kg		83	75 - 125
Lead	11.3		49.8	54.96		mg/Kg		88	75 - 125

Lab Sample ID: 570-121270-1 MSD

Matrix: Solid

Analysis Batch: 290973

Client Sample ID: B-38 @ 5'

Prep Type: Total/NA

Prep Batch: 290513

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Silver	ND		25.1	21.36		mg/Kg		85	75 - 125	0	20
Arsenic	2.25	J	50.3	45.06		mg/Kg		85	75 - 125	1	20
Barium	53.9		50.3	96.38		mg/Kg		85	75 - 125	3	20
Beryllium	0.214	J	50.3	44.17		mg/Kg		87	75 - 125	1	20
Cadmium	ND		50.3	42.86		mg/Kg		85	75 - 125	2	20
Cobalt	2.59		50.3	45.85		mg/Kg		86	75 - 125	2	20
Chromium	11.3		50.3	62.94		mg/Kg		103	75 - 125	7	20
Copper	14.7		50.3	61.66		mg/Kg		93	75 - 125	6	20
Molybdenum	ND		50.3	42.31		mg/Kg		84	75 - 125	2	20
Nickel	3.13		50.3	47.00		mg/Kg		87	75 - 125	1	20
Antimony	ND	F1	50.3	24.84	F1	mg/Kg		49	75 - 125	7	20
Selenium	ND		50.3	40.55		mg/Kg		81	75 - 125	1	20
Thallium	ND		50.3	43.44		mg/Kg		86	75 - 125	1	20
Vanadium	23.2		50.3	66.77		mg/Kg		87	75 - 125	2	20
Zinc	27.1		50.3	73.43		mg/Kg		92	75 - 125	7	20
Lead	11.3		50.3	51.06		mg/Kg		79	75 - 125	7	20

Lab Sample ID: MB 570-290515/1-A ^5

Matrix: Solid

Analysis Batch: 290973

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290515

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Arsenic	ND		3.03	1.41	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Barium	ND		3.03	0.143	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Beryllium	ND		0.505	0.0697	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Cobalt	ND		1.01	0.208	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Chromium	ND		1.01	0.188	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Copper	ND		2.02	0.968	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Molybdenum	ND		2.02	0.520	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Nickel	ND		2.02	0.366	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Antimony	ND		10.1	2.89	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Thallium	ND		10.1	2.13	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Vanadium	ND		1.01	0.170	mg/Kg		12/20/22 06:58	12/21/22 06:12	5

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 570-290515/1-A ^5

Matrix: Solid

Analysis Batch: 290973

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290515

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		5.05	1.17	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Lead	ND		2.02	0.413	mg/Kg		12/20/22 06:58	12/21/22 06:12	5

Lab Sample ID: MB 570-290515/1-A ^5

Matrix: Solid

Analysis Batch: 291444

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290515

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		3.03	1.23	mg/Kg		12/20/22 06:58	12/22/22 10:57	5

Lab Sample ID: LCS 570-290515/2-A ^5

Matrix: Solid

Analysis Batch: 290973

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290515

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	24.8	20.84		mg/Kg		84	80 - 120
Arsenic	49.5	41.84		mg/Kg		85	80 - 120
Barium	49.5	42.19		mg/Kg		85	80 - 120
Beryllium	49.5	42.15		mg/Kg		85	80 - 120
Cadmium	49.5	42.15		mg/Kg		85	80 - 120
Cobalt	49.5	41.97		mg/Kg		85	80 - 120
Chromium	49.5	42.40		mg/Kg		86	80 - 120
Copper	49.5	42.17		mg/Kg		85	80 - 120
Molybdenum	49.5	42.81		mg/Kg		86	80 - 120
Nickel	49.5	42.07		mg/Kg		85	80 - 120
Antimony	49.5	46.97		mg/Kg		95	80 - 120
Thallium	49.5	42.60		mg/Kg		86	80 - 120
Vanadium	49.5	41.87		mg/Kg		85	80 - 120
Zinc	49.5	41.96		mg/Kg		85	80 - 120
Lead	49.5	41.42		mg/Kg		84	80 - 120

Lab Sample ID: LCS 570-290515/2-A ^5

Matrix: Solid

Analysis Batch: 291444

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290515

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Selenium	49.5	41.71		mg/Kg		84	80 - 120

Lab Sample ID: LCSD 570-290515/3-A ^5

Matrix: Solid

Analysis Batch: 290973

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290515

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	24.8	20.48		mg/Kg		83	80 - 120	2	20
Arsenic	49.5	40.92		mg/Kg		83	80 - 120	2	20
Barium	49.5	41.81		mg/Kg		84	80 - 120	1	20
Beryllium	49.5	41.77		mg/Kg		84	80 - 120	1	20
Cadmium	49.5	42.02		mg/Kg		85	80 - 120	0	20
Cobalt	49.5	41.82		mg/Kg		84	80 - 120	0	20
Chromium	49.5	41.93		mg/Kg		85	80 - 120	1	20

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSD 570-290515/3-A ^5

Matrix: Solid

Analysis Batch: 290973

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290515

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Copper	49.5	41.62		mg/Kg		84	80 - 120	1	20
Molybdenum	49.5	42.57		mg/Kg		86	80 - 120	1	20
Nickel	49.5	41.91		mg/Kg		85	80 - 120	0	20
Antimony	49.5	46.88		mg/Kg		95	80 - 120	0	20
Thallium	49.5	41.99		mg/Kg		85	80 - 120	1	20
Vanadium	49.5	41.46		mg/Kg		84	80 - 120	1	20
Zinc	49.5	41.68		mg/Kg		84	80 - 120	1	20
Lead	49.5	41.14		mg/Kg		83	80 - 120	1	20

Lab Sample ID: LCSD 570-290515/3-A ^5

Matrix: Solid

Analysis Batch: 291444

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290515

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Selenium	49.5	42.67		mg/Kg		86	80 - 120	2	20

Lab Sample ID: 570-121270-18 MS

Matrix: Solid

Analysis Batch: 290973

Client Sample ID: B-37 @ 15'

Prep Type: Total/NA

Prep Batch: 290515

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	ND	F1	25.0	18.05	F1	mg/Kg		72	75 - 125
Arsenic	4.73		50.0	46.28		mg/Kg		83	75 - 125
Barium	73.6	F1	50.0	117.7		mg/Kg		88	75 - 125
Beryllium	0.336	J	50.0	43.66		mg/Kg		87	75 - 125
Cadmium	ND		50.0	42.00		mg/Kg		84	75 - 125
Cobalt	4.74		50.0	46.88		mg/Kg		84	75 - 125
Chromium	9.65		50.0	55.74		mg/Kg		92	75 - 125
Copper	26.4		50.0	79.98		mg/Kg		107	75 - 125
Molybdenum	ND		50.0	41.45		mg/Kg		83	75 - 125
Nickel	5.58		50.0	48.29		mg/Kg		85	75 - 125
Antimony	ND	F1	50.0	19.45	F1	mg/Kg		39	75 - 125
Thallium	ND		50.0	43.05		mg/Kg		86	75 - 125
Vanadium	22.0		50.0	69.56		mg/Kg		95	75 - 125
Zinc	43.7		50.0	84.19		mg/Kg		81	75 - 125
Lead	45.0	F1	50.0	75.98	F1	mg/Kg		62	75 - 125

Lab Sample ID: 570-121270-18 MS

Matrix: Solid

Analysis Batch: 291444

Client Sample ID: B-37 @ 15'

Prep Type: Total/NA

Prep Batch: 290515

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Selenium	ND		50.0	41.35		mg/Kg		83	75 - 125

Lab Sample ID: 570-121270-18 MSD

Matrix: Solid

Analysis Batch: 290973

Client Sample ID: B-37 @ 15'

Prep Type: Total/NA

Prep Batch: 290515

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	ND	F1	25.5	19.41		mg/Kg		76	75 - 125	7	20

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 570-121270-18 MSD

Matrix: Solid

Analysis Batch: 290973

Client Sample ID: B-37 @ 15'

Prep Type: Total/NA

Prep Batch: 290515

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	4.73		51.0	47.49		mg/Kg		84	75 - 125	3	20
Barium	73.6	F1	51.0	138.3	F1	mg/Kg		127	75 - 125	16	20
Beryllium	0.336	J	51.0	44.94		mg/Kg		87	75 - 125	3	20
Cadmium	ND		51.0	43.39		mg/Kg		85	75 - 125	3	20
Cobalt	4.74		51.0	47.88		mg/Kg		85	75 - 125	2	20
Chromium	9.65		51.0	56.99		mg/Kg		93	75 - 125	2	20
Copper	26.4		51.0	79.57		mg/Kg		104	75 - 125	1	20
Molybdenum	ND		51.0	43.14		mg/Kg		85	75 - 125	4	20
Nickel	5.58		51.0	49.43		mg/Kg		86	75 - 125	2	20
Antimony	ND	F1	51.0	21.94	F1	mg/Kg		43	75 - 125	12	20
Thallium	ND		51.0	44.64		mg/Kg		88	75 - 125	4	20
Vanadium	22.0		51.0	71.07		mg/Kg		96	75 - 125	2	20
Zinc	43.7		51.0	86.57		mg/Kg		84	75 - 125	3	20
Lead	45.0	F1	51.0	80.27	F1	mg/Kg		69	75 - 125	5	20

Lab Sample ID: 570-121270-18 MSD

Matrix: Solid

Analysis Batch: 291444

Client Sample ID: B-37 @ 15'

Prep Type: Total/NA

Prep Batch: 290515

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Selenium	ND		51.0	43.21		mg/Kg		85	75 - 125	4	20

## Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 570-290347/1-A

Matrix: Solid

Analysis Batch: 290720

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290347

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/19/22 16:28	12/20/22 12:14	1

Lab Sample ID: LCS 570-290347/2-A

Matrix: Solid

Analysis Batch: 290720

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290347

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.408	0.4286		mg/Kg		105	80 - 120

Lab Sample ID: LCSD 570-290347/3-A

Matrix: Solid

Analysis Batch: 290720

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290347

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.392	0.4124		mg/Kg		105	80 - 120	4	10

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: MB 570-290870/1-A

Matrix: Solid

Analysis Batch: 291088

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290870

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/20/22 21:51	12/21/22 14:32	1

Lab Sample ID: LCS 570-290870/2-A

Matrix: Solid

Analysis Batch: 291088

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290870

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.392	0.4470		mg/Kg		114	80 - 120

Lab Sample ID: LCSD 570-290870/3-A

Matrix: Solid

Analysis Batch: 291088

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290870

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.392	0.4610		mg/Kg		118	80 - 120	3	10

Lab Sample ID: 570-121270-21 MS

Matrix: Solid

Analysis Batch: 291088

Client Sample ID: B-37 @ 30'

Prep Type: Total/NA

Prep Batch: 290870

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.408	0.4718		mg/Kg		116	80 - 120

Lab Sample ID: 570-121270-21 MSD

Matrix: Solid

Analysis Batch: 291088

Client Sample ID: B-37 @ 30'

Prep Type: Total/NA

Prep Batch: 290870

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.408	0.4674		mg/Kg		115	80 - 120	1	20

Lab Sample ID: MB 570-290871/1-A

Matrix: Solid

Analysis Batch: 291088

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290871

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/20/22 21:52	12/21/22 12:42	1

Lab Sample ID: LCS 570-290871/2-A

Matrix: Solid

Analysis Batch: 291088

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290871

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.392	0.4050		mg/Kg		103	80 - 120

Lab Sample ID: LCSD 570-290871/3-A

Matrix: Solid

Analysis Batch: 291088

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290871

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.392	0.4210		mg/Kg		107	80 - 120	4	10

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Method: 7471A - Mercury (CVAA)

Lab Sample ID: 570-121270-1 MS

Matrix: Solid

Analysis Batch: 291088

Client Sample ID: B-38 @ 5'

Prep Type: Total/NA

Prep Batch: 290871

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.392	0.4118		mg/Kg		105	80 - 120

Lab Sample ID: 570-121270-1 MSD

Matrix: Solid

Analysis Batch: 291088

Client Sample ID: B-38 @ 5'

Prep Type: Total/NA

Prep Batch: 290871

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.408	0.4634		mg/Kg		114	80 - 120	12	20

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## GC VOA

### Prep Batch: 290216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-1	B-38 @ 5'	Total/NA	Solid	5030C	
570-121270-2	B-38 @ 10'	Total/NA	Solid	5030C	
570-121270-3	B-38 @ 15'	Total/NA	Solid	5030C	
570-121270-4	B-38 @ 20'	Total/NA	Solid	5030C	
570-121270-5	B-38 @ 25'	Total/NA	Solid	5030C	
570-121270-6	B-38 @ 30'	Total/NA	Solid	5030C	
570-121270-7	B-38 @ 35'	Total/NA	Solid	5030C	
570-121270-8	B-38 @ 40'	Total/NA	Solid	5030C	
570-121270-9	B-35 @ 2'	Total/NA	Solid	5030C	
570-121270-10	B-35 @ 5'	Total/NA	Solid	5030C	
570-121270-11	B-35 @ 10'	Total/NA	Solid	5030C	
570-121270-12	B-35 @ 15'	Total/NA	Solid	5030C	
570-121270-13	B-35 @ 20'	Total/NA	Solid	5030C	
570-121270-14	B-35 @ 25'	Total/NA	Solid	5030C	
570-121270-15	B-37 @ 2'	Total/NA	Solid	5030C	
570-121270-16	B-37 @ 5'	Total/NA	Solid	5030C	
570-121270-17	B-37 @ 10'	Total/NA	Solid	5030C	
570-121270-18	B-37 @ 15'	Total/NA	Solid	5030C	
570-121270-19	B-37 @ 20'	Total/NA	Solid	5030C	
570-121270-20	B-37 @ 25'	Total/NA	Solid	5030C	
MB 570-290216/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-290216/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-290216/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	
570-121270-1 MS	B-38 @ 5'	Total/NA	Solid	5030C	
570-121270-1 MSD	B-38 @ 5'	Total/NA	Solid	5030C	

### Analysis Batch: 290555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-1	B-38 @ 5'	Total/NA	Solid	8015B	290216
570-121270-2	B-38 @ 10'	Total/NA	Solid	8015B	290216
570-121270-3	B-38 @ 15'	Total/NA	Solid	8015B	290216
570-121270-4	B-38 @ 20'	Total/NA	Solid	8015B	290216
570-121270-5	B-38 @ 25'	Total/NA	Solid	8015B	290216
570-121270-6	B-38 @ 30'	Total/NA	Solid	8015B	290216
570-121270-7	B-38 @ 35'	Total/NA	Solid	8015B	290216
570-121270-8	B-38 @ 40'	Total/NA	Solid	8015B	290216
570-121270-9	B-35 @ 2'	Total/NA	Solid	8015B	290216
570-121270-10	B-35 @ 5'	Total/NA	Solid	8015B	290216
570-121270-11	B-35 @ 10'	Total/NA	Solid	8015B	290216
570-121270-12	B-35 @ 15'	Total/NA	Solid	8015B	290216
570-121270-13	B-35 @ 20'	Total/NA	Solid	8015B	290216
570-121270-14	B-35 @ 25'	Total/NA	Solid	8015B	290216
570-121270-15	B-37 @ 2'	Total/NA	Solid	8015B	290216
570-121270-16	B-37 @ 5'	Total/NA	Solid	8015B	290216
570-121270-17	B-37 @ 10'	Total/NA	Solid	8015B	290216
570-121270-18	B-37 @ 15'	Total/NA	Solid	8015B	290216
570-121270-19	B-37 @ 20'	Total/NA	Solid	8015B	290216
570-121270-20	B-37 @ 25'	Total/NA	Solid	8015B	290216
MB 570-290216/3-A	Method Blank	Total/NA	Solid	8015B	290216
LCS 570-290216/1-A	Lab Control Sample	Total/NA	Solid	8015B	290216
LCSD 570-290216/2-A	Lab Control Sample Dup	Total/NA	Solid	8015B	290216

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## GC VOA (Continued)

### Analysis Batch: 290555 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-1 MS	B-38 @ 5'	Total/NA	Solid	8015B	290216
570-121270-1 MSD	B-38 @ 5'	Total/NA	Solid	8015B	290216

### Analysis Batch: 290951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-21	B-37 @ 30'	Total/NA	Solid	8015B	290981
570-121270-22	B-37 @ 35'	Total/NA	Solid	8015B	290981
570-121270-23	B-37 @ 40'	Total/NA	Solid	8015B	290981
570-121270-24	B-37 @ 45'	Total/NA	Solid	8015B	290981
MB 570-290981/3-A	Method Blank	Total/NA	Solid	8015B	290981
LCS 570-290981/1-A	Lab Control Sample	Total/NA	Solid	8015B	290981
LCSD 570-290981/2-A	Lab Control Sample Dup	Total/NA	Solid	8015B	290981

### Prep Batch: 290981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-21	B-37 @ 30'	Total/NA	Solid	5030C	
570-121270-22	B-37 @ 35'	Total/NA	Solid	5030C	
570-121270-23	B-37 @ 40'	Total/NA	Solid	5030C	
570-121270-24	B-37 @ 45'	Total/NA	Solid	5030C	
MB 570-290981/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-290981/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-290981/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	

## GC Semi VOA

### Prep Batch: 290259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-21	B-37 @ 30'	Total/NA	Solid	3550C	
570-121270-22	B-37 @ 35'	Total/NA	Solid	3550C	
570-121270-23	B-37 @ 40'	Total/NA	Solid	3550C	
570-121270-24	B-37 @ 45'	Total/NA	Solid	3550C	
MB 570-290259/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 570-290259/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 570-290259/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	

### Prep Batch: 290394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-1	B-38 @ 5'	Total/NA	Solid	3550C	
570-121270-2	B-38 @ 10'	Total/NA	Solid	3550C	
570-121270-3	B-38 @ 15'	Total/NA	Solid	3550C	
570-121270-4	B-38 @ 20'	Total/NA	Solid	3550C	
570-121270-5	B-38 @ 25'	Total/NA	Solid	3550C	
570-121270-6	B-38 @ 30'	Total/NA	Solid	3550C	
570-121270-7	B-38 @ 35'	Total/NA	Solid	3550C	
570-121270-8	B-38 @ 40'	Total/NA	Solid	3550C	
570-121270-9	B-35 @ 2'	Total/NA	Solid	3550C	
570-121270-10	B-35 @ 5'	Total/NA	Solid	3550C	
570-121270-11	B-35 @ 10'	Total/NA	Solid	3550C	
570-121270-12	B-35 @ 15'	Total/NA	Solid	3550C	
570-121270-13	B-35 @ 20'	Total/NA	Solid	3550C	
570-121270-14	B-35 @ 25'	Total/NA	Solid	3550C	

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## GC Semi VOA (Continued)

### Prep Batch: 290394 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-15	B-37 @ 2'	Total/NA	Solid	3550C	
570-121270-16	B-37 @ 5'	Total/NA	Solid	3550C	
570-121270-17	B-37 @ 10'	Total/NA	Solid	3550C	
570-121270-18	B-37 @ 15'	Total/NA	Solid	3550C	
570-121270-19	B-37 @ 20'	Total/NA	Solid	3550C	
570-121270-20	B-37 @ 25'	Total/NA	Solid	3550C	
MB 570-290394/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 570-290394/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 570-290394/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	
570-121270-1 MS	B-38 @ 5'	Total/NA	Solid	3550C	
570-121270-1 MSD	B-38 @ 5'	Total/NA	Solid	3550C	

### Analysis Batch: 290580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-1	B-38 @ 5'	Total/NA	Solid	8015B	290394
570-121270-2	B-38 @ 10'	Total/NA	Solid	8015B	290394
570-121270-3	B-38 @ 15'	Total/NA	Solid	8015B	290394
570-121270-4	B-38 @ 20'	Total/NA	Solid	8015B	290394
570-121270-5	B-38 @ 25'	Total/NA	Solid	8015B	290394
570-121270-6	B-38 @ 30'	Total/NA	Solid	8015B	290394
570-121270-7	B-38 @ 35'	Total/NA	Solid	8015B	290394
570-121270-8	B-38 @ 40'	Total/NA	Solid	8015B	290394
570-121270-9	B-35 @ 2'	Total/NA	Solid	8015B	290394
570-121270-10	B-35 @ 5'	Total/NA	Solid	8015B	290394
570-121270-11	B-35 @ 10'	Total/NA	Solid	8015B	290394
570-121270-12	B-35 @ 15'	Total/NA	Solid	8015B	290394
570-121270-13	B-35 @ 20'	Total/NA	Solid	8015B	290394
570-121270-14	B-35 @ 25'	Total/NA	Solid	8015B	290394
570-121270-15	B-37 @ 2'	Total/NA	Solid	8015B	290394
570-121270-16	B-37 @ 5'	Total/NA	Solid	8015B	290394
570-121270-17	B-37 @ 10'	Total/NA	Solid	8015B	290394
570-121270-18	B-37 @ 15'	Total/NA	Solid	8015B	290394
570-121270-19	B-37 @ 20'	Total/NA	Solid	8015B	290394
570-121270-20	B-37 @ 25'	Total/NA	Solid	8015B	290394
570-121270-21	B-37 @ 30'	Total/NA	Solid	8015B	290259
570-121270-22	B-37 @ 35'	Total/NA	Solid	8015B	290259
570-121270-23	B-37 @ 40'	Total/NA	Solid	8015B	290259
570-121270-24	B-37 @ 45'	Total/NA	Solid	8015B	290259
MB 570-290259/1-A	Method Blank	Total/NA	Solid	8015B	290259
MB 570-290394/1-A	Method Blank	Total/NA	Solid	8015B	290394
LCS 570-290259/2-A	Lab Control Sample	Total/NA	Solid	8015B	290259
LCS 570-290394/2-A	Lab Control Sample	Total/NA	Solid	8015B	290394
LCSD 570-290259/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	290259
LCSD 570-290394/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	290394
570-121270-1 MS	B-38 @ 5'	Total/NA	Solid	8015B	290394
570-121270-1 MSD	B-38 @ 5'	Total/NA	Solid	8015B	290394

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Metals

### Prep Batch: 290347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-21	B-37 @ 30'	Total/NA	Solid	7471A	
570-121270-22	B-37 @ 35'	Total/NA	Solid	7471A	
570-121270-23	B-37 @ 40'	Total/NA	Solid	7471A	
570-121270-24	B-37 @ 45'	Total/NA	Solid	7471A	
MB 570-290347/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-290347/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-290347/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	

### Prep Batch: 290513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-1	B-38 @ 5'	Total/NA	Solid	3050B	
570-121270-2	B-38 @ 10'	Total/NA	Solid	3050B	
570-121270-3	B-38 @ 15'	Total/NA	Solid	3050B	
570-121270-4	B-38 @ 20'	Total/NA	Solid	3050B	
570-121270-5	B-38 @ 25'	Total/NA	Solid	3050B	
570-121270-6	B-38 @ 30'	Total/NA	Solid	3050B	
570-121270-7	B-38 @ 35'	Total/NA	Solid	3050B	
570-121270-8	B-38 @ 40'	Total/NA	Solid	3050B	
570-121270-9	B-35 @ 2'	Total/NA	Solid	3050B	
570-121270-10	B-35 @ 5'	Total/NA	Solid	3050B	
570-121270-11	B-35 @ 10'	Total/NA	Solid	3050B	
570-121270-12	B-35 @ 15'	Total/NA	Solid	3050B	
570-121270-13	B-35 @ 20'	Total/NA	Solid	3050B	
570-121270-14	B-35 @ 25'	Total/NA	Solid	3050B	
570-121270-15	B-37 @ 2'	Total/NA	Solid	3050B	
570-121270-16	B-37 @ 5'	Total/NA	Solid	3050B	
570-121270-17	B-37 @ 10'	Total/NA	Solid	3050B	
MB 570-290513/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-290513/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-290513/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
570-121270-1 MS	B-38 @ 5'	Total/NA	Solid	3050B	
570-121270-1 MSD	B-38 @ 5'	Total/NA	Solid	3050B	

### Prep Batch: 290515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-18	B-37 @ 15'	Total/NA	Solid	3050B	
570-121270-19	B-37 @ 20'	Total/NA	Solid	3050B	
570-121270-20	B-37 @ 25'	Total/NA	Solid	3050B	
570-121270-21	B-37 @ 30'	Total/NA	Solid	3050B	
570-121270-22	B-37 @ 35'	Total/NA	Solid	3050B	
570-121270-23	B-37 @ 40'	Total/NA	Solid	3050B	
570-121270-24	B-37 @ 45'	Total/NA	Solid	3050B	
MB 570-290515/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-290515/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-290515/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	
570-121270-18 MS	B-37 @ 15'	Total/NA	Solid	3050B	
570-121270-18 MSD	B-37 @ 15'	Total/NA	Solid	3050B	

### Analysis Batch: 290720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-21	B-37 @ 30'	Total/NA	Solid	7471A	290347

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Metals (Continued)

### Analysis Batch: 290720 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-22	B-37 @ 35'	Total/NA	Solid	7471A	290347
570-121270-23	B-37 @ 40'	Total/NA	Solid	7471A	290347
570-121270-24	B-37 @ 45'	Total/NA	Solid	7471A	290347
MB 570-290347/1-A	Method Blank	Total/NA	Solid	7471A	290347
LCS 570-290347/2-A	Lab Control Sample	Total/NA	Solid	7471A	290347
LCSD 570-290347/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	290347

### Prep Batch: 290870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-290870/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-290870/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-290870/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
570-121270-21 MS	B-37 @ 30'	Total/NA	Solid	7471A	
570-121270-21 MSD	B-37 @ 30'	Total/NA	Solid	7471A	

### Prep Batch: 290871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-1	B-38 @ 5'	Total/NA	Solid	7471A	
570-121270-2	B-38 @ 10'	Total/NA	Solid	7471A	
570-121270-3	B-38 @ 15'	Total/NA	Solid	7471A	
570-121270-4	B-38 @ 20'	Total/NA	Solid	7471A	
570-121270-5	B-38 @ 25'	Total/NA	Solid	7471A	
570-121270-6	B-38 @ 30'	Total/NA	Solid	7471A	
570-121270-7	B-38 @ 35'	Total/NA	Solid	7471A	
570-121270-8	B-38 @ 40'	Total/NA	Solid	7471A	
570-121270-9	B-35 @ 2'	Total/NA	Solid	7471A	
570-121270-10	B-35 @ 5'	Total/NA	Solid	7471A	
570-121270-11	B-35 @ 10'	Total/NA	Solid	7471A	
570-121270-12	B-35 @ 15'	Total/NA	Solid	7471A	
570-121270-13	B-35 @ 20'	Total/NA	Solid	7471A	
570-121270-14	B-35 @ 25'	Total/NA	Solid	7471A	
570-121270-15	B-37 @ 2'	Total/NA	Solid	7471A	
570-121270-16	B-37 @ 5'	Total/NA	Solid	7471A	
570-121270-17	B-37 @ 10'	Total/NA	Solid	7471A	
570-121270-18	B-37 @ 15'	Total/NA	Solid	7471A	
570-121270-19	B-37 @ 20'	Total/NA	Solid	7471A	
570-121270-20	B-37 @ 25'	Total/NA	Solid	7471A	
MB 570-290871/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-290871/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-290871/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
570-121270-1 MS	B-38 @ 5'	Total/NA	Solid	7471A	
570-121270-1 MSD	B-38 @ 5'	Total/NA	Solid	7471A	

### Analysis Batch: 290973

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-1	B-38 @ 5'	Total/NA	Solid	6010B	290513
570-121270-2	B-38 @ 10'	Total/NA	Solid	6010B	290513
570-121270-3	B-38 @ 15'	Total/NA	Solid	6010B	290513
570-121270-4	B-38 @ 20'	Total/NA	Solid	6010B	290513
570-121270-5	B-38 @ 25'	Total/NA	Solid	6010B	290513
570-121270-6	B-38 @ 30'	Total/NA	Solid	6010B	290513

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Metals (Continued)

### Analysis Batch: 290973 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-7	B-38 @ 35'	Total/NA	Solid	6010B	290513
570-121270-8	B-38 @ 40'	Total/NA	Solid	6010B	290513
570-121270-9	B-35 @ 2'	Total/NA	Solid	6010B	290513
570-121270-10	B-35 @ 5'	Total/NA	Solid	6010B	290513
570-121270-11	B-35 @ 10'	Total/NA	Solid	6010B	290513
570-121270-12	B-35 @ 15'	Total/NA	Solid	6010B	290513
570-121270-13	B-35 @ 20'	Total/NA	Solid	6010B	290513
570-121270-14	B-35 @ 25'	Total/NA	Solid	6010B	290513
570-121270-15	B-37 @ 2'	Total/NA	Solid	6010B	290513
570-121270-16	B-37 @ 5'	Total/NA	Solid	6010B	290513
570-121270-17	B-37 @ 10'	Total/NA	Solid	6010B	290513
570-121270-18	B-37 @ 15'	Total/NA	Solid	6010B	290515
570-121270-19	B-37 @ 20'	Total/NA	Solid	6010B	290515
570-121270-20	B-37 @ 25'	Total/NA	Solid	6010B	290515
570-121270-21	B-37 @ 30'	Total/NA	Solid	6010B	290515
570-121270-22	B-37 @ 35'	Total/NA	Solid	6010B	290515
570-121270-23	B-37 @ 40'	Total/NA	Solid	6010B	290515
570-121270-24	B-37 @ 45'	Total/NA	Solid	6010B	290515
MB 570-290513/1-A ^5	Method Blank	Total/NA	Solid	6010B	290513
MB 570-290515/1-A ^5	Method Blank	Total/NA	Solid	6010B	290515
LCS 570-290513/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	290513
LCS 570-290515/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	290515
LCSD 570-290513/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	290513
LCSD 570-290515/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	290515
570-121270-1 MS	B-38 @ 5'	Total/NA	Solid	6010B	290513
570-121270-1 MSD	B-38 @ 5'	Total/NA	Solid	6010B	290513
570-121270-18 MS	B-37 @ 15'	Total/NA	Solid	6010B	290515
570-121270-18 MSD	B-37 @ 15'	Total/NA	Solid	6010B	290515

### Analysis Batch: 291088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-1	B-38 @ 5'	Total/NA	Solid	7471A	290871
570-121270-2	B-38 @ 10'	Total/NA	Solid	7471A	290871
570-121270-3	B-38 @ 15'	Total/NA	Solid	7471A	290871
570-121270-4	B-38 @ 20'	Total/NA	Solid	7471A	290871
570-121270-5	B-38 @ 25'	Total/NA	Solid	7471A	290871
570-121270-6	B-38 @ 30'	Total/NA	Solid	7471A	290871
570-121270-7	B-38 @ 35'	Total/NA	Solid	7471A	290871
570-121270-8	B-38 @ 40'	Total/NA	Solid	7471A	290871
570-121270-9	B-35 @ 2'	Total/NA	Solid	7471A	290871
570-121270-10	B-35 @ 5'	Total/NA	Solid	7471A	290871
570-121270-11	B-35 @ 10'	Total/NA	Solid	7471A	290871
570-121270-12	B-35 @ 15'	Total/NA	Solid	7471A	290871
570-121270-13	B-35 @ 20'	Total/NA	Solid	7471A	290871
570-121270-14	B-35 @ 25'	Total/NA	Solid	7471A	290871
570-121270-15	B-37 @ 2'	Total/NA	Solid	7471A	290871
570-121270-16	B-37 @ 5'	Total/NA	Solid	7471A	290871
570-121270-17	B-37 @ 10'	Total/NA	Solid	7471A	290871
570-121270-18	B-37 @ 15'	Total/NA	Solid	7471A	290871
570-121270-19	B-37 @ 20'	Total/NA	Solid	7471A	290871
570-121270-20	B-37 @ 25'	Total/NA	Solid	7471A	290871

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

## Metals (Continued)

### Analysis Batch: 291088 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-290870/1-A	Method Blank	Total/NA	Solid	7471A	290870
MB 570-290871/1-A	Method Blank	Total/NA	Solid	7471A	290871
LCS 570-290870/2-A	Lab Control Sample	Total/NA	Solid	7471A	290870
LCS 570-290871/2-A	Lab Control Sample	Total/NA	Solid	7471A	290871
LCSD 570-290870/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	290870
LCSD 570-290871/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	290871
570-121270-1 MS	B-38 @ 5'	Total/NA	Solid	7471A	290871
570-121270-1 MSD	B-38 @ 5'	Total/NA	Solid	7471A	290871
570-121270-21 MS	B-37 @ 30'	Total/NA	Solid	7471A	290870
570-121270-21 MSD	B-37 @ 30'	Total/NA	Solid	7471A	290870

### Analysis Batch: 291444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-18	B-37 @ 15'	Total/NA	Solid	6010B	290515
570-121270-19	B-37 @ 20'	Total/NA	Solid	6010B	290515
570-121270-20	B-37 @ 25'	Total/NA	Solid	6010B	290515
570-121270-21	B-37 @ 30'	Total/NA	Solid	6010B	290515
570-121270-22	B-37 @ 35'	Total/NA	Solid	6010B	290515
570-121270-23	B-37 @ 40'	Total/NA	Solid	6010B	290515
570-121270-24	B-37 @ 45'	Total/NA	Solid	6010B	290515
MB 570-290515/1-A ^5	Method Blank	Total/NA	Solid	6010B	290515
LCS 570-290515/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	290515
LCSD 570-290515/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	290515
570-121270-18 MS	B-37 @ 15'	Total/NA	Solid	6010B	290515
570-121270-18 MSD	B-37 @ 15'	Total/NA	Solid	6010B	290515



# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

**Client Sample ID: B-38 @ 5'**

**Date Collected: 12/16/22 07:10**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-1**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.04 g	5 mL	290216	12/19/22 10:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290555	12/20/22 15:44	P1R	EET CAL 4
		Instrument ID: GC25								
Total/NA	Prep	3550C			10.11 g	10 mL	290394	12/19/22 18:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290580	12/21/22 03:51	N5Y3	EET CAL 4
		Instrument ID: GC69A								
Total/NA	Prep	3050B			1.99 g	50 mL	290513	12/20/22 06:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 05:06	K1UV	EET CAL 4
		Instrument ID: ICP11								
Total/NA	Prep	7471A			0.49 g	50 mL	290871	12/20/22 21:52	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291088	12/21/22 15:00	C0YH	EET CAL 4
		Instrument ID: HG7								

**Client Sample ID: B-38 @ 10'**

**Date Collected: 12/16/22 07:28**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-2**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	290216	12/19/22 10:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290555	12/20/22 17:13	P1R	EET CAL 4
		Instrument ID: GC25								
Total/NA	Prep	3550C			10.15 g	10 mL	290394	12/19/22 18:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290580	12/21/22 04:18	N5Y3	EET CAL 4
		Instrument ID: GC69A								
Total/NA	Prep	3050B			2.00 g	50 mL	290513	12/20/22 06:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 05:16	K1UV	EET CAL 4
		Instrument ID: ICP11								
Total/NA	Prep	7471A			0.49 g	50 mL	290871	12/20/22 21:52	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291088	12/21/22 13:03	C0YH	EET CAL 4
		Instrument ID: HG7								

**Client Sample ID: B-38 @ 15'**

**Date Collected: 12/16/22 07:38**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-3**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.97 g	5 mL	290216	12/19/22 10:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290555	12/20/22 17:42	P1R	EET CAL 4
		Instrument ID: GC25								
Total/NA	Prep	3550C			10.18 g	10 mL	290394	12/19/22 18:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290580	12/21/22 04:44	N5Y3	EET CAL 4
		Instrument ID: GC69A								
Total/NA	Prep	3050B			1.97 g	50 mL	290513	12/20/22 06:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 05:19	K1UV	EET CAL 4
		Instrument ID: ICP11								

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

**Client Sample ID: B-38 @ 15'**

**Date Collected: 12/16/22 07:38**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-3**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.49 g	50 mL	290871	12/20/22 21:52	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291088	12/21/22 13:05	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-38 @ 20'**

**Date Collected: 12/16/22 07:43**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-4**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.07 g	5 mL	290216	12/19/22 10:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290555	12/20/22 18:12	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.12 g	10 mL	290394	12/19/22 18:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290580	12/21/22 05:11	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.98 g	50 mL	290513	12/20/22 06:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 05:21	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	290871	12/20/22 21:52	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291088	12/21/22 13:07	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-38 @ 25'**

**Date Collected: 12/16/22 07:53**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-5**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	290216	12/19/22 10:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290555	12/20/22 18:41	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.16 g	10 mL	290394	12/19/22 18:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290580	12/21/22 05:37	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.97 g	50 mL	290513	12/20/22 06:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 05:23	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	290871	12/20/22 21:52	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291088	12/21/22 13:09	C0YH	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

**Client Sample ID: B-38 @ 30'**

**Date Collected: 12/16/22 07:57**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-6**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.06 g	5 mL	290216	12/19/22 10:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290555	12/20/22 19:11	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.14 g	10 mL	290394	12/19/22 18:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290580	12/21/22 06:03	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.96 g	50 mL	290513	12/20/22 06:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 05:26	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	290871	12/20/22 21:52	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291088	12/21/22 13:10	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-38 @ 35'**

**Date Collected: 12/16/22 08:07**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-7**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	290216	12/19/22 10:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290555	12/20/22 19:40	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.19 g	10 mL	290394	12/19/22 18:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290580	12/21/22 06:30	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.97 g	50 mL	290513	12/20/22 06:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 05:33	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	290871	12/20/22 21:52	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291088	12/21/22 13:12	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-38 @ 40'**

**Date Collected: 12/16/22 08:13**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-8**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.99 g	5 mL	290216	12/19/22 10:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290555	12/20/22 20:10	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.25 g	10 mL	290394	12/19/22 18:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290580	12/21/22 07:22	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.98 g	50 mL	290513	12/20/22 06:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 05:36	K1UV	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

**Client Sample ID: B-38 @ 40'**

**Date Collected: 12/16/22 08:13**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-8**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.50 g	50 mL	290871	12/20/22 21:52	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291088	12/21/22 13:14	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-35 @ 2'**

**Date Collected: 12/16/22 09:45**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-9**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.99 g	5 mL	290216	12/19/22 10:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290555	12/20/22 20:40	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.21 g	10 mL	290394	12/19/22 18:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290580	12/21/22 07:48	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.96 g	50 mL	290513	12/20/22 06:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 05:38	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	290871	12/20/22 21:52	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291088	12/21/22 13:16	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-35 @ 5'**

**Date Collected: 12/16/22 09:50**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-10**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	290216	12/19/22 10:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290555	12/20/22 21:09	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.27 g	10 mL	290394	12/19/22 18:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290580	12/21/22 08:15	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.99 g	50 mL	290513	12/20/22 06:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 05:40	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	290871	12/20/22 21:52	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291088	12/21/22 13:18	C0YH	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

**Client Sample ID: B-35 @ 10'**

**Date Collected: 12/16/22 09:55**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-11**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	290216	12/19/22 10:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290555	12/20/22 22:08	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.23 g	10 mL	290394	12/19/22 18:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290580	12/21/22 08:41	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.00 g	50 mL	290513	12/20/22 06:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 05:43	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	290871	12/20/22 21:52	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291088	12/21/22 13:23	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-35 @ 15'**

**Date Collected: 12/16/22 10:03**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-12**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	290216	12/19/22 10:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290555	12/20/22 22:38	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.35 g	10 mL	290394	12/19/22 18:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290580	12/21/22 09:08	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.03 g	50 mL	290513	12/20/22 06:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 05:45	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	290871	12/20/22 21:52	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291088	12/21/22 13:25	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-35 @ 20'**

**Date Collected: 12/16/22 10:09**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-13**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.00 g	5 mL	290216	12/19/22 10:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290555	12/20/22 23:07	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.37 g	10 mL	290394	12/19/22 18:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290580	12/21/22 09:34	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.02 g	50 mL	290513	12/20/22 06:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 05:48	K1UV	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

**Client Sample ID: B-35 @ 20'**

**Date Collected: 12/16/22 10:09**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-13**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.50 g	50 mL	290871	12/20/22 21:52	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291088	12/21/22 13:27	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-35 @ 25'**

**Date Collected: 12/16/22 10:27**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-14**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.06 g	5 mL	290216	12/19/22 10:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290555	12/20/22 23:37	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.31 g	10 mL	290394	12/19/22 18:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290580	12/21/22 09:59	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.00 g	50 mL	290513	12/20/22 06:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 05:50	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	290871	12/20/22 21:52	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291088	12/21/22 13:29	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-37 @ 2'**

**Date Collected: 12/16/22 11:07**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-15**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.97 g	5 mL	290216	12/19/22 10:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290555	12/21/22 00:06	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.33 g	10 mL	290394	12/19/22 18:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290580	12/21/22 10:24	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.02 g	50 mL	290513	12/20/22 06:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 05:53	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	290871	12/20/22 21:52	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291088	12/21/22 13:30	C0YH	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

**Client Sample ID: B-37 @ 5'**

**Date Collected: 12/16/22 11:41**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-16**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.97 g	5 mL	290216	12/19/22 10:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290555	12/21/22 00:36	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.15 g	10 mL	290394	12/19/22 18:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290580	12/21/22 10:50	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.99 g	50 mL	290513	12/20/22 06:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 05:55	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	290871	12/20/22 21:52	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291088	12/21/22 13:32	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-37 @ 10'**

**Date Collected: 12/16/22 11:49**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-17**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.98 g	5 mL	290216	12/19/22 10:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290555	12/21/22 01:05	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.20 g	10 mL	290394	12/19/22 18:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290580	12/21/22 11:15	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.01 g	50 mL	290513	12/20/22 06:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 06:02	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	290871	12/20/22 21:52	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291088	12/21/22 14:52	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-37 @ 15'**

**Date Collected: 12/16/22 11:59**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-18**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.98 g	5 mL	290216	12/19/22 10:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290555	12/21/22 01:35	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.13 g	10 mL	290394	12/19/22 18:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290580	12/21/22 11:40	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.01 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291444	12/22/22 11:14	P1R	EET CAL 4
Instrument ID: ICP10										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

**Client Sample ID: B-37 @ 15'**

**Date Collected: 12/16/22 11:59**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-18**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.01 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 06:22	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	290871	12/20/22 21:52	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291088	12/21/22 14:54	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-37 @ 20'**

**Date Collected: 12/16/22 12:09**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-19**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	290216	12/19/22 10:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290555	12/21/22 02:04	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.10 g	10 mL	290394	12/19/22 18:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290580	12/21/22 12:05	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.97 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291444	12/22/22 11:24	P1R	EET CAL 4
Instrument ID: ICP10										
Total/NA	Prep	3050B			1.97 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 06:36	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	290871	12/20/22 21:52	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291088	12/21/22 14:56	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-37 @ 25'**

**Date Collected: 12/16/22 12:22**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-20**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	290216	12/19/22 10:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290555	12/21/22 02:34	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.16 g	10 mL	290394	12/19/22 18:23	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290580	12/21/22 12:31	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.04 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291444	12/22/22 11:26	P1R	EET CAL 4
Instrument ID: ICP10										
Total/NA	Prep	3050B			2.04 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 06:39	K1UV	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

**Client Sample ID: B-37 @ 25'**

**Date Collected: 12/16/22 12:22**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-20**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.51 g	50 mL	290871	12/20/22 21:52	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291088	12/21/22 14:58	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-37 @ 30'**

**Date Collected: 12/16/22 12:36**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-21**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.98 g	5 mL	290981	12/21/22 13:15	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290951	12/21/22 15:08	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.15 g	10 mL	290259	12/19/22 18:25	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		10	10 mL	10 mL	290580	12/21/22 00:16	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.02 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291444	12/22/22 11:35	P1R	EET CAL 4
Instrument ID: ICP10										
Total/NA	Prep	3050B			2.02 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 06:41	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	290347	12/19/22 16:28	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 12:46	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-37 @ 35'**

**Date Collected: 12/16/22 12:49**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-22**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	290981	12/21/22 13:15	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290951	12/21/22 15:33	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.13 g	10 mL	290259	12/19/22 18:25	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290580	12/21/22 00:43	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			2.01 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291444	12/22/22 11:37	P1R	EET CAL 4
Instrument ID: ICP10										
Total/NA	Prep	3050B			2.01 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 06:44	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	290347	12/19/22 16:28	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 12:48	C0YH	EET CAL 4
Instrument ID: HG7										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

**Client Sample ID: B-37 @ 40'**

**Date Collected: 12/16/22 13:16**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-23**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.04 g	5 mL	290981	12/21/22 13:15	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290951	12/21/22 15:57	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.17 g	10 mL	290259	12/19/22 18:25	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290580	12/21/22 01:10	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.97 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291444	12/22/22 11:40	P1R	EET CAL 4
Instrument ID: ICP10										
Total/NA	Prep	3050B			1.97 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 06:46	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	290347	12/19/22 16:28	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 12:50	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-37 @ 45'**

**Date Collected: 12/16/22 13:25**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-24**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.99 g	5 mL	290981	12/21/22 13:15	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290951	12/21/22 16:21	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.11 g	10 mL	290259	12/19/22 18:25	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290580	12/21/22 01:37	N5Y3	EET CAL 4
Instrument ID: GC69A										
Total/NA	Prep	3050B			1.99 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291444	12/22/22 11:42	P1R	EET CAL 4
Instrument ID: ICP10										
Total/NA	Prep	3050B			1.99 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 06:49	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	290347	12/19/22 16:28	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			290720	12/20/22 12:52	C0YH	EET CAL 4
Instrument ID: HG7										

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

## Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

### Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

1

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15

## Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

Method	Method Description	Protocol	Laboratory
8015B	Gasoline Range Organics - (GC)	SW846	EET CAL 4
8015B	Diesel Range Organics (DRO) (GC)	SW846	EET CAL 4
6010B	Metals (ICP)	SW846	EET CAL 4
7471A	Mercury (CVAA)	SW846	EET CAL 4
3050B	Preparation, Metals	SW846	EET CAL 4
3550C	Ultrasonic Extraction	SW846	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
7471A	Preparation, Mercury	SW846	EET CAL 4

### Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

# Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-121270-1	B-38 @ 5'	Solid	12/16/22 07:10	12/16/22 19:15
570-121270-2	B-38 @ 10'	Solid	12/16/22 07:28	12/16/22 19:15
570-121270-3	B-38 @ 15'	Solid	12/16/22 07:38	12/16/22 19:15
570-121270-4	B-38 @ 20'	Solid	12/16/22 07:43	12/16/22 19:15
570-121270-5	B-38 @ 25'	Solid	12/16/22 07:53	12/16/22 19:15
570-121270-6	B-38 @ 30'	Solid	12/16/22 07:57	12/16/22 19:15
570-121270-7	B-38 @ 35'	Solid	12/16/22 08:07	12/16/22 19:15
570-121270-8	B-38 @ 40'	Solid	12/16/22 08:13	12/16/22 19:15
570-121270-9	B-35 @ 2'	Solid	12/16/22 09:45	12/16/22 19:15
570-121270-10	B-35 @ 5'	Solid	12/16/22 09:50	12/16/22 19:15
570-121270-11	B-35 @ 10'	Solid	12/16/22 09:55	12/16/22 19:15
570-121270-12	B-35 @ 15'	Solid	12/16/22 10:03	12/16/22 19:15
570-121270-13	B-35 @ 20'	Solid	12/16/22 10:09	12/16/22 19:15
570-121270-14	B-35 @ 25'	Solid	12/16/22 10:27	12/16/22 19:15
570-121270-15	B-37 @ 2'	Solid	12/16/22 11:07	12/16/22 19:15
570-121270-16	B-37 @ 5'	Solid	12/16/22 11:41	12/16/22 19:15
570-121270-17	B-37 @ 10'	Solid	12/16/22 11:49	12/16/22 19:15
570-121270-18	B-37 @ 15'	Solid	12/16/22 11:59	12/16/22 19:15
570-121270-19	B-37 @ 20'	Solid	12/16/22 12:09	12/16/22 19:15
570-121270-20	B-37 @ 25'	Solid	12/16/22 12:22	12/16/22 19:15
570-121270-21	B-37 @ 30'	Solid	12/16/22 12:36	12/16/22 19:15
570-121270-22	B-37 @ 35'	Solid	12/16/22 12:49	12/16/22 19:15
570-121270-23	B-37 @ 40'	Solid	12/16/22 13:16	12/16/22 19:15
570-121270-24	B-37 @ 45'	Solid	12/16/22 13:25	12/16/22 19:15



Calscience

Loc: 570  
121270



570-121270 Chain of Custody

# CHAIN OF CUSTODY RECORD

DATE: 12/16/2022

PAGE: 1 OF 3

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT:		CLIENT PROJECT NAME / NUMBER:	
ADDRESS: 9245 Activity Road Suite 103		Science Research Park / SD754	
CITY: San Diego	STATE: CA	ZIP: 92126	PROJECT CONTACT: Matt Fagan
TEL: 858 536 1000	E-MAIL: mattf@groupdelta.com	P.O. NO. <i>Carey Russell-Johnson</i>	

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):	
<input type="checkbox"/> SAME DAY	<input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD
<input type="checkbox"/> COELT EDF	GLOBAL ID:

SPECIAL INSTRUCTIONS:

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT	LOG CODE:		
		DATE	TIME			Unpreserved	Preserved	Field Filtered
	B-38 @ 5'	12/16	7:10	Soil	1	X		
	B-38 @ 10'	12/16	7:28	Soil	1	X		
	B-38 @ 15'	12/16	7:38	Soil	1	X		
	B-38 @ 20'	12/16	7:43	Soil	1	X		
	B-38 @ 25'	12/16	7:53	Soil	1	X		
	B-38 @ 30'	12/16	7:57	Soil	1	X		
	B-38 @ 35'	12/16	8:07	Soil	1	X		
	B-38 @ 40'	12/16	8:13	Soil	1	X		
	<del>B-38 @ 45'</del>	<del>12/16</del>	<del>8:13</del>	Soil	1	X		
	B-38 @ 2'	12/16	9:45	Soil	1	X		

Relinquished by (Signature): <i>[Signature]</i>	Received by (Signature/Affiliation): <i>William Rivera</i>	Date: 12/16/22	Time: 1810
Relinquished by (Signature): <i>William Rivera</i>	Received by (Signature/Affiliation): <i>[Signature]</i>	Date: 12/16/22	Time: 1915
Relinquished by (Signature):	Received by (Signature/Affiliation):	Date:	Time:

1.1/0.9' SC11



Calscience

# CHAIN OF CUSTODY RECORD

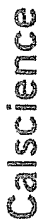
DATE: 12/16/2022

PAGE: 2 OF 2

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
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LABORATORY CLIENT		CLIENT PROJECT NAME / NUMBER		P.O. NO.	
Group Delta Consultants		Science Research Park / SD754		66	
ADDRESS: 9245 Activity Road Suite 103		PROJECT CONTACT:		SAMPLERS (PRINT)	
CITY: San Diego		Matt Fagan		Copy Revised - J. Hanson	
TEL: 858 536 1000		E-MAIL: mattf@groupdelta.com		STATE: CA	
ZIP: 92126		TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):		LOG CODE:	
<input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD		<input type="checkbox"/> COELT EDF		GLOBAL ID:	
SPECIAL INSTRUCTIONS:		UNPRESERVED		PRESERVED	
FIELD FILLED		TPH (g) <input type="checkbox"/> GRO		TPH (g) <input type="checkbox"/> DRO	
TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44		TPH C4-C22, C43-C22, C45-C46		BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>	
VOCs (8260)		Oxygenates (8260)		Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	
SVOCs (8270)		Pesticides (8081)		PCBs (8082)	
PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM		T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X		Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6	
LAB USE ONLY		SAMPLE ID		NO. OF CONT	
B-350 51		12/16 9:50		Soil 1	
B-340 10'		12/16 9:58		Soil 1	
B-350 15'		12/16 10:03		Soil 1	
B-350 20'		12/16 10:09		Soil 1	
B-350 25'		12/16 10:27		Soil 1	
B-370 2'		12/16 11:07		Soil 1	
B-370 5'		12/16 11:41		Soil 1	
B-370 10'		12/16 11:49		Soil 1	
B-370 15'		12/16 11:59		Soil 1	
B-370 20'		12/16 12:00		Soil 1	
Relinquished by (Signature)		William Rivera		Received by (Signature/Affiliation)	
Relinquished by (Signature)		William Rivera		Received by (Signature/Affiliation)	
Relinquished by (Signature)		William Rivera		Received by (Signature/Affiliation)	





## CHAIN OF CUSTODY RECORD

12/16/2022

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**LABORATORY CLIENT**

ZIP. 92126

☐ COELT EDF

12/25/2022



## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-121270-1

**Login Number: 121270**

**List Source: Eurofins Calscience**

**List Number: 1**

**Creator: Ortiz-Luis, Michael**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Matt Fagan  
Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Generated 1/5/2023 2:56:27 PM

## JOB DESCRIPTION

Science Research Park SD754

## JOB NUMBER

570-121270-2

# Eurofins Calscience

## Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

## Authorization



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Authorized for release by  
Erick Ovalle, Project Manager  
[Erick.Ovalle@et.eurofinsus.com](mailto:Erick.Ovalle@et.eurofinsus.com)  
Designee for  
Vikas Patel, Project Manager I  
[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)  
(714)895-5494

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## Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-2

### Qualifiers

#### Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-2

**Job ID: 570-121270-2**

**Laboratory: Eurofins Calscience**

## Narrative

**Job Narrative**  
**570-121270-2**

## Comments

No additional comments.

## Receipt

The samples were received on 12/16/2022 7:15 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.9° C.

## Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-2

### Client Sample ID: B-38 @ 10'

### Lab Sample ID: 570-121270-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0610	J	0.500	0.0527	mg/L	1		6010B	TCLP
Lead	0.310	J	1.00	0.105	mg/L	1		6010B	STLC Citrate

### Client Sample ID: B-38 @ 25'

### Lab Sample ID: 570-121270-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	2.29		1.00	0.105	mg/L	1		6010B	STLC Citrate

### Client Sample ID: B-35 @ 25'

### Lab Sample ID: 570-121270-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	5.75		1.00	0.105	mg/L	1		6010B	STLC Citrate

### Client Sample ID: B-37 @ 40'

### Lab Sample ID: 570-121270-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.750		0.500	0.0527	mg/L	1		6010B	TCLP
Lead	1.21		1.00	0.105	mg/L	1		6010B	STLC Citrate

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-2

## Method: SW846 6010B - Metals (ICP) - TCLP

Client Sample ID: B-38 @ 10'  
Date Collected: 12/16/22 07:28  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0610	J	0.500	0.0527	mg/L		12/30/22 08:30	12/30/22 17:09	1

Client Sample ID: B-37 @ 40'  
Date Collected: 12/16/22 13:16  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-23  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.750		0.500	0.0527	mg/L		12/30/22 08:30	12/30/22 17:11	1



# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-2

## Method: SW846 6010B - Metals (ICP) - STLC Citrate

Client Sample ID: B-38 @ 10'  
Date Collected: 12/16/22 07:28  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.310	J	1.00	0.105	mg/L		01/03/23 15:46	01/04/23 14:24	1

Client Sample ID: B-38 @ 25'  
Date Collected: 12/16/22 07:53  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	2.29		1.00	0.105	mg/L		01/03/23 15:46	01/04/23 14:27	1

Client Sample ID: B-35 @ 25'  
Date Collected: 12/16/22 10:27  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-14  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	5.75		1.00	0.105	mg/L		01/03/23 15:46	01/04/23 14:29	1

Client Sample ID: B-37 @ 40'  
Date Collected: 12/16/22 13:16  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-23  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1.21		1.00	0.105	mg/L		01/03/23 15:46	01/04/23 14:32	1

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-2

## Method: 6010B - Metals (ICP)

Lab Sample ID: LB 570-292539/1-B  
Matrix: Solid  
Analysis Batch: 293078

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 292838

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.500	0.0527	mg/L		12/30/22 08:30	12/30/22 16:21	1

Lab Sample ID: LCS 570-292539/2-B  
Matrix: Solid  
Analysis Batch: 293078

Client Sample ID: Lab Control Sample  
Prep Type: TCLP  
Prep Batch: 292838

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	2.00	1.889		mg/L		94	80 - 120

Lab Sample ID: LCSD 570-292539/3-B  
Matrix: Solid  
Analysis Batch: 293078

Client Sample ID: Lab Control Sample Dup  
Prep Type: TCLP  
Prep Batch: 292838

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	2.00	1.937		mg/L		97	80 - 120	3	20

Lab Sample ID: LB4 570-292642/1-C  
Matrix: Solid  
Analysis Batch: 293685

Client Sample ID: Method Blank  
Prep Type: STLC Citrate  
Prep Batch: 293407

Analyte	LB4 Result	LB4 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.00	0.105	mg/L		01/03/23 15:46	01/04/23 13:41	1

Lab Sample ID: LCS 570-292642/2-C  
Matrix: Solid  
Analysis Batch: 293685

Client Sample ID: Lab Control Sample  
Prep Type: STLC Citrate  
Prep Batch: 293407

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	20.0	18.99		mg/L		95	80 - 120

Lab Sample ID: LCSD 570-292642/3-C  
Matrix: Solid  
Analysis Batch: 293685

Client Sample ID: Lab Control Sample Dup  
Prep Type: STLC Citrate  
Prep Batch: 293407

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	20.0	19.01		mg/L		95	80 - 120	0	20

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-2

## Metals

### Leach Batch: 292539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-2	B-38 @ 10'	TCLP	Solid	1311	
570-121270-23	B-37 @ 40'	TCLP	Solid	1311	
LB 570-292539/1-B	Method Blank	TCLP	Solid	1311	
LCS 570-292539/2-B	Lab Control Sample	TCLP	Solid	1311	
LCSD 570-292539/3-B	Lab Control Sample Dup	TCLP	Solid	1311	

### Leach Batch: 292642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-2	B-38 @ 10'	STLC Citrate	Solid	CA WET Citrate	
570-121270-5	B-38 @ 25'	STLC Citrate	Solid	CA WET Citrate	
570-121270-14	B-35 @ 25'	STLC Citrate	Solid	CA WET Citrate	
570-121270-23	B-37 @ 40'	STLC Citrate	Solid	CA WET Citrate	
LB4 570-292642/1-C	Method Blank	STLC Citrate	Solid	CA WET Citrate	
LCS 570-292642/2-C	Lab Control Sample	STLC Citrate	Solid	CA WET Citrate	
LCSD 570-292642/3-C	Lab Control Sample Dup	STLC Citrate	Solid	CA WET Citrate	

### Prep Batch: 292838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-2	B-38 @ 10'	TCLP	Solid	3010A	292539
570-121270-23	B-37 @ 40'	TCLP	Solid	3010A	292539
LB 570-292539/1-B	Method Blank	TCLP	Solid	3010A	292539
LCS 570-292539/2-B	Lab Control Sample	TCLP	Solid	3010A	292539
LCSD 570-292539/3-B	Lab Control Sample Dup	TCLP	Solid	3010A	292539

### Analysis Batch: 293078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-2	B-38 @ 10'	TCLP	Solid	6010B	292838
570-121270-23	B-37 @ 40'	TCLP	Solid	6010B	292838
LB 570-292539/1-B	Method Blank	TCLP	Solid	6010B	292838
LCS 570-292539/2-B	Lab Control Sample	TCLP	Solid	6010B	292838
LCSD 570-292539/3-B	Lab Control Sample Dup	TCLP	Solid	6010B	292838

### Prep Batch: 293407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-2	B-38 @ 10'	STLC Citrate	Solid	Dilution	292642
570-121270-5	B-38 @ 25'	STLC Citrate	Solid	Dilution	292642
570-121270-14	B-35 @ 25'	STLC Citrate	Solid	Dilution	292642
570-121270-23	B-37 @ 40'	STLC Citrate	Solid	Dilution	292642
LB4 570-292642/1-C	Method Blank	STLC Citrate	Solid	Dilution	292642
LCS 570-292642/2-C	Lab Control Sample	STLC Citrate	Solid	Dilution	292642
LCSD 570-292642/3-C	Lab Control Sample Dup	STLC Citrate	Solid	Dilution	292642

### Analysis Batch: 293685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-2	B-38 @ 10'	STLC Citrate	Solid	6010B	293407
570-121270-5	B-38 @ 25'	STLC Citrate	Solid	6010B	293407
570-121270-14	B-35 @ 25'	STLC Citrate	Solid	6010B	293407
570-121270-23	B-37 @ 40'	STLC Citrate	Solid	6010B	293407
LB4 570-292642/1-C	Method Blank	STLC Citrate	Solid	6010B	293407
LCS 570-292642/2-C	Lab Control Sample	STLC Citrate	Solid	6010B	293407
LCSD 570-292642/3-C	Lab Control Sample Dup	STLC Citrate	Solid	6010B	293407

Eurofins Calscience

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-2

**Client Sample ID: B-38 @ 10'**

**Date Collected: 12/16/22 07:28**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-2**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.07 g	500 mL	292642	12/29/22 14:11	ECX6	EET CAL 4
STLC Citrate	Prep	Dilution			2.5 mL	50 mL	293407	01/03/23 15:46	VZOK	EET CAL 4
STLC Citrate	Analysis	6010B		1			293685	01/04/23 14:24	K1UV	EET CAL 4
Instrument ID: ICP11										
TCLP	Leach	1311			100.41 g	2000 mL	292539	12/29/22 08:00	XBO9	EET CAL 4
TCLP	Prep	3010A			5 mL	50 mL	292838	12/30/22 08:30	ECX6	EET CAL 4
TCLP	Analysis	6010B		1			293078	12/30/22 17:09	P1R	EET CAL 4
Instrument ID: ICP11										

**Client Sample ID: B-38 @ 25'**

**Date Collected: 12/16/22 07:53**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-5**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.06 g	500 mL	292642	12/29/22 14:11	ECX6	EET CAL 4
STLC Citrate	Prep	Dilution			2.5 mL	50 mL	293407	01/03/23 15:46	VZOK	EET CAL 4
STLC Citrate	Analysis	6010B		1			293685	01/04/23 14:27	K1UV	EET CAL 4
Instrument ID: ICP11										

**Client Sample ID: B-35 @ 25'**

**Date Collected: 12/16/22 10:27**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-14**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.07 g	500 mL	292642	12/29/22 14:11	ECX6	EET CAL 4
STLC Citrate	Prep	Dilution			2.5 mL	50 mL	293407	01/03/23 15:46	VZOK	EET CAL 4
STLC Citrate	Analysis	6010B		1			293685	01/04/23 14:29	K1UV	EET CAL 4
Instrument ID: ICP11										

**Client Sample ID: B-37 @ 40'**

**Date Collected: 12/16/22 13:16**

**Date Received: 12/16/22 19:15**

**Lab Sample ID: 570-121270-23**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.04 g	500 mL	292642	12/29/22 14:11	ECX6	EET CAL 4
STLC Citrate	Prep	Dilution			2.5 mL	50 mL	293407	01/03/23 15:46	VZOK	EET CAL 4
STLC Citrate	Analysis	6010B		1			293685	01/04/23 14:32	K1UV	EET CAL 4
Instrument ID: ICP11										
TCLP	Leach	1311			100.00 g	2000 mL	292539	12/29/22 08:00	XBO9	EET CAL 4
TCLP	Prep	3010A			5 mL	50 mL	292838	12/30/22 08:30	ECX6	EET CAL 4
TCLP	Analysis	6010B		1			293078	12/30/22 17:11	P1R	EET CAL 4
Instrument ID: ICP11										

<sup>1</sup> Completion dates and times are reported or not reported per method requirements or individual lab discretion.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Eurofins Calscience

## Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-2

### Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

1

2

3

4

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10

11

12

13

## Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	EET CAL 4
1311	TCLP Extraction	SW846	EET CAL 4
3010A	Preparation, Total Metals	SW846	EET CAL 4
CA WET Citrate	California - Waste Extraction Test with Citrate Leach	CA-WET	EET CAL 4
Dilution	Preparation / Dilution Process	None	EET CAL 4

### Protocol References:

CA-WET = California Waste Extraction Test, from Title 22

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

## Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-121270-2	B-38 @ 10'	Solid	12/16/22 07:28	12/16/22 19:15
570-121270-5	B-38 @ 25'	Solid	12/16/22 07:53	12/16/22 19:15
570-121270-14	B-35 @ 25'	Solid	12/16/22 10:27	12/16/22 19:15
570-121270-23	B-37 @ 40'	Solid	12/16/22 13:16	12/16/22 19:15

## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-121270-2

**Login Number: 121270**

**List Source: Eurofins Calscience**

**List Number: 1**

**Creator: Ortiz-Luis, Michael**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





# ANALYTICAL REPORT

## PREPARED FOR

Attn: Matt Fagan  
Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Generated 1/17/2023 1:37:22 PM

## JOB DESCRIPTION

Science Research Park SD754

## JOB NUMBER

570-121270-3

# Eurofins Calscience

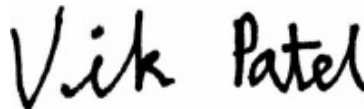
## Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

## Authorization



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Authorized for release by  
Vikas Patel, Project Manager I  
[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)  
(714)895-5494

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## Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-3

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-3

**Job ID: 570-121270-3**

**Laboratory: Eurofins Calscience**

### Narrative

**Job Narrative**  
**570-121270-3**

### Comments

No additional comments.

### Receipt

The samples were received on 12/16/2022 7:15 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.9° C.

### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-3

**Client Sample ID: B-35 @ 25'**

**Lab Sample ID: 570-121270-14**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.654		0.500	0.0527	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-3

## Method: SW846 6010B - Metals (ICP) - TCLP

Client Sample ID: B-35 @ 25'  
Date Collected: 12/16/22 10:27  
Date Received: 12/16/22 19:15

Lab Sample ID: 570-121270-14  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.654		0.500	0.0527	mg/L		01/13/23 08:15	01/13/23 17:58	1

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-3

## Method: 6010B - Metals (ICP)

Lab Sample ID: LB 570-295414/1-B

Matrix: Solid

Analysis Batch: 295868

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 295624

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.500	0.0527	mg/L		01/13/23 08:15	01/13/23 17:28	1

Lab Sample ID: LCS 570-295414/2-B

Matrix: Solid

Analysis Batch: 295868

Client Sample ID: Lab Control Sample

Prep Type: TCLP

Prep Batch: 295624

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	2.00	1.985		mg/L		99	80 - 120

Lab Sample ID: LCSD 570-295414/3-B

Matrix: Solid

Analysis Batch: 295868

Client Sample ID: Lab Control Sample Dup

Prep Type: TCLP

Prep Batch: 295624

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	2.00	1.916		mg/L		96	80 - 120	4	20



# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-3

## Metals

### Leach Batch: 295414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-14	B-35 @ 25'	TCLP	Solid	1311	
LB 570-295414/1-B	Method Blank	TCLP	Solid	1311	
LCS 570-295414/2-B	Lab Control Sample	TCLP	Solid	1311	
LCSD 570-295414/3-B	Lab Control Sample Dup	TCLP	Solid	1311	

### Prep Batch: 295624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-14	B-35 @ 25'	TCLP	Solid	3010A	295414
LB 570-295414/1-B	Method Blank	TCLP	Solid	3010A	295414
LCS 570-295414/2-B	Lab Control Sample	TCLP	Solid	3010A	295414
LCSD 570-295414/3-B	Lab Control Sample Dup	TCLP	Solid	3010A	295414

### Analysis Batch: 295868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121270-14	B-35 @ 25'	TCLP	Solid	6010B	295624
LB 570-295414/1-B	Method Blank	TCLP	Solid	6010B	295624
LCS 570-295414/2-B	Lab Control Sample	TCLP	Solid	6010B	295624
LCSD 570-295414/3-B	Lab Control Sample Dup	TCLP	Solid	6010B	295624

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-3

**Client Sample ID: B-35 @ 25'**

**Lab Sample ID: 570-121270-14**

**Date Collected: 12/16/22 10:27**

**Matrix: Solid**

**Date Received: 12/16/22 19:15**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			100.03 g	2000 mL	295414	01/12/23 11:00	ECX6	EET CAL 4
TCLP	Prep	3010A			5 mL	50 mL	295624	01/13/23 08:15	ECX6	EET CAL 4
TCLP	Analysis	6010B		1			295868	01/13/23 17:58	P1R	EET CAL 4
Instrument ID: ICP11										

<sup>1</sup> Completion dates and times are reported or not reported per method requirements or individual lab discretion.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-3

Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

1
2
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14

## Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-3

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	EET CAL 4
1311	TCLP Extraction	SW846	EET CAL 4
3010A	Preparation, Total Metals	SW846	EET CAL 4

### Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

## Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park SD754

Job ID: 570-121270-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-121270-14	B-35 @ 25'	Solid	12/16/22 10:27	12/16/22 19:15

1

2

3

4

5

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12

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14

## Vikas Patel

---

**From:** Alexandre Santini <alexandres@groupdelta.com>  
**Sent:** Wednesday, January 11, 2023 10:49 AM  
**To:** Virendra Patel; Natalia Delgadillo; Vikas Patel  
**Cc:** Jack Packwood; Matt Fagan; Erick Ovalle  
**Subject:** RE: Eurofins Calscience report and EDD files from 570-121270-1 Science Research Park SD754

Vik – Please proceed with lead TCLP analyses for Sample B-35 @ 25' with 24 hr TAT or fastest.

Thanks,

**Alex Santini, P.E. | Senior Project Engineer**

Office: (858) 536-1000

Mobile: (310) 310-5686

Email: [AlexandreS@groupdelta.com](mailto:AlexandreS@groupdelta.com)

---

**From:** Virendra Patel <[Virendra.Patel@et.eurofinsus.com](mailto:Virendra.Patel@et.eurofinsus.com)>  
**Sent:** Wednesday, January 11, 2023 10:05 AM  
**To:** Natalia Delgadillo <[nataliad@groupdelta.com](mailto:nataliad@groupdelta.com)>; Vikas Patel <[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)>  
**Cc:** Jack Packwood <[jackp@groupdelta.com](mailto:jackp@groupdelta.com)>; Matt Fagan <[mattf@groupdelta.com](mailto:mattf@groupdelta.com)>; Alexandre Santini <[alexandres@groupdelta.com](mailto:alexandres@groupdelta.com)>  
**Subject:** RE: Eurofins Calscience report and EDD files from 570-121270-1 Science Research Park SD754

Natalia –

We have a 1 x 8 oz. jar received for the subject sample – not sure on what mass is remaining. IF you wish for us to proceed, we can place the analyses request in for you and advise if we run into a sample mass issue.

If you wish to proceed, please supply the TAT required to do so. Thank you.

Your primary contact Vikas Patel is back from PTO – I've copied him with this email to loop in for the request.

Best Regards,

**Virendra Patel**  
Project Manager

Eurofins Environment Testing Southwest, LLC  
2841 Dow Avenue, Suite 100  
Tustin, CA 92780  
Phone: 714-895 5494  
Direct: 657-210-6327  
Mobile: 714-887-9901

[Virendra.Patel@ET.EurofinsUS.com](mailto:Virendra.Patel@ET.EurofinsUS.com)  
[www.EurofinsUS.com/Env](http://www.EurofinsUS.com/Env)

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---

**From:** Natalia Delgadillo <[nataliad@groupdelta.com](mailto:nataliad@groupdelta.com)>

**Sent:** Wednesday, January 11, 2023 10:00 AM

**To:** Virendra Patel <[Virendra.Patel@et.eurofinsus.com](mailto:Virendra.Patel@et.eurofinsus.com)>

**Cc:** Jack Packwood <[jackp@groupdelta.com](mailto:jackp@groupdelta.com)>; Matt Fagan <[mattf@groupdelta.com](mailto:mattf@groupdelta.com)>; Alexandre Santini <[alexandres@groupdelta.com](mailto:alexandres@groupdelta.com)>

**Subject:** RE: Eurofins Calscience report and EDD files from 570-121270-1 Science Research Park SD754

Hi Viendra,

Sample 570-121270-14 / B-35 @ 25' had an STLC of 5.75 mg/L. That means we need to run TCLP for this sample as well. Do you still have this sample to run this analysis?

Thank you,

**Natalia Delgadillo | Project Engineer**

Office: (909) 295-5550

Mobile: (714) 631-7442

E-mail: [nataliad@groupdelta.com](mailto:nataliad@groupdelta.com)



Calscience

Loc: 570  
121270



570-121270 Chain of Custody

CHAIN OF CUSTODY RECORD

DATE: 12/16/2022

PAGE: 1 OF 3

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT:		CLIENT PROJECT NAME / NUMBER:	
ADDRESS: 9245 Activity Road Suite 103		Science Research Park / SD754	
CITY: San Diego	STATE: CA	ZIP: 92126	PROJECT CONTACT: Matt Fagan
TEL: 858 536 1000	E-MAIL: mattf@groupdelta.com	P.O. NO. <i>Carey Rousset-Johnson</i>	

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):	
<input type="checkbox"/> SAME DAY	<input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD
<input type="checkbox"/> COELT EDF	GLOBAL ID:

SPECIAL INSTRUCTIONS:

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT	LOG CODE:		
		DATE	TIME			Unpreserved	Preserved	Field Filtered
	B-38 @ 5'	12/16	7:10	Soil	1	X		
	B-38 @ 10'	12/16	7:28	Soil	1	X		
	B-38 @ 15'	12/16	7:38	Soil	1	X		
	B-38 @ 20'	12/16	7:43	Soil	1	X		
	B-38 @ 25'	12/16	7:53	Soil	1	X		
	B-38 @ 30'	12/16	7:57	Soil	1	X		
	B-38 @ 35'	12/16	8:07	Soil	1	X		
	B-38 @ 40'	12/16	8:13	Soil	1	X		
	<del>B-38 @ 45'</del>	<del>12/16</del>	<del>8:13</del>	Soil	1	X		
	B-38 @ 2'	12/16	9:45	Soil	1	X		

Relinquished by (Signature): <i>[Signature]</i>	Received by (Signature/Affiliation): <i>William Rivera</i>	Date: 12/16/22	Time: 1810
Relinquished by (Signature): <i>William Rivera</i>	Received by (Signature/Affiliation): <i>[Signature]</i>	Date: 12/16/22	Time: 1915
Relinquished by (Signature):	Received by (Signature/Affiliation):	Date:	Time:

1.1/0.9' SC11





Calscience

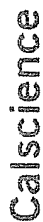
CHAIN OF CUSTODY RECORD

DATE: 12/16/2022

PAGE: 2 OF 2

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT		CLIENT PROJECT NAME / NUMBER		P.O. NO.	
Group Delta Consultants		Science Research Park / SD754		66	
ADDRESS: 9245 Activity Road Suite 103		PROJECT CONTACT:		SAMPLE(S) (PRINT)	
CITY: San Diego		Matt Fagan		Casper Revised-Jason	
TEL: 858 536 1000		E-MAIL: mattf@groupdelta.com		STATE: CA	
ZIP: 92126		TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):		LOG CODE:	
<input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD		<input type="checkbox"/> COELT EDF		GLOBAL ID:	
SPECIAL INSTRUCTIONS:		UNPRESERVED		PRESERVED	
FIELD FILLED		TPH (g) <input type="checkbox"/> GRO		TPH (g) <input type="checkbox"/> DRO	
TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44		TPH C4-C22, C43-C45		BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>	
VOCs (8260)		Oxygenates (8260)		Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	
SVOCs (8270)		Pesticides (8081)		PCBs (8082)	
PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM		T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X		Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6	
LAB USE ONLY		SAMPLE ID		NO. OF CONT	
B-350 51		12/16 9:50		Soil 1	
B-350 101		12/16 9:58		Soil 1	
B-350 151		12/16 10:03		Soil 1	
B-350 201		12/16 10:09		Soil 1	
B-350 251		12/16 10:27		Soil 1	
B-370 21		12/16 11:07		Soil 1	
B-370 51		12/16 11:41		Soil 1	
B-370 101		12/16 11:49		Soil 1	
B-370 151		12/16 11:59		Soil 1	
B-370 201		12/16 12:00		Soil 1	
Relinquished by (Signature)		William Rivera		Received by (Signature/Affiliation)	
Relinquished by (Signature)		William Rivera		Received by (Signature/Affiliation)	
Relinquished by (Signature)		William Rivera		Received by (Signature/Affiliation)	



## CHAIN OF CUSTODY RECORD

220219112

7440 Lincoln Way Garden Grove, CA 92841-1427 • (714) 895-5494

For courier service / sample drop off information, contact [us26\\_sales@eurofinsus.com](mailto:us26_sales@eurofinsus.com) or call us.

**LABORATORY CLIENT\***

LABORATORY CLIENT: Group Delta Consultants

ADDRESS: 9245 Activity Road Suite 103

city: San Diego

STATE:  
CA

ZIP- 92126

TEL. 858 536 1000

E-MAIL.	
---------	--

858 536 1000  
E-MAIL: [mattf@groupdelta.com](mailto:mattf@groupdelta.com)

**"TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):**

☐ SAME DAY   ☐ 24 HR   ☐ 48 HR   ☐ 72 HR   ☐ 5 DAYS   ☒ STANDARD

GLOBAL ID:	
------------	--

**SPECIAL INSTRUCTIONS:**

1/17/2023

06/02/14 Revision

## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-121270-3

**Login Number: 121270**

**List Source: Eurofins Calscience**

**List Number: 1**

**Creator: Ortiz-Luis, Michael**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Matt Fagan  
Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Generated 12/29/2022 7:08:38 PM

## JOB DESCRIPTION

UCSD Science Research Park (SD754)

## JOB NUMBER

570-121408-1

# Eurofins Calscience

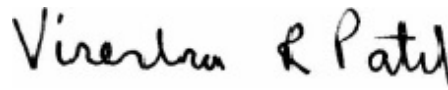
## Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

## Authorization



Generated  
12/29/2022 7:08:38 PM

Authorized for release by  
Virendra Patel, Project Manager I  
[Virendra.Patel@et.eurofinsus.com](mailto:Virendra.Patel@et.eurofinsus.com)  
Designee for  
Vikas Patel, Project Manager I  
[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)  
(714)895-5494

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# Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Qualifiers

### Metals

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

**Job ID: 570-121408-1**

**Laboratory: Eurofins Calscience**

## Narrative

### Job Narrative 570-121408-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 12/19/2022 6:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.7° C.

#### GC VOA

Method 8015B: The continuing calibration verification (CCV) associated with batch 290833 recovered above the upper control limit for Gasoline Range Organics (C4-C13). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 570-290833/59).

Method 8015B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 570-290981 and analytical batch 570-290951 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Metals

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 570-290517 and analytical batch 570-291371 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Silver, Barium, Lead and Antimony for preparation batch 570-290515 and analytical batch 570-290973 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

Client Sample ID: B-33@2'

Lab Sample ID: 570-121408-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	6.0		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	99		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	4.45		3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	48.7		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.338	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	3.10		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	8.96		1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	6.28		2.00	0.958	mg/Kg	5		6010B	Total/NA
Nickel	3.81		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	22.7		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	21.0		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	8.98		2.00	0.409	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-33@5'

Lab Sample ID: 570-121408-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	9.6		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	54		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	2.78	J	2.96	1.37	mg/Kg	5		6010B	Total/NA
Barium	67.0		2.96	0.140	mg/Kg	5		6010B	Total/NA
Beryllium	0.185	J	0.493	0.0680	mg/Kg	5		6010B	Total/NA
Cobalt	2.68		0.985	0.203	mg/Kg	5		6010B	Total/NA
Chromium	7.04		0.985	0.183	mg/Kg	5		6010B	Total/NA
Copper	5.12		1.97	0.944	mg/Kg	5		6010B	Total/NA
Nickel	2.52		1.97	0.357	mg/Kg	5		6010B	Total/NA
Vanadium	19.5		0.985	0.166	mg/Kg	5		6010B	Total/NA
Zinc	14.7		4.93	1.14	mg/Kg	5		6010B	Total/NA
Lead	18.5		1.97	0.403	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-33@10'

Lab Sample ID: 570-121408-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	7.7		5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	6.69		3.05	1.41	mg/Kg	5		6010B	Total/NA
Barium	56.0		3.05	0.144	mg/Kg	5		6010B	Total/NA
Beryllium	0.393	J	0.508	0.0701	mg/Kg	5		6010B	Total/NA
Cobalt	5.55		1.02	0.209	mg/Kg	5		6010B	Total/NA
Chromium	21.4		1.02	0.189	mg/Kg	5		6010B	Total/NA
Copper	9.05		2.03	0.973	mg/Kg	5		6010B	Total/NA
Molybdenum	2.03		2.03	0.523	mg/Kg	5		6010B	Total/NA
Nickel	6.02		2.03	0.368	mg/Kg	5		6010B	Total/NA
Vanadium	36.9		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	21.7		5.08	1.17	mg/Kg	5		6010B	Total/NA
Lead	8.68		2.03	0.415	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-33@15'

Lab Sample ID: 570-121408-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	13		5.0	3.9	mg/Kg	1		8015B	Total/NA
Barium	16.9		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.163	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	1.96		1.01	0.207	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Client Sample ID: B-33@15' (Continued)

## Lab Sample ID: 570-121408-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	7.30		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	2.39		2.01	0.963	mg/Kg	5		6010B	Total/NA
Nickel	2.16		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	19.0		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	4.22	J	5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	2.65		2.01	0.411	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-33@20'

## Lab Sample ID: 570-121408-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	16		5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	7.93		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	154		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.306	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	3.10		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	9.12		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	135		2.04	0.978	mg/Kg	5		6010B	Total/NA
Nickel	4.58		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	21.5		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	37.3		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	274		2.04	0.417	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-33@25'

## Lab Sample ID: 570-121408-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	7.5		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	49		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	7.02		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	57.5		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.306	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	2.78		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	8.52		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	8.44		2.04	0.978	mg/Kg	5		6010B	Total/NA
Nickel	3.62		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	22.3		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	22.6		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	10.8		2.04	0.417	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-33@30'

## Lab Sample ID: 570-121408-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	7.0		5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	6.39		2.97	1.38	mg/Kg	5		6010B	Total/NA
Barium	176		2.97	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.248	J	0.495	0.0683	mg/Kg	5		6010B	Total/NA
Cobalt	3.65		0.990	0.204	mg/Kg	5		6010B	Total/NA
Chromium	7.04		0.990	0.184	mg/Kg	5		6010B	Total/NA
Copper	8.75		1.98	0.949	mg/Kg	5		6010B	Total/NA
Molybdenum	0.545	J	1.98	0.510	mg/Kg	5		6010B	Total/NA
Nickel	3.04		1.98	0.358	mg/Kg	5		6010B	Total/NA
Vanadium	18.0		0.990	0.166	mg/Kg	5		6010B	Total/NA
Zinc	18.7		4.95	1.14	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Client Sample ID: B-33@30' (Continued)

Lab Sample ID: 570-121408-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	16.1		1.98	0.405	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-33@35'

Lab Sample ID: 570-121408-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	9.8		5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	5.20		3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	63.9		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.264	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	2.80		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	6.65		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	7.74		2.01	0.963	mg/Kg	5		6010B	Total/NA
Molybdenum	0.565	J	2.01	0.518	mg/Kg	5		6010B	Total/NA
Nickel	3.05		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	17.9		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	18.3		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	24.1		2.01	0.411	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-36@2'

Lab Sample ID: 570-121408-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	12		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	4.30		2.94	1.36	mg/Kg	5		6010B	Total/NA
Barium	40.6		2.94	0.139	mg/Kg	5		6010B	Total/NA
Beryllium	0.306	J	0.490	0.0676	mg/Kg	5		6010B	Total/NA
Cobalt	4.33		0.980	0.202	mg/Kg	5		6010B	Total/NA
Chromium	12.1		0.980	0.182	mg/Kg	5		6010B	Total/NA
Copper	6.57		1.96	0.939	mg/Kg	5		6010B	Total/NA
Nickel	5.33		1.96	0.355	mg/Kg	5		6010B	Total/NA
Selenium	1.42	J	2.94	1.20	mg/Kg	5		6010B	Total/NA
Vanadium	30.6		0.980	0.165	mg/Kg	5		6010B	Total/NA
Zinc	17.4		4.90	1.13	mg/Kg	5		6010B	Total/NA
Lead	6.70		1.96	0.401	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-36@5'

Lab Sample ID: 570-121408-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	6.9		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	3.51		2.96	1.37	mg/Kg	5		6010B	Total/NA
Barium	34.9		2.96	0.140	mg/Kg	5		6010B	Total/NA
Beryllium	0.296	J	0.493	0.0680	mg/Kg	5		6010B	Total/NA
Cobalt	3.63		0.985	0.203	mg/Kg	5		6010B	Total/NA
Chromium	11.7		0.985	0.183	mg/Kg	5		6010B	Total/NA
Copper	15.5		1.97	0.944	mg/Kg	5		6010B	Total/NA
Nickel	4.52		1.97	0.357	mg/Kg	5		6010B	Total/NA
Selenium	1.29	J	2.96	1.20	mg/Kg	5		6010B	Total/NA
Vanadium	31.8		0.985	0.166	mg/Kg	5		6010B	Total/NA
Zinc	28.2		4.93	1.14	mg/Kg	5		6010B	Total/NA
Lead	7.03		1.97	0.403	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Client Sample ID: B-36@10'

## Lab Sample ID: 570-121408-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	16		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	4.93		2.99	1.38	mg/Kg	5		6010B	Total/NA
Barium	37.1		2.99	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.498		0.498	0.0687	mg/Kg	5		6010B	Total/NA
Cobalt	6.36		0.995	0.205	mg/Kg	5		6010B	Total/NA
Chromium	9.22		0.995	0.185	mg/Kg	5		6010B	Total/NA
Copper	10.6		1.99	0.953	mg/Kg	5		6010B	Total/NA
Nickel	7.49		1.99	0.360	mg/Kg	5		6010B	Total/NA
Vanadium	21.7		0.995	0.167	mg/Kg	5		6010B	Total/NA
Zinc	39.4		4.98	1.15	mg/Kg	5		6010B	Total/NA
Lead	10.1		1.99	0.407	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-36@15'

## Lab Sample ID: 570-121408-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	7.5		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	4.12		3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	90.6		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.302	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	3.14		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	9.55		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	11.3		2.01	0.963	mg/Kg	5		6010B	Total/NA
Nickel	3.64		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	25.1		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	21.1		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	24.8		2.01	0.411	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-36@20'

## Lab Sample ID: 570-121408-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	10		5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	3.14		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	81.8		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.217	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	2.59		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	5.70		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	10.2		2.04	0.978	mg/Kg	5		6010B	Total/NA
Nickel	2.73		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	15.5		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	20.0		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	50.5		2.04	0.417	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-36@25'

## Lab Sample ID: 570-121408-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	5.0		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	4.78		2.99	1.38	mg/Kg	5		6010B	Total/NA
Barium	104		2.99	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.336	J	0.498	0.0687	mg/Kg	5		6010B	Total/NA
Cobalt	3.94		0.995	0.205	mg/Kg	5		6010B	Total/NA
Chromium	17.0		0.995	0.185	mg/Kg	5		6010B	Total/NA
Copper	13.6		1.99	0.953	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Client Sample ID: B-36@25' (Continued)

Lab Sample ID: 570-121408-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Molybdenum	1.59	J	1.99	0.512	mg/Kg	5		6010B	Total/NA
Nickel	4.58		1.99	0.360	mg/Kg	5		6010B	Total/NA
Vanadium	27.4		0.995	0.167	mg/Kg	5		6010B	Total/NA
Zinc	28.3		4.98	1.15	mg/Kg	5		6010B	Total/NA
Lead	34.5		1.99	0.407	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-41@2'

Lab Sample ID: 570-121408-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	9.3		5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	2.94	J	3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	49.4		3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.316	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Cobalt	4.43		1.01	0.208	mg/Kg	5		6010B	Total/NA
Chromium	11.8		1.01	0.188	mg/Kg	5		6010B	Total/NA
Copper	6.52		2.02	0.968	mg/Kg	5		6010B	Total/NA
Nickel	4.53		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	32.6		1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	18.1		5.05	1.17	mg/Kg	5		6010B	Total/NA
Lead	9.67		2.02	0.413	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-41@5'

Lab Sample ID: 570-121408-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	5.8		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	19		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	2.63	J	3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	85.5		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.250	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	2.56		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	11.8		1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	5.56		2.00	0.958	mg/Kg	5		6010B	Total/NA
Nickel	3.11		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	30.4		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	12.5		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	11.6		2.00	0.409	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-41@10'

Lab Sample ID: 570-121408-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	41		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	4.42		2.99	1.38	mg/Kg	5		6010B	Total/NA
Barium	52.3		2.99	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.274	J	0.498	0.0687	mg/Kg	5		6010B	Total/NA
Cobalt	3.00		0.995	0.205	mg/Kg	5		6010B	Total/NA
Chromium	9.65		0.995	0.185	mg/Kg	5		6010B	Total/NA
Copper	7.70		1.99	0.953	mg/Kg	5		6010B	Total/NA
Nickel	4.07		1.99	0.360	mg/Kg	5		6010B	Total/NA
Vanadium	23.2		0.995	0.167	mg/Kg	5		6010B	Total/NA
Zinc	22.4		4.98	1.15	mg/Kg	5		6010B	Total/NA
Lead	7.97		1.99	0.407	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

Client Sample ID: B-41@15'

Lab Sample ID: 570-121408-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	7.4		5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	3.97		3.05	1.41	mg/Kg	5		6010B	Total/NA
Barium	86.0		3.05	0.144	mg/Kg	5		6010B	Total/NA
Beryllium	0.292	J	0.508	0.0701	mg/Kg	5		6010B	Total/NA
Cobalt	3.44		1.02	0.209	mg/Kg	5		6010B	Total/NA
Chromium	9.56		1.02	0.189	mg/Kg	5		6010B	Total/NA
Copper	11.1		2.03	0.973	mg/Kg	5		6010B	Total/NA
Molybdenum	0.558	J	2.03	0.523	mg/Kg	5		6010B	Total/NA
Nickel	3.73		2.03	0.368	mg/Kg	5		6010B	Total/NA
Vanadium	24.3		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	22.1		5.08	1.17	mg/Kg	5		6010B	Total/NA
Lead	30.0		2.03	0.415	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-41@20'

Lab Sample ID: 570-121408-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	9.5		5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	5.52		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	99.1		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.332	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	3.95		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	34.6		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	14.1		2.04	0.978	mg/Kg	5		6010B	Total/NA
Molybdenum	1.75	J	2.04	0.526	mg/Kg	5		6010B	Total/NA
Nickel	5.50		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	29.0		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	29.1		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	21.1		2.04	0.417	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-41@25'

Lab Sample ID: 570-121408-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	28		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	14		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	13.1		3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	62.9		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.590		0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	7.41		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	14.2		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	24.9		2.01	0.963	mg/Kg	5		6010B	Total/NA
Molybdenum	1.14	J	2.01	0.518	mg/Kg	5		6010B	Total/NA
Nickel	11.3		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	27.2		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	62.2		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	67.4		2.01	0.411	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-41@30'

Lab Sample ID: 570-121408-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	8.5		5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	5.15		2.99	1.38	mg/Kg	5		6010B	Total/NA
Barium	77.9		2.99	0.141	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Client Sample ID: B-41@30' (Continued)

## Lab Sample ID: 570-121408-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.286	J	0.498	0.0687	mg/Kg	5		6010B	Total/NA
Cobalt	3.43		0.995	0.205	mg/Kg	5		6010B	Total/NA
Chromium	9.22		0.995	0.185	mg/Kg	5		6010B	Total/NA
Copper	34.3		1.99	0.953	mg/Kg	5		6010B	Total/NA
Molybdenum	0.659	J	1.99	0.512	mg/Kg	5		6010B	Total/NA
Nickel	4.53		1.99	0.360	mg/Kg	5		6010B	Total/NA
Vanadium	18.9		0.995	0.167	mg/Kg	5		6010B	Total/NA
Zinc	33.1		4.98	1.15	mg/Kg	5		6010B	Total/NA
Lead	74.9		1.99	0.407	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-41@35'

## Lab Sample ID: 570-121408-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	18		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	5.48		2.97	1.38	mg/Kg	5		6010B	Total/NA
Barium	52.7		2.97	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.446	J	0.495	0.0683	mg/Kg	5		6010B	Total/NA
Cobalt	5.43		0.990	0.204	mg/Kg	5		6010B	Total/NA
Chromium	14.0		0.990	0.184	mg/Kg	5		6010B	Total/NA
Copper	20.6		1.98	0.949	mg/Kg	5		6010B	Total/NA
Molybdenum	0.681	J	1.98	0.510	mg/Kg	5		6010B	Total/NA
Nickel	9.32		1.98	0.358	mg/Kg	5		6010B	Total/NA
Vanadium	27.3		0.990	0.166	mg/Kg	5		6010B	Total/NA
Zinc	51.0		4.95	1.14	mg/Kg	5		6010B	Total/NA
Lead	33.6		1.98	0.405	mg/Kg	5		6010B	Total/NA
Mercury	0.0368	J	0.0817	0.0314	mg/Kg	1		7471A	Total/NA

## Client Sample ID: B-41@40'

## Lab Sample ID: 570-121408-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	8.7		5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	7.31		2.99	1.38	mg/Kg	5		6010B	Total/NA
Barium	82.6		2.99	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.498		0.498	0.0687	mg/Kg	5		6010B	Total/NA
Cobalt	6.01		0.995	0.205	mg/Kg	5		6010B	Total/NA
Chromium	14.9		0.995	0.185	mg/Kg	5		6010B	Total/NA
Copper	18.2		1.99	0.953	mg/Kg	5		6010B	Total/NA
Molybdenum	0.821	J	1.99	0.512	mg/Kg	5		6010B	Total/NA
Nickel	9.13		1.99	0.360	mg/Kg	5		6010B	Total/NA
Selenium	1.24	J	2.99	1.22	mg/Kg	5		6010B	Total/NA
Vanadium	30.9		0.995	0.167	mg/Kg	5		6010B	Total/NA
Zinc	52.8		4.98	1.15	mg/Kg	5		6010B	Total/NA
Lead	16.9		1.99	0.407	mg/Kg	5		6010B	Total/NA
Mercury	0.0393	J	0.0850	0.0327	mg/Kg	1		7471A	Total/NA

## Client Sample ID: B-11@2'

## Lab Sample ID: 570-121408-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.23		2.96	1.37	mg/Kg	5		6010B	Total/NA
Barium	64.7	F1 F2	2.96	0.140	mg/Kg	5		6010B	Total/NA
Beryllium	0.234	J	0.493	0.0680	mg/Kg	5		6010B	Total/NA
Cobalt	2.62		0.985	0.203	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Client Sample ID: B-11@2' (Continued)

Lab Sample ID: 570-121408-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	7.94		0.985	0.183	mg/Kg	5		6010B	Total/NA
Copper	6.37		1.97	0.944	mg/Kg	5		6010B	Total/NA
Nickel	3.66		1.97	0.357	mg/Kg	5		6010B	Total/NA
Vanadium	23.0		0.985	0.166	mg/Kg	5		6010B	Total/NA
Zinc	21.7		4.93	1.14	mg/Kg	5		6010B	Total/NA
Lead	5.96		1.97	0.403	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-6@2'

Lab Sample ID: 570-121408-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	9.47		3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	204		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.214	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	1.88		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	7.37		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	5.33		2.01	0.963	mg/Kg	5		6010B	Total/NA
Nickel	2.65		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	20.1		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	19.3		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	5.75		2.01	0.411	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-7@2'

Lab Sample ID: 570-121408-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.40		3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	100		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.276	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	2.79		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	7.19		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	10.7		2.01	0.963	mg/Kg	5		6010B	Total/NA
Nickel	3.14		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	18.5		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	19.3		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	14.6		2.01	0.411	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience



# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-33@2'**  
**Date Collected: 12/19/22 07:20**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-1**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/20/22 17:34	12/21/22 05:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	67		42 - 126				12/20/22 17:34	12/21/22 05:02	1

**Client Sample ID: B-33@5'**  
**Date Collected: 12/19/22 07:26**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-2**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/20/22 17:34	12/21/22 06:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	61		42 - 126				12/20/22 17:34	12/21/22 06:30	1

**Client Sample ID: B-33@10'**  
**Date Collected: 12/19/22 07:32**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-3**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/20/22 17:34	12/21/22 07:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	55		42 - 126				12/20/22 17:34	12/21/22 07:00	1

**Client Sample ID: B-33@15'**  
**Date Collected: 12/19/22 07:37**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-4**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/20/22 17:34	12/21/22 09:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	67		42 - 126				12/20/22 17:34	12/21/22 09:07	1

**Client Sample ID: B-33@20'**  
**Date Collected: 12/19/22 07:45**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-5**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/20/22 17:34	12/21/22 09:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	62		42 - 126				12/20/22 17:34	12/21/22 09:37	1

**Client Sample ID: B-33@25'**  
**Date Collected: 12/19/22 07:51**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-6**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/20/22 17:34	12/21/22 10:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	64		42 - 126				12/20/22 17:34	12/21/22 10:06	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-33@30'**  
**Date Collected: 12/19/22 08:04**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-7**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/20/22 17:34	12/21/22 10:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	49		42 - 126				12/20/22 17:34	12/21/22 10:36	1

**Client Sample ID: B-33@35'**  
**Date Collected: 12/19/22 08:11**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-8**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/20/22 17:34	12/21/22 11:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	60		42 - 126				12/20/22 17:34	12/21/22 11:05	1

**Client Sample ID: B-36@2'**  
**Date Collected: 12/19/22 09:23**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-9**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/20/22 17:34	12/21/22 11:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	54		42 - 126				12/20/22 17:34	12/21/22 11:34	1

**Client Sample ID: B-36@5'**  
**Date Collected: 12/19/22 09:28**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-10**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/20/22 17:34	12/21/22 12:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	55		42 - 126				12/20/22 17:34	12/21/22 12:03	1

**Client Sample ID: B-36@10'**  
**Date Collected: 12/19/22 09:36**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-11**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/20/22 17:34	12/21/22 13:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	52		42 - 126				12/20/22 17:34	12/21/22 13:02	1

**Client Sample ID: B-36@15'**  
**Date Collected: 12/19/22 09:41**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-12**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/20/22 17:34	12/21/22 13:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	49		42 - 126				12/20/22 17:34	12/21/22 13:31	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-36@20'**  
**Date Collected: 12/19/22 09:46**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-13**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/20/22 17:34	12/21/22 14:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	60		42 - 126				12/20/22 17:34	12/21/22 14:06	1

**Client Sample ID: B-36@25'**  
**Date Collected: 12/19/22 09:55**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-14**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/20/22 17:34	12/21/22 14:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	64		42 - 126				12/20/22 17:34	12/21/22 14:53	1

**Client Sample ID: B-41@2'**  
**Date Collected: 12/19/22 10:58**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-15**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/20/22 17:34	12/21/22 15:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	53		42 - 126				12/20/22 17:34	12/21/22 15:22	1

**Client Sample ID: B-41@5'**  
**Date Collected: 12/19/22 11:09**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-16**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/20/22 17:34	12/21/22 15:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	54		42 - 126				12/20/22 17:34	12/21/22 15:52	1

**Client Sample ID: B-41@10'**  
**Date Collected: 12/19/22 11:14**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-17**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/20/22 17:34	12/21/22 16:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	50		42 - 126				12/20/22 17:34	12/21/22 16:21	1

**Client Sample ID: B-41@15'**  
**Date Collected: 12/19/22 11:21**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-18**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/20/22 17:34	12/21/22 16:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	56		42 - 126				12/20/22 17:34	12/21/22 16:51	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-41@20'**  
**Date Collected: 12/19/22 11:35**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-19**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/20/22 17:34	12/21/22 17:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	67		42 - 126				12/20/22 17:34	12/21/22 17:38	1

**Client Sample ID: B-41@25'**  
**Date Collected: 12/19/22 11:42**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-20**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/20/22 17:34	12/21/22 18:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	62		42 - 126				12/20/22 17:34	12/21/22 18:07	1

**Client Sample ID: B-41@30'**  
**Date Collected: 12/19/22 11:51**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-21**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/20/22 18:48	12/21/22 09:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	62		42 - 126				12/20/22 18:48	12/21/22 09:23	1

**Client Sample ID: B-41@35'**  
**Date Collected: 12/19/22 12:00**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-22**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/22/22 10:45	12/22/22 13:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		42 - 126				12/22/22 10:45	12/22/22 13:36	1

**Client Sample ID: B-41@40'**  
**Date Collected: 12/19/22 12:09**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-23**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/21/22 13:15	12/21/22 23:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		42 - 126				12/21/22 13:15	12/21/22 23:02	1

**Client Sample ID: B-11@2'**  
**Date Collected: 12/19/22 13:22**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-24**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/21/22 13:15	12/21/22 23:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		42 - 126				12/21/22 13:15	12/21/22 23:26	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

Client Sample ID: B-6@2'  
Date Collected: 12/19/22 14:08  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-25  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/22/22 10:45	12/22/22 14:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		42 - 126				12/22/22 10:45	12/22/22 14:49	1

Client Sample ID: B-7@2'  
Date Collected: 12/19/22 14:42  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-26  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/22/22 10:45	12/22/22 15:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		42 - 126				12/22/22 10:45	12/22/22 15:13	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B-33@2'  
Date Collected: 12/19/22 07:20  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	6.0		5.0	3.8	mg/Kg		12/20/22 10:54	12/21/22 06:54	1
C23-C40	99		5.0	3.8	mg/Kg		12/20/22 10:54	12/21/22 06:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	129		60 - 138				12/20/22 10:54	12/21/22 06:54	1

Client Sample ID: B-33@5'  
Date Collected: 12/19/22 07:26  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	9.6		5.0	3.8	mg/Kg		12/20/22 10:54	12/21/22 07:16	1
C23-C40	54		5.0	3.8	mg/Kg		12/20/22 10:54	12/21/22 07:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	134		60 - 138				12/20/22 10:54	12/21/22 07:16	1

Client Sample ID: B-33@10'  
Date Collected: 12/19/22 07:32  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.9	mg/Kg		12/20/22 10:54	12/21/22 07:37	1
C23-C40	7.7		5.0	3.9	mg/Kg		12/20/22 10:54	12/21/22 07:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	132		60 - 138				12/20/22 10:54	12/21/22 07:37	1

Client Sample ID: B-33@15'  
Date Collected: 12/19/22 07:37  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.9	mg/Kg		12/20/22 10:54	12/21/22 07:58	1
C23-C40	13		5.0	3.9	mg/Kg		12/20/22 10:54	12/21/22 07:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	132		60 - 138				12/20/22 10:54	12/21/22 07:58	1

Client Sample ID: B-33@20'  
Date Collected: 12/19/22 07:45  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.9	mg/Kg		12/20/22 10:54	12/21/22 08:20	1
C23-C40	16		5.0	3.9	mg/Kg		12/20/22 10:54	12/21/22 08:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	134		60 - 138				12/20/22 10:54	12/21/22 08:20	1

Client Sample ID: B-33@25'  
Date Collected: 12/19/22 07:51  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	7.5		5.0	3.8	mg/Kg		12/20/22 10:54	12/21/22 08:42	1
C23-C40	49		5.0	3.8	mg/Kg		12/20/22 10:54	12/21/22 08:42	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	131		60 - 138	12/20/22 10:54	12/21/22 08:42	1
<div> <div>Client Sample ID: B-33@30'</div> <div>Date Collected: 12/19/22 08:04</div> <div>Date Received: 12/19/22 18:30</div> </div> <div> <div>Lab Sample ID: 570-121408-7</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		5.0	3.9	mg/Kg	
C23-C40	7.0		5.0	3.9	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	129		60 - 138	12/20/22 10:54	12/21/22 09:03	1
<div> <div>Client Sample ID: B-33@35'</div> <div>Date Collected: 12/19/22 08:11</div> <div>Date Received: 12/19/22 18:30</div> </div> <div> <div>Lab Sample ID: 570-121408-8</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		5.0	3.9	mg/Kg	
C23-C40	9.8		5.0	3.9	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	134		60 - 138	12/20/22 10:54	12/21/22 09:25	1
<div> <div>Client Sample ID: B-36@2'</div> <div>Date Collected: 12/19/22 09:23</div> <div>Date Received: 12/19/22 18:30</div> </div> <div> <div>Lab Sample ID: 570-121408-9</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		5.0	3.8	mg/Kg	
C23-C40	12		5.0	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	135		60 - 138	12/20/22 10:54	12/21/22 09:45	1
<div> <div>Client Sample ID: B-36@5'</div> <div>Date Collected: 12/19/22 09:28</div> <div>Date Received: 12/19/22 18:30</div> </div> <div> <div>Lab Sample ID: 570-121408-10</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		5.0	3.8	mg/Kg	
C23-C40	6.9		5.0	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	135		60 - 138	12/20/22 10:54	12/21/22 10:06	1
<div> <div>Client Sample ID: B-36@10'</div> <div>Date Collected: 12/19/22 09:36</div> <div>Date Received: 12/19/22 18:30</div> </div> <div> <div>Lab Sample ID: 570-121408-11</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		5.0	3.8	mg/Kg	
C23-C40	16		5.0	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	134		60 - 138	12/20/22 10:54	12/21/22 10:27	1



# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B-36@15'  
Date Collected: 12/19/22 09:41  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/20/22 10:54	12/21/22 10:48	1
C23-C40	7.5		5.0	3.8	mg/Kg		12/20/22 10:54	12/21/22 10:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	136		60 - 138				12/20/22 10:54	12/21/22 10:48	1

Client Sample ID: B-36@20'  
Date Collected: 12/19/22 09:46  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.9	mg/Kg		12/20/22 10:54	12/21/22 11:09	1
C23-C40	10		5.0	3.9	mg/Kg		12/20/22 10:54	12/21/22 11:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	136		60 - 138				12/20/22 10:54	12/21/22 11:09	1

Client Sample ID: B-36@25'  
Date Collected: 12/19/22 09:55  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-14  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/20/22 10:54	12/21/22 11:30	1
C23-C40	5.0		5.0	3.8	mg/Kg		12/20/22 10:54	12/21/22 11:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	137		60 - 138				12/20/22 10:54	12/21/22 11:30	1

Client Sample ID: B-41@2'  
Date Collected: 12/19/22 10:58  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-15  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.9	mg/Kg		12/20/22 10:54	12/21/22 11:50	1
C23-C40	9.3		5.0	3.9	mg/Kg		12/20/22 10:54	12/21/22 11:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	133		60 - 138				12/20/22 10:54	12/21/22 11:50	1

Client Sample ID: B-41@5'  
Date Collected: 12/19/22 11:09  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-16  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	5.8		5.0	3.8	mg/Kg		12/20/22 10:54	12/21/22 12:11	1
C23-C40	19		5.0	3.8	mg/Kg		12/20/22 10:54	12/21/22 12:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	137		60 - 138				12/20/22 10:54	12/21/22 12:11	1

Client Sample ID: B-41@10'  
Date Collected: 12/19/22 11:14  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-17  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/20/22 10:54	12/21/22 12:32	1
C23-C40	41		5.0	3.8	mg/Kg		12/20/22 10:54	12/21/22 12:32	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	135		60 - 138	12/20/22 10:54	12/21/22 12:32	1
<div> <div>Client Sample ID: B-41@15'</div> <div>Date Collected: 12/19/22 11:21</div> <div>Date Received: 12/19/22 18:30</div> </div> <div> <div>Lab Sample ID: 570-121408-18</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		5.0	3.9	mg/Kg	
C23-C40	7.4		5.0	3.9	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	132		60 - 138	12/20/22 10:54	12/21/22 12:53	1
<div> <div>Client Sample ID: B-41@20'</div> <div>Date Collected: 12/19/22 11:35</div> <div>Date Received: 12/19/22 18:30</div> </div> <div> <div>Lab Sample ID: 570-121408-19</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		5.0	3.9	mg/Kg	
C23-C40	9.5		5.0	3.9	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	133		60 - 138	12/20/22 10:54	12/21/22 13:14	1
<div> <div>Client Sample ID: B-41@25'</div> <div>Date Collected: 12/19/22 11:42</div> <div>Date Received: 12/19/22 18:30</div> </div> <div> <div>Lab Sample ID: 570-121408-20</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	28		5.0	3.8	mg/Kg	
C23-C40	14		5.0	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	130		60 - 138	12/20/22 10:54	12/21/22 13:34	1
<div> <div>Client Sample ID: B-41@30'</div> <div>Date Collected: 12/19/22 11:51</div> <div>Date Received: 12/19/22 18:30</div> </div> <div> <div>Lab Sample ID: 570-121408-21</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		5.0	3.9	mg/Kg	
C23-C40	8.5		5.0	3.9	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	129		60 - 138	12/20/22 11:00	12/21/22 15:39	1
<div> <div>Client Sample ID: B-41@35'</div> <div>Date Collected: 12/19/22 12:00</div> <div>Date Received: 12/19/22 18:30</div> </div> <div> <div>Lab Sample ID: 570-121408-22</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		5.0	3.8	mg/Kg	
C23-C40	18		5.0	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	133		60 - 138	12/20/22 11:00	12/21/22 16:00	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B-41@40'  
Date Collected: 12/19/22 12:09  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-23  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.9	mg/Kg		12/20/22 11:00	12/21/22 16:21	1
C23-C40	8.7		5.0	3.9	mg/Kg		12/20/22 11:00	12/21/22 16:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	123		60 - 138				12/20/22 11:00	12/21/22 16:21	1

Client Sample ID: B-11@2'  
Date Collected: 12/19/22 13:22  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-24  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/20/22 11:00	12/21/22 16:42	1
C23-C40	ND		5.0	3.8	mg/Kg		12/20/22 11:00	12/21/22 16:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	131		60 - 138				12/20/22 11:00	12/21/22 16:42	1

Client Sample ID: B-6@2'  
Date Collected: 12/19/22 14:08  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-25  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/20/22 11:00	12/21/22 17:03	1
C23-C40	ND		5.0	3.8	mg/Kg		12/20/22 11:00	12/21/22 17:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	132		60 - 138				12/20/22 11:00	12/21/22 17:03	1

Client Sample ID: B-7@2'  
Date Collected: 12/19/22 14:42  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-26  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/20/22 11:00	12/21/22 17:24	1
C23-C40	ND		5.0	3.8	mg/Kg		12/20/22 11:00	12/21/22 17:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	131		60 - 138				12/20/22 11:00	12/21/22 17:24	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-33@2'  
Date Collected: 12/19/22 07:20  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/20/22 06:58	12/21/22 06:51	5
Arsenic	4.45		3.00	1.39	mg/Kg		12/20/22 06:58	12/21/22 06:51	5
Barium	48.7		3.00	0.142	mg/Kg		12/20/22 06:58	12/21/22 06:51	5
Beryllium	0.338	J	0.500	0.0690	mg/Kg		12/20/22 06:58	12/21/22 06:51	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/20/22 06:58	12/21/22 06:51	5
Cobalt	3.10		1.00	0.206	mg/Kg		12/20/22 06:58	12/21/22 06:51	5
Chromium	8.96		1.00	0.186	mg/Kg		12/20/22 06:58	12/21/22 06:51	5
Copper	6.28		2.00	0.958	mg/Kg		12/20/22 06:58	12/21/22 06:51	5
Molybdenum	ND		2.00	0.515	mg/Kg		12/20/22 06:58	12/21/22 06:51	5
Nickel	3.81		2.00	0.362	mg/Kg		12/20/22 06:58	12/21/22 06:51	5
Antimony	ND		10.0	2.86	mg/Kg		12/20/22 06:58	12/21/22 06:51	5
Selenium	ND		3.00	1.22	mg/Kg		12/20/22 06:58	12/22/22 11:44	5
Thallium	ND		10.0	2.11	mg/Kg		12/20/22 06:58	12/21/22 06:51	5
Vanadium	22.7		1.00	0.168	mg/Kg		12/20/22 06:58	12/21/22 06:51	5
Zinc	21.0		5.00	1.16	mg/Kg		12/20/22 06:58	12/21/22 06:51	5
Lead	8.98		2.00	0.409	mg/Kg		12/20/22 06:58	12/21/22 06:51	5

Client Sample ID: B-33@5'  
Date Collected: 12/19/22 07:26  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.48	0.142	mg/Kg		12/20/22 06:58	12/21/22 06:53	5
Arsenic	2.78	J	2.96	1.37	mg/Kg		12/20/22 06:58	12/21/22 06:53	5
Barium	67.0		2.96	0.140	mg/Kg		12/20/22 06:58	12/21/22 06:53	5
Beryllium	0.185	J	0.493	0.0680	mg/Kg		12/20/22 06:58	12/21/22 06:53	5
Cadmium	ND		0.493	0.0818	mg/Kg		12/20/22 06:58	12/21/22 06:53	5
Cobalt	2.68		0.985	0.203	mg/Kg		12/20/22 06:58	12/21/22 06:53	5
Chromium	7.04		0.985	0.183	mg/Kg		12/20/22 06:58	12/21/22 06:53	5
Copper	5.12		1.97	0.944	mg/Kg		12/20/22 06:58	12/21/22 06:53	5
Molybdenum	ND		1.97	0.507	mg/Kg		12/20/22 06:58	12/21/22 06:53	5
Nickel	2.52		1.97	0.357	mg/Kg		12/20/22 06:58	12/21/22 06:53	5
Antimony	ND		9.85	2.81	mg/Kg		12/20/22 06:58	12/21/22 06:53	5
Selenium	ND		2.96	1.20	mg/Kg		12/20/22 06:58	12/22/22 11:47	5
Thallium	ND		9.85	2.07	mg/Kg		12/20/22 06:58	12/21/22 06:53	5
Vanadium	19.5		0.985	0.166	mg/Kg		12/20/22 06:58	12/21/22 06:53	5
Zinc	14.7		4.93	1.14	mg/Kg		12/20/22 06:58	12/21/22 06:53	5
Lead	18.5		1.97	0.403	mg/Kg		12/20/22 06:58	12/21/22 06:53	5

Client Sample ID: B-33@10'  
Date Collected: 12/19/22 07:32  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.146	mg/Kg		12/20/22 06:58	12/21/22 07:01	5
Arsenic	6.69		3.05	1.41	mg/Kg		12/20/22 06:58	12/21/22 07:01	5
Barium	56.0		3.05	0.144	mg/Kg		12/20/22 06:58	12/21/22 07:01	5
Beryllium	0.393	J	0.508	0.0701	mg/Kg		12/20/22 06:58	12/21/22 07:01	5
Cadmium	ND		0.508	0.0843	mg/Kg		12/20/22 06:58	12/21/22 07:01	5
Cobalt	5.55		1.02	0.209	mg/Kg		12/20/22 06:58	12/21/22 07:01	5
Chromium	21.4		1.02	0.189	mg/Kg		12/20/22 06:58	12/21/22 07:01	5
Copper	9.05		2.03	0.973	mg/Kg		12/20/22 06:58	12/21/22 07:01	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-33@10'  
Date Collected: 12/19/22 07:32  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	2.03		2.03	0.523	mg/Kg		12/20/22 06:58	12/21/22 07:01	5
Nickel	6.02		2.03	0.368	mg/Kg		12/20/22 06:58	12/21/22 07:01	5
Antimony	ND		10.2	2.90	mg/Kg		12/20/22 06:58	12/21/22 07:01	5
Selenium	ND		3.05	1.24	mg/Kg		12/20/22 06:58	12/22/22 11:49	5
Thallium	ND		10.2	2.14	mg/Kg		12/20/22 06:58	12/21/22 07:01	5
Vanadium	36.9		1.02	0.171	mg/Kg		12/20/22 06:58	12/21/22 07:01	5
Zinc	21.7		5.08	1.17	mg/Kg		12/20/22 06:58	12/21/22 07:01	5
Lead	8.68		2.03	0.415	mg/Kg		12/20/22 06:58	12/21/22 07:01	5

Client Sample ID: B-33@15'  
Date Collected: 12/19/22 07:37  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/20/22 06:58	12/21/22 07:03	5
Arsenic	ND		3.02	1.40	mg/Kg		12/20/22 06:58	12/21/22 07:03	5
Barium	16.9		3.02	0.143	mg/Kg		12/20/22 06:58	12/21/22 07:03	5
Beryllium	0.163	J	0.503	0.0693	mg/Kg		12/20/22 06:58	12/21/22 07:03	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/20/22 06:58	12/21/22 07:03	5
Cobalt	1.96		1.01	0.207	mg/Kg		12/20/22 06:58	12/21/22 07:03	5
Chromium	7.30		1.01	0.187	mg/Kg		12/20/22 06:58	12/21/22 07:03	5
Copper	2.39		2.01	0.963	mg/Kg		12/20/22 06:58	12/21/22 07:03	5
Molybdenum	ND		2.01	0.518	mg/Kg		12/20/22 06:58	12/21/22 07:03	5
Nickel	2.16		2.01	0.364	mg/Kg		12/20/22 06:58	12/21/22 07:03	5
Antimony	ND		10.1	2.87	mg/Kg		12/20/22 06:58	12/21/22 07:03	5
Selenium	ND		3.02	1.23	mg/Kg		12/20/22 06:58	12/22/22 11:52	5
Thallium	ND		10.1	2.12	mg/Kg		12/20/22 06:58	12/21/22 07:03	5
Vanadium	19.0		1.01	0.169	mg/Kg		12/20/22 06:58	12/21/22 07:03	5
Zinc	4.22	J	5.03	1.16	mg/Kg		12/20/22 06:58	12/21/22 07:03	5
Lead	2.65		2.01	0.411	mg/Kg		12/20/22 06:58	12/21/22 07:03	5

Client Sample ID: B-33@20'  
Date Collected: 12/19/22 07:45  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/20/22 06:58	12/21/22 07:06	5
Arsenic	7.93		3.06	1.42	mg/Kg		12/20/22 06:58	12/21/22 07:06	5
Barium	154		3.06	0.145	mg/Kg		12/20/22 06:58	12/21/22 07:06	5
Beryllium	0.306	J	0.510	0.0704	mg/Kg		12/20/22 06:58	12/21/22 07:06	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/20/22 06:58	12/21/22 07:06	5
Cobalt	3.10		1.02	0.210	mg/Kg		12/20/22 06:58	12/21/22 07:06	5
Chromium	9.12		1.02	0.190	mg/Kg		12/20/22 06:58	12/21/22 07:06	5
Copper	135		2.04	0.978	mg/Kg		12/20/22 06:58	12/21/22 07:06	5
Molybdenum	ND		2.04	0.526	mg/Kg		12/20/22 06:58	12/21/22 07:06	5
Nickel	4.58		2.04	0.369	mg/Kg		12/20/22 06:58	12/21/22 07:06	5
Antimony	ND		10.2	2.92	mg/Kg		12/20/22 06:58	12/21/22 07:06	5
Selenium	ND		3.06	1.25	mg/Kg		12/20/22 06:58	12/22/22 11:54	5
Thallium	ND		10.2	2.15	mg/Kg		12/20/22 06:58	12/21/22 07:06	5
Vanadium	21.5		1.02	0.171	mg/Kg		12/20/22 06:58	12/21/22 07:06	5
Zinc	37.3		5.10	1.18	mg/Kg		12/20/22 06:58	12/21/22 07:06	5
Lead	274		2.04	0.417	mg/Kg		12/20/22 06:58	12/21/22 07:06	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-33@25'  
Date Collected: 12/19/22 07:51  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/20/22 06:58	12/21/22 07:08	5
Arsenic	7.02		3.06	1.42	mg/Kg		12/20/22 06:58	12/21/22 07:08	5
Barium	57.5		3.06	0.145	mg/Kg		12/20/22 06:58	12/21/22 07:08	5
Beryllium	0.306	J	0.510	0.0704	mg/Kg		12/20/22 06:58	12/21/22 07:08	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/20/22 06:58	12/21/22 07:08	5
Cobalt	2.78		1.02	0.210	mg/Kg		12/20/22 06:58	12/21/22 07:08	5
Chromium	8.52		1.02	0.190	mg/Kg		12/20/22 06:58	12/21/22 07:08	5
Copper	8.44		2.04	0.978	mg/Kg		12/20/22 06:58	12/21/22 07:08	5
Molybdenum	ND		2.04	0.526	mg/Kg		12/20/22 06:58	12/21/22 07:08	5
Nickel	3.62		2.04	0.369	mg/Kg		12/20/22 06:58	12/21/22 07:08	5
Antimony	ND		10.2	2.92	mg/Kg		12/20/22 06:58	12/21/22 07:08	5
Selenium	ND		3.06	1.25	mg/Kg		12/20/22 06:58	12/22/22 11:56	5
Thallium	ND		10.2	2.15	mg/Kg		12/20/22 06:58	12/21/22 07:08	5
Vanadium	22.3		1.02	0.171	mg/Kg		12/20/22 06:58	12/21/22 07:08	5
Zinc	22.6		5.10	1.18	mg/Kg		12/20/22 06:58	12/21/22 07:08	5
Lead	10.8		2.04	0.417	mg/Kg		12/20/22 06:58	12/21/22 07:08	5

Client Sample ID: B-33@30'  
Date Collected: 12/19/22 08:04  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-7  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/20/22 06:58	12/21/22 07:10	5
Arsenic	6.39		2.97	1.38	mg/Kg		12/20/22 06:58	12/21/22 07:10	5
Barium	176		2.97	0.141	mg/Kg		12/20/22 06:58	12/21/22 07:10	5
Beryllium	0.248	J	0.495	0.0683	mg/Kg		12/20/22 06:58	12/21/22 07:10	5
Cadmium	ND		0.495	0.0822	mg/Kg		12/20/22 06:58	12/21/22 07:10	5
Cobalt	3.65		0.990	0.204	mg/Kg		12/20/22 06:58	12/21/22 07:10	5
Chromium	7.04		0.990	0.184	mg/Kg		12/20/22 06:58	12/21/22 07:10	5
Copper	8.75		1.98	0.949	mg/Kg		12/20/22 06:58	12/21/22 07:10	5
Molybdenum	0.545	J	1.98	0.510	mg/Kg		12/20/22 06:58	12/21/22 07:10	5
Nickel	3.04		1.98	0.358	mg/Kg		12/20/22 06:58	12/21/22 07:10	5
Antimony	ND		9.90	2.83	mg/Kg		12/20/22 06:58	12/21/22 07:10	5
Selenium	ND		2.97	1.21	mg/Kg		12/20/22 06:58	12/22/22 12:13	5
Thallium	ND		9.90	2.09	mg/Kg		12/20/22 06:58	12/21/22 07:10	5
Vanadium	18.0		0.990	0.166	mg/Kg		12/20/22 06:58	12/21/22 07:10	5
Zinc	18.7		4.95	1.14	mg/Kg		12/20/22 06:58	12/21/22 07:10	5
Lead	16.1		1.98	0.405	mg/Kg		12/20/22 06:58	12/21/22 07:10	5

Client Sample ID: B-33@35'  
Date Collected: 12/19/22 08:11  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/20/22 06:58	12/21/22 07:13	5
Arsenic	5.20		3.02	1.40	mg/Kg		12/20/22 06:58	12/21/22 07:13	5
Barium	63.9		3.02	0.143	mg/Kg		12/20/22 06:58	12/21/22 07:13	5
Beryllium	0.264	J	0.503	0.0693	mg/Kg		12/20/22 06:58	12/21/22 07:13	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/20/22 06:58	12/21/22 07:13	5
Cobalt	2.80		1.01	0.207	mg/Kg		12/20/22 06:58	12/21/22 07:13	5
Chromium	6.65		1.01	0.187	mg/Kg		12/20/22 06:58	12/21/22 07:13	5
Copper	7.74		2.01	0.963	mg/Kg		12/20/22 06:58	12/21/22 07:13	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-33@35'  
Date Collected: 12/19/22 08:11  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	0.565	J	2.01	0.518	mg/Kg		12/20/22 06:58	12/21/22 07:13	5
Nickel	3.05		2.01	0.364	mg/Kg		12/20/22 06:58	12/21/22 07:13	5
Antimony	ND		10.1	2.87	mg/Kg		12/20/22 06:58	12/21/22 07:13	5
Selenium	ND		3.02	1.23	mg/Kg		12/20/22 06:58	12/22/22 12:16	5
Thallium	ND		10.1	2.12	mg/Kg		12/20/22 06:58	12/21/22 07:13	5
Vanadium	17.9		1.01	0.169	mg/Kg		12/20/22 06:58	12/21/22 07:13	5
Zinc	18.3		5.03	1.16	mg/Kg		12/20/22 06:58	12/21/22 07:13	5
Lead	24.1		2.01	0.411	mg/Kg		12/20/22 06:58	12/21/22 07:13	5

Client Sample ID: B-36@2'  
Date Collected: 12/19/22 09:23  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-9  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.47	0.141	mg/Kg		12/20/22 06:58	12/21/22 07:15	5
Arsenic	4.30		2.94	1.36	mg/Kg		12/20/22 06:58	12/21/22 07:15	5
Barium	40.6		2.94	0.139	mg/Kg		12/20/22 06:58	12/21/22 07:15	5
Beryllium	0.306	J	0.490	0.0676	mg/Kg		12/20/22 06:58	12/21/22 07:15	5
Cadmium	ND		0.490	0.0814	mg/Kg		12/20/22 06:58	12/21/22 07:15	5
Cobalt	4.33		0.980	0.202	mg/Kg		12/20/22 06:58	12/21/22 07:15	5
Chromium	12.1		0.980	0.182	mg/Kg		12/20/22 06:58	12/21/22 07:15	5
Copper	6.57		1.96	0.939	mg/Kg		12/20/22 06:58	12/21/22 07:15	5
Molybdenum	ND		1.96	0.505	mg/Kg		12/20/22 06:58	12/21/22 07:15	5
Nickel	5.33		1.96	0.355	mg/Kg		12/20/22 06:58	12/21/22 07:15	5
Antimony	ND		9.80	2.80	mg/Kg		12/20/22 06:58	12/21/22 07:15	5
Selenium	1.42	J	2.94	1.20	mg/Kg		12/20/22 06:58	12/22/22 12:18	5
Thallium	ND		9.80	2.06	mg/Kg		12/20/22 06:58	12/21/22 07:15	5
Vanadium	30.6		0.980	0.165	mg/Kg		12/20/22 06:58	12/21/22 07:15	5
Zinc	17.4		4.90	1.13	mg/Kg		12/20/22 06:58	12/21/22 07:15	5
Lead	6.70		1.96	0.401	mg/Kg		12/20/22 06:58	12/21/22 07:15	5

Client Sample ID: B-36@5'  
Date Collected: 12/19/22 09:28  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-10  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.48	0.142	mg/Kg		12/20/22 06:58	12/21/22 07:18	5
Arsenic	3.51		2.96	1.37	mg/Kg		12/20/22 06:58	12/21/22 07:18	5
Barium	34.9		2.96	0.140	mg/Kg		12/20/22 06:58	12/21/22 07:18	5
Beryllium	0.296	J	0.493	0.0680	mg/Kg		12/20/22 06:58	12/21/22 07:18	5
Cadmium	ND		0.493	0.0818	mg/Kg		12/20/22 06:58	12/21/22 07:18	5
Cobalt	3.63		0.985	0.203	mg/Kg		12/20/22 06:58	12/21/22 07:18	5
Chromium	11.7		0.985	0.183	mg/Kg		12/20/22 06:58	12/21/22 07:18	5
Copper	15.5		1.97	0.944	mg/Kg		12/20/22 06:58	12/21/22 07:18	5
Molybdenum	ND		1.97	0.507	mg/Kg		12/20/22 06:58	12/21/22 07:18	5
Nickel	4.52		1.97	0.357	mg/Kg		12/20/22 06:58	12/21/22 07:18	5
Antimony	ND		9.85	2.81	mg/Kg		12/20/22 06:58	12/21/22 07:18	5
Selenium	1.29	J	2.96	1.20	mg/Kg		12/20/22 06:58	12/22/22 12:20	5
Thallium	ND		9.85	2.07	mg/Kg		12/20/22 06:58	12/21/22 07:18	5
Vanadium	31.8		0.985	0.166	mg/Kg		12/20/22 06:58	12/21/22 07:18	5
Zinc	28.2		4.93	1.14	mg/Kg		12/20/22 06:58	12/21/22 07:18	5
Lead	7.03		1.97	0.403	mg/Kg		12/20/22 06:58	12/21/22 07:18	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-36@10'  
Date Collected: 12/19/22 09:36  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-11  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/20/22 06:58	12/21/22 07:20	5
Arsenic	4.93		2.99	1.38	mg/Kg		12/20/22 06:58	12/21/22 07:20	5
Barium	37.1		2.99	0.141	mg/Kg		12/20/22 06:58	12/21/22 07:20	5
Beryllium	0.498		0.498	0.0687	mg/Kg		12/20/22 06:58	12/21/22 07:20	5
Cadmium	ND		0.498	0.0826	mg/Kg		12/20/22 06:58	12/21/22 07:20	5
Cobalt	6.36		0.995	0.205	mg/Kg		12/20/22 06:58	12/21/22 07:20	5
Chromium	9.22		0.995	0.185	mg/Kg		12/20/22 06:58	12/21/22 07:20	5
Copper	10.6		1.99	0.953	mg/Kg		12/20/22 06:58	12/21/22 07:20	5
Molybdenum	ND		1.99	0.512	mg/Kg		12/20/22 06:58	12/21/22 07:20	5
Nickel	7.49		1.99	0.360	mg/Kg		12/20/22 06:58	12/21/22 07:20	5
Antimony	ND		9.95	2.84	mg/Kg		12/20/22 06:58	12/21/22 07:20	5
Selenium	ND		2.99	1.22	mg/Kg		12/20/22 06:58	12/22/22 12:23	5
Thallium	ND		9.95	2.10	mg/Kg		12/20/22 06:58	12/21/22 07:20	5
Vanadium	21.7		0.995	0.167	mg/Kg		12/20/22 06:58	12/21/22 07:20	5
Zinc	39.4		4.98	1.15	mg/Kg		12/20/22 06:58	12/21/22 07:20	5
Lead	10.1		1.99	0.407	mg/Kg		12/20/22 06:58	12/21/22 07:20	5

Client Sample ID: B-36@15'  
Date Collected: 12/19/22 09:41  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/20/22 06:58	12/21/22 07:23	5
Arsenic	4.12		3.02	1.40	mg/Kg		12/20/22 06:58	12/21/22 07:23	5
Barium	90.6		3.02	0.143	mg/Kg		12/20/22 06:58	12/21/22 07:23	5
Beryllium	0.302	J	0.503	0.0693	mg/Kg		12/20/22 06:58	12/21/22 07:23	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/20/22 06:58	12/21/22 07:23	5
Cobalt	3.14		1.01	0.207	mg/Kg		12/20/22 06:58	12/21/22 07:23	5
Chromium	9.55		1.01	0.187	mg/Kg		12/20/22 06:58	12/21/22 07:23	5
Copper	11.3		2.01	0.963	mg/Kg		12/20/22 06:58	12/21/22 07:23	5
Molybdenum	ND		2.01	0.518	mg/Kg		12/20/22 06:58	12/21/22 07:23	5
Nickel	3.64		2.01	0.364	mg/Kg		12/20/22 06:58	12/21/22 07:23	5
Antimony	ND		10.1	2.87	mg/Kg		12/20/22 06:58	12/21/22 07:23	5
Selenium	ND		3.02	1.23	mg/Kg		12/20/22 06:58	12/22/22 12:25	5
Thallium	ND		10.1	2.12	mg/Kg		12/20/22 06:58	12/21/22 07:23	5
Vanadium	25.1		1.01	0.169	mg/Kg		12/20/22 06:58	12/21/22 07:23	5
Zinc	21.1		5.03	1.16	mg/Kg		12/20/22 06:58	12/21/22 07:23	5
Lead	24.8		2.01	0.411	mg/Kg		12/20/22 06:58	12/21/22 07:23	5

Client Sample ID: B-36@20'  
Date Collected: 12/19/22 09:46  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/20/22 06:58	12/21/22 07:30	5
Arsenic	3.14		3.06	1.42	mg/Kg		12/20/22 06:58	12/21/22 07:30	5
Barium	81.8		3.06	0.145	mg/Kg		12/20/22 06:58	12/21/22 07:30	5
Beryllium	0.217	J	0.510	0.0704	mg/Kg		12/20/22 06:58	12/21/22 07:30	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/20/22 06:58	12/21/22 07:30	5
Cobalt	2.59		1.02	0.210	mg/Kg		12/20/22 06:58	12/21/22 07:30	5
Chromium	5.70		1.02	0.190	mg/Kg		12/20/22 06:58	12/21/22 07:30	5
Copper	10.2		2.04	0.978	mg/Kg		12/20/22 06:58	12/21/22 07:30	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-36@20'  
Date Collected: 12/19/22 09:46  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		2.04	0.526	mg/Kg		12/20/22 06:58	12/21/22 07:30	5
Nickel	2.73		2.04	0.369	mg/Kg		12/20/22 06:58	12/21/22 07:30	5
Antimony	ND		10.2	2.92	mg/Kg		12/20/22 06:58	12/21/22 07:30	5
Selenium	ND		3.06	1.25	mg/Kg		12/20/22 06:58	12/22/22 12:28	5
Thallium	ND		10.2	2.15	mg/Kg		12/20/22 06:58	12/21/22 07:30	5
Vanadium	15.5		1.02	0.171	mg/Kg		12/20/22 06:58	12/21/22 07:30	5
Zinc	20.0		5.10	1.18	mg/Kg		12/20/22 06:58	12/21/22 07:30	5
Lead	50.5		2.04	0.417	mg/Kg		12/20/22 06:58	12/21/22 07:30	5

Client Sample ID: B-36@25'  
Date Collected: 12/19/22 09:55  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-14  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/20/22 07:04	12/22/22 06:14	5
Arsenic	4.78		2.99	1.38	mg/Kg		12/20/22 07:04	12/22/22 06:14	5
Barium	104		2.99	0.141	mg/Kg		12/20/22 07:04	12/22/22 06:14	5
Beryllium	0.336	J	0.498	0.0687	mg/Kg		12/20/22 07:04	12/22/22 06:14	5
Cadmium	ND		0.498	0.0826	mg/Kg		12/20/22 07:04	12/22/22 06:14	5
Cobalt	3.94		0.995	0.205	mg/Kg		12/20/22 07:04	12/22/22 06:14	5
Chromium	17.0		0.995	0.185	mg/Kg		12/20/22 07:04	12/22/22 06:14	5
Copper	13.6		1.99	0.953	mg/Kg		12/20/22 07:04	12/22/22 06:14	5
Molybdenum	1.59	J	1.99	0.512	mg/Kg		12/20/22 07:04	12/22/22 06:14	5
Nickel	4.58		1.99	0.360	mg/Kg		12/20/22 07:04	12/22/22 06:14	5
Antimony	ND		9.95	2.84	mg/Kg		12/20/22 07:04	12/22/22 06:14	5
Selenium	ND		2.99	1.22	mg/Kg		12/20/22 07:04	12/22/22 06:14	5
Thallium	ND		9.95	2.10	mg/Kg		12/20/22 07:04	12/22/22 06:14	5
Vanadium	27.4		0.995	0.167	mg/Kg		12/20/22 07:04	12/22/22 06:14	5
Zinc	28.3		4.98	1.15	mg/Kg		12/20/22 07:04	12/22/22 06:14	5
Lead	34.5		1.99	0.407	mg/Kg		12/20/22 07:04	12/22/22 06:14	5

Client Sample ID: B-41@2'  
Date Collected: 12/19/22 10:58  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-15  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/20/22 07:04	12/22/22 06:17	5
Arsenic	2.94	J	3.03	1.41	mg/Kg		12/20/22 07:04	12/22/22 06:17	5
Barium	49.4		3.03	0.143	mg/Kg		12/20/22 07:04	12/22/22 06:17	5
Beryllium	0.316	J	0.505	0.0697	mg/Kg		12/20/22 07:04	12/22/22 06:17	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/20/22 07:04	12/22/22 06:17	5
Cobalt	4.43		1.01	0.208	mg/Kg		12/20/22 07:04	12/22/22 06:17	5
Chromium	11.8		1.01	0.188	mg/Kg		12/20/22 07:04	12/22/22 06:17	5
Copper	6.52		2.02	0.968	mg/Kg		12/20/22 07:04	12/22/22 06:17	5
Molybdenum	ND		2.02	0.520	mg/Kg		12/20/22 07:04	12/22/22 06:17	5
Nickel	4.53		2.02	0.366	mg/Kg		12/20/22 07:04	12/22/22 06:17	5
Antimony	ND		10.1	2.89	mg/Kg		12/20/22 07:04	12/22/22 06:17	5
Selenium	ND		3.03	1.23	mg/Kg		12/20/22 07:04	12/22/22 06:17	5
Thallium	ND		10.1	2.13	mg/Kg		12/20/22 07:04	12/22/22 06:17	5
Vanadium	32.6		1.01	0.170	mg/Kg		12/20/22 07:04	12/22/22 06:17	5
Zinc	18.1		5.05	1.17	mg/Kg		12/20/22 07:04	12/22/22 06:17	5
Lead	9.67		2.02	0.413	mg/Kg		12/20/22 07:04	12/22/22 06:17	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-41@5'  
Date Collected: 12/19/22 11:09  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-16  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/20/22 07:04	12/22/22 06:19	5
Arsenic	2.63	J	3.00	1.39	mg/Kg		12/20/22 07:04	12/22/22 06:19	5
Barium	85.5		3.00	0.142	mg/Kg		12/20/22 07:04	12/22/22 06:19	5
Beryllium	0.250	J	0.500	0.0690	mg/Kg		12/20/22 07:04	12/22/22 06:19	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/20/22 07:04	12/22/22 06:19	5
Cobalt	2.56		1.00	0.206	mg/Kg		12/20/22 07:04	12/22/22 06:19	5
Chromium	11.8		1.00	0.186	mg/Kg		12/20/22 07:04	12/22/22 06:19	5
Copper	5.56		2.00	0.958	mg/Kg		12/20/22 07:04	12/22/22 06:19	5
Molybdenum	ND		2.00	0.515	mg/Kg		12/20/22 07:04	12/22/22 06:19	5
Nickel	3.11		2.00	0.362	mg/Kg		12/20/22 07:04	12/22/22 06:19	5
Antimony	ND		10.0	2.86	mg/Kg		12/20/22 07:04	12/22/22 06:19	5
Selenium	ND		3.00	1.22	mg/Kg		12/20/22 07:04	12/22/22 06:19	5
Thallium	ND		10.0	2.11	mg/Kg		12/20/22 07:04	12/22/22 06:19	5
Vanadium	30.4		1.00	0.168	mg/Kg		12/20/22 07:04	12/22/22 06:19	5
Zinc	12.5		5.00	1.16	mg/Kg		12/20/22 07:04	12/22/22 06:19	5
Lead	11.6		2.00	0.409	mg/Kg		12/20/22 07:04	12/22/22 06:19	5

Client Sample ID: B-41@10'  
Date Collected: 12/19/22 11:14  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-17  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/20/22 07:04	12/22/22 06:21	5
Arsenic	4.42		2.99	1.38	mg/Kg		12/20/22 07:04	12/22/22 06:21	5
Barium	52.3		2.99	0.141	mg/Kg		12/20/22 07:04	12/22/22 06:21	5
Beryllium	0.274	J	0.498	0.0687	mg/Kg		12/20/22 07:04	12/22/22 06:21	5
Cadmium	ND		0.498	0.0826	mg/Kg		12/20/22 07:04	12/22/22 06:21	5
Cobalt	3.00		0.995	0.205	mg/Kg		12/20/22 07:04	12/22/22 06:21	5
Chromium	9.65		0.995	0.185	mg/Kg		12/20/22 07:04	12/22/22 06:21	5
Copper	7.70		1.99	0.953	mg/Kg		12/20/22 07:04	12/22/22 06:21	5
Molybdenum	ND		1.99	0.512	mg/Kg		12/20/22 07:04	12/22/22 06:21	5
Nickel	4.07		1.99	0.360	mg/Kg		12/20/22 07:04	12/22/22 06:21	5
Antimony	ND		9.95	2.84	mg/Kg		12/20/22 07:04	12/22/22 06:21	5
Selenium	ND		2.99	1.22	mg/Kg		12/20/22 07:04	12/22/22 06:21	5
Thallium	ND		9.95	2.10	mg/Kg		12/20/22 07:04	12/22/22 06:21	5
Vanadium	23.2		0.995	0.167	mg/Kg		12/20/22 07:04	12/22/22 06:21	5
Zinc	22.4		4.98	1.15	mg/Kg		12/20/22 07:04	12/22/22 06:21	5
Lead	7.97		1.99	0.407	mg/Kg		12/20/22 07:04	12/22/22 06:21	5

Client Sample ID: B-41@15'  
Date Collected: 12/19/22 11:21  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-18  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.146	mg/Kg		12/20/22 07:04	12/22/22 06:24	5
Arsenic	3.97		3.05	1.41	mg/Kg		12/20/22 07:04	12/22/22 06:24	5
Barium	86.0		3.05	0.144	mg/Kg		12/20/22 07:04	12/22/22 06:24	5
Beryllium	0.292	J	0.508	0.0701	mg/Kg		12/20/22 07:04	12/22/22 06:24	5
Cadmium	ND		0.508	0.0843	mg/Kg		12/20/22 07:04	12/22/22 06:24	5
Cobalt	3.44		1.02	0.209	mg/Kg		12/20/22 07:04	12/22/22 06:24	5
Chromium	9.56		1.02	0.189	mg/Kg		12/20/22 07:04	12/22/22 06:24	5
Copper	11.1		2.03	0.973	mg/Kg		12/20/22 07:04	12/22/22 06:24	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-41@15'  
Date Collected: 12/19/22 11:21  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-18  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	0.558	J	2.03	0.523	mg/Kg		12/20/22 07:04	12/22/22 06:24	5
Nickel	3.73		2.03	0.368	mg/Kg		12/20/22 07:04	12/22/22 06:24	5
Antimony	ND		10.2	2.90	mg/Kg		12/20/22 07:04	12/22/22 06:24	5
Selenium	ND		3.05	1.24	mg/Kg		12/20/22 07:04	12/22/22 06:24	5
Thallium	ND		10.2	2.14	mg/Kg		12/20/22 07:04	12/22/22 06:24	5
Vanadium	24.3		1.02	0.171	mg/Kg		12/20/22 07:04	12/22/22 06:24	5
Zinc	22.1		5.08	1.17	mg/Kg		12/20/22 07:04	12/22/22 06:24	5
Lead	30.0		2.03	0.415	mg/Kg		12/20/22 07:04	12/22/22 06:24	5

Client Sample ID: B-41@20'  
Date Collected: 12/19/22 11:35  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-19  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/20/22 07:04	12/22/22 06:26	5
Arsenic	5.52		3.06	1.42	mg/Kg		12/20/22 07:04	12/22/22 06:26	5
Barium	99.1		3.06	0.145	mg/Kg		12/20/22 07:04	12/22/22 06:26	5
Beryllium	0.332	J	0.510	0.0704	mg/Kg		12/20/22 07:04	12/22/22 06:26	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/20/22 07:04	12/22/22 06:26	5
Cobalt	3.95		1.02	0.210	mg/Kg		12/20/22 07:04	12/22/22 06:26	5
Chromium	34.6		1.02	0.190	mg/Kg		12/20/22 07:04	12/22/22 06:26	5
Copper	14.1		2.04	0.978	mg/Kg		12/20/22 07:04	12/22/22 06:26	5
Molybdenum	1.75	J	2.04	0.526	mg/Kg		12/20/22 07:04	12/22/22 06:26	5
Nickel	5.50		2.04	0.369	mg/Kg		12/20/22 07:04	12/22/22 06:26	5
Antimony	ND		10.2	2.92	mg/Kg		12/20/22 07:04	12/22/22 06:26	5
Selenium	ND		3.06	1.25	mg/Kg		12/20/22 07:04	12/22/22 06:26	5
Thallium	ND		10.2	2.15	mg/Kg		12/20/22 07:04	12/22/22 06:26	5
Vanadium	29.0		1.02	0.171	mg/Kg		12/20/22 07:04	12/22/22 06:26	5
Zinc	29.1		5.10	1.18	mg/Kg		12/20/22 07:04	12/22/22 06:26	5
Lead	21.1		2.04	0.417	mg/Kg		12/20/22 07:04	12/22/22 06:26	5

Client Sample ID: B-41@25'  
Date Collected: 12/19/22 11:42  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-20  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/20/22 07:04	12/22/22 06:29	5
Arsenic	13.1		3.02	1.40	mg/Kg		12/20/22 07:04	12/22/22 06:29	5
Barium	62.9		3.02	0.143	mg/Kg		12/20/22 07:04	12/22/22 06:29	5
Beryllium	0.590		0.503	0.0693	mg/Kg		12/20/22 07:04	12/22/22 06:29	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/20/22 07:04	12/22/22 06:29	5
Cobalt	7.41		1.01	0.207	mg/Kg		12/20/22 07:04	12/22/22 06:29	5
Chromium	14.2		1.01	0.187	mg/Kg		12/20/22 07:04	12/22/22 06:29	5
Copper	24.9		2.01	0.963	mg/Kg		12/20/22 07:04	12/22/22 06:29	5
Molybdenum	1.14	J	2.01	0.518	mg/Kg		12/20/22 07:04	12/22/22 06:29	5
Nickel	11.3		2.01	0.364	mg/Kg		12/20/22 07:04	12/22/22 06:29	5
Antimony	ND		10.1	2.87	mg/Kg		12/20/22 07:04	12/22/22 06:29	5
Selenium	ND		3.02	1.23	mg/Kg		12/20/22 07:04	12/22/22 06:29	5
Thallium	ND		10.1	2.12	mg/Kg		12/20/22 07:04	12/22/22 06:29	5
Vanadium	27.2		1.01	0.169	mg/Kg		12/20/22 07:04	12/22/22 06:29	5
Zinc	62.2		5.03	1.16	mg/Kg		12/20/22 07:04	12/22/22 06:29	5
Lead	67.4		2.01	0.411	mg/Kg		12/20/22 07:04	12/22/22 06:29	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-41@30'  
Date Collected: 12/19/22 11:51  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-21  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/20/22 07:04	12/22/22 06:38	5
Arsenic	5.15		2.99	1.38	mg/Kg		12/20/22 07:04	12/22/22 06:38	5
Barium	77.9		2.99	0.141	mg/Kg		12/20/22 07:04	12/22/22 06:38	5
Beryllium	0.286	J	0.498	0.0687	mg/Kg		12/20/22 07:04	12/22/22 06:38	5
Cadmium	ND		0.498	0.0826	mg/Kg		12/20/22 07:04	12/22/22 06:38	5
Cobalt	3.43		0.995	0.205	mg/Kg		12/20/22 07:04	12/22/22 06:38	5
Chromium	9.22		0.995	0.185	mg/Kg		12/20/22 07:04	12/22/22 06:38	5
Copper	34.3		1.99	0.953	mg/Kg		12/20/22 07:04	12/22/22 06:38	5
Molybdenum	0.659	J	1.99	0.512	mg/Kg		12/20/22 07:04	12/22/22 06:38	5
Nickel	4.53		1.99	0.360	mg/Kg		12/20/22 07:04	12/22/22 06:38	5
Antimony	ND		9.95	2.84	mg/Kg		12/20/22 07:04	12/22/22 06:38	5
Selenium	ND		2.99	1.22	mg/Kg		12/20/22 07:04	12/22/22 06:38	5
Thallium	ND		9.95	2.10	mg/Kg		12/20/22 07:04	12/22/22 06:38	5
Vanadium	18.9		0.995	0.167	mg/Kg		12/20/22 07:04	12/22/22 06:38	5
Zinc	33.1		4.98	1.15	mg/Kg		12/20/22 07:04	12/22/22 06:38	5
Lead	74.9		1.99	0.407	mg/Kg		12/20/22 07:04	12/22/22 06:38	5

Client Sample ID: B-41@35'  
Date Collected: 12/19/22 12:00  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-22  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/20/22 07:04	12/22/22 06:41	5
Arsenic	5.48		2.97	1.38	mg/Kg		12/20/22 07:04	12/22/22 06:41	5
Barium	52.7		2.97	0.141	mg/Kg		12/20/22 07:04	12/22/22 06:41	5
Beryllium	0.446	J	0.495	0.0683	mg/Kg		12/20/22 07:04	12/22/22 06:41	5
Cadmium	ND		0.495	0.0822	mg/Kg		12/20/22 07:04	12/22/22 06:41	5
Cobalt	5.43		0.990	0.204	mg/Kg		12/20/22 07:04	12/22/22 06:41	5
Chromium	14.0		0.990	0.184	mg/Kg		12/20/22 07:04	12/22/22 06:41	5
Copper	20.6		1.98	0.949	mg/Kg		12/20/22 07:04	12/22/22 06:41	5
Molybdenum	0.681	J	1.98	0.510	mg/Kg		12/20/22 07:04	12/22/22 06:41	5
Nickel	9.32		1.98	0.358	mg/Kg		12/20/22 07:04	12/22/22 06:41	5
Antimony	ND		9.90	2.83	mg/Kg		12/20/22 07:04	12/22/22 06:41	5
Selenium	ND		2.97	1.21	mg/Kg		12/20/22 07:04	12/22/22 06:41	5
Thallium	ND		9.90	2.09	mg/Kg		12/20/22 07:04	12/22/22 06:41	5
Vanadium	27.3		0.990	0.166	mg/Kg		12/20/22 07:04	12/22/22 06:41	5
Zinc	51.0		4.95	1.14	mg/Kg		12/20/22 07:04	12/22/22 06:41	5
Lead	33.6		1.98	0.405	mg/Kg		12/20/22 07:04	12/22/22 06:41	5

Client Sample ID: B-41@40'  
Date Collected: 12/19/22 12:09  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-23  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/20/22 07:04	12/22/22 06:43	5
Arsenic	7.31		2.99	1.38	mg/Kg		12/20/22 07:04	12/22/22 06:43	5
Barium	82.6		2.99	0.141	mg/Kg		12/20/22 07:04	12/22/22 06:43	5
Beryllium	0.498		0.498	0.0687	mg/Kg		12/20/22 07:04	12/22/22 06:43	5
Cadmium	ND		0.498	0.0826	mg/Kg		12/20/22 07:04	12/22/22 06:43	5
Cobalt	6.01		0.995	0.205	mg/Kg		12/20/22 07:04	12/22/22 06:43	5
Chromium	14.9		0.995	0.185	mg/Kg		12/20/22 07:04	12/22/22 06:43	5
Copper	18.2		1.99	0.953	mg/Kg		12/20/22 07:04	12/22/22 06:43	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-41@40'  
Date Collected: 12/19/22 12:09  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-23  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	0.821	J	1.99	0.512	mg/Kg		12/20/22 07:04	12/22/22 06:43	5
Nickel	9.13		1.99	0.360	mg/Kg		12/20/22 07:04	12/22/22 06:43	5
Antimony	ND		9.95	2.84	mg/Kg		12/20/22 07:04	12/22/22 06:43	5
Selenium	1.24	J	2.99	1.22	mg/Kg		12/20/22 07:04	12/22/22 06:43	5
Thallium	ND		9.95	2.10	mg/Kg		12/20/22 07:04	12/22/22 06:43	5
Vanadium	30.9		0.995	0.167	mg/Kg		12/20/22 07:04	12/22/22 06:43	5
Zinc	52.8		4.98	1.15	mg/Kg		12/20/22 07:04	12/22/22 06:43	5
Lead	16.9		1.99	0.407	mg/Kg		12/20/22 07:04	12/22/22 06:43	5

Client Sample ID: B-11@2'  
Date Collected: 12/19/22 13:22  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-24  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.48	0.142	mg/Kg		12/20/22 07:04	12/22/22 05:57	5
Arsenic	7.23		2.96	1.37	mg/Kg		12/20/22 07:04	12/22/22 05:57	5
Barium	64.7	F1 F2	2.96	0.140	mg/Kg		12/20/22 07:04	12/22/22 05:57	5
Beryllium	0.234	J	0.493	0.0680	mg/Kg		12/20/22 07:04	12/22/22 05:57	5
Cadmium	ND		0.493	0.0818	mg/Kg		12/20/22 07:04	12/22/22 05:57	5
Cobalt	2.62		0.985	0.203	mg/Kg		12/20/22 07:04	12/22/22 05:57	5
Chromium	7.94		0.985	0.183	mg/Kg		12/20/22 07:04	12/22/22 05:57	5
Copper	6.37		1.97	0.944	mg/Kg		12/20/22 07:04	12/22/22 05:57	5
Molybdenum	ND		1.97	0.507	mg/Kg		12/20/22 07:04	12/22/22 05:57	5
Nickel	3.66		1.97	0.357	mg/Kg		12/20/22 07:04	12/22/22 05:57	5
Antimony	ND	F1	9.85	2.81	mg/Kg		12/20/22 07:04	12/22/22 05:57	5
Selenium	ND		2.96	1.20	mg/Kg		12/20/22 07:04	12/22/22 05:57	5
Thallium	ND		9.85	2.07	mg/Kg		12/20/22 07:04	12/22/22 05:57	5
Vanadium	23.0		0.985	0.166	mg/Kg		12/20/22 07:04	12/22/22 05:57	5
Zinc	21.7		4.93	1.14	mg/Kg		12/20/22 07:04	12/22/22 05:57	5
Lead	5.96		1.97	0.403	mg/Kg		12/20/22 07:04	12/22/22 05:57	5

Client Sample ID: B-6@2'  
Date Collected: 12/19/22 14:08  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-25  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/20/22 07:04	12/22/22 06:46	5
Arsenic	9.47		3.02	1.40	mg/Kg		12/20/22 07:04	12/22/22 06:46	5
Barium	204		3.02	0.143	mg/Kg		12/20/22 07:04	12/22/22 06:46	5
Beryllium	0.214	J	0.503	0.0693	mg/Kg		12/20/22 07:04	12/22/22 06:46	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/20/22 07:04	12/22/22 06:46	5
Cobalt	1.88		1.01	0.207	mg/Kg		12/20/22 07:04	12/22/22 06:46	5
Chromium	7.37		1.01	0.187	mg/Kg		12/20/22 07:04	12/22/22 06:46	5
Copper	5.33		2.01	0.963	mg/Kg		12/20/22 07:04	12/22/22 06:46	5
Molybdenum	ND		2.01	0.518	mg/Kg		12/20/22 07:04	12/22/22 06:46	5
Nickel	2.65		2.01	0.364	mg/Kg		12/20/22 07:04	12/22/22 06:46	5
Antimony	ND		10.1	2.87	mg/Kg		12/20/22 07:04	12/22/22 06:46	5
Selenium	ND		3.02	1.23	mg/Kg		12/20/22 07:04	12/22/22 06:46	5
Thallium	ND		10.1	2.12	mg/Kg		12/20/22 07:04	12/22/22 06:46	5
Vanadium	20.1		1.01	0.169	mg/Kg		12/20/22 07:04	12/22/22 06:46	5
Zinc	19.3		5.03	1.16	mg/Kg		12/20/22 07:04	12/22/22 06:46	5
Lead	5.75		2.01	0.411	mg/Kg		12/20/22 07:04	12/22/22 06:46	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-7@2'  
Date Collected: 12/19/22 14:42  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-26  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/20/22 07:04	12/22/22 06:48	5
Arsenic	5.40		3.02	1.40	mg/Kg		12/20/22 07:04	12/22/22 06:48	5
Barium	100		3.02	0.143	mg/Kg		12/20/22 07:04	12/22/22 06:48	5
Beryllium	0.276	J	0.503	0.0693	mg/Kg		12/20/22 07:04	12/22/22 06:48	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/20/22 07:04	12/22/22 06:48	5
Cobalt	2.79		1.01	0.207	mg/Kg		12/20/22 07:04	12/22/22 06:48	5
Chromium	7.19		1.01	0.187	mg/Kg		12/20/22 07:04	12/22/22 06:48	5
Copper	10.7		2.01	0.963	mg/Kg		12/20/22 07:04	12/22/22 06:48	5
Molybdenum	ND		2.01	0.518	mg/Kg		12/20/22 07:04	12/22/22 06:48	5
Nickel	3.14		2.01	0.364	mg/Kg		12/20/22 07:04	12/22/22 06:48	5
Antimony	ND		10.1	2.87	mg/Kg		12/20/22 07:04	12/22/22 06:48	5
Selenium	ND		3.02	1.23	mg/Kg		12/20/22 07:04	12/22/22 06:48	5
Thallium	ND		10.1	2.12	mg/Kg		12/20/22 07:04	12/22/22 06:48	5
Vanadium	18.5		1.01	0.169	mg/Kg		12/20/22 07:04	12/22/22 06:48	5
Zinc	19.3		5.03	1.16	mg/Kg		12/20/22 07:04	12/22/22 06:48	5
Lead	14.6		2.01	0.411	mg/Kg		12/20/22 07:04	12/22/22 06:48	5

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: SW846 7471A - Mercury (CVAA)

**Client Sample ID: B-33@2'**  
**Date Collected: 12/19/22 07:20**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-1**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/22/22 15:53	12/28/22 13:24	1

**Client Sample ID: B-33@5'**  
**Date Collected: 12/19/22 07:26**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-2**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/22/22 15:53	12/28/22 13:26	1

**Client Sample ID: B-33@10'**  
**Date Collected: 12/19/22 07:32**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-3**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/22/22 15:53	12/28/22 13:28	1

**Client Sample ID: B-33@15'**  
**Date Collected: 12/19/22 07:37**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-4**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/22/22 15:53	12/28/22 13:30	1

**Client Sample ID: B-33@20'**  
**Date Collected: 12/19/22 07:45**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-5**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/22/22 15:53	12/28/22 13:31	1

**Client Sample ID: B-33@25'**  
**Date Collected: 12/19/22 07:51**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-6**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/22/22 15:55	12/28/22 14:09	1

**Client Sample ID: B-33@30'**  
**Date Collected: 12/19/22 08:04**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-7**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/22/22 15:55	12/28/22 14:15	1

**Client Sample ID: B-33@35'**  
**Date Collected: 12/19/22 08:11**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-8**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/22/22 15:55	12/28/22 14:17	1

**Client Sample ID: B-36@2'**  
**Date Collected: 12/19/22 09:23**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-9**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/22/22 15:55	12/28/22 14:19	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: SW846 7471A - Mercury (CVAA)

**Client Sample ID: B-36@5'**  
**Date Collected: 12/19/22 09:28**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-10**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/22/22 15:55	12/28/22 14:20	1

**Client Sample ID: B-36@10'**  
**Date Collected: 12/19/22 09:36**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-11**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/22/22 15:55	12/28/22 14:26	1

**Client Sample ID: B-36@15'**  
**Date Collected: 12/19/22 09:41**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-12**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/22/22 15:55	12/28/22 14:28	1

**Client Sample ID: B-36@20'**  
**Date Collected: 12/19/22 09:46**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-13**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/22/22 15:55	12/28/22 14:30	1

**Client Sample ID: B-36@25'**  
**Date Collected: 12/19/22 09:55**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-14**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/22/22 15:55	12/28/22 14:31	1

**Client Sample ID: B-41@2'**  
**Date Collected: 12/19/22 10:58**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-15**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/22/22 15:55	12/28/22 14:33	1

**Client Sample ID: B-41@5'**  
**Date Collected: 12/19/22 11:09**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-16**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/22/22 15:55	12/28/22 14:35	1

**Client Sample ID: B-41@10'**  
**Date Collected: 12/19/22 11:14**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-17**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/22/22 15:55	12/28/22 14:37	1

**Client Sample ID: B-41@15'**  
**Date Collected: 12/19/22 11:21**  
**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-18**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/22/22 15:55	12/28/22 17:13	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: SW846 7471A - Mercury (CVAA)

Client Sample ID: B-41@20'  
Date Collected: 12/19/22 11:35  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-19  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/22/22 15:55	12/28/22 17:14	1

Client Sample ID: B-41@25'  
Date Collected: 12/19/22 11:42  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-20  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/22/22 15:55	12/28/22 17:16	1

Client Sample ID: B-41@30'  
Date Collected: 12/19/22 11:51  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-21  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/22/22 15:55	12/28/22 17:18	1

Client Sample ID: B-41@35'  
Date Collected: 12/19/22 12:00  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-22  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0368	J	0.0817	0.0314	mg/Kg		12/22/22 15:55	12/28/22 17:20	1

Client Sample ID: B-41@40'  
Date Collected: 12/19/22 12:09  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-23  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0393	J	0.0850	0.0327	mg/Kg		12/22/22 15:55	12/28/22 17:22	1

Client Sample ID: B-11@2'  
Date Collected: 12/19/22 13:22  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-24  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/22/22 15:55	12/28/22 17:24	1

Client Sample ID: B-6@2'  
Date Collected: 12/19/22 14:08  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-25  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/22/22 15:55	12/28/22 17:26	1

Client Sample ID: B-7@2'  
Date Collected: 12/19/22 14:42  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-26  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/22/22 16:58	12/28/22 11:56	1



# Surrogate Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

**Method: 8015B - Gasoline Range Organics - (GC)**

**Matrix: Solid**

**Prep Type: Total/NA**

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	BFB1 (42-126)
570-121408-1	B-33@2'	67
570-121408-1 MS	B-33@2'	78
570-121408-1 MSD	B-33@2'	83
570-121408-2	B-33@5'	61
570-121408-3	B-33@10'	55
570-121408-4	B-33@15'	67
570-121408-5	B-33@20'	62
570-121408-6	B-33@25'	64
570-121408-7	B-33@30'	49
570-121408-8	B-33@35'	60
570-121408-9	B-36@2'	54
570-121408-10	B-36@5'	55
570-121408-11	B-36@10'	52
570-121408-12	B-36@15'	49
570-121408-13	B-36@20'	60
570-121408-14	B-36@25'	64
570-121408-15	B-41@2'	53
570-121408-16	B-41@5'	54
570-121408-17	B-41@10'	50
570-121408-18	B-41@15'	56
570-121408-19	B-41@20'	67
570-121408-20	B-41@25'	62
570-121408-21	B-41@30'	62
570-121408-22	B-41@35'	92
570-121408-22 MS	B-41@35'	113
570-121408-22 MSD	B-41@35'	98
570-121408-23	B-41@40'	91
570-121408-24	B-11@2'	103
570-121408-25	B-6@2'	97
570-121408-26	B-7@2'	86
LCS 570-290795/1-A	Lab Control Sample	84
LCS 570-290820/1-A	Lab Control Sample	88
LCS 570-290981/1-A	Lab Control Sample	105
LCS 570-291392/1-A	Lab Control Sample	100
LCSD 570-290795/2-A	Lab Control Sample Dup	75
LCSD 570-290820/2-A	Lab Control Sample Dup	84
LCSD 570-290981/2-A	Lab Control Sample Dup	94
LCSD 570-291392/2-A	Lab Control Sample Dup	108
MB 570-290795/3-A	Method Blank	55
MB 570-290820/3-A	Method Blank	59
MB 570-290981/3-A	Method Blank	99
MB 570-291392/3-A	Method Blank	96

## Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

# Surrogate Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

## Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (60-138)
570-121408-1	B-33@2'	129
570-121408-1 MS	B-33@2'	126
570-121408-1 MSD	B-33@2'	127
570-121408-2	B-33@5'	134
570-121408-3	B-33@10'	132
570-121408-4	B-33@15'	132
570-121408-5	B-33@20'	134
570-121408-6	B-33@25'	131
570-121408-7	B-33@30'	129
570-121408-8	B-33@35'	134
570-121408-9	B-36@2'	135
570-121408-10	B-36@5'	135
570-121408-11	B-36@10'	134
570-121408-12	B-36@15'	136
570-121408-13	B-36@20'	136
570-121408-14	B-36@25'	137
570-121408-15	B-41@2'	133
570-121408-16	B-41@5'	137
570-121408-17	B-41@10'	135
570-121408-18	B-41@15'	132
570-121408-19	B-41@20'	133
570-121408-20	B-41@25'	130
570-121408-21	B-41@30'	129
570-121408-22	B-41@35'	133
570-121408-23	B-41@40'	123
570-121408-24	B-11@2'	131
570-121408-24 MS	B-11@2'	131
570-121408-24 MSD	B-11@2'	130
570-121408-25	B-6@2'	132
570-121408-26	B-7@2'	131
LCS 570-290619/2-A	Lab Control Sample	123
LCS 570-290622/2-A	Lab Control Sample	128
LCSD 570-290619/3-A	Lab Control Sample Dup	129
LCSD 570-290622/3-A	Lab Control Sample Dup	131
MB 570-290619/1-A	Method Blank	136
MB 570-290622/1-A	Method Blank	127

### Surrogate Legend

OTCSN = n-Octacosane (Surr)

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-290795/3-A

Matrix: Solid

Analysis Batch: 290819

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290795

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/20/22 17:34	12/21/22 04:32	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	55		42 - 126				12/20/22 17:34	12/21/22 04:32	1

Lab Sample ID: LCS 570-290795/1-A

Matrix: Solid

Analysis Batch: 290819

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290795

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	1.92	1.882		mg/Kg		98	70 - 124
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	84		42 - 126				

Lab Sample ID: LCSD 570-290795/2-A

Matrix: Solid

Analysis Batch: 290819

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290795

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	1.90	1.832		mg/Kg		96	70 - 124	3	18
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	75		42 - 126						

Lab Sample ID: 570-121408-1 MS

Matrix: Solid

Analysis Batch: 290819

Client Sample ID: B-33@2'

Prep Type: Total/NA

Prep Batch: 290795

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	ND		1.93	1.374		mg/Kg		71	48 - 114
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	78		42 - 126						

Lab Sample ID: 570-121408-1 MSD

Matrix: Solid

Analysis Batch: 290819

Client Sample ID: B-33@2'

Prep Type: Total/NA

Prep Batch: 290795

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	ND		1.91	1.382		mg/Kg		72	48 - 114	1	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	83		42 - 126								

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-290820/3-A

Matrix: Solid

Analysis Batch: 290833

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290820

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/20/22 18:48	12/21/22 04:21	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	59		42 - 126				12/20/22 18:48	12/21/22 04:21	1

Lab Sample ID: LCS 570-290820/1-A

Matrix: Solid

Analysis Batch: 290833

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290820

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (C4-C13)	1.91	2.092		mg/Kg		109	70 - 124	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	88		42 - 126					

Lab Sample ID: LCSD 570-290820/2-A

Matrix: Solid

Analysis Batch: 290833

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290820

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	1.91	2.064		mg/Kg		108	70 - 124	1	18
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	84		42 - 126						

Lab Sample ID: MB 570-290981/3-A

Matrix: Solid

Analysis Batch: 290951

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290981

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/21/22 10:15	12/21/22 11:28	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		42 - 126				12/21/22 10:15	12/21/22 11:28	1

Lab Sample ID: LCS 570-290981/1-A

Matrix: Solid

Analysis Batch: 290951

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290981

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (C4-C13)	1.92	2.146		mg/Kg		112	70 - 124	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	105		42 - 126					

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: LCSD 570-290981/2-A

Matrix: Solid

Analysis Batch: 290951

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290981

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)			1.91	2.013		mg/Kg		106	70 - 124	6	18
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	94		42 - 126								

Lab Sample ID: MB 570-291392/3-A

Matrix: Solid

Analysis Batch: 291406

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 291392

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/22/22 10:45	12/22/22 13:11	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		42 - 126				12/22/22 10:45	12/22/22 13:11	1

Lab Sample ID: LCS 570-291392/1-A

Matrix: Solid

Analysis Batch: 291406

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 291392

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (C4-C13)			1.93	2.073		mg/Kg		107	70 - 124		
Surrogate	LCS %Recovery	LCS Qualifier	Limits								
4-Bromofluorobenzene (Surr)	100		42 - 126								

Lab Sample ID: LCSD 570-291392/2-A

Matrix: Solid

Analysis Batch: 291406

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 291392

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)			1.93	2.048		mg/Kg		106	70 - 124	1	18
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	108		42 - 126								

Lab Sample ID: 570-121408-22 MS

Matrix: Solid

Analysis Batch: 291406

Client Sample ID: B-41@35'

Prep Type: Total/NA

Prep Batch: 291392

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (C4-C13)	ND		1.93	1.680		mg/Kg		87	48 - 114		
Surrogate	MS %Recovery	MS Qualifier	Limits								
4-Bromofluorobenzene (Surr)	113		42 - 126								

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: 570-121408-22 MSD

Matrix: Solid

Analysis Batch: 291406

Client Sample ID: B-41@35'

Prep Type: Total/NA

Prep Batch: 291392

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	ND		1.93	1.803		mg/Kg		93	48 - 114	7	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	98		42 - 126								

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-290619/1-A

Matrix: Solid

Analysis Batch: 290845

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290619

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/20/22 10:54	12/21/22 01:05	1
C23-C40	ND		5.0	3.8	mg/Kg		12/20/22 10:54	12/21/22 01:05	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	136		60 - 138				12/20/22 10:54	12/21/22 01:05	1

Lab Sample ID: LCS 570-290619/2-A

Matrix: Solid

Analysis Batch: 290845

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290619

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	400	399.2		mg/Kg		100	80 - 130		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
n-Octacosane (Surr)	123		60 - 138						

Lab Sample ID: LCSD 570-290619/3-A

Matrix: Solid

Analysis Batch: 290845

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290619

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	400	416.0		mg/Kg		104	80 - 130	4	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
n-Octacosane (Surr)	129		60 - 138						

Lab Sample ID: 570-121408-1 MS

Matrix: Solid

Analysis Batch: 290845

Client Sample ID: B-33@2'

Prep Type: Total/NA

Prep Batch: 290619

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	26		400	400.3		mg/Kg		94	43 - 165		

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 570-121408-1 MS

Matrix: Solid

Analysis Batch: 290845

Client Sample ID: B-33@2'

Prep Type: Total/NA

Prep Batch: 290619

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	126		60 - 138

Lab Sample ID: 570-121408-1 MSD

Matrix: Solid

Analysis Batch: 290845

Client Sample ID: B-33@2'

Prep Type: Total/NA

Prep Batch: 290619

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	26		398	394.6		mg/Kg		93	43 - 165	1	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	127		60 - 138

Lab Sample ID: MB 570-290622/1-A

Matrix: Solid

Analysis Batch: 290845

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290622

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/20/22 11:00	12/21/22 01:27	1
C23-C40	ND		5.0	3.8	mg/Kg		12/20/22 11:00	12/21/22 01:27	1

	MB	MB		Prepared	Analyzed	Dil Fac
Surrogate	%Recovery	Qualifier	Limits			
n-Octacosane (Surr)	127		60 - 138	12/20/22 11:00	12/21/22 01:27	1

Lab Sample ID: LCS 570-290622/2-A

Matrix: Solid

Analysis Batch: 290845

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290622

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	400	416.0		mg/Kg		104	80 - 130

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	128		60 - 138

Lab Sample ID: LCSD 570-290622/3-A

Matrix: Solid

Analysis Batch: 290845

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290622

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	400	411.0		mg/Kg		103	80 - 130	1	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	131		60 - 138

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 570-121408-24 MS

Matrix: Solid

Analysis Batch: 290845

Client Sample ID: B-11@2'

Prep Type: Total/NA

Prep Batch: 290622

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		400	416.5		mg/Kg		104	43 - 165		
Surrogate	MS %Recovery	MS Qualifier	MS Limits								
n-Octacosane (Surr)	131		60 - 138								

Lab Sample ID: 570-121408-24 MSD

Matrix: Solid

Analysis Batch: 290845

Client Sample ID: B-11@2'

Prep Type: Total/NA

Prep Batch: 290622

Top Data: 2009-10											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		399	421.9		mg/Kg		106	43 - 165	1	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
n-Octacosane (Surr)	130		60 - 138								

## Method: 6010B - Metals (ICP)

Lab Sample ID: MB 570-290515/1-A ^5

Matrix: Solid

Analysis Batch: 290973

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290515

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Arsenic	ND		3.03	1.41	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Barium	ND		3.03	0.143	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Beryllium	ND		0.505	0.0697	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Cobalt	ND		1.01	0.208	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Chromium	ND		1.01	0.188	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Copper	ND		2.02	0.968	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Molybdenum	ND		2.02	0.520	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Nickel	ND		2.02	0.366	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Antimony	ND		10.1	2.89	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Thallium	ND		10.1	2.13	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Vanadium	ND		1.01	0.170	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Zinc	ND		5.05	1.17	mg/Kg		12/20/22 06:58	12/21/22 06:12	5
Lead	ND		2.02	0.413	mg/Kg		12/20/22 06:58	12/21/22 06:12	5

Lab Sample ID: MB 570-290515/1-A ^5

Matrix: Solid

Analysis Batch: 291444

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290515

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		3.03	1.23	mg/Kg		12/20/22 06:58	12/22/22 10:57	5

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 570-290515/2-A ^5

Matrix: Solid

Analysis Batch: 290973

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290515

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	24.8	20.84		mg/Kg		84	80 - 120
Arsenic	49.5	41.84		mg/Kg		85	80 - 120
Barium	49.5	42.19		mg/Kg		85	80 - 120
Beryllium	49.5	42.15		mg/Kg		85	80 - 120
Cadmium	49.5	42.15		mg/Kg		85	80 - 120
Cobalt	49.5	41.97		mg/Kg		85	80 - 120
Chromium	49.5	42.40		mg/Kg		86	80 - 120
Copper	49.5	42.17		mg/Kg		85	80 - 120
Molybdenum	49.5	42.81		mg/Kg		86	80 - 120
Nickel	49.5	42.07		mg/Kg		85	80 - 120
Antimony	49.5	46.97		mg/Kg		95	80 - 120
Thallium	49.5	42.60		mg/Kg		86	80 - 120
Vanadium	49.5	41.87		mg/Kg		85	80 - 120
Zinc	49.5	41.96		mg/Kg		85	80 - 120
Lead	49.5	41.42		mg/Kg		84	80 - 120

Lab Sample ID: LCS 570-290515/2-A ^5

Matrix: Solid

Analysis Batch: 291444

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290515

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Selenium	49.5	41.71		mg/Kg		84	80 - 120

Lab Sample ID: LCSD 570-290515/3-A ^5

Matrix: Solid

Analysis Batch: 290973

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290515

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	24.8	20.48		mg/Kg		83	80 - 120	2	20
Arsenic	49.5	40.92		mg/Kg		83	80 - 120	2	20
Barium	49.5	41.81		mg/Kg		84	80 - 120	1	20
Beryllium	49.5	41.77		mg/Kg		84	80 - 120	1	20
Cadmium	49.5	42.02		mg/Kg		85	80 - 120	0	20
Cobalt	49.5	41.82		mg/Kg		84	80 - 120	0	20
Chromium	49.5	41.93		mg/Kg		85	80 - 120	1	20
Copper	49.5	41.62		mg/Kg		84	80 - 120	1	20
Molybdenum	49.5	42.57		mg/Kg		86	80 - 120	1	20
Nickel	49.5	41.91		mg/Kg		85	80 - 120	0	20
Antimony	49.5	46.88		mg/Kg		95	80 - 120	0	20
Thallium	49.5	41.99		mg/Kg		85	80 - 120	1	20
Vanadium	49.5	41.46		mg/Kg		84	80 - 120	1	20
Zinc	49.5	41.68		mg/Kg		84	80 - 120	1	20
Lead	49.5	41.14		mg/Kg		83	80 - 120	1	20

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSD 570-290515/3-A ^5

Matrix: Solid

Analysis Batch: 291444

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290515

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Selenium	49.5	42.67		mg/Kg		86	80 - 120	2	20

Lab Sample ID: MB 570-290517/1-A ^5

Matrix: Solid

Analysis Batch: 291371

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 290517

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/20/22 07:04	12/22/22 05:47	5
Arsenic	ND		3.03	1.41	mg/Kg		12/20/22 07:04	12/22/22 05:47	5
Barium	ND		3.03	0.143	mg/Kg		12/20/22 07:04	12/22/22 05:47	5
Beryllium	ND		0.505	0.0697	mg/Kg		12/20/22 07:04	12/22/22 05:47	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/20/22 07:04	12/22/22 05:47	5
Cobalt	ND		1.01	0.208	mg/Kg		12/20/22 07:04	12/22/22 05:47	5
Chromium	ND		1.01	0.188	mg/Kg		12/20/22 07:04	12/22/22 05:47	5
Copper	ND		2.02	0.968	mg/Kg		12/20/22 07:04	12/22/22 05:47	5
Molybdenum	ND		2.02	0.520	mg/Kg		12/20/22 07:04	12/22/22 05:47	5
Nickel	ND		2.02	0.366	mg/Kg		12/20/22 07:04	12/22/22 05:47	5
Antimony	ND		10.1	2.89	mg/Kg		12/20/22 07:04	12/22/22 05:47	5
Selenium	ND		3.03	1.23	mg/Kg		12/20/22 07:04	12/22/22 05:47	5
Thallium	ND		10.1	2.13	mg/Kg		12/20/22 07:04	12/22/22 05:47	5
Vanadium	ND		1.01	0.170	mg/Kg		12/20/22 07:04	12/22/22 05:47	5
Zinc	ND		5.05	1.17	mg/Kg		12/20/22 07:04	12/22/22 05:47	5
Lead	ND		2.02	0.413	mg/Kg		12/20/22 07:04	12/22/22 05:47	5

Lab Sample ID: LCS 570-290517/2-A ^5

Matrix: Solid

Analysis Batch: 291371

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 290517

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	25.0	22.43		mg/Kg		90	80 - 120
Arsenic	50.0	44.43		mg/Kg		89	80 - 120
Barium	50.0	45.45		mg/Kg		91	80 - 120
Beryllium	50.0	45.05		mg/Kg		90	80 - 120
Cadmium	50.0	44.83		mg/Kg		90	80 - 120
Cobalt	50.0	45.16		mg/Kg		90	80 - 120
Chromium	50.0	45.94		mg/Kg		92	80 - 120
Copper	50.0	45.18		mg/Kg		90	80 - 120
Molybdenum	50.0	46.50		mg/Kg		93	80 - 120
Nickel	50.0	45.56		mg/Kg		91	80 - 120
Antimony	50.0	51.89		mg/Kg		104	80 - 120
Selenium	50.0	42.24		mg/Kg		84	80 - 120
Thallium	50.0	45.04		mg/Kg		90	80 - 120
Vanadium	50.0	45.24		mg/Kg		90	80 - 120
Zinc	50.0	44.93		mg/Kg		90	80 - 120
Lead	50.0	45.16		mg/Kg		90	80 - 120

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSD 570-290517/3-A ^5

Matrix: Solid

Analysis Batch: 291371

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 290517

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	24.6	22.89		mg/Kg		93	80 - 120	2	20
Arsenic	49.3	45.42		mg/Kg		92	80 - 120	2	20
Barium	49.3	46.44		mg/Kg		94	80 - 120	2	20
Beryllium	49.3	46.05		mg/Kg		93	80 - 120	2	20
Cadmium	49.3	46.11		mg/Kg		94	80 - 120	3	20
Cobalt	49.3	46.66		mg/Kg		95	80 - 120	3	20
Chromium	49.3	46.93		mg/Kg		95	80 - 120	2	20
Copper	49.3	46.23		mg/Kg		94	80 - 120	2	20
Molybdenum	49.3	47.43		mg/Kg		96	80 - 120	2	20
Nickel	49.3	46.71		mg/Kg		95	80 - 120	2	20
Antimony	49.3	53.17		mg/Kg		108	80 - 120	2	20
Selenium	49.3	43.24		mg/Kg		88	80 - 120	2	20
Thallium	49.3	46.21		mg/Kg		94	80 - 120	3	20
Vanadium	49.3	46.27		mg/Kg		94	80 - 120	2	20
Zinc	49.3	45.67		mg/Kg		93	80 - 120	2	20
Lead	49.3	46.55		mg/Kg		94	80 - 120	3	20

Lab Sample ID: 570-121408-24 MS

Matrix: Solid

Analysis Batch: 291371

Client Sample ID: B-11@2'

Prep Type: Total/NA

Prep Batch: 290517

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	ND		25.0	22.19		mg/Kg		89	75 - 125		
Arsenic	7.23		50.0	49.01		mg/Kg		84	75 - 125		
Barium	64.7	F1 F2	50.0	108.5		mg/Kg		88	75 - 125		
Beryllium	0.234	J	50.0	44.85		mg/Kg		89	75 - 125		
Cadmium	ND		50.0	43.49		mg/Kg		87	75 - 125		
Cobalt	2.62		50.0	46.75		mg/Kg		88	75 - 125		
Chromium	7.94		50.0	54.85		mg/Kg		94	75 - 125		
Copper	6.37		50.0	52.28		mg/Kg		92	75 - 125		
Molybdenum	ND		50.0	43.99		mg/Kg		88	75 - 125		
Nickel	3.66		50.0	48.04		mg/Kg		89	75 - 125		
Antimony	ND	F1	50.0	23.38	F1	mg/Kg		47	75 - 125		
Selenium	ND		50.0	39.91		mg/Kg		80	75 - 125		
Thallium	ND		50.0	44.31		mg/Kg		89	75 - 125		
Vanadium	23.0		50.0	69.19		mg/Kg		92	75 - 125		
Zinc	21.7		50.0	65.80		mg/Kg		88	75 - 125		
Lead	5.96		50.0	49.34		mg/Kg		87	75 - 125		

Lab Sample ID: 570-121408-24 MSD

Matrix: Solid

Analysis Batch: 291371

Client Sample ID: B-11@2'

Prep Type: Total/NA

Prep Batch: 290517

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	ND		25.0	22.70		mg/Kg		91	75 - 125	2	20
Arsenic	7.23		50.0	49.38		mg/Kg		84	75 - 125	1	20
Barium	64.7	F1 F2	50.0	183.9	F1 F2	mg/Kg		238	75 - 125	52	20
Beryllium	0.234	J	50.0	45.69		mg/Kg		91	75 - 125	2	20
Cadmium	ND		50.0	44.29		mg/Kg		89	75 - 125	2	20

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 570-121408-24 MSD

Matrix: Solid

Analysis Batch: 291371

Client Sample ID: B-11@2'

Prep Type: Total/NA

Prep Batch: 290517

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cobalt	2.62		50.0	47.70		mg/Kg		90	75 - 125	2	20
Chromium	7.94		50.0	55.69		mg/Kg		95	75 - 125	2	20
Copper	6.37		50.0	53.23		mg/Kg		94	75 - 125	2	20
Molybdenum	ND		50.0	45.10		mg/Kg		90	75 - 125	2	20
Nickel	3.66		50.0	49.24		mg/Kg		91	75 - 125	2	20
Antimony	ND	F1	50.0	22.68	F1	mg/Kg		45	75 - 125	3	20
Selenium	ND		50.0	41.18		mg/Kg		82	75 - 125	3	20
Thallium	ND		50.0	45.44		mg/Kg		91	75 - 125	3	20
Vanadium	23.0		50.0	69.59		mg/Kg		93	75 - 125	1	20
Zinc	21.7		50.0	66.71		mg/Kg		90	75 - 125	1	20
Lead	5.96		50.0	50.16		mg/Kg		88	75 - 125	2	20

## Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 570-291511/1-A

Matrix: Solid

Analysis Batch: 292281

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 291511

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/22/22 15:53	12/28/22 12:39	1

Lab Sample ID: LCS 570-291511/2-A

Matrix: Solid

Analysis Batch: 292281

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 291511

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.400	0.3907		mg/Kg		98	80 - 120

Lab Sample ID: LCSD 570-291511/3-A

Matrix: Solid

Analysis Batch: 292281

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 291511

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.392	0.3819		mg/Kg		97	80 - 120	2	10

Lab Sample ID: MB 570-291513/1-A

Matrix: Solid

Analysis Batch: 292281

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 291513

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/22/22 15:55	12/28/22 14:04	1

Lab Sample ID: LCS 570-291513/2-A

Matrix: Solid

Analysis Batch: 292281

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 291513

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.408	0.4112		mg/Kg		101	80 - 120

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCSD 570-291513/3-A

Matrix: Solid

Analysis Batch: 292281

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 291513

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.408	0.3984		mg/Kg		98	80 - 120	3	10

Lab Sample ID: 570-121408-6 MS

Matrix: Solid

Analysis Batch: 292281

Client Sample ID: B-33@25'

Prep Type: Total/NA

Prep Batch: 291513

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.408	0.4040		mg/Kg		99	80 - 120		

Lab Sample ID: 570-121408-6 MSD

Matrix: Solid

Analysis Batch: 292281

Client Sample ID: B-33@25'

Prep Type: Total/NA

Prep Batch: 291513

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.392	0.3731		mg/Kg		95	80 - 120	8	20

Lab Sample ID: MB 570-291517/1-A

Matrix: Solid

Analysis Batch: 292281

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 291517

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/22/22 16:58	12/28/22 11:51	1

Lab Sample ID: LCS 570-291517/2-A

Matrix: Solid

Analysis Batch: 292281

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 291517

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.400	0.3789		mg/Kg		95	80 - 120		

Lab Sample ID: LCSD 570-291517/3-A

Matrix: Solid

Analysis Batch: 292281

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 291517

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.408	0.3908		mg/Kg		96	80 - 120	3	10

Lab Sample ID: 570-121408-26 MS

Matrix: Solid

Analysis Batch: 292281

Client Sample ID: B-7@2'

Prep Type: Total/NA

Prep Batch: 291517

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.408	0.3894		mg/Kg		95	80 - 120		

Lab Sample ID: 570-121408-26 MSD

Matrix: Solid

Analysis Batch: 292281

Client Sample ID: B-7@2'

Prep Type: Total/NA

Prep Batch: 291517

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.392	0.3803		mg/Kg		97	80 - 120	2	20

Eurofins Calscience

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## GC VOA

### Prep Batch: 290795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-1	B-33@2'	Total/NA	Solid	5030C	
570-121408-2	B-33@5'	Total/NA	Solid	5030C	
570-121408-3	B-33@10'	Total/NA	Solid	5030C	
570-121408-4	B-33@15'	Total/NA	Solid	5030C	
570-121408-5	B-33@20'	Total/NA	Solid	5030C	
570-121408-6	B-33@25'	Total/NA	Solid	5030C	
570-121408-7	B-33@30'	Total/NA	Solid	5030C	
570-121408-8	B-33@35'	Total/NA	Solid	5030C	
570-121408-9	B-36@2'	Total/NA	Solid	5030C	
570-121408-10	B-36@5'	Total/NA	Solid	5030C	
570-121408-11	B-36@10'	Total/NA	Solid	5030C	
570-121408-12	B-36@15'	Total/NA	Solid	5030C	
570-121408-13	B-36@20'	Total/NA	Solid	5030C	
570-121408-14	B-36@25'	Total/NA	Solid	5030C	
570-121408-15	B-41@2'	Total/NA	Solid	5030C	
570-121408-16	B-41@5'	Total/NA	Solid	5030C	
570-121408-17	B-41@10'	Total/NA	Solid	5030C	
570-121408-18	B-41@15'	Total/NA	Solid	5030C	
570-121408-19	B-41@20'	Total/NA	Solid	5030C	
570-121408-20	B-41@25'	Total/NA	Solid	5030C	
MB 570-290795/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-290795/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-290795/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	
570-121408-1 MS	B-33@2'	Total/NA	Solid	5030C	
570-121408-1 MSD	B-33@2'	Total/NA	Solid	5030C	

### Analysis Batch: 290819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-1	B-33@2'	Total/NA	Solid	8015B	290795
570-121408-2	B-33@5'	Total/NA	Solid	8015B	290795
570-121408-3	B-33@10'	Total/NA	Solid	8015B	290795
570-121408-4	B-33@15'	Total/NA	Solid	8015B	290795
570-121408-5	B-33@20'	Total/NA	Solid	8015B	290795
570-121408-6	B-33@25'	Total/NA	Solid	8015B	290795
570-121408-7	B-33@30'	Total/NA	Solid	8015B	290795
570-121408-8	B-33@35'	Total/NA	Solid	8015B	290795
570-121408-9	B-36@2'	Total/NA	Solid	8015B	290795
570-121408-10	B-36@5'	Total/NA	Solid	8015B	290795
570-121408-11	B-36@10'	Total/NA	Solid	8015B	290795
570-121408-12	B-36@15'	Total/NA	Solid	8015B	290795
570-121408-13	B-36@20'	Total/NA	Solid	8015B	290795
570-121408-14	B-36@25'	Total/NA	Solid	8015B	290795
570-121408-15	B-41@2'	Total/NA	Solid	8015B	290795
570-121408-16	B-41@5'	Total/NA	Solid	8015B	290795
570-121408-17	B-41@10'	Total/NA	Solid	8015B	290795
570-121408-18	B-41@15'	Total/NA	Solid	8015B	290795
570-121408-19	B-41@20'	Total/NA	Solid	8015B	290795
570-121408-20	B-41@25'	Total/NA	Solid	8015B	290795
MB 570-290795/3-A	Method Blank	Total/NA	Solid	8015B	290795
LCS 570-290795/1-A	Lab Control Sample	Total/NA	Solid	8015B	290795
LCSD 570-290795/2-A	Lab Control Sample Dup	Total/NA	Solid	8015B	290795

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## GC VOA (Continued)

### Analysis Batch: 290819 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-1 MS	B-33@2'	Total/NA	Solid	8015B	290795
570-121408-1 MSD	B-33@2'	Total/NA	Solid	8015B	290795

### Prep Batch: 290820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-21	B-41@30'	Total/NA	Solid	5030C	
MB 570-290820/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-290820/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-290820/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	

### Analysis Batch: 290833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-21	B-41@30'	Total/NA	Solid	8015B	290820
MB 570-290820/3-A	Method Blank	Total/NA	Solid	8015B	290820
LCS 570-290820/1-A	Lab Control Sample	Total/NA	Solid	8015B	290820
LCSD 570-290820/2-A	Lab Control Sample Dup	Total/NA	Solid	8015B	290820

### Analysis Batch: 290951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-23	B-41@40'	Total/NA	Solid	8015B	290981
570-121408-24	B-11@2'	Total/NA	Solid	8015B	290981
MB 570-290981/3-A	Method Blank	Total/NA	Solid	8015B	290981
LCS 570-290981/1-A	Lab Control Sample	Total/NA	Solid	8015B	290981
LCSD 570-290981/2-A	Lab Control Sample Dup	Total/NA	Solid	8015B	290981

### Prep Batch: 290981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-23	B-41@40'	Total/NA	Solid	5030C	
570-121408-24	B-11@2'	Total/NA	Solid	5030C	
MB 570-290981/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-290981/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-290981/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	

### Prep Batch: 291392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-22	B-41@35'	Total/NA	Solid	5030C	
570-121408-25	B-6@2'	Total/NA	Solid	5030C	
570-121408-26	B-7@2'	Total/NA	Solid	5030C	
MB 570-291392/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-291392/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-291392/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	
570-121408-22 MS	B-41@35'	Total/NA	Solid	5030C	
570-121408-22 MSD	B-41@35'	Total/NA	Solid	5030C	

### Analysis Batch: 291406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-22	B-41@35'	Total/NA	Solid	8015B	291392
570-121408-25	B-6@2'	Total/NA	Solid	8015B	291392
570-121408-26	B-7@2'	Total/NA	Solid	8015B	291392
MB 570-291392/3-A	Method Blank	Total/NA	Solid	8015B	291392
LCS 570-291392/1-A	Lab Control Sample	Total/NA	Solid	8015B	291392

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## GC VOA (Continued)

### Analysis Batch: 291406 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 570-291392/2-A	Lab Control Sample Dup	Total/NA	Solid	8015B	291392
570-121408-22 MS	B-41@35'	Total/NA	Solid	8015B	291392
570-121408-22 MSD	B-41@35'	Total/NA	Solid	8015B	291392

## GC Semi VOA

### Prep Batch: 290619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-1	B-33@2'	Total/NA	Solid	3550C	
570-121408-2	B-33@5'	Total/NA	Solid	3550C	
570-121408-3	B-33@10'	Total/NA	Solid	3550C	
570-121408-4	B-33@15'	Total/NA	Solid	3550C	
570-121408-5	B-33@20'	Total/NA	Solid	3550C	
570-121408-6	B-33@25'	Total/NA	Solid	3550C	
570-121408-7	B-33@30'	Total/NA	Solid	3550C	
570-121408-8	B-33@35'	Total/NA	Solid	3550C	
570-121408-9	B-36@2'	Total/NA	Solid	3550C	
570-121408-10	B-36@5'	Total/NA	Solid	3550C	
570-121408-11	B-36@10'	Total/NA	Solid	3550C	
570-121408-12	B-36@15'	Total/NA	Solid	3550C	
570-121408-13	B-36@20'	Total/NA	Solid	3550C	
570-121408-14	B-36@25'	Total/NA	Solid	3550C	
570-121408-15	B-41@2'	Total/NA	Solid	3550C	
570-121408-16	B-41@5'	Total/NA	Solid	3550C	
570-121408-17	B-41@10'	Total/NA	Solid	3550C	
570-121408-18	B-41@15'	Total/NA	Solid	3550C	
570-121408-19	B-41@20'	Total/NA	Solid	3550C	
570-121408-20	B-41@25'	Total/NA	Solid	3550C	
MB 570-290619/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 570-290619/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 570-290619/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	
570-121408-1 MS	B-33@2'	Total/NA	Solid	3550C	
570-121408-1 MSD	B-33@2'	Total/NA	Solid	3550C	

### Prep Batch: 290622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-21	B-41@30'	Total/NA	Solid	3550C	
570-121408-22	B-41@35'	Total/NA	Solid	3550C	
570-121408-23	B-41@40'	Total/NA	Solid	3550C	
570-121408-24	B-11@2'	Total/NA	Solid	3550C	
570-121408-25	B-6@2'	Total/NA	Solid	3550C	
570-121408-26	B-7@2'	Total/NA	Solid	3550C	
MB 570-290622/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 570-290622/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 570-290622/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	
570-121408-24 MS	B-11@2'	Total/NA	Solid	3550C	
570-121408-24 MSD	B-11@2'	Total/NA	Solid	3550C	

### Analysis Batch: 290845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-1	B-33@2'	Total/NA	Solid	8015B	290619

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## GC Semi VOA (Continued)

### Analysis Batch: 290845 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-2	B-33@5'	Total/NA	Solid	8015B	290619
570-121408-3	B-33@10'	Total/NA	Solid	8015B	290619
570-121408-4	B-33@15'	Total/NA	Solid	8015B	290619
570-121408-5	B-33@20'	Total/NA	Solid	8015B	290619
570-121408-6	B-33@25'	Total/NA	Solid	8015B	290619
570-121408-7	B-33@30'	Total/NA	Solid	8015B	290619
570-121408-8	B-33@35'	Total/NA	Solid	8015B	290619
570-121408-9	B-36@2'	Total/NA	Solid	8015B	290619
570-121408-10	B-36@5'	Total/NA	Solid	8015B	290619
570-121408-11	B-36@10'	Total/NA	Solid	8015B	290619
570-121408-12	B-36@15'	Total/NA	Solid	8015B	290619
570-121408-13	B-36@20'	Total/NA	Solid	8015B	290619
570-121408-14	B-36@25'	Total/NA	Solid	8015B	290619
570-121408-15	B-41@2'	Total/NA	Solid	8015B	290619
570-121408-16	B-41@5'	Total/NA	Solid	8015B	290619
570-121408-17	B-41@10'	Total/NA	Solid	8015B	290619
570-121408-18	B-41@15'	Total/NA	Solid	8015B	290619
570-121408-19	B-41@20'	Total/NA	Solid	8015B	290619
570-121408-20	B-41@25'	Total/NA	Solid	8015B	290619
570-121408-21	B-41@30'	Total/NA	Solid	8015B	290622
570-121408-22	B-41@35'	Total/NA	Solid	8015B	290622
570-121408-23	B-41@40'	Total/NA	Solid	8015B	290622
570-121408-24	B-11@2'	Total/NA	Solid	8015B	290622
570-121408-25	B-6@2'	Total/NA	Solid	8015B	290622
570-121408-26	B-7@2'	Total/NA	Solid	8015B	290622
MB 570-290619/1-A	Method Blank	Total/NA	Solid	8015B	290619
MB 570-290622/1-A	Method Blank	Total/NA	Solid	8015B	290622
LCS 570-290619/2-A	Lab Control Sample	Total/NA	Solid	8015B	290619
LCS 570-290622/2-A	Lab Control Sample	Total/NA	Solid	8015B	290622
LCSD 570-290619/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	290619
LCSD 570-290622/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	290622
570-121408-1 MS	B-33@2'	Total/NA	Solid	8015B	290619
570-121408-1 MSD	B-33@2'	Total/NA	Solid	8015B	290619
570-121408-24 MS	B-11@2'	Total/NA	Solid	8015B	290622
570-121408-24 MSD	B-11@2'	Total/NA	Solid	8015B	290622

## Metals

### Prep Batch: 290515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-1	B-33@2'	Total/NA	Solid	3050B	
570-121408-2	B-33@5'	Total/NA	Solid	3050B	
570-121408-3	B-33@10'	Total/NA	Solid	3050B	
570-121408-4	B-33@15'	Total/NA	Solid	3050B	
570-121408-5	B-33@20'	Total/NA	Solid	3050B	
570-121408-6	B-33@25'	Total/NA	Solid	3050B	
570-121408-7	B-33@30'	Total/NA	Solid	3050B	
570-121408-8	B-33@35'	Total/NA	Solid	3050B	
570-121408-9	B-36@2'	Total/NA	Solid	3050B	
570-121408-10	B-36@5'	Total/NA	Solid	3050B	
570-121408-11	B-36@10'	Total/NA	Solid	3050B	

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Metals (Continued)

### Prep Batch: 290515 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-12	B-36@15'	Total/NA	Solid	3050B	
570-121408-13	B-36@20'	Total/NA	Solid	3050B	
MB 570-290515/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-290515/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-290515/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	

### Prep Batch: 290517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-14	B-36@25'	Total/NA	Solid	3050B	
570-121408-15	B-41@2'	Total/NA	Solid	3050B	
570-121408-16	B-41@5'	Total/NA	Solid	3050B	
570-121408-17	B-41@10'	Total/NA	Solid	3050B	
570-121408-18	B-41@15'	Total/NA	Solid	3050B	
570-121408-19	B-41@20'	Total/NA	Solid	3050B	
570-121408-20	B-41@25'	Total/NA	Solid	3050B	
570-121408-21	B-41@30'	Total/NA	Solid	3050B	
570-121408-22	B-41@35'	Total/NA	Solid	3050B	
570-121408-23	B-41@40'	Total/NA	Solid	3050B	
570-121408-24	B-11@2'	Total/NA	Solid	3050B	
570-121408-25	B-6@2'	Total/NA	Solid	3050B	
570-121408-26	B-7@2'	Total/NA	Solid	3050B	
MB 570-290517/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-290517/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-290517/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	
570-121408-24 MS	B-11@2'	Total/NA	Solid	3050B	
570-121408-24 MSD	B-11@2'	Total/NA	Solid	3050B	

### Analysis Batch: 290973

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-1	B-33@2'	Total/NA	Solid	6010B	290515
570-121408-2	B-33@5'	Total/NA	Solid	6010B	290515
570-121408-3	B-33@10'	Total/NA	Solid	6010B	290515
570-121408-4	B-33@15'	Total/NA	Solid	6010B	290515
570-121408-5	B-33@20'	Total/NA	Solid	6010B	290515
570-121408-6	B-33@25'	Total/NA	Solid	6010B	290515
570-121408-7	B-33@30'	Total/NA	Solid	6010B	290515
570-121408-8	B-33@35'	Total/NA	Solid	6010B	290515
570-121408-9	B-36@2'	Total/NA	Solid	6010B	290515
570-121408-10	B-36@5'	Total/NA	Solid	6010B	290515
570-121408-11	B-36@10'	Total/NA	Solid	6010B	290515
570-121408-12	B-36@15'	Total/NA	Solid	6010B	290515
570-121408-13	B-36@20'	Total/NA	Solid	6010B	290515
MB 570-290515/1-A ^5	Method Blank	Total/NA	Solid	6010B	290515
LCS 570-290515/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	290515
LCSD 570-290515/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	290515

### Analysis Batch: 291371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-14	B-36@25'	Total/NA	Solid	6010B	290517
570-121408-15	B-41@2'	Total/NA	Solid	6010B	290517
570-121408-16	B-41@5'	Total/NA	Solid	6010B	290517

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Metals (Continued)

### Analysis Batch: 291371 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-17	B-41@10'	Total/NA	Solid	6010B	290517
570-121408-18	B-41@15'	Total/NA	Solid	6010B	290517
570-121408-19	B-41@20'	Total/NA	Solid	6010B	290517
570-121408-20	B-41@25'	Total/NA	Solid	6010B	290517
570-121408-21	B-41@30'	Total/NA	Solid	6010B	290517
570-121408-22	B-41@35'	Total/NA	Solid	6010B	290517
570-121408-23	B-41@40'	Total/NA	Solid	6010B	290517
570-121408-24	B-11@2'	Total/NA	Solid	6010B	290517
570-121408-25	B-6@2'	Total/NA	Solid	6010B	290517
570-121408-26	B-7@2'	Total/NA	Solid	6010B	290517
MB 570-290517/1-A ^5	Method Blank	Total/NA	Solid	6010B	290517
LCS 570-290517/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	290517
LCSD 570-290517/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	290517
570-121408-24 MS	B-11@2'	Total/NA	Solid	6010B	290517
570-121408-24 MSD	B-11@2'	Total/NA	Solid	6010B	290517

### Analysis Batch: 291444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-1	B-33@2'	Total/NA	Solid	6010B	290515
570-121408-2	B-33@5'	Total/NA	Solid	6010B	290515
570-121408-3	B-33@10'	Total/NA	Solid	6010B	290515
570-121408-4	B-33@15'	Total/NA	Solid	6010B	290515
570-121408-5	B-33@20'	Total/NA	Solid	6010B	290515
570-121408-6	B-33@25'	Total/NA	Solid	6010B	290515
570-121408-7	B-33@30'	Total/NA	Solid	6010B	290515
570-121408-8	B-33@35'	Total/NA	Solid	6010B	290515
570-121408-9	B-36@2'	Total/NA	Solid	6010B	290515
570-121408-10	B-36@5'	Total/NA	Solid	6010B	290515
570-121408-11	B-36@10'	Total/NA	Solid	6010B	290515
570-121408-12	B-36@15'	Total/NA	Solid	6010B	290515
570-121408-13	B-36@20'	Total/NA	Solid	6010B	290515
MB 570-290515/1-A ^5	Method Blank	Total/NA	Solid	6010B	290515
LCS 570-290515/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	290515
LCSD 570-290515/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	290515

### Prep Batch: 291511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-1	B-33@2'	Total/NA	Solid	7471A	
570-121408-2	B-33@5'	Total/NA	Solid	7471A	
570-121408-3	B-33@10'	Total/NA	Solid	7471A	
570-121408-4	B-33@15'	Total/NA	Solid	7471A	
570-121408-5	B-33@20'	Total/NA	Solid	7471A	
MB 570-291511/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-291511/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-291511/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	

### Prep Batch: 291513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-6	B-33@25'	Total/NA	Solid	7471A	
570-121408-7	B-33@30'	Total/NA	Solid	7471A	
570-121408-8	B-33@35'	Total/NA	Solid	7471A	

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Metals (Continued)

### Prep Batch: 291513 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-9	B-36@2'	Total/NA	Solid	7471A	
570-121408-10	B-36@5'	Total/NA	Solid	7471A	
570-121408-11	B-36@10'	Total/NA	Solid	7471A	
570-121408-12	B-36@15'	Total/NA	Solid	7471A	
570-121408-13	B-36@20'	Total/NA	Solid	7471A	
570-121408-14	B-36@25'	Total/NA	Solid	7471A	
570-121408-15	B-41@2'	Total/NA	Solid	7471A	
570-121408-16	B-41@5'	Total/NA	Solid	7471A	
570-121408-17	B-41@10'	Total/NA	Solid	7471A	
570-121408-18	B-41@15'	Total/NA	Solid	7471A	
570-121408-19	B-41@20'	Total/NA	Solid	7471A	
570-121408-20	B-41@25'	Total/NA	Solid	7471A	
570-121408-21	B-41@30'	Total/NA	Solid	7471A	
570-121408-22	B-41@35'	Total/NA	Solid	7471A	
570-121408-23	B-41@40'	Total/NA	Solid	7471A	
570-121408-24	B-11@2'	Total/NA	Solid	7471A	
570-121408-25	B-6@2'	Total/NA	Solid	7471A	
MB 570-291513/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-291513/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-291513/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
570-121408-6 MS	B-33@25'	Total/NA	Solid	7471A	
570-121408-6 MSD	B-33@25'	Total/NA	Solid	7471A	

### Prep Batch: 291517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-26	B-7@2'	Total/NA	Solid	7471A	
MB 570-291517/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-291517/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-291517/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
570-121408-26 MS	B-7@2'	Total/NA	Solid	7471A	
570-121408-26 MSD	B-7@2'	Total/NA	Solid	7471A	

### Analysis Batch: 292281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-1	B-33@2'	Total/NA	Solid	7471A	291511
570-121408-2	B-33@5'	Total/NA	Solid	7471A	291511
570-121408-3	B-33@10'	Total/NA	Solid	7471A	291511
570-121408-4	B-33@15'	Total/NA	Solid	7471A	291511
570-121408-5	B-33@20'	Total/NA	Solid	7471A	291511
570-121408-6	B-33@25'	Total/NA	Solid	7471A	291513
570-121408-7	B-33@30'	Total/NA	Solid	7471A	291513
570-121408-8	B-33@35'	Total/NA	Solid	7471A	291513
570-121408-9	B-36@2'	Total/NA	Solid	7471A	291513
570-121408-10	B-36@5'	Total/NA	Solid	7471A	291513
570-121408-11	B-36@10'	Total/NA	Solid	7471A	291513
570-121408-12	B-36@15'	Total/NA	Solid	7471A	291513
570-121408-13	B-36@20'	Total/NA	Solid	7471A	291513
570-121408-14	B-36@25'	Total/NA	Solid	7471A	291513
570-121408-15	B-41@2'	Total/NA	Solid	7471A	291513
570-121408-16	B-41@5'	Total/NA	Solid	7471A	291513
570-121408-17	B-41@10'	Total/NA	Solid	7471A	291513

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

## Metals (Continued)

### Analysis Batch: 292281 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-26	B-7@2'	Total/NA	Solid	7471A	291517
MB 570-291511/1-A	Method Blank	Total/NA	Solid	7471A	291511
MB 570-291513/1-A	Method Blank	Total/NA	Solid	7471A	291513
MB 570-291517/1-A	Method Blank	Total/NA	Solid	7471A	291517
LCS 570-291511/2-A	Lab Control Sample	Total/NA	Solid	7471A	291511
LCS 570-291513/2-A	Lab Control Sample	Total/NA	Solid	7471A	291513
LCS 570-291517/2-A	Lab Control Sample	Total/NA	Solid	7471A	291517
LCSD 570-291511/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	291511
LCSD 570-291513/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	291513
LCSD 570-291517/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	291517
570-121408-6 MS	B-33@25'	Total/NA	Solid	7471A	291513
570-121408-6 MSD	B-33@25'	Total/NA	Solid	7471A	291513
570-121408-26 MS	B-7@2'	Total/NA	Solid	7471A	291517
570-121408-26 MSD	B-7@2'	Total/NA	Solid	7471A	291517

### Analysis Batch: 292349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-18	B-41@15'	Total/NA	Solid	7471A	291513
570-121408-19	B-41@20'	Total/NA	Solid	7471A	291513
570-121408-20	B-41@25'	Total/NA	Solid	7471A	291513
570-121408-21	B-41@30'	Total/NA	Solid	7471A	291513
570-121408-22	B-41@35'	Total/NA	Solid	7471A	291513
570-121408-23	B-41@40'	Total/NA	Solid	7471A	291513
570-121408-24	B-11@2'	Total/NA	Solid	7471A	291513
570-121408-25	B-6@2'	Total/NA	Solid	7471A	291513

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

**Client Sample ID: B-33@2'**

**Date Collected: 12/19/22 07:20**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-1**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	290795	12/20/22 17:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290819	12/21/22 05:02	P1R	EET CAL 4
		Instrument ID: GC25								
Total/NA	Prep	3550C			10.09 g	10 mL	290619	12/20/22 10:54	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 06:54	N1A	EET CAL 4
		Instrument ID: GC47								
Total/NA	Prep	3050B			2.00 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291444	12/22/22 11:44	P1R	EET CAL 4
		Instrument ID: ICP10								
Total/NA	Prep	3050B			2.00 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 06:51	K1UV	EET CAL 4
		Instrument ID: ICP11								
Total/NA	Prep	7471A			0.51 g	50 mL	291511	12/22/22 15:53	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 13:24	C0YH	EET CAL 4
		Instrument ID: HG7								

**Client Sample ID: B-33@5'**

**Date Collected: 12/19/22 07:26**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-2**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	290795	12/20/22 17:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290819	12/21/22 06:30	P1R	EET CAL 4
		Instrument ID: GC25								
Total/NA	Prep	3550C			10.06 g	10 mL	290619	12/20/22 10:54	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 07:16	N1A	EET CAL 4
		Instrument ID: GC47								
Total/NA	Prep	3050B			2.03 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291444	12/22/22 11:47	P1R	EET CAL 4
		Instrument ID: ICP10								
Total/NA	Prep	3050B			2.03 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 06:53	K1UV	EET CAL 4
		Instrument ID: ICP11								
Total/NA	Prep	7471A			0.49 g	50 mL	291511	12/22/22 15:53	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 13:26	C0YH	EET CAL 4
		Instrument ID: HG7								

**Client Sample ID: B-33@10'**

**Date Collected: 12/19/22 07:32**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-3**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	290795	12/20/22 17:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290819	12/21/22 07:00	P1R	EET CAL 4
		Instrument ID: GC25								

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

**Client Sample ID: B-33@10'**

**Lab Sample ID: 570-121408-3**

**Date Collected: 12/19/22 07:32**

**Matrix: Solid**

**Date Received: 12/19/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			9.94 g	10 mL	290619	12/20/22 10:54	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 07:37	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.97 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291444	12/22/22 11:49	P1R	EET CAL 4
Instrument ID: ICP10										
Total/NA	Prep	3050B			1.97 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 07:01	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	291511	12/22/22 15:53	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 13:28	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-33@15'**

**Lab Sample ID: 570-121408-4**

**Date Collected: 12/19/22 07:37**

**Matrix: Solid**

**Date Received: 12/19/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	290795	12/20/22 17:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290819	12/21/22 09:07	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			9.98 g	10 mL	290619	12/20/22 10:54	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 07:58	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.99 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291444	12/22/22 11:52	P1R	EET CAL 4
Instrument ID: ICP10										
Total/NA	Prep	3050B			1.99 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 07:03	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	291511	12/22/22 15:53	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 13:30	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-33@20'**

**Lab Sample ID: 570-121408-5**

**Date Collected: 12/19/22 07:45**

**Matrix: Solid**

**Date Received: 12/19/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.98 g	5 mL	290795	12/20/22 17:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290819	12/21/22 09:37	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			9.97 g	10 mL	290619	12/20/22 10:54	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 08:20	N1A	EET CAL 4
Instrument ID: GC47										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

**Client Sample ID: B-33@20'**

**Date Collected: 12/19/22 07:45**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-5**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.96 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291444	12/22/22 11:54	P1R	EET CAL 4
Instrument ID: ICP10										
Total/NA	Prep	3050B			1.96 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 07:06	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	291511	12/22/22 15:53	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 13:31	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-33@25'**

**Date Collected: 12/19/22 07:51**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-6**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.00 g	5 mL	290795	12/20/22 17:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290819	12/21/22 10:06	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.01 g	10 mL	290619	12/20/22 10:54	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 08:42	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.96 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291444	12/22/22 11:56	P1R	EET CAL 4
Instrument ID: ICP10										
Total/NA	Prep	3050B			1.96 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 07:08	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	291513	12/22/22 15:55	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 14:09	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-33@30'**

**Date Collected: 12/19/22 08:04**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-7**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.97 g	5 mL	290795	12/20/22 17:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290819	12/21/22 10:36	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			9.95 g	10 mL	290619	12/20/22 10:54	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 09:03	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.02 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291444	12/22/22 12:13	P1R	EET CAL 4
Instrument ID: ICP10										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

**Client Sample ID: B-33@30'**

**Date Collected: 12/19/22 08:04**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-7**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.02 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 07:10	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	291513	12/22/22 15:55	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 14:15	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-33@35'**

**Date Collected: 12/19/22 08:11**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-8**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	290795	12/20/22 17:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290819	12/21/22 11:05	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			9.96 g	10 mL	290619	12/20/22 10:54	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 09:25	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.99 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291444	12/22/22 12:16	P1R	EET CAL 4
Instrument ID: ICP10										
Total/NA	Prep	3050B			1.99 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 07:13	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	291513	12/22/22 15:55	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 14:17	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-36@2'**

**Date Collected: 12/19/22 09:23**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-9**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.06 g	5 mL	290795	12/20/22 17:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290819	12/21/22 11:34	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.03 g	10 mL	290619	12/20/22 10:54	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 09:45	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.04 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291444	12/22/22 12:18	P1R	EET CAL 4
Instrument ID: ICP10										
Total/NA	Prep	3050B			2.04 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 07:15	K1UV	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

**Client Sample ID: B-36@2'**

**Date Collected: 12/19/22 09:23**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-9**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.49 g	50 mL	291513	12/22/22 15:55	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 14:19	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-36@5'**

**Date Collected: 12/19/22 09:28**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-10**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	290795	12/20/22 17:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290819	12/21/22 12:03	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.02 g	10 mL	290619	12/20/22 10:54	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 10:06	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.03 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291444	12/22/22 12:20	P1R	EET CAL 4
Instrument ID: ICP10										
Total/NA	Prep	3050B			2.03 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 07:18	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	291513	12/22/22 15:55	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 14:20	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-36@10'**

**Date Collected: 12/19/22 09:36**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-11**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.97 g	5 mL	290795	12/20/22 17:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290819	12/21/22 13:02	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.00 g	10 mL	290619	12/20/22 10:54	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 10:27	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.01 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291444	12/22/22 12:23	P1R	EET CAL 4
Instrument ID: ICP10										
Total/NA	Prep	3050B			2.01 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 07:20	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	291513	12/22/22 15:55	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 14:26	C0YH	EET CAL 4
Instrument ID: HG7										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

**Client Sample ID: B-36@15'**

**Date Collected: 12/19/22 09:41**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-12**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	290795	12/20/22 17:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290819	12/21/22 13:31	P1R	EET CAL 4
		Instrument ID: GC25								
Total/NA	Prep	3550C			10.05 g	10 mL	290619	12/20/22 10:54	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 10:48	N1A	EET CAL 4
		Instrument ID: GC47								
Total/NA	Prep	3050B			1.99 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291444	12/22/22 12:25	P1R	EET CAL 4
		Instrument ID: ICP10								
Total/NA	Prep	3050B			1.99 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 07:23	K1UV	EET CAL 4
		Instrument ID: ICP11								
Total/NA	Prep	7471A			0.51 g	50 mL	291513	12/22/22 15:55	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 14:28	C0YH	EET CAL 4
		Instrument ID: HG7								

**Client Sample ID: B-36@20'**

**Date Collected: 12/19/22 09:46**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-13**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	290795	12/20/22 17:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290819	12/21/22 14:06	P1R	EET CAL 4
		Instrument ID: GC25								
Total/NA	Prep	3550C			9.98 g	10 mL	290619	12/20/22 10:54	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 11:09	N1A	EET CAL 4
		Instrument ID: GC47								
Total/NA	Prep	3050B			1.96 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291444	12/22/22 12:28	P1R	EET CAL 4
		Instrument ID: ICP10								
Total/NA	Prep	3050B			1.96 g	50 mL	290515	12/20/22 06:58	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5	1.0 mL	1.0 mL	290973	12/21/22 07:30	K1UV	EET CAL 4
		Instrument ID: ICP11								
Total/NA	Prep	7471A			0.51 g	50 mL	291513	12/22/22 15:55	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 14:30	C0YH	EET CAL 4
		Instrument ID: HG7								

**Client Sample ID: B-36@25'**

**Date Collected: 12/19/22 09:55**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-14**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	290795	12/20/22 17:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290819	12/21/22 14:53	P1R	EET CAL 4
		Instrument ID: GC25								

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

**Client Sample ID: B-36@25'**

**Lab Sample ID: 570-121408-14**

**Date Collected: 12/19/22 09:55**

**Matrix: Solid**

**Date Received: 12/19/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			10.03 g	10 mL	290619	12/20/22 10:54	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 11:30	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.01 g	50 mL	290517	12/20/22 07:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291371	12/22/22 06:14	W1BQ	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	291513	12/22/22 15:55	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 14:31	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-41@2'**

**Lab Sample ID: 570-121408-15**

**Date Collected: 12/19/22 10:58**

**Matrix: Solid**

**Date Received: 12/19/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.97 g	5 mL	290795	12/20/22 17:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290819	12/21/22 15:22	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			9.95 g	10 mL	290619	12/20/22 10:54	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 11:50	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.98 g	50 mL	290517	12/20/22 07:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291371	12/22/22 06:17	W1BQ	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	291513	12/22/22 15:55	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 14:33	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-41@5'**

**Lab Sample ID: 570-121408-16**

**Date Collected: 12/19/22 11:09**

**Matrix: Solid**

**Date Received: 12/19/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.07 g	5 mL	290795	12/20/22 17:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290819	12/21/22 15:52	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.04 g	10 mL	290619	12/20/22 10:54	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 12:11	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.00 g	50 mL	290517	12/20/22 07:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291371	12/22/22 06:19	W1BQ	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	291513	12/22/22 15:55	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 14:35	C0YH	EET CAL 4
Instrument ID: HG7										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

**Client Sample ID: B-41@10'**

**Lab Sample ID: 570-121408-17**

**Date Collected: 12/19/22 11:14**

**Matrix: Solid**

**Date Received: 12/19/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.97 g	5 mL	290795	12/20/22 17:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290819	12/21/22 16:21	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.02 g	10 mL	290619	12/20/22 10:54	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 12:32	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.01 g	50 mL	290517	12/20/22 07:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291371	12/22/22 06:21	W1BQ	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	291513	12/22/22 15:55	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 14:37	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-41@15'**

**Lab Sample ID: 570-121408-18**

**Date Collected: 12/19/22 11:21**

**Matrix: Solid**

**Date Received: 12/19/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	290795	12/20/22 17:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290819	12/21/22 16:51	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			9.95 g	10 mL	290619	12/20/22 10:54	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 12:53	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.97 g	50 mL	290517	12/20/22 07:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291371	12/22/22 06:24	W1BQ	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	291513	12/22/22 15:55	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 17:13	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-41@20'**

**Lab Sample ID: 570-121408-19**

**Date Collected: 12/19/22 11:35**

**Matrix: Solid**

**Date Received: 12/19/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	290795	12/20/22 17:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290819	12/21/22 17:38	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			9.97 g	10 mL	290619	12/20/22 10:54	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 13:14	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.96 g	50 mL	290517	12/20/22 07:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291371	12/22/22 06:26	W1BQ	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

**Client Sample ID: B-41@20'**

**Date Collected: 12/19/22 11:35**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-19**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.49 g	50 mL	291513	12/22/22 15:55	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 17:14	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-41@25'**

**Date Collected: 12/19/22 11:42**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-20**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	290795	12/20/22 17:34	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290819	12/21/22 18:07	P1R	EET CAL 4
Instrument ID: GC25										
Total/NA	Prep	3550C			10.04 g	10 mL	290619	12/20/22 10:54	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 13:34	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.99 g	50 mL	290517	12/20/22 07:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291371	12/22/22 06:29	W1BQ	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	291513	12/22/22 15:55	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 17:16	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-41@30'**

**Date Collected: 12/19/22 11:51**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-21**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.99 g	5 mL	290820	12/20/22 18:48	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290833	12/21/22 09:23	A9VE	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			9.98 g	10 mL	290622	12/20/22 11:00	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 15:39	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.01 g	50 mL	290517	12/20/22 07:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291371	12/22/22 06:38	W1BQ	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	291513	12/22/22 15:55	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 17:18	C0YH	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

**Client Sample ID: B-41@35'**

**Date Collected: 12/19/22 12:00**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-22**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	291392	12/22/22 10:45	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291406	12/22/22 13:36	P1R	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.03 g	10 mL	290622	12/20/22 11:00	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 16:00	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.02 g	50 mL	290517	12/20/22 07:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291371	12/22/22 06:41	W1BQ	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	291513	12/22/22 15:55	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 17:20	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-41@40'**

**Date Collected: 12/19/22 12:09**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-23**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	290981	12/21/22 13:15	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290951	12/21/22 23:02	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			9.97 g	10 mL	290622	12/20/22 11:00	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 16:21	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.01 g	50 mL	290517	12/20/22 07:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291371	12/22/22 06:43	W1BQ	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	291513	12/22/22 15:55	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 17:22	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-11@2'**

**Date Collected: 12/19/22 13:22**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-24**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	290981	12/21/22 13:15	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	290951	12/21/22 23:26	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.01 g	10 mL	290622	12/20/22 11:00	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 16:42	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.03 g	50 mL	290517	12/20/22 07:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291371	12/22/22 05:57	W1BQ	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

**Client Sample ID: B-11@2'**

**Date Collected: 12/19/22 13:22**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-24**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.51 g	50 mL	291513	12/22/22 15:55	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 17:24	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-6@2'**

**Date Collected: 12/19/22 14:08**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-25**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	291392	12/22/22 10:45	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291406	12/22/22 14:49	P1R	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.03 g	10 mL	290622	12/20/22 11:00	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 17:03	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.99 g	50 mL	290517	12/20/22 07:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291371	12/22/22 06:46	W1BQ	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	291513	12/22/22 15:55	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 17:26	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-7@2'**

**Date Collected: 12/19/22 14:42**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-26**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	291392	12/22/22 10:45	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291406	12/22/22 15:13	P1R	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.01 g	10 mL	290622	12/20/22 11:00	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	290845	12/21/22 17:24	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.99 g	50 mL	290517	12/20/22 07:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			291371	12/22/22 06:48	W1BQ	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	291517	12/22/22 16:58	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 11:56	C0YH	EET CAL 4
Instrument ID: HG7										

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494



Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

## Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

Method	Method Description	Protocol	Laboratory
8015B	Gasoline Range Organics - (GC)	SW846	EET CAL 4
8015B	Diesel Range Organics (DRO) (GC)	SW846	EET CAL 4
6010B	Metals (ICP)	SW846	EET CAL 4
7471A	Mercury (CVAA)	SW846	EET CAL 4
3050B	Preparation, Metals	SW846	EET CAL 4
3550C	Ultrasonic Extraction	SW846	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
7471A	Preparation, Mercury	SW846	EET CAL 4

### Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

# Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-121408-1	B-33@2'	Solid	12/19/22 07:20	12/19/22 18:30
570-121408-2	B-33@5'	Solid	12/19/22 07:26	12/19/22 18:30
570-121408-3	B-33@10'	Solid	12/19/22 07:32	12/19/22 18:30
570-121408-4	B-33@15'	Solid	12/19/22 07:37	12/19/22 18:30
570-121408-5	B-33@20'	Solid	12/19/22 07:45	12/19/22 18:30
570-121408-6	B-33@25'	Solid	12/19/22 07:51	12/19/22 18:30
570-121408-7	B-33@30'	Solid	12/19/22 08:04	12/19/22 18:30
570-121408-8	B-33@35'	Solid	12/19/22 08:11	12/19/22 18:30
570-121408-9	B-36@2'	Solid	12/19/22 09:23	12/19/22 18:30
570-121408-10	B-36@5'	Solid	12/19/22 09:28	12/19/22 18:30
570-121408-11	B-36@10'	Solid	12/19/22 09:36	12/19/22 18:30
570-121408-12	B-36@15'	Solid	12/19/22 09:41	12/19/22 18:30
570-121408-13	B-36@20'	Solid	12/19/22 09:46	12/19/22 18:30
570-121408-14	B-36@25'	Solid	12/19/22 09:55	12/19/22 18:30
570-121408-15	B-41@2'	Solid	12/19/22 10:58	12/19/22 18:30
570-121408-16	B-41@5'	Solid	12/19/22 11:09	12/19/22 18:30
570-121408-17	B-41@10'	Solid	12/19/22 11:14	12/19/22 18:30
570-121408-18	B-41@15'	Solid	12/19/22 11:21	12/19/22 18:30
570-121408-19	B-41@20'	Solid	12/19/22 11:35	12/19/22 18:30
570-121408-20	B-41@25'	Solid	12/19/22 11:42	12/19/22 18:30
570-121408-21	B-41@30'	Solid	12/19/22 11:51	12/19/22 18:30
570-121408-22	B-41@35'	Solid	12/19/22 12:00	12/19/22 18:30
570-121408-23	B-41@40'	Solid	12/19/22 12:09	12/19/22 18:30
570-121408-24	B-11@2'	Solid	12/19/22 13:22	12/19/22 18:30
570-121408-25	B-6@2'	Solid	12/19/22 14:08	12/19/22 18:30
570-121408-26	B-7@2'	Solid	12/19/22 14:42	12/19/22 18:30



Calscience



# CHAIN OF CUSTODY RECORD

DATE: 12/19/2022

PAGE: 1 OF 3

570-121408 Chain of Custody

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT:		CLIENT PROJECT NAME / NUMBER:	
Group Delta Consultants		Science Research Park / SD754	
ADDRESS:	9245 Activity Road Suite 103	PROJECT CONTACT:	Matt Fagan
CITY:	San Diego	STATE:	CA
TEL:	858 536 1000	ZIP:	92126
E-MAIL:		mattf@groupdelta.com	

TURNAROUND TIME (Rush surcharges may apply to any TAT not STANDARD):	
<input type="checkbox"/> SAME DAY	<input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD

<input type="checkbox"/> COELT EDF	GLOBAL ID:
------------------------------------	------------

SPECIAL INSTRUCTIONS:	
-----------------------	--

SPECIAL INSTRUCTIONS:															Unpreserved	Preserved	Field Filtered	□ TPH(g) □ GRO	□ TPH(d) □ DRO	TPH □ C6-C36 □ C6-C44	TPH C4-C12, C13-C14	BTEX / MTBE □ 8260 □	VOCs (8260)	Oxygenates (8260)	Prep (5035). □ En Core □ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs □ 8270 □ 8270 SIM	T22 Metals. □ 6010/747X □ 6020/747X	Cr(VI). □ 7196 □ 7199 □ 218.6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							</
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Relinquished by (Signature)	Received by (Signature/Affiliation)	Date:	Time:
	William Rivera	12/19	1553
Relinquished by (Signature)	Received by (Signature/Affiliation)	Date:	Time:
	William Rivera	12/19/22	1830
Relinquished by (Signature)	Received by (Signature/Affiliation)	Date:	Time:
	William Rivera		





## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-121408-1

**Login Number: 121408**

**List Number: 1**

**Creator: Patel, Jayesh**

**List Source: Eurofins Calscience**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





# ANALYTICAL REPORT

## PREPARED FOR

Attn: Matt Fagan  
Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Generated 1/17/2023 1:53:55 PM

## JOB DESCRIPTION

UCSD Science Research Park (SD754)

## JOB NUMBER

570-121408-2



# Eurofins Calscience

## Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

## Authorization



Generated  
1/17/2023 1:53:55 PM

Authorized for release by  
Vikas Patel, Project Manager I  
[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)  
(714)895-5494

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## Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-2

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-2

**Job ID: 570-121408-2**

**Laboratory: Eurofins Calscience**

### Narrative

**Job Narrative**  
**570-121408-2**

### Comments

No additional comments.

### Receipt

The samples were received on 12/19/2022 6:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.7° C.

### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-2

### Client Sample ID: B-33@20'

### Lab Sample ID: 570-121408-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	12.7		0.500	0.0527	mg/L	1		6010B	TCLP
Lead	47.7		1.00	0.105	mg/L	1		6010B	STLC Citrate

### Client Sample ID: B-36@20'

### Lab Sample ID: 570-121408-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	4.28		1.00	0.105	mg/L	1		6010B	STLC Citrate

### Client Sample ID: B-41@25'

### Lab Sample ID: 570-121408-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	5.20		1.00	0.105	mg/L	1		6010B	STLC Citrate

### Client Sample ID: B-41@30'

### Lab Sample ID: 570-121408-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	6.77		1.00	0.105	mg/L	1		6010B	STLC Citrate

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-2

## Method: SW846 6010B - Metals (ICP) - TCLP

Client Sample ID: B-33@20'  
Date Collected: 12/19/22 07:45  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	12.7		0.500	0.0527	mg/L		01/13/23 08:15	01/13/23 18:08	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-2

## Method: SW846 6010B - Metals (ICP) - STLC Citrate

Client Sample ID: B-33@20'  
Date Collected: 12/19/22 07:45  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	47.7		1.00	0.105	mg/L		01/16/23 16:02	01/16/23 21:04	1

Client Sample ID: B-36@20'  
Date Collected: 12/19/22 09:46  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	4.28		1.00	0.105	mg/L		01/09/23 10:39	01/09/23 19:46	1

Client Sample ID: B-41@25'  
Date Collected: 12/19/22 11:42  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-20  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	5.20		1.00	0.105	mg/L		01/09/23 10:39	01/09/23 19:49	1

Client Sample ID: B-41@30'  
Date Collected: 12/19/22 11:51  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-21  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	6.77		1.00	0.105	mg/L		01/09/23 10:39	01/09/23 19:51	1

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-2

## Method: 6010B - Metals (ICP)

Lab Sample ID: LB 570-295414/1-B

Matrix: Solid

Analysis Batch: 295868

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 295624

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.500	0.0527	mg/L		01/13/23 08:15	01/13/23 17:28	1

Lab Sample ID: LCS 570-295414/2-B

Matrix: Solid

Analysis Batch: 295868

Client Sample ID: Lab Control Sample

Prep Type: TCLP

Prep Batch: 295624

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	2.00	1.985		mg/L		99	80 - 120

Lab Sample ID: LCSD 570-295414/3-B

Matrix: Solid

Analysis Batch: 295868

Client Sample ID: Lab Control Sample Dup

Prep Type: TCLP

Prep Batch: 295624

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Lead	2.00	1.916		mg/L		96	80 - 120	4	20

Lab Sample ID: LB4 570-294065/1-C

Matrix: Solid

Analysis Batch: 294642

Client Sample ID: Method Blank

Prep Type: STLC Citrate

Prep Batch: 294461

Analyte	LB4 Result	LB4 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.00	0.105	mg/L		01/09/23 10:39	01/09/23 19:13	1

Lab Sample ID: LCS 570-294065/2-C

Matrix: Solid

Analysis Batch: 294642

Client Sample ID: Lab Control Sample

Prep Type: STLC Citrate

Prep Batch: 294461

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	20.0	19.46		mg/L		97	80 - 120

Lab Sample ID: LCSD 570-294065/3-C

Matrix: Solid

Analysis Batch: 294642

Client Sample ID: Lab Control Sample Dup

Prep Type: STLC Citrate

Prep Batch: 294461

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Lead	20.0	20.08		mg/L		100	80 - 120	3	20

Lab Sample ID: LB 570-295636/1-C

Matrix: Solid

Analysis Batch: 296285

Client Sample ID: Method Blank

Prep Type: STLC Citrate

Prep Batch: 296220

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.00	0.105	mg/L		01/16/23 16:02	01/16/23 20:30	1

Lab Sample ID: LCS 570-295636/2-C

Matrix: Solid

Analysis Batch: 296285

Client Sample ID: Lab Control Sample

Prep Type: STLC Citrate

Prep Batch: 296220

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	20.0	18.89		mg/L		94	80 - 120

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-2

## Method: 6010B - Metals (ICP)

Lab Sample ID: LCSD 570-295636/3-C  
Matrix: Solid  
Analysis Batch: 296285

Client Sample ID: Lab Control Sample Dup  
Prep Type: STLC Citrate  
Prep Batch: 296220

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	20.0	20.20		mg/L		101	80 - 120	7	20

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-2

## Metals

### Leach Batch: 294065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-13	B-36@20'	STLC Citrate	Solid	CA WET Citrate	
570-121408-20	B-41@25'	STLC Citrate	Solid	CA WET Citrate	
570-121408-21	B-41@30'	STLC Citrate	Solid	CA WET Citrate	
LB4 570-294065/1-C	Method Blank	STLC Citrate	Solid	CA WET Citrate	
LCS 570-294065/2-C	Lab Control Sample	STLC Citrate	Solid	CA WET Citrate	
LCSD 570-294065/3-C	Lab Control Sample Dup	STLC Citrate	Solid	CA WET Citrate	

### Prep Batch: 294461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-13	B-36@20'	STLC Citrate	Solid	Dilution	294065
570-121408-20	B-41@25'	STLC Citrate	Solid	Dilution	294065
570-121408-21	B-41@30'	STLC Citrate	Solid	Dilution	294065
LB4 570-294065/1-C	Method Blank	STLC Citrate	Solid	Dilution	294065
LCS 570-294065/2-C	Lab Control Sample	STLC Citrate	Solid	Dilution	294065
LCSD 570-294065/3-C	Lab Control Sample Dup	STLC Citrate	Solid	Dilution	294065

### Analysis Batch: 294642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-13	B-36@20'	STLC Citrate	Solid	6010B	294461
570-121408-20	B-41@25'	STLC Citrate	Solid	6010B	294461
570-121408-21	B-41@30'	STLC Citrate	Solid	6010B	294461
LB4 570-294065/1-C	Method Blank	STLC Citrate	Solid	6010B	294461
LCS 570-294065/2-C	Lab Control Sample	STLC Citrate	Solid	6010B	294461
LCSD 570-294065/3-C	Lab Control Sample Dup	STLC Citrate	Solid	6010B	294461

### Leach Batch: 295414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-5	B-33@20'	TCLP	Solid	1311	
LB 570-295414/1-B	Method Blank	TCLP	Solid	1311	
LCS 570-295414/2-B	Lab Control Sample	TCLP	Solid	1311	
LCSD 570-295414/3-B	Lab Control Sample Dup	TCLP	Solid	1311	

### Prep Batch: 295624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-5	B-33@20'	TCLP	Solid	3010A	295414
LB 570-295414/1-B	Method Blank	TCLP	Solid	3010A	295414
LCS 570-295414/2-B	Lab Control Sample	TCLP	Solid	3010A	295414
LCSD 570-295414/3-B	Lab Control Sample Dup	TCLP	Solid	3010A	295414

### Leach Batch: 295636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-5	B-33@20'	STLC Citrate	Solid	CA WET Citrate	
LB 570-295636/1-C	Method Blank	STLC Citrate	Solid	CA WET Citrate	
LCS 570-295636/2-C	Lab Control Sample	STLC Citrate	Solid	CA WET Citrate	
LCSD 570-295636/3-C	Lab Control Sample Dup	STLC Citrate	Solid	CA WET Citrate	

### Analysis Batch: 295868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-5	B-33@20'	TCLP	Solid	6010B	295624
LB 570-295414/1-B	Method Blank	TCLP	Solid	6010B	295624
LCS 570-295414/2-B	Lab Control Sample	TCLP	Solid	6010B	295624

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-2

## Metals (Continued)

### Analysis Batch: 295868 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 570-295414/3-B	Lab Control Sample Dup	TCLP	Solid	6010B	295624

### Prep Batch: 296220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-5	B-33@20'	STLC Citrate	Solid	Dilution	295636
LB 570-295636/1-C	Method Blank	STLC Citrate	Solid	Dilution	295636
LCS 570-295636/2-C	Lab Control Sample	STLC Citrate	Solid	Dilution	295636
LCSD 570-295636/3-C	Lab Control Sample Dup	STLC Citrate	Solid	Dilution	295636

### Analysis Batch: 296285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-5	B-33@20'	STLC Citrate	Solid	6010B	296220
LB 570-295636/1-C	Method Blank	STLC Citrate	Solid	6010B	296220
LCS 570-295636/2-C	Lab Control Sample	STLC Citrate	Solid	6010B	296220
LCSD 570-295636/3-C	Lab Control Sample Dup	STLC Citrate	Solid	6010B	296220

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-2

**Client Sample ID: B-33@20'**

**Date Collected: 12/19/22 07:45**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-5**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.10 g	500 mL	295636	01/13/23 09:01	ECX6	EET CAL 4
STLC Citrate	Prep	Dilution			2.5 mL	50 mL	296220	01/16/23 16:02	VZOK	EET CAL 4
STLC Citrate	Analysis	6010B		1			296285	01/16/23 21:04	P1R	EET CAL 4
Instrument ID: ICP11										
TCLP	Leach	1311			100.11 g	2000 mL	295414	01/12/23 11:00	ECX6	EET CAL 4
TCLP	Prep	3010A			5 mL	50 mL	295624	01/13/23 08:15	ECX6	EET CAL 4
TCLP	Analysis	6010B		1			295868	01/13/23 18:08	P1R	EET CAL 4
Instrument ID: ICP11										

**Client Sample ID: B-36@20'**

**Date Collected: 12/19/22 09:46**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-13**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.01 g	500 mL	294065	01/06/23 16:00	ECX6	EET CAL 4
STLC Citrate	Prep	Dilution			2.5 mL	50 mL	294461	01/09/23 10:39	K1UV	EET CAL 4
STLC Citrate	Analysis	6010B		1			294642	01/09/23 19:46	P1R	EET CAL 4
Instrument ID: ICP10										

**Client Sample ID: B-41@25'**

**Date Collected: 12/19/22 11:42**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-20**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.09 g	500 mL	294065	01/06/23 16:00	ECX6	EET CAL 4
STLC Citrate	Prep	Dilution			2.5 mL	50 mL	294461	01/09/23 10:39	K1UV	EET CAL 4
STLC Citrate	Analysis	6010B		1			294642	01/09/23 19:49	P1R	EET CAL 4
Instrument ID: ICP10										

**Client Sample ID: B-41@30'**

**Date Collected: 12/19/22 11:51**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-21**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.03 g	500 mL	294065	01/06/23 16:00	ECX6	EET CAL 4
STLC Citrate	Prep	Dilution			2.5 mL	50 mL	294461	01/09/23 10:39	K1UV	EET CAL 4
STLC Citrate	Analysis	6010B		1			294642	01/09/23 19:51	P1R	EET CAL 4
Instrument ID: ICP10										

<sup>1</sup> Completion dates and times are reported or not reported per method requirements or individual lab discretion.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-2

Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

1
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## Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	EET CAL 4
1311	TCLP Extraction	SW846	EET CAL 4
3010A	Preparation, Total Metals	SW846	EET CAL 4
CA WET Citrate	California - Waste Extraction Test with Citrate Leach	CA-WET	EET CAL 4
Dilution	Preparation / Dilution Process	None	EET CAL 4

### Protocol References:

CA-WET = California Waste Extraction Test, from Title 22

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

## Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-121408-5	B-33@20'	Solid	12/19/22 07:45	12/19/22 18:30
570-121408-13	B-36@20'	Solid	12/19/22 09:46	12/19/22 18:30
570-121408-20	B-41@25'	Solid	12/19/22 11:42	12/19/22 18:30
570-121408-21	B-41@30'	Solid	12/19/22 11:51	12/19/22 18:30

## Erick Ovalle

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**From:** Alexandre Santini <alexandres@groupdelta.com>  
**Sent:** Wednesday, January 4, 2023 3:34 PM  
**To:** Virendra Patel; Jack Packwood; Matt Fagan; Vikas Patel; Erick Ovalle  
**Subject:** RE: Eurofins Calscience report and EDD files from 570-121408-1 UCSD Science Research Park (SD754)

EXTERNAL EMAIL\*

Can you please confirm this request?

Thanks,

Alex Santini, P.E. | [Senior Project Engineer](#)  
Office: (858) 536-1000  
Mobile: (310) 310-5686  
Email: [AlexandreS@groupdelta.com](mailto:AlexandreS@groupdelta.com)

---

**From:** Alexandre Santini  
**Sent:** Tuesday, January 3, 2023 11:09 AM  
**To:** Virendra Patel <Virendra.Patel@et.eurofinsus.com>; Jack Packwood <jackp@groupdelta.com>; Matt Fagan <mattf@groupdelta.com>; Vikas Patel <Vikas.Patel@et.eurofinsus.com>  
**Subject:** RE: Eurofins Calscience report and EDD files from 570-121408-1 UCSD Science Research Park (SD754)

Hi Vik – Please analyze for lead STLC and TCLP sample B-33@20'

Please analyze for lead STLC only samples:

B-36@20'  
B-41@25'  
B-41@30'

Please confirm it.

Thanks,



Alex Santini, P.E. | [Senior Project Engineer](#)

Office: (858) 536-1000

Mobile: (310) 310-5686

Email: [AlexandreS@groupdelta.com](mailto:AlexandreS@groupdelta.com)

---

**From:** Virendra Patel <[Virendra.Patel@et.eurofinsus.com](mailto:Virendra.Patel@et.eurofinsus.com)>

**Sent:** Thursday, December 29, 2022 7:11 PM

**To:** Jack Packwood <[jackp@groupdelta.com](mailto:jackp@groupdelta.com)>; Matt Fagan <[mattf@groupdelta.com](mailto:mattf@groupdelta.com)>

**Subject:** Eurofins Calscience report and EDD files from 570-121408-1 UCSD Science Research Park (SD754)

Hello,

Attached please find the report and EDD files for job 570-121408-1; UCSD Science Research Park (SD754)

Please feel free to contact me or your PM Vikas Patel if you have any questions.

Thank you.

**Virendra Patel**

Project Manager

Eurofins Calscience

Phone: 714-895-5494

Mobile: 714-887-9901

E-mail: [Virendra.Patel@et.eurofinsus.com](mailto:Virendra.Patel@et.eurofinsus.com)

[www.eurofinsus.com/env](http://www.eurofinsus.com/env)



Reference: [570-406274]

Attachments: 2

> > Bank information has changed, please refer to remittance information on invoice. < <

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Calscience



# CHAIN OF CUSTODY RECORD

DATE: 12/19/2022

PAGE: 1 OF 3

570-121408 Chain of Custody

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT:		CLIENT PROJECT NAME / NUMBER:		P.O. NO.
ADDRESS: 9245 Activity Road Suite 103		Science Research Park / SD754		
CITY: San Diego	STATE: CA	ZIP: 92126	PROJECT CONTACT: Matt Fagan	SAMPLER(S): (PRINT) Cusey Roussel-Jackson Josh Jackson
TEL: 858 536 1000	E-MAIL: mattf@groupdelta.com			

TURNAROUND TIME (Rush surcharges may apply to any TAT not 'STANDARD'):	
<input type="checkbox"/> SAME DAY	<input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD

<input type="checkbox"/> COELT EDF	GLOBAL ID:	LOG CODE:
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SPECIAL INSTRUCTIONS:	
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SPECIAL INSTRUCTIONS:																						
LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	<input type="checkbox"/> TPH(g) <input type="checkbox"/> GRO	<input type="checkbox"/> TPH(d) <input type="checkbox"/> DRO	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH <input type="checkbox"/> C4-C12, C13-C22	BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>	VOCs (8260)	Oxygenates (8260)	Prep (5035). <input type="checkbox"/> En Core <input type="checkbox"/> Terra	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	T22 Metals. <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI). <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6
		DATE	TIME																			
1	B-33 @ 2'	12/19	7:20	Soil	1	X						/									/	
2	B-33 @ 5'	12/19	7:26	Soil	1	X						/									/	
3	B-33 @ 10'	12/19	<del>7:32</del>	<del>Soil</del>	1	X						/									/	
4	B-33 @ 15'	12/19	<del>7:37</del>	<del>Soil</del>	1	X						/									/	
5	B-33 @ 20'	12/19	<del>7:43</del>	<del>Soil</del>	1	X						/									/	
6	B-33 @ 25'	12/19	<del>8:04</del>	<del>Soil</del>	1	X						/									/	
7	B-33 @ 30'	12/19	<del>8:12</del>	<del>Soil</del>	1	X						/									/	
8	B-33 @ 35'	12/19	8:27	Soil	1	X						/									/	
9	B-36 @ 2'	12/19	9:23	Soil	1	X						/									/	
10	B-36 @ 5'	12/19	9:28	Soil	1	X						/									/	

Relinquished by (Signature)	Received by (Signature/Affiliation)	Date: 12/19	Time: 1553
Relinquished by (Signature)	Received by (Signature/Affiliation)	Date: 12/19/22	Time: 1830
Relinquished by (Signature)	Received by (Signature/Affiliation)	Date:	Time:

3.9' / 3.7' SC12



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CHAIN OF CUSTODY RECORD

DATE: 12/19/2022

PAGE: 2 OF 3

7440 Lincoln Way Garden Grove CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us@eurofins.com or call us.

LABORATORY CLIENT:		CLIENT PROJECT NAME / NUMBER:	
Group Delta Consultants		Science Research Park / SD754	
ADDRESS:	9245 Activity Road Suite 103	PROJECT CONTACT:	Matt Fagan
CITY:	San Diego	STATE:	CA
ZIP:	92126	SAMPLER(S), (PRINT):	Josh Sokych
TEL:	858 536 1000	E-MAIL:	mattf@groupdelta.com

TURNAROUND TIME (Rush surcharges may apply to any TAT not STANDARD):	
<input type="checkbox"/> SAME DAY	<input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD
<input type="checkbox"/> COELT EDF	GLOBAL ID:

SPECIAL INSTRUCTIONS:

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	Log Code:		
		DATE	TIME			Unpreserved	Preserved	Field Filtered
11	B-36 @ 10'	12/19	9:36	Soil	1	X		
12	B-36 @ 15'	12/19	9:41	Soil	1	X		
13	B-36 @ 20'	12/19	9:46	Soil	1	X		
14	B-36 @ 25'	12/19	9:55	Soil	1	X		
15	B-41 @ 2'	12/19	10:58	Soil	1	X		
16	B-41 @ 5'	12/19	11:09	Soil	1	X		
17	B-41 @ 10'	12/19	11:14	Soil	1	X		
18	B-41 @ 15'	12/19	11:21	Soil	1	X		
19	B-41 @ 20'	12/19	11:35	Soil	1	X		
20	B-41 @ 25'	12/19	11:42	Soil	1	X		

Relinquished by (Signature)	Received by (Signature/Affiliation)	Date:	Time:
	William Rivera	12/19	15:53
Relinquished by (Signature)	Received by (Signature/Affiliation)	Date:	Time:
	William Rivera	12/19/22	1830
Relinquished by (Signature)	Received by (Signature/Affiliation)	Date:	Time:



Calscience

# CHAIN OF CUSTODY RECORD

DATE: 12/19/2022

PAGE: 3 OF 3

7440 Lincoln Way, Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT:		CLIENT PROJECT NAME / NUMBER:		P.O. NO.	
ADDRESS: 9245 Activity Road Suite 103		Science Research Park / SD754			
CITY: San Diego		STATE: CA		ZIP: 92126	
TEL: 858 536 1000		EMAIL: mattf@groupdelta.com		PROJECT CONTACT: Matt Fagan	
TURNAROUND TIME (Rush surcharges may apply to any TAT not 'STANDARD'):		SAMPLER(S) (PRINT):		Cayce Rowset-Johnson	
<input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD		P.O. NO.		Cayce Rowset-Johnson	
<input type="checkbox"/> COELT EDF		GLOBAL ID:		P.O. NO.	
SPECIAL INSTRUCTIONS:		LOG CODE:		P.O. NO.	
NO. OF CONT		MATRIX		SAMPLING DATE	
21 B-41 @ 30'		Soil		11-51	
22 B-41 @ 35'		Soil		12-00	
23 B-41 @ 40'		Soil		12-09	
24 B-11 @ 2'		Soil		12-19	
25 B-8 @ 2' B-6 @ 2'		Soil		12-19	
26 B-6 @ 2' B-7 @ 2'		Soil		12-19	
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## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-121408-2

**Login Number: 121408**

**List Source: Eurofins Calscience**

**List Number: 1**

**Creator: Patel, Jayesh**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Matt Fagan  
Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Generated 1/20/2023 4:05:42 PM

## JOB DESCRIPTION

UCSD Science Research Park (SD754)

## JOB NUMBER

570-121408-3

# Eurofins Calscience

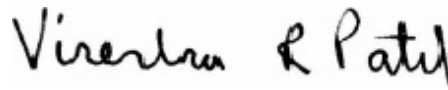
## Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

## Authorization



Generated  
1/20/2023 4:05:42 PM

Authorized for release by  
Virendra Patel, Project Manager I  
[Virendra.Patel@et.eurofinsus.com](mailto:Virendra.Patel@et.eurofinsus.com)  
Designee for  
Vikas Patel, Project Manager I  
[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)  
(714)895-5494



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## Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-3

### Qualifiers

#### Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-3

**Job ID: 570-121408-3**

**Laboratory: Eurofins Calscience**

## Narrative

**Job Narrative**  
**570-121408-3**

## Comments

No additional comments.

## Receipt

The samples were received on 12/19/2022 6:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.7° C.

## Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-3

**Client Sample ID: B-41@25'**

**Lab Sample ID: 570-121408-20**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.254	J	0.500	0.0527	mg/L	1		6010B	TCLP

**Client Sample ID: B-41@30'**

**Lab Sample ID: 570-121408-21**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	1.29		0.500	0.0527	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-3

## Method: SW846 6010B - Metals (ICP) - TCLP

Client Sample ID: B-41@25'  
Date Collected: 12/19/22 11:42  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-20  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.254	J	0.500	0.0527	mg/L		01/19/23 11:07	01/19/23 16:43	1

Client Sample ID: B-41@30'  
Date Collected: 12/19/22 11:51  
Date Received: 12/19/22 18:30

Lab Sample ID: 570-121408-21  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1.29		0.500	0.0527	mg/L		01/19/23 11:07	01/19/23 16:45	1

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-3

## Method: 6010B - Metals (ICP)

Lab Sample ID: LB 570-296614/1-B

Matrix: Solid

Analysis Batch: 297198

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 297055

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.500	0.0527	mg/L		01/19/23 11:06	01/19/23 16:18	1

Lab Sample ID: LCS 570-296614/2-B

Matrix: Solid

Analysis Batch: 297198

Client Sample ID: Lab Control Sample

Prep Type: TCLP

Prep Batch: 297055

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	2.00	2.088		mg/L		104	80 - 120

Lab Sample ID: LCSD 570-296614/3-B

Matrix: Solid

Analysis Batch: 297198

Client Sample ID: Lab Control Sample Dup

Prep Type: TCLP

Prep Batch: 297055

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	2.00	2.006		mg/L		100	80 - 120	4	20

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-3

## Metals

### Leach Batch: 296614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-20	B-41@25'	TCLP	Solid	1311	
570-121408-21	B-41@30'	TCLP	Solid	1311	
LB 570-296614/1-B	Method Blank	TCLP	Solid	1311	
LCS 570-296614/2-B	Lab Control Sample	TCLP	Solid	1311	
LCSD 570-296614/3-B	Lab Control Sample Dup	TCLP	Solid	1311	

### Prep Batch: 297055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-20	B-41@25'	TCLP	Solid	3010A	296614
570-121408-21	B-41@30'	TCLP	Solid	3010A	296614
LB 570-296614/1-B	Method Blank	TCLP	Solid	3010A	296614
LCS 570-296614/2-B	Lab Control Sample	TCLP	Solid	3010A	296614
LCSD 570-296614/3-B	Lab Control Sample Dup	TCLP	Solid	3010A	296614

### Analysis Batch: 297198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121408-20	B-41@25'	TCLP	Solid	6010B	297055
570-121408-21	B-41@30'	TCLP	Solid	6010B	297055
LB 570-296614/1-B	Method Blank	TCLP	Solid	6010B	297055
LCS 570-296614/2-B	Lab Control Sample	TCLP	Solid	6010B	297055
LCSD 570-296614/3-B	Lab Control Sample Dup	TCLP	Solid	6010B	297055

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-3

**Client Sample ID: B-41@25'**

**Date Collected: 12/19/22 11:42**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-20**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			100.06 g	2000 mL	296614	01/17/23 21:00	XBO9	EET CAL 4
TCLP	Prep	3010A			5 mL	50 mL	297055	01/19/23 11:07	ECX6	EET CAL 4
TCLP	Analysis	6010B		1	1.0 mL	1.0 mL	297198	01/19/23 16:43	P1R	EET CAL 4
Instrument ID: ICP11										

**Client Sample ID: B-41@30'**

**Date Collected: 12/19/22 11:51**

**Date Received: 12/19/22 18:30**

**Lab Sample ID: 570-121408-21**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			100.06 g	2000 mL	296614	01/17/23 21:00	XBO9	EET CAL 4
TCLP	Prep	3010A			5 mL	50 mL	297055	01/19/23 11:07	ECX6	EET CAL 4
TCLP	Analysis	6010B		1	1.0 mL	1.0 mL	297198	01/19/23 16:45	P1R	EET CAL 4
Instrument ID: ICP11										

<sup>1</sup> Completion dates and times are reported or not reported per method requirements or individual lab discretion.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494



## Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-3

### Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

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## Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-3

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	EET CAL 4
1311	TCLP Extraction	SW846	EET CAL 4
3010A	Preparation, Total Metals	SW846	EET CAL 4

### Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

## Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121408-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-121408-20	B-41@25'	Solid	12/19/22 11:42	12/19/22 18:30
570-121408-21	B-41@30'	Solid	12/19/22 11:51	12/19/22 18:30

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## Vikas Patel

---

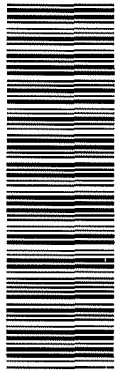
**From:** Alexandre Santini <alexandres@groupdelta.com>  
**Sent:** Tuesday, January 17, 2023 2:20 PM  
**To:** Vikas Patel; Vikas Patel  
**Cc:** Matt Fagan; Jack Packwood; Natalia Delgadillo  
**Subject:** RE: Eurofins Calscience report and EDD files from 570-121408-2 UCSD Science Research Park (SD754)

Vik – Please analyze for lead TCLP samples B-41@25' and B-41@30' because they exceeded the STLC limit. Please use the fastest TAT.

Thanks,



Calscience



# CHAIN OF CUSTODY RECORD

DATE: 12/19/2022

PAGE: 1 OF 3

570-121408 Chain of Custody

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT:		CLIENT PROJECT NAME / NUMBER:	
ADDRESS: 9245 Activity Road Suite 103		Science Research Park / SD754	
CITY: San Diego	STATE: CA	PROJECT CONTACT: Matt Fagan	SAMPLER(S): (PRINT) Casey Roussel-Jackson
TEL: 858 536 1000	E-MAIL: mattf@groupdelta.com	P.O. NO. Josh Jackson	

TURNAROUND TIME (Rush surcharges may apply to any TAT not 'STANDARD'):	
<input type="checkbox"/> SAME DAY	<input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD

<input type="checkbox"/> COELT EDF	GLOBAL ID:	LOG CODE:
SPECIAL INSTRUCTIONS:		

LAB USE ONLY		SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.																			
			DATE	TIME																					
1	B-33 @ 2'	12/19	7:20	Soil	1	X	Unpreserved	Preserved	Field Filtered	<input type="checkbox"/> TPH(g) <input type="checkbox"/> GRO	<input type="checkbox"/> TPH(d) <input type="checkbox"/> DRO	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH <input type="checkbox"/> C4-C12, C13-C15	BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>	VOCs (8260)	Oxygenates (8260)	Prep (5035). <input type="checkbox"/> En Core <input type="checkbox"/> Ter	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 SIM <input type="checkbox"/> 8270	T22 Metals. <input type="checkbox"/> 6010/747X <input type="checkbox"/>	Cr(VI). <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/>		
2	B-33 @ 5'	12/19	7:26	Soil	1	X																			
3	B-33 @ 10'	12/19	<del>7:32</del>	<del>Soil</del>	1	X																			
4	B-33 @ 15'	12/19	<del>7:37</del>	<del>Soil</del>	1	X																			
5	B-33 @ 20'	12/19	<del>7:43</del>	<del>Soil</del>	1	X																			
6	B-33 @ 25'	12/19	<del>8:04</del>	<del>Soil</del>	1	X																			
7	B-33 @ 30'	12/19	<del>8:12</del>	<del>Soil</del>	1	X																			
8	B-33 @ 35'	12/19	8:27	Soil	1	X																			
9	B-36 @ 2'	12/19	9:23	Soil	1	X																			
10	B-36 @ 5'	12/19	9:28	Soil	1	X																			

SPECIAL INSTRUCTIONS:

Relinquished by (Signature)	Received by (Signature/Affiliation)	Date: 12/19	Time: 1553
Relinquished by (Signature)	Received by (Signature/Affiliation)	Date: 12/19/22	Time: 1830
Relinquished by (Signature)	Received by (Signature/Affiliation)	Date:	Time:

3.9' / 3.7' SC12

121408



Calscience

## CHAIN OF CUSTODY RECORD

DATE: 12/19/2022

PAGE: 2 OF 3

 7440 Lincoln Way Garden Grove CA 92641-1427 • (714) 895-5494  
 For courier service / sample drop off information, contact us@eurofins.com or call us.

LABORATORY CLIENT:		GROUP Delta Consultants		CLIENT PROJECT NAME / NUMBER:		Science Research Park / SD754					
ADDRESS:		9245 Activity Road Suite 103		PROJECT CONTACT:		Matt Fagan					
CITY:		San Diego		STATE:		CA					
ZIP:		92126		E-MAIL:		mattf@groupdelta.com					
TEL:		858 536 1000		P.O. NO.:							
TURNAROUND TIME (Rush surcharges may apply to any TAT not STANDARD):		<input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD		SAMPLER(S), (PRINT)		Casey Noursch Johnson					
<input type="checkbox"/> COELT EDF <input type="checkbox"/> GLOBAL ID:		<input type="checkbox"/> SPECIAL INSTRUCTIONS:		PROJECT CONTACT:		Josh Sokych					
SPECIAL INSTRUCTIONS:				REQUESTED ANALYSES							
Please check box or fill in blank as needed.				TP4 C4-C12, C13-C12, C15-C14 TP4 C6-C36 <input type="checkbox"/> C6-C44 TP4(d) <input type="checkbox"/> DRO TP4(g) <input type="checkbox"/> GRO VOCs (8260) Oxygenates (8260) Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core SVOCs (8270) Pesticides (8081) PCBs (8082) PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6							
NO. OF CONT MATRIX SAMPLING DATE TIME SAMPLE ID		Unpreserved Preserved Field Filtered		Log Code:							
11 B-36 @ 10' 12 B-36 @ 15' 13 B-36 @ 20' 14 B-36 @ 25' 15 B-41 @ 2' 16 B-41 @ 5' 17 B-41 @ 10' 18 B-41 @ 15' 19 B-41 @ 20' 20 B-41 @ 25'		1 1 1 1 1 1 1 1 1 1		Soil Soil Soil Soil Soil Soil Soil Soil Soil Soil		12/19 9:36 12/19 9:41 12/19 9:46 12/19 9:55 12/19 10:58 12/19 11:09 12/19 11:14 12/19 11:21 12/19 11:35 12/19 11:42		1 1 1 1 1 1 1 1 1 1			
Relinquished by (Signature)		Relinquished by (Signature)		Relinquished by (Signature/Affiliation)		Date: 12/19 Time: 15:53					
Relinquished by (Signature)		Relinquished by (Signature)		Relinquished by (Signature/Affiliation)		Date: 12/19/22 Time: 1830					
Relinquished by (Signature)		Relinquished by (Signature)		Relinquished by (Signature/Affiliation)		Date: 12/19/22 Time: 1830					

06/02/14 Revision



## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-121408-3

**Login Number: 121408**

**List Number: 1**

**Creator: Patel, Jayesh**

**List Source: Eurofins Calscience**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Matt Fagan  
Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Generated 1/3/2023 2:38:04 PM

## JOB DESCRIPTION

Science Research Park (SD754)

## JOB NUMBER

570-121551-1

# Eurofins Calscience

## Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

## Authorization



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# Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Qualifiers

### GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits

### GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Metals

Qualifier	Qualifier Description
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

**Job ID: 570-121551-1**

**Laboratory: Eurofins Calscience**

## Narrative

### Job Narrative 570-121551-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 12/20/2022 6:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.8° C.

#### GC VOA

Method 8015B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 570-291878 and analytical batch 570-291816 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Metals

Method 6010B: The serial dilution performed for the following sample associated with batch 570-292903 was outside control limits for Lead: (570-121080-A-8-A SD ^25)

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries/ precision of Arsenic, Barium, Copper, Antimony and Zinc for preparation batch 570-292464 and analytical batch 570-292903 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.(570-121080-A-8-B MS ^5) and (570-121080-A-8-C MSD ^5)

Method 6010B: The initial calibration verification (ICV) result for batch 570-292903 was above the upper control limit for Antimony. Sample results were non-detects, and have been reported as qualified data.

Method 6010B: The method blank for preparation batch 570-292465 and analytical batch 570-292907 contained Barium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries/precision of Arsenic, Barium, Antimony, Selenium and Lead for preparation batch 570-292465 and analytical batch 570-292907 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 6010B: The following sample was diluted due to the nature of the sample matrix: B-32 @ 10' (570-121551-16). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Client Sample ID: B-3 @ 2'

## Lab Sample ID: 570-121551-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	4.5	J	5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	8.61		3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	325	B	3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.265	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Cobalt	2.79		1.01	0.208	mg/Kg	5		6010B	Total/NA
Chromium	11.9		1.01	0.188	mg/Kg	5		6010B	Total/NA
Copper	6.58		2.02	0.968	mg/Kg	5		6010B	Total/NA
Nickel	3.61		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	25.8		1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	22.1		5.05	1.17	mg/Kg	5		6010B	Total/NA
Lead	6.43		2.02	0.413	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-3 @ 5'

## Lab Sample ID: 570-121551-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	25		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	160		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	6.89		2.97	1.38	mg/Kg	5		6010B	Total/NA
Barium	31.5	B	2.97	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.210	J	0.495	0.0683	mg/Kg	5		6010B	Total/NA
Cobalt	2.51		0.990	0.204	mg/Kg	5		6010B	Total/NA
Chromium	8.50		0.990	0.184	mg/Kg	5		6010B	Total/NA
Copper	79.9		1.98	0.949	mg/Kg	5		6010B	Total/NA
Nickel	2.71		1.98	0.358	mg/Kg	5		6010B	Total/NA
Antimony	2.91	J	9.90	2.83	mg/Kg	5		6010B	Total/NA
Vanadium	21.9		0.990	0.166	mg/Kg	5		6010B	Total/NA
Zinc	30.6		4.95	1.14	mg/Kg	5		6010B	Total/NA
Lead	242		1.98	0.405	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-2 @ 2'

## Lab Sample ID: 570-121551-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	5.0		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	8.06		3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	21.7	B	3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.488	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	5.20		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	15.0		1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	19.6		2.00	0.958	mg/Kg	5		6010B	Total/NA
Nickel	7.73		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	26.8		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	51.0		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	7.61		2.00	0.409	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-1 @ 2'

## Lab Sample ID: 570-121551-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	9.51		2.99	1.38	mg/Kg	5		6010B	Total/NA
Barium	43.6	B	2.99	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.286	J	0.498	0.0687	mg/Kg	5		6010B	Total/NA
Cobalt	2.90		0.995	0.205	mg/Kg	5		6010B	Total/NA
Chromium	8.21		0.995	0.185	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Client Sample ID: B-1 @ 2' (Continued)

## Lab Sample ID: 570-121551-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	10.7		1.99	0.953	mg/Kg	5		6010B	Total/NA
Nickel	3.13		1.99	0.360	mg/Kg	5		6010B	Total/NA
Vanadium	18.4		0.995	0.167	mg/Kg	5		6010B	Total/NA
Zinc	22.2		4.98	1.15	mg/Kg	5		6010B	Total/NA
Lead	18.0		1.99	0.407	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-34 @ 2'

## Lab Sample ID: 570-121551-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	15		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	3.46		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	52.6	B	3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.306	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	3.18		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	11.3		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	42.8		2.04	0.978	mg/Kg	5		6010B	Total/NA
Nickel	3.90		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	30.1		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	22.6		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	24.6		2.04	0.417	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-34 @ 5'

## Lab Sample ID: 570-121551-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	6.9		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	5.89		2.97	1.38	mg/Kg	5		6010B	Total/NA
Barium	58.2	B	2.97	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.408	J	0.495	0.0683	mg/Kg	5		6010B	Total/NA
Cobalt	4.60		0.990	0.204	mg/Kg	5		6010B	Total/NA
Chromium	12.5		0.990	0.184	mg/Kg	5		6010B	Total/NA
Copper	11.4		1.98	0.949	mg/Kg	5		6010B	Total/NA
Nickel	7.18		1.98	0.358	mg/Kg	5		6010B	Total/NA
Vanadium	25.0		0.990	0.166	mg/Kg	5		6010B	Total/NA
Zinc	31.8		4.95	1.14	mg/Kg	5		6010B	Total/NA
Lead	10.0		1.98	0.405	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-34 @ 10'

## Lab Sample ID: 570-121551-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	73		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	10.4		2.99	1.38	mg/Kg	5		6010B	Total/NA
Barium	42.9	B	2.99	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.386	J	0.498	0.0687	mg/Kg	5		6010B	Total/NA
Cobalt	4.29		0.995	0.205	mg/Kg	5		6010B	Total/NA
Chromium	14.0		0.995	0.185	mg/Kg	5		6010B	Total/NA
Copper	12.9		1.99	0.953	mg/Kg	5		6010B	Total/NA
Nickel	5.29		1.99	0.360	mg/Kg	5		6010B	Total/NA
Vanadium	31.8		0.995	0.167	mg/Kg	5		6010B	Total/NA
Zinc	34.4		4.98	1.15	mg/Kg	5		6010B	Total/NA
Lead	12.9		1.99	0.407	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

## Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

**Client Sample ID: B-34 @ 15'**

**Lab Sample ID: 570-121551-8**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	8.6		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	160		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	3.89		3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	107	B	3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.188	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	3.05		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	8.38		1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	70.8		2.00	0.958	mg/Kg	5		6010B	Total/NA
Nickel	3.28		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	23.1		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	17.1		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	99.6		2.00	0.409	mg/Kg	5		6010B	Total/NA

**Client Sample ID: B-34 @ 20'**

**Lab Sample ID: 570-121551-9**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	44		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	5.09		2.97	1.38	mg/Kg	5		6010B	Total/NA
Barium	123	B	2.97	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.223	J	0.495	0.0683	mg/Kg	5		6010B	Total/NA
Cobalt	3.19		0.990	0.204	mg/Kg	5		6010B	Total/NA
Chromium	12.5		0.990	0.184	mg/Kg	5		6010B	Total/NA
Copper	6.94		1.98	0.949	mg/Kg	5		6010B	Total/NA
Molybdenum	1.11	J	1.98	0.510	mg/Kg	5		6010B	Total/NA
Nickel	3.87		1.98	0.358	mg/Kg	5		6010B	Total/NA
Vanadium	18.2		0.990	0.166	mg/Kg	5		6010B	Total/NA
Zinc	16.7		4.95	1.14	mg/Kg	5		6010B	Total/NA
Lead	8.87		1.98	0.405	mg/Kg	5		6010B	Total/NA

**Client Sample ID: B-34 @ 25'**

**Lab Sample ID: 570-121551-10**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	5.5		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	120		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	7.38		2.96	1.37	mg/Kg	5		6010B	Total/NA
Barium	110	B	2.96	0.140	mg/Kg	5		6010B	Total/NA
Beryllium	0.333	J	0.493	0.0680	mg/Kg	5		6010B	Total/NA
Cobalt	3.49		0.985	0.203	mg/Kg	5		6010B	Total/NA
Chromium	7.16		0.985	0.183	mg/Kg	5		6010B	Total/NA
Copper	11.0		1.97	0.944	mg/Kg	5		6010B	Total/NA
Molybdenum	0.616	J	1.97	0.507	mg/Kg	5		6010B	Total/NA
Nickel	5.59		1.97	0.357	mg/Kg	5		6010B	Total/NA
Vanadium	18.3		0.985	0.166	mg/Kg	5		6010B	Total/NA
Zinc	27.1		4.93	1.14	mg/Kg	5		6010B	Total/NA
Lead	30.1		1.97	0.403	mg/Kg	5		6010B	Total/NA

**Client Sample ID: B-34 @ 30'**

**Lab Sample ID: 570-121551-11**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	15		5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	3.04		2.96	1.37	mg/Kg	5		6010B	Total/NA
Barium	72.7	B	2.96	0.140	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience



# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Client Sample ID: B-34 @ 30' (Continued)

Lab Sample ID: 570-121551-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.234	J	0.493	0.0680	mg/Kg	5		6010B	Total/NA
Cobalt	2.78		0.985	0.203	mg/Kg	5		6010B	Total/NA
Chromium	6.83		0.985	0.183	mg/Kg	5		6010B	Total/NA
Copper	113		1.97	0.944	mg/Kg	5		6010B	Total/NA
Nickel	2.80		1.97	0.357	mg/Kg	5		6010B	Total/NA
Vanadium	14.7		0.985	0.166	mg/Kg	5		6010B	Total/NA
Zinc	106		4.93	1.14	mg/Kg	5		6010B	Total/NA
Lead	62.2		1.97	0.403	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-34 @ 35'

Lab Sample ID: 570-121551-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.71		2.94	1.36	mg/Kg	5		6010B	Total/NA
Barium	57.3	B	2.94	0.139	mg/Kg	5		6010B	Total/NA
Beryllium	0.184	J	0.490	0.0676	mg/Kg	5		6010B	Total/NA
Cobalt	3.24		0.980	0.202	mg/Kg	5		6010B	Total/NA
Chromium	5.70		0.980	0.182	mg/Kg	5		6010B	Total/NA
Copper	7.71		1.96	0.939	mg/Kg	5		6010B	Total/NA
Nickel	2.61		1.96	0.355	mg/Kg	5		6010B	Total/NA
Vanadium	14.6		0.980	0.165	mg/Kg	5		6010B	Total/NA
Zinc	15.4		4.90	1.13	mg/Kg	5		6010B	Total/NA
Lead	16.3		1.96	0.401	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-34 @ 40'

Lab Sample ID: 570-121551-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	7.5		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	9.3		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	5.51		2.94	1.36	mg/Kg	5		6010B	Total/NA
Barium	109	B	2.94	0.139	mg/Kg	5		6010B	Total/NA
Beryllium	0.245	J	0.490	0.0676	mg/Kg	5		6010B	Total/NA
Cobalt	2.86		0.980	0.202	mg/Kg	5		6010B	Total/NA
Chromium	9.47		0.980	0.182	mg/Kg	5		6010B	Total/NA
Copper	13.0		1.96	0.939	mg/Kg	5		6010B	Total/NA
Molybdenum	0.699	J	1.96	0.505	mg/Kg	5		6010B	Total/NA
Nickel	3.82		1.96	0.355	mg/Kg	5		6010B	Total/NA
Vanadium	17.1		0.980	0.165	mg/Kg	5		6010B	Total/NA
Zinc	20.1		4.90	1.13	mg/Kg	5		6010B	Total/NA
Lead	47.3		1.96	0.401	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-32 @ 2'

Lab Sample ID: 570-121551-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	7.8		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	4.27	F1 F2	3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	55.4	B F1	3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.255	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	3.20		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	9.90		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	12.7		2.04	0.978	mg/Kg	5		6010B	Total/NA
Nickel	3.75		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	23.5		1.02	0.171	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Client Sample ID: B-32 @ 2' (Continued)

Lab Sample ID: 570-121551-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	19.9		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	49.4	F1 F2	2.04	0.417	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-32 @ 5'

Lab Sample ID: 570-121551-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.16		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	65.3	B	3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.166	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	2.32		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	6.73		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	10.1		2.04	0.978	mg/Kg	5		6010B	Total/NA
Nickel	2.32		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	16.0		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	18.3		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	3.78		2.04	0.417	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-32 @ 10'

Lab Sample ID: 570-121551-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	3.9	J	5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	9.98	J	14.8	6.85	mg/Kg	25		6010B	Total/NA
Barium	64.3	B	14.8	0.700	mg/Kg	25		6010B	Total/NA
Cobalt	5.97		4.93	1.01	mg/Kg	25		6010B	Total/NA
Chromium	18.2		4.93	0.916	mg/Kg	25		6010B	Total/NA
Copper	19200		19.7	9.44	mg/Kg	50		6010B	Total/NA
Molybdenum	4.80	J	9.85	2.54	mg/Kg	25		6010B	Total/NA
Nickel	40.0		9.85	1.78	mg/Kg	25		6010B	Total/NA
Vanadium	15.4		4.93	0.828	mg/Kg	25		6010B	Total/NA
Zinc	1900		24.6	5.69	mg/Kg	25		6010B	Total/NA
Lead	1350		9.85	2.01	mg/Kg	25		6010B	Total/NA

## Client Sample ID: B-32 @ 15'

Lab Sample ID: 570-121551-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	4.7	J	5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	0.956		0.591	0.274	mg/Kg	1		6010B	Total/NA
Barium	3.18	B	0.591	0.0280	mg/Kg	1		6010B	Total/NA
Beryllium	0.0788	J	0.0985	0.0136	mg/Kg	1		6010B	Total/NA
Cobalt	0.771		0.197	0.0406	mg/Kg	1		6010B	Total/NA
Chromium	1.76		0.197	0.0367	mg/Kg	1		6010B	Total/NA
Copper	1.44		0.394	0.189	mg/Kg	1		6010B	Total/NA
Nickel	1.04		0.394	0.0713	mg/Kg	1		6010B	Total/NA
Vanadium	3.70		0.197	0.0331	mg/Kg	1		6010B	Total/NA
Zinc	6.11		0.985	0.228	mg/Kg	1		6010B	Total/NA
Lead	0.840		0.394	0.0806	mg/Kg	1		6010B	Total/NA

## Client Sample ID: B-31 @ 2'

Lab Sample ID: 570-121551-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	8.4		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	13.5		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	45.9	B	3.06	0.145	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Client Sample ID: B-31 @ 2' (Continued)

## Lab Sample ID: 570-121551-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.395	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	4.63		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	10.5		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	16.6		2.04	0.978	mg/Kg	5		6010B	Total/NA
Nickel	5.24		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	23.6		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	41.2		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	20.8		2.04	0.417	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-31 @ 5'

## Lab Sample ID: 570-121551-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	5.7		5.0	3.9	mg/Kg	1		8015B	Total/NA
C23-C40	140		5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	12.3		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	67.5	B	3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.472	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	6.14		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	9.12		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	14.2		2.04	0.978	mg/Kg	5		6010B	Total/NA
Nickel	5.75		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	24.9		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	37.2		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	38.6		2.04	0.417	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-31 @ 10'

## Lab Sample ID: 570-121551-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	5.7		5.0	3.9	mg/Kg	1		8015B	Total/NA
C23-C40	120		5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	2.53	J	3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	51.9	B	3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.327	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	4.07		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	8.37		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	7.94		2.01	0.963	mg/Kg	5		6010B	Total/NA
Nickel	4.23		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	18.1		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	27.7		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	6.70		2.01	0.411	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-30 @ 2'

## Lab Sample ID: 570-121551-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	4.2	J	5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	12.8		2.97	1.38	mg/Kg	5		6010B	Total/NA
Barium	58.5	B	2.97	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.507		0.495	0.0683	mg/Kg	5		6010B	Total/NA
Cobalt	4.52		0.990	0.204	mg/Kg	5		6010B	Total/NA
Chromium	10.1		0.990	0.184	mg/Kg	5		6010B	Total/NA
Copper	14.5		1.98	0.949	mg/Kg	5		6010B	Total/NA
Nickel	5.19		1.98	0.358	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

## Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

### Client Sample ID: B-30 @ 2' (Continued)

### Lab Sample ID: 570-121551-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	26.6		0.990	0.166	mg/Kg	5		6010B	Total/NA
Zinc	34.2		4.95	1.14	mg/Kg	5		6010B	Total/NA
Lead	13.9		1.98	0.405	mg/Kg	5		6010B	Total/NA

### Client Sample ID: B-29 @ 2'

### Lab Sample ID: 570-121551-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.18		3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	171	B	3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.518		0.505	0.0697	mg/Kg	5		6010B	Total/NA
Cadmium	0.278	J	0.505	0.0838	mg/Kg	5		6010B	Total/NA
Cobalt	22.4		1.01	0.208	mg/Kg	5		6010B	Total/NA
Chromium	10.1		1.01	0.188	mg/Kg	5		6010B	Total/NA
Copper	14.0		2.02	0.968	mg/Kg	5		6010B	Total/NA
Nickel	15.4		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	21.7		1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	46.8		5.05	1.17	mg/Kg	5		6010B	Total/NA
Lead	16.0		2.02	0.413	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-3 @ 2'**  
**Date Collected: 12/20/22 07:12**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-1**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/22/22 11:29	12/22/22 16:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		42 - 126				12/22/22 11:29	12/22/22 16:27	1

**Client Sample ID: B-3 @ 5'**  
**Date Collected: 12/20/22 07:18**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-2**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/22/22 11:29	12/22/22 16:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		42 - 126				12/22/22 11:29	12/22/22 16:51	1

**Client Sample ID: B-2 @ 2'**  
**Date Collected: 12/20/22 07:58**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-3**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/22/22 11:29	12/22/22 17:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		42 - 126				12/22/22 11:29	12/22/22 17:16	1

**Client Sample ID: B-1 @ 2'**  
**Date Collected: 12/20/22 08:27**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-4**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/22/22 11:29	12/22/22 17:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		42 - 126				12/22/22 11:29	12/22/22 17:40	1

**Client Sample ID: B-34 @ 2'**  
**Date Collected: 12/20/22 09:01**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-5**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/22/22 11:29	12/22/22 19:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		42 - 126				12/22/22 11:29	12/22/22 19:43	1

**Client Sample ID: B-34 @ 5'**  
**Date Collected: 12/20/22 09:07**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-6**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/22/22 11:29	12/22/22 20:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		42 - 126				12/22/22 11:29	12/22/22 20:07	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-34 @ 10'**  
**Date Collected: 12/20/22 09:11**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-7**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/22/22 11:29	12/22/22 20:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		42 - 126				12/22/22 11:29	12/22/22 20:32	1

**Client Sample ID: B-34 @ 15'**  
**Date Collected: 12/20/22 09:19**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-8**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/22/22 11:29	12/22/22 20:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		42 - 126				12/22/22 11:29	12/22/22 20:56	1

**Client Sample ID: B-34 @ 20'**  
**Date Collected: 12/20/22 09:27**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-9**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/22/22 11:29	12/22/22 21:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		42 - 126				12/22/22 11:29	12/22/22 21:20	1

**Client Sample ID: B-34 @ 25'**  
**Date Collected: 12/20/22 09:36**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-10**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/22/22 11:29	12/22/22 21:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		42 - 126				12/22/22 11:29	12/22/22 21:45	1

**Client Sample ID: B-34 @ 30'**  
**Date Collected: 12/20/22 09:46**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-11**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/22/22 11:29	12/22/22 22:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		42 - 126				12/22/22 11:29	12/22/22 22:09	1

**Client Sample ID: B-34 @ 35'**  
**Date Collected: 12/20/22 10:02**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-12**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/22/22 11:29	12/22/22 22:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		42 - 126				12/22/22 11:29	12/22/22 22:34	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-34 @ 40'**  
**Date Collected: 12/20/22 10:11**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-13**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/22/22 11:29	12/22/22 22:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		42 - 126				12/22/22 11:29	12/22/22 22:58	1

**Client Sample ID: B-32 @ 2'**  
**Date Collected: 12/20/22 11:35**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-14**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/22/22 11:29	12/22/22 23:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		42 - 126				12/22/22 11:29	12/22/22 23:23	1

**Client Sample ID: B-32 @ 5'**  
**Date Collected: 12/20/22 11:43**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-15**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/27/22 10:08	12/27/22 13:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		42 - 126				12/27/22 10:08	12/27/22 13:08	1

**Client Sample ID: B-32 @ 10'**  
**Date Collected: 12/20/22 11:51**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-16**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/27/22 10:08	12/27/22 13:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		42 - 126				12/27/22 10:08	12/27/22 13:32	1

**Client Sample ID: B-32 @ 15'**  
**Date Collected: 12/20/22 11:58**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-17**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/27/22 10:08	12/27/22 13:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		42 - 126				12/27/22 10:08	12/27/22 13:57	1

**Client Sample ID: B-31 @ 2'**  
**Date Collected: 12/20/22 12:55**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-18**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/27/22 10:08	12/27/22 11:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		42 - 126				12/27/22 10:08	12/27/22 11:54	1



# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-31 @ 5'**  
**Date Collected: 12/20/22 13:02**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-19**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/27/22 10:08	12/27/22 14:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		42 - 126				12/27/22 10:08	12/27/22 14:21	1

**Client Sample ID: B-31 @ 10'**  
**Date Collected: 12/20/22 13:12**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-20**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/27/22 10:08	12/27/22 14:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		42 - 126				12/27/22 10:08	12/27/22 14:46	1

**Client Sample ID: B-30 @ 2'**  
**Date Collected: 12/20/22 13:59**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-21**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/27/22 10:08	12/27/22 15:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		42 - 126				12/27/22 10:08	12/27/22 15:10	1

**Client Sample ID: B-29 @ 2'**  
**Date Collected: 12/20/22 14:28**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-22**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/27/22 10:08	12/27/22 15:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		42 - 126				12/27/22 10:08	12/27/22 15:35	1



# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B-3 @ 2'  
Date Collected: 12/20/22 07:12  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	4.5	J	5.0	3.9	mg/Kg		12/22/22 10:39	12/23/22 00:10	1
C23-C40	ND		5.0	3.9	mg/Kg		12/22/22 10:39	12/23/22 00:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	115		60 - 138				12/22/22 10:39	12/23/22 00:10	1

Client Sample ID: B-3 @ 5'  
Date Collected: 12/20/22 07:18  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	25		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 00:32	1
C23-C40	160		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 00:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	117		60 - 138				12/22/22 10:39	12/23/22 00:32	1

Client Sample ID: B-2 @ 2'  
Date Collected: 12/20/22 07:58  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 00:55	1
C23-C40	5.0		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 00:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	128		60 - 138				12/22/22 10:39	12/23/22 00:55	1

Client Sample ID: B-1 @ 2'  
Date Collected: 12/20/22 08:27  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 01:17	1
C23-C40	ND		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 01:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	124		60 - 138				12/22/22 10:39	12/23/22 01:17	1

Client Sample ID: B-34 @ 2'  
Date Collected: 12/20/22 09:01  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 01:39	1
C23-C40	15		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 01:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	132		60 - 138				12/22/22 10:39	12/23/22 01:39	1

Client Sample ID: B-34 @ 5'  
Date Collected: 12/20/22 09:07  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 02:02	1
C23-C40	6.9		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 02:02	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	126		60 - 138			12/22/22 10:39	12/23/22 02:02	1	
Client Sample ID: B-34 @ 10' Date Collected: 12/20/22 09:11 Date Received: 12/20/22 18:30						Lab Sample ID: 570-121551-7 Matrix: Solid			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 02:24	1
C23-C40	73		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 02:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	130		60 - 138			12/22/22 10:39	12/23/22 02:24	1	
Client Sample ID: B-34 @ 15' Date Collected: 12/20/22 09:19 Date Received: 12/20/22 18:30						Lab Sample ID: 570-121551-8 Matrix: Solid			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	8.6		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 02:46	1
C23-C40	160		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 02:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	129		60 - 138			12/22/22 10:39	12/23/22 02:46	1	
Client Sample ID: B-34 @ 20' Date Collected: 12/20/22 09:27 Date Received: 12/20/22 18:30						Lab Sample ID: 570-121551-9 Matrix: Solid			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 03:09	1
C23-C40	44		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 03:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	126		60 - 138			12/22/22 10:39	12/23/22 03:09	1	
Client Sample ID: B-34 @ 25' Date Collected: 12/20/22 09:36 Date Received: 12/20/22 18:30						Lab Sample ID: 570-121551-10 Matrix: Solid			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	5.5		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 03:31	1
C23-C40	120		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 03:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	127		60 - 138			12/22/22 10:39	12/23/22 03:31	1	
Client Sample ID: B-34 @ 30' Date Collected: 12/20/22 09:46 Date Received: 12/20/22 18:30						Lab Sample ID: 570-121551-11 Matrix: Solid			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.9	mg/Kg		12/22/22 10:39	12/23/22 03:53	1
C23-C40	15		5.0	3.9	mg/Kg		12/22/22 10:39	12/23/22 03:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	133		60 - 138			12/22/22 10:39	12/23/22 03:53	1	

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B-34 @ 35'  
Date Collected: 12/20/22 10:02  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 04:15	1
C23-C40	ND		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 04:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	127		60 - 138				12/22/22 10:39	12/23/22 04:15	1

Client Sample ID: B-34 @ 40'  
Date Collected: 12/20/22 10:11  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	7.5		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 04:37	1
C23-C40	9.3		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 04:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	133		60 - 138				12/22/22 10:39	12/23/22 04:37	1

Client Sample ID: B-32 @ 2'  
Date Collected: 12/20/22 11:35  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-14  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 05:21	1
C23-C40	7.8		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 05:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	132		60 - 138				12/22/22 10:39	12/23/22 05:21	1

Client Sample ID: B-32 @ 5'  
Date Collected: 12/20/22 11:43  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-15  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.9	mg/Kg		12/22/22 10:39	12/23/22 05:43	1
C23-C40	ND		5.0	3.9	mg/Kg		12/22/22 10:39	12/23/22 05:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	137		60 - 138				12/22/22 10:39	12/23/22 05:43	1

Client Sample ID: B-32 @ 10'  
Date Collected: 12/20/22 11:51  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-16  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.9	mg/Kg		12/22/22 10:39	12/23/22 06:04	1
C23-C40	3.9 J		5.0	3.9	mg/Kg		12/22/22 10:39	12/23/22 06:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	136		60 - 138				12/22/22 10:39	12/23/22 06:04	1

Client Sample ID: B-32 @ 15'  
Date Collected: 12/20/22 11:58  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-17  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 06:26	1
C23-C40	4.7 J		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 06:26	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate

n-Octacosane (Surr)

%Recovery

125

Qualifier

Limits

60 - 138

Prepared

12/22/22 10:39

Analyzed

12/23/22 06:26

Dil Fac

1

Client Sample ID: B-31 @ 2'

Date Collected: 12/20/22 12:55

Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-18

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 06:48	1
C23-C40	8.4		5.0	3.8	mg/Kg		12/22/22 10:39	12/23/22 06:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	132		60 - 138				12/22/22 10:39	12/23/22 06:48	1

Client Sample ID: B-31 @ 5'

Date Collected: 12/20/22 13:02

Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-19

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	5.7		5.0	3.9	mg/Kg		12/22/22 10:39	12/23/22 07:10	1
C23-C40	140		5.0	3.9	mg/Kg		12/22/22 10:39	12/23/22 07:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	136		60 - 138				12/22/22 10:39	12/23/22 07:10	1

Client Sample ID: B-31 @ 10'

Date Collected: 12/20/22 13:12

Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-20

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	5.7		5.0	3.9	mg/Kg		12/22/22 10:39	12/23/22 07:31	1
C23-C40	120		5.0	3.9	mg/Kg		12/22/22 10:39	12/23/22 07:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	126		60 - 138				12/22/22 10:39	12/23/22 07:31	1

Client Sample ID: B-30 @ 2'

Date Collected: 12/20/22 13:59

Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-21

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.9	mg/Kg		12/22/22 10:43	12/23/22 18:04	1
C23-C40	4.2 J		5.0	3.9	mg/Kg		12/22/22 10:43	12/23/22 18:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	118		60 - 138				12/22/22 10:43	12/23/22 18:04	1

Client Sample ID: B-29 @ 2'

Date Collected: 12/20/22 14:28

Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-22

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.9	mg/Kg		12/22/22 10:43	12/23/22 18:25	1
C23-C40	ND		5.0	3.9	mg/Kg		12/22/22 10:43	12/23/22 18:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	132		60 - 138				12/22/22 10:43	12/23/22 18:25	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-3 @ 2'  
Date Collected: 12/20/22 07:12  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/29/22 07:06	12/30/22 11:53	5
Arsenic	8.61		3.03	1.41	mg/Kg		12/29/22 07:06	12/30/22 11:53	5
Barium	325	B	3.03	0.143	mg/Kg		12/29/22 07:06	12/30/22 11:53	5
Beryllium	0.265	J	0.505	0.0697	mg/Kg		12/29/22 07:06	12/30/22 11:53	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/29/22 07:06	12/30/22 11:53	5
Cobalt	2.79		1.01	0.208	mg/Kg		12/29/22 07:06	12/30/22 11:53	5
Chromium	11.9		1.01	0.188	mg/Kg		12/29/22 07:06	12/30/22 11:53	5
Copper	6.58		2.02	0.968	mg/Kg		12/29/22 07:06	12/30/22 11:53	5
Molybdenum	ND		2.02	0.520	mg/Kg		12/29/22 07:06	12/30/22 11:53	5
Nickel	3.61		2.02	0.366	mg/Kg		12/29/22 07:06	12/30/22 11:53	5
Antimony	ND		10.1	2.89	mg/Kg		12/29/22 07:06	12/30/22 11:53	5
Selenium	ND		3.03	1.23	mg/Kg		12/29/22 07:06	12/30/22 11:53	5
Thallium	ND		10.1	2.13	mg/Kg		12/29/22 07:06	12/30/22 11:53	5
Vanadium	25.8		1.01	0.170	mg/Kg		12/29/22 07:06	12/30/22 11:53	5
Zinc	22.1		5.05	1.17	mg/Kg		12/29/22 07:06	12/30/22 11:53	5
Lead	6.43		2.02	0.413	mg/Kg		12/29/22 07:06	12/30/22 11:53	5

Client Sample ID: B-3 @ 5'  
Date Collected: 12/20/22 07:18  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/29/22 07:06	12/30/22 11:56	5
Arsenic	6.89		2.97	1.38	mg/Kg		12/29/22 07:06	12/30/22 11:56	5
Barium	31.5	B	2.97	0.141	mg/Kg		12/29/22 07:06	12/30/22 11:56	5
Beryllium	0.210	J	0.495	0.0683	mg/Kg		12/29/22 07:06	12/30/22 11:56	5
Cadmium	ND		0.495	0.0822	mg/Kg		12/29/22 07:06	12/30/22 11:56	5
Cobalt	2.51		0.990	0.204	mg/Kg		12/29/22 07:06	12/30/22 11:56	5
Chromium	8.50		0.990	0.184	mg/Kg		12/29/22 07:06	12/30/22 11:56	5
Copper	79.9		1.98	0.949	mg/Kg		12/29/22 07:06	12/30/22 11:56	5
Molybdenum	ND		1.98	0.510	mg/Kg		12/29/22 07:06	12/30/22 11:56	5
Nickel	2.71		1.98	0.358	mg/Kg		12/29/22 07:06	12/30/22 11:56	5
Antimony	2.91	J	9.90	2.83	mg/Kg		12/29/22 07:06	12/30/22 11:56	5
Selenium	ND		2.97	1.21	mg/Kg		12/29/22 07:06	12/30/22 11:56	5
Thallium	ND		9.90	2.09	mg/Kg		12/29/22 07:06	12/30/22 11:56	5
Vanadium	21.9		0.990	0.166	mg/Kg		12/29/22 07:06	12/30/22 11:56	5
Zinc	30.6		4.95	1.14	mg/Kg		12/29/22 07:06	12/30/22 11:56	5
Lead	242		1.98	0.405	mg/Kg		12/29/22 07:06	12/30/22 11:56	5

Client Sample ID: B-2 @ 2'  
Date Collected: 12/20/22 07:58  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/29/22 07:06	12/30/22 12:12	5
Arsenic	8.06		3.00	1.39	mg/Kg		12/29/22 07:06	12/30/22 12:12	5
Barium	21.7	B	3.00	0.142	mg/Kg		12/29/22 07:06	12/30/22 12:12	5
Beryllium	0.488	J	0.500	0.0690	mg/Kg		12/29/22 07:06	12/30/22 12:12	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/29/22 07:06	12/30/22 12:12	5
Cobalt	5.20		1.00	0.206	mg/Kg		12/29/22 07:06	12/30/22 12:12	5
Chromium	15.0		1.00	0.186	mg/Kg		12/29/22 07:06	12/30/22 12:12	5
Copper	19.6		2.00	0.958	mg/Kg		12/29/22 07:06	12/30/22 12:12	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-2 @ 2'  
Date Collected: 12/20/22 07:58  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		2.00	0.515	mg/Kg		12/29/22 07:06	12/30/22 12:12	5
Nickel	7.73		2.00	0.362	mg/Kg		12/29/22 07:06	12/30/22 12:12	5
Antimony	ND		10.0	2.86	mg/Kg		12/29/22 07:06	12/30/22 12:12	5
Selenium	ND		3.00	1.22	mg/Kg		12/29/22 07:06	12/30/22 12:12	5
Thallium	ND		10.0	2.11	mg/Kg		12/29/22 07:06	12/30/22 12:12	5
Vanadium	26.8		1.00	0.168	mg/Kg		12/29/22 07:06	12/30/22 12:12	5
Zinc	51.0		5.00	1.16	mg/Kg		12/29/22 07:06	12/30/22 12:12	5
Lead	7.61		2.00	0.409	mg/Kg		12/29/22 07:06	12/30/22 12:12	5

Client Sample ID: B-1 @ 2'  
Date Collected: 12/20/22 08:27  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/29/22 07:06	12/30/22 12:15	5
Arsenic	9.51		2.99	1.38	mg/Kg		12/29/22 07:06	12/30/22 12:15	5
Barium	43.6	B	2.99	0.141	mg/Kg		12/29/22 07:06	12/30/22 12:15	5
Beryllium	0.286	J	0.498	0.0687	mg/Kg		12/29/22 07:06	12/30/22 12:15	5
Cadmium	ND		0.498	0.0826	mg/Kg		12/29/22 07:06	12/30/22 12:15	5
Cobalt	2.90		0.995	0.205	mg/Kg		12/29/22 07:06	12/30/22 12:15	5
Chromium	8.21		0.995	0.185	mg/Kg		12/29/22 07:06	12/30/22 12:15	5
Copper	10.7		1.99	0.953	mg/Kg		12/29/22 07:06	12/30/22 12:15	5
Molybdenum	ND		1.99	0.512	mg/Kg		12/29/22 07:06	12/30/22 12:15	5
Nickel	3.13		1.99	0.360	mg/Kg		12/29/22 07:06	12/30/22 12:15	5
Antimony	ND		9.95	2.84	mg/Kg		12/29/22 07:06	12/30/22 12:15	5
Selenium	ND		2.99	1.22	mg/Kg		12/29/22 07:06	12/30/22 12:15	5
Thallium	ND		9.95	2.10	mg/Kg		12/29/22 07:06	12/30/22 12:15	5
Vanadium	18.4		0.995	0.167	mg/Kg		12/29/22 07:06	12/30/22 12:15	5
Zinc	22.2		4.98	1.15	mg/Kg		12/29/22 07:06	12/30/22 12:15	5
Lead	18.0		1.99	0.407	mg/Kg		12/29/22 07:06	12/30/22 12:15	5

Client Sample ID: B-34 @ 2'  
Date Collected: 12/20/22 09:01  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/29/22 07:06	12/30/22 12:17	5
Arsenic	3.46		3.06	1.42	mg/Kg		12/29/22 07:06	12/30/22 12:17	5
Barium	52.6	B	3.06	0.145	mg/Kg		12/29/22 07:06	12/30/22 12:17	5
Beryllium	0.306	J	0.510	0.0704	mg/Kg		12/29/22 07:06	12/30/22 12:17	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/29/22 07:06	12/30/22 12:17	5
Cobalt	3.18		1.02	0.210	mg/Kg		12/29/22 07:06	12/30/22 12:17	5
Chromium	11.3		1.02	0.190	mg/Kg		12/29/22 07:06	12/30/22 12:17	5
Copper	42.8		2.04	0.978	mg/Kg		12/29/22 07:06	12/30/22 12:17	5
Molybdenum	ND		2.04	0.526	mg/Kg		12/29/22 07:06	12/30/22 12:17	5
Nickel	3.90		2.04	0.369	mg/Kg		12/29/22 07:06	12/30/22 12:17	5
Antimony	ND		10.2	2.92	mg/Kg		12/29/22 07:06	12/30/22 12:17	5
Selenium	ND		3.06	1.25	mg/Kg		12/29/22 07:06	12/30/22 12:17	5
Thallium	ND		10.2	2.15	mg/Kg		12/29/22 07:06	12/30/22 12:17	5
Vanadium	30.1		1.02	0.171	mg/Kg		12/29/22 07:06	12/30/22 12:17	5
Zinc	22.6		5.10	1.18	mg/Kg		12/29/22 07:06	12/30/22 12:17	5
Lead	24.6		2.04	0.417	mg/Kg		12/29/22 07:06	12/30/22 12:17	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-34 @ 5'  
Date Collected: 12/20/22 09:07  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/29/22 07:06	12/30/22 12:20	5
Arsenic	5.89		2.97	1.38	mg/Kg		12/29/22 07:06	12/30/22 12:20	5
Barium	58.2	B	2.97	0.141	mg/Kg		12/29/22 07:06	12/30/22 12:20	5
Beryllium	0.408	J	0.495	0.0683	mg/Kg		12/29/22 07:06	12/30/22 12:20	5
Cadmium	ND		0.495	0.0822	mg/Kg		12/29/22 07:06	12/30/22 12:20	5
Cobalt	4.60		0.990	0.204	mg/Kg		12/29/22 07:06	12/30/22 12:20	5
Chromium	12.5		0.990	0.184	mg/Kg		12/29/22 07:06	12/30/22 12:20	5
Copper	11.4		1.98	0.949	mg/Kg		12/29/22 07:06	12/30/22 12:20	5
Molybdenum	ND		1.98	0.510	mg/Kg		12/29/22 07:06	12/30/22 12:20	5
Nickel	7.18		1.98	0.358	mg/Kg		12/29/22 07:06	12/30/22 12:20	5
Antimony	ND		9.90	2.83	mg/Kg		12/29/22 07:06	12/30/22 12:20	5
Selenium	ND		2.97	1.21	mg/Kg		12/29/22 07:06	12/30/22 12:20	5
Thallium	ND		9.90	2.09	mg/Kg		12/29/22 07:06	12/30/22 12:20	5
Vanadium	25.0		0.990	0.166	mg/Kg		12/29/22 07:06	12/30/22 12:20	5
Zinc	31.8		4.95	1.14	mg/Kg		12/29/22 07:06	12/30/22 12:20	5
Lead	10.0		1.98	0.405	mg/Kg		12/29/22 07:06	12/30/22 12:20	5

Client Sample ID: B-34 @ 10'  
Date Collected: 12/20/22 09:11  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-7  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/29/22 07:06	12/30/22 12:22	5
Arsenic	10.4		2.99	1.38	mg/Kg		12/29/22 07:06	12/30/22 12:22	5
Barium	42.9	B	2.99	0.141	mg/Kg		12/29/22 07:06	12/30/22 12:22	5
Beryllium	0.386	J	0.498	0.0687	mg/Kg		12/29/22 07:06	12/30/22 12:22	5
Cadmium	ND		0.498	0.0826	mg/Kg		12/29/22 07:06	12/30/22 12:22	5
Cobalt	4.29		0.995	0.205	mg/Kg		12/29/22 07:06	12/30/22 12:22	5
Chromium	14.0		0.995	0.185	mg/Kg		12/29/22 07:06	12/30/22 12:22	5
Copper	12.9		1.99	0.953	mg/Kg		12/29/22 07:06	12/30/22 12:22	5
Molybdenum	ND		1.99	0.512	mg/Kg		12/29/22 07:06	12/30/22 12:22	5
Nickel	5.29		1.99	0.360	mg/Kg		12/29/22 07:06	12/30/22 12:22	5
Antimony	ND		9.95	2.84	mg/Kg		12/29/22 07:06	12/30/22 12:22	5
Selenium	ND		2.99	1.22	mg/Kg		12/29/22 07:06	12/30/22 12:22	5
Thallium	ND		9.95	2.10	mg/Kg		12/29/22 07:06	12/30/22 12:22	5
Vanadium	31.8		0.995	0.167	mg/Kg		12/29/22 07:06	12/30/22 12:22	5
Zinc	34.4		4.98	1.15	mg/Kg		12/29/22 07:06	12/30/22 12:22	5
Lead	12.9		1.99	0.407	mg/Kg		12/29/22 07:06	12/30/22 12:22	5

Client Sample ID: B-34 @ 15'  
Date Collected: 12/20/22 09:19  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/29/22 07:06	12/30/22 12:24	5
Arsenic	3.89		3.00	1.39	mg/Kg		12/29/22 07:06	12/30/22 12:24	5
Barium	107	B	3.00	0.142	mg/Kg		12/29/22 07:06	12/30/22 12:24	5
Beryllium	0.188	J	0.500	0.0690	mg/Kg		12/29/22 07:06	12/30/22 12:24	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/29/22 07:06	12/30/22 12:24	5
Cobalt	3.05		1.00	0.206	mg/Kg		12/29/22 07:06	12/30/22 12:24	5
Chromium	8.38		1.00	0.186	mg/Kg		12/29/22 07:06	12/30/22 12:24	5
Copper	70.8		2.00	0.958	mg/Kg		12/29/22 07:06	12/30/22 12:24	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-34 @ 15'  
Date Collected: 12/20/22 09:19  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		2.00	0.515	mg/Kg		12/29/22 07:06	12/30/22 12:24	5
Nickel	3.28		2.00	0.362	mg/Kg		12/29/22 07:06	12/30/22 12:24	5
Antimony	ND		10.0	2.86	mg/Kg		12/29/22 07:06	12/30/22 12:24	5
Selenium	ND		3.00	1.22	mg/Kg		12/29/22 07:06	12/30/22 12:24	5
Thallium	ND		10.0	2.11	mg/Kg		12/29/22 07:06	12/30/22 12:24	5
Vanadium	23.1		1.00	0.168	mg/Kg		12/29/22 07:06	12/30/22 12:24	5
Zinc	17.1		5.00	1.16	mg/Kg		12/29/22 07:06	12/30/22 12:24	5
Lead	99.6		2.00	0.409	mg/Kg		12/29/22 07:06	12/30/22 12:24	5

Client Sample ID: B-34 @ 20'  
Date Collected: 12/20/22 09:27  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-9  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/29/22 07:06	12/30/22 12:27	5
Arsenic	5.09		2.97	1.38	mg/Kg		12/29/22 07:06	12/30/22 12:27	5
Barium	123	B	2.97	0.141	mg/Kg		12/29/22 07:06	12/30/22 12:27	5
Beryllium	0.223	J	0.495	0.0683	mg/Kg		12/29/22 07:06	12/30/22 12:27	5
Cadmium	ND		0.495	0.0822	mg/Kg		12/29/22 07:06	12/30/22 12:27	5
Cobalt	3.19		0.990	0.204	mg/Kg		12/29/22 07:06	12/30/22 12:27	5
Chromium	12.5		0.990	0.184	mg/Kg		12/29/22 07:06	12/30/22 12:27	5
Copper	6.94		1.98	0.949	mg/Kg		12/29/22 07:06	12/30/22 12:27	5
Molybdenum	1.11	J	1.98	0.510	mg/Kg		12/29/22 07:06	12/30/22 12:27	5
Nickel	3.87		1.98	0.358	mg/Kg		12/29/22 07:06	12/30/22 12:27	5
Antimony	ND		9.90	2.83	mg/Kg		12/29/22 07:06	12/30/22 12:27	5
Selenium	ND		2.97	1.21	mg/Kg		12/29/22 07:06	12/30/22 12:27	5
Thallium	ND		9.90	2.09	mg/Kg		12/29/22 07:06	12/30/22 12:27	5
Vanadium	18.2		0.990	0.166	mg/Kg		12/29/22 07:06	12/30/22 12:27	5
Zinc	16.7		4.95	1.14	mg/Kg		12/29/22 07:06	12/30/22 12:27	5
Lead	8.87		1.98	0.405	mg/Kg		12/29/22 07:06	12/30/22 12:27	5

Client Sample ID: B-34 @ 25'  
Date Collected: 12/20/22 09:36  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-10  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.48	0.142	mg/Kg		12/29/22 07:06	12/30/22 12:29	5
Arsenic	7.38		2.96	1.37	mg/Kg		12/29/22 07:06	12/30/22 12:29	5
Barium	110	B	2.96	0.140	mg/Kg		12/29/22 07:06	12/30/22 12:29	5
Beryllium	0.333	J	0.493	0.0680	mg/Kg		12/29/22 07:06	12/30/22 12:29	5
Cadmium	ND		0.493	0.0818	mg/Kg		12/29/22 07:06	12/30/22 12:29	5
Cobalt	3.49		0.985	0.203	mg/Kg		12/29/22 07:06	12/30/22 12:29	5
Chromium	7.16		0.985	0.183	mg/Kg		12/29/22 07:06	12/30/22 12:29	5
Copper	11.0		1.97	0.944	mg/Kg		12/29/22 07:06	12/30/22 12:29	5
Molybdenum	0.616	J	1.97	0.507	mg/Kg		12/29/22 07:06	12/30/22 12:29	5
Nickel	5.59		1.97	0.357	mg/Kg		12/29/22 07:06	12/30/22 12:29	5
Antimony	ND		9.85	2.81	mg/Kg		12/29/22 07:06	12/30/22 12:29	5
Selenium	ND		2.96	1.20	mg/Kg		12/29/22 07:06	12/30/22 12:29	5
Thallium	ND		9.85	2.07	mg/Kg		12/29/22 07:06	12/30/22 12:29	5
Vanadium	18.3		0.985	0.166	mg/Kg		12/29/22 07:06	12/30/22 12:29	5
Zinc	27.1		4.93	1.14	mg/Kg		12/29/22 07:06	12/30/22 12:29	5
Lead	30.1		1.97	0.403	mg/Kg		12/29/22 07:06	12/30/22 12:29	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-34 @ 30'  
Date Collected: 12/20/22 09:46  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-11  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.48	0.142	mg/Kg		12/29/22 07:06	12/30/22 12:39	5
Arsenic	3.04		2.96	1.37	mg/Kg		12/29/22 07:06	12/30/22 12:39	5
Barium	72.7	B	2.96	0.140	mg/Kg		12/29/22 07:06	12/30/22 12:39	5
Beryllium	0.234	J	0.493	0.0680	mg/Kg		12/29/22 07:06	12/30/22 12:39	5
Cadmium	ND		0.493	0.0818	mg/Kg		12/29/22 07:06	12/30/22 12:39	5
Cobalt	2.78		0.985	0.203	mg/Kg		12/29/22 07:06	12/30/22 12:39	5
Chromium	6.83		0.985	0.183	mg/Kg		12/29/22 07:06	12/30/22 12:39	5
Copper	113		1.97	0.944	mg/Kg		12/29/22 07:06	12/30/22 12:39	5
Molybdenum	ND		1.97	0.507	mg/Kg		12/29/22 07:06	12/30/22 12:39	5
Nickel	2.80		1.97	0.357	mg/Kg		12/29/22 07:06	12/30/22 12:39	5
Antimony	ND		9.85	2.81	mg/Kg		12/29/22 07:06	12/30/22 12:39	5
Selenium	ND		2.96	1.20	mg/Kg		12/29/22 07:06	12/30/22 12:39	5
Thallium	ND		9.85	2.07	mg/Kg		12/29/22 07:06	12/30/22 12:39	5
Vanadium	14.7		0.985	0.166	mg/Kg		12/29/22 07:06	12/30/22 12:39	5
Zinc	106		4.93	1.14	mg/Kg		12/29/22 07:06	12/30/22 12:39	5
Lead	62.2		1.97	0.403	mg/Kg		12/29/22 07:06	12/30/22 12:39	5

Client Sample ID: B-34 @ 35'  
Date Collected: 12/20/22 10:02  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.47	0.141	mg/Kg		12/29/22 07:06	12/30/22 12:41	5
Arsenic	3.71		2.94	1.36	mg/Kg		12/29/22 07:06	12/30/22 12:41	5
Barium	57.3	B	2.94	0.139	mg/Kg		12/29/22 07:06	12/30/22 12:41	5
Beryllium	0.184	J	0.490	0.0676	mg/Kg		12/29/22 07:06	12/30/22 12:41	5
Cadmium	ND		0.490	0.0814	mg/Kg		12/29/22 07:06	12/30/22 12:41	5
Cobalt	3.24		0.980	0.202	mg/Kg		12/29/22 07:06	12/30/22 12:41	5
Chromium	5.70		0.980	0.182	mg/Kg		12/29/22 07:06	12/30/22 12:41	5
Copper	7.71		1.96	0.939	mg/Kg		12/29/22 07:06	12/30/22 12:41	5
Molybdenum	ND		1.96	0.505	mg/Kg		12/29/22 07:06	12/30/22 12:41	5
Nickel	2.61		1.96	0.355	mg/Kg		12/29/22 07:06	12/30/22 12:41	5
Antimony	ND		9.80	2.80	mg/Kg		12/29/22 07:06	12/30/22 12:41	5
Selenium	ND		2.94	1.20	mg/Kg		12/29/22 07:06	12/30/22 12:41	5
Thallium	ND		9.80	2.06	mg/Kg		12/29/22 07:06	12/30/22 12:41	5
Vanadium	14.6		0.980	0.165	mg/Kg		12/29/22 07:06	12/30/22 12:41	5
Zinc	15.4		4.90	1.13	mg/Kg		12/29/22 07:06	12/30/22 12:41	5
Lead	16.3		1.96	0.401	mg/Kg		12/29/22 07:06	12/30/22 12:41	5

Client Sample ID: B-34 @ 40'  
Date Collected: 12/20/22 10:11  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.47	0.141	mg/Kg		12/29/22 07:06	12/30/22 12:44	5
Arsenic	5.51		2.94	1.36	mg/Kg		12/29/22 07:06	12/30/22 12:44	5
Barium	109	B	2.94	0.139	mg/Kg		12/29/22 07:06	12/30/22 12:44	5
Beryllium	0.245	J	0.490	0.0676	mg/Kg		12/29/22 07:06	12/30/22 12:44	5
Cadmium	ND		0.490	0.0814	mg/Kg		12/29/22 07:06	12/30/22 12:44	5
Cobalt	2.86		0.980	0.202	mg/Kg		12/29/22 07:06	12/30/22 12:44	5
Chromium	9.47		0.980	0.182	mg/Kg		12/29/22 07:06	12/30/22 12:44	5
Copper	13.0		1.96	0.939	mg/Kg		12/29/22 07:06	12/30/22 12:44	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-34 @ 40'  
Date Collected: 12/20/22 10:11  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	0.699	J	1.96	0.505	mg/Kg		12/29/22 07:06	12/30/22 12:44	5
Nickel	3.82		1.96	0.355	mg/Kg		12/29/22 07:06	12/30/22 12:44	5
Antimony	ND		9.80	2.80	mg/Kg		12/29/22 07:06	12/30/22 12:44	5
Selenium	ND		2.94	1.20	mg/Kg		12/29/22 07:06	12/30/22 12:44	5
Thallium	ND		9.80	2.06	mg/Kg		12/29/22 07:06	12/30/22 12:44	5
Vanadium	17.1		0.980	0.165	mg/Kg		12/29/22 07:06	12/30/22 12:44	5
Zinc	20.1		4.90	1.13	mg/Kg		12/29/22 07:06	12/30/22 12:44	5
Lead	47.3		1.96	0.401	mg/Kg		12/29/22 07:06	12/30/22 12:44	5

Client Sample ID: B-32 @ 2'  
Date Collected: 12/20/22 11:35  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-14  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/29/22 07:06	12/30/22 11:44	5
Arsenic	4.27	F1 F2	3.06	1.42	mg/Kg		12/29/22 07:06	12/30/22 11:44	5
Barium	55.4	B F1	3.06	0.145	mg/Kg		12/29/22 07:06	12/30/22 11:44	5
Beryllium	0.255	J	0.510	0.0704	mg/Kg		12/29/22 07:06	12/30/22 11:44	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/29/22 07:06	12/30/22 11:44	5
Cobalt	3.20		1.02	0.210	mg/Kg		12/29/22 07:06	12/30/22 11:44	5
Chromium	9.90		1.02	0.190	mg/Kg		12/29/22 07:06	12/30/22 11:44	5
Copper	12.7		2.04	0.978	mg/Kg		12/29/22 07:06	12/30/22 11:44	5
Molybdenum	ND		2.04	0.526	mg/Kg		12/29/22 07:06	12/30/22 11:44	5
Nickel	3.75		2.04	0.369	mg/Kg		12/29/22 07:06	12/30/22 11:44	5
Antimony	ND	F1	10.2	2.92	mg/Kg		12/29/22 07:06	12/30/22 11:44	5
Selenium	ND	F1	3.06	1.25	mg/Kg		12/29/22 07:06	12/30/22 11:44	5
Thallium	ND		10.2	2.15	mg/Kg		12/29/22 07:06	12/30/22 11:44	5
Vanadium	23.5		1.02	0.171	mg/Kg		12/29/22 07:06	12/30/22 11:44	5
Zinc	19.9		5.10	1.18	mg/Kg		12/29/22 07:06	12/30/22 11:44	5
Lead	49.4	F1 F2	2.04	0.417	mg/Kg		12/29/22 07:06	12/30/22 11:44	5

Client Sample ID: B-32 @ 5'  
Date Collected: 12/20/22 11:43  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-15  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/29/22 07:06	12/30/22 12:46	5
Arsenic	3.16		3.06	1.42	mg/Kg		12/29/22 07:06	12/30/22 12:46	5
Barium	65.3	B	3.06	0.145	mg/Kg		12/29/22 07:06	12/30/22 12:46	5
Beryllium	0.166	J	0.510	0.0704	mg/Kg		12/29/22 07:06	12/30/22 12:46	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/29/22 07:06	12/30/22 12:46	5
Cobalt	2.32		1.02	0.210	mg/Kg		12/29/22 07:06	12/30/22 12:46	5
Chromium	6.73		1.02	0.190	mg/Kg		12/29/22 07:06	12/30/22 12:46	5
Copper	10.1		2.04	0.978	mg/Kg		12/29/22 07:06	12/30/22 12:46	5
Molybdenum	ND		2.04	0.526	mg/Kg		12/29/22 07:06	12/30/22 12:46	5
Nickel	2.32		2.04	0.369	mg/Kg		12/29/22 07:06	12/30/22 12:46	5
Antimony	ND		10.2	2.92	mg/Kg		12/29/22 07:06	12/30/22 12:46	5
Selenium	ND		3.06	1.25	mg/Kg		12/29/22 07:06	12/30/22 12:46	5
Thallium	ND		10.2	2.15	mg/Kg		12/29/22 07:06	12/30/22 12:46	5
Vanadium	16.0		1.02	0.171	mg/Kg		12/29/22 07:06	12/30/22 12:46	5
Zinc	18.3		5.10	1.18	mg/Kg		12/29/22 07:06	12/30/22 12:46	5
Lead	3.78		2.04	0.417	mg/Kg		12/29/22 07:06	12/30/22 12:46	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-32 @ 10'  
Date Collected: 12/20/22 11:51  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-16  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		7.39	0.709	mg/Kg		12/29/22 07:06	12/30/22 13:26	25
Arsenic	9.98	J	14.8	6.85	mg/Kg		12/29/22 07:06	12/30/22 13:26	25
Barium	64.3	B	14.8	0.700	mg/Kg		12/29/22 07:06	12/30/22 13:26	25
Beryllium	ND		2.46	0.340	mg/Kg		12/29/22 07:06	12/30/22 13:26	25
Cadmium	ND		2.46	0.409	mg/Kg		12/29/22 07:06	12/30/22 13:26	25
Cobalt	5.97		4.93	1.01	mg/Kg		12/29/22 07:06	12/30/22 13:26	25
Chromium	18.2		4.93	0.916	mg/Kg		12/29/22 07:06	12/30/22 13:26	25
Copper	19200		19.7	9.44	mg/Kg		12/29/22 07:06	12/30/22 13:22	50
Molybdenum	4.80	J	9.85	2.54	mg/Kg		12/29/22 07:06	12/30/22 13:26	25
Nickel	40.0		9.85	1.78	mg/Kg		12/29/22 07:06	12/30/22 13:26	25
Antimony	ND		49.3	14.1	mg/Kg		12/29/22 07:06	12/30/22 13:26	25
Selenium	ND		14.8	6.02	mg/Kg		12/29/22 07:06	12/30/22 13:26	25
Thallium	ND		49.3	10.4	mg/Kg		12/29/22 07:06	12/30/22 13:26	25
Vanadium	15.4		4.93	0.828	mg/Kg		12/29/22 07:06	12/30/22 13:26	25
Zinc	1900		24.6	5.69	mg/Kg		12/29/22 07:06	12/30/22 13:26	25
Lead	1350		9.85	2.01	mg/Kg		12/29/22 07:06	12/30/22 13:26	25

Client Sample ID: B-32 @ 15'  
Date Collected: 12/20/22 11:58  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-17  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.296	0.0284	mg/Kg		12/29/22 07:06	12/30/22 13:24	1
Arsenic	0.956		0.591	0.274	mg/Kg		12/29/22 07:06	12/30/22 13:24	1
Barium	3.18	B	0.591	0.0280	mg/Kg		12/29/22 07:06	12/30/22 13:24	1
Beryllium	0.0788	J	0.0985	0.0136	mg/Kg		12/29/22 07:06	12/30/22 13:24	1
Cadmium	ND		0.0985	0.0164	mg/Kg		12/29/22 07:06	12/30/22 13:24	1
Cobalt	0.771		0.197	0.0406	mg/Kg		12/29/22 07:06	12/30/22 13:24	1
Chromium	1.76		0.197	0.0367	mg/Kg		12/29/22 07:06	12/30/22 13:24	1
Copper	1.44		0.394	0.189	mg/Kg		12/29/22 07:06	12/30/22 13:24	1
Molybdenum	ND		0.394	0.101	mg/Kg		12/29/22 07:06	12/30/22 13:24	1
Nickel	1.04		0.394	0.0713	mg/Kg		12/29/22 07:06	12/30/22 13:24	1
Antimony	ND		1.97	0.563	mg/Kg		12/29/22 07:06	12/30/22 13:24	1
Selenium	ND		0.591	0.241	mg/Kg		12/29/22 07:06	12/30/22 13:24	1
Thallium	ND		1.97	0.415	mg/Kg		12/29/22 07:06	12/30/22 13:24	1
Vanadium	3.70		0.197	0.0331	mg/Kg		12/29/22 07:06	12/30/22 13:24	1
Zinc	6.11		0.985	0.228	mg/Kg		12/29/22 07:06	12/30/22 13:24	1
Lead	0.840		0.394	0.0806	mg/Kg		12/29/22 07:06	12/30/22 13:24	1

Client Sample ID: B-31 @ 2'  
Date Collected: 12/20/22 12:55  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-18  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/29/22 06:55	12/29/22 18:54	5
Arsenic	13.5		3.06	1.42	mg/Kg		12/29/22 06:55	12/29/22 18:54	5
Barium	45.9	B	3.06	0.145	mg/Kg		12/29/22 06:55	12/29/22 18:54	5
Beryllium	0.395	J	0.510	0.0704	mg/Kg		12/29/22 06:55	12/29/22 18:54	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/29/22 06:55	12/29/22 18:54	5
Cobalt	4.63		1.02	0.210	mg/Kg		12/29/22 06:55	12/29/22 18:54	5
Chromium	10.5		1.02	0.190	mg/Kg		12/29/22 06:55	12/29/22 18:54	5
Copper	16.6		2.04	0.978	mg/Kg		12/29/22 06:55	12/29/22 18:54	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-31 @ 2'  
Date Collected: 12/20/22 12:55  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-18  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		2.04	0.526	mg/Kg		12/29/22 06:55	12/29/22 18:54	5
Nickel	5.24		2.04	0.369	mg/Kg		12/29/22 06:55	12/29/22 18:54	5
Antimony	ND	^1+	10.2	2.92	mg/Kg		12/29/22 06:55	12/29/22 18:54	5
Selenium	ND		3.06	1.25	mg/Kg		12/29/22 06:55	12/29/22 18:54	5
Thallium	ND		10.2	2.15	mg/Kg		12/29/22 06:55	12/29/22 18:54	5
Vanadium	23.6		1.02	0.171	mg/Kg		12/29/22 06:55	12/29/22 18:54	5
Zinc	41.2		5.10	1.18	mg/Kg		12/29/22 06:55	12/29/22 18:54	5
Lead	20.8		2.04	0.417	mg/Kg		12/29/22 06:55	12/29/22 18:54	5

Client Sample ID: B-31 @ 5'  
Date Collected: 12/20/22 13:02  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-19  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/29/22 06:55	12/29/22 18:56	5
Arsenic	12.3		3.06	1.42	mg/Kg		12/29/22 06:55	12/29/22 18:56	5
Barium	67.5	B	3.06	0.145	mg/Kg		12/29/22 06:55	12/29/22 18:56	5
Beryllium	0.472	J	0.510	0.0704	mg/Kg		12/29/22 06:55	12/29/22 18:56	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/29/22 06:55	12/29/22 18:56	5
Cobalt	6.14		1.02	0.210	mg/Kg		12/29/22 06:55	12/29/22 18:56	5
Chromium	9.12		1.02	0.190	mg/Kg		12/29/22 06:55	12/29/22 18:56	5
Copper	14.2		2.04	0.978	mg/Kg		12/29/22 06:55	12/29/22 18:56	5
Molybdenum	ND		2.04	0.526	mg/Kg		12/29/22 06:55	12/29/22 18:56	5
Nickel	5.75		2.04	0.369	mg/Kg		12/29/22 06:55	12/29/22 18:56	5
Antimony	ND	^1+	10.2	2.92	mg/Kg		12/29/22 06:55	12/29/22 18:56	5
Selenium	ND		3.06	1.25	mg/Kg		12/29/22 06:55	12/29/22 18:56	5
Thallium	ND		10.2	2.15	mg/Kg		12/29/22 06:55	12/29/22 18:56	5
Vanadium	24.9		1.02	0.171	mg/Kg		12/29/22 06:55	12/29/22 18:56	5
Zinc	37.2		5.10	1.18	mg/Kg		12/29/22 06:55	12/29/22 18:56	5
Lead	38.6		2.04	0.417	mg/Kg		12/29/22 06:55	12/29/22 18:56	5

Client Sample ID: B-31 @ 10'  
Date Collected: 12/20/22 13:12  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-20  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/29/22 07:06	12/30/22 13:09	5
Arsenic	2.53	J	3.02	1.40	mg/Kg		12/29/22 07:06	12/30/22 13:09	5
Barium	51.9	B	3.02	0.143	mg/Kg		12/29/22 07:06	12/30/22 13:09	5
Beryllium	0.327	J	0.503	0.0693	mg/Kg		12/29/22 07:06	12/30/22 13:09	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/29/22 07:06	12/30/22 13:09	5
Cobalt	4.07		1.01	0.207	mg/Kg		12/29/22 07:06	12/30/22 13:09	5
Chromium	8.37		1.01	0.187	mg/Kg		12/29/22 07:06	12/30/22 13:09	5
Copper	7.94		2.01	0.963	mg/Kg		12/29/22 07:06	12/30/22 13:09	5
Molybdenum	ND		2.01	0.518	mg/Kg		12/29/22 07:06	12/30/22 13:09	5
Nickel	4.23		2.01	0.364	mg/Kg		12/29/22 07:06	12/30/22 13:09	5
Antimony	ND		10.1	2.87	mg/Kg		12/29/22 07:06	12/30/22 13:09	5
Selenium	ND		3.02	1.23	mg/Kg		12/29/22 07:06	12/30/22 13:09	5
Thallium	ND		10.1	2.12	mg/Kg		12/29/22 07:06	12/30/22 13:09	5
Vanadium	18.1		1.01	0.169	mg/Kg		12/29/22 07:06	12/30/22 13:09	5
Zinc	27.7		5.03	1.16	mg/Kg		12/29/22 07:06	12/30/22 13:09	5
Lead	6.70		2.01	0.411	mg/Kg		12/29/22 07:06	12/30/22 13:09	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-30 @ 2'  
Date Collected: 12/20/22 13:59  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-21  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/29/22 07:06	12/30/22 13:12	5
Arsenic	12.8		2.97	1.38	mg/Kg		12/29/22 07:06	12/30/22 13:12	5
Barium	58.5	B	2.97	0.141	mg/Kg		12/29/22 07:06	12/30/22 13:12	5
Beryllium	0.507		0.495	0.0683	mg/Kg		12/29/22 07:06	12/30/22 13:12	5
Cadmium	ND		0.495	0.0822	mg/Kg		12/29/22 07:06	12/30/22 13:12	5
Cobalt	4.52		0.990	0.204	mg/Kg		12/29/22 07:06	12/30/22 13:12	5
Chromium	10.1		0.990	0.184	mg/Kg		12/29/22 07:06	12/30/22 13:12	5
Copper	14.5		1.98	0.949	mg/Kg		12/29/22 07:06	12/30/22 13:12	5
Molybdenum	ND		1.98	0.510	mg/Kg		12/29/22 07:06	12/30/22 13:12	5
Nickel	5.19		1.98	0.358	mg/Kg		12/29/22 07:06	12/30/22 13:12	5
Antimony	ND		9.90	2.83	mg/Kg		12/29/22 07:06	12/30/22 13:12	5
Selenium	ND		2.97	1.21	mg/Kg		12/29/22 07:06	12/30/22 13:12	5
Thallium	ND		9.90	2.09	mg/Kg		12/29/22 07:06	12/30/22 13:12	5
Vanadium	26.6		0.990	0.166	mg/Kg		12/29/22 07:06	12/30/22 13:12	5
Zinc	34.2		4.95	1.14	mg/Kg		12/29/22 07:06	12/30/22 13:12	5
Lead	13.9		1.98	0.405	mg/Kg		12/29/22 07:06	12/30/22 13:12	5

Client Sample ID: B-29 @ 2'  
Date Collected: 12/20/22 14:28  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-22  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/29/22 07:06	12/30/22 13:14	5
Arsenic	7.18		3.03	1.41	mg/Kg		12/29/22 07:06	12/30/22 13:14	5
Barium	171	B	3.03	0.143	mg/Kg		12/29/22 07:06	12/30/22 13:14	5
Beryllium	0.518		0.505	0.0697	mg/Kg		12/29/22 07:06	12/30/22 13:14	5
Cadmium	0.278	J	0.505	0.0838	mg/Kg		12/29/22 07:06	12/30/22 13:14	5
Cobalt	22.4		1.01	0.208	mg/Kg		12/29/22 07:06	12/30/22 13:14	5
Chromium	10.1		1.01	0.188	mg/Kg		12/29/22 07:06	12/30/22 13:14	5
Copper	14.0		2.02	0.968	mg/Kg		12/29/22 07:06	12/30/22 13:14	5
Molybdenum	ND		2.02	0.520	mg/Kg		12/29/22 07:06	12/30/22 13:14	5
Nickel	15.4		2.02	0.366	mg/Kg		12/29/22 07:06	12/30/22 13:14	5
Antimony	ND		10.1	2.89	mg/Kg		12/29/22 07:06	12/30/22 13:14	5
Selenium	ND		3.03	1.23	mg/Kg		12/29/22 07:06	12/30/22 13:14	5
Thallium	ND		10.1	2.13	mg/Kg		12/29/22 07:06	12/30/22 13:14	5
Vanadium	21.7		1.01	0.170	mg/Kg		12/29/22 07:06	12/30/22 13:14	5
Zinc	46.8		5.05	1.17	mg/Kg		12/29/22 07:06	12/30/22 13:14	5
Lead	16.0		2.02	0.413	mg/Kg		12/29/22 07:06	12/30/22 13:14	5

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: SW846 7471A - Mercury (CVAA)

**Client Sample ID: B-3 @ 2'**  
**Date Collected: 12/20/22 07:12**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-1**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg	-	12/21/22 18:07	12/22/22 18:34	1

**Client Sample ID: B-3 @ 5'**  
**Date Collected: 12/20/22 07:18**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-2**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg	-	12/21/22 18:07	12/22/22 18:43	1

**Client Sample ID: B-2 @ 2'**  
**Date Collected: 12/20/22 07:58**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-3**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg	-	12/21/22 18:07	12/22/22 18:45	1

**Client Sample ID: B-1 @ 2'**  
**Date Collected: 12/20/22 08:27**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-4**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg	-	12/21/22 18:07	12/22/22 18:46	1

**Client Sample ID: B-34 @ 2'**  
**Date Collected: 12/20/22 09:01**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-5**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg	-	12/21/22 18:07	12/22/22 18:48	1

**Client Sample ID: B-34 @ 5'**  
**Date Collected: 12/20/22 09:07**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-6**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg	-	12/21/22 18:07	12/22/22 18:50	1

**Client Sample ID: B-34 @ 10'**  
**Date Collected: 12/20/22 09:11**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-7**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg	-	12/21/22 18:07	12/22/22 18:52	1

**Client Sample ID: B-34 @ 15'**  
**Date Collected: 12/20/22 09:19**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-8**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg	-	12/21/22 18:07	12/22/22 18:54	1

**Client Sample ID: B-34 @ 20'**  
**Date Collected: 12/20/22 09:27**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-9**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg	-	12/21/22 18:07	12/22/22 18:56	1



# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: SW846 7471A - Mercury (CVAA)

**Client Sample ID: B-34 @ 25'**  
**Date Collected: 12/20/22 09:36**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-10**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/21/22 18:07	12/22/22 18:57	1

**Client Sample ID: B-34 @ 30'**  
**Date Collected: 12/20/22 09:46**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-11**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/21/22 18:07	12/22/22 18:59	1

**Client Sample ID: B-34 @ 35'**  
**Date Collected: 12/20/22 10:02**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-12**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/21/22 18:07	12/22/22 19:05	1

**Client Sample ID: B-34 @ 40'**  
**Date Collected: 12/20/22 10:11**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-13**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/21/22 18:07	12/22/22 19:06	1

**Client Sample ID: B-32 @ 2'**  
**Date Collected: 12/20/22 11:35**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-14**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/21/22 18:07	12/22/22 19:08	1

**Client Sample ID: B-32 @ 5'**  
**Date Collected: 12/20/22 11:43**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-15**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/21/22 18:07	12/22/22 19:10	1

**Client Sample ID: B-32 @ 10'**  
**Date Collected: 12/20/22 11:51**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-16**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/21/22 18:07	12/22/22 19:12	1

**Client Sample ID: B-32 @ 15'**  
**Date Collected: 12/20/22 11:58**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-17**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/21/22 18:07	12/22/22 19:14	1

**Client Sample ID: B-31 @ 2'**  
**Date Collected: 12/20/22 12:55**  
**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-18**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/21/22 18:07	12/22/22 19:16	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: SW846 7471A - Mercury (CVAA)

Client Sample ID: B-31 @ 5'  
Date Collected: 12/20/22 13:02  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-19  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/21/22 18:07	12/22/22 19:17	1

Client Sample ID: B-31 @ 10'  
Date Collected: 12/20/22 13:12  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-20  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/21/22 18:07	12/22/22 19:19	1

Client Sample ID: B-30 @ 2'  
Date Collected: 12/20/22 13:59  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-21  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/21/22 18:09	12/22/22 17:39	1

Client Sample ID: B-29 @ 2'  
Date Collected: 12/20/22 14:28  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-22  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/21/22 18:09	12/22/22 17:45	1



# Surrogate Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	BFB1 (42-126)
570-121551-1	B-3 @ 2'	104
570-121551-2	B-3 @ 5'	90
570-121551-3	B-2 @ 2'	100
570-121551-4	B-1 @ 2'	92
570-121551-5	B-34 @ 2'	97
570-121551-6	B-34 @ 5'	92
570-121551-7	B-34 @ 10'	92
570-121551-8	B-34 @ 15'	99
570-121551-9	B-34 @ 20'	89
570-121551-10	B-34 @ 25'	100
570-121551-11	B-34 @ 30'	83
570-121551-12	B-34 @ 35'	95
570-121551-13	B-34 @ 40'	90
570-121551-14	B-32 @ 2'	101
570-121551-15	B-32 @ 5'	97
570-121551-16	B-32 @ 10'	95
570-121551-17	B-32 @ 15'	94
570-121551-18	B-31 @ 2'	91
570-121551-18 MS	B-31 @ 2'	55
570-121551-18 MSD	B-31 @ 2'	86
570-121551-19	B-31 @ 5'	85
570-121551-20	B-31 @ 10'	99
570-121551-21	B-30 @ 2'	97
570-121551-22	B-29 @ 2'	89
LCS 570-291392/1-A	Lab Control Sample	100
LCS 570-291878/1-A	Lab Control Sample	99
LCSD 570-291392/2-A	Lab Control Sample Dup	108
LCSD 570-291878/2-A	Lab Control Sample Dup	94
MB 570-291392/3-A	Method Blank	96
MB 570-291878/3-A	Method Blank	75

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	OTCSN1 (60-138)
570-121551-1	B-3 @ 2'	115
570-121551-1 MS	B-3 @ 2'	114
570-121551-1 MSD	B-3 @ 2'	117
570-121551-2	B-3 @ 5'	117
570-121551-3	B-2 @ 2'	128
570-121551-4	B-1 @ 2'	124
570-121551-5	B-34 @ 2'	132
570-121551-6	B-34 @ 5'	126
570-121551-7	B-34 @ 10'	130
570-121551-8	B-34 @ 15'	129

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# Surrogate Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

**Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)**

**Matrix: Solid**

**Prep Type: Total/NA**

## Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (60-138)
570-121551-9	B-34 @ 20'	126
570-121551-10	B-34 @ 25'	127
570-121551-11	B-34 @ 30'	133
570-121551-12	B-34 @ 35'	127
570-121551-13	B-34 @ 40'	133
570-121551-14	B-32 @ 2'	132
570-121551-15	B-32 @ 5'	137
570-121551-16	B-32 @ 10'	136
570-121551-17	B-32 @ 15'	125
570-121551-18	B-31 @ 2'	132
570-121551-19	B-31 @ 5'	136
570-121551-20	B-31 @ 10'	126
570-121551-21	B-30 @ 2'	118
570-121551-21 MS	B-30 @ 2'	115
570-121551-21 MSD	B-30 @ 2'	129
570-121551-22	B-29 @ 2'	132
LCS 570-291388/2-A	Lab Control Sample	118
LCS 570-291390/2-A	Lab Control Sample	134
LCSD 570-291388/3-A	Lab Control Sample Dup	117
MB 570-291388/1-A	Method Blank	118
MB 570-291390/1-A	Method Blank	126

### Surrogate Legend

OTCSN = n-Octacosane (Surr)

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-291392/3-A

Matrix: Solid

Analysis Batch: 291406

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 291392

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/22/22 10:45	12/22/22 13:11	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		42 - 126				12/22/22 10:45	12/22/22 13:11	1

Lab Sample ID: LCS 570-291392/1-A

Matrix: Solid

Analysis Batch: 291406

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 291392

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (C4-C13)	1.93	2.073		mg/Kg		107	70 - 124	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	100		42 - 126					

Lab Sample ID: LCSD 570-291392/2-A

Matrix: Solid

Analysis Batch: 291406

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 291392

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	1.93	2.048		mg/Kg		106	70 - 124	1	18
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	108		42 - 126						

Lab Sample ID: MB 570-291878/3-A

Matrix: Solid

Analysis Batch: 291816

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 291878

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/27/22 10:08	12/27/22 11:30	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		42 - 126				12/27/22 10:08	12/27/22 11:30	1

Lab Sample ID: LCS 570-291878/1-A

Matrix: Solid

Analysis Batch: 291816

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 291878

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (C4-C13)	1.90	2.049		mg/Kg		108	70 - 124	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	99		42 - 126					

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: LCSD 570-291878/2-A

Matrix: Solid

Analysis Batch: 291816

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 291878

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	1.90	2.051		mg/Kg		108	70 - 124	0	18
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	94		42 - 126						

Lab Sample ID: 570-121551-18 MS

Matrix: Solid

Analysis Batch: 291816

Client Sample ID: B-31 @ 2'

Prep Type: Total/NA

Prep Batch: 291878

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	ND	F1 F2	1.92	0.8920	F1	mg/Kg		46	48 - 114		
Surrogate	MS %Recovery	MS Qualifier	Limits								
4-Bromofluorobenzene (Surr)	55		42 - 126								

Lab Sample ID: 570-121551-18 MSD

Matrix: Solid

Analysis Batch: 291816

Client Sample ID: B-31 @ 2'

Prep Type: Total/NA

Prep Batch: 291878

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	ND	F1 F2	1.93	1.816	F2	mg/Kg		94	48 - 114	68	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	86		42 - 126								

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-291388/1-A

Matrix: Solid

Analysis Batch: 291581

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 291388

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/22/22 10:39	12/22/22 21:35	1
C23-C40	ND		5.0	3.8	mg/Kg		12/22/22 10:39	12/22/22 21:35	1
Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac			
n-Octacosane (Surr)	118		60 - 138	12/22/22 10:39	12/22/22 21:35	1			

Lab Sample ID: LCS 570-291388/2-A

Matrix: Solid

Analysis Batch: 291581

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 291388

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	400	416.2		mg/Kg		104	80 - 130		

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 570-291388/2-A

Matrix: Solid

Analysis Batch: 291581

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 291388

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	118		60 - 138

Lab Sample ID: LCSD 570-291388/3-A

Matrix: Solid

Analysis Batch: 291581

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 291388

			Spike	LCSD	LCSD				%Rec	RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Diesel Range Organics			400	411.3		mg/Kg		103	80 - 130	1	20
[C10-C28]											

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	117		60 - 138

Lab Sample ID: 570-121551-1 MS

Matrix: Solid

Analysis Batch: 291581

Client Sample ID: B-3 @ 2'

Prep Type: Total/NA

Prep Batch: 291388

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	5.0		400	416.0		mg/Kg		103	43 - 165		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	114		60 - 138

Lab Sample ID: 570-121551-1 MSD

Matrix: Solid

Analysis Batch: 291581

Client Sample ID: B-3 @ 2'

Prep Type: Total/NA

Prep Batch: 291388

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Diesel Range Organics [C10-C28]	5.0		402	400.9		mg/Kg		99	43 - 165	4	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	117		60 - 138

Lab Sample ID: MB 570-291390/1-A

Matrix: Solid

Analysis Batch: 291581

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 291390

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/22/22 10:43	12/22/22 22:19	1
C23-C40	ND		5.0	3.8	mg/Kg		12/22/22 10:43	12/22/22 22:19	1

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	126		60 - 138	12/22/22 10:43	12/22/22 22:19	1

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 570-291390/2-A

Matrix: Solid

Analysis Batch: 291581

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 291390

Analyte			Spike	LCS	LCS	Unit	D	%Rec	%Rec		
			Added	Result	Qualifier			Limits			
Diesel Range Organics [C10-C28]			400	431.9		mg/Kg		108	80 - 130		
Surrogate		LCS	LCS								
	%Recovery	Qualifier	Limits								
n-Octacosane (Surr)	134		60 - 138								

Lab Sample ID: 570-121551-21 MS

Matrix: Solid

Analysis Batch: 291581

Client Sample ID: B-30 @ 2'

Prep Type: Total/NA

Prep Batch: 291390

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec		
	Result	Qualifier	Added	Result	Qualifier			Limits			
Diesel Range Organics [C10-C28]	ND		400	411.0		mg/Kg		103	43 - 165		
Surrogate	MS	MS									
n-Octacosane (Surr)	%Recovery	Qualifier	Limits								
	115		60 - 138								

Lab Sample ID: 570-121551-21 MSD

Matrix: Solid

Analysis Batch: 291581

Client Sample ID: B-30 @ 2'

Prep Type: Total/NA

Prep Batch: 291390

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		
Diesel Range Organics [C10-C28]	ND		402	355.8		mg/Kg		89	43 - 165	14	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
n-Octacosane (Surr)	129		60 - 138								

## Method: 6010B - Metals (ICP)

Lab Sample ID: MB 570-292464/1-A ^5

Matrix: Solid

Analysis Batch: 292903

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 292464

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.146	mg/Kg		12/29/22 06:55	12/29/22 18:34	5
Arsenic	ND		3.05	1.41	mg/Kg		12/29/22 06:55	12/29/22 18:34	5
Barium	0.2284	J	3.05	0.144	mg/Kg		12/29/22 06:55	12/29/22 18:34	5
Beryllium	ND		0.508	0.0701	mg/Kg		12/29/22 06:55	12/29/22 18:34	5
Cadmium	ND		0.508	0.0843	mg/Kg		12/29/22 06:55	12/29/22 18:34	5
Cobalt	ND		1.02	0.209	mg/Kg		12/29/22 06:55	12/29/22 18:34	5
Chromium	ND		1.02	0.189	mg/Kg		12/29/22 06:55	12/29/22 18:34	5
Copper	ND		2.03	0.973	mg/Kg		12/29/22 06:55	12/29/22 18:34	5
Molybdenum	ND		2.03	0.523	mg/Kg		12/29/22 06:55	12/29/22 18:34	5
Nickel	ND		2.03	0.368	mg/Kg		12/29/22 06:55	12/29/22 18:34	5
Antimony	ND	^1+	10.2	2.90	mg/Kg		12/29/22 06:55	12/29/22 18:34	5
Selenium	ND		3.05	1.24	mg/Kg		12/29/22 06:55	12/29/22 18:34	5
Thallium	ND		10.2	2.14	mg/Kg		12/29/22 06:55	12/29/22 18:34	5
Vanadium	ND		1.02	0.171	mg/Kg		12/29/22 06:55	12/29/22 18:34	5

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 570-292464/1-A ^5

Matrix: Solid

Analysis Batch: 292903

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 292464

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		5.08	1.17	mg/Kg		12/29/22 06:55	12/29/22 18:34	5
Lead	ND		2.03	0.415	mg/Kg		12/29/22 06:55	12/29/22 18:34	5

Lab Sample ID: LCS 570-292464/2-A ^5

Matrix: Solid

Analysis Batch: 292903

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 292464

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	25.0	21.76		mg/Kg		87	80 - 120
Arsenic	50.0	43.85		mg/Kg		88	80 - 120
Barium	50.0	44.44		mg/Kg		89	80 - 120
Beryllium	50.0	43.80		mg/Kg		88	80 - 120
Cadmium	50.0	43.90		mg/Kg		88	80 - 120
Cobalt	50.0	43.51		mg/Kg		87	80 - 120
Chromium	50.0	44.03		mg/Kg		88	80 - 120
Copper	50.0	43.86		mg/Kg		88	80 - 120
Molybdenum	50.0	45.13		mg/Kg		90	80 - 120
Nickel	50.0	44.21		mg/Kg		88	80 - 120
Antimony	50.0	50.15	^1+	mg/Kg		100	80 - 120
Selenium	50.0	41.89		mg/Kg		84	80 - 120
Thallium	50.0	43.33		mg/Kg		87	80 - 120
Vanadium	50.0	43.54		mg/Kg		87	80 - 120
Zinc	50.0	43.55		mg/Kg		87	80 - 120
Lead	50.0	43.94		mg/Kg		88	80 - 120

Lab Sample ID: LCSD 570-292464/3-A ^5

Matrix: Solid

Analysis Batch: 292903

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 292464

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Silver	25.4	22.18		mg/Kg		87	80 - 120	2	20
Arsenic	50.8	45.75		mg/Kg		90	80 - 120	4	20
Barium	50.8	45.63		mg/Kg		90	80 - 120	3	20
Beryllium	50.8	44.82		mg/Kg		88	80 - 120	2	20
Cadmium	50.8	44.76		mg/Kg		88	80 - 120	2	20
Cobalt	50.8	45.11		mg/Kg		89	80 - 120	4	20
Chromium	50.8	52.04		mg/Kg		103	80 - 120	17	20
Copper	50.8	45.01		mg/Kg		89	80 - 120	3	20
Molybdenum	50.8	51.55		mg/Kg		102	80 - 120	13	20
Nickel	50.8	46.41		mg/Kg		91	80 - 120	5	20
Antimony	50.8	56.80	^1+	mg/Kg		112	80 - 120	12	20
Selenium	50.8	41.99		mg/Kg		83	80 - 120	0	20
Thallium	50.8	44.25		mg/Kg		87	80 - 120	2	20
Vanadium	50.8	44.71		mg/Kg		88	80 - 120	3	20
Zinc	50.8	49.89		mg/Kg		98	80 - 120	14	20
Lead	50.8	45.18		mg/Kg		89	80 - 120	3	20

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 570-292465/1-A ^5

Matrix: Solid

Analysis Batch: 292907

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 292465

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.146	mg/Kg		12/29/22 07:06	12/30/22 11:34	5
Arsenic	ND		3.05	1.41	mg/Kg		12/29/22 07:06	12/30/22 11:34	5
Barium	0.1777	J	3.05	0.144	mg/Kg		12/29/22 07:06	12/30/22 11:34	5
Beryllium	ND		0.508	0.0701	mg/Kg		12/29/22 07:06	12/30/22 11:34	5
Cadmium	ND		0.508	0.0843	mg/Kg		12/29/22 07:06	12/30/22 11:34	5
Cobalt	ND		1.02	0.209	mg/Kg		12/29/22 07:06	12/30/22 11:34	5
Chromium	ND		1.02	0.189	mg/Kg		12/29/22 07:06	12/30/22 11:34	5
Copper	ND		2.03	0.973	mg/Kg		12/29/22 07:06	12/30/22 11:34	5
Molybdenum	ND		2.03	0.523	mg/Kg		12/29/22 07:06	12/30/22 11:34	5
Nickel	ND		2.03	0.368	mg/Kg		12/29/22 07:06	12/30/22 11:34	5
Antimony	ND		10.2	2.90	mg/Kg		12/29/22 07:06	12/30/22 11:34	5
Selenium	ND		3.05	1.24	mg/Kg		12/29/22 07:06	12/30/22 11:34	5
Thallium	ND		10.2	2.14	mg/Kg		12/29/22 07:06	12/30/22 11:34	5
Vanadium	ND		1.02	0.171	mg/Kg		12/29/22 07:06	12/30/22 11:34	5
Zinc	ND		5.08	1.17	mg/Kg		12/29/22 07:06	12/30/22 11:34	5
Lead	ND		2.03	0.415	mg/Kg		12/29/22 07:06	12/30/22 11:34	5

Lab Sample ID: LCS 570-292465/2-A

Matrix: Solid

Analysis Batch: 292907

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 292465

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Silver	24.9	22.04		mg/Kg		89	80 - 120
Arsenic	49.8	42.59		mg/Kg		86	80 - 120
Barium	49.8	43.96		mg/Kg		88	80 - 120
Beryllium	49.8	43.30		mg/Kg		87	80 - 120
Cadmium	49.8	43.10		mg/Kg		87	80 - 120
Cobalt	49.8	43.41		mg/Kg		87	80 - 120
Chromium	49.8	44.29		mg/Kg		89	80 - 120
Copper	49.8	43.67		mg/Kg		88	80 - 120
Molybdenum	49.8	44.23		mg/Kg		89	80 - 120
Nickel	49.8	43.53		mg/Kg		87	80 - 120
Antimony	49.8	48.94		mg/Kg		98	80 - 120
Selenium	49.8	40.97		mg/Kg		82	80 - 120
Thallium	49.8	42.99		mg/Kg		86	80 - 120
Vanadium	49.8	43.31		mg/Kg		87	80 - 120
Zinc	49.8	43.13		mg/Kg		87	80 - 120
Lead	49.8	43.91		mg/Kg		88	80 - 120

Lab Sample ID: LCSD 570-292465/3-A

Matrix: Solid

Analysis Batch: 292907

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 292465

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Silver	24.9	21.22		mg/Kg		85	80 - 120	4	20
Arsenic	49.8	41.06		mg/Kg		83	80 - 120	4	20
Barium	49.8	42.40		mg/Kg		85	80 - 120	4	20
Beryllium	49.8	41.78		mg/Kg		84	80 - 120	4	20
Cadmium	49.8	41.52		mg/Kg		83	80 - 120	4	20

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSD 570-292465/3-A

Matrix: Solid

Analysis Batch: 292907

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 292465

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cobalt	49.8	42.08		mg/Kg		85	80 - 120	3	20
Chromium	49.8	42.71		mg/Kg		86	80 - 120	4	20
Copper	49.8	42.08		mg/Kg		85	80 - 120	4	20
Molybdenum	49.8	42.44		mg/Kg		85	80 - 120	4	20
Nickel	49.8	42.18		mg/Kg		85	80 - 120	3	20
Antimony	49.8	47.54		mg/Kg		96	80 - 120	3	20
Selenium	49.8	40.15		mg/Kg		81	80 - 120	2	20
Thallium	49.8	41.98		mg/Kg		84	80 - 120	2	20
Vanadium	49.8	41.77		mg/Kg		84	80 - 120	4	20
Zinc	49.8	41.65		mg/Kg		84	80 - 120	3	20
Lead	49.8	41.93		mg/Kg		84	80 - 120	5	20

Lab Sample ID: 570-121551-14 MS

Matrix: Solid

Analysis Batch: 292907

Client Sample ID: B-32 @ 2'

Prep Type: Total/NA

Prep Batch: 292465

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	ND		25.0	19.83		mg/Kg		79	75 - 125
Arsenic	4.27	F1 F2	50.0	108.8	F1	mg/Kg		209	75 - 125
Barium	55.4	B F1	50.0	105.2		mg/Kg		100	75 - 125
Beryllium	0.255	J	50.0	39.66		mg/Kg		79	75 - 125
Cadmium	ND		50.0	38.40		mg/Kg		77	75 - 125
Cobalt	3.20		50.0	42.63		mg/Kg		79	75 - 125
Chromium	9.90		50.0	53.21		mg/Kg		87	75 - 125
Copper	12.7		50.0	54.83		mg/Kg		84	75 - 125
Molybdenum	ND		50.0	39.30		mg/Kg		79	75 - 125
Nickel	3.75		50.0	45.48		mg/Kg		83	75 - 125
Antimony	ND	F1	50.0	19.56	F1	mg/Kg		39	75 - 125
Selenium	ND	F1	50.0	35.51	F1	mg/Kg		71	75 - 125
Thallium	ND		50.0	38.45		mg/Kg		77	75 - 125
Vanadium	23.5		50.0	73.05		mg/Kg		99	75 - 125
Zinc	19.9		50.0	66.80		mg/Kg		94	75 - 125
Lead	49.4	F1 F2	50.0	98.74		mg/Kg		99	75 - 125

Lab Sample ID: 570-121551-14 MSD

Matrix: Solid

Analysis Batch: 292907

Client Sample ID: B-32 @ 2'

Prep Type: Total/NA

Prep Batch: 292465

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	ND		25.3	20.08		mg/Kg		80	75 - 125	1	20
Arsenic	4.27	F1 F2	50.5	44.57	F2	mg/Kg		80	75 - 125	84	20
Barium	55.4	B F1	50.5	86.25	F1	mg/Kg		61	75 - 125	20	20
Beryllium	0.255	J	50.5	40.14		mg/Kg		79	75 - 125	1	20
Cadmium	ND		50.5	38.38		mg/Kg		76	75 - 125	0	20
Cobalt	3.20		50.5	45.86		mg/Kg		84	75 - 125	7	20
Chromium	9.90		50.5	53.86		mg/Kg		87	75 - 125	1	20
Copper	12.7		50.5	55.40		mg/Kg		84	75 - 125	1	20
Molybdenum	ND		50.5	39.97		mg/Kg		79	75 - 125	2	20
Nickel	3.75		50.5	46.92		mg/Kg		85	75 - 125	3	20

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 570-121551-14 MSD

Matrix: Solid

Analysis Batch: 292907

Client Sample ID: B-32 @ 2'

Prep Type: Total/NA

Prep Batch: 292465

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND	F1	50.5	20.81	F1	mg/Kg		41	75 - 125	6	20
Selenium	ND	F1	50.5	36.28	F1	mg/Kg		72	75 - 125	2	20
Thallium	ND		50.5	39.14		mg/Kg		77	75 - 125	2	20
Vanadium	23.5		50.5	72.27		mg/Kg		97	75 - 125	1	20
Zinc	19.9		50.5	74.90		mg/Kg		109	75 - 125	11	20
Lead	49.4	F1 F2	50.5	66.39	F1 F2	mg/Kg		34	75 - 125	39	20

## Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 570-291181/1-A

Matrix: Solid

Analysis Batch: 291592

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 291181

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/21/22 18:07	12/22/22 18:28	1

Lab Sample ID: LCS 570-291181/2-A

Matrix: Solid

Analysis Batch: 291592

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 291181

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.408	0.3899		mg/Kg		96	80 - 120

Lab Sample ID: LCSD 570-291181/3-A

Matrix: Solid

Analysis Batch: 291592

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 291181

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.400	0.3978		mg/Kg		99	80 - 120	2	10

Lab Sample ID: 570-121551-1 MS

Matrix: Solid

Analysis Batch: 291592

Client Sample ID: B-3 @ 2'

Prep Type: Total/NA

Prep Batch: 291181

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.400	0.3928		mg/Kg		98	80 - 120

Lab Sample ID: 570-121551-1 MSD

Matrix: Solid

Analysis Batch: 291592

Client Sample ID: B-3 @ 2'

Prep Type: Total/NA

Prep Batch: 291181

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.408	0.4035		mg/Kg		99	80 - 120	3	20

Lab Sample ID: MB 570-291182/1-A

Matrix: Solid

Analysis Batch: 291592

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 291182

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/21/22 18:09	12/22/22 17:30	1

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 570-291182/2-A

Matrix: Solid

Analysis Batch: 291592

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 291182

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.392	0.3773		mg/Kg		96	80 - 120

Lab Sample ID: LCSD 570-291182/3-A

Matrix: Solid

Analysis Batch: 291592

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 291182

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.392	0.3894		mg/Kg		99	80 - 120	3	10

Lab Sample ID: 570-121551-21 MS

Matrix: Solid

Analysis Batch: 291592

Client Sample ID: B-30 @ 2'

Prep Type: Total/NA

Prep Batch: 291182

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.408	0.3971		mg/Kg		97	80 - 120

Lab Sample ID: 570-121551-21 MSD

Matrix: Solid

Analysis Batch: 291592

Client Sample ID: B-30 @ 2'

Prep Type: Total/NA

Prep Batch: 291182

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.408	0.3904		mg/Kg		96	80 - 120	2	20

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## GC VOA

### Prep Batch: 291392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-1	B-3 @ 2'	Total/NA	Solid	5030C	
570-121551-2	B-3 @ 5'	Total/NA	Solid	5030C	
570-121551-3	B-2 @ 2'	Total/NA	Solid	5030C	
570-121551-4	B-1 @ 2'	Total/NA	Solid	5030C	
570-121551-5	B-34 @ 2'	Total/NA	Solid	5030C	
570-121551-6	B-34 @ 5'	Total/NA	Solid	5030C	
570-121551-7	B-34 @ 10'	Total/NA	Solid	5030C	
570-121551-8	B-34 @ 15'	Total/NA	Solid	5030C	
570-121551-9	B-34 @ 20'	Total/NA	Solid	5030C	
570-121551-10	B-34 @ 25'	Total/NA	Solid	5030C	
570-121551-11	B-34 @ 30'	Total/NA	Solid	5030C	
570-121551-12	B-34 @ 35'	Total/NA	Solid	5030C	
570-121551-13	B-34 @ 40'	Total/NA	Solid	5030C	
570-121551-14	B-32 @ 2'	Total/NA	Solid	5030C	
MB 570-291392/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-291392/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-291392/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	

### Analysis Batch: 291406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-1	B-3 @ 2'	Total/NA	Solid	8015B	291392
570-121551-2	B-3 @ 5'	Total/NA	Solid	8015B	291392
570-121551-3	B-2 @ 2'	Total/NA	Solid	8015B	291392
570-121551-4	B-1 @ 2'	Total/NA	Solid	8015B	291392
570-121551-5	B-34 @ 2'	Total/NA	Solid	8015B	291392
570-121551-6	B-34 @ 5'	Total/NA	Solid	8015B	291392
570-121551-7	B-34 @ 10'	Total/NA	Solid	8015B	291392
570-121551-8	B-34 @ 15'	Total/NA	Solid	8015B	291392
570-121551-9	B-34 @ 20'	Total/NA	Solid	8015B	291392
570-121551-10	B-34 @ 25'	Total/NA	Solid	8015B	291392
570-121551-11	B-34 @ 30'	Total/NA	Solid	8015B	291392
570-121551-12	B-34 @ 35'	Total/NA	Solid	8015B	291392
570-121551-13	B-34 @ 40'	Total/NA	Solid	8015B	291392
570-121551-14	B-32 @ 2'	Total/NA	Solid	8015B	291392
MB 570-291392/3-A	Method Blank	Total/NA	Solid	8015B	291392
LCS 570-291392/1-A	Lab Control Sample	Total/NA	Solid	8015B	291392
LCSD 570-291392/2-A	Lab Control Sample Dup	Total/NA	Solid	8015B	291392

### Analysis Batch: 291816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-15	B-32 @ 5'	Total/NA	Solid	8015B	291878
570-121551-16	B-32 @ 10'	Total/NA	Solid	8015B	291878
570-121551-17	B-32 @ 15'	Total/NA	Solid	8015B	291878
570-121551-18	B-31 @ 2'	Total/NA	Solid	8015B	291878
570-121551-19	B-31 @ 5'	Total/NA	Solid	8015B	291878
570-121551-20	B-31 @ 10'	Total/NA	Solid	8015B	291878
570-121551-21	B-30 @ 2'	Total/NA	Solid	8015B	291878
570-121551-22	B-29 @ 2'	Total/NA	Solid	8015B	291878
MB 570-291878/3-A	Method Blank	Total/NA	Solid	8015B	291878
LCS 570-291878/1-A	Lab Control Sample	Total/NA	Solid	8015B	291878
LCSD 570-291878/2-A	Lab Control Sample Dup	Total/NA	Solid	8015B	291878

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## GC VOA (Continued)

### Analysis Batch: 291816 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-18 MS	B-31 @ 2'	Total/NA	Solid	8015B	291878
570-121551-18 MSD	B-31 @ 2'	Total/NA	Solid	8015B	291878

### Prep Batch: 291878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-15	B-32 @ 5'	Total/NA	Solid	5030C	
570-121551-16	B-32 @ 10'	Total/NA	Solid	5030C	
570-121551-17	B-32 @ 15'	Total/NA	Solid	5030C	
570-121551-18	B-31 @ 2'	Total/NA	Solid	5030C	
570-121551-19	B-31 @ 5'	Total/NA	Solid	5030C	
570-121551-20	B-31 @ 10'	Total/NA	Solid	5030C	
570-121551-21	B-30 @ 2'	Total/NA	Solid	5030C	
570-121551-22	B-29 @ 2'	Total/NA	Solid	5030C	
MB 570-291878/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-291878/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-291878/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	
570-121551-18 MS	B-31 @ 2'	Total/NA	Solid	5030C	
570-121551-18 MSD	B-31 @ 2'	Total/NA	Solid	5030C	

## GC Semi VOA

### Prep Batch: 291388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-1	B-3 @ 2'	Total/NA	Solid	3550C	
570-121551-2	B-3 @ 5'	Total/NA	Solid	3550C	
570-121551-3	B-2 @ 2'	Total/NA	Solid	3550C	
570-121551-4	B-1 @ 2'	Total/NA	Solid	3550C	
570-121551-5	B-34 @ 2'	Total/NA	Solid	3550C	
570-121551-6	B-34 @ 5'	Total/NA	Solid	3550C	
570-121551-7	B-34 @ 10'	Total/NA	Solid	3550C	
570-121551-8	B-34 @ 15'	Total/NA	Solid	3550C	
570-121551-9	B-34 @ 20'	Total/NA	Solid	3550C	
570-121551-10	B-34 @ 25'	Total/NA	Solid	3550C	
570-121551-11	B-34 @ 30'	Total/NA	Solid	3550C	
570-121551-12	B-34 @ 35'	Total/NA	Solid	3550C	
570-121551-13	B-34 @ 40'	Total/NA	Solid	3550C	
570-121551-14	B-32 @ 2'	Total/NA	Solid	3550C	
570-121551-15	B-32 @ 5'	Total/NA	Solid	3550C	
570-121551-16	B-32 @ 10'	Total/NA	Solid	3550C	
570-121551-17	B-32 @ 15'	Total/NA	Solid	3550C	
570-121551-18	B-31 @ 2'	Total/NA	Solid	3550C	
570-121551-19	B-31 @ 5'	Total/NA	Solid	3550C	
570-121551-20	B-31 @ 10'	Total/NA	Solid	3550C	
MB 570-291388/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 570-291388/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 570-291388/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	
570-121551-1 MS	B-3 @ 2'	Total/NA	Solid	3550C	
570-121551-1 MSD	B-3 @ 2'	Total/NA	Solid	3550C	

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## GC Semi VOA

### Prep Batch: 291390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-21	B-30 @ 2'	Total/NA	Solid	3550C	
570-121551-22	B-29 @ 2'	Total/NA	Solid	3550C	
MB 570-291390/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 570-291390/2-A	Lab Control Sample	Total/NA	Solid	3550C	
570-121551-21 MS	B-30 @ 2'	Total/NA	Solid	3550C	
570-121551-21 MSD	B-30 @ 2'	Total/NA	Solid	3550C	

### Analysis Batch: 291581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-1	B-3 @ 2'	Total/NA	Solid	8015B	291388
570-121551-2	B-3 @ 5'	Total/NA	Solid	8015B	291388
570-121551-3	B-2 @ 2'	Total/NA	Solid	8015B	291388
570-121551-4	B-1 @ 2'	Total/NA	Solid	8015B	291388
570-121551-5	B-34 @ 2'	Total/NA	Solid	8015B	291388
570-121551-6	B-34 @ 5'	Total/NA	Solid	8015B	291388
570-121551-7	B-34 @ 10'	Total/NA	Solid	8015B	291388
570-121551-8	B-34 @ 15'	Total/NA	Solid	8015B	291388
570-121551-9	B-34 @ 20'	Total/NA	Solid	8015B	291388
570-121551-10	B-34 @ 25'	Total/NA	Solid	8015B	291388
570-121551-11	B-34 @ 30'	Total/NA	Solid	8015B	291388
570-121551-12	B-34 @ 35'	Total/NA	Solid	8015B	291388
570-121551-13	B-34 @ 40'	Total/NA	Solid	8015B	291388
570-121551-14	B-32 @ 2'	Total/NA	Solid	8015B	291388
570-121551-15	B-32 @ 5'	Total/NA	Solid	8015B	291388
570-121551-16	B-32 @ 10'	Total/NA	Solid	8015B	291388
570-121551-17	B-32 @ 15'	Total/NA	Solid	8015B	291388
570-121551-18	B-31 @ 2'	Total/NA	Solid	8015B	291388
570-121551-19	B-31 @ 5'	Total/NA	Solid	8015B	291388
570-121551-20	B-31 @ 10'	Total/NA	Solid	8015B	291388
570-121551-21	B-30 @ 2'	Total/NA	Solid	8015B	291390
570-121551-22	B-29 @ 2'	Total/NA	Solid	8015B	291390
MB 570-291388/1-A	Method Blank	Total/NA	Solid	8015B	291388
MB 570-291390/1-A	Method Blank	Total/NA	Solid	8015B	291390
LCS 570-291388/2-A	Lab Control Sample	Total/NA	Solid	8015B	291388
LCS 570-291390/2-A	Lab Control Sample	Total/NA	Solid	8015B	291390
LCSD 570-291388/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	291388
570-121551-1 MS	B-3 @ 2'	Total/NA	Solid	8015B	291388
570-121551-1 MSD	B-3 @ 2'	Total/NA	Solid	8015B	291388
570-121551-21 MS	B-30 @ 2'	Total/NA	Solid	8015B	291390
570-121551-21 MSD	B-30 @ 2'	Total/NA	Solid	8015B	291390

## Metals

### Prep Batch: 291181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-1	B-3 @ 2'	Total/NA	Solid	7471A	
570-121551-2	B-3 @ 5'	Total/NA	Solid	7471A	
570-121551-3	B-2 @ 2'	Total/NA	Solid	7471A	
570-121551-4	B-1 @ 2'	Total/NA	Solid	7471A	
570-121551-5	B-34 @ 2'	Total/NA	Solid	7471A	
570-121551-6	B-34 @ 5'	Total/NA	Solid	7471A	

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Metals (Continued)

### Prep Batch: 291181 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-7	B-34 @ 10'	Total/NA	Solid	7471A	
570-121551-8	B-34 @ 15'	Total/NA	Solid	7471A	
570-121551-9	B-34 @ 20'	Total/NA	Solid	7471A	
570-121551-10	B-34 @ 25'	Total/NA	Solid	7471A	
570-121551-11	B-34 @ 30'	Total/NA	Solid	7471A	
570-121551-12	B-34 @ 35'	Total/NA	Solid	7471A	
570-121551-13	B-34 @ 40'	Total/NA	Solid	7471A	
570-121551-14	B-32 @ 2'	Total/NA	Solid	7471A	
570-121551-15	B-32 @ 5'	Total/NA	Solid	7471A	
570-121551-16	B-32 @ 10'	Total/NA	Solid	7471A	
570-121551-17	B-32 @ 15'	Total/NA	Solid	7471A	
570-121551-18	B-31 @ 2'	Total/NA	Solid	7471A	
570-121551-19	B-31 @ 5'	Total/NA	Solid	7471A	
570-121551-20	B-31 @ 10'	Total/NA	Solid	7471A	
MB 570-291181/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-291181/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-291181/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
570-121551-1 MS	B-3 @ 2'	Total/NA	Solid	7471A	
570-121551-1 MSD	B-3 @ 2'	Total/NA	Solid	7471A	

### Prep Batch: 291182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-21	B-30 @ 2'	Total/NA	Solid	7471A	
570-121551-22	B-29 @ 2'	Total/NA	Solid	7471A	
MB 570-291182/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-291182/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-291182/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
570-121551-21 MS	B-30 @ 2'	Total/NA	Solid	7471A	
570-121551-21 MSD	B-30 @ 2'	Total/NA	Solid	7471A	

### Analysis Batch: 291592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-1	B-3 @ 2'	Total/NA	Solid	7471A	291181
570-121551-2	B-3 @ 5'	Total/NA	Solid	7471A	291181
570-121551-3	B-2 @ 2'	Total/NA	Solid	7471A	291181
570-121551-4	B-1 @ 2'	Total/NA	Solid	7471A	291181
570-121551-5	B-34 @ 2'	Total/NA	Solid	7471A	291181
570-121551-6	B-34 @ 5'	Total/NA	Solid	7471A	291181
570-121551-7	B-34 @ 10'	Total/NA	Solid	7471A	291181
570-121551-8	B-34 @ 15'	Total/NA	Solid	7471A	291181
570-121551-9	B-34 @ 20'	Total/NA	Solid	7471A	291181
570-121551-10	B-34 @ 25'	Total/NA	Solid	7471A	291181
570-121551-11	B-34 @ 30'	Total/NA	Solid	7471A	291181
570-121551-12	B-34 @ 35'	Total/NA	Solid	7471A	291181
570-121551-13	B-34 @ 40'	Total/NA	Solid	7471A	291181
570-121551-14	B-32 @ 2'	Total/NA	Solid	7471A	291181
570-121551-15	B-32 @ 5'	Total/NA	Solid	7471A	291181
570-121551-16	B-32 @ 10'	Total/NA	Solid	7471A	291181
570-121551-17	B-32 @ 15'	Total/NA	Solid	7471A	291181
570-121551-18	B-31 @ 2'	Total/NA	Solid	7471A	291181
570-121551-19	B-31 @ 5'	Total/NA	Solid	7471A	291181

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Metals (Continued)

### Analysis Batch: 291592 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-20	B-31 @ 10'	Total/NA	Solid	7471A	291181
570-121551-21	B-30 @ 2'	Total/NA	Solid	7471A	291182
570-121551-22	B-29 @ 2'	Total/NA	Solid	7471A	291182
MB 570-291181/1-A	Method Blank	Total/NA	Solid	7471A	291181
MB 570-291182/1-A	Method Blank	Total/NA	Solid	7471A	291182
LCS 570-291181/2-A	Lab Control Sample	Total/NA	Solid	7471A	291181
LCS 570-291182/2-A	Lab Control Sample	Total/NA	Solid	7471A	291182
LCSD 570-291181/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	291181
LCSD 570-291182/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	291182
570-121551-1 MS	B-3 @ 2'	Total/NA	Solid	7471A	291181
570-121551-1 MSD	B-3 @ 2'	Total/NA	Solid	7471A	291181
570-121551-21 MS	B-30 @ 2'	Total/NA	Solid	7471A	291182
570-121551-21 MSD	B-30 @ 2'	Total/NA	Solid	7471A	291182

### Prep Batch: 292464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-18	B-31 @ 2'	Total/NA	Solid	3050B	
570-121551-19	B-31 @ 5'	Total/NA	Solid	3050B	
MB 570-292464/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-292464/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-292464/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	

### Prep Batch: 292465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-1	B-3 @ 2'	Total/NA	Solid	3050B	
570-121551-2	B-3 @ 5'	Total/NA	Solid	3050B	
570-121551-3	B-2 @ 2'	Total/NA	Solid	3050B	
570-121551-4	B-1 @ 2'	Total/NA	Solid	3050B	
570-121551-5	B-34 @ 2'	Total/NA	Solid	3050B	
570-121551-6	B-34 @ 5'	Total/NA	Solid	3050B	
570-121551-7	B-34 @ 10'	Total/NA	Solid	3050B	
570-121551-8	B-34 @ 15'	Total/NA	Solid	3050B	
570-121551-9	B-34 @ 20'	Total/NA	Solid	3050B	
570-121551-10	B-34 @ 25'	Total/NA	Solid	3050B	
570-121551-11	B-34 @ 30'	Total/NA	Solid	3050B	
570-121551-12	B-34 @ 35'	Total/NA	Solid	3050B	
570-121551-13	B-34 @ 40'	Total/NA	Solid	3050B	
570-121551-14	B-32 @ 2'	Total/NA	Solid	3050B	
570-121551-15	B-32 @ 5'	Total/NA	Solid	3050B	
570-121551-16	B-32 @ 10'	Total/NA	Solid	3050B	
570-121551-17	B-32 @ 15'	Total/NA	Solid	3050B	
570-121551-20	B-31 @ 10'	Total/NA	Solid	3050B	
570-121551-21	B-30 @ 2'	Total/NA	Solid	3050B	
570-121551-22	B-29 @ 2'	Total/NA	Solid	3050B	
MB 570-292465/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-292465/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-292465/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
570-121551-14 MS	B-32 @ 2'	Total/NA	Solid	3050B	
570-121551-14 MSD	B-32 @ 2'	Total/NA	Solid	3050B	



# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

## Metals

### Analysis Batch: 292903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-18	B-31 @ 2'	Total/NA	Solid	6010B	292464
570-121551-19	B-31 @ 5'	Total/NA	Solid	6010B	292464
MB 570-292464/1-A ^5	Method Blank	Total/NA	Solid	6010B	292464
LCS 570-292464/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	292464
LCSD 570-292464/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	292464

### Analysis Batch: 292907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-1	B-3 @ 2'	Total/NA	Solid	6010B	292465
570-121551-2	B-3 @ 5'	Total/NA	Solid	6010B	292465
570-121551-3	B-2 @ 2'	Total/NA	Solid	6010B	292465
570-121551-4	B-1 @ 2'	Total/NA	Solid	6010B	292465
570-121551-5	B-34 @ 2'	Total/NA	Solid	6010B	292465
570-121551-6	B-34 @ 5'	Total/NA	Solid	6010B	292465
570-121551-7	B-34 @ 10'	Total/NA	Solid	6010B	292465
570-121551-8	B-34 @ 15'	Total/NA	Solid	6010B	292465
570-121551-9	B-34 @ 20'	Total/NA	Solid	6010B	292465
570-121551-10	B-34 @ 25'	Total/NA	Solid	6010B	292465
570-121551-11	B-34 @ 30'	Total/NA	Solid	6010B	292465
570-121551-12	B-34 @ 35'	Total/NA	Solid	6010B	292465
570-121551-13	B-34 @ 40'	Total/NA	Solid	6010B	292465
570-121551-14	B-32 @ 2'	Total/NA	Solid	6010B	292465
570-121551-15	B-32 @ 5'	Total/NA	Solid	6010B	292465
570-121551-16	B-32 @ 10'	Total/NA	Solid	6010B	292465
570-121551-16	B-32 @ 10'	Total/NA	Solid	6010B	292465
570-121551-17	B-32 @ 15'	Total/NA	Solid	6010B	292465
570-121551-20	B-31 @ 10'	Total/NA	Solid	6010B	292465
570-121551-21	B-30 @ 2'	Total/NA	Solid	6010B	292465
570-121551-22	B-29 @ 2'	Total/NA	Solid	6010B	292465
MB 570-292465/1-A ^5	Method Blank	Total/NA	Solid	6010B	292465
LCS 570-292465/2-A	Lab Control Sample	Total/NA	Solid	6010B	292465
LCSD 570-292465/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	292465
570-121551-14 MS	B-32 @ 2'	Total/NA	Solid	6010B	292465
570-121551-14 MSD	B-32 @ 2'	Total/NA	Solid	6010B	292465

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

**Client Sample ID: B-3 @ 2'**

**Date Collected: 12/20/22 07:12**

**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-1**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	291392	12/22/22 11:29	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291406	12/22/22 16:27	P1R	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			9.98 g	10 mL	291388	12/22/22 10:39	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 00:10	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.98 g	50 mL	292465	12/29/22 07:06	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292907	12/30/22 11:53	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	291181	12/21/22 18:07	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291592	12/22/22 18:34	T1W	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-3 @ 5'**

**Date Collected: 12/20/22 07:18**

**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-2**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.04 g	5 mL	291392	12/22/22 11:29	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291406	12/22/22 16:51	P1R	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.02 g	10 mL	291388	12/22/22 10:39	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 00:32	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.02 g	50 mL	292465	12/29/22 07:06	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292907	12/30/22 11:56	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	291181	12/21/22 18:07	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291592	12/22/22 18:43	T1W	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-2 @ 2'**

**Date Collected: 12/20/22 07:58**

**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-3**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	291392	12/22/22 11:29	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291406	12/22/22 17:16	P1R	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.07 g	10 mL	291388	12/22/22 10:39	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 00:55	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.00 g	50 mL	292465	12/29/22 07:06	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292907	12/30/22 12:12	K1UV	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

**Client Sample ID: B-2 @ 2'**

**Date Collected: 12/20/22 07:58**

**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-3**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.50 g	50 mL	291181	12/21/22 18:07	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291592	12/22/22 18:45	T1W	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-1 @ 2'**

**Date Collected: 12/20/22 08:27**

**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-4**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.00 g	5 mL	291392	12/22/22 11:29	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291406	12/22/22 17:40	P1R	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.06 g	10 mL	291388	12/22/22 10:39	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 01:17	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.01 g	50 mL	292465	12/29/22 07:06	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292907	12/30/22 12:15	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	291181	12/21/22 18:07	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291592	12/22/22 18:46	T1W	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-34 @ 2'**

**Date Collected: 12/20/22 09:01**

**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-5**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	291392	12/22/22 11:29	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291406	12/22/22 19:43	P1R	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.04 g	10 mL	291388	12/22/22 10:39	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 01:39	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.96 g	50 mL	292465	12/29/22 07:06	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292907	12/30/22 12:17	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	291181	12/21/22 18:07	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291592	12/22/22 18:48	T1W	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

**Client Sample ID: B-34 @ 5'**

**Lab Sample ID: 570-121551-6**

**Date Collected: 12/20/22 09:07**

**Matrix: Solid**

**Date Received: 12/20/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	291392	12/22/22 11:29	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291406	12/22/22 20:07	P1R	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			9.99 g	10 mL	291388	12/22/22 10:39	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 02:02	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.02 g	50 mL	292465	12/29/22 07:06	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292907	12/30/22 12:20	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	291181	12/21/22 18:07	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291592	12/22/22 18:50	T1W	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-34 @ 10'**

**Lab Sample ID: 570-121551-7**

**Date Collected: 12/20/22 09:11**

**Matrix: Solid**

**Date Received: 12/20/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	291392	12/22/22 11:29	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291406	12/22/22 20:32	P1R	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.02 g	10 mL	291388	12/22/22 10:39	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 02:24	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.01 g	50 mL	292465	12/29/22 07:06	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292907	12/30/22 12:22	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	291181	12/21/22 18:07	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291592	12/22/22 18:52	T1W	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-34 @ 15'**

**Lab Sample ID: 570-121551-8**

**Date Collected: 12/20/22 09:19**

**Matrix: Solid**

**Date Received: 12/20/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.97 g	5 mL	291392	12/22/22 11:29	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291406	12/22/22 20:56	P1R	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.06 g	10 mL	291388	12/22/22 10:39	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 02:46	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.00 g	50 mL	292465	12/29/22 07:06	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292907	12/30/22 12:24	K1UV	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

**Client Sample ID: B-34 @ 15'**

**Date Collected: 12/20/22 09:19**

**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-8**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.49 g	50 mL	291181	12/21/22 18:07	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291592	12/22/22 18:54	T1W	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-34 @ 20'**

**Date Collected: 12/20/22 09:27**

**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-9**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.98 g	5 mL	291392	12/22/22 11:29	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291406	12/22/22 21:20	P1R	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.01 g	10 mL	291388	12/22/22 10:39	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 03:09	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.02 g	50 mL	292465	12/29/22 07:06	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292907	12/30/22 12:27	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	291181	12/21/22 18:07	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291592	12/22/22 18:56	T1W	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-34 @ 25'**

**Date Collected: 12/20/22 09:36**

**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-10**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.98 g	5 mL	291392	12/22/22 11:29	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291406	12/22/22 21:45	P1R	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.01 g	10 mL	291388	12/22/22 10:39	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 03:31	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.03 g	50 mL	292465	12/29/22 07:06	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292907	12/30/22 12:29	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	291181	12/21/22 18:07	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291592	12/22/22 18:57	T1W	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

**Client Sample ID: B-34 @ 30'**

**Date Collected: 12/20/22 09:46**

**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-11**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.97 g	5 mL	291392	12/22/22 11:29	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291406	12/22/22 22:09	P1R	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			9.98 g	10 mL	291388	12/22/22 10:39	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 03:53	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.03 g	50 mL	292465	12/29/22 07:06	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292907	12/30/22 12:39	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	291181	12/21/22 18:07	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291592	12/22/22 18:59	T1W	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-34 @ 35'**

**Date Collected: 12/20/22 10:02**

**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-12**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	291392	12/22/22 11:29	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291406	12/22/22 22:34	P1R	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			9.99 g	10 mL	291388	12/22/22 10:39	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 04:15	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.04 g	50 mL	292465	12/29/22 07:06	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292907	12/30/22 12:41	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	291181	12/21/22 18:07	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291592	12/22/22 19:05	T1W	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-34 @ 40'**

**Date Collected: 12/20/22 10:11**

**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-13**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.98 g	5 mL	291392	12/22/22 11:29	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291406	12/22/22 22:58	P1R	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.01 g	10 mL	291388	12/22/22 10:39	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 04:37	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.04 g	50 mL	292465	12/29/22 07:06	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292907	12/30/22 12:44	K1UV	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

**Client Sample ID: B-34 @ 40'**

**Lab Sample ID: 570-121551-13**

**Date Collected: 12/20/22 10:11**

**Matrix: Solid**

**Date Received: 12/20/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.50 g	50 mL	291181	12/21/22 18:07	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291592	12/22/22 19:06	T1W	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-32 @ 2'**

**Lab Sample ID: 570-121551-14**

**Date Collected: 12/20/22 11:35**

**Matrix: Solid**

**Date Received: 12/20/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	291392	12/22/22 11:29	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291406	12/22/22 23:23	P1R	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.01 g	10 mL	291388	12/22/22 10:39	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 05:21	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.96 g	50 mL	292465	12/29/22 07:06	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292907	12/30/22 11:44	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	291181	12/21/22 18:07	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291592	12/22/22 19:08	T1W	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-32 @ 5'**

**Lab Sample ID: 570-121551-15**

**Date Collected: 12/20/22 11:43**

**Matrix: Solid**

**Date Received: 12/20/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	291878	12/27/22 10:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291816	12/27/22 13:08	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			9.97 g	10 mL	291388	12/22/22 10:39	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 05:43	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.96 g	50 mL	292465	12/29/22 07:06	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292907	12/30/22 12:46	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	291181	12/21/22 18:07	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291592	12/22/22 19:10	T1W	EET CAL 4
Instrument ID: HG7										



# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

**Client Sample ID: B-32 @ 10'**

**Lab Sample ID: 570-121551-16**

**Date Collected: 12/20/22 11:51**

**Matrix: Solid**

**Date Received: 12/20/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	291878	12/27/22 10:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291816	12/27/22 13:32	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			9.96 g	10 mL	291388	12/22/22 10:39	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 06:04	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.03 g	50 mL	292465	12/29/22 07:06	GYR8	EET CAL 4
Total/NA	Analysis	6010B		50			292907	12/30/22 13:22	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	3050B			2.03 g	50 mL	292465	12/29/22 07:06	GYR8	EET CAL 4
Total/NA	Analysis	6010B		25			292907	12/30/22 13:26	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	291181	12/21/22 18:07	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291592	12/22/22 19:12	T1W	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-32 @ 15'**

**Lab Sample ID: 570-121551-17**

**Date Collected: 12/20/22 11:58**

**Matrix: Solid**

**Date Received: 12/20/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.98 g	5 mL	291878	12/27/22 10:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291816	12/27/22 13:57	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			9.99 g	10 mL	291388	12/22/22 10:39	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 06:26	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.03 g	50 mL	292465	12/29/22 07:06	GYR8	EET CAL 4
Total/NA	Analysis	6010B		1			292907	12/30/22 13:24	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	291181	12/21/22 18:07	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291592	12/22/22 19:14	T1W	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-31 @ 2'**

**Lab Sample ID: 570-121551-18**

**Date Collected: 12/20/22 12:55**

**Matrix: Solid**

**Date Received: 12/20/22 18:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	291878	12/27/22 10:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291816	12/27/22 11:54	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.02 g	10 mL	291388	12/22/22 10:39	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 06:48	N1A	EET CAL 4
Instrument ID: GC47										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

**Client Sample ID: B-31 @ 2'**

**Date Collected: 12/20/22 12:55**

**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-18**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.96 g	50 mL	292464	12/29/22 06:55	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292903	12/29/22 18:54	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	291181	12/21/22 18:07	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291592	12/22/22 19:16	T1W	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-31 @ 5'**

**Date Collected: 12/20/22 13:02**

**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-19**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	291878	12/27/22 10:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291816	12/27/22 14:21	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			9.98 g	10 mL	291388	12/22/22 10:39	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 07:10	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.96 g	50 mL	292464	12/29/22 06:55	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292903	12/29/22 18:56	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	291181	12/21/22 18:07	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291592	12/22/22 19:17	T1W	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-31 @ 10'**

**Date Collected: 12/20/22 13:12**

**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-20**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.04 g	5 mL	291878	12/27/22 10:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291816	12/27/22 14:46	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			9.98 g	10 mL	291388	12/22/22 10:39	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 07:31	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.99 g	50 mL	292465	12/29/22 07:06	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292907	12/30/22 13:09	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	291181	12/21/22 18:07	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291592	12/22/22 19:19	T1W	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

**Client Sample ID: B-30 @ 2'**

**Date Collected: 12/20/22 13:59**

**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-21**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.04 g	5 mL	291878	12/27/22 10:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291816	12/27/22 15:10	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			9.98 g	10 mL	291390	12/22/22 10:43	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 18:04	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.02 g	50 mL	292465	12/29/22 07:06	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292907	12/30/22 13:12	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	291182	12/21/22 18:09	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291592	12/22/22 17:39	T1W	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-29 @ 2'**

**Date Collected: 12/20/22 14:28**

**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-22**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	291878	12/27/22 10:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291816	12/27/22 15:35	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			9.98 g	10 mL	291390	12/22/22 10:43	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 18:25	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.98 g	50 mL	292465	12/29/22 07:06	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292907	12/30/22 13:14	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	291182	12/21/22 18:09	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			291592	12/22/22 17:45	T1W	EET CAL 4
Instrument ID: HG7										

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

1
2
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15

## Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

Method	Method Description	Protocol	Laboratory
8015B	Gasoline Range Organics - (GC)	SW846	EET CAL 4
8015B	Diesel Range Organics (DRO) (GC)	SW846	EET CAL 4
6010B	Metals (ICP)	SW846	EET CAL 4
7471A	Mercury (CVAA)	SW846	EET CAL 4
3050B	Preparation, Metals	SW846	EET CAL 4
3550C	Ultrasonic Extraction	SW846	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
7471A	Preparation, Mercury	SW846	EET CAL 4

### Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

# Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-121551-1	B-3 @ 2'	Solid	12/20/22 07:12	12/20/22 18:30
570-121551-2	B-3 @ 5'	Solid	12/20/22 07:18	12/20/22 18:30
570-121551-3	B-2 @ 2'	Solid	12/20/22 07:58	12/20/22 18:30
570-121551-4	B-1 @ 2'	Solid	12/20/22 08:27	12/20/22 18:30
570-121551-5	B-34 @ 2'	Solid	12/20/22 09:01	12/20/22 18:30
570-121551-6	B-34 @ 5'	Solid	12/20/22 09:07	12/20/22 18:30
570-121551-7	B-34 @ 10'	Solid	12/20/22 09:11	12/20/22 18:30
570-121551-8	B-34 @ 15'	Solid	12/20/22 09:19	12/20/22 18:30
570-121551-9	B-34 @ 20'	Solid	12/20/22 09:27	12/20/22 18:30
570-121551-10	B-34 @ 25'	Solid	12/20/22 09:36	12/20/22 18:30
570-121551-11	B-34 @ 30'	Solid	12/20/22 09:46	12/20/22 18:30
570-121551-12	B-34 @ 35'	Solid	12/20/22 10:02	12/20/22 18:30
570-121551-13	B-34 @ 40'	Solid	12/20/22 10:11	12/20/22 18:30
570-121551-14	B-32 @ 2'	Solid	12/20/22 11:35	12/20/22 18:30
570-121551-15	B-32 @ 5'	Solid	12/20/22 11:43	12/20/22 18:30
570-121551-16	B-32 @ 10'	Solid	12/20/22 11:51	12/20/22 18:30
570-121551-17	B-32 @ 15'	Solid	12/20/22 11:58	12/20/22 18:30
570-121551-18	B-31 @ 2'	Solid	12/20/22 12:55	12/20/22 18:30
570-121551-19	B-31 @ 5'	Solid	12/20/22 13:02	12/20/22 18:30
570-121551-20	B-31 @ 10'	Solid	12/20/22 13:12	12/20/22 18:30
570-121551-21	B-30 @ 2'	Solid	12/20/22 13:59	12/20/22 18:30
570-121551-22	B-29 @ 2'	Solid	12/20/22 14:28	12/20/22 18:30





Calscience

# CHAIN OF CUSTODY RECORD

DATE: 12/20/22  
PAGE: 2 OF 3

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us@eurofins.com or call us.

LABORATORY CLIENT:		CLIENT PROJECT NAME / NUMBER:	
ADDRESS: 9245 Activity Road Suite 103		Science Research Park / SD754	
CITY: San Diego	STATE: CA	PROJECT CONTACT: Matt Fagan	SAMPLER(S): (PRINT) Casey Ploussot - Johnson DOROTHY GURMAN
TEL: 858 536 1000	E-MAIL: mattf@groupdelta.com	P.O. NO.	

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):	
<input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD	LOG CODE:

SPECIAL INSTRUCTIONS:	
<input type="checkbox"/> COELT EDF	GLOBAL ID:

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	LOG CODE:			REQUESTED ANALYSES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
		DATE	TIME			Field Filtered	UNPRESERVED			TPH (g) <input type="checkbox"/> GRO	TPH (d) <input type="checkbox"/> DRO	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C8-C44	TPH C4-C6, C13-C22, C25-C26	BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>	VOCs (8260)	Oxygenates (8260)	Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	T22 Metals. <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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11	B-34 @ 30'	12/20	9:46	Soil	1	X																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	

Relinquished by (Signature)	Received by (Signature/Affiliation)	Date: 12/20/22	Time: 1615
Relinquished by (Signature)	Received by (Signature/Affiliation)	Date: 12/20/22	Time: 1830
Relinquished by (Signature)	Received by (Signature/Affiliation)	Date:	Time:

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For courier service / sample drop off information, contact us26 sales@eurofinsus.com or call us.

[illegible]



## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-121551-1

**Login Number: 121551**

**List Number: 1**

**Creator: Vitente, Precy**

**List Source: Eurofins Calscience**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Matt Fagan  
Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Generated 1/11/2023 12:02:31 PM

## JOB DESCRIPTION

Science Research Park (SD754)

## JOB NUMBER

570-121551-2

# Eurofins Calscience

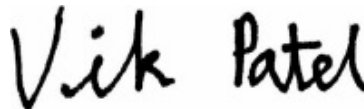
## Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

## Authorization



Generated  
1/11/2023 12:02:31 PM

Authorized for release by  
Vikas Patel, Project Manager I  
[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)  
(714)895-5494

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## Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-2

### Qualifiers

#### Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-2

**Job ID: 570-121551-2**

**Laboratory: Eurofins Calscience**

### Narrative

#### Job Narrative 570-121551-2

### Comments

No additional comments.

### Receipt

The samples were received on 12/20/2022 6:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.8° C.

### Metals

Method 6010B: The TCLP leachate blank for batch 570-294065 and 570-294461 contained Copper above the reporting limit (RL). This target analyte concentration was less than the TCLP Regulatory Limit. The associated samples were also below the TCLP Regulatory Limit for this analyte; therefore, re-extraction was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

## Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-2

### Client Sample ID: B-3 @ 5'

### Lab Sample ID: 570-121551-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	12.6		0.500	0.0527	mg/L	1		6010B	TCLP
Lead	111		1.00	0.105	mg/L	1		6010B	STLC Citrate

### Client Sample ID: B-34 @ 15'

### Lab Sample ID: 570-121551-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	7.49		1.00	0.105	mg/L	1		6010B	STLC Citrate

### Client Sample ID: B-34 @ 30'

### Lab Sample ID: 570-121551-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	6.18		1.00	0.105	mg/L	1		6010B	STLC Citrate

### Client Sample ID: B-32 @ 10'

### Lab Sample ID: 570-121551-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.161	J	0.500	0.0527	mg/L	1		6010B	TCLP
Lead	0.772	J	1.00	0.105	mg/L	1		6010B	STLC Citrate
Copper	0.246	J B	1.00	0.0538	mg/L	1		6010B	STLC Citrate

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-2

## Method: SW846 6010B - Metals (ICP) - TCLP

Client Sample ID: B-3 @ 5'  
Date Collected: 12/20/22 07:18  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	12.6		0.500	0.0527	mg/L		01/06/23 09:18	01/06/23 22:20	1

Client Sample ID: B-32 @ 10'  
Date Collected: 12/20/22 11:51  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-16  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.161	J	0.500	0.0527	mg/L		01/06/23 09:18	01/06/23 22:22	1



# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-2

## Method: SW846 6010B - Metals (ICP) - STLC Citrate

Client Sample ID: B-3 @ 5'  
Date Collected: 12/20/22 07:18  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	111		1.00	0.105	mg/L		01/09/23 10:39	01/09/23 19:34	1

Client Sample ID: B-34 @ 15'  
Date Collected: 12/20/22 09:19  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	7.49		1.00	0.105	mg/L		01/09/23 10:39	01/09/23 19:37	1

Client Sample ID: B-34 @ 30'  
Date Collected: 12/20/22 09:46  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-11  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	6.18		1.00	0.105	mg/L		01/09/23 10:39	01/09/23 19:39	1

Client Sample ID: B-32 @ 10'  
Date Collected: 12/20/22 11:51  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-16  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.772	J	1.00	0.105	mg/L		01/09/23 10:39	01/09/23 19:42	1
Copper	0.246	J B	1.00	0.0538	mg/L		01/09/23 10:39	01/09/23 19:42	1

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-2

## Method: 6010B - Metals (ICP)

Lab Sample ID: LB 570-293875/1-B

Matrix: Solid

Analysis Batch: 294382

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 294105

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.500	0.0527	mg/L		01/06/23 09:18	01/06/23 21:51	1

Lab Sample ID: LCS 570-293875/2-B

Matrix: Solid

Analysis Batch: 294382

Client Sample ID: Lab Control Sample

Prep Type: TCLP

Prep Batch: 294105

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	2.00	1.853		mg/L		93	80 - 120

Lab Sample ID: LCSD 570-293875/3-B

Matrix: Solid

Analysis Batch: 294382

Client Sample ID: Lab Control Sample Dup

Prep Type: TCLP

Prep Batch: 294105

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	2.00	1.787		mg/L		89	80 - 120	4	20

Lab Sample ID: LB4 570-294065/1-C

Matrix: Solid

Analysis Batch: 294642

Client Sample ID: Method Blank

Prep Type: STLC Citrate

Prep Batch: 294461

Analyte	LB4 Result	LB4 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.00	0.105	mg/L		01/09/23 10:39	01/09/23 19:13	1
Copper	0.1580	J	1.00	0.0538	mg/L		01/09/23 10:39	01/09/23 19:13	1

Lab Sample ID: LCS 570-294065/2-C

Matrix: Solid

Analysis Batch: 294642

Client Sample ID: Lab Control Sample

Prep Type: STLC Citrate

Prep Batch: 294461

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	20.0	19.46		mg/L		97	80 - 120
Copper	20.0	21.74		mg/L		109	80 - 120

Lab Sample ID: LCSD 570-294065/3-C

Matrix: Solid

Analysis Batch: 294642

Client Sample ID: Lab Control Sample Dup

Prep Type: STLC Citrate

Prep Batch: 294461

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	20.0	20.08		mg/L		100	80 - 120	3	20
Copper	20.0	22.58		mg/L		113	80 - 120	4	20

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-2

## Metals

### Leach Batch: 293875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-2	B-3 @ 5'	TCLP	Solid	1311	
570-121551-16	B-32 @ 10'	TCLP	Solid	1311	
LB 570-293875/1-B	Method Blank	TCLP	Solid	1311	
LCS 570-293875/2-B	Lab Control Sample	TCLP	Solid	1311	
LCSD 570-293875/3-B	Lab Control Sample Dup	TCLP	Solid	1311	

### Leach Batch: 294065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-2	B-3 @ 5'	STLC Citrate	Solid	CA WET Citrate	
570-121551-8	B-34 @ 15'	STLC Citrate	Solid	CA WET Citrate	
570-121551-11	B-34 @ 30'	STLC Citrate	Solid	CA WET Citrate	
570-121551-16	B-32 @ 10'	STLC Citrate	Solid	CA WET Citrate	
LB4 570-294065/1-C	Method Blank	STLC Citrate	Solid	CA WET Citrate	
LCS 570-294065/2-C	Lab Control Sample	STLC Citrate	Solid	CA WET Citrate	
LCSD 570-294065/3-C	Lab Control Sample Dup	STLC Citrate	Solid	CA WET Citrate	

### Prep Batch: 294105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-2	B-3 @ 5'	TCLP	Solid	3010A	293875
570-121551-16	B-32 @ 10'	TCLP	Solid	3010A	293875
LB 570-293875/1-B	Method Blank	TCLP	Solid	3010A	293875
LCS 570-293875/2-B	Lab Control Sample	TCLP	Solid	3010A	293875
LCSD 570-293875/3-B	Lab Control Sample Dup	TCLP	Solid	3010A	293875

### Analysis Batch: 294382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-2	B-3 @ 5'	TCLP	Solid	6010B	294105
570-121551-16	B-32 @ 10'	TCLP	Solid	6010B	294105
LB 570-293875/1-B	Method Blank	TCLP	Solid	6010B	294105
LCS 570-293875/2-B	Lab Control Sample	TCLP	Solid	6010B	294105
LCSD 570-293875/3-B	Lab Control Sample Dup	TCLP	Solid	6010B	294105

### Prep Batch: 294461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-2	B-3 @ 5'	STLC Citrate	Solid	Dilution	294065
570-121551-8	B-34 @ 15'	STLC Citrate	Solid	Dilution	294065
570-121551-11	B-34 @ 30'	STLC Citrate	Solid	Dilution	294065
570-121551-16	B-32 @ 10'	STLC Citrate	Solid	Dilution	294065
LB4 570-294065/1-C	Method Blank	STLC Citrate	Solid	Dilution	294065
LCS 570-294065/2-C	Lab Control Sample	STLC Citrate	Solid	Dilution	294065
LCSD 570-294065/3-C	Lab Control Sample Dup	STLC Citrate	Solid	Dilution	294065

### Analysis Batch: 294642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-2	B-3 @ 5'	STLC Citrate	Solid	6010B	294461
570-121551-8	B-34 @ 15'	STLC Citrate	Solid	6010B	294461
570-121551-11	B-34 @ 30'	STLC Citrate	Solid	6010B	294461
570-121551-16	B-32 @ 10'	STLC Citrate	Solid	6010B	294461
LB4 570-294065/1-C	Method Blank	STLC Citrate	Solid	6010B	294461
LCS 570-294065/2-C	Lab Control Sample	STLC Citrate	Solid	6010B	294461
LCSD 570-294065/3-C	Lab Control Sample Dup	STLC Citrate	Solid	6010B	294461

Eurofins Calscience

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-2

**Client Sample ID: B-3 @ 5'**

**Date Collected: 12/20/22 07:18**

**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-2**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.16 g	500 mL	294065	01/06/23 16:00	ECX6	EET CAL 4
STLC Citrate	Prep	Dilution			2.5 mL	50 mL	294461	01/09/23 10:39	K1UV	EET CAL 4
STLC Citrate	Analysis	6010B		1			294642	01/09/23 19:34	P1R	EET CAL 4
Instrument ID: ICP10										
TCLP	Leach	1311			100.05 g	1.0 mL	293875	01/05/23 11:03	ECX6	EET CAL 4
TCLP	Prep	3010A			5 mL	50 mL	294105	01/06/23 09:18	ECX6	EET CAL 4
TCLP	Analysis	6010B		1			294382	01/06/23 22:20	K1UV	EET CAL 4
Instrument ID: ICP10										

**Client Sample ID: B-34 @ 15'**

**Date Collected: 12/20/22 09:19**

**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-8**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.10 g	500 mL	294065	01/06/23 16:00	ECX6	EET CAL 4
STLC Citrate	Prep	Dilution			2.5 mL	50 mL	294461	01/09/23 10:39	K1UV	EET CAL 4
STLC Citrate	Analysis	6010B		1			294642	01/09/23 19:37	P1R	EET CAL 4
Instrument ID: ICP10										

**Client Sample ID: B-34 @ 30'**

**Date Collected: 12/20/22 09:46**

**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-11**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.06 g	500 mL	294065	01/06/23 16:00	ECX6	EET CAL 4
STLC Citrate	Prep	Dilution			2.5 mL	50 mL	294461	01/09/23 10:39	K1UV	EET CAL 4
STLC Citrate	Analysis	6010B		1			294642	01/09/23 19:39	P1R	EET CAL 4
Instrument ID: ICP10										

**Client Sample ID: B-32 @ 10'**

**Date Collected: 12/20/22 11:51**

**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-16**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.09 g	500 mL	294065	01/06/23 16:00	ECX6	EET CAL 4
STLC Citrate	Prep	Dilution			2.5 mL	50 mL	294461	01/09/23 10:39	K1UV	EET CAL 4
STLC Citrate	Analysis	6010B		1			294642	01/09/23 19:42	P1R	EET CAL 4
Instrument ID: ICP10										
TCLP	Leach	1311			100.07 g	1.0 mL	293875	01/05/23 11:03	ECX6	EET CAL 4
TCLP	Prep	3010A			5 mL	50 mL	294105	01/06/23 09:18	ECX6	EET CAL 4
TCLP	Analysis	6010B		1			294382	01/06/23 22:22	K1UV	EET CAL 4
Instrument ID: ICP10										

\* Completion dates and times are reported or not reported per method requirements or individual lab discretion.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Eurofins Calscience

Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-2

Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

1
2
3
4
5
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11
12
13
14

# Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	EET CAL 4
1311	TCLP Extraction	SW846	EET CAL 4
3010A	Preparation, Total Metals	SW846	EET CAL 4
CA WET Citrate	California - Waste Extraction Test with Citrate Leach	CA-WET	EET CAL 4
Dilution	Preparation / Dilution Process	None	EET CAL 4

## Protocol References:

CA-WET = California Waste Extraction Test, from Title 22

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

## Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-121551-2	B-3 @ 5'	Solid	12/20/22 07:18	12/20/22 18:30
570-121551-8	B-34 @ 15'	Solid	12/20/22 09:19	12/20/22 18:30
570-121551-11	B-34 @ 30'	Solid	12/20/22 09:46	12/20/22 18:30
570-121551-16	B-32 @ 10'	Solid	12/20/22 11:51	12/20/22 18:30

## Erick Ovalle

---

**From:** Alexandre Santini <alexandres@groupdelta.com>  
**Sent:** Wednesday, January 4, 2023 3:23 PM  
**To:** Erick Ovalle; Jack Packwood; Matt Fagan; Vikas Patel  
**Subject:** RE: Eurofins Calscience report and EDD files from 570-121551-1 Science Research Park (SD754)

EXTERNAL EMAIL\*

Hello Erick,

Please analyze for lead STLC samples:

B-34 @ 15'

B-34 @ 30'

Please also analyze for lead STLC and TCLP samples:

B-3 @ 5'

B-32 @ 10'

Please also analyze for copper STLC sample B-32 @ 10'

Please confirm it.

Thanks,

**Alex Santini, P.E. | [Senior Project Engineer](#)**

Office: (858) 536-1000

Mobile: (310) 310-5686

Email: [AlexandreS@groupdelta.com](mailto:AlexandreS@groupdelta.com)

---

**From:** Erick Ovalle <Erick.Ovalle@et.eurofinsus.com>  
**Sent:** Tuesday, January 3, 2023 2:40 PM  
**To:** Jack Packwood <jackp@groupdelta.com>; Matt Fagan <mattf@groupdelta.com>  
**Subject:** Eurofins Calscience report and EDD files from 570-121551-1 Science Research Park (SD754)

Hello,

Attached please find the report and EDD files for job 570-121551-1; Science Research Park (SD754)



Please feel free to contact me or your PM Vikas Patel if you have any questions.

Thank you.

**Erick Ovalle**  
Project Manager

Eurofins Calscience  
Phone: 657-210-6331  
Mobile: 657-250-2681

E-mail: [Erick.Ovalle@et.eurofinsus.com](mailto:Erick.Ovalle@et.eurofinsus.com)  
[www.eurofinsus.com/env](http://www.eurofinsus.com/env)



Reference: [570-408365]  
Attachments: 2

> > Bank information has changed, please refer to remittance information on invoice. < <

\* WARNING - EXTERNAL: This email originated from outside of Eurofins Environment Testing America. Do not click any links or open any attachments unless you trust the sender and know that the content is safe!





Calscience

# CHAIN OF CUSTODY RECORD

DATE: 12/20/22  
PAGE: 2 OF 3

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us@eurofins.com or call us.

LABORATORY CLIENT:		CLIENT PROJECT NAME / NUMBER:	
ADDRESS: 9245 Activity Road Suite 103		Science Research Park / SD754	
CITY: San Diego	STATE: CA	PROJECT CONTACT: Matt Fagan	SAMPLER(S): (PRINT) Casey Ploussot - Johnson DOROTHY GURMAN
TEL: 858 536 1000	E-MAIL: mattf@groupdelta.com	P.O. NO.	

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):	
<input type="checkbox"/> SAME DAY	<input type="checkbox"/> 24 HR
<input type="checkbox"/> 48 HR	<input type="checkbox"/> 72 HR
<input type="checkbox"/> 5 DAYS	<input checked="" type="checkbox"/> STANDARD

SPECIAL INSTRUCTIONS:	
<input type="checkbox"/> COELT EDF	GLOBAL ID:

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	LOG CODE:		
		DATE	TIME			Unpreserved	Preserved	Field Filtered
11	B-34 @ 30'	12/20	9:46	Soil	1	X		
12	B-34 @ 35'	12/20	10:02	Soil	1	X		
13	B-34 @ 40'	12/20	10:11	Soil	1	X		
14	B-32 @ 2'	12/20	11:35	Soil	1	X		
15	B-32 @ 5'	12/20	11:43	Soil	1	X		
16	B-32 @ 10'	12/20	11:51	Soil	1	X		
17	B-32 @ 15'	12/20	11:58	Soil	1	X		
18	B-31 @ 2'	12/20	12:55	Soil	1	X		
19	B-31 @ 5'	12/20	1:02	Soil	1	X		
20	B-31 @ 10'	12/20	1:12	Soil	1	X		

Relinquished by (Signature)	Received by (Signature/Affiliation)	Date: 12/20/22	Time: 1615
Relinquished by (Signature)	Received by (Signature/Affiliation)	Date: 12/20/22	Time: 1830
Relinquished by (Signature)	Received by (Signature/Affiliation)	Date:	Time:

LABORATORY CLIENT: For courier service 7 sample drop off information, contact us202_sates@groupdelta.com or call us.										CLIENT PROJECT NAME / NUMBER: Science Research Park / SD754										P.O. NO.									
ADDRESS: 2245 Activity Road Suite 103										PROJECT CONTACT: Matt Fagan										PROJECT CONTACT: DOROTHY GUZMAN									
CITY: San Diego										STATE: CA										ZIP: 92126									
TEL: 858 536 1000										E-MAIL: mattf@groupdelta.com										REQUESTED ANALYSES									
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"): <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD										LOG CODE:										Please check box or fill in blank as needed									
<input type="checkbox"/> COELT EDF										GLOBAL ID:										TPH G4-G12, C13-C22, C25-C46									
SPECIAL INSTRUCTIONS:										NO. OF CONT										TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44									
										MATRIX										TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44									
										DATE										TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44									
										TIME										TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44									
										SAMPLE ID										TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44									
										DATE										TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44									
										TIME										TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44									
										SAMPLE ID										TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44									
										DATE										TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44									
										TIME										TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44									
										SAMPLE ID										TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44									
										DATE										TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44									
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										SAMPLE ID										TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44									
										DATE										TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44									
										TIME										TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44									
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## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-121551-2

**Login Number: 121551**

**List Number: 1**

**Creator: Vitente, Precy**

**List Source: Eurofins Calscience**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Matt Fagan  
Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Generated 1/17/2023 1:48:26 PM

## JOB DESCRIPTION

Science Research Park (SD754)

## JOB NUMBER

570-121551-3

# Eurofins Calscience

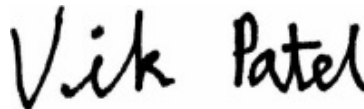
## Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

## Authorization



Generated  
1/17/2023 1:48:26 PM

Authorized for release by  
Vikas Patel, Project Manager I  
[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)  
(714)895-5494

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## Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-3

### Qualifiers

#### Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-3

**Job ID: 570-121551-3**

**Laboratory: Eurofins Calscience**

## Narrative

**Job Narrative**  
**570-121551-3**

## Comments

No additional comments.

## Receipt

The samples were received on 12/20/2022 6:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.8° C.

## Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-3

### Client Sample ID: B-34 @ 15'

### Lab Sample ID: 570-121551-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	2.90		0.500	0.0527	mg/L	1		6010B	TCLP

### Client Sample ID: B-34 @ 30'

### Lab Sample ID: 570-121551-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.449	J	0.500	0.0527	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-3

## Method: SW846 6010B - Metals (ICP) - TCLP

Client Sample ID: B-34 @ 15'  
Date Collected: 12/20/22 09:19  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	2.90		0.500	0.0527	mg/L		01/13/23 08:15	01/13/23 17:38	1

Client Sample ID: B-34 @ 30'  
Date Collected: 12/20/22 09:46  
Date Received: 12/20/22 18:30

Lab Sample ID: 570-121551-11  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.449	J	0.500	0.0527	mg/L		01/13/23 08:15	01/13/23 17:55	1

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-3

## Method: 6010B - Metals (ICP)

Lab Sample ID: LB 570-295414/1-B

Matrix: Solid

Analysis Batch: 295868

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 295624

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.500	0.0527	mg/L		01/13/23 08:15	01/13/23 17:28	1

Lab Sample ID: LCS 570-295414/2-B

Matrix: Solid

Analysis Batch: 295868

Client Sample ID: Lab Control Sample

Prep Type: TCLP

Prep Batch: 295624

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	2.00	1.985		mg/L		99	80 - 120

Lab Sample ID: LCSD 570-295414/3-B

Matrix: Solid

Analysis Batch: 295868

Client Sample ID: Lab Control Sample Dup

Prep Type: TCLP

Prep Batch: 295624

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Lead	2.00	1.916		mg/L		96	80 - 120	4	20

Lab Sample ID: 570-121551-8 MS

Matrix: Solid

Analysis Batch: 295868

Client Sample ID: B-34 @ 15'

Prep Type: TCLP

Prep Batch: 295624

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	2.90		2.00	5.149		mg/L		112	84 - 120

Lab Sample ID: 570-121551-8 MSD

Matrix: Solid

Analysis Batch: 295868

Client Sample ID: B-34 @ 15'

Prep Type: TCLP

Prep Batch: 295624

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Lead	2.90		2.00	5.005		mg/L		105	84 - 120	3	7

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-3

## Metals

### Leach Batch: 295414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-8	B-34 @ 15'	TCLP	Solid	1311	
570-121551-11	B-34 @ 30'	TCLP	Solid	1311	
LB 570-295414/1-B	Method Blank	TCLP	Solid	1311	
LCS 570-295414/2-B	Lab Control Sample	TCLP	Solid	1311	
LCSD 570-295414/3-B	Lab Control Sample Dup	TCLP	Solid	1311	
570-121551-8 MS	B-34 @ 15'	TCLP	Solid	1311	
570-121551-8 MSD	B-34 @ 15'	TCLP	Solid	1311	

### Prep Batch: 295624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-8	B-34 @ 15'	TCLP	Solid	3010A	295414
570-121551-11	B-34 @ 30'	TCLP	Solid	3010A	295414
LB 570-295414/1-B	Method Blank	TCLP	Solid	3010A	295414
LCS 570-295414/2-B	Lab Control Sample	TCLP	Solid	3010A	295414
LCSD 570-295414/3-B	Lab Control Sample Dup	TCLP	Solid	3010A	295414
570-121551-8 MS	B-34 @ 15'	TCLP	Solid	3010A	295414
570-121551-8 MSD	B-34 @ 15'	TCLP	Solid	3010A	295414

### Analysis Batch: 295868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121551-8	B-34 @ 15'	TCLP	Solid	6010B	295624
570-121551-11	B-34 @ 30'	TCLP	Solid	6010B	295624
LB 570-295414/1-B	Method Blank	TCLP	Solid	6010B	295624
LCS 570-295414/2-B	Lab Control Sample	TCLP	Solid	6010B	295624
LCSD 570-295414/3-B	Lab Control Sample Dup	TCLP	Solid	6010B	295624
570-121551-8 MS	B-34 @ 15'	TCLP	Solid	6010B	295624
570-121551-8 MSD	B-34 @ 15'	TCLP	Solid	6010B	295624

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-3

**Client Sample ID: B-34 @ 15'**

**Date Collected: 12/20/22 09:19**

**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-8**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			100.02 g	2000 mL	295414	01/12/23 11:00	ECX6	EET CAL 4
TCLP	Prep	3010A			5 mL	50 mL	295624	01/13/23 08:15	ECX6	EET CAL 4
TCLP	Analysis	6010B		1			295868	01/13/23 17:38	P1R	EET CAL 4
Instrument ID: ICP11										

**Client Sample ID: B-34 @ 30'**

**Date Collected: 12/20/22 09:46**

**Date Received: 12/20/22 18:30**

**Lab Sample ID: 570-121551-11**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			100.47 g	2000 mL	295414	01/12/23 11:00	ECX6	EET CAL 4
TCLP	Prep	3010A			5 mL	50 mL	295624	01/13/23 08:15	ECX6	EET CAL 4
TCLP	Analysis	6010B		1			295868	01/13/23 17:55	P1R	EET CAL 4
Instrument ID: ICP11										

<sup>1</sup> Completion dates and times are reported or not reported per method requirements or individual lab discretion.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

## Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-3

### Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

1

2

3

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## Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-3

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	EET CAL 4
1311	TCLP Extraction	SW846	EET CAL 4
3010A	Preparation, Total Metals	SW846	EET CAL 4

### Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

## Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park (SD754)

Job ID: 570-121551-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-121551-8	B-34 @ 15'	Solid	12/20/22 09:19	12/20/22 18:30
570-121551-11	B-34 @ 30'	Solid	12/20/22 09:46	12/20/22 18:30

## Vikas Patel

---

**From:** Alexandre Santini <alexandres@groupdelta.com>  
**Sent:** Wednesday, January 11, 2023 12:36 PM  
**To:** Vikas Patel; Jack Packwood; Matt Fagan  
**Cc:** Natalia Delgadillo  
**Subject:** RE: Eurofins Calscience EDD and report files from 570-121551-2 Science Research Park (SD754)

Vik – Please analyze for lead TCLP samples B-34 @ 15' and B-34 @ 30'. These samples exceeded the STLC limit.

Please use the fastest TAT (2 to 3 days).

Thanks,

**Alex Santini, P.E. | Senior Project Engineer**

Office: (858) 536-1000

Mobile: (310) 310-5686

Email: [AlexandreS@groupdelta.com](mailto:AlexandreS@groupdelta.com)





Calscience

CHAIN OF CUSTODY RECORD

DATE: 12/20/22  
PAGE: 2 OF 3

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us@eurofins.com or call us.

LABORATORY CLIENT:		CLIENT PROJECT NAME / NUMBER:	
ADDRESS: 9245 Activity Road Suite 103		Science Research Park / SD754	
CITY: San Diego	STATE: CA	PROJECT CONTACT: Matt Fagan	SAMPLER(S) (PRINT): Casey Ploussot - Johnson DOROTHY GURMAN
TEL: 858 536 1000	E-MAIL: mattf@groupdelta.com	P.O. NO.:	

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):	
<input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD	LOG CODE:

<input type="checkbox"/> COELT EDF	GLOBAL ID:
------------------------------------	------------

SPECIAL INSTRUCTIONS:	
-----------------------	--

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	SPECIAL INSTRUCTIONS:																
		DATE	TIME			Unpreserved	Preserved	Field Filtered	□ TPH(g) □ GRO	□ TPH(d) □ DRO、	TPH □ C6-C36 □ C8-C44	TPH C4-C6, C13-C22, C25-C26	BTEX / MTBE □ 8260 □	VOCs (8260)	Oxygenates (8260)	Prep (5035): □ En Core □ Terra	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs □ 8270 □ 8270 SIM	T22 Metals. □ 6010/747X □ 6020/747X	Cr(VI) □ 7196 □ 7199 □ 218.6
11	B-34 @ 30'	12/20	9:46	Soil	1	X																
12	B-34 @ 35'	12/20	10:02	Soil	1	X																
13	B-34 @ 40'	12/20	10:11	Soil	1	X																
14	B-32 @ 2'	12/20	11:35	Soil	1	X																
15	B-32 @ 5'	12/20	11:43	Soil	1	X																
16	B-32 @ 10'	12/20	11:51	Soil	1	X																
17	B-32 @ 15'	12/20	11:58	Soil	1	X																
18	B-31 @ 2'	12/20	12:55	Soil	1	X																
19	B-31 @ 5'	12/20	1:02	Soil	1	X																
20	B-31 @ 10'	12/20	1:12	Soil	1	X																

Relinquished by (Signature)	Received by (Signature/Affiliation)	Date: 12/20/22	Time: 1615
Relinquished by (Signature)	Received by (Signature/Affiliation)	Date: 12/20/22	Time: 1830
Relinquished by (Signature)	Received by (Signature/Affiliation)	Date:	Time:

7440 Lincoln Way Garden Grove, CA 92841-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@

For courier service / sample drop off information, contact us26 sales@eurofinsus.com or call us.

[illegible]

## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-121551-3

Login Number: 121551

List Number: 1

Creator: Vitente, Precy

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Matt Fagan  
Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Generated 12/29/2022 7:18:31 PM

## JOB DESCRIPTION

UCSD Science Research Park (SD754)

## JOB NUMBER

570-121713-1



# Eurofins Calscience

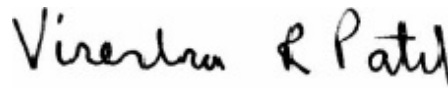
## Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

## Authorization



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# Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Qualifiers

### GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Job ID: 570-121713-1

### Laboratory: Eurofins Calscience

#### Narrative

#### Job Narrative 570-121713-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 12/21/2022 7:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.7° C.

#### Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): B-28@40' (570-121713-26). The container labels list B-26-40' @ 1340, while the COC lists B-28-40' @ 1340.

Sample ID was logged in per COC.

#### GC VOA

Method 8015B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 570-291878 and analytical batch 570-291816 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Metals

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 570-291764 and analytical batch 570-292247 were outside control limits for Barium and Antimony, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 6010B: The serial dilution performed for the following sample associated with batch 570-292247 was outside control limits Zinc and Lead: (570-121798-A-1-E SD ^25)

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries/precision of Zinc, Lead, Barium and Antimony for preparation batch 570-291776 and analytical batch 570-292247 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 6010B: The continuing calibration blank (CCB) for analytical batch 570-292247 contained Arsenic above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method 6010B: The serial dilution performed for the following sample associated with batch 570-292247 was outside control limits for Barium and Vanadium: (570-121713-A-11-C SD ^25)

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Antimony and Selenium for preparation batch 570-292280 and analytical batch 570-292657 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.(570-121713-A-1-I MS ^5) and (570-121713-A-1-J MSD ^5)

Method 6010B: The initial calibration verification (ICV) result for batch 570-292657 was above the upper control limit for Antimony. Sample results were non-detects, and have been reported as qualified data.(ICV 570-292657/6)

## Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

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### Job ID: 570-121713-1 (Continued)

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#### Laboratory: Eurofins Calscience (Continued)

Method 7471A: The continuing calibration verification (CCV) associated with batch 570-292281 recovered above the upper control limit for Mercury. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: B-28@20' (570-121713-22), B-28@25' (570-121713-23), B-28@40' (570-121713-26) and B-28@50' (570-121713-28).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

Client Sample ID: B-21@2'

Lab Sample ID: 570-121713-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	130		4.9	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	8.2		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	2.16	J	3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	44.1		3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.303	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Cobalt	3.67		1.01	0.208	mg/Kg	5		6010B	Total/NA
Chromium	13.9		1.01	0.188	mg/Kg	5		6010B	Total/NA
Copper	8.04		2.02	0.968	mg/Kg	5		6010B	Total/NA
Nickel	4.43		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	29.2		1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	13.5		5.05	1.17	mg/Kg	5		6010B	Total/NA
Lead	8.28		2.02	0.413	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-21@5'

Lab Sample ID: 570-121713-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.23	J	3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	29.7		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.175	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	1.60		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	6.75		1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	2.33		2.00	0.958	mg/Kg	5		6010B	Total/NA
Nickel	2.09		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	17.2		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	6.59		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	3.06		2.00	0.409	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-21@10'

Lab Sample ID: 570-121713-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	24.5		2.99	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.236	J	0.498	0.0687	mg/Kg	5		6010B	Total/NA
Cobalt	2.04		0.995	0.205	mg/Kg	5		6010B	Total/NA
Chromium	6.69		0.995	0.185	mg/Kg	5		6010B	Total/NA
Copper	20.4		1.99	0.953	mg/Kg	5		6010B	Total/NA
Nickel	2.23		1.99	0.360	mg/Kg	5		6010B	Total/NA
Vanadium	17.1		0.995	0.167	mg/Kg	5		6010B	Total/NA
Zinc	25.9		4.98	1.15	mg/Kg	5		6010B	Total/NA
Lead	2.51		1.99	0.407	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-21@15'

Lab Sample ID: 570-121713-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.34	J	3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	23.4		3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.341	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Cobalt	30.9		1.01	0.208	mg/Kg	5		6010B	Total/NA
Chromium	6.72		1.01	0.188	mg/Kg	5		6010B	Total/NA
Copper	3.38		2.02	0.968	mg/Kg	5		6010B	Total/NA
Nickel	3.23		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	18.3		1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	18.7		5.05	1.17	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Client Sample ID: B-21@15' (Continued)

## Lab Sample ID: 570-121713-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	4.20		2.02	0.413	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-21@20'

## Lab Sample ID: 570-121713-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	11		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	3.42		3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	37.1		3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.303	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Cobalt	3.19		1.01	0.208	mg/Kg	5		6010B	Total/NA
Chromium	19.9		1.01	0.188	mg/Kg	5		6010B	Total/NA
Copper	22.0		2.02	0.968	mg/Kg	5		6010B	Total/NA
Molybdenum	1.12	J	2.02	0.520	mg/Kg	5		6010B	Total/NA
Nickel	4.03		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	33.1		1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	15.6		5.05	1.17	mg/Kg	5		6010B	Total/NA
Lead	8.71		2.02	0.413	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-21@25'

## Lab Sample ID: 570-121713-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.46		2.96	1.37	mg/Kg	5		6010B	Total/NA
Barium	37.5		2.96	0.140	mg/Kg	5		6010B	Total/NA
Beryllium	0.296	J	0.493	0.0680	mg/Kg	5		6010B	Total/NA
Cobalt	2.28		0.985	0.203	mg/Kg	5		6010B	Total/NA
Chromium	8.57		0.985	0.183	mg/Kg	5		6010B	Total/NA
Copper	4.17		1.97	0.944	mg/Kg	5		6010B	Total/NA
Nickel	3.03		1.97	0.357	mg/Kg	5		6010B	Total/NA
Vanadium	22.6		0.985	0.166	mg/Kg	5		6010B	Total/NA
Zinc	11.8		4.93	1.14	mg/Kg	5		6010B	Total/NA
Lead	3.53		1.97	0.403	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-26@2'

## Lab Sample ID: 570-121713-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	12		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	4.14		2.96	1.37	mg/Kg	5		6010B	Total/NA
Barium	81.0		2.96	0.140	mg/Kg	5		6010B	Total/NA
Beryllium	0.271	J	0.493	0.0680	mg/Kg	5		6010B	Total/NA
Cobalt	4.10		0.985	0.203	mg/Kg	5		6010B	Total/NA
Chromium	12.0		0.985	0.183	mg/Kg	5		6010B	Total/NA
Copper	12.4		1.97	0.944	mg/Kg	5		6010B	Total/NA
Nickel	4.52		1.97	0.357	mg/Kg	5		6010B	Total/NA
Vanadium	26.9		0.985	0.166	mg/Kg	5		6010B	Total/NA
Zinc	27.5		4.93	1.14	mg/Kg	5		6010B	Total/NA
Lead	23.0		1.97	0.403	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-26@5'

## Lab Sample ID: 570-121713-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	6.4		4.9	3.7	mg/Kg	1		8015B	Total/NA
C23-C40	60		4.9	3.7	mg/Kg	1		8015B	Total/NA
Arsenic	4.15		3.00	1.39	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Client Sample ID: B-26@5' (Continued)

## Lab Sample ID: 570-121713-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	71.2		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.300	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	4.14		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	12.8		1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	8.98		2.00	0.958	mg/Kg	5		6010B	Total/NA
Nickel	4.53		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	37.5		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	19.4		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	6.81		2.00	0.409	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-26@10'

## Lab Sample ID: 570-121713-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	5.6		4.8	3.7	mg/Kg	1		8015B	Total/NA
C23-C40	14		4.8	3.7	mg/Kg	1		8015B	Total/NA
Arsenic	3.04		2.94	1.36	mg/Kg	5		6010B	Total/NA
Barium	55.1		2.94	0.139	mg/Kg	5		6010B	Total/NA
Beryllium	0.208	J	0.490	0.0676	mg/Kg	5		6010B	Total/NA
Cobalt	2.65		0.980	0.202	mg/Kg	5		6010B	Total/NA
Chromium	11.0		0.980	0.182	mg/Kg	5		6010B	Total/NA
Copper	5.40		1.96	0.939	mg/Kg	5		6010B	Total/NA
Nickel	3.35		1.96	0.355	mg/Kg	5		6010B	Total/NA
Vanadium	19.6		0.980	0.165	mg/Kg	5		6010B	Total/NA
Zinc	19.3		4.90	1.13	mg/Kg	5		6010B	Total/NA
Lead	7.78		1.96	0.401	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-26@15'

## Lab Sample ID: 570-121713-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.34		2.96	1.37	mg/Kg	5		6010B	Total/NA
Barium	106		2.96	0.140	mg/Kg	5		6010B	Total/NA
Beryllium	0.197	J	0.493	0.0680	mg/Kg	5		6010B	Total/NA
Cobalt	2.06		0.985	0.203	mg/Kg	5		6010B	Total/NA
Chromium	8.40		0.985	0.183	mg/Kg	5		6010B	Total/NA
Copper	21.0		1.97	0.944	mg/Kg	5		6010B	Total/NA
Nickel	2.24		1.97	0.357	mg/Kg	5		6010B	Total/NA
Vanadium	23.3		0.985	0.166	mg/Kg	5		6010B	Total/NA
Zinc	16.7		4.93	1.14	mg/Kg	5		6010B	Total/NA
Lead	39.8		1.97	0.403	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-26@20'

## Lab Sample ID: 570-121713-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	40		4.8	3.7	mg/Kg	1		8015B	Total/NA
Arsenic	16.4		3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	100	F1	3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.467	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Cobalt	4.32		1.01	0.208	mg/Kg	5		6010B	Total/NA
Chromium	9.24		1.01	0.188	mg/Kg	5		6010B	Total/NA
Copper	14.9		2.02	0.968	mg/Kg	5		6010B	Total/NA
Nickel	5.53		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	24.7		1.01	0.170	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience



# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Client Sample ID: B-26@20' (Continued)

## Lab Sample ID: 570-121713-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	32.9		5.05	1.17	mg/Kg	5		6010B	Total/NA
Lead	25.3		2.02	0.413	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-26@25'

## Lab Sample ID: 570-121713-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.48		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	169		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.204	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	2.45		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	14.3		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	9.55		2.04	0.978	mg/Kg	5		6010B	Total/NA
Molybdenum	0.829	J	2.04	0.526	mg/Kg	5		6010B	Total/NA
Nickel	3.25		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	20.0		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	18.5		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	20.5		2.04	0.417	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-26@30'

## Lab Sample ID: 570-121713-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	11		4.9	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	65		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	7.78		3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	58.4		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.338	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	3.29		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	14.6		1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	58.5		2.00	0.958	mg/Kg	5		6010B	Total/NA
Nickel	5.23		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	32.2		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	19.4		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	32.6		2.00	0.409	mg/Kg	5		6010B	Total/NA
Mercury	0.0376	J	0.0850	0.0327	mg/Kg	1		7471A	Total/NA

## Client Sample ID: B-26@35'

## Lab Sample ID: 570-121713-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	4.9		4.9	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	5.5		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	1.66	J	2.96	1.37	mg/Kg	5		6010B	Total/NA
Barium	25.2		2.96	0.140	mg/Kg	5		6010B	Total/NA
Beryllium	0.160	J	0.493	0.0680	mg/Kg	5		6010B	Total/NA
Cobalt	1.72		0.985	0.203	mg/Kg	5		6010B	Total/NA
Chromium	7.18		0.985	0.183	mg/Kg	5		6010B	Total/NA
Copper	30.0		1.97	0.944	mg/Kg	5		6010B	Total/NA
Nickel	2.35		1.97	0.357	mg/Kg	5		6010B	Total/NA
Vanadium	17.1		0.985	0.166	mg/Kg	5		6010B	Total/NA
Zinc	15.8		4.93	1.14	mg/Kg	5		6010B	Total/NA
Lead	19.9		1.97	0.403	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Client Sample ID: B-26@40'

## Lab Sample ID: 570-121713-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	12		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	4.19		3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	49.6		3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.253	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Cobalt	2.42		1.01	0.208	mg/Kg	5		6010B	Total/NA
Chromium	6.34		1.01	0.188	mg/Kg	5		6010B	Total/NA
Copper	15.2		2.02	0.968	mg/Kg	5		6010B	Total/NA
Nickel	2.61		2.02	0.366	mg/Kg	5		6010B	Total/NA
Vanadium	16.9		1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	18.1		5.05	1.17	mg/Kg	5		6010B	Total/NA
Lead	93.8		2.02	0.413	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-26@45'

## Lab Sample ID: 570-121713-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.89		3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	33.0		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.289	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	2.59		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	6.52		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	64.9		2.01	0.963	mg/Kg	5		6010B	Total/NA
Nickel	3.14		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	17.5		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	24.0		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	3.63		2.01	0.411	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-26@50'

## Lab Sample ID: 570-121713-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	32		4.9	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	4.7	J	4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	3.69		2.96	1.37	mg/Kg	5		6010B	Total/NA
Barium	51.3		2.96	0.140	mg/Kg	5		6010B	Total/NA
Beryllium	0.234	J	0.493	0.0680	mg/Kg	5		6010B	Total/NA
Cobalt	1.91		0.985	0.203	mg/Kg	5		6010B	Total/NA
Chromium	8.53		0.985	0.183	mg/Kg	5		6010B	Total/NA
Copper	5.85		1.97	0.944	mg/Kg	5		6010B	Total/NA
Nickel	2.61		1.97	0.357	mg/Kg	5		6010B	Total/NA
Vanadium	14.2		0.985	0.166	mg/Kg	5		6010B	Total/NA
Zinc	12.4		4.93	1.14	mg/Kg	5		6010B	Total/NA
Lead	24.0		1.97	0.403	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-28@2'

## Lab Sample ID: 570-121713-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	4.3	J	4.9	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	71		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	3.30		3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	40.7		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.226	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	3.54		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	8.39		1.01	0.187	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Client Sample ID: B-28@2' (Continued)

Lab Sample ID: 570-121713-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	12.1		2.01	0.963	mg/Kg	5		6010B	Total/NA
Nickel	3.44		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	21.9		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	47.9		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	8.53		2.01	0.411	mg/Kg	5		6010B	Total/NA
Mercury	0.0327	J	0.0850	0.0327	mg/Kg	1		7471A	Total/NA

## Client Sample ID: B-28@5'

Lab Sample ID: 570-121713-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	5.1		4.9	3.7	mg/Kg	1		8015B	Total/NA
Arsenic	2.65	J	3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	40.2		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.176	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	2.22		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	7.65		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	5.89		2.01	0.963	mg/Kg	5		6010B	Total/NA
Nickel	2.76		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	18.7		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	23.3		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	14.0		2.01	0.411	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-28@10'

Lab Sample ID: 570-121713-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	11		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	2.73	J	3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	34.7		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.250	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	2.24		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	10.3		1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	6.10		2.00	0.958	mg/Kg	5		6010B	Total/NA
Nickel	3.04		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	25.8		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	9.71		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	11.6		2.00	0.409	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-28@15'

Lab Sample ID: 570-121713-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	7.3		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	6.24		2.99	1.38	mg/Kg	5		6010B	Total/NA
Barium	56.2		2.99	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.498		0.498	0.0687	mg/Kg	5		6010B	Total/NA
Cobalt	5.37		0.995	0.205	mg/Kg	5		6010B	Total/NA
Chromium	13.5		0.995	0.185	mg/Kg	5		6010B	Total/NA
Copper	14.0		1.99	0.953	mg/Kg	5		6010B	Total/NA
Nickel	8.35		1.99	0.360	mg/Kg	5		6010B	Total/NA
Vanadium	28.0		0.995	0.167	mg/Kg	5		6010B	Total/NA
Zinc	74.5		4.98	1.15	mg/Kg	5		6010B	Total/NA
Lead	13.4		1.99	0.407	mg/Kg	5		6010B	Total/NA
Mercury	0.0333	J	0.0850	0.0327	mg/Kg	1		7471A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

Client Sample ID: B-28@20'

Lab Sample ID: 570-121713-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.54		3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	51.6		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.214	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	2.34		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	5.57		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	4.06		2.01	0.963	mg/Kg	5		6010B	Total/NA
Nickel	2.15		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	15.7		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	11.2		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	4.32		2.01	0.411	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-28@25'

Lab Sample ID: 570-121713-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	9.2		4.9	3.7	mg/Kg	1		8015B	Total/NA
Arsenic	12.7		2.94	1.36	mg/Kg	5		6010B	Total/NA
Barium	88.6		2.94	0.139	mg/Kg	5		6010B	Total/NA
Beryllium	0.331	J	0.490	0.0676	mg/Kg	5		6010B	Total/NA
Cobalt	3.59		0.980	0.202	mg/Kg	5		6010B	Total/NA
Chromium	9.11		0.980	0.182	mg/Kg	5		6010B	Total/NA
Copper	10.4		1.96	0.939	mg/Kg	5		6010B	Total/NA
Nickel	4.39		1.96	0.355	mg/Kg	5		6010B	Total/NA
Vanadium	21.4		0.980	0.165	mg/Kg	5		6010B	Total/NA
Zinc	28.4		4.90	1.13	mg/Kg	5		6010B	Total/NA
Lead	17.4		1.96	0.401	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-28@30'

Lab Sample ID: 570-121713-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	13		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	3.13		3.03	1.41	mg/Kg	5		6010B	Total/NA
Barium	86.2		3.03	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.215	J	0.505	0.0697	mg/Kg	5		6010B	Total/NA
Cobalt	2.18		1.01	0.208	mg/Kg	5		6010B	Total/NA
Chromium	7.94		1.01	0.188	mg/Kg	5		6010B	Total/NA
Copper	22.4		2.02	0.968	mg/Kg	5		6010B	Total/NA
Nickel	2.54		2.02	0.366	mg/Kg	5		6010B	Total/NA
Selenium	1.38	J	3.03	1.23	mg/Kg	5		6010B	Total/NA
Vanadium	19.6		1.01	0.170	mg/Kg	5		6010B	Total/NA
Zinc	36.4		5.05	1.17	mg/Kg	5		6010B	Total/NA
Lead	23.6		2.02	0.413	mg/Kg	5		6010B	Total/NA
Mercury	0.0366	J	0.0850	0.0327	mg/Kg	1		7471A	Total/NA

Client Sample ID: B-28@35'

Lab Sample ID: 570-121713-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	21		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	5.83		2.96	1.37	mg/Kg	5		6010B	Total/NA
Barium	57.2		2.96	0.140	mg/Kg	5		6010B	Total/NA
Beryllium	0.222	J	0.493	0.0680	mg/Kg	5		6010B	Total/NA
Cobalt	2.09		0.985	0.203	mg/Kg	5		6010B	Total/NA
Chromium	6.87		0.985	0.183	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Client Sample ID: B-28@35' (Continued)

## Lab Sample ID: 570-121713-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	7.62		1.97	0.944	mg/Kg	5		6010B	Total/NA
Nickel	2.54		1.97	0.357	mg/Kg	5		6010B	Total/NA
Vanadium	17.1		0.985	0.166	mg/Kg	5		6010B	Total/NA
Zinc	12.0		4.93	1.14	mg/Kg	5		6010B	Total/NA
Lead	27.9		1.97	0.403	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-28@40'

## Lab Sample ID: 570-121713-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	15		4.9	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	280		4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	9.57		3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	68.4		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.276	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	2.44		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	7.12		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	25.5		2.01	0.963	mg/Kg	5		6010B	Total/NA
Nickel	3.04		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	19.6		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	24.3		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	16.6		2.01	0.411	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-28@45'

## Lab Sample ID: 570-121713-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	4.2	J	4.9	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	5.30		3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	135		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.313	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	1.69		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	8.29		1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	4.70		2.00	0.958	mg/Kg	5		6010B	Total/NA
Nickel	2.58		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	21.3		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	14.2		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	4.30		2.00	0.409	mg/Kg	5		6010B	Total/NA
Mercury	0.0349	J	0.0817	0.0314	mg/Kg	1		7471A	Total/NA

## Client Sample ID: B-28@50'

## Lab Sample ID: 570-121713-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.98		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	42.3		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.293	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	1.93		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	6.30		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	18.5		2.04	0.978	mg/Kg	5		6010B	Total/NA
Molybdenum	2.33		2.04	0.526	mg/Kg	5		6010B	Total/NA
Nickel	2.49		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	18.4		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	30.1		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	4.35		2.04	0.417	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-21@2'**  
**Date Collected: 12/21/22 07:24**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-1**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/27/22 10:08	12/27/22 15:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		42 - 126				12/27/22 10:08	12/27/22 15:59	1

**Client Sample ID: B-21@5'**  
**Date Collected: 12/21/22 07:29**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-2**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/27/22 10:08	12/27/22 16:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		42 - 126				12/27/22 10:08	12/27/22 16:24	1

**Client Sample ID: B-21@10'**  
**Date Collected: 12/21/22 07:36**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-3**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/27/22 10:08	12/27/22 17:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		42 - 126				12/27/22 10:08	12/27/22 17:13	1

**Client Sample ID: B-21@15'**  
**Date Collected: 12/21/22 07:43**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-4**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/27/22 10:08	12/27/22 17:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		42 - 126				12/27/22 10:08	12/27/22 17:37	1

**Client Sample ID: B-21@20'**  
**Date Collected: 12/21/22 07:50**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-5**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/27/22 10:08	12/27/22 18:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		42 - 126				12/27/22 10:08	12/27/22 18:02	1

**Client Sample ID: B-21@25'**  
**Date Collected: 12/21/22 07:58**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-6**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/27/22 10:08	12/27/22 18:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		42 - 126				12/27/22 10:08	12/27/22 18:26	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-26@2'**  
**Date Collected: 12/21/22 09:03**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-7**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/27/22 10:08	12/27/22 18:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		42 - 126				12/27/22 10:08	12/27/22 18:50	1

**Client Sample ID: B-26@5'**  
**Date Collected: 12/21/22 09:08**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-8**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/27/22 10:08	12/27/22 19:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		42 - 126				12/27/22 10:08	12/27/22 19:15	1

**Client Sample ID: B-26@10'**  
**Date Collected: 12/21/22 09:17**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-9**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/27/22 10:08	12/27/22 19:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		42 - 126				12/27/22 10:08	12/27/22 19:39	1

**Client Sample ID: B-26@15'**  
**Date Collected: 12/21/22 09:23**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-10**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/27/22 10:08	12/27/22 20:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		42 - 126				12/27/22 10:08	12/27/22 20:04	1

**Client Sample ID: B-26@20'**  
**Date Collected: 12/21/22 09:32**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-11**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/27/22 10:08	12/27/22 20:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		42 - 126				12/27/22 10:08	12/27/22 20:28	1

**Client Sample ID: B-26@25'**  
**Date Collected: 12/21/22 09:40**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-12**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/27/22 10:08	12/27/22 20:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		42 - 126				12/27/22 10:08	12/27/22 20:53	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-26@30'**  
**Date Collected: 12/21/22 10:04**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-13**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/22/22 16:26	12/23/22 01:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		42 - 126				12/22/22 16:26	12/23/22 01:48	1

**Client Sample ID: B-26@35'**  
**Date Collected: 12/21/22 10:24**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-14**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/22/22 16:26	12/23/22 03:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74		42 - 126				12/22/22 16:26	12/23/22 03:04	1

**Client Sample ID: B-26@40'**  
**Date Collected: 12/21/22 10:41**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-15**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/22/22 16:26	12/23/22 03:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74		42 - 126				12/22/22 16:26	12/23/22 03:29	1

**Client Sample ID: B-26@45'**  
**Date Collected: 12/21/22 10:51**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-16**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/22/22 16:26	12/23/22 03:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	70		42 - 126				12/22/22 16:26	12/23/22 03:54	1

**Client Sample ID: B-26@50'**  
**Date Collected: 12/21/22 11:13**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-17**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/22/22 16:26	12/23/22 04:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		42 - 126				12/22/22 16:26	12/23/22 04:19	1

**Client Sample ID: B-28@2'**  
**Date Collected: 12/21/22 12:30**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-18**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/22/22 16:26	12/23/22 04:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	68		42 - 126				12/22/22 16:26	12/23/22 04:44	1



# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-28@5'**  
**Date Collected: 12/21/22 12:34**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-19**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/22/22 16:26	12/23/22 05:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		42 - 126				12/22/22 16:26	12/23/22 05:09	1

**Client Sample ID: B-28@10'**  
**Date Collected: 12/21/22 12:43**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-20**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/22/22 16:26	12/23/22 05:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		42 - 126				12/22/22 16:26	12/23/22 05:35	1

**Client Sample ID: B-28@15'**  
**Date Collected: 12/21/22 12:48**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-21**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/22/22 16:26	12/23/22 06:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		42 - 126				12/22/22 16:26	12/23/22 06:00	1

**Client Sample ID: B-28@20'**  
**Date Collected: 12/21/22 13:05**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-22**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/22/22 16:26	12/23/22 06:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	61		42 - 126				12/22/22 16:26	12/23/22 06:25	1

**Client Sample ID: B-28@25'**  
**Date Collected: 12/21/22 13:11**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-23**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/22/22 16:26	12/23/22 07:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	66		42 - 126				12/22/22 16:26	12/23/22 07:15	1

**Client Sample ID: B-28@30'**  
**Date Collected: 12/21/22 13:23**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-24**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/22/22 16:26	12/23/22 07:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	62		42 - 126				12/22/22 16:26	12/23/22 07:40	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-28@35'**  
**Date Collected: 12/21/22 13:29**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-25**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/22/22 16:26	12/23/22 08:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	63		42 - 126				12/22/22 16:26	12/23/22 08:05	1

**Client Sample ID: B-28@40'**  
**Date Collected: 12/21/22 13:40**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-26**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/22/22 16:26	12/23/22 08:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		42 - 126				12/22/22 16:26	12/23/22 08:31	1

**Client Sample ID: B-28@45'**  
**Date Collected: 12/21/22 13:45**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-27**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/22/22 16:26	12/23/22 08:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	73		42 - 126				12/22/22 16:26	12/23/22 08:56	1

**Client Sample ID: B-28@50'**  
**Date Collected: 12/21/22 14:01**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-28**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/22/22 16:28	12/23/22 09:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	62		42 - 126				12/22/22 16:28	12/23/22 09:21	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B-21@2'  
Date Collected: 12/21/22 07:24  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	130		4.9	3.8	mg/Kg		12/22/22 14:12	12/23/22 09:22	1
C23-C40	8.2		4.9	3.8	mg/Kg		12/22/22 14:12	12/23/22 09:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	89		60 - 138				12/22/22 14:12	12/23/22 09:22	1

Client Sample ID: B-21@5'  
Date Collected: 12/21/22 07:29  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		12/22/22 14:12	12/23/22 09:43	1
C23-C40	ND		4.9	3.8	mg/Kg		12/22/22 14:12	12/23/22 09:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	90		60 - 138				12/22/22 14:12	12/23/22 09:43	1

Client Sample ID: B-21@10'  
Date Collected: 12/21/22 07:36  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		12/22/22 14:12	12/23/22 10:03	1
C23-C40	ND		4.9	3.8	mg/Kg		12/22/22 14:12	12/23/22 10:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	89		60 - 138				12/22/22 14:12	12/23/22 10:03	1

Client Sample ID: B-21@15'  
Date Collected: 12/21/22 07:43  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.7	mg/Kg		12/22/22 14:12	12/23/22 10:24	1
C23-C40	ND		4.9	3.7	mg/Kg		12/22/22 14:12	12/23/22 10:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	91		60 - 138				12/22/22 14:12	12/23/22 10:24	1

Client Sample ID: B-21@20'  
Date Collected: 12/21/22 07:50  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	11		4.9	3.8	mg/Kg		12/22/22 14:12	12/23/22 10:45	1
C23-C40	ND		4.9	3.8	mg/Kg		12/22/22 14:12	12/23/22 10:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	89		60 - 138				12/22/22 14:12	12/23/22 10:45	1

Client Sample ID: B-21@25'  
Date Collected: 12/21/22 07:58  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		12/22/22 14:12	12/23/22 11:06	1
C23-C40	ND		4.9	3.8	mg/Kg		12/22/22 14:12	12/23/22 11:06	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	88		60 - 138			12/22/22 14:12	12/23/22 11:06	1	
Client Sample ID: B-26@2' Date Collected: 12/21/22 09:03 Date Received: 12/21/22 19:20						Lab Sample ID: 570-121713-7 Matrix: Solid			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		12/22/22 14:12	12/23/22 11:26	1
C23-C40	12		4.9	3.8	mg/Kg		12/22/22 14:12	12/23/22 11:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	93		60 - 138			12/22/22 14:12	12/23/22 11:26	1	
Client Sample ID: B-26@5' Date Collected: 12/21/22 09:08 Date Received: 12/21/22 19:20						Lab Sample ID: 570-121713-8 Matrix: Solid			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	6.4		4.9	3.7	mg/Kg		12/22/22 14:12	12/23/22 11:47	1
C23-C40	60		4.9	3.7	mg/Kg		12/22/22 14:12	12/23/22 11:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	88		60 - 138			12/22/22 14:12	12/23/22 11:47	1	
Client Sample ID: B-26@10' Date Collected: 12/21/22 09:17 Date Received: 12/21/22 19:20						Lab Sample ID: 570-121713-9 Matrix: Solid			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	5.6		4.8	3.7	mg/Kg		12/22/22 14:12	12/23/22 12:08	1
C23-C40	14		4.8	3.7	mg/Kg		12/22/22 14:12	12/23/22 12:08	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	94		60 - 138			12/22/22 14:12	12/23/22 12:08	1	
Client Sample ID: B-26@15' Date Collected: 12/21/22 09:23 Date Received: 12/21/22 19:20						Lab Sample ID: 570-121713-10 Matrix: Solid			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.8	3.7	mg/Kg		12/22/22 14:12	12/23/22 12:50	1
C23-C40	ND		4.8	3.7	mg/Kg		12/22/22 14:12	12/23/22 12:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	87		60 - 138			12/22/22 14:12	12/23/22 12:50	1	
Client Sample ID: B-26@20' Date Collected: 12/21/22 09:32 Date Received: 12/21/22 19:20						Lab Sample ID: 570-121713-11 Matrix: Solid			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.8	3.7	mg/Kg		12/22/22 14:12	12/23/22 13:11	1
C23-C40	40		4.8	3.7	mg/Kg		12/22/22 14:12	12/23/22 13:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
n-Octacosane (Surr)	87		60 - 138			12/22/22 14:12	12/23/22 13:11	1	

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B-26@25'  
Date Collected: 12/21/22 09:40  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.8	3.7	mg/Kg		12/22/22 14:12	12/23/22 13:32	1
C23-C40	ND		4.8	3.7	mg/Kg		12/22/22 14:12	12/23/22 13:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	88		60 - 138				12/22/22 14:12	12/23/22 13:32	1

Client Sample ID: B-26@30'  
Date Collected: 12/21/22 10:04  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	11		4.9	3.8	mg/Kg		12/22/22 14:12	12/23/22 13:53	1
C23-C40	65		4.9	3.8	mg/Kg		12/22/22 14:12	12/23/22 13:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	88		60 - 138				12/22/22 14:12	12/23/22 13:53	1

Client Sample ID: B-26@35'  
Date Collected: 12/21/22 10:24  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-14  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	4.9		4.9	3.8	mg/Kg		12/22/22 14:12	12/23/22 14:14	1
C23-C40	5.5		4.9	3.8	mg/Kg		12/22/22 14:12	12/23/22 14:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	87		60 - 138				12/22/22 14:12	12/23/22 14:14	1

Client Sample ID: B-26@40'  
Date Collected: 12/21/22 10:41  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-15  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		12/22/22 14:12	12/23/22 14:35	1
C23-C40	12		4.9	3.8	mg/Kg		12/22/22 14:12	12/23/22 14:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	90		60 - 138				12/22/22 14:12	12/23/22 14:35	1

Client Sample ID: B-26@45'  
Date Collected: 12/21/22 10:51  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-16  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/22/22 14:12	12/23/22 14:56	1
C23-C40	ND		5.0	3.8	mg/Kg		12/22/22 14:12	12/23/22 14:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	91		60 - 138				12/22/22 14:12	12/23/22 14:56	1

Client Sample ID: B-26@50'  
Date Collected: 12/21/22 11:13  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-17  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	32		4.9	3.8	mg/Kg		12/22/22 14:12	12/23/22 15:17	1
C23-C40	4.7 J		4.9	3.8	mg/Kg		12/22/22 14:12	12/23/22 15:17	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	91		60 - 138	12/22/22 14:12	12/23/22 15:17	1
<div> <div>Client Sample ID: B-28@2'</div> <div>Date Collected: 12/21/22 12:30</div> <div>Date Received: 12/21/22 19:20</div> </div> <div> <div>Lab Sample ID: 570-121713-18</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	4.3	J	4.9	3.8	mg/Kg	
C23-C40	71		4.9	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	84		60 - 138	12/22/22 14:12	12/23/22 15:38	1
<div> <div>Client Sample ID: B-28@5'</div> <div>Date Collected: 12/21/22 12:34</div> <div>Date Received: 12/21/22 19:20</div> </div> <div> <div>Lab Sample ID: 570-121713-19</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		4.9	3.7	mg/Kg	
C23-C40	5.1		4.9	3.7	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	89		60 - 138	12/22/22 14:12	12/23/22 15:59	1
<div> <div>Client Sample ID: B-28@10'</div> <div>Date Collected: 12/21/22 12:43</div> <div>Date Received: 12/21/22 19:20</div> </div> <div> <div>Lab Sample ID: 570-121713-20</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		4.9	3.8	mg/Kg	
C23-C40	11		4.9	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	91		60 - 138	12/22/22 14:12	12/23/22 16:19	1
<div> <div>Client Sample ID: B-28@15'</div> <div>Date Collected: 12/21/22 12:48</div> <div>Date Received: 12/21/22 19:20</div> </div> <div> <div>Lab Sample ID: 570-121713-21</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		4.9	3.8	mg/Kg	
C23-C40	7.3		4.9	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	88		60 - 138	12/22/22 14:16	12/23/22 20:30	1
<div> <div>Client Sample ID: B-28@20'</div> <div>Date Collected: 12/21/22 13:05</div> <div>Date Received: 12/21/22 19:20</div> </div> <div> <div>Lab Sample ID: 570-121713-22</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		4.9	3.8	mg/Kg	
C23-C40	ND		4.9	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	88		60 - 138	12/22/22 14:16	12/23/22 20:51	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B-28@25'  
Date Collected: 12/21/22 13:11  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-23  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.7	mg/Kg		12/22/22 14:16	12/23/22 21:12	1
C23-C40	9.2		4.9	3.7	mg/Kg		12/22/22 14:16	12/23/22 21:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	88		60 - 138				12/22/22 14:16	12/23/22 21:12	1

Client Sample ID: B-28@30'  
Date Collected: 12/21/22 13:23  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-24  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		12/22/22 14:16	12/23/22 21:34	1
C23-C40	13		4.9	3.8	mg/Kg		12/22/22 14:16	12/23/22 21:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	89		60 - 138				12/22/22 14:16	12/23/22 21:34	1

Client Sample ID: B-28@35'  
Date Collected: 12/21/22 13:29  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-25  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		12/22/22 14:16	12/23/22 21:56	1
C23-C40	21		4.9	3.8	mg/Kg		12/22/22 14:16	12/23/22 21:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	91		60 - 138				12/22/22 14:16	12/23/22 21:56	1

Client Sample ID: B-28@40'  
Date Collected: 12/21/22 13:40  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-26  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	15		4.9	3.8	mg/Kg		12/22/22 14:16	12/23/22 22:18	1
C23-C40	280		4.9	3.8	mg/Kg		12/22/22 14:16	12/23/22 22:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	90		60 - 138				12/22/22 14:16	12/23/22 22:18	1

Client Sample ID: B-28@45'  
Date Collected: 12/21/22 13:45  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-27  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		12/22/22 14:16	12/23/22 22:39	1
C23-C40	4.2 J		4.9	3.8	mg/Kg		12/22/22 14:16	12/23/22 22:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	93		60 - 138				12/22/22 14:16	12/23/22 22:39	1

Client Sample ID: B-28@50'  
Date Collected: 12/21/22 14:01  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-28  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	3.8	mg/Kg		12/22/22 14:16	12/23/22 23:01	1
C23-C40	ND		4.9	3.8	mg/Kg		12/22/22 14:16	12/23/22 23:01	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC) (Continued)

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
n-Octacosane (Surr)	86		60 - 138	12/22/22 14:16	12/23/22 23:01	1



# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-21@2'  
Date Collected: 12/21/22 07:24  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/28/22 14:01	12/29/22 13:51	5
Arsenic	2.16	J	3.03	1.41	mg/Kg		12/28/22 14:01	12/29/22 13:51	5
Barium	44.1		3.03	0.143	mg/Kg		12/28/22 14:01	12/29/22 13:51	5
Beryllium	0.303	J	0.505	0.0697	mg/Kg		12/28/22 14:01	12/29/22 13:51	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/28/22 14:01	12/29/22 13:51	5
Cobalt	3.67		1.01	0.208	mg/Kg		12/28/22 14:01	12/29/22 13:51	5
Chromium	13.9		1.01	0.188	mg/Kg		12/28/22 14:01	12/29/22 13:51	5
Copper	8.04		2.02	0.968	mg/Kg		12/28/22 14:01	12/29/22 13:51	5
Molybdenum	ND		2.02	0.520	mg/Kg		12/28/22 14:01	12/29/22 13:51	5
Nickel	4.43		2.02	0.366	mg/Kg		12/28/22 14:01	12/29/22 13:51	5
Antimony	ND	^1+ F1	10.1	2.89	mg/Kg		12/28/22 14:01	12/29/22 13:51	5
Selenium	ND	F1	3.03	1.23	mg/Kg		12/28/22 14:01	12/29/22 13:51	5
Thallium	ND		10.1	2.13	mg/Kg		12/28/22 14:01	12/29/22 13:51	5
Vanadium	29.2		1.01	0.170	mg/Kg		12/28/22 14:01	12/29/22 13:51	5
Zinc	13.5		5.05	1.17	mg/Kg		12/28/22 14:01	12/29/22 13:51	5
Lead	8.28		2.02	0.413	mg/Kg		12/28/22 14:01	12/29/22 13:51	5

Client Sample ID: B-21@5'  
Date Collected: 12/21/22 07:29  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/27/22 05:45	12/27/22 23:54	5
Arsenic	2.23	J	3.00	1.39	mg/Kg		12/27/22 05:45	12/27/22 23:54	5
Barium	29.7		3.00	0.142	mg/Kg		12/27/22 05:45	12/27/22 23:54	5
Beryllium	0.175	J	0.500	0.0690	mg/Kg		12/27/22 05:45	12/27/22 23:54	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/27/22 05:45	12/27/22 23:54	5
Cobalt	1.60		1.00	0.206	mg/Kg		12/27/22 05:45	12/27/22 23:54	5
Chromium	6.75		1.00	0.186	mg/Kg		12/27/22 05:45	12/27/22 23:54	5
Copper	2.33		2.00	0.958	mg/Kg		12/27/22 05:45	12/27/22 23:54	5
Molybdenum	ND		2.00	0.515	mg/Kg		12/27/22 05:45	12/27/22 23:54	5
Nickel	2.09		2.00	0.362	mg/Kg		12/27/22 05:45	12/27/22 23:54	5
Antimony	ND		10.0	2.86	mg/Kg		12/27/22 05:45	12/27/22 23:54	5
Selenium	ND		3.00	1.22	mg/Kg		12/27/22 05:45	12/27/22 23:54	5
Thallium	ND		10.0	2.11	mg/Kg		12/27/22 05:45	12/27/22 23:54	5
Vanadium	17.2		1.00	0.168	mg/Kg		12/27/22 05:45	12/27/22 23:54	5
Zinc	6.59		5.00	1.16	mg/Kg		12/27/22 05:45	12/27/22 23:54	5
Lead	3.06		2.00	0.409	mg/Kg		12/27/22 05:45	12/27/22 23:54	5

Client Sample ID: B-21@10'  
Date Collected: 12/21/22 07:36  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/27/22 05:45	12/27/22 23:56	5
Arsenic	ND		2.99	1.38	mg/Kg		12/27/22 05:45	12/27/22 23:56	5
Barium	24.5		2.99	0.141	mg/Kg		12/27/22 05:45	12/27/22 23:56	5
Beryllium	0.236	J	0.498	0.0687	mg/Kg		12/27/22 05:45	12/27/22 23:56	5
Cadmium	ND		0.498	0.0826	mg/Kg		12/27/22 05:45	12/27/22 23:56	5
Cobalt	2.04		0.995	0.205	mg/Kg		12/27/22 05:45	12/27/22 23:56	5
Chromium	6.69		0.995	0.185	mg/Kg		12/27/22 05:45	12/27/22 23:56	5
Copper	20.4		1.99	0.953	mg/Kg		12/27/22 05:45	12/27/22 23:56	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-21@10'  
Date Collected: 12/21/22 07:36  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		1.99	0.512	mg/Kg		12/27/22 05:45	12/27/22 23:56	5
Nickel	2.23		1.99	0.360	mg/Kg		12/27/22 05:45	12/27/22 23:56	5
Antimony	ND		9.95	2.84	mg/Kg		12/27/22 05:45	12/27/22 23:56	5
Selenium	ND		2.99	1.22	mg/Kg		12/27/22 05:45	12/27/22 23:56	5
Thallium	ND		9.95	2.10	mg/Kg		12/27/22 05:45	12/27/22 23:56	5
Vanadium	17.1		0.995	0.167	mg/Kg		12/27/22 05:45	12/27/22 23:56	5
Zinc	25.9		4.98	1.15	mg/Kg		12/27/22 05:45	12/27/22 23:56	5
Lead	2.51		1.99	0.407	mg/Kg		12/27/22 05:45	12/27/22 23:56	5

Client Sample ID: B-21@15'  
Date Collected: 12/21/22 07:43  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/27/22 05:45	12/27/22 23:59	5
Arsenic	2.34	J	3.03	1.41	mg/Kg		12/27/22 05:45	12/27/22 23:59	5
Barium	23.4		3.03	0.143	mg/Kg		12/27/22 05:45	12/27/22 23:59	5
Beryllium	0.341	J	0.505	0.0697	mg/Kg		12/27/22 05:45	12/27/22 23:59	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/27/22 05:45	12/27/22 23:59	5
Cobalt	30.9		1.01	0.208	mg/Kg		12/27/22 05:45	12/27/22 23:59	5
Chromium	6.72		1.01	0.188	mg/Kg		12/27/22 05:45	12/27/22 23:59	5
Copper	3.38		2.02	0.968	mg/Kg		12/27/22 05:45	12/27/22 23:59	5
Molybdenum	ND		2.02	0.520	mg/Kg		12/27/22 05:45	12/27/22 23:59	5
Nickel	3.23		2.02	0.366	mg/Kg		12/27/22 05:45	12/27/22 23:59	5
Antimony	ND		10.1	2.89	mg/Kg		12/27/22 05:45	12/27/22 23:59	5
Selenium	ND		3.03	1.23	mg/Kg		12/27/22 05:45	12/27/22 23:59	5
Thallium	ND		10.1	2.13	mg/Kg		12/27/22 05:45	12/27/22 23:59	5
Vanadium	18.3		1.01	0.170	mg/Kg		12/27/22 05:45	12/27/22 23:59	5
Zinc	18.7		5.05	1.17	mg/Kg		12/27/22 05:45	12/27/22 23:59	5
Lead	4.20		2.02	0.413	mg/Kg		12/27/22 05:45	12/27/22 23:59	5

Client Sample ID: B-21@20'  
Date Collected: 12/21/22 07:50  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/27/22 05:45	12/28/22 00:01	5
Arsenic	3.42		3.03	1.41	mg/Kg		12/27/22 05:45	12/28/22 00:01	5
Barium	37.1		3.03	0.143	mg/Kg		12/27/22 05:45	12/28/22 00:01	5
Beryllium	0.303	J	0.505	0.0697	mg/Kg		12/27/22 05:45	12/28/22 00:01	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/27/22 05:45	12/28/22 00:01	5
Cobalt	3.19		1.01	0.208	mg/Kg		12/27/22 05:45	12/28/22 00:01	5
Chromium	19.9		1.01	0.188	mg/Kg		12/27/22 05:45	12/28/22 00:01	5
Copper	22.0		2.02	0.968	mg/Kg		12/27/22 05:45	12/28/22 00:01	5
Molybdenum	1.12	J	2.02	0.520	mg/Kg		12/27/22 05:45	12/28/22 00:01	5
Nickel	4.03		2.02	0.366	mg/Kg		12/27/22 05:45	12/28/22 00:01	5
Antimony	ND		10.1	2.89	mg/Kg		12/27/22 05:45	12/28/22 00:01	5
Selenium	ND		3.03	1.23	mg/Kg		12/27/22 05:45	12/28/22 00:01	5
Thallium	ND		10.1	2.13	mg/Kg		12/27/22 05:45	12/28/22 00:01	5
Vanadium	33.1		1.01	0.170	mg/Kg		12/27/22 05:45	12/28/22 00:01	5
Zinc	15.6		5.05	1.17	mg/Kg		12/27/22 05:45	12/28/22 00:01	5
Lead	8.71		2.02	0.413	mg/Kg		12/27/22 05:45	12/28/22 00:01	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-21@25'  
Date Collected: 12/21/22 07:58  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.48	0.142	mg/Kg		12/27/22 05:45	12/28/22 00:04	5
Arsenic	3.46		2.96	1.37	mg/Kg		12/27/22 05:45	12/28/22 00:04	5
Barium	37.5		2.96	0.140	mg/Kg		12/27/22 05:45	12/28/22 00:04	5
Beryllium	0.296	J	0.493	0.0680	mg/Kg		12/27/22 05:45	12/28/22 00:04	5
Cadmium	ND		0.493	0.0818	mg/Kg		12/27/22 05:45	12/28/22 00:04	5
Cobalt	2.28		0.985	0.203	mg/Kg		12/27/22 05:45	12/28/22 00:04	5
Chromium	8.57		0.985	0.183	mg/Kg		12/27/22 05:45	12/28/22 00:04	5
Copper	4.17		1.97	0.944	mg/Kg		12/27/22 05:45	12/28/22 00:04	5
Molybdenum	ND		1.97	0.507	mg/Kg		12/27/22 05:45	12/28/22 00:04	5
Nickel	3.03		1.97	0.357	mg/Kg		12/27/22 05:45	12/28/22 00:04	5
Antimony	ND		9.85	2.81	mg/Kg		12/27/22 05:45	12/28/22 00:04	5
Selenium	ND		2.96	1.20	mg/Kg		12/27/22 05:45	12/28/22 00:04	5
Thallium	ND		9.85	2.07	mg/Kg		12/27/22 05:45	12/28/22 00:04	5
Vanadium	22.6		0.985	0.166	mg/Kg		12/27/22 05:45	12/28/22 00:04	5
Zinc	11.8		4.93	1.14	mg/Kg		12/27/22 05:45	12/28/22 00:04	5
Lead	3.53		1.97	0.403	mg/Kg		12/27/22 05:45	12/28/22 00:04	5

Client Sample ID: B-26@2'  
Date Collected: 12/21/22 09:03  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-7  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.48	0.142	mg/Kg		12/27/22 05:45	12/28/22 00:11	5
Arsenic	4.14		2.96	1.37	mg/Kg		12/27/22 05:45	12/28/22 00:11	5
Barium	81.0		2.96	0.140	mg/Kg		12/27/22 05:45	12/28/22 00:11	5
Beryllium	0.271	J	0.493	0.0680	mg/Kg		12/27/22 05:45	12/28/22 00:11	5
Cadmium	ND		0.493	0.0818	mg/Kg		12/27/22 05:45	12/28/22 00:11	5
Cobalt	4.10		0.985	0.203	mg/Kg		12/27/22 05:45	12/28/22 00:11	5
Chromium	12.0		0.985	0.183	mg/Kg		12/27/22 05:45	12/28/22 00:11	5
Copper	12.4		1.97	0.944	mg/Kg		12/27/22 05:45	12/28/22 00:11	5
Molybdenum	ND		1.97	0.507	mg/Kg		12/27/22 05:45	12/28/22 00:11	5
Nickel	4.52		1.97	0.357	mg/Kg		12/27/22 05:45	12/28/22 00:11	5
Antimony	ND		9.85	2.81	mg/Kg		12/27/22 05:45	12/28/22 00:11	5
Selenium	ND		2.96	1.20	mg/Kg		12/27/22 05:45	12/28/22 00:11	5
Thallium	ND		9.85	2.07	mg/Kg		12/27/22 05:45	12/28/22 00:11	5
Vanadium	26.9		0.985	0.166	mg/Kg		12/27/22 05:45	12/28/22 00:11	5
Zinc	27.5		4.93	1.14	mg/Kg		12/27/22 05:45	12/28/22 00:11	5
Lead	23.0		1.97	0.403	mg/Kg		12/27/22 05:45	12/28/22 00:11	5

Client Sample ID: B-26@5'  
Date Collected: 12/21/22 09:08  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/27/22 05:45	12/28/22 00:13	5
Arsenic	4.15		3.00	1.39	mg/Kg		12/27/22 05:45	12/28/22 00:13	5
Barium	71.2		3.00	0.142	mg/Kg		12/27/22 05:45	12/28/22 00:13	5
Beryllium	0.300	J	0.500	0.0690	mg/Kg		12/27/22 05:45	12/28/22 00:13	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/27/22 05:45	12/28/22 00:13	5
Cobalt	4.14		1.00	0.206	mg/Kg		12/27/22 05:45	12/28/22 00:13	5
Chromium	12.8		1.00	0.186	mg/Kg		12/27/22 05:45	12/28/22 00:13	5
Copper	8.98		2.00	0.958	mg/Kg		12/27/22 05:45	12/28/22 00:13	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-26@5'  
Date Collected: 12/21/22 09:08  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		2.00	0.515	mg/Kg		12/27/22 05:45	12/28/22 00:13	5
Nickel	4.53		2.00	0.362	mg/Kg		12/27/22 05:45	12/28/22 00:13	5
Antimony	ND		10.0	2.86	mg/Kg		12/27/22 05:45	12/28/22 00:13	5
Selenium	ND		3.00	1.22	mg/Kg		12/27/22 05:45	12/28/22 00:13	5
Thallium	ND		10.0	2.11	mg/Kg		12/27/22 05:45	12/28/22 00:13	5
Vanadium	37.5		1.00	0.168	mg/Kg		12/27/22 05:45	12/28/22 00:13	5
Zinc	19.4		5.00	1.16	mg/Kg		12/27/22 05:45	12/28/22 00:13	5
Lead	6.81		2.00	0.409	mg/Kg		12/27/22 05:45	12/28/22 00:13	5

Client Sample ID: B-26@10'  
Date Collected: 12/21/22 09:17  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-9  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.47	0.141	mg/Kg		12/27/22 05:45	12/28/22 00:16	5
Arsenic	3.04		2.94	1.36	mg/Kg		12/27/22 05:45	12/28/22 00:16	5
Barium	55.1		2.94	0.139	mg/Kg		12/27/22 05:45	12/28/22 00:16	5
Beryllium	0.208	J	0.490	0.0676	mg/Kg		12/27/22 05:45	12/28/22 00:16	5
Cadmium	ND		0.490	0.0814	mg/Kg		12/27/22 05:45	12/28/22 00:16	5
Cobalt	2.65		0.980	0.202	mg/Kg		12/27/22 05:45	12/28/22 00:16	5
Chromium	11.0		0.980	0.182	mg/Kg		12/27/22 05:45	12/28/22 00:16	5
Copper	5.40		1.96	0.939	mg/Kg		12/27/22 05:45	12/28/22 00:16	5
Molybdenum	ND		1.96	0.505	mg/Kg		12/27/22 05:45	12/28/22 00:16	5
Nickel	3.35		1.96	0.355	mg/Kg		12/27/22 05:45	12/28/22 00:16	5
Antimony	ND		9.80	2.80	mg/Kg		12/27/22 05:45	12/28/22 00:16	5
Selenium	ND		2.94	1.20	mg/Kg		12/27/22 05:45	12/28/22 00:16	5
Thallium	ND		9.80	2.06	mg/Kg		12/27/22 05:45	12/28/22 00:16	5
Vanadium	19.6		0.980	0.165	mg/Kg		12/27/22 05:45	12/28/22 00:16	5
Zinc	19.3		4.90	1.13	mg/Kg		12/27/22 05:45	12/28/22 00:16	5
Lead	7.78		1.96	0.401	mg/Kg		12/27/22 05:45	12/28/22 00:16	5

Client Sample ID: B-26@15'  
Date Collected: 12/21/22 09:23  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-10  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.48	0.142	mg/Kg		12/27/22 05:45	12/28/22 00:18	5
Arsenic	3.34		2.96	1.37	mg/Kg		12/27/22 05:45	12/28/22 00:18	5
Barium	106		2.96	0.140	mg/Kg		12/27/22 05:45	12/28/22 00:18	5
Beryllium	0.197	J	0.493	0.0680	mg/Kg		12/27/22 05:45	12/28/22 00:18	5
Cadmium	ND		0.493	0.0818	mg/Kg		12/27/22 05:45	12/28/22 00:18	5
Cobalt	2.06		0.985	0.203	mg/Kg		12/27/22 05:45	12/28/22 00:18	5
Chromium	8.40		0.985	0.183	mg/Kg		12/27/22 05:45	12/28/22 00:18	5
Copper	21.0		1.97	0.944	mg/Kg		12/27/22 05:45	12/28/22 00:18	5
Molybdenum	ND		1.97	0.507	mg/Kg		12/27/22 05:45	12/28/22 00:18	5
Nickel	2.24		1.97	0.357	mg/Kg		12/27/22 05:45	12/28/22 00:18	5
Antimony	ND		9.85	2.81	mg/Kg		12/27/22 05:45	12/28/22 00:18	5
Selenium	ND		2.96	1.20	mg/Kg		12/27/22 05:45	12/28/22 00:18	5
Thallium	ND		9.85	2.07	mg/Kg		12/27/22 05:45	12/28/22 00:18	5
Vanadium	23.3		0.985	0.166	mg/Kg		12/27/22 05:45	12/28/22 00:18	5
Zinc	16.7		4.93	1.14	mg/Kg		12/27/22 05:45	12/28/22 00:18	5
Lead	39.8		1.97	0.403	mg/Kg		12/27/22 05:45	12/28/22 00:18	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-26@20'  
Date Collected: 12/21/22 09:32  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-11  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/27/22 05:45	12/27/22 23:44	5
Arsenic	16.4		3.03	1.41	mg/Kg		12/27/22 05:45	12/27/22 23:44	5
Barium	100	F1	3.03	0.143	mg/Kg		12/27/22 05:45	12/27/22 23:44	5
Beryllium	0.467	J	0.505	0.0697	mg/Kg		12/27/22 05:45	12/27/22 23:44	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/27/22 05:45	12/27/22 23:44	5
Cobalt	4.32		1.01	0.208	mg/Kg		12/27/22 05:45	12/27/22 23:44	5
Chromium	9.24		1.01	0.188	mg/Kg		12/27/22 05:45	12/27/22 23:44	5
Copper	14.9		2.02	0.968	mg/Kg		12/27/22 05:45	12/27/22 23:44	5
Molybdenum	ND		2.02	0.520	mg/Kg		12/27/22 05:45	12/27/22 23:44	5
Nickel	5.53		2.02	0.366	mg/Kg		12/27/22 05:45	12/27/22 23:44	5
Antimony	ND	F1	10.1	2.89	mg/Kg		12/27/22 05:45	12/27/22 23:44	5
Selenium	ND		3.03	1.23	mg/Kg		12/27/22 05:45	12/27/22 23:44	5
Thallium	ND		10.1	2.13	mg/Kg		12/27/22 05:45	12/27/22 23:44	5
Vanadium	24.7		1.01	0.170	mg/Kg		12/27/22 05:45	12/27/22 23:44	5
Zinc	32.9		5.05	1.17	mg/Kg		12/27/22 05:45	12/27/22 23:44	5
Lead	25.3		2.02	0.413	mg/Kg		12/27/22 05:45	12/27/22 23:44	5

Client Sample ID: B-26@25'  
Date Collected: 12/21/22 09:40  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/27/22 05:45	12/28/22 00:21	5
Arsenic	3.48		3.06	1.42	mg/Kg		12/27/22 05:45	12/28/22 00:21	5
Barium	169		3.06	0.145	mg/Kg		12/27/22 05:45	12/28/22 00:21	5
Beryllium	0.204	J	0.510	0.0704	mg/Kg		12/27/22 05:45	12/28/22 00:21	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/27/22 05:45	12/28/22 00:21	5
Cobalt	2.45		1.02	0.210	mg/Kg		12/27/22 05:45	12/28/22 00:21	5
Chromium	14.3		1.02	0.190	mg/Kg		12/27/22 05:45	12/28/22 00:21	5
Copper	9.55		2.04	0.978	mg/Kg		12/27/22 05:45	12/28/22 00:21	5
Molybdenum	0.829	J	2.04	0.526	mg/Kg		12/27/22 05:45	12/28/22 00:21	5
Nickel	3.25		2.04	0.369	mg/Kg		12/27/22 05:45	12/28/22 00:21	5
Antimony	ND		10.2	2.92	mg/Kg		12/27/22 05:45	12/28/22 00:21	5
Selenium	ND		3.06	1.25	mg/Kg		12/27/22 05:45	12/28/22 00:21	5
Thallium	ND		10.2	2.15	mg/Kg		12/27/22 05:45	12/28/22 00:21	5
Vanadium	20.0		1.02	0.171	mg/Kg		12/27/22 05:45	12/28/22 00:21	5
Zinc	18.5		5.10	1.18	mg/Kg		12/27/22 05:45	12/28/22 00:21	5
Lead	20.5		2.04	0.417	mg/Kg		12/27/22 05:45	12/28/22 00:21	5

Client Sample ID: B-26@30'  
Date Collected: 12/21/22 10:04  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/27/22 05:45	12/28/22 00:23	5
Arsenic	7.78		3.00	1.39	mg/Kg		12/27/22 05:45	12/28/22 00:23	5
Barium	58.4		3.00	0.142	mg/Kg		12/27/22 05:45	12/28/22 00:23	5
Beryllium	0.338	J	0.500	0.0690	mg/Kg		12/27/22 05:45	12/28/22 00:23	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/27/22 05:45	12/28/22 00:23	5
Cobalt	3.29		1.00	0.206	mg/Kg		12/27/22 05:45	12/28/22 00:23	5
Chromium	14.6		1.00	0.186	mg/Kg		12/27/22 05:45	12/28/22 00:23	5
Copper	58.5		2.00	0.958	mg/Kg		12/27/22 05:45	12/28/22 00:23	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-26@30'  
Date Collected: 12/21/22 10:04  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		2.00	0.515	mg/Kg		12/27/22 05:45	12/28/22 00:23	5
Nickel	5.23		2.00	0.362	mg/Kg		12/27/22 05:45	12/28/22 00:23	5
Antimony	ND		10.0	2.86	mg/Kg		12/27/22 05:45	12/28/22 00:23	5
Selenium	ND		3.00	1.22	mg/Kg		12/27/22 05:45	12/28/22 00:23	5
Thallium	ND		10.0	2.11	mg/Kg		12/27/22 05:45	12/28/22 00:23	5
Vanadium	32.2		1.00	0.168	mg/Kg		12/27/22 05:45	12/28/22 00:23	5
Zinc	19.4		5.00	1.16	mg/Kg		12/27/22 05:45	12/28/22 00:23	5
Lead	32.6		2.00	0.409	mg/Kg		12/27/22 05:45	12/28/22 00:23	5

Client Sample ID: B-26@35'  
Date Collected: 12/21/22 10:24  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-14  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.48	0.142	mg/Kg		12/27/22 05:45	12/28/22 00:26	5
Arsenic	1.66	J	2.96	1.37	mg/Kg		12/27/22 05:45	12/28/22 00:26	5
Barium	25.2		2.96	0.140	mg/Kg		12/27/22 05:45	12/28/22 00:26	5
Beryllium	0.160	J	0.493	0.0680	mg/Kg		12/27/22 05:45	12/28/22 00:26	5
Cadmium	ND		0.493	0.0818	mg/Kg		12/27/22 05:45	12/28/22 00:26	5
Cobalt	1.72		0.985	0.203	mg/Kg		12/27/22 05:45	12/28/22 00:26	5
Chromium	7.18		0.985	0.183	mg/Kg		12/27/22 05:45	12/28/22 00:26	5
Copper	30.0		1.97	0.944	mg/Kg		12/27/22 05:45	12/28/22 00:26	5
Molybdenum	ND		1.97	0.507	mg/Kg		12/27/22 05:45	12/28/22 00:26	5
Nickel	2.35		1.97	0.357	mg/Kg		12/27/22 05:45	12/28/22 00:26	5
Antimony	ND		9.85	2.81	mg/Kg		12/27/22 05:45	12/28/22 00:26	5
Selenium	ND		2.96	1.20	mg/Kg		12/27/22 05:45	12/28/22 00:26	5
Thallium	ND		9.85	2.07	mg/Kg		12/27/22 05:45	12/28/22 00:26	5
Vanadium	17.1		0.985	0.166	mg/Kg		12/27/22 05:45	12/28/22 00:26	5
Zinc	15.8		4.93	1.14	mg/Kg		12/27/22 05:45	12/28/22 00:26	5
Lead	19.9		1.97	0.403	mg/Kg		12/27/22 05:45	12/28/22 00:26	5

Client Sample ID: B-26@40'  
Date Collected: 12/21/22 10:41  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-15  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/27/22 05:45	12/28/22 00:28	5
Arsenic	4.19		3.03	1.41	mg/Kg		12/27/22 05:45	12/28/22 00:28	5
Barium	49.6		3.03	0.143	mg/Kg		12/27/22 05:45	12/28/22 00:28	5
Beryllium	0.253	J	0.505	0.0697	mg/Kg		12/27/22 05:45	12/28/22 00:28	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/27/22 05:45	12/28/22 00:28	5
Cobalt	2.42		1.01	0.208	mg/Kg		12/27/22 05:45	12/28/22 00:28	5
Chromium	6.34		1.01	0.188	mg/Kg		12/27/22 05:45	12/28/22 00:28	5
Copper	15.2		2.02	0.968	mg/Kg		12/27/22 05:45	12/28/22 00:28	5
Molybdenum	ND		2.02	0.520	mg/Kg		12/27/22 05:45	12/28/22 00:28	5
Nickel	2.61		2.02	0.366	mg/Kg		12/27/22 05:45	12/28/22 00:28	5
Antimony	ND		10.1	2.89	mg/Kg		12/27/22 05:45	12/28/22 00:28	5
Selenium	ND		3.03	1.23	mg/Kg		12/27/22 05:45	12/28/22 00:28	5
Thallium	ND		10.1	2.13	mg/Kg		12/27/22 05:45	12/28/22 00:28	5
Vanadium	16.9		1.01	0.170	mg/Kg		12/27/22 05:45	12/28/22 00:28	5
Zinc	18.1		5.05	1.17	mg/Kg		12/27/22 05:45	12/28/22 00:28	5
Lead	93.8		2.02	0.413	mg/Kg		12/27/22 05:45	12/28/22 00:28	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-26@45'  
Date Collected: 12/21/22 10:51  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-16  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/27/22 05:45	12/28/22 00:30	5
Arsenic	3.89		3.02	1.40	mg/Kg		12/27/22 05:45	12/28/22 00:30	5
Barium	33.0		3.02	0.143	mg/Kg		12/27/22 05:45	12/28/22 00:30	5
Beryllium	0.289	J	0.503	0.0693	mg/Kg		12/27/22 05:45	12/28/22 00:30	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/27/22 05:45	12/28/22 00:30	5
Cobalt	2.59		1.01	0.207	mg/Kg		12/27/22 05:45	12/28/22 00:30	5
Chromium	6.52		1.01	0.187	mg/Kg		12/27/22 05:45	12/28/22 00:30	5
Copper	64.9		2.01	0.963	mg/Kg		12/27/22 05:45	12/28/22 00:30	5
Molybdenum	ND		2.01	0.518	mg/Kg		12/27/22 05:45	12/28/22 00:30	5
Nickel	3.14		2.01	0.364	mg/Kg		12/27/22 05:45	12/28/22 00:30	5
Antimony	ND		10.1	2.87	mg/Kg		12/27/22 05:45	12/28/22 00:30	5
Selenium	ND		3.02	1.23	mg/Kg		12/27/22 05:45	12/28/22 00:30	5
Thallium	ND		10.1	2.12	mg/Kg		12/27/22 05:45	12/28/22 00:30	5
Vanadium	17.5		1.01	0.169	mg/Kg		12/27/22 05:45	12/28/22 00:30	5
Zinc	24.0		5.03	1.16	mg/Kg		12/27/22 05:45	12/28/22 00:30	5
Lead	3.63		2.01	0.411	mg/Kg		12/27/22 05:45	12/28/22 00:30	5

Client Sample ID: B-26@50'  
Date Collected: 12/21/22 11:23  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-17  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.48	0.142	mg/Kg		12/27/22 05:45	12/28/22 00:33	5
Arsenic	3.69		2.96	1.37	mg/Kg		12/27/22 05:45	12/28/22 00:33	5
Barium	51.3		2.96	0.140	mg/Kg		12/27/22 05:45	12/28/22 00:33	5
Beryllium	0.234	J	0.493	0.0680	mg/Kg		12/27/22 05:45	12/28/22 00:33	5
Cadmium	ND		0.493	0.0818	mg/Kg		12/27/22 05:45	12/28/22 00:33	5
Cobalt	1.91		0.985	0.203	mg/Kg		12/27/22 05:45	12/28/22 00:33	5
Chromium	8.53		0.985	0.183	mg/Kg		12/27/22 05:45	12/28/22 00:33	5
Copper	5.85		1.97	0.944	mg/Kg		12/27/22 05:45	12/28/22 00:33	5
Molybdenum	ND		1.97	0.507	mg/Kg		12/27/22 05:45	12/28/22 00:33	5
Nickel	2.61		1.97	0.357	mg/Kg		12/27/22 05:45	12/28/22 00:33	5
Antimony	ND		9.85	2.81	mg/Kg		12/27/22 05:45	12/28/22 00:33	5
Selenium	ND		2.96	1.20	mg/Kg		12/27/22 05:45	12/28/22 00:33	5
Thallium	ND		9.85	2.07	mg/Kg		12/27/22 05:45	12/28/22 00:33	5
Vanadium	14.2		0.985	0.166	mg/Kg		12/27/22 05:45	12/28/22 00:33	5
Zinc	12.4		4.93	1.14	mg/Kg		12/27/22 05:45	12/28/22 00:33	5
Lead	24.0		1.97	0.403	mg/Kg		12/27/22 05:45	12/28/22 00:33	5

Client Sample ID: B-28@2'  
Date Collected: 12/21/22 12:30  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-18  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/27/22 05:45	12/28/22 00:40	5
Arsenic	3.30		3.02	1.40	mg/Kg		12/27/22 05:45	12/28/22 00:40	5
Barium	40.7		3.02	0.143	mg/Kg		12/27/22 05:45	12/28/22 00:40	5
Beryllium	0.226	J	0.503	0.0693	mg/Kg		12/27/22 05:45	12/28/22 00:40	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/27/22 05:45	12/28/22 00:40	5
Cobalt	3.54		1.01	0.207	mg/Kg		12/27/22 05:45	12/28/22 00:40	5
Chromium	8.39		1.01	0.187	mg/Kg		12/27/22 05:45	12/28/22 00:40	5
Copper	12.1		2.01	0.963	mg/Kg		12/27/22 05:45	12/28/22 00:40	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-28@2'  
Date Collected: 12/21/22 12:30  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-18  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		2.01	0.518	mg/Kg		12/27/22 05:45	12/28/22 00:40	5
Nickel	3.44		2.01	0.364	mg/Kg		12/27/22 05:45	12/28/22 00:40	5
Antimony	ND		10.1	2.87	mg/Kg		12/27/22 05:45	12/28/22 00:40	5
Selenium	ND		3.02	1.23	mg/Kg		12/27/22 05:45	12/28/22 00:40	5
Thallium	ND		10.1	2.12	mg/Kg		12/27/22 05:45	12/28/22 00:40	5
Vanadium	21.9		1.01	0.169	mg/Kg		12/27/22 05:45	12/28/22 00:40	5
Zinc	47.9		5.03	1.16	mg/Kg		12/27/22 05:45	12/28/22 00:40	5
Lead	8.53		2.01	0.411	mg/Kg		12/27/22 05:45	12/28/22 00:40	5

Client Sample ID: B-28@5'  
Date Collected: 12/21/22 12:34  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-19  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/27/22 05:45	12/28/22 00:43	5
Arsenic	2.65	J	3.02	1.40	mg/Kg		12/27/22 05:45	12/28/22 00:43	5
Barium	40.2		3.02	0.143	mg/Kg		12/27/22 05:45	12/28/22 00:43	5
Beryllium	0.176	J	0.503	0.0693	mg/Kg		12/27/22 05:45	12/28/22 00:43	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/27/22 05:45	12/28/22 00:43	5
Cobalt	2.22		1.01	0.207	mg/Kg		12/27/22 05:45	12/28/22 00:43	5
Chromium	7.65		1.01	0.187	mg/Kg		12/27/22 05:45	12/28/22 00:43	5
Copper	5.89		2.01	0.963	mg/Kg		12/27/22 05:45	12/28/22 00:43	5
Molybdenum	ND		2.01	0.518	mg/Kg		12/27/22 05:45	12/28/22 00:43	5
Nickel	2.76		2.01	0.364	mg/Kg		12/27/22 05:45	12/28/22 00:43	5
Antimony	ND		10.1	2.87	mg/Kg		12/27/22 05:45	12/28/22 00:43	5
Selenium	ND		3.02	1.23	mg/Kg		12/27/22 05:45	12/28/22 00:43	5
Thallium	ND		10.1	2.12	mg/Kg		12/27/22 05:45	12/28/22 00:43	5
Vanadium	18.7		1.01	0.169	mg/Kg		12/27/22 05:45	12/28/22 00:43	5
Zinc	23.3		5.03	1.16	mg/Kg		12/27/22 05:45	12/28/22 00:43	5
Lead	14.0		2.01	0.411	mg/Kg		12/27/22 05:45	12/28/22 00:43	5

Client Sample ID: B-28@10'  
Date Collected: 12/21/22 12:43  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-20  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/27/22 05:45	12/28/22 00:45	5
Arsenic	2.73	J	3.00	1.39	mg/Kg		12/27/22 05:45	12/28/22 00:45	5
Barium	34.7		3.00	0.142	mg/Kg		12/27/22 05:45	12/28/22 00:45	5
Beryllium	0.250	J	0.500	0.0690	mg/Kg		12/27/22 05:45	12/28/22 00:45	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/27/22 05:45	12/28/22 00:45	5
Cobalt	2.24		1.00	0.206	mg/Kg		12/27/22 05:45	12/28/22 00:45	5
Chromium	10.3		1.00	0.186	mg/Kg		12/27/22 05:45	12/28/22 00:45	5
Copper	6.10		2.00	0.958	mg/Kg		12/27/22 05:45	12/28/22 00:45	5
Molybdenum	ND		2.00	0.515	mg/Kg		12/27/22 05:45	12/28/22 00:45	5
Nickel	3.04		2.00	0.362	mg/Kg		12/27/22 05:45	12/28/22 00:45	5
Antimony	ND		10.0	2.86	mg/Kg		12/27/22 05:45	12/28/22 00:45	5
Selenium	ND		3.00	1.22	mg/Kg		12/27/22 05:45	12/28/22 00:45	5
Thallium	ND		10.0	2.11	mg/Kg		12/27/22 05:45	12/28/22 00:45	5
Vanadium	25.8		1.00	0.168	mg/Kg		12/27/22 05:45	12/28/22 00:45	5
Zinc	9.71		5.00	1.16	mg/Kg		12/27/22 05:45	12/28/22 00:45	5
Lead	11.6		2.00	0.409	mg/Kg		12/27/22 05:45	12/28/22 00:45	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-28@15'  
Date Collected: 12/21/22 12:48  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-21  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/27/22 05:57	12/28/22 16:19	5
Arsenic	6.24		2.99	1.38	mg/Kg		12/27/22 05:57	12/28/22 16:19	5
Barium	56.2		2.99	0.141	mg/Kg		12/27/22 05:57	12/28/22 16:19	5
Beryllium	0.498		0.498	0.0687	mg/Kg		12/27/22 05:57	12/28/22 16:19	5
Cadmium	ND		0.498	0.0826	mg/Kg		12/27/22 05:57	12/28/22 16:19	5
Cobalt	5.37		0.995	0.205	mg/Kg		12/27/22 05:57	12/28/22 16:19	5
Chromium	13.5		0.995	0.185	mg/Kg		12/27/22 05:57	12/28/22 16:19	5
Copper	14.0		1.99	0.953	mg/Kg		12/27/22 05:57	12/28/22 16:19	5
Molybdenum	ND		1.99	0.512	mg/Kg		12/27/22 05:57	12/28/22 16:19	5
Nickel	8.35		1.99	0.360	mg/Kg		12/27/22 05:57	12/28/22 16:19	5
Antimony	ND		9.95	2.84	mg/Kg		12/27/22 05:57	12/28/22 16:19	5
Selenium	ND		2.99	1.22	mg/Kg		12/27/22 05:57	12/28/22 16:19	5
Thallium	ND		9.95	2.10	mg/Kg		12/27/22 05:57	12/28/22 16:19	5
Vanadium	28.0		0.995	0.167	mg/Kg		12/27/22 05:57	12/28/22 16:19	5
Zinc	74.5		4.98	1.15	mg/Kg		12/27/22 05:57	12/28/22 16:19	5
Lead	13.4		1.99	0.407	mg/Kg		12/27/22 05:57	12/28/22 16:19	5

Client Sample ID: B-28@20'  
Date Collected: 12/21/22 13:05  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-22  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/27/22 05:57	12/28/22 16:22	5
Arsenic	5.54		3.02	1.40	mg/Kg		12/27/22 05:57	12/28/22 16:22	5
Barium	51.6		3.02	0.143	mg/Kg		12/27/22 05:57	12/28/22 16:22	5
Beryllium	0.214	J	0.503	0.0693	mg/Kg		12/27/22 05:57	12/28/22 16:22	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/27/22 05:57	12/28/22 16:22	5
Cobalt	2.34		1.01	0.207	mg/Kg		12/27/22 05:57	12/28/22 16:22	5
Chromium	5.57		1.01	0.187	mg/Kg		12/27/22 05:57	12/28/22 16:22	5
Copper	4.06		2.01	0.963	mg/Kg		12/27/22 05:57	12/28/22 16:22	5
Molybdenum	ND		2.01	0.518	mg/Kg		12/27/22 05:57	12/28/22 16:22	5
Nickel	2.15		2.01	0.364	mg/Kg		12/27/22 05:57	12/28/22 16:22	5
Antimony	ND		10.1	2.87	mg/Kg		12/27/22 05:57	12/28/22 16:22	5
Selenium	ND		3.02	1.23	mg/Kg		12/27/22 05:57	12/28/22 16:22	5
Thallium	ND		10.1	2.12	mg/Kg		12/27/22 05:57	12/28/22 16:22	5
Vanadium	15.7		1.01	0.169	mg/Kg		12/27/22 05:57	12/28/22 16:22	5
Zinc	11.2		5.03	1.16	mg/Kg		12/27/22 05:57	12/28/22 16:22	5
Lead	4.32		2.01	0.411	mg/Kg		12/27/22 05:57	12/28/22 16:22	5

Client Sample ID: B-28@25'  
Date Collected: 12/21/22 13:11  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-23  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.47	0.141	mg/Kg		12/27/22 05:57	12/28/22 16:24	5
Arsenic	12.7		2.94	1.36	mg/Kg		12/27/22 05:57	12/28/22 16:24	5
Barium	88.6		2.94	0.139	mg/Kg		12/27/22 05:57	12/28/22 16:24	5
Beryllium	0.331	J	0.490	0.0676	mg/Kg		12/27/22 05:57	12/28/22 16:24	5
Cadmium	ND		0.490	0.0814	mg/Kg		12/27/22 05:57	12/28/22 16:24	5
Cobalt	3.59		0.980	0.202	mg/Kg		12/27/22 05:57	12/28/22 16:24	5
Chromium	9.11		0.980	0.182	mg/Kg		12/27/22 05:57	12/28/22 16:24	5
Copper	10.4		1.96	0.939	mg/Kg		12/27/22 05:57	12/28/22 16:24	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-28@25'  
Date Collected: 12/21/22 13:11  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-23  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		1.96	0.505	mg/Kg		12/27/22 05:57	12/28/22 16:24	5
Nickel	4.39		1.96	0.355	mg/Kg		12/27/22 05:57	12/28/22 16:24	5
Antimony	ND		9.80	2.80	mg/Kg		12/27/22 05:57	12/28/22 16:24	5
Selenium	ND		2.94	1.20	mg/Kg		12/27/22 05:57	12/28/22 16:24	5
Thallium	ND		9.80	2.06	mg/Kg		12/27/22 05:57	12/28/22 16:24	5
Vanadium	21.4		0.980	0.165	mg/Kg		12/27/22 05:57	12/28/22 16:24	5
Zinc	28.4		4.90	1.13	mg/Kg		12/27/22 05:57	12/28/22 16:24	5
Lead	17.4		1.96	0.401	mg/Kg		12/27/22 05:57	12/28/22 16:24	5

Client Sample ID: B-28@30'  
Date Collected: 12/21/22 13:23  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-24  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/27/22 05:57	12/28/22 16:27	5
Arsenic	3.13		3.03	1.41	mg/Kg		12/27/22 05:57	12/28/22 16:27	5
Barium	86.2		3.03	0.143	mg/Kg		12/27/22 05:57	12/28/22 16:27	5
Beryllium	0.215	J	0.505	0.0697	mg/Kg		12/27/22 05:57	12/28/22 16:27	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/27/22 05:57	12/28/22 16:27	5
Cobalt	2.18		1.01	0.208	mg/Kg		12/27/22 05:57	12/28/22 16:27	5
Chromium	7.94		1.01	0.188	mg/Kg		12/27/22 05:57	12/28/22 16:27	5
Copper	22.4		2.02	0.968	mg/Kg		12/27/22 05:57	12/28/22 16:27	5
Molybdenum	ND		2.02	0.520	mg/Kg		12/27/22 05:57	12/28/22 16:27	5
Nickel	2.54		2.02	0.366	mg/Kg		12/27/22 05:57	12/28/22 16:27	5
Antimony	ND		10.1	2.89	mg/Kg		12/27/22 05:57	12/28/22 16:27	5
Selenium	1.38	J	3.03	1.23	mg/Kg		12/27/22 05:57	12/28/22 16:27	5
Thallium	ND		10.1	2.13	mg/Kg		12/27/22 05:57	12/28/22 16:27	5
Vanadium	19.6		1.01	0.170	mg/Kg		12/27/22 05:57	12/28/22 16:27	5
Zinc	36.4		5.05	1.17	mg/Kg		12/27/22 05:57	12/28/22 16:27	5
Lead	23.6		2.02	0.413	mg/Kg		12/27/22 05:57	12/28/22 16:27	5

Client Sample ID: B-28@35'  
Date Collected: 12/21/22 13:29  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-25  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.48	0.142	mg/Kg		12/27/22 05:57	12/28/22 16:29	5
Arsenic	5.83		2.96	1.37	mg/Kg		12/27/22 05:57	12/28/22 16:29	5
Barium	57.2		2.96	0.140	mg/Kg		12/27/22 05:57	12/28/22 16:29	5
Beryllium	0.222	J	0.493	0.0680	mg/Kg		12/27/22 05:57	12/28/22 16:29	5
Cadmium	ND		0.493	0.0818	mg/Kg		12/27/22 05:57	12/28/22 16:29	5
Cobalt	2.09		0.985	0.203	mg/Kg		12/27/22 05:57	12/28/22 16:29	5
Chromium	6.87		0.985	0.183	mg/Kg		12/27/22 05:57	12/28/22 16:29	5
Copper	7.62		1.97	0.944	mg/Kg		12/27/22 05:57	12/28/22 16:29	5
Molybdenum	ND		1.97	0.507	mg/Kg		12/27/22 05:57	12/28/22 16:29	5
Nickel	2.54		1.97	0.357	mg/Kg		12/27/22 05:57	12/28/22 16:29	5
Antimony	ND		9.85	2.81	mg/Kg		12/27/22 05:57	12/28/22 16:29	5
Selenium	ND		2.96	1.20	mg/Kg		12/27/22 05:57	12/28/22 16:29	5
Thallium	ND		9.85	2.07	mg/Kg		12/27/22 05:57	12/28/22 16:29	5
Vanadium	17.1		0.985	0.166	mg/Kg		12/27/22 05:57	12/28/22 16:29	5
Zinc	12.0		4.93	1.14	mg/Kg		12/27/22 05:57	12/28/22 16:29	5
Lead	27.9		1.97	0.403	mg/Kg		12/27/22 05:57	12/28/22 16:29	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-28@40'  
Date Collected: 12/21/22 13:40  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-26  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/27/22 05:57	12/28/22 16:31	5
Arsenic	9.57		3.02	1.40	mg/Kg		12/27/22 05:57	12/28/22 16:31	5
Barium	68.4		3.02	0.143	mg/Kg		12/27/22 05:57	12/28/22 16:31	5
Beryllium	0.276	J	0.503	0.0693	mg/Kg		12/27/22 05:57	12/28/22 16:31	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/27/22 05:57	12/28/22 16:31	5
Cobalt	2.44		1.01	0.207	mg/Kg		12/27/22 05:57	12/28/22 16:31	5
Chromium	7.12		1.01	0.187	mg/Kg		12/27/22 05:57	12/28/22 16:31	5
Copper	25.5		2.01	0.963	mg/Kg		12/27/22 05:57	12/28/22 16:31	5
Molybdenum	ND		2.01	0.518	mg/Kg		12/27/22 05:57	12/28/22 16:31	5
Nickel	3.04		2.01	0.364	mg/Kg		12/27/22 05:57	12/28/22 16:31	5
Antimony	ND		10.1	2.87	mg/Kg		12/27/22 05:57	12/28/22 16:31	5
Selenium	ND		3.02	1.23	mg/Kg		12/27/22 05:57	12/28/22 16:31	5
Thallium	ND		10.1	2.12	mg/Kg		12/27/22 05:57	12/28/22 16:31	5
Vanadium	19.6		1.01	0.169	mg/Kg		12/27/22 05:57	12/28/22 16:31	5
Zinc	24.3		5.03	1.16	mg/Kg		12/27/22 05:57	12/28/22 16:31	5
Lead	16.6		2.01	0.411	mg/Kg		12/27/22 05:57	12/28/22 16:31	5

Client Sample ID: B-28@45'  
Date Collected: 12/21/22 13:45  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-27  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/27/22 05:57	12/28/22 17:12	5
Arsenic	5.30		3.00	1.39	mg/Kg		12/27/22 05:57	12/28/22 17:12	5
Barium	135		3.00	0.142	mg/Kg		12/27/22 05:57	12/28/22 17:12	5
Beryllium	0.313	J	0.500	0.0690	mg/Kg		12/27/22 05:57	12/28/22 17:12	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/27/22 05:57	12/28/22 17:12	5
Cobalt	1.69		1.00	0.206	mg/Kg		12/27/22 05:57	12/28/22 17:12	5
Chromium	8.29		1.00	0.186	mg/Kg		12/27/22 05:57	12/28/22 17:12	5
Copper	4.70		2.00	0.958	mg/Kg		12/27/22 05:57	12/28/22 17:12	5
Molybdenum	ND		2.00	0.515	mg/Kg		12/27/22 05:57	12/28/22 17:12	5
Nickel	2.58		2.00	0.362	mg/Kg		12/27/22 05:57	12/28/22 17:12	5
Antimony	ND		10.0	2.86	mg/Kg		12/27/22 05:57	12/28/22 17:12	5
Selenium	ND		3.00	1.22	mg/Kg		12/27/22 05:57	12/28/22 17:12	5
Thallium	ND		10.0	2.11	mg/Kg		12/27/22 05:57	12/28/22 17:12	5
Vanadium	21.3		1.00	0.168	mg/Kg		12/27/22 05:57	12/28/22 17:12	5
Zinc	14.2		5.00	1.16	mg/Kg		12/27/22 05:57	12/28/22 17:12	5
Lead	4.30		2.00	0.409	mg/Kg		12/27/22 05:57	12/28/22 17:12	5

Client Sample ID: B-28@50'  
Date Collected: 12/21/22 14:01  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-28  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/27/22 05:57	12/28/22 17:14	5
Arsenic	7.98		3.06	1.42	mg/Kg		12/27/22 05:57	12/28/22 17:14	5
Barium	42.3		3.06	0.145	mg/Kg		12/27/22 05:57	12/28/22 17:14	5
Beryllium	0.293	J	0.510	0.0704	mg/Kg		12/27/22 05:57	12/28/22 17:14	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/27/22 05:57	12/28/22 17:14	5
Cobalt	1.93		1.02	0.210	mg/Kg		12/27/22 05:57	12/28/22 17:14	5
Chromium	6.30		1.02	0.190	mg/Kg		12/27/22 05:57	12/28/22 17:14	5
Copper	18.5		2.04	0.978	mg/Kg		12/27/22 05:57	12/28/22 17:14	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-28@50'  
Date Collected: 12/21/22 14:01  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-28  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	2.33		2.04	0.526	mg/Kg		12/27/22 05:57	12/28/22 17:14	5
Nickel	2.49		2.04	0.369	mg/Kg		12/27/22 05:57	12/28/22 17:14	5
Antimony	ND		10.2	2.92	mg/Kg		12/27/22 05:57	12/28/22 17:14	5
Selenium	ND		3.06	1.25	mg/Kg		12/27/22 05:57	12/28/22 17:14	5
Thallium	ND		10.2	2.15	mg/Kg		12/27/22 05:57	12/28/22 17:14	5
Vanadium	18.4		1.02	0.171	mg/Kg		12/27/22 05:57	12/28/22 17:14	5
Zinc	30.1		5.10	1.18	mg/Kg		12/27/22 05:57	12/28/22 17:14	5
Lead	4.35		2.04	0.417	mg/Kg		12/27/22 05:57	12/28/22 17:14	5

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 7471A - Mercury (CVAA)

**Client Sample ID: B-21@2'**  
**Date Collected: 12/21/22 07:24**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-1**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg	-	12/27/22 20:27	12/28/22 14:57	1

**Client Sample ID: B-21@5'**  
**Date Collected: 12/21/22 07:29**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-2**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg	-	12/27/22 20:27	12/28/22 14:59	1

**Client Sample ID: B-21@10'**  
**Date Collected: 12/21/22 07:36**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-3**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg	-	12/27/22 20:27	12/28/22 15:01	1

**Client Sample ID: B-21@15'**  
**Date Collected: 12/21/22 07:43**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-4**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg	-	12/27/22 20:27	12/28/22 15:03	1

**Client Sample ID: B-21@20'**  
**Date Collected: 12/21/22 07:50**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-5**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg	-	12/27/22 20:27	12/28/22 15:08	1

**Client Sample ID: B-21@25'**  
**Date Collected: 12/21/22 07:58**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-6**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg	-	12/27/22 20:27	12/28/22 15:10	1

**Client Sample ID: B-26@2'**  
**Date Collected: 12/21/22 09:03**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-7**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg	-	12/27/22 20:27	12/28/22 15:12	1

**Client Sample ID: B-26@5'**  
**Date Collected: 12/21/22 09:08**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-8**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg	-	12/27/22 20:27	12/28/22 15:14	1

**Client Sample ID: B-26@10'**  
**Date Collected: 12/21/22 09:17**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-9**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg	-	12/27/22 20:27	12/28/22 15:16	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 7471A - Mercury (CVAA)

**Client Sample ID: B-26@15'**  
**Date Collected: 12/21/22 09:23**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-10**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/27/22 20:30	12/28/22 15:24	1

**Client Sample ID: B-26@20'**  
**Date Collected: 12/21/22 09:32**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-11**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/27/22 20:30	12/28/22 15:33	1

**Client Sample ID: B-26@25'**  
**Date Collected: 12/21/22 09:40**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-12**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/27/22 20:30	12/28/22 15:35	1

**Client Sample ID: B-26@30'**  
**Date Collected: 12/21/22 10:04**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-13**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0376	J	0.0850	0.0327	mg/Kg		12/27/22 20:30	12/28/22 15:37	1

**Client Sample ID: B-26@35'**  
**Date Collected: 12/21/22 10:24**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-14**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/27/22 20:30	12/28/22 15:39	1

**Client Sample ID: B-26@40'**  
**Date Collected: 12/21/22 10:41**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-15**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/27/22 20:30	12/28/22 15:41	1

**Client Sample ID: B-26@45'**  
**Date Collected: 12/21/22 10:51**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-16**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/27/22 20:30	12/28/22 15:43	1

**Client Sample ID: B-26@50'**  
**Date Collected: 12/21/22 11:13**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-17**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/27/22 20:30	12/28/22 15:44	1

**Client Sample ID: B-28@2'**  
**Date Collected: 12/21/22 12:30**  
**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-18**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0327	J	0.0850	0.0327	mg/Kg		12/27/22 20:30	12/28/22 15:46	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 7471A - Mercury (CVAA)

Client Sample ID: B-28@5'  
Date Collected: 12/21/22 12:34  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-19  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/27/22 20:30	12/28/22 15:48	1

Client Sample ID: B-28@10'  
Date Collected: 12/21/22 12:43  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-20  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/27/22 20:30	12/28/22 16:51	1

Client Sample ID: B-28@15'  
Date Collected: 12/21/22 12:48  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-21  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0333	J	0.0850	0.0327	mg/Kg		12/27/22 20:30	12/28/22 16:53	1

Client Sample ID: B-28@20'  
Date Collected: 12/21/22 13:05  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-22  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND	^+	0.0833	0.0320	mg/Kg		12/27/22 20:30	12/28/22 15:57	1

Client Sample ID: B-28@25'  
Date Collected: 12/21/22 13:11  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-23  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND	^+	0.0850	0.0327	mg/Kg		12/27/22 20:30	12/28/22 15:59	1

Client Sample ID: B-28@30'  
Date Collected: 12/21/22 13:23  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-24  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0366	J	0.0850	0.0327	mg/Kg		12/27/22 20:30	12/28/22 16:55	1

Client Sample ID: B-28@35'  
Date Collected: 12/21/22 13:29  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-25  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/27/22 20:30	12/28/22 16:56	1

Client Sample ID: B-28@40'  
Date Collected: 12/21/22 13:40  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-26  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND	^+	0.0850	0.0327	mg/Kg		12/27/22 20:30	12/28/22 16:05	1

Client Sample ID: B-28@45'  
Date Collected: 12/21/22 13:45  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-27  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0349	J	0.0817	0.0314	mg/Kg		12/27/22 20:30	12/28/22 16:58	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: SW846 7471A - Mercury (CVAA)

Client Sample ID: B-28@50'  
Date Collected: 12/21/22 14:01  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-28  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND	^+	0.0817	0.0314	mg/Kg		12/27/22 20:30	12/28/22 16:09	1



# Surrogate Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	BFB1 (42-126)
570-121713-1	B-21@2'	93
570-121713-2	B-21@5'	91
570-121713-3	B-21@10'	88
570-121713-4	B-21@15'	96
570-121713-5	B-21@20'	98
570-121713-6	B-21@25'	93
570-121713-7	B-26@2'	88
570-121713-8	B-26@5'	99
570-121713-9	B-26@10'	96
570-121713-10	B-26@15'	103
570-121713-11	B-26@20'	89
570-121713-12	B-26@25'	94
570-121713-13	B-26@30'	80
570-121713-13 MS	B-26@30'	97
570-121713-13 MSD	B-26@30'	99
570-121713-14	B-26@35'	74
570-121713-15	B-26@40'	74
570-121713-16	B-26@45'	70
570-121713-17	B-26@50'	71
570-121713-18	B-28@2'	68
570-121713-19	B-28@5'	82
570-121713-20	B-28@10'	75
570-121713-21	B-28@15'	81
570-121713-22	B-28@20'	61
570-121713-23	B-28@25'	66
570-121713-24	B-28@30'	62
570-121713-25	B-28@35'	63
570-121713-26	B-28@40'	76
570-121713-27	B-28@45'	73
570-121713-28	B-28@50'	62
LCS 570-291533/1-A	Lab Control Sample	96
LCS 570-291878/1-A	Lab Control Sample	99
LCSD 570-291533/2-A	Lab Control Sample Dup	99
LCSD 570-291878/2-A	Lab Control Sample Dup	94
MB 570-291533/3-A	Method Blank	77
MB 570-291878/3-A	Method Blank	75

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	OTCSN1 (60-138)
570-121713-1	B-21@2'	89
570-121713-1 MS	B-21@2'	83
570-121713-1 MSD	B-21@2'	90
570-121713-2	B-21@5'	90

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# Surrogate Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

**Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)**

**Matrix: Solid**

**Prep Type: Total/NA**

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	OTCSN1 (60-138)
570-121713-3	B-21@10'	89
570-121713-4	B-21@15'	91
570-121713-5	B-21@20'	89
570-121713-6	B-21@25'	88
570-121713-7	B-26@2'	93
570-121713-8	B-26@5'	88
570-121713-9	B-26@10'	94
570-121713-10	B-26@15'	87
570-121713-11	B-26@20'	87
570-121713-12	B-26@25'	88
570-121713-13	B-26@30'	88
570-121713-14	B-26@35'	87
570-121713-15	B-26@40'	90
570-121713-16	B-26@45'	91
570-121713-17	B-26@50'	91
570-121713-18	B-28@2'	84
570-121713-19	B-28@5'	89
570-121713-20	B-28@10'	91
570-121713-21	B-28@15'	88
570-121713-22	B-28@20'	88
570-121713-23	B-28@25'	88
570-121713-24	B-28@30'	89
570-121713-25	B-28@35'	91
570-121713-26	B-28@40'	90
570-121713-27	B-28@45'	93
570-121713-28	B-28@50'	86
LCS 570-291390/2-A	Lab Control Sample	134
LCS 570-291461/2-A	Lab Control Sample	93
LCSD 570-291461/3-A	Lab Control Sample Dup	92
MB 570-291390/1-A	Method Blank	126
MB 570-291461/1-A	Method Blank	80

## Surrogate Legend

OTCSN = n-Octacosane (Surr)

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-291533/3-A

Matrix: Solid

Analysis Batch: 291556

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 291533

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/22/22 16:26	12/23/22 01:23	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	77		42 - 126				12/22/22 16:26	12/23/22 01:23	1

Lab Sample ID: LCS 570-291533/1-A

Matrix: Solid

Analysis Batch: 291556

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 291533

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	1.92	1.775		mg/Kg		93	70 - 124
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	96		42 - 126				

Lab Sample ID: LCSD 570-291533/2-A

Matrix: Solid

Analysis Batch: 291556

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 291533

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	1.92	1.793		mg/Kg		93	70 - 124	1	18
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	99		42 - 126						

Lab Sample ID: 570-121713-13 MS

Matrix: Solid

Analysis Batch: 291556

Client Sample ID: B-26@30'

Prep Type: Total/NA

Prep Batch: 291533

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	ND		1.91	1.164		mg/Kg		61	48 - 114
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	97		42 - 126						

Lab Sample ID: 570-121713-13 MSD

Matrix: Solid

Analysis Batch: 291556

Client Sample ID: B-26@30'

Prep Type: Total/NA

Prep Batch: 291533

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	ND		1.90	1.268		mg/Kg		67	48 - 114	9	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	99		42 - 126								

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-291878/3-A

Matrix: Solid

Analysis Batch: 291816

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 291878

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/27/22 10:08	12/27/22 11:30	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		42 - 126				12/27/22 10:08	12/27/22 11:30	1

Lab Sample ID: LCS 570-291878/1-A

Matrix: Solid

Analysis Batch: 291816

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 291878

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	1.90	2.049		mg/Kg		108	70 - 124
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	99		42 - 126				

Lab Sample ID: LCSD 570-291878/2-A

Matrix: Solid

Analysis Batch: 291816

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 291878

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	1.90	2.051		mg/Kg		108	70 - 124	0	18
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	94		42 - 126						

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-291390/1-A

Matrix: Solid

Analysis Batch: 291581

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 291390

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/22/22 10:43	12/22/22 22:19	1
C23-C40	ND		5.0	3.8	mg/Kg		12/22/22 10:43	12/22/22 22:19	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	126		60 - 138				12/22/22 10:43	12/22/22 22:19	1

Lab Sample ID: LCS 570-291390/2-A

Matrix: Solid

Analysis Batch: 291581

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 291390

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	400	431.9		mg/Kg		108	80 - 130

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 570-291390/2-A  
Matrix: Solid  
Analysis Batch: 291581

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 291390

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	134		60 - 138

Lab Sample ID: MB 570-291461/1-A  
Matrix: Solid  
Analysis Batch: 291581

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 291461

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/22/22 14:12	12/22/22 21:57	1
C23-C40	ND		5.0	3.8	mg/Kg		12/22/22 14:12	12/22/22 21:57	1
Surrogate	MB	MB					Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	80						12/22/22 14:12	12/22/22 21:57	1

Lab Sample ID: LCS 570-291461/2-A  
Matrix: Solid  
Analysis Batch: 291581

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 291461

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec	Limits	
Diesel Range Organics [C10-C28]	400	410.7		mg/Kg		103		80 - 130	
Surrogate	LCS	LCS							
n-Octacosane (Surr)	93								

Lab Sample ID: LCSD 570-291461/3-A  
Matrix: Solid  
Analysis Batch: 291581

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 291461

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	Limit
Diesel Range Organics [C10-C28]	400	409.2		mg/Kg		102		0	20
Surrogate	LCSD	LCSD							
n-Octacosane (Surr)	92								

Lab Sample ID: 570-121713-1 MS  
Matrix: Solid  
Analysis Batch: 291581

Client Sample ID: B-21@2'  
Prep Type: Total/NA  
Prep Batch: 291461

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
Diesel Range Organics [C10-C28]	130		393	418.0		mg/Kg		72	
Surrogate	MS	MS							
n-Octacosane (Surr)	83								

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 570-121713-1 MSD

Matrix: Solid

Analysis Batch: 291581

Client Sample ID: B-21@2'

Prep Type: Total/NA

Prep Batch: 291461

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	130		393	400.0		mg/Kg		68	43 - 165	4	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
n-Octacosane (Surr)	90		60 - 138								

## Method: 6010B - Metals (ICP)

Lab Sample ID: MB 570-291764/1-A ^5

Matrix: Solid

Analysis Batch: 292247

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 291764

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/27/22 05:45	12/27/22 23:30	5
Arsenic	ND		2.97	1.38	mg/Kg		12/27/22 05:45	12/27/22 23:30	5
Barium	ND		2.97	0.141	mg/Kg		12/27/22 05:45	12/27/22 23:30	5
Beryllium	ND		0.495	0.0683	mg/Kg		12/27/22 05:45	12/27/22 23:30	5
Cadmium	ND		0.495	0.0822	mg/Kg		12/27/22 05:45	12/27/22 23:30	5
Cobalt	ND		0.990	0.204	mg/Kg		12/27/22 05:45	12/27/22 23:30	5
Chromium	ND		0.990	0.184	mg/Kg		12/27/22 05:45	12/27/22 23:30	5
Copper	ND		1.98	0.949	mg/Kg		12/27/22 05:45	12/27/22 23:30	5
Molybdenum	ND		1.98	0.510	mg/Kg		12/27/22 05:45	12/27/22 23:30	5
Nickel	ND		1.98	0.358	mg/Kg		12/27/22 05:45	12/27/22 23:30	5
Antimony	ND		9.90	2.83	mg/Kg		12/27/22 05:45	12/27/22 23:30	5
Selenium	ND		2.97	1.21	mg/Kg		12/27/22 05:45	12/27/22 23:30	5
Thallium	ND		9.90	2.09	mg/Kg		12/27/22 05:45	12/27/22 23:30	5
Vanadium	ND		0.990	0.166	mg/Kg		12/27/22 05:45	12/27/22 23:30	5
Zinc	ND		4.95	1.14	mg/Kg		12/27/22 05:45	12/27/22 23:30	5
Lead	ND		1.98	0.405	mg/Kg		12/27/22 05:45	12/27/22 23:30	5

Lab Sample ID: LCS 570-291764/2-A ^5

Matrix: Solid

Analysis Batch: 292247

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 291764

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	24.9	23.61		mg/Kg		95	80 - 120
Arsenic	49.8	47.18		mg/Kg		95	80 - 120
Barium	49.8	47.81		mg/Kg		96	80 - 120
Beryllium	49.8	47.49		mg/Kg		95	80 - 120
Cadmium	49.8	47.72		mg/Kg		96	80 - 120
Cobalt	49.8	47.77		mg/Kg		96	80 - 120
Chromium	49.8	48.08		mg/Kg		97	80 - 120
Copper	49.8	48.00		mg/Kg		96	80 - 120
Molybdenum	49.8	48.25		mg/Kg		97	80 - 120
Nickel	49.8	48.13		mg/Kg		97	80 - 120
Antimony	49.8	52.99		mg/Kg		106	80 - 120
Selenium	49.8	44.25		mg/Kg		89	80 - 120
Thallium	49.8	46.80		mg/Kg		94	80 - 120
Vanadium	49.8	47.64		mg/Kg		96	80 - 120

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 570-291764/2-A ^5

Matrix: Solid

Analysis Batch: 292247

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 291764

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Zinc	49.8	47.11		mg/Kg		95	80 - 120
Lead	49.8	47.76		mg/Kg		96	80 - 120

Lab Sample ID: LCSD 570-291764/3-A ^5

Matrix: Solid

Analysis Batch: 292247

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 291764

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	24.9	23.38		mg/Kg		94	80 - 120	1	20
Arsenic	49.8	46.42		mg/Kg		93	80 - 120	2	20
Barium	49.8	47.44		mg/Kg		95	80 - 120	1	20
Beryllium	49.8	47.10		mg/Kg		95	80 - 120	1	20
Cadmium	49.8	47.06		mg/Kg		95	80 - 120	1	20
Cobalt	49.8	47.76		mg/Kg		96	80 - 120	0	20
Chromium	49.8	47.66		mg/Kg		96	80 - 120	1	20
Copper	49.8	47.70		mg/Kg		96	80 - 120	1	20
Molybdenum	49.8	48.00		mg/Kg		96	80 - 120	1	20
Nickel	49.8	47.60		mg/Kg		96	80 - 120	1	20
Antimony	49.8	52.69		mg/Kg		106	80 - 120	1	20
Selenium	49.8	43.03		mg/Kg		86	80 - 120	3	20
Thallium	49.8	47.18		mg/Kg		95	80 - 120	1	20
Vanadium	49.8	47.30		mg/Kg		95	80 - 120	1	20
Zinc	49.8	46.92		mg/Kg		94	80 - 120	0	20
Lead	49.8	46.84		mg/Kg		94	80 - 120	2	20

Lab Sample ID: 570-121713-11 MS

Matrix: Solid

Analysis Batch: 292247

Client Sample ID: B-26@20'

Prep Type: Total/NA

Prep Batch: 291764

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	ND		25.4	22.20		mg/Kg		87	75 - 125
Arsenic	16.4		50.8	58.35		mg/Kg		83	75 - 125
Barium	100	F1	50.8	129.8	F1	mg/Kg		58	75 - 125
Beryllium	0.467	J	50.8	45.49		mg/Kg		89	75 - 125
Cadmium	ND		50.8	43.62		mg/Kg		86	75 - 125
Cobalt	4.32		50.8	49.71		mg/Kg		89	75 - 125
Chromium	9.24		50.8	57.96		mg/Kg		96	75 - 125
Copper	14.9		50.8	63.76		mg/Kg		96	75 - 125
Molybdenum	ND		50.8	43.12		mg/Kg		85	75 - 125
Nickel	5.53		50.8	50.58		mg/Kg		89	75 - 125
Antimony	ND	F1	50.8	20.95	F1	mg/Kg		41	75 - 125
Selenium	ND		50.8	40.46		mg/Kg		80	75 - 125
Thallium	ND		50.8	44.47		mg/Kg		88	75 - 125
Vanadium	24.7		50.8	74.87		mg/Kg		99	75 - 125
Zinc	32.9		50.8	80.11		mg/Kg		93	75 - 125
Lead	25.3		50.8	72.82		mg/Kg		94	75 - 125

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 570-121713-11 MSD

Matrix: Solid

Analysis Batch: 292247

Client Sample ID: B-26@20'

Prep Type: Total/NA

Prep Batch: 291764

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	ND		25.3	21.76		mg/Kg		86	75 - 125	2	20
Arsenic	16.4		50.5	54.47		mg/Kg		75	75 - 125	7	20
Barium	100	F1	50.5	129.9	F1	mg/Kg		59	75 - 125	0	20
Beryllium	0.467	J	50.5	44.44		mg/Kg		87	75 - 125	2	20
Cadmium	ND		50.5	42.93		mg/Kg		85	75 - 125	2	20
Cobalt	4.32		50.5	48.35		mg/Kg		87	75 - 125	3	20
Chromium	9.24		50.5	55.97		mg/Kg		93	75 - 125	3	20
Copper	14.9		50.5	61.02		mg/Kg		91	75 - 125	4	20
Molybdenum	ND		50.5	42.34		mg/Kg		84	75 - 125	2	20
Nickel	5.53		50.5	48.75		mg/Kg		86	75 - 125	4	20
Antimony	ND	F1	50.5	20.16	F1	mg/Kg		40	75 - 125	4	20
Selenium	ND		50.5	40.19		mg/Kg		80	75 - 125	1	20
Thallium	ND		50.5	43.09		mg/Kg		85	75 - 125	3	20
Vanadium	24.7		50.5	71.59		mg/Kg		93	75 - 125	4	20
Zinc	32.9		50.5	75.39		mg/Kg		84	75 - 125	6	20
Lead	25.3		50.5	69.91		mg/Kg		88	75 - 125	4	20

Lab Sample ID: MB 570-291776/1-A ^5

Matrix: Solid

Analysis Batch: 292247

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 291776

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.146	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Arsenic	ND		3.05	1.41	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Barium	ND		3.05	0.144	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Beryllium	ND		0.508	0.0701	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Cadmium	ND		0.508	0.0843	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Cobalt	ND		1.02	0.209	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Chromium	ND		1.02	0.189	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Copper	ND		2.03	0.973	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Molybdenum	ND		2.03	0.523	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Nickel	ND		2.03	0.368	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Antimony	ND		10.2	2.90	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Selenium	ND		3.05	1.24	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Thallium	ND		10.2	2.14	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Vanadium	ND		1.02	0.171	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Zinc	ND		5.08	1.17	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Lead	ND		2.03	0.415	mg/Kg		12/27/22 05:57	12/28/22 00:50	5

Lab Sample ID: LCS 570-291776/2-A ^5

Matrix: Solid

Analysis Batch: 292247

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 291776

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	25.4	23.40		mg/Kg		92	80 - 120
Arsenic	50.8	46.19		mg/Kg		91	80 - 120
Barium	50.8	47.51		mg/Kg		94	80 - 120
Beryllium	50.8	47.14		mg/Kg		93	80 - 120
Cadmium	50.8	47.12		mg/Kg		93	80 - 120

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 570-291776/2-A ^5

Matrix: Solid

Analysis Batch: 292247

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 291776

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cobalt	50.8	47.72		mg/Kg		94	80 - 120
Chromium	50.8	47.72		mg/Kg		94	80 - 120
Copper	50.8	47.84		mg/Kg		94	80 - 120
Molybdenum	50.8	47.87		mg/Kg		94	80 - 120
Nickel	50.8	47.99		mg/Kg		95	80 - 120
Antimony	50.8	52.28		mg/Kg		103	80 - 120
Selenium	50.8	43.82		mg/Kg		86	80 - 120
Thallium	50.8	47.20		mg/Kg		93	80 - 120
Vanadium	50.8	47.45		mg/Kg		93	80 - 120
Zinc	50.8	46.89		mg/Kg		92	80 - 120
Lead	50.8	46.69		mg/Kg		92	80 - 120

Lab Sample ID: LCSD 570-291776/3-A ^5

Matrix: Solid

Analysis Batch: 292247

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 291776

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	24.9	23.18		mg/Kg		93	80 - 120	1	20
Arsenic	49.8	45.96		mg/Kg		92	80 - 120	1	20
Barium	49.8	46.90		mg/Kg		94	80 - 120	1	20
Beryllium	49.8	46.62		mg/Kg		94	80 - 120	1	20
Cadmium	49.8	46.68		mg/Kg		94	80 - 120	1	20
Cobalt	49.8	46.99		mg/Kg		94	80 - 120	2	20
Chromium	49.8	47.06		mg/Kg		95	80 - 120	1	20
Copper	49.8	47.35		mg/Kg		95	80 - 120	1	20
Molybdenum	49.8	47.09		mg/Kg		95	80 - 120	2	20
Nickel	49.8	47.40		mg/Kg		95	80 - 120	1	20
Antimony	49.8	51.69		mg/Kg		104	80 - 120	1	20
Selenium	49.8	43.20		mg/Kg		87	80 - 120	1	20
Thallium	49.8	46.59		mg/Kg		94	80 - 120	1	20
Vanadium	49.8	46.93		mg/Kg		94	80 - 120	1	20
Zinc	49.8	46.37		mg/Kg		93	80 - 120	1	20
Lead	49.8	46.24		mg/Kg		93	80 - 120	1	20

Lab Sample ID: MB 570-292280/1-A ^5

Matrix: Solid

Analysis Batch: 292657

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 292280

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.145	mg/Kg		12/28/22 14:01	12/29/22 13:41	5
Arsenic	ND		3.03	1.41	mg/Kg		12/28/22 14:01	12/29/22 13:41	5
Barium	ND		3.03	0.143	mg/Kg		12/28/22 14:01	12/29/22 13:41	5
Beryllium	ND		0.505	0.0697	mg/Kg		12/28/22 14:01	12/29/22 13:41	5
Cadmium	ND		0.505	0.0838	mg/Kg		12/28/22 14:01	12/29/22 13:41	5
Cobalt	ND		1.01	0.208	mg/Kg		12/28/22 14:01	12/29/22 13:41	5
Chromium	ND		1.01	0.188	mg/Kg		12/28/22 14:01	12/29/22 13:41	5
Copper	ND		2.02	0.968	mg/Kg		12/28/22 14:01	12/29/22 13:41	5
Molybdenum	ND		2.02	0.520	mg/Kg		12/28/22 14:01	12/29/22 13:41	5
Nickel	ND		2.02	0.366	mg/Kg		12/28/22 14:01	12/29/22 13:41	5

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 570-292280/1-A ^5

Matrix: Solid

Analysis Batch: 292657

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 292280

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	^1+	10.1	2.89	mg/Kg		12/28/22 14:01	12/29/22 13:41	5
Selenium	ND		3.03	1.23	mg/Kg		12/28/22 14:01	12/29/22 13:41	5
Thallium	ND		10.1	2.13	mg/Kg		12/28/22 14:01	12/29/22 13:41	5
Vanadium	ND		1.01	0.170	mg/Kg		12/28/22 14:01	12/29/22 13:41	5
Zinc	ND		5.05	1.17	mg/Kg		12/28/22 14:01	12/29/22 13:41	5
Lead	ND		2.02	0.413	mg/Kg		12/28/22 14:01	12/29/22 13:41	5

Lab Sample ID: LCS 570-292280/2-A ^5

Matrix: Solid

Analysis Batch: 292657

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 292280

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	24.6	22.17		mg/Kg		90	80 - 120
Arsenic	49.3	43.40		mg/Kg		88	80 - 120
Barium	49.3	44.57		mg/Kg		90	80 - 120
Beryllium	49.3	44.36		mg/Kg		90	80 - 120
Cadmium	49.3	44.09		mg/Kg		89	80 - 120
Cobalt	49.3	44.21		mg/Kg		90	80 - 120
Chromium	49.3	44.77		mg/Kg		91	80 - 120
Copper	49.3	44.45		mg/Kg		90	80 - 120
Molybdenum	49.3	45.05		mg/Kg		91	80 - 120
Nickel	49.3	44.57		mg/Kg		90	80 - 120
Antimony	49.3	51.91	^1+	mg/Kg		105	80 - 120
Selenium	49.3	41.10		mg/Kg		83	80 - 120
Thallium	49.3	43.74		mg/Kg		89	80 - 120
Vanadium	49.3	44.33		mg/Kg		90	80 - 120
Zinc	49.3	43.77		mg/Kg		89	80 - 120
Lead	49.3	44.19		mg/Kg		90	80 - 120

Lab Sample ID: LCSD 570-292280/3-A ^5

Matrix: Solid

Analysis Batch: 292657

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 292280

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	24.8	22.61		mg/Kg		91	80 - 120	2	20
Arsenic	49.5	44.33		mg/Kg		90	80 - 120	2	20
Barium	49.5	45.36		mg/Kg		92	80 - 120	2	20
Beryllium	49.5	45.07		mg/Kg		91	80 - 120	2	20
Cadmium	49.5	44.54		mg/Kg		90	80 - 120	1	20
Cobalt	49.5	45.19		mg/Kg		91	80 - 120	2	20
Chromium	49.5	45.72		mg/Kg		92	80 - 120	2	20
Copper	49.5	45.14		mg/Kg		91	80 - 120	2	20
Molybdenum	49.5	45.88		mg/Kg		93	80 - 120	2	20
Nickel	49.5	45.67		mg/Kg		92	80 - 120	2	20
Antimony	49.5	53.28	^1+	mg/Kg		108	80 - 120	3	20
Selenium	49.5	42.46		mg/Kg		86	80 - 120	3	20
Thallium	49.5	44.99		mg/Kg		91	80 - 120	3	20
Vanadium	49.5	45.11		mg/Kg		91	80 - 120	2	20
Zinc	49.5	44.44		mg/Kg		90	80 - 120	2	20

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSD 570-292280/3-A ^5

Matrix: Solid

Analysis Batch: 292657

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 292280

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	49.5	44.80		mg/Kg		91	80 - 120	1	20

Lab Sample ID: 570-121713-1 MS

Matrix: Solid

Analysis Batch: 292657

Client Sample ID: B-21@2'

Prep Type: Total/NA

Prep Batch: 292280

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	ND		25.3	22.36		mg/Kg		89	75 - 125		
Arsenic	2.16	J	50.5	44.12		mg/Kg		83	75 - 125		
Barium	44.1		50.5	91.25		mg/Kg		93	75 - 125		
Beryllium	0.303	J	50.5	44.76		mg/Kg		88	75 - 125		
Cadmium	ND		50.5	42.88		mg/Kg		85	75 - 125		
Cobalt	3.67		50.5	48.27		mg/Kg		88	75 - 125		
Chromium	13.9		50.5	59.04		mg/Kg		89	75 - 125		
Copper	8.04		50.5	56.70		mg/Kg		96	75 - 125		
Molybdenum	ND		50.5	43.60		mg/Kg		86	75 - 125		
Nickel	4.43		50.5	50.54		mg/Kg		91	75 - 125		
Antimony	ND	^1+ F1	50.5	23.64	F1 ^1+	mg/Kg		47	75 - 125		
Selenium	ND	F1	50.5	39.34		mg/Kg		78	75 - 125		
Thallium	ND		50.5	43.61		mg/Kg		86	75 - 125		
Vanadium	29.2		50.5	73.18		mg/Kg		87	75 - 125		
Zinc	13.5		50.5	56.50		mg/Kg		85	75 - 125		
Lead	8.28		50.5	50.58		mg/Kg		84	75 - 125		

Lab Sample ID: 570-121713-1 MSD

Matrix: Solid

Analysis Batch: 292657

Client Sample ID: B-21@2'

Prep Type: Total/NA

Prep Batch: 292280

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	ND		25.4	20.71		mg/Kg		82	75 - 125	8	20
Arsenic	2.16	J	50.8	41.08		mg/Kg		77	75 - 125	7	20
Barium	44.1		50.8	84.11		mg/Kg		79	75 - 125	8	20
Beryllium	0.303	J	50.8	41.50		mg/Kg		81	75 - 125	8	20
Cadmium	ND		50.8	39.77		mg/Kg		78	75 - 125	8	20
Cobalt	3.67		50.8	44.06		mg/Kg		80	75 - 125	9	20
Chromium	13.9		50.8	55.39		mg/Kg		82	75 - 125	6	20
Copper	8.04		50.8	52.27		mg/Kg		87	75 - 125	8	20
Molybdenum	ND		50.8	40.55		mg/Kg		80	75 - 125	7	20
Nickel	4.43		50.8	46.28		mg/Kg		82	75 - 125	9	20
Antimony	ND	^1+ F1	50.8	23.29	F1 ^1+	mg/Kg		46	75 - 125	1	20
Selenium	ND	F1	50.8	37.25	F1	mg/Kg		73	75 - 125	5	20
Thallium	ND		50.8	40.60		mg/Kg		80	75 - 125	7	20
Vanadium	29.2		50.8	67.45		mg/Kg		75	75 - 125	8	20
Zinc	13.5		50.8	54.40		mg/Kg		81	75 - 125	4	20
Lead	8.28		50.8	48.32		mg/Kg		79	75 - 125	5	20

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 570-292074/1-A

Matrix: Solid

Analysis Batch: 292281

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 292074

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/27/22 20:27	12/28/22 14:45	1

Lab Sample ID: LCS 570-292074/2-A

Matrix: Solid

Analysis Batch: 292281

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 292074

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.408	0.4203		mg/Kg		103	80 - 120

Lab Sample ID: LCSD 570-292074/3-A

Matrix: Solid

Analysis Batch: 292281

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 292074

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Mercury	0.392	0.4121		mg/Kg		105	80 - 120	2	10

Lab Sample ID: MB 570-292075/1-A

Matrix: Solid

Analysis Batch: 292281

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 292075

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/27/22 20:30	12/28/22 15:18	1

Lab Sample ID: LCS 570-292075/2-A

Matrix: Solid

Analysis Batch: 292281

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 292075

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.408	0.4402		mg/Kg		108	80 - 120

Lab Sample ID: LCSD 570-292075/3-A

Matrix: Solid

Analysis Batch: 292281

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 292075

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Mercury	0.400	0.4512		mg/Kg		113	80 - 120	2	10

Lab Sample ID: 570-121713-10 MS

Matrix: Solid

Analysis Batch: 292281

Client Sample ID: B-26@15'

Prep Type: Total/NA

Prep Batch: 292075

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.400	0.4476		mg/Kg		112	80 - 120

Lab Sample ID: 570-121713-10 MSD

Matrix: Solid

Analysis Batch: 292281

Client Sample ID: B-26@15'

Prep Type: Total/NA

Prep Batch: 292075

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Mercury	ND		0.408	0.4586		mg/Kg		112	80 - 120	2	20

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## GC VOA

### Prep Batch: 291533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-13	B-26@30'	Total/NA	Solid	5030C	
570-121713-14	B-26@35'	Total/NA	Solid	5030C	
570-121713-15	B-26@40'	Total/NA	Solid	5030C	
570-121713-16	B-26@45'	Total/NA	Solid	5030C	
570-121713-17	B-26@50'	Total/NA	Solid	5030C	
570-121713-18	B-28@2'	Total/NA	Solid	5030C	
570-121713-19	B-28@5'	Total/NA	Solid	5030C	
570-121713-20	B-28@10'	Total/NA	Solid	5030C	
570-121713-21	B-28@15'	Total/NA	Solid	5030C	
570-121713-22	B-28@20'	Total/NA	Solid	5030C	
570-121713-23	B-28@25'	Total/NA	Solid	5030C	
570-121713-24	B-28@30'	Total/NA	Solid	5030C	
570-121713-25	B-28@35'	Total/NA	Solid	5030C	
570-121713-26	B-28@40'	Total/NA	Solid	5030C	
570-121713-27	B-28@45'	Total/NA	Solid	5030C	
570-121713-28	B-28@50'	Total/NA	Solid	5030C	
MB 570-291533/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-291533/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-291533/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	
570-121713-13 MS	B-26@30'	Total/NA	Solid	5030C	
570-121713-13 MSD	B-26@30'	Total/NA	Solid	5030C	

### Analysis Batch: 291556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-13	B-26@30'	Total/NA	Solid	8015B	291533
570-121713-14	B-26@35'	Total/NA	Solid	8015B	291533
570-121713-15	B-26@40'	Total/NA	Solid	8015B	291533
570-121713-16	B-26@45'	Total/NA	Solid	8015B	291533
570-121713-17	B-26@50'	Total/NA	Solid	8015B	291533
570-121713-18	B-28@2'	Total/NA	Solid	8015B	291533
570-121713-19	B-28@5'	Total/NA	Solid	8015B	291533
570-121713-20	B-28@10'	Total/NA	Solid	8015B	291533
570-121713-21	B-28@15'	Total/NA	Solid	8015B	291533
570-121713-22	B-28@20'	Total/NA	Solid	8015B	291533
570-121713-23	B-28@25'	Total/NA	Solid	8015B	291533
570-121713-24	B-28@30'	Total/NA	Solid	8015B	291533
570-121713-25	B-28@35'	Total/NA	Solid	8015B	291533
570-121713-26	B-28@40'	Total/NA	Solid	8015B	291533
570-121713-27	B-28@45'	Total/NA	Solid	8015B	291533
570-121713-28	B-28@50'	Total/NA	Solid	8015B	291533
MB 570-291533/3-A	Method Blank	Total/NA	Solid	8015B	291533
LCS 570-291533/1-A	Lab Control Sample	Total/NA	Solid	8015B	291533
LCSD 570-291533/2-A	Lab Control Sample Dup	Total/NA	Solid	8015B	291533
570-121713-13 MS	B-26@30'	Total/NA	Solid	8015B	291533
570-121713-13 MSD	B-26@30'	Total/NA	Solid	8015B	291533

### Analysis Batch: 291816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-1	B-21@2'	Total/NA	Solid	8015B	291878
570-121713-2	B-21@5'	Total/NA	Solid	8015B	291878
570-121713-3	B-21@10'	Total/NA	Solid	8015B	291878

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## GC VOA (Continued)

### Analysis Batch: 291816 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-4	B-21@15'	Total/NA	Solid	8015B	291878
570-121713-5	B-21@20'	Total/NA	Solid	8015B	291878
570-121713-6	B-21@25'	Total/NA	Solid	8015B	291878
570-121713-7	B-26@2'	Total/NA	Solid	8015B	291878
570-121713-8	B-26@5'	Total/NA	Solid	8015B	291878
570-121713-9	B-26@10'	Total/NA	Solid	8015B	291878
570-121713-10	B-26@15'	Total/NA	Solid	8015B	291878
570-121713-11	B-26@20'	Total/NA	Solid	8015B	291878
570-121713-12	B-26@25'	Total/NA	Solid	8015B	291878
MB 570-291878/3-A	Method Blank	Total/NA	Solid	8015B	291878
LCS 570-291878/1-A	Lab Control Sample	Total/NA	Solid	8015B	291878
LCSD 570-291878/2-A	Lab Control Sample Dup	Total/NA	Solid	8015B	291878

### Prep Batch: 291878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-1	B-21@2'	Total/NA	Solid	5030C	
570-121713-2	B-21@5'	Total/NA	Solid	5030C	
570-121713-3	B-21@10'	Total/NA	Solid	5030C	
570-121713-4	B-21@15'	Total/NA	Solid	5030C	
570-121713-5	B-21@20'	Total/NA	Solid	5030C	
570-121713-6	B-21@25'	Total/NA	Solid	5030C	
570-121713-7	B-26@2'	Total/NA	Solid	5030C	
570-121713-8	B-26@5'	Total/NA	Solid	5030C	
570-121713-9	B-26@10'	Total/NA	Solid	5030C	
570-121713-10	B-26@15'	Total/NA	Solid	5030C	
570-121713-11	B-26@20'	Total/NA	Solid	5030C	
570-121713-12	B-26@25'	Total/NA	Solid	5030C	
MB 570-291878/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-291878/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-291878/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	

## GC Semi VOA

### Prep Batch: 291390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-21	B-28@15'	Total/NA	Solid	3550C	
570-121713-22	B-28@20'	Total/NA	Solid	3550C	
570-121713-23	B-28@25'	Total/NA	Solid	3550C	
570-121713-24	B-28@30'	Total/NA	Solid	3550C	
570-121713-25	B-28@35'	Total/NA	Solid	3550C	
570-121713-26	B-28@40'	Total/NA	Solid	3550C	
570-121713-27	B-28@45'	Total/NA	Solid	3550C	
570-121713-28	B-28@50'	Total/NA	Solid	3550C	
MB 570-291390/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 570-291390/2-A	Lab Control Sample	Total/NA	Solid	3550C	

### Prep Batch: 291461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-1	B-21@2'	Total/NA	Solid	3550C	
570-121713-2	B-21@5'	Total/NA	Solid	3550C	
570-121713-3	B-21@10'	Total/NA	Solid	3550C	

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## GC Semi VOA (Continued)

### Prep Batch: 291461 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-4	B-21@15'	Total/NA	Solid	3550C	
570-121713-5	B-21@20'	Total/NA	Solid	3550C	
570-121713-6	B-21@25'	Total/NA	Solid	3550C	
570-121713-7	B-26@2'	Total/NA	Solid	3550C	
570-121713-8	B-26@5'	Total/NA	Solid	3550C	
570-121713-9	B-26@10'	Total/NA	Solid	3550C	
570-121713-10	B-26@15'	Total/NA	Solid	3550C	
570-121713-11	B-26@20'	Total/NA	Solid	3550C	
570-121713-12	B-26@25'	Total/NA	Solid	3550C	
570-121713-13	B-26@30'	Total/NA	Solid	3550C	
570-121713-14	B-26@35'	Total/NA	Solid	3550C	
570-121713-15	B-26@40'	Total/NA	Solid	3550C	
570-121713-16	B-26@45'	Total/NA	Solid	3550C	
570-121713-17	B-26@50'	Total/NA	Solid	3550C	
570-121713-18	B-28@2'	Total/NA	Solid	3550C	
570-121713-19	B-28@5'	Total/NA	Solid	3550C	
570-121713-20	B-28@10'	Total/NA	Solid	3550C	
MB 570-291461/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 570-291461/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 570-291461/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	
570-121713-1 MS	B-21@2'	Total/NA	Solid	3550C	
570-121713-1 MSD	B-21@2'	Total/NA	Solid	3550C	

### Analysis Batch: 291581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-1	B-21@2'	Total/NA	Solid	8015B	291461
570-121713-2	B-21@5'	Total/NA	Solid	8015B	291461
570-121713-3	B-21@10'	Total/NA	Solid	8015B	291461
570-121713-4	B-21@15'	Total/NA	Solid	8015B	291461
570-121713-5	B-21@20'	Total/NA	Solid	8015B	291461
570-121713-6	B-21@25'	Total/NA	Solid	8015B	291461
570-121713-7	B-26@2'	Total/NA	Solid	8015B	291461
570-121713-8	B-26@5'	Total/NA	Solid	8015B	291461
570-121713-9	B-26@10'	Total/NA	Solid	8015B	291461
570-121713-10	B-26@15'	Total/NA	Solid	8015B	291461
570-121713-11	B-26@20'	Total/NA	Solid	8015B	291461
570-121713-12	B-26@25'	Total/NA	Solid	8015B	291461
570-121713-13	B-26@30'	Total/NA	Solid	8015B	291461
570-121713-14	B-26@35'	Total/NA	Solid	8015B	291461
570-121713-15	B-26@40'	Total/NA	Solid	8015B	291461
570-121713-16	B-26@45'	Total/NA	Solid	8015B	291461
570-121713-17	B-26@50'	Total/NA	Solid	8015B	291461
570-121713-18	B-28@2'	Total/NA	Solid	8015B	291461
570-121713-19	B-28@5'	Total/NA	Solid	8015B	291461
570-121713-20	B-28@10'	Total/NA	Solid	8015B	291461
570-121713-21	B-28@15'	Total/NA	Solid	8015B	291390
570-121713-22	B-28@20'	Total/NA	Solid	8015B	291390
570-121713-23	B-28@25'	Total/NA	Solid	8015B	291390
570-121713-24	B-28@30'	Total/NA	Solid	8015B	291390
570-121713-25	B-28@35'	Total/NA	Solid	8015B	291390
570-121713-26	B-28@40'	Total/NA	Solid	8015B	291390

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## GC Semi VOA (Continued)

### Analysis Batch: 291581 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-27	B-28@45'	Total/NA	Solid	8015B	291390
570-121713-28	B-28@50'	Total/NA	Solid	8015B	291390
MB 570-291390/1-A	Method Blank	Total/NA	Solid	8015B	291390
MB 570-291461/1-A	Method Blank	Total/NA	Solid	8015B	291461
LCS 570-291390/2-A	Lab Control Sample	Total/NA	Solid	8015B	291390
LCS 570-291461/2-A	Lab Control Sample	Total/NA	Solid	8015B	291461
LCSD 570-291461/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	291461
570-121713-1 MS	B-21@2'	Total/NA	Solid	8015B	291461
570-121713-1 MSD	B-21@2'	Total/NA	Solid	8015B	291461

## Metals

### Prep Batch: 291764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-2	B-21@5'	Total/NA	Solid	3050B	
570-121713-3	B-21@10'	Total/NA	Solid	3050B	
570-121713-4	B-21@15'	Total/NA	Solid	3050B	
570-121713-5	B-21@20'	Total/NA	Solid	3050B	
570-121713-6	B-21@25'	Total/NA	Solid	3050B	
570-121713-7	B-26@2'	Total/NA	Solid	3050B	
570-121713-8	B-26@5'	Total/NA	Solid	3050B	
570-121713-9	B-26@10'	Total/NA	Solid	3050B	
570-121713-10	B-26@15'	Total/NA	Solid	3050B	
570-121713-11	B-26@20'	Total/NA	Solid	3050B	
570-121713-12	B-26@25'	Total/NA	Solid	3050B	
570-121713-13	B-26@30'	Total/NA	Solid	3050B	
570-121713-14	B-26@35'	Total/NA	Solid	3050B	
570-121713-15	B-26@40'	Total/NA	Solid	3050B	
570-121713-16	B-26@45'	Total/NA	Solid	3050B	
570-121713-17	B-26@50'	Total/NA	Solid	3050B	
570-121713-18	B-28@2'	Total/NA	Solid	3050B	
570-121713-19	B-28@5'	Total/NA	Solid	3050B	
570-121713-20	B-28@10'	Total/NA	Solid	3050B	
MB 570-291764/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-291764/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-291764/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	
570-121713-11 MS	B-26@20'	Total/NA	Solid	3050B	
570-121713-11 MSD	B-26@20'	Total/NA	Solid	3050B	

### Prep Batch: 291776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-21	B-28@15'	Total/NA	Solid	3050B	
570-121713-22	B-28@20'	Total/NA	Solid	3050B	
570-121713-23	B-28@25'	Total/NA	Solid	3050B	
570-121713-24	B-28@30'	Total/NA	Solid	3050B	
570-121713-25	B-28@35'	Total/NA	Solid	3050B	
570-121713-26	B-28@40'	Total/NA	Solid	3050B	
570-121713-27	B-28@45'	Total/NA	Solid	3050B	
570-121713-28	B-28@50'	Total/NA	Solid	3050B	
MB 570-291776/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-291776/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Metals (Continued)

### Prep Batch: 291776 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 570-291776/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	

### Prep Batch: 292074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-1	B-21@2'	Total/NA	Solid	7471A	
570-121713-2	B-21@5'	Total/NA	Solid	7471A	
570-121713-3	B-21@10'	Total/NA	Solid	7471A	
570-121713-4	B-21@15'	Total/NA	Solid	7471A	
570-121713-5	B-21@20'	Total/NA	Solid	7471A	
570-121713-6	B-21@25'	Total/NA	Solid	7471A	
570-121713-7	B-26@2'	Total/NA	Solid	7471A	
570-121713-8	B-26@5'	Total/NA	Solid	7471A	
570-121713-9	B-26@10'	Total/NA	Solid	7471A	
MB 570-292074/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-292074/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-292074/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	

### Prep Batch: 292075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-10	B-26@15'	Total/NA	Solid	7471A	
570-121713-11	B-26@20'	Total/NA	Solid	7471A	
570-121713-12	B-26@25'	Total/NA	Solid	7471A	
570-121713-13	B-26@30'	Total/NA	Solid	7471A	
570-121713-14	B-26@35'	Total/NA	Solid	7471A	
570-121713-15	B-26@40'	Total/NA	Solid	7471A	
570-121713-16	B-26@45'	Total/NA	Solid	7471A	
570-121713-17	B-26@50'	Total/NA	Solid	7471A	
570-121713-18	B-28@2'	Total/NA	Solid	7471A	
570-121713-19	B-28@5'	Total/NA	Solid	7471A	
570-121713-20	B-28@10'	Total/NA	Solid	7471A	
570-121713-21	B-28@15'	Total/NA	Solid	7471A	
570-121713-22	B-28@20'	Total/NA	Solid	7471A	
570-121713-23	B-28@25'	Total/NA	Solid	7471A	
570-121713-24	B-28@30'	Total/NA	Solid	7471A	
570-121713-25	B-28@35'	Total/NA	Solid	7471A	
570-121713-26	B-28@40'	Total/NA	Solid	7471A	
570-121713-27	B-28@45'	Total/NA	Solid	7471A	
570-121713-28	B-28@50'	Total/NA	Solid	7471A	
MB 570-292075/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-292075/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-292075/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
570-121713-10 MS	B-26@15'	Total/NA	Solid	7471A	
570-121713-10 MSD	B-26@15'	Total/NA	Solid	7471A	

### Analysis Batch: 292247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-2	B-21@5'	Total/NA	Solid	6010B	291764
570-121713-3	B-21@10'	Total/NA	Solid	6010B	291764
570-121713-4	B-21@15'	Total/NA	Solid	6010B	291764
570-121713-5	B-21@20'	Total/NA	Solid	6010B	291764
570-121713-6	B-21@25'	Total/NA	Solid	6010B	291764

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Metals (Continued)

### Analysis Batch: 292247 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-7	B-26@2'	Total/NA	Solid	6010B	291764
570-121713-8	B-26@5'	Total/NA	Solid	6010B	291764
570-121713-9	B-26@10'	Total/NA	Solid	6010B	291764
570-121713-10	B-26@15'	Total/NA	Solid	6010B	291764
570-121713-11	B-26@20'	Total/NA	Solid	6010B	291764
570-121713-12	B-26@25'	Total/NA	Solid	6010B	291764
570-121713-13	B-26@30'	Total/NA	Solid	6010B	291764
570-121713-14	B-26@35'	Total/NA	Solid	6010B	291764
570-121713-15	B-26@40'	Total/NA	Solid	6010B	291764
570-121713-16	B-26@45'	Total/NA	Solid	6010B	291764
570-121713-17	B-26@50'	Total/NA	Solid	6010B	291764
570-121713-18	B-28@2'	Total/NA	Solid	6010B	291764
570-121713-19	B-28@5'	Total/NA	Solid	6010B	291764
570-121713-20	B-28@10'	Total/NA	Solid	6010B	291764
MB 570-291764/1-A ^5	Method Blank	Total/NA	Solid	6010B	291764
MB 570-291776/1-A ^5	Method Blank	Total/NA	Solid	6010B	291776
LCS 570-291764/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	291764
LCS 570-291776/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	291776
LCSD 570-291764/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	291764
LCSD 570-291776/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	291776
570-121713-11 MS	B-26@20'	Total/NA	Solid	6010B	291764
570-121713-11 MSD	B-26@20'	Total/NA	Solid	6010B	291764

### Prep Batch: 292280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-1	B-21@2'	Total/NA	Solid	3050B	
MB 570-292280/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-292280/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-292280/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	
570-121713-1 MS	B-21@2'	Total/NA	Solid	3050B	
570-121713-1 MSD	B-21@2'	Total/NA	Solid	3050B	

### Analysis Batch: 292281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-1	B-21@2'	Total/NA	Solid	7471A	292074
570-121713-2	B-21@5'	Total/NA	Solid	7471A	292074
570-121713-3	B-21@10'	Total/NA	Solid	7471A	292074
570-121713-4	B-21@15'	Total/NA	Solid	7471A	292074
570-121713-5	B-21@20'	Total/NA	Solid	7471A	292074
570-121713-6	B-21@25'	Total/NA	Solid	7471A	292074
570-121713-7	B-26@2'	Total/NA	Solid	7471A	292074
570-121713-8	B-26@5'	Total/NA	Solid	7471A	292074
570-121713-9	B-26@10'	Total/NA	Solid	7471A	292074
570-121713-10	B-26@15'	Total/NA	Solid	7471A	292075
570-121713-11	B-26@20'	Total/NA	Solid	7471A	292075
570-121713-12	B-26@25'	Total/NA	Solid	7471A	292075
570-121713-13	B-26@30'	Total/NA	Solid	7471A	292075
570-121713-14	B-26@35'	Total/NA	Solid	7471A	292075
570-121713-15	B-26@40'	Total/NA	Solid	7471A	292075
570-121713-16	B-26@45'	Total/NA	Solid	7471A	292075
570-121713-17	B-26@50'	Total/NA	Solid	7471A	292075

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

## Metals (Continued)

### Analysis Batch: 292281 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-18	B-28@2'	Total/NA	Solid	7471A	292075
570-121713-19	B-28@5'	Total/NA	Solid	7471A	292075
570-121713-22	B-28@20'	Total/NA	Solid	7471A	292075
570-121713-23	B-28@25'	Total/NA	Solid	7471A	292075
570-121713-26	B-28@40'	Total/NA	Solid	7471A	292075
570-121713-28	B-28@50'	Total/NA	Solid	7471A	292075
MB 570-292074/1-A	Method Blank	Total/NA	Solid	7471A	292074
MB 570-292075/1-A	Method Blank	Total/NA	Solid	7471A	292075
LCS 570-292074/2-A	Lab Control Sample	Total/NA	Solid	7471A	292074
LCS 570-292075/2-A	Lab Control Sample	Total/NA	Solid	7471A	292075
LCSD 570-292074/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	292074
LCSD 570-292075/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	292075
570-121713-10 MS	B-26@15'	Total/NA	Solid	7471A	292075
570-121713-10 MSD	B-26@15'	Total/NA	Solid	7471A	292075

### Analysis Batch: 292349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-20	B-28@10'	Total/NA	Solid	7471A	292075
570-121713-21	B-28@15'	Total/NA	Solid	7471A	292075
570-121713-24	B-28@30'	Total/NA	Solid	7471A	292075
570-121713-25	B-28@35'	Total/NA	Solid	7471A	292075
570-121713-27	B-28@45'	Total/NA	Solid	7471A	292075

### Analysis Batch: 292394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-21	B-28@15'	Total/NA	Solid	6010B	291776
570-121713-22	B-28@20'	Total/NA	Solid	6010B	291776
570-121713-23	B-28@25'	Total/NA	Solid	6010B	291776
570-121713-24	B-28@30'	Total/NA	Solid	6010B	291776
570-121713-25	B-28@35'	Total/NA	Solid	6010B	291776
570-121713-26	B-28@40'	Total/NA	Solid	6010B	291776
570-121713-27	B-28@45'	Total/NA	Solid	6010B	291776
570-121713-28	B-28@50'	Total/NA	Solid	6010B	291776

### Analysis Batch: 292657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-1	B-21@2'	Total/NA	Solid	6010B	292280
MB 570-292280/1-A ^5	Method Blank	Total/NA	Solid	6010B	292280
LCS 570-292280/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	292280
LCSD 570-292280/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	292280
570-121713-1 MS	B-21@2'	Total/NA	Solid	6010B	292280
570-121713-1 MSD	B-21@2'	Total/NA	Solid	6010B	292280

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

**Client Sample ID: B-21@2'**

**Date Collected: 12/21/22 07:24**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-1**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	291878	12/27/22 10:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291816	12/27/22 15:59	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.13 g	10 mL	291461	12/22/22 14:12	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 09:22	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.98 g	50 mL	292280	12/28/22 14:01	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292657	12/29/22 13:51	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	292074	12/27/22 20:27	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 14:57	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-21@5'**

**Date Collected: 12/21/22 07:29**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-2**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.06 g	5 mL	291878	12/27/22 10:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291816	12/27/22 16:24	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.15 g	10 mL	291461	12/22/22 14:12	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 09:43	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.00 g	50 mL	291764	12/27/22 05:45	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/27/22 23:54	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	292074	12/27/22 20:27	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 14:59	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-21@10'**

**Date Collected: 12/21/22 07:36**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-3**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	291878	12/27/22 10:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291816	12/27/22 17:13	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.21 g	10 mL	291461	12/22/22 14:12	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 10:03	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.01 g	50 mL	291764	12/27/22 05:45	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/27/22 23:56	K1UV	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

**Client Sample ID: B-21@10'**

**Date Collected: 12/21/22 07:36**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-3**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.49 g	50 mL	292074	12/27/22 20:27	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 15:01	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-21@15'**

**Date Collected: 12/21/22 07:43**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-4**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	291878	12/27/22 10:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291816	12/27/22 17:37	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.27 g	10 mL	291461	12/22/22 14:12	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 10:24	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.98 g	50 mL	291764	12/27/22 05:45	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/27/22 23:59	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	292074	12/27/22 20:27	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 15:03	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-21@20'**

**Date Collected: 12/21/22 07:50**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-5**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	291878	12/27/22 10:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291816	12/27/22 18:02	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.23 g	10 mL	291461	12/22/22 14:12	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 10:45	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.98 g	50 mL	291764	12/27/22 05:45	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 00:01	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	292074	12/27/22 20:27	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 15:08	C0YH	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

**Client Sample ID: B-21@25'**

**Date Collected: 12/21/22 07:58**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-6**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	291878	12/27/22 10:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291816	12/27/22 18:26	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.25 g	10 mL	291461	12/22/22 14:12	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 11:06	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.03 g	50 mL	291764	12/27/22 05:45	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 00:04	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	292074	12/27/22 20:27	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 15:10	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-26@2'**

**Date Collected: 12/21/22 09:03**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-7**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.06 g	5 mL	291878	12/27/22 10:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291816	12/27/22 18:50	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.11 g	10 mL	291461	12/22/22 14:12	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 11:26	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.03 g	50 mL	291764	12/27/22 05:45	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 00:11	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	292074	12/27/22 20:27	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 15:12	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-26@5'**

**Date Collected: 12/21/22 09:08**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-8**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	291878	12/27/22 10:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291816	12/27/22 19:15	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.29 g	10 mL	291461	12/22/22 14:12	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 11:47	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.00 g	50 mL	291764	12/27/22 05:45	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 00:13	K1UV	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

**Client Sample ID: B-26@5'**

**Date Collected: 12/21/22 09:08**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-8**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.51 g	50 mL	292074	12/27/22 20:27	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 15:14	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-26@10'**

**Date Collected: 12/21/22 09:17**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-9**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	291878	12/27/22 10:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291816	12/27/22 19:39	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.37 g	10 mL	291461	12/22/22 14:12	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 12:08	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.04 g	50 mL	291764	12/27/22 05:45	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 00:16	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	292074	12/27/22 20:27	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 15:16	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-26@15'**

**Date Collected: 12/21/22 09:23**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-10**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.98 g	5 mL	291878	12/27/22 10:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291816	12/27/22 20:04	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.31 g	10 mL	291461	12/22/22 14:12	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 12:50	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.03 g	50 mL	291764	12/27/22 05:45	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 00:18	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	292075	12/27/22 20:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 15:24	C0YH	EET CAL 4
Instrument ID: HG7										



# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

**Client Sample ID: B-26@20'**

**Date Collected: 12/21/22 09:32**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-11**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	291878	12/27/22 10:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291816	12/27/22 20:28	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.33 g	10 mL	291461	12/22/22 14:12	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 13:11	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.98 g	50 mL	291764	12/27/22 05:45	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/27/22 23:44	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	292075	12/27/22 20:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 15:33	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-26@25'**

**Date Collected: 12/21/22 09:40**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-12**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.99 g	5 mL	291878	12/27/22 10:08	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291816	12/27/22 20:53	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.35 g	10 mL	291461	12/22/22 14:12	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 13:32	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.96 g	50 mL	291764	12/27/22 05:45	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 00:21	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	292075	12/27/22 20:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 15:35	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-26@30'**

**Date Collected: 12/21/22 10:04**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-13**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.98 g	5 mL	291533	12/22/22 16:26	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291556	12/23/22 01:48	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.20 g	10 mL	291461	12/22/22 14:12	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 13:53	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.00 g	50 mL	291764	12/27/22 05:45	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 00:23	K1UV	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

**Client Sample ID: B-26@30'**

**Date Collected: 12/21/22 10:04**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-13**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.49 g	50 mL	292075	12/27/22 20:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 15:37	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-26@35'**

**Date Collected: 12/21/22 10:24**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-14**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.00 g	5 mL	291533	12/22/22 16:26	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291556	12/23/22 03:04	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.16 g	10 mL	291461	12/22/22 14:12	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 14:14	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.03 g	50 mL	291764	12/27/22 05:45	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 00:26	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	292075	12/27/22 20:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 15:39	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-26@40'**

**Date Collected: 12/21/22 10:41**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-15**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	291533	12/22/22 16:26	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291556	12/23/22 03:29	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.12 g	10 mL	291461	12/22/22 14:12	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 14:35	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.98 g	50 mL	291764	12/27/22 05:45	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 00:28	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	292075	12/27/22 20:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 15:41	C0YH	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

**Client Sample ID: B-26@45'**

**Lab Sample ID: 570-121713-16**

**Date Collected: 12/21/22 10:51**

**Matrix: Solid**

**Date Received: 12/21/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.99 g	5 mL	291533	12/22/22 16:26	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291556	12/23/22 03:54	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.10 g	10 mL	291461	12/22/22 14:12	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 14:56	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.99 g	50 mL	291764	12/27/22 05:45	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 00:30	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	292075	12/27/22 20:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 15:43	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-26@50'**

**Lab Sample ID: 570-121713-17**

**Date Collected: 12/21/22 11:13**

**Matrix: Solid**

**Date Received: 12/21/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	291533	12/22/22 16:26	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291556	12/23/22 04:19	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.24 g	10 mL	291461	12/22/22 14:12	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 15:17	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.03 g	50 mL	291764	12/27/22 05:45	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 00:33	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	292075	12/27/22 20:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 15:44	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-28@2'**

**Lab Sample ID: 570-121713-18**

**Date Collected: 12/21/22 12:30**

**Matrix: Solid**

**Date Received: 12/21/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	291533	12/22/22 16:26	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291556	12/23/22 04:44	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.21 g	10 mL	291461	12/22/22 14:12	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 15:38	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.99 g	50 mL	291764	12/27/22 05:45	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 00:40	K1UV	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

**Client Sample ID: B-28@2'**

**Date Collected: 12/21/22 12:30**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-18**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.49 g	50 mL	292075	12/27/22 20:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 15:46	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-28@5'**

**Date Collected: 12/21/22 12:34**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-19**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.99 g	5 mL	291533	12/22/22 16:26	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291556	12/23/22 05:09	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.26 g	10 mL	291461	12/22/22 14:12	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 15:59	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.99 g	50 mL	291764	12/27/22 05:45	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 00:43	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	292075	12/27/22 20:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 15:48	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-28@10'**

**Date Collected: 12/21/22 12:43**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-20**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	291533	12/22/22 16:26	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291556	12/23/22 05:35	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.23 g	10 mL	291461	12/22/22 14:12	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 16:19	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.00 g	50 mL	291764	12/27/22 05:45	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 00:45	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	292075	12/27/22 20:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 16:51	C0YH	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

**Client Sample ID: B-28@15'**

**Date Collected: 12/21/22 12:48**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-21**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	291533	12/22/22 16:26	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291556	12/23/22 06:00	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.16 g	10 mL	291390	12/22/22 14:16	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 20:30	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.01 g	50 mL	291776	12/27/22 05:57	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292394	12/28/22 16:19	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	292075	12/27/22 20:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 16:53	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-28@20'**

**Date Collected: 12/21/22 13:05**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-22**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.96 g	5 mL	291533	12/22/22 16:26	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291556	12/23/22 06:25	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.18 g	10 mL	291390	12/22/22 14:16	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 20:51	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.99 g	50 mL	291776	12/27/22 05:57	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292394	12/28/22 16:22	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	292075	12/27/22 20:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 15:57	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-28@25'**

**Date Collected: 12/21/22 13:11**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-23**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	291533	12/22/22 16:26	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291556	12/23/22 07:15	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.27 g	10 mL	291390	12/22/22 14:16	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 21:12	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.04 g	50 mL	291776	12/27/22 05:57	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292394	12/28/22 16:24	P1R	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

**Client Sample ID: B-28@25'**

**Date Collected: 12/21/22 13:11**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-23**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.49 g	50 mL	292075	12/27/22 20:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 15:59	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-28@30'**

**Date Collected: 12/21/22 13:23**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-24**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	291533	12/22/22 16:26	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291556	12/23/22 07:40	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.23 g	10 mL	291390	12/22/22 14:16	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 21:34	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.98 g	50 mL	291776	12/27/22 05:57	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292394	12/28/22 16:27	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	292075	12/27/22 20:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 16:55	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-28@35'**

**Date Collected: 12/21/22 13:29**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-25**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	291533	12/22/22 16:26	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291556	12/23/22 08:05	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.17 g	10 mL	291390	12/22/22 14:16	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 21:56	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.03 g	50 mL	291776	12/27/22 05:57	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292394	12/28/22 16:29	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	292075	12/27/22 20:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 16:56	C0YH	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

**Client Sample ID: B-28@40'**

**Date Collected: 12/21/22 13:40**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-26**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.00 g	5 mL	291533	12/22/22 16:26	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291556	12/23/22 08:31	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.19 g	10 mL	291390	12/22/22 14:16	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 22:18	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.99 g	50 mL	291776	12/27/22 05:57	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292394	12/28/22 16:31	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	292075	12/27/22 20:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 16:05	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-28@45'**

**Date Collected: 12/21/22 13:45**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-27**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	291533	12/22/22 16:26	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291556	12/23/22 08:56	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.15 g	10 mL	291390	12/22/22 14:16	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 22:39	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.00 g	50 mL	291776	12/27/22 05:57	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292394	12/28/22 17:12	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	292075	12/27/22 20:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 16:58	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-28@50'**

**Date Collected: 12/21/22 14:01**

**Date Received: 12/21/22 19:20**

**Lab Sample ID: 570-121713-28**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	291533	12/22/22 16:28	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291556	12/23/22 09:21	P1R	EET CAL 4
Instrument ID: GC56										
Total/NA	Prep	3550C			10.25 g	10 mL	291390	12/22/22 14:16	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291581	12/23/22 23:01	N1A	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.96 g	50 mL	291776	12/27/22 05:57	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292394	12/28/22 17:14	P1R	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

**Client Sample ID: B-28@50'**

**Lab Sample ID: 570-121713-28**

**Date Collected: 12/21/22 14:01**

**Matrix: Solid**

**Date Received: 12/21/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.51 g	50 mL	292075	12/27/22 20:30	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292281	12/28/22 16:09	C0YH	EET CAL 4
Instrument ID: HG7										

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

## Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

### Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

1

2

3

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5

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## Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

Method	Method Description	Protocol	Laboratory
8015B	Gasoline Range Organics - (GC)	SW846	EET CAL 4
8015B	Diesel Range Organics (DRO) (GC)	SW846	EET CAL 4
6010B	Metals (ICP)	SW846	EET CAL 4
7471A	Mercury (CVAA)	SW846	EET CAL 4
3050B	Preparation, Metals	SW846	EET CAL 4
3550C	Ultrasonic Extraction	SW846	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
7471A	Preparation, Mercury	SW846	EET CAL 4

### Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

# Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-121713-1	B-21@2'	Solid	12/21/22 07:24	12/21/22 19:20
570-121713-2	B-21@5'	Solid	12/21/22 07:29	12/21/22 19:20
570-121713-3	B-21@10'	Solid	12/21/22 07:36	12/21/22 19:20
570-121713-4	B-21@15'	Solid	12/21/22 07:43	12/21/22 19:20
570-121713-5	B-21@20'	Solid	12/21/22 07:50	12/21/22 19:20
570-121713-6	B-21@25'	Solid	12/21/22 07:58	12/21/22 19:20
570-121713-7	B-26@2'	Solid	12/21/22 09:03	12/21/22 19:20
570-121713-8	B-26@5'	Solid	12/21/22 09:08	12/21/22 19:20
570-121713-9	B-26@10'	Solid	12/21/22 09:17	12/21/22 19:20
570-121713-10	B-26@15'	Solid	12/21/22 09:23	12/21/22 19:20
570-121713-11	B-26@20'	Solid	12/21/22 09:32	12/21/22 19:20
570-121713-12	B-26@25'	Solid	12/21/22 09:40	12/21/22 19:20
570-121713-13	B-26@30'	Solid	12/21/22 10:04	12/21/22 19:20
570-121713-14	B-26@35'	Solid	12/21/22 10:24	12/21/22 19:20
570-121713-15	B-26@40'	Solid	12/21/22 10:41	12/21/22 19:20
570-121713-16	B-26@45'	Solid	12/21/22 10:51	12/21/22 19:20
570-121713-17	B-26@50'	Solid	12/21/22 11:13	12/21/22 19:20
570-121713-18	B-28@2'	Solid	12/21/22 12:30	12/21/22 19:20
570-121713-19	B-28@5'	Solid	12/21/22 12:34	12/21/22 19:20
570-121713-20	B-28@10'	Solid	12/21/22 12:43	12/21/22 19:20
570-121713-21	B-28@15'	Solid	12/21/22 12:48	12/21/22 19:20
570-121713-22	B-28@20'	Solid	12/21/22 13:05	12/21/22 19:20
570-121713-23	B-28@25'	Solid	12/21/22 13:11	12/21/22 19:20
570-121713-24	B-28@30'	Solid	12/21/22 13:23	12/21/22 19:20
570-121713-25	B-28@35'	Solid	12/21/22 13:29	12/21/22 19:20
570-121713-26	B-28@40'	Solid	12/21/22 13:40	12/21/22 19:20
570-121713-27	B-28@45'	Solid	12/21/22 13:45	12/21/22 19:20
570-121713-28	B-28@50'	Solid	12/21/22 14:01	12/21/22 19:20



Calscience

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofinsus.com or call us.

LABORATORY CLIENT:

Group Delta Consultants

ADDRESS: 9245 Activity Road Suite 103

CITY: San Diego

STATE: CA

ZIP: 92126

TEL: 858 536 1000

E-MAIL:

mattf@groupdelta.com

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID:

LOG CODE:

SPECIAL INSTRUCTIONS:

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT
		DATE	TIME		
1	B-21 @ 2'	12/21	7:24	Soil	1
2	B-21 @ 5'	12/21	7:29	Soil	1
3	B-21 @ 10'	12/21	7:36	Soil	1
4	B-21 @ 15'	12/21	7:43	Soil	1
5	B-21 @ 20'	12/21	7:50	Soil	1
6	B-21 @ 25'	12/21	7:58	Soil	1
7	B-26 @ 2'	12/21	9:03	Soil	1
8	B-26 @ 5'	12/21	9:08	Soil	1
9	B-26 @ 10'	12/21	9:17	Soil	1
10	B-26 @ 15'	12/21	9:23	Soil	1

Relinquished by (Signature)

*William Rivera*

Relinquished by (Signature)

*William Rivera*

Relinquished by (Signature)

29/27 SC11

570-121713 Chain of Custody



# CHAIN OF CUSTODY RECORD

DATE: 12/21/2022

PAGE: 1 OF 3

CLIENT PROJECT NAME / NUMBER	Science Research Park / SD754
PROJECT CONTACT	Matt Fagan
SAMPLER(S), (PRINT)	Josh Joksich Casey Rausch-704unson

## REQUESTED ANALYSES

Please check box or fill in blank as needed									
<input type="checkbox"/> TPH(g) <input type="checkbox"/> GRO	<input type="checkbox"/> TPH(d) <input type="checkbox"/> DRO	<input type="checkbox"/> TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	<input type="checkbox"/> BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>	<input type="checkbox"/> VOCs (8260)	<input type="checkbox"/> Oxygenates (8260)	<input type="checkbox"/> Prep (5035), <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	<input type="checkbox"/> SVOCs (8270)	<input type="checkbox"/> Pesticides (8081)	<input type="checkbox"/> PCBs (8082)
<input type="checkbox"/> PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	<input type="checkbox"/> T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	<input type="checkbox"/> Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6							

Received by (Signature/Affiliation)	Date: 12/21/22	Time: 1825
Received by (Signature/Affiliation)	Date: 12/21/22	Time: 1920
Received by (Signature/Affiliation)	Date:	Time:

06/02/14 Revision



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# CHAIN OF CUSTODY RECORD

DATE: 12/21/2022

PAGE: 2 OF 3

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT:		CLIENT PROJECT NAME / NUMBER:		P.O. NO.
ADDRESS: 9245 Activity Road Suite 103		Science Research Park / SD754		
CITY: San Diego		PROJECT CONTACT: Matt Fagan		SAMPLER(S) (PRINT): Josh Jousch
TEL: 858 536 1000		E-MAIL: mattf@groupdelta.com		Curry Rousset-Johnson
STATE: CA		ZIP: 92126		

TURNDOWN TIME (Rush surcharges may apply to any TAT not "STANDARD"):					
<input type="checkbox"/> SAME DAY	<input type="checkbox"/> 24 HR	<input type="checkbox"/> 48 HR	<input type="checkbox"/> 72 HR	<input type="checkbox"/> 5 DAYS	<input checked="" type="checkbox"/> STANDARD
<input type="checkbox"/> COELT EDF		GLOBAL ID:			

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	LOG CODE	
		DATE	TIME			Unpreserved	Preserved
11	B-26 @ 10'	12/21	9:32	Soil	1	X	
12	B-26 @ 25'	12/21	9:40	Soil	1	X	
13	B-26 @ 30'	12/21	10:04	Soil	1	X	
14	B-26 @ 35'	12/21	10:24	Soil	1	X	
15	B-26 @ 40'	12/21	10:41	Soil	1	X	
16	B-26 @ 45'	12/21	10:51	Soil	1	X	
17	B-26 @ 50'	12/21	11:13	Soil	1	X	
18	B-28 @ 2'	12/21	12:30	Soil	1	X	
19	B-28 @ 5'	12/21	12:34	Soil	1	X	
20	B-28 @ 10'	12/21	12:43	Soil	1	X	

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 12/21/22	Time: 1625
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 12/21/22	Time: 1920
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:



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# CHAIN OF CUSTODY RECORD

DATE: 12/21/2022  
PAGE: 3 OF 3

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For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT:		CLIENT PROJECT NAME / NUMBER:	
ADDRESS: 9245 Activity Road Suite 103		Science Research Park / SD754	
CITY: San Diego	STATE: CA	ZIP: 92126	PROJECT CONTACT: Matt Fagan
TEL: 858 536 1000	E-MAIL: mattf@groupdelta.com	P.O. NO.:	

TURNAROUND TIME (rush surcharges may apply to any TAT not "STANDARD"):	
<input type="checkbox"/> SAME DAY	<input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD
<input type="checkbox"/> COELT EDF	GLOBAL ID:

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT	LOG CODE:		
		DATE	TIME			Unpreserved	Preserved	Field Filtered
21	B-28 @ 15	12/21	12:48	Soil	1	X		
22	B-28 @ 20	12/21	1:05	Soil	1	X		
23	B-28 @ 25	12/21	1:11	Soil	1	X		
24	B-28 @ 30	12/21	1:23	Soil	1	X		
25	B-28 @ 35	12/21	1:29	Soil	1	X		
26	B-28 @ 40	12/21	1:40	Soil	1	X		
27	B-28 @ 45	12/21	1:48	Soil	1	X		
28	B-28 @ 50'	12/21	2:01	Soil	1	X		
				Soil	1	X		
				Soil	1	X		

Relinquished by (Signature):	Received by (Signature/Affiliation): William Rivera	Date: 12/21/22	Time: 1625
Relinquished by (Signature): William Rivera	Received by (Signature/Affiliation):	Date: 12/21/22	Time: 1920
Relinquished by (Signature):	Received by (Signature/Affiliation):	Date:	Time:



## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-121713-1

**Login Number: 121713**

**List Source: Eurofins Calscience**

**List Number: 1**

**Creator: Tat, Sandy**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Matt Fagan  
Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Generated 1/12/2023 11:25:52 AM

## JOB DESCRIPTION

UCSD Science Research Park (SD754)

## JOB NUMBER

570-121713-2



# Eurofins Calscience

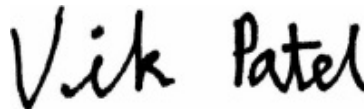
## Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

## Authorization



Generated  
1/12/2023 11:25:52 AM

Authorized for release by  
Vikas Patel, Project Manager I  
[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)  
(714)895-5494



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## Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-2

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-2

**Job ID: 570-121713-2**

**Laboratory: Eurofins Calscience**

### Narrative

**Job Narrative**  
**570-121713-2**

### Comments

No additional comments.

### Receipt

The samples were received on 12/21/2022 7:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.7° C.

### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-2

**Client Sample ID: B-26@40'**

**Lab Sample ID: 570-121713-15**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	8.78		1.00	0.105	mg/L	1		6010B	STLC Citrate

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-2

## Method: SW846 6010B - Metals (ICP) - STLC Citrate

Client Sample ID: B-26@40'  
Date Collected: 12/21/22 10:41  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-15  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	8.78		1.00	0.105	mg/L		01/11/23 11:57	01/11/23 13:12	1

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-2

## Method: 6010B - Metals (ICP)

Lab Sample ID: LB4 570-294367/1-B

Matrix: Solid

Analysis Batch: 295163

Client Sample ID: Method Blank

Prep Type: STLC Citrate

Prep Batch: 295100

Analyte	LB4 Result	LB4 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.00	0.105	mg/L		01/11/23 11:57	01/11/23 12:35	1

Lab Sample ID: LCS 570-294367/2-B

Matrix: Solid

Analysis Batch: 295163

Client Sample ID: Lab Control Sample

Prep Type: STLC Citrate

Prep Batch: 295100

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	20.0	20.06		mg/L		100	80 - 120

Lab Sample ID: LCSD 570-294367/3-B

Matrix: Solid

Analysis Batch: 295163

Client Sample ID: Lab Control Sample Dup

Prep Type: STLC Citrate

Prep Batch: 295100

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	20.0	19.25		mg/L		96	80 - 120	4	20

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-2

## Metals

### Leach Batch: 294367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-15	B-26@40'	STLC Citrate	Solid	CA WET Citrate	
LB4 570-294367/1-B	Method Blank	STLC Citrate	Solid	CA WET Citrate	
LCS 570-294367/2-B	Lab Control Sample	STLC Citrate	Solid	CA WET Citrate	
LCSD 570-294367/3-B	Lab Control Sample Dup	STLC Citrate	Solid	CA WET Citrate	

### Prep Batch: 295100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-15	B-26@40'	STLC Citrate	Solid	Dilution	294367
LB4 570-294367/1-B	Method Blank	STLC Citrate	Solid	Dilution	294367
LCS 570-294367/2-B	Lab Control Sample	STLC Citrate	Solid	Dilution	294367
LCSD 570-294367/3-B	Lab Control Sample Dup	STLC Citrate	Solid	Dilution	294367

### Analysis Batch: 295163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-15	B-26@40'	STLC Citrate	Solid	6010B	295100
LB4 570-294367/1-B	Method Blank	STLC Citrate	Solid	6010B	295100
LCS 570-294367/2-B	Lab Control Sample	STLC Citrate	Solid	6010B	295100
LCSD 570-294367/3-B	Lab Control Sample Dup	STLC Citrate	Solid	6010B	295100

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-2

**Client Sample ID: B-26@40'**

**Lab Sample ID: 570-121713-15**

**Date Collected: 12/21/22 10:41**

**Matrix: Solid**

**Date Received: 12/21/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.07 g	500 mL	294367	01/09/23 03:34	XBO9	EET CAL 4
STLC Citrate	Prep	Dilution			2.5 mL	50 mL	295100	01/11/23 11:57	VZOK	EET CAL 4
STLC Citrate	Analysis	6010B		1			295163	01/11/23 13:12	P1R	EET CAL 4
Instrument ID: ICP10										

<sup>1</sup> Completion dates and times are reported or not reported per method requirements or individual lab discretion.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494



Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-2

Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

## Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	EET CAL 4
CA WET Citrate	California - Waste Extraction Test with Citrate Leach	CA-WET	EET CAL 4
Dilution	Preparation / Dilution Process	None	EET CAL 4

### Protocol References:

CA-WET = California Waste Extraction Test, from Title 22

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

## Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-121713-15	B-26@40'	Solid	12/21/22 10:41	12/21/22 19:20

1

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## Virendra Patel

---

**From:** Alexandre Santini <alexandres@groupdelta.com>  
**Sent:** Tuesday, January 3, 2023 11:13 AM  
**To:** Virendra Patel; Jack Packwood; Matt Fagan; Vikas Patel  
**Subject:** RE: Eurofins Calscience report and EDD files from 570-121713-1 UCSD Science Research Park (SD754)

EXTERNAL EMAIL\*

Hello Vik – Please analyze for lead STLC sample B-26@40'

Please confirm it.

Thanks,

**Alex Santini, P.E. | Senior Project Engineer**  
Office: (858) 536-1000  
Mobile: (310) 310-5686  
Email: [AlexandreS@groupdelta.com](mailto:AlexandreS@groupdelta.com)

---

**From:** Virendra Patel <Virendra.Patel@et.eurofinsus.com>  
**Sent:** Thursday, December 29, 2022 7:21 PM  
**To:** Jack Packwood <jackp@groupdelta.com>; Matt Fagan <mattf@groupdelta.com>  
**Subject:** Eurofins Calscience report and EDD files from 570-121713-1 UCSD Science Research Park (SD754)

Hello,

Attached please find the report and EDD files for job 570-121713-1; UCSD Science Research Park (SD754)

Please feel free to contact me or your PM Vikas Patel if you have any questions.

Thank you.

**Virendra Patel**  
Project Manager

Eurofins Calscience  
Phone: 714-895-5494  
Mobile: 714-887-9901

E-mail: [Virendra.Patel@et.eurofinsus.com](mailto:Virendra.Patel@et.eurofinsus.com)  
[www.eurofinsus.com/env](http://www.eurofinsus.com/env)



Reference: [570-406280]  
Attachments: 2

> > Bank information has changed, please refer to remittance information on invoice. < <

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# 570-121713 Chain of Custody



## CHAIN OF CUSTODY RECORD

DATE: 12/21/2022

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For courier service / sample drop off information, contact us26 [sales@eurofinsus.com](mailto:sales@eurofinsus.com) or call us.

LABORATORY CLIENT\*

Group Delta Consultants

ADDRESS: 9245 Activity Road Suite 103

city: San Diego state: CA zip: 92126

TEL.	858 536 1000	E-MAIL.	mattf@groupdelta.com
------	--------------	---------	----------------------

**TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):**

☐ SAME DAY    ☐ 24 HR    ☐ 48 HR    ☐ 72 HR    ☒ 5 DAYS    ☒ STANDARD

GLOBAL ID:

☐ COELT EDF

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1/12/2023

29/27.5C11

06/02/14 Revision

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Calscience

# CHAIN OF CUSTODY RECORD

DATE: 12/21/2022  
PAGE: 2 OF 3

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT:		CLIENT PROJECT NAME / NUMBER:		P.O. NO.
ADDRESS: 9245 Activity Road Suite 103		Science Research Park / SD754		
CITY: San Diego	STATE: CA	ZIP: 92126	PROJECT CONTACT:	SAMPLER(S) (PRINT)
TEL: 858 536 1000	E-MAIL: mattf@groupdelta.com		Matt Fagan	Josh Jousch Luxey Roussot-Johnson

TURNDOWN TIME (Rush surcharges may apply to any TAT not "STANDARD"):  
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: SPECIAL INSTRUCTIONS:

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	LOG CODE	
		DATE	TIME			Unpreserved	Preserved
11	B-26 @ 10'	12/21	9:32	Soil	1	X	
12	B-26 @ 25'	12/21	9:40	Soil	1	X	
13	B-26 @ 30'	12/21	10:04	Soil	1	X	
14	B-26 @ 35'	12/21	10:24	Soil	1	X	
15	B-26 @ 40'	12/21	10:41	Soil	1	X	
16	B-26 @ 45'	12/21	10:51	Soil	1	X	
17	B-26 @ 50'	12/21	11:13	Soil	1	X	
18	B-28 @ 2'	12/21	12:30	Soil	1	X	
19	B-28 @ 5'	12/21	12:34	Soil	1	X	
20	B-28 @ 10'	12/21	12:43	Soil	1	X	

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 12/21/22	Time: 1625
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 12/21/22	Time: 1920
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:



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# CHAIN OF CUSTODY RECORD

DATE: 12/21/2022  
PAGE: 3 OF 3

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofinsus.com or call us.

LABORATORY CLIENT:		CLIENT PROJECT NAME / NUMBER:	
ADDRESS: 9245 Activity Road Suite 103		Science Research Park / SD754	
CITY: San Diego	STATE: CA	ZIP: 92126	PROJECT CONTACT: Matt Fagan
TEL: 858 536 1000	E-MAIL: mattf@groupdelta.com	P.O. NO.:	

TURNAROUND TIME (rush surcharges may apply to any TAT not "STANDARD"):  
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

<input type="checkbox"/> COELT EDF	GLOBAL ID:	LOG CODE:
------------------------------------	------------	-----------

SPECIAL INSTRUCTIONS:

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT	Unpreserved	Preserved	Field Filtered	□ TPH(g) □ GRO	□ TPH(d) □ DRO	TPH □ C6-C36 □ C6-C44	TPH C4-C12, C13-C21, C25-C46	BTEX / MTBE □ 8260 □	VOCs (8260)	Oxygenates (8260)	Prep (5035): □ En Core □ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs □ 8270 □ 8270 SIM	T22 Metals. □ 6010/747X □ 6020/747X	Cr(VI). □ 7196 □ 7199 □ 218.6
		DATE	TIME																			
12	B-28 @ 15	12/21	12:48	Soil	1	X						/									/	
22	B-28 @ 20	12/21	1:05	Soil	1	X						/									/	
32	B-28 @ 25	12/21	1:11	Soil	1	X						/									/	
42	B-28 @ 30	12/21	1:23	Soil	1	X						/									/	
52	B-28 @ 35	12/21	1:29	Soil	1	X						/									/	
62	B-28 @ 40	12/21	1:40	Soil	1	X						/									/	
72	B-28 @ 45	12/21	1:48	Soil	1	X						/									/	
82	B-28 @ 50'	12/21	2:01	Soil	1	X						/									/	
				Soil	1	X																
				Soil	1	X																

Relinquished by (Signature):	Received by (Signature/Affiliation): William Rivera	Date: 12/21/22	Time: 1625
Relinquished by (Signature): William Rivera	Received by (Signature/Affiliation):	Date: 12/21/22	Time: 1920
Relinquished by (Signature):	Received by (Signature/Affiliation):	Date:	Time:



## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-121713-2

Login Number: 121713

List Number: 1

Creator: Tat, Sandy

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Matt Fagan  
Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Generated 1/18/2023 1:32:49 PM

## JOB DESCRIPTION

UCSD Science Research Park (SD754)

## JOB NUMBER

570-121713-3

# Eurofins Calscience

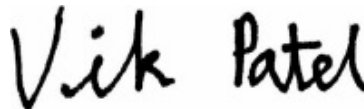
## Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

## Authorization



Generated  
1/18/2023 1:32:49 PM

Authorized for release by  
Vikas Patel, Project Manager I  
[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)  
(714)895-5494

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## Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-3

### Qualifiers

#### Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-3

**Job ID: 570-121713-3**

**Laboratory: Eurofins Calscience**

### Narrative

**Job Narrative**  
**570-121713-3**

### Comments

No additional comments.

### Receipt

The samples were received on 12/21/2022 7:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.7° C.

### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-3

**Client Sample ID: B-26@40'**

**Lab Sample ID: 570-121713-15**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.324	J	0.500	0.0527	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-3

## Method: SW846 6010B - Metals (ICP) - TCLP

Client Sample ID: B-26@40'  
Date Collected: 12/21/22 10:41  
Date Received: 12/21/22 19:20

Lab Sample ID: 570-121713-15  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.324	J	0.500	0.0527	mg/L		01/17/23 08:57	01/18/23 01:31	1



# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-3

## Method: 6010B - Metals (ICP)

Lab Sample ID: LB 570-295955/1-B

Matrix: Solid

Analysis Batch: 296650

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 296347

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.500	0.0527	mg/L		01/17/23 08:57	01/18/23 00:33	1

Lab Sample ID: LCS 570-295955/2-B

Matrix: Solid

Analysis Batch: 296650

Client Sample ID: Lab Control Sample

Prep Type: TCLP

Prep Batch: 296347

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	2.00	2.024		mg/L		101	80 - 120

Lab Sample ID: LCSD 570-295955/3-B

Matrix: Solid

Analysis Batch: 296650

Client Sample ID: Lab Control Sample Dup

Prep Type: TCLP

Prep Batch: 296347

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	2.00	2.049		mg/L		102	80 - 120	1	20

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-3

## Metals

### Leach Batch: 295955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-15	B-26@40'	TCLP	Solid	1311	
LB 570-295955/1-B	Method Blank	TCLP	Solid	1311	
LCS 570-295955/2-B	Lab Control Sample	TCLP	Solid	1311	
LCSD 570-295955/3-B	Lab Control Sample Dup	TCLP	Solid	1311	

### Prep Batch: 296347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-15	B-26@40'	TCLP	Solid	3010A	295955
LB 570-295955/1-B	Method Blank	TCLP	Solid	3010A	295955
LCS 570-295955/2-B	Lab Control Sample	TCLP	Solid	3010A	295955
LCSD 570-295955/3-B	Lab Control Sample Dup	TCLP	Solid	3010A	295955

### Analysis Batch: 296650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121713-15	B-26@40'	TCLP	Solid	6010B	296347
LB 570-295955/1-B	Method Blank	TCLP	Solid	6010B	296347
LCS 570-295955/2-B	Lab Control Sample	TCLP	Solid	6010B	296347
LCSD 570-295955/3-B	Lab Control Sample Dup	TCLP	Solid	6010B	296347

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-3

**Client Sample ID: B-26@40'**

**Lab Sample ID: 570-121713-15**

**Date Collected: 12/21/22 10:41**

**Matrix: Solid**

**Date Received: 12/21/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			100.04 g	2000 mL	295955	01/15/23 16:00	XBO9	EET CAL 4
TCLP	Prep	3010A			5 mL	50 mL	296347	01/17/23 08:57	ECX6	EET CAL 4
TCLP	Analysis	6010B		1			296650	01/18/23 01:31	VZOK	EET CAL 4
Instrument ID: ICP11										

<sup>1</sup> Completion dates and times are reported or not reported per method requirements or individual lab discretion.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-3

Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

## Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-3

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	EET CAL 4
1311	TCLP Extraction	SW846	EET CAL 4
3010A	Preparation, Total Metals	SW846	EET CAL 4

### Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

## Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: UCSD Science Research Park (SD754)

Job ID: 570-121713-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-121713-15	B-26@40'	Solid	12/21/22 10:41	12/21/22 19:20

1

2

3

4

5

6

7

8

9

10

11

12

13

14

## Vikas Patel

---

**From:** Alexandre Santini <alexandres@groupdelta.com>  
**Sent:** Thursday, January 12, 2023 1:46 PM  
**To:** Vikas Patel; Jack Packwood; Matt Fagan  
**Cc:** Natalia Delgadillo  
**Subject:** RE: Eurofins Calscience report and EDD files from 570-121713-2 UCSD Science Research Park (SD754)

Please provide us the fastest TAT (2-3 days).

Alex Santini, P.E. | [Senior Project Engineer](#)  
Office: (858) 536-1000  
Mobile: (310) 310-5686  
Email: [AlexandreS@groupdelta.com](mailto:AlexandreS@groupdelta.com)

---

**From:** Vikas Patel <[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)>  
**Sent:** Thursday, January 12, 2023 1:43 PM  
**To:** Alexandre Santini <[alexandres@groupdelta.com](mailto:alexandres@groupdelta.com)>; Jack Packwood <[jackp@groupdelta.com](mailto:jackp@groupdelta.com)>; Matt Fagan <[mattf@groupdelta.com](mailto:mattf@groupdelta.com)>  
**Cc:** Natalia Delgadillo <[nataliad@groupdelta.com](mailto:nataliad@groupdelta.com)>  
**Subject:** RE: Eurofins Calscience report and EDD files from 570-121713-2 UCSD Science Research Park (SD754)

No problem Alex

Best Regards,

Vikas Patel  
Project Manager

Eurofins Environment Testing Southwest, LLC  
Phone: +1 714-895-5494

---

**From:** Alexandre Santini <[alexandres@groupdelta.com](mailto:alexandres@groupdelta.com)>  
**Sent:** Thursday, January 12, 2023 12:55 PM  
**To:** Vikas Patel <[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)>; Jack Packwood <[jackp@groupdelta.com](mailto:jackp@groupdelta.com)>; Matt Fagan <[mattf@groupdelta.com](mailto:mattf@groupdelta.com)>  
**Cc:** Natalia Delgadillo <[nataliad@groupdelta.com](mailto:nataliad@groupdelta.com)>  
**Subject:** RE: Eurofins Calscience report and EDD files from 570-121713-2 UCSD Science Research Park (SD754)

Vik – Please analyze for lead TCLP sample B-26@40' due to STLC exceedance.

Please confirm it.

Thanks,

Alex Santini, P.E. | [Senior Project Engineer](#)  
Office: (858) 536-1000  
Mobile: (310) 310-5686  
Email: [AlexandreS@groupdelta.com](mailto:AlexandreS@groupdelta.com)



Calscience

570-121713 Chain of Custody



# CHAIN OF CUSTODY RECORD

DATE: 12/21/2022

LABORATORY CLIENT: Group Delta Consultants  
ADDRESS: 9245 Activity Road Suite 103  
CITY: San Diego STATE: CA ZIP: 92126  
TEL: 858 536 1000 E-MAIL: mattf@groupdelta.com

CLIENT PROJECT NAME / NUMBER: Science Research Park / SD754  
PROJECT CONTACT: Matt Fagan  
P.O. NO.:  
SAMPLER(S), (PRINT): Josh Joksch  
Casey Rausch-Johnson

PAGE: 1 OF 3

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofinsus.com or call us.

## REQUESTED ANALYSES

Please check box or fill in blank as needed

GLOBAL ID:										LOG CODE:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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Relinquished by (Signature)	William Rivera	Date: 12/21/22	Time: 1625
Relinquished by (Signature)	William Rivera	Date: 12/21/22	Time: 1920
Relinquished by (Signature)		Date:	Time:

29/27 SC11





Calscience

# CHAIN OF CUSTODY RECORD

DATE: 12/21/2022  
PAGE: 2 OF 3

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT:		CLIENT PROJECT NAME / NUMBER:		P.O. NO.
ADDRESS: 9245 Activity Road Suite 103		Science Research Park / SD754		
CITY: San Diego	STATE: CA	ZIP: 92126	PROJECT CONTACT:	SAMPLER(S) (PRINT)
TEL: 858 536 1000	E-MAIL: mattf@groupdelta.com		Matt Fagan	Josh Jousch Luxey Rousslet-Johnson

TURNDOWN TIME (rush surcharges may apply to any TAT not "STANDARD"):  
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	LOG CODE	
		DATE	TIME			Unpreserved	Preserved
11	B-26 @ 10'	12/21	9:32	Soil	1	X	
12	B-26 @ 25'	12/21	9:40	Soil	1	X	
13	B-26 @ 30'	12/21	10:04	Soil	1	X	
14	B-26 @ 35'	12/21	10:24	Soil	1	X	
15	B-26 @ 40'	12/21	10:41	Soil	1	X	
16	B-26 @ 45'	12/21	10:51	Soil	1	X	
17	B-26 @ 50'	12/21	11:13	Soil	1	X	
18	B-28 @ 2'	12/21	12:30	Soil	1	X	
19	B-28 @ 5'	12/21	12:34	Soil	1	X	
20	B-28 @ 10'	12/21	12:43	Soil	1	X	

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 12/21/22	Time: 1625
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 12/21/22	Time: 1920
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:



Calscience

# CHAIN OF CUSTODY RECORD

DATE: 12/21/2022  
PAGE: 3 OF 3

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofinsus.com or call us.

LABORATORY CLIENT:		CLIENT PROJECT NAME / NUMBER:	
ADDRESS: 9245 Activity Road Suite 103		Science Research Park / SD754	
CITY: San Diego	STATE: CA	ZIP: 92126	PROJECT CONTACT: Matt Fagan
TEL: 858 536 1000	E-MAIL: mattf@groupdelta.com	P.O. NO.:	

TURNAROUND TIME (rush surcharges may apply to any TAT not "STANDARD"):	
<input type="checkbox"/> SAME DAY	<input type="checkbox"/> 24 HR
<input type="checkbox"/> 48 HR	<input type="checkbox"/> 72 HR
<input type="checkbox"/> 5 DAYS	<input checked="" type="checkbox"/> STANDARD
GLOBAL ID:	
<input type="checkbox"/> COELT EDF	LOG CODE:

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT	LOG CODE:	
		DATE	TIME			Unpreserved	Preserved
21	B-28 @ 15	12/21	12:48	Soil	1	X	
22	B-28 @ 20	12/21	1:05	Soil	1	X	
23	B-28 @ 25	12/21	1:11	Soil	1	X	
24	B-28 @ 30	12/21	1:23	Soil	1	X	
25	B-28 @ 35	12/21	1:29	Soil	1	X	
26	B-28 @ 40	12/21	1:40	Soil	1	X	
27	B-28 @ 45	12/21	1:48	Soil	1	X	
28	B-28 @ 50'	12/21	2:01	Soil	1	X	
				Soil	1	X	
				Soil	1	X	

Relinquished by (Signature):	Received by (Signature/Affiliation):
Relinquished by (Signature):	Received by (Signature/Affiliation):
Relinquished by (Signature):	Received by (Signature/Affiliation):

Date:	Date:
12/21/22	12/21/22
Time:	Time:
1625	1920



## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-121713-3

**Login Number: 121713**

**List Source: Eurofins Calscience**

**List Number: 1**

**Creator: Tat, Sandy**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Matt Fagan  
Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Generated 12/29/2022 7:42:00 PM

## JOB DESCRIPTION

Science Research Park / SD754

## JOB NUMBER

570-121847-1

# Eurofins Calscience

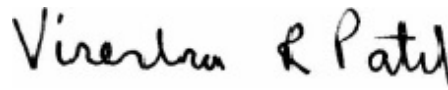
## Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

## Authorization



Generated  
12/29/2022 7:42:00 PM

Authorized for release by  
Virendra Patel, Project Manager I  
[Virendra.Patel@et.eurofinsus.com](mailto:Virendra.Patel@et.eurofinsus.com)  
Designee for  
Vikas Patel, Project Manager I  
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# Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Qualifiers

### GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Metals

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

**Job ID: 570-121847-1**

**Laboratory: Eurofins Calscience**

## Narrative

### Job Narrative 570-121847-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 12/22/2022 6:36 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.3° C.

#### GC VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Metals

Method 6010B: The serial dilution performed for the following sample associated with batch 570-292247 was outside control limits Zinc and Lead: (570-121798-A-1-E SD ^25)

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries/precision of Zinc, Lead, Barium and Antimony for preparation batch 570-291776 and analytical batch 570-292247 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 6010B: The continuing calibration blank (CCB) for analytical batch 570-292247 contained Arsenic above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries/precision of Barium and Antimony for preparation batch 570-291782 and analytical batch 570-292247 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

Client Sample ID: B-8@2'

Lab Sample ID: 570-121847-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	430		25	19	mg/Kg	5		8015B	Total/NA
Arsenic	6.33		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	68.8		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.204	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	3.79		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	8.48		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	14.0		2.04	0.978	mg/Kg	5		6010B	Total/NA
Molybdenum	0.574	J	2.04	0.526	mg/Kg	5		6010B	Total/NA
Nickel	3.94		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	21.4		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	28.8		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	28.5		2.04	0.417	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-9@2'

Lab Sample ID: 570-121847-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	220		25	19	mg/Kg	5		8015B	Total/NA
C23-C40	1700		25	19	mg/Kg	5		8015B	Total/NA
Arsenic	5.74		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	42.9		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.153	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	1.99		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	5.82		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	5.42		2.04	0.978	mg/Kg	5		6010B	Total/NA
Nickel	3.20		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	13.4		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	18.9		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	6.10		2.04	0.417	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-4@2'

Lab Sample ID: 570-121847-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	6.1		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	1.63	J	3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	10.5		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.166	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	2.21		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	7.24		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	7.79		2.04	0.978	mg/Kg	5		6010B	Total/NA
Nickel	2.77		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	15.7		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	21.1		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	3.57		2.04	0.417	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-5@2'

Lab Sample ID: 570-121847-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	5.3		5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	5.46		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	9.78		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.191	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	2.10		1.02	0.210	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Client Sample ID: B-5@2' (Continued)

## Lab Sample ID: 570-121847-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	8.11		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	5.94		2.04	0.978	mg/Kg	5		6010B	Total/NA
Nickel	2.98		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	24.5		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	19.9		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	2.96		2.04	0.417	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-10@2'

## Lab Sample ID: 570-121847-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	50		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	3.34		3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	98.1	F1 F2	3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.201	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	1.81		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	7.07		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	16.1		2.01	0.963	mg/Kg	5		6010B	Total/NA
Nickel	2.88		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	14.5		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	20.1		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	3.10		2.01	0.411	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-27@2'

## Lab Sample ID: 570-121847-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	5.0		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	27		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	6.29		3.00	1.39	mg/Kg	5		6010B	Total/NA
Barium	86.5		3.00	0.142	mg/Kg	5		6010B	Total/NA
Beryllium	0.313	J	0.500	0.0690	mg/Kg	5		6010B	Total/NA
Cobalt	3.15		1.00	0.206	mg/Kg	5		6010B	Total/NA
Chromium	10.2		1.00	0.186	mg/Kg	5		6010B	Total/NA
Copper	17.0		2.00	0.958	mg/Kg	5		6010B	Total/NA
Nickel	4.54		2.00	0.362	mg/Kg	5		6010B	Total/NA
Vanadium	26.8		1.00	0.168	mg/Kg	5		6010B	Total/NA
Zinc	37.9		5.00	1.16	mg/Kg	5		6010B	Total/NA
Lead	66.3		2.00	0.409	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-27@5'

## Lab Sample ID: 570-121847-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	32		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	2.50	J	3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	42.4		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.191	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	2.31		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	7.12		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	16.0		2.04	0.978	mg/Kg	5		6010B	Total/NA
Nickel	2.59		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	17.0		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	21.8		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	11.4		2.04	0.417	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

Client Sample ID: B-25@2'

Lab Sample ID: 570-121847-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Gasoline Range Organics (C4-C12)	0.14		0.099	0.055	mg/Kg	1		8015B	Total/NA
C23-C40	7.8		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	16.6		3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	58.4		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.628		0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	9.79		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	9.94		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	16.0		2.01	0.963	mg/Kg	5		6010B	Total/NA
Nickel	8.05		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	24.1		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	44.3		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	9.50		2.01	0.411	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-25@5'

Lab Sample ID: 570-121847-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	9.8		5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	11.5		3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	79.0		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.477	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	5.38		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	11.6		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	12.6		2.01	0.963	mg/Kg	5		6010B	Total/NA
Nickel	7.93		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	24.7		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	38.9		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	9.32		2.01	0.411	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-25@10'

Lab Sample ID: 570-121847-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	26.6		2.99	1.38	mg/Kg	5		6010B	Total/NA
Barium	152		2.99	0.141	mg/Kg	5		6010B	Total/NA
Beryllium	0.473	J	0.498	0.0687	mg/Kg	5		6010B	Total/NA
Cobalt	3.15		0.995	0.205	mg/Kg	5		6010B	Total/NA
Chromium	10.6		0.995	0.185	mg/Kg	5		6010B	Total/NA
Copper	18.4		1.99	0.953	mg/Kg	5		6010B	Total/NA
Nickel	3.96		1.99	0.360	mg/Kg	5		6010B	Total/NA
Vanadium	29.7		0.995	0.167	mg/Kg	5		6010B	Total/NA
Zinc	32.2		4.98	1.15	mg/Kg	5		6010B	Total/NA
Lead	34.6		1.99	0.407	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-25@15'

Lab Sample ID: 570-121847-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Gasoline Range Organics (C4-C12)	0.15		0.099	0.055	mg/Kg	1		8015B	Total/NA
C13-C22	3.9	J	5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	15		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	10.7		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	79.1		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.357	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	3.92		1.02	0.210	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Client Sample ID: B-25@15' (Continued)

## Lab Sample ID: 570-121847-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	27.3		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	28.4		2.04	0.978	mg/Kg	5		6010B	Total/NA
Molybdenum	3.25		2.04	0.526	mg/Kg	5		6010B	Total/NA
Nickel	6.80		2.04	0.369	mg/Kg	5		6010B	Total/NA
Vanadium	22.5		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	34.5		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	61.6		2.04	0.417	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-25@20'

## Lab Sample ID: 570-121847-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C13-C22	93		5.0	3.8	mg/Kg	1		8015B	Total/NA
C23-C40	350		5.0	3.8	mg/Kg	1		8015B	Total/NA
Arsenic	4.25		3.02	1.40	mg/Kg	5		6010B	Total/NA
Barium	73.3		3.02	0.143	mg/Kg	5		6010B	Total/NA
Beryllium	0.214	J	0.503	0.0693	mg/Kg	5		6010B	Total/NA
Cobalt	2.60		1.01	0.207	mg/Kg	5		6010B	Total/NA
Chromium	10.2		1.01	0.187	mg/Kg	5		6010B	Total/NA
Copper	25.9		2.01	0.963	mg/Kg	5		6010B	Total/NA
Nickel	3.13		2.01	0.364	mg/Kg	5		6010B	Total/NA
Vanadium	21.6		1.01	0.169	mg/Kg	5		6010B	Total/NA
Zinc	24.8		5.03	1.16	mg/Kg	5		6010B	Total/NA
Lead	67.8		2.01	0.411	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-25@25'

## Lab Sample ID: 570-121847-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	17		5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	8.45		3.05	1.41	mg/Kg	5		6010B	Total/NA
Barium	84.6		3.05	0.144	mg/Kg	5		6010B	Total/NA
Beryllium	0.355	J	0.508	0.0701	mg/Kg	5		6010B	Total/NA
Cobalt	3.88		1.02	0.209	mg/Kg	5		6010B	Total/NA
Chromium	8.16		1.02	0.189	mg/Kg	5		6010B	Total/NA
Copper	91.2		2.03	0.973	mg/Kg	5		6010B	Total/NA
Nickel	4.57		2.03	0.368	mg/Kg	5		6010B	Total/NA
Antimony	6.97	J	10.2	2.90	mg/Kg	5		6010B	Total/NA
Vanadium	20.5		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	41.0		5.08	1.17	mg/Kg	5		6010B	Total/NA
Lead	1130		2.03	0.415	mg/Kg	5		6010B	Total/NA

## Client Sample ID: B-25@30'

## Lab Sample ID: 570-121847-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C23-C40	9.8		5.0	3.9	mg/Kg	1		8015B	Total/NA
Arsenic	11.4		3.06	1.42	mg/Kg	5		6010B	Total/NA
Barium	83.4		3.06	0.145	mg/Kg	5		6010B	Total/NA
Beryllium	0.332	J	0.510	0.0704	mg/Kg	5		6010B	Total/NA
Cobalt	4.43		1.02	0.210	mg/Kg	5		6010B	Total/NA
Chromium	10.5		1.02	0.190	mg/Kg	5		6010B	Total/NA
Copper	221		2.04	0.978	mg/Kg	5		6010B	Total/NA
Nickel	5.15		2.04	0.369	mg/Kg	5		6010B	Total/NA
Antimony	7.05	J	10.2	2.92	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

## Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

**Client Sample ID: B-25@30' (Continued)**

**Lab Sample ID: 570-121847-14**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	21.0		1.02	0.171	mg/Kg	5		6010B	Total/NA
Zinc	65.1		5.10	1.18	mg/Kg	5		6010B	Total/NA
Lead	1640		2.04	0.417	mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-8@2'**  
**Date Collected: 12/22/22 07:16**  
**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-1**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/27/22 10:13	12/27/22 23:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		42 - 126				12/27/22 10:13	12/27/22 23:19	1

**Client Sample ID: B-9@2'**  
**Date Collected: 12/22/22 07:40**  
**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-2**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/27/22 10:13	12/28/22 00:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		42 - 126				12/27/22 10:13	12/28/22 00:33	1

**Client Sample ID: B-4@2'**  
**Date Collected: 12/22/22 08:06**  
**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-3**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/27/22 10:13	12/28/22 00:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		42 - 126				12/27/22 10:13	12/28/22 00:57	1

**Client Sample ID: B-5@2'**  
**Date Collected: 12/22/22 08:29**  
**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-4**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/27/22 10:13	12/28/22 01:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		42 - 126				12/27/22 10:13	12/28/22 01:22	1

**Client Sample ID: B-10@2'**  
**Date Collected: 12/22/22 08:46**  
**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-5**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/27/22 10:13	12/28/22 01:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		42 - 126				12/27/22 10:13	12/28/22 01:46	1

**Client Sample ID: B-27@2'**  
**Date Collected: 12/22/22 09:28**  
**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-6**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/27/22 10:13	12/28/22 02:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		42 - 126				12/27/22 10:13	12/28/22 02:10	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

**Client Sample ID: B-27@5'**  
**Date Collected: 12/22/22 09:35**  
**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-7**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/27/22 10:13	12/28/22 02:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	70		42 - 126				12/27/22 10:13	12/28/22 02:35	1

**Client Sample ID: B-25@2'**  
**Date Collected: 12/22/22 12:41**  
**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-8**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	0.14		0.099	0.055	mg/Kg		12/27/22 10:13	12/28/22 02:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		42 - 126				12/27/22 10:13	12/28/22 02:59	1

**Client Sample ID: B-25@5'**  
**Date Collected: 12/22/22 12:57**  
**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-9**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/27/22 10:13	12/28/22 03:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	72		42 - 126				12/27/22 10:13	12/28/22 03:24	1

**Client Sample ID: B-25@10'**  
**Date Collected: 12/22/22 13:08**  
**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-10**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.055	mg/Kg		12/27/22 10:13	12/28/22 03:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		42 - 126				12/27/22 10:13	12/28/22 03:48	1

**Client Sample ID: B-25@15'**  
**Date Collected: 12/22/22 13:28**  
**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-11**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	0.15		0.099	0.055	mg/Kg		12/27/22 10:13	12/28/22 04:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	73		42 - 126				12/27/22 10:13	12/28/22 04:37	1

**Client Sample ID: B-25@20'**  
**Date Collected: 12/22/22 14:16**  
**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-12**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/27/22 10:13	12/28/22 05:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	69		42 - 126				12/27/22 10:13	12/28/22 05:01	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Method: SW846 8015B - Gasoline Range Organics - (GC)

Client Sample ID: B-25@25'  
Date Collected: 12/22/22 14:34  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/27/22 10:13	12/28/22 05:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	68		42 - 126				12/27/22 10:13	12/28/22 05:26	1

Client Sample ID: B-25@30'  
Date Collected: 12/22/22 14:55  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-14  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.099	0.055	mg/Kg		12/27/22 10:13	12/28/22 05:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		42 - 126				12/27/22 10:13	12/28/22 05:50	1



# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B-8@2'  
Date Collected: 12/22/22 07:16  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		25	19	mg/Kg		12/27/22 13:32	12/28/22 03:31	5
C23-C40	430		25	19	mg/Kg		12/27/22 13:32	12/28/22 03:31	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	118		60 - 138				12/27/22 13:32	12/28/22 03:31	5

Client Sample ID: B-9@2'  
Date Collected: 12/22/22 07:40  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	220		25	19	mg/Kg		12/27/22 13:32	12/28/22 03:51	5
C23-C40	1700		25	19	mg/Kg		12/27/22 13:32	12/28/22 03:51	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	125		60 - 138				12/27/22 13:32	12/28/22 03:51	5

Client Sample ID: B-4@2'  
Date Collected: 12/22/22 08:06  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/27/22 13:32	12/28/22 04:13	1
C23-C40	6.1		5.0	3.8	mg/Kg		12/27/22 13:32	12/28/22 04:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	117		60 - 138				12/27/22 13:32	12/28/22 04:13	1

Client Sample ID: B-5@2'  
Date Collected: 12/22/22 08:29  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.9	mg/Kg		12/27/22 13:32	12/28/22 04:34	1
C23-C40	5.3		5.0	3.9	mg/Kg		12/27/22 13:32	12/28/22 04:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	113		60 - 138				12/27/22 13:32	12/28/22 04:34	1

Client Sample ID: B-10@2'  
Date Collected: 12/22/22 08:46  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/27/22 13:32	12/28/22 04:55	1
C23-C40	50		5.0	3.8	mg/Kg		12/27/22 13:32	12/28/22 04:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	117		60 - 138				12/27/22 13:32	12/28/22 04:55	1

Client Sample ID: B-27@2'  
Date Collected: 12/22/22 09:28  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	5.0		5.0	3.8	mg/Kg		12/27/22 13:32	12/28/22 05:16	1
C23-C40	27		5.0	3.8	mg/Kg		12/27/22 13:32	12/28/22 05:16	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	113		60 - 138	12/27/22 13:32	12/28/22 05:16	1
<div> <div>Client Sample ID: B-27@5'</div> <div>Date Collected: 12/22/22 09:35</div> <div>Date Received: 12/22/22 18:36</div> </div> <div> <div>Lab Sample ID: 570-121847-7</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		5.0	3.8	mg/Kg	
C23-C40	32		5.0	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	111		60 - 138	12/27/22 13:32	12/28/22 05:37	1
<div> <div>Client Sample ID: B-25@2'</div> <div>Date Collected: 12/22/22 12:41</div> <div>Date Received: 12/22/22 18:36</div> </div> <div> <div>Lab Sample ID: 570-121847-8</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		5.0	3.8	mg/Kg	
C23-C40	7.8		5.0	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	113		60 - 138	12/27/22 13:32	12/28/22 06:19	1
<div> <div>Client Sample ID: B-25@5'</div> <div>Date Collected: 12/22/22 12:57</div> <div>Date Received: 12/22/22 18:36</div> </div> <div> <div>Lab Sample ID: 570-121847-9</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		5.0	3.9	mg/Kg	
C23-C40	9.8		5.0	3.9	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	110		60 - 138	12/27/22 13:32	12/28/22 05:58	1
<div> <div>Client Sample ID: B-25@10'</div> <div>Date Collected: 12/22/22 13:08</div> <div>Date Received: 12/22/22 18:36</div> </div> <div> <div>Lab Sample ID: 570-121847-10</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	ND		5.0	3.8	mg/Kg	
C23-C40	ND		5.0	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	113		60 - 138	12/27/22 13:32	12/28/22 06:40	1
<div> <div>Client Sample ID: B-25@15'</div> <div>Date Collected: 12/22/22 13:28</div> <div>Date Received: 12/22/22 18:36</div> </div> <div> <div>Lab Sample ID: 570-121847-11</div> <div>Matrix: Solid</div> </div>						
Analyte	Result	Qualifier	RL	MDL	Unit	D
C13-C22	3.9	J	5.0	3.8	mg/Kg	
C23-C40	15		5.0	3.8	mg/Kg	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	117		60 - 138	12/27/22 13:32	12/28/22 07:01	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B-25@20'  
Date Collected: 12/22/22 14:16  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	93		5.0	3.8	mg/Kg		12/27/22 13:32	12/28/22 08:04	1
C23-C40	350		5.0	3.8	mg/Kg		12/27/22 13:32	12/28/22 08:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	116		60 - 138				12/27/22 13:32	12/28/22 08:04	1

Client Sample ID: B-25@25'  
Date Collected: 12/22/22 14:34  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.9	mg/Kg		12/27/22 13:32	12/28/22 08:25	1
C23-C40	17		5.0	3.9	mg/Kg		12/27/22 13:32	12/28/22 08:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	109		60 - 138				12/27/22 13:32	12/28/22 08:25	1

Client Sample ID: B-25@30'  
Date Collected: 12/22/22 14:55  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-14  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.9	mg/Kg		12/27/22 13:32	12/28/22 08:46	1
C23-C40	9.8		5.0	3.9	mg/Kg		12/27/22 13:32	12/28/22 08:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	105		60 - 138				12/27/22 13:32	12/28/22 08:46	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-8@2'  
Date Collected: 12/22/22 07:16  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-1  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/27/22 05:57	12/28/22 17:43	5
Arsenic	6.33		3.06	1.42	mg/Kg		12/27/22 05:57	12/28/22 17:43	5
Barium	68.8		3.06	0.145	mg/Kg		12/27/22 05:57	12/28/22 17:43	5
Beryllium	0.204	J	0.510	0.0704	mg/Kg		12/27/22 05:57	12/28/22 17:43	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/27/22 05:57	12/28/22 17:43	5
Cobalt	3.79		1.02	0.210	mg/Kg		12/27/22 05:57	12/28/22 17:43	5
Chromium	8.48		1.02	0.190	mg/Kg		12/27/22 05:57	12/28/22 17:43	5
Copper	14.0		2.04	0.978	mg/Kg		12/27/22 05:57	12/28/22 17:43	5
Molybdenum	0.574	J	2.04	0.526	mg/Kg		12/27/22 05:57	12/28/22 17:43	5
Nickel	3.94		2.04	0.369	mg/Kg		12/27/22 05:57	12/28/22 17:43	5
Antimony	ND		10.2	2.92	mg/Kg		12/27/22 05:57	12/28/22 17:43	5
Selenium	ND		3.06	1.25	mg/Kg		12/27/22 05:57	12/28/22 17:43	5
Thallium	ND		10.2	2.15	mg/Kg		12/27/22 05:57	12/28/22 17:43	5
Vanadium	21.4		1.02	0.171	mg/Kg		12/27/22 05:57	12/28/22 17:43	5
Zinc	28.8		5.10	1.18	mg/Kg		12/27/22 05:57	12/28/22 17:43	5
Lead	28.5		2.04	0.417	mg/Kg		12/27/22 05:57	12/28/22 17:43	5

Client Sample ID: B-9@2'  
Date Collected: 12/22/22 07:40  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-2  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/27/22 06:04	12/28/22 02:25	5
Arsenic	5.74		3.06	1.42	mg/Kg		12/27/22 06:04	12/28/22 02:25	5
Barium	42.9		3.06	0.145	mg/Kg		12/27/22 06:04	12/28/22 02:25	5
Beryllium	0.153	J	0.510	0.0704	mg/Kg		12/27/22 06:04	12/28/22 02:25	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/27/22 06:04	12/28/22 02:25	5
Cobalt	1.99		1.02	0.210	mg/Kg		12/27/22 06:04	12/28/22 02:25	5
Chromium	5.82		1.02	0.190	mg/Kg		12/27/22 06:04	12/28/22 02:25	5
Copper	5.42		2.04	0.978	mg/Kg		12/27/22 06:04	12/28/22 02:25	5
Molybdenum	ND		2.04	0.526	mg/Kg		12/27/22 06:04	12/28/22 02:25	5
Nickel	3.20		2.04	0.369	mg/Kg		12/27/22 06:04	12/28/22 02:25	5
Antimony	ND		10.2	2.92	mg/Kg		12/27/22 06:04	12/28/22 02:25	5
Selenium	ND		3.06	1.25	mg/Kg		12/27/22 06:04	12/28/22 02:25	5
Thallium	ND		10.2	2.15	mg/Kg		12/27/22 06:04	12/28/22 02:25	5
Vanadium	13.4		1.02	0.171	mg/Kg		12/27/22 06:04	12/28/22 02:25	5
Zinc	18.9		5.10	1.18	mg/Kg		12/27/22 06:04	12/28/22 02:25	5
Lead	6.10		2.04	0.417	mg/Kg		12/27/22 06:04	12/28/22 02:25	5

Client Sample ID: B-4@2'  
Date Collected: 12/22/22 08:06  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/27/22 06:04	12/28/22 02:27	5
Arsenic	1.63	J	3.06	1.42	mg/Kg		12/27/22 06:04	12/28/22 02:27	5
Barium	10.5		3.06	0.145	mg/Kg		12/27/22 06:04	12/28/22 02:27	5
Beryllium	0.166	J	0.510	0.0704	mg/Kg		12/27/22 06:04	12/28/22 02:27	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/27/22 06:04	12/28/22 02:27	5
Cobalt	2.21		1.02	0.210	mg/Kg		12/27/22 06:04	12/28/22 02:27	5
Chromium	7.24		1.02	0.190	mg/Kg		12/27/22 06:04	12/28/22 02:27	5
Copper	7.79		2.04	0.978	mg/Kg		12/27/22 06:04	12/28/22 02:27	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-4@2'  
Date Collected: 12/22/22 08:06  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-3  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		2.04	0.526	mg/Kg		12/27/22 06:04	12/28/22 02:27	5
Nickel	2.77		2.04	0.369	mg/Kg		12/27/22 06:04	12/28/22 02:27	5
Antimony	ND		10.2	2.92	mg/Kg		12/27/22 06:04	12/28/22 02:27	5
Selenium	ND		3.06	1.25	mg/Kg		12/27/22 06:04	12/28/22 02:27	5
Thallium	ND		10.2	2.15	mg/Kg		12/27/22 06:04	12/28/22 02:27	5
Vanadium	15.7		1.02	0.171	mg/Kg		12/27/22 06:04	12/28/22 02:27	5
Zinc	21.1		5.10	1.18	mg/Kg		12/27/22 06:04	12/28/22 02:27	5
Lead	3.57		2.04	0.417	mg/Kg		12/27/22 06:04	12/28/22 02:27	5

Client Sample ID: B-5@2'  
Date Collected: 12/22/22 08:29  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-4  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/27/22 06:04	12/28/22 02:35	5
Arsenic	5.46		3.06	1.42	mg/Kg		12/27/22 06:04	12/28/22 02:35	5
Barium	9.78		3.06	0.145	mg/Kg		12/27/22 06:04	12/28/22 02:35	5
Beryllium	0.191	J	0.510	0.0704	mg/Kg		12/27/22 06:04	12/28/22 02:35	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/27/22 06:04	12/28/22 02:35	5
Cobalt	2.10		1.02	0.210	mg/Kg		12/27/22 06:04	12/28/22 02:35	5
Chromium	8.11		1.02	0.190	mg/Kg		12/27/22 06:04	12/28/22 02:35	5
Copper	5.94		2.04	0.978	mg/Kg		12/27/22 06:04	12/28/22 02:35	5
Molybdenum	ND		2.04	0.526	mg/Kg		12/27/22 06:04	12/28/22 02:35	5
Nickel	2.98		2.04	0.369	mg/Kg		12/27/22 06:04	12/28/22 02:35	5
Antimony	ND		10.2	2.92	mg/Kg		12/27/22 06:04	12/28/22 02:35	5
Selenium	ND		3.06	1.25	mg/Kg		12/27/22 06:04	12/28/22 02:35	5
Thallium	ND		10.2	2.15	mg/Kg		12/27/22 06:04	12/28/22 02:35	5
Vanadium	24.5		1.02	0.171	mg/Kg		12/27/22 06:04	12/28/22 02:35	5
Zinc	19.9		5.10	1.18	mg/Kg		12/27/22 06:04	12/28/22 02:35	5
Lead	2.96		2.04	0.417	mg/Kg		12/27/22 06:04	12/28/22 02:35	5

Client Sample ID: B-10@2'  
Date Collected: 12/22/22 08:46  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-5  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/27/22 06:04	12/28/22 02:15	5
Arsenic	3.34		3.02	1.40	mg/Kg		12/27/22 06:04	12/28/22 02:15	5
Barium	98.1	F1 F2	3.02	0.143	mg/Kg		12/27/22 06:04	12/28/22 02:15	5
Beryllium	0.201	J	0.503	0.0693	mg/Kg		12/27/22 06:04	12/28/22 02:15	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/27/22 06:04	12/28/22 02:15	5
Cobalt	1.81		1.01	0.207	mg/Kg		12/27/22 06:04	12/28/22 02:15	5
Chromium	7.07		1.01	0.187	mg/Kg		12/27/22 06:04	12/28/22 02:15	5
Copper	16.1		2.01	0.963	mg/Kg		12/27/22 06:04	12/28/22 02:15	5
Molybdenum	ND		2.01	0.518	mg/Kg		12/27/22 06:04	12/28/22 02:15	5
Nickel	2.88		2.01	0.364	mg/Kg		12/27/22 06:04	12/28/22 02:15	5
Antimony	ND	F1	10.1	2.87	mg/Kg		12/27/22 06:04	12/28/22 02:15	5
Selenium	ND		3.02	1.23	mg/Kg		12/27/22 06:04	12/28/22 02:15	5
Thallium	ND		10.1	2.12	mg/Kg		12/27/22 06:04	12/28/22 02:15	5
Vanadium	14.5		1.01	0.169	mg/Kg		12/27/22 06:04	12/28/22 02:15	5
Zinc	20.1		5.03	1.16	mg/Kg		12/27/22 06:04	12/28/22 02:15	5
Lead	3.10		2.01	0.411	mg/Kg		12/27/22 06:04	12/28/22 02:15	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-27@2'  
Date Collected: 12/22/22 09:28  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.50	0.144	mg/Kg		12/27/22 06:04	12/28/22 02:37	5
Arsenic	6.29		3.00	1.39	mg/Kg		12/27/22 06:04	12/28/22 02:37	5
Barium	86.5		3.00	0.142	mg/Kg		12/27/22 06:04	12/28/22 02:37	5
Beryllium	0.313	J	0.500	0.0690	mg/Kg		12/27/22 06:04	12/28/22 02:37	5
Cadmium	ND		0.500	0.0830	mg/Kg		12/27/22 06:04	12/28/22 02:37	5
Cobalt	3.15		1.00	0.206	mg/Kg		12/27/22 06:04	12/28/22 02:37	5
Chromium	10.2		1.00	0.186	mg/Kg		12/27/22 06:04	12/28/22 02:37	5
Copper	17.0		2.00	0.958	mg/Kg		12/27/22 06:04	12/28/22 02:37	5
Molybdenum	ND		2.00	0.515	mg/Kg		12/27/22 06:04	12/28/22 02:37	5
Nickel	4.54		2.00	0.362	mg/Kg		12/27/22 06:04	12/28/22 02:37	5
Antimony	ND		10.0	2.86	mg/Kg		12/27/22 06:04	12/28/22 02:37	5
Selenium	ND		3.00	1.22	mg/Kg		12/27/22 06:04	12/28/22 02:37	5
Thallium	ND		10.0	2.11	mg/Kg		12/27/22 06:04	12/28/22 02:37	5
Vanadium	26.8		1.00	0.168	mg/Kg		12/27/22 06:04	12/28/22 02:37	5
Zinc	37.9		5.00	1.16	mg/Kg		12/27/22 06:04	12/28/22 02:37	5
Lead	66.3		2.00	0.409	mg/Kg		12/27/22 06:04	12/28/22 02:37	5

Client Sample ID: B-27@5'  
Date Collected: 12/22/22 09:35  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-7  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/27/22 06:04	12/28/22 02:39	5
Arsenic	2.50	J	3.06	1.42	mg/Kg		12/27/22 06:04	12/28/22 02:39	5
Barium	42.4		3.06	0.145	mg/Kg		12/27/22 06:04	12/28/22 02:39	5
Beryllium	0.191	J	0.510	0.0704	mg/Kg		12/27/22 06:04	12/28/22 02:39	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/27/22 06:04	12/28/22 02:39	5
Cobalt	2.31		1.02	0.210	mg/Kg		12/27/22 06:04	12/28/22 02:39	5
Chromium	7.12		1.02	0.190	mg/Kg		12/27/22 06:04	12/28/22 02:39	5
Copper	16.0		2.04	0.978	mg/Kg		12/27/22 06:04	12/28/22 02:39	5
Molybdenum	ND		2.04	0.526	mg/Kg		12/27/22 06:04	12/28/22 02:39	5
Nickel	2.59		2.04	0.369	mg/Kg		12/27/22 06:04	12/28/22 02:39	5
Antimony	ND		10.2	2.92	mg/Kg		12/27/22 06:04	12/28/22 02:39	5
Selenium	ND		3.06	1.25	mg/Kg		12/27/22 06:04	12/28/22 02:39	5
Thallium	ND		10.2	2.15	mg/Kg		12/27/22 06:04	12/28/22 02:39	5
Vanadium	17.0		1.02	0.171	mg/Kg		12/27/22 06:04	12/28/22 02:39	5
Zinc	21.8		5.10	1.18	mg/Kg		12/27/22 06:04	12/28/22 02:39	5
Lead	11.4		2.04	0.417	mg/Kg		12/27/22 06:04	12/28/22 02:39	5

Client Sample ID: B-25@2'  
Date Collected: 12/22/22 12:41  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/27/22 06:04	12/28/22 02:42	5
Arsenic	16.6		3.02	1.40	mg/Kg		12/27/22 06:04	12/28/22 02:42	5
Barium	58.4		3.02	0.143	mg/Kg		12/27/22 06:04	12/28/22 02:42	5
Beryllium	0.628		0.503	0.0693	mg/Kg		12/27/22 06:04	12/28/22 02:42	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/27/22 06:04	12/28/22 02:42	5
Cobalt	9.79		1.01	0.207	mg/Kg		12/27/22 06:04	12/28/22 02:42	5
Chromium	9.94		1.01	0.187	mg/Kg		12/27/22 06:04	12/28/22 02:42	5
Copper	16.0		2.01	0.963	mg/Kg		12/27/22 06:04	12/28/22 02:42	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-25@2'  
Date Collected: 12/22/22 12:41  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-8  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		2.01	0.518	mg/Kg		12/27/22 06:04	12/28/22 02:42	5
Nickel	8.05		2.01	0.364	mg/Kg		12/27/22 06:04	12/28/22 02:42	5
Antimony	ND		10.1	2.87	mg/Kg		12/27/22 06:04	12/28/22 02:42	5
Selenium	ND		3.02	1.23	mg/Kg		12/27/22 06:04	12/28/22 02:42	5
Thallium	ND		10.1	2.12	mg/Kg		12/27/22 06:04	12/28/22 02:42	5
Vanadium	24.1		1.01	0.169	mg/Kg		12/27/22 06:04	12/28/22 02:42	5
Zinc	44.3		5.03	1.16	mg/Kg		12/27/22 06:04	12/28/22 02:42	5
Lead	9.50		2.01	0.411	mg/Kg		12/27/22 06:04	12/28/22 02:42	5

Client Sample ID: B-25@5'  
Date Collected: 12/22/22 12:57  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-9  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/27/22 06:04	12/28/22 02:44	5
Arsenic	11.5		3.02	1.40	mg/Kg		12/27/22 06:04	12/28/22 02:44	5
Barium	79.0		3.02	0.143	mg/Kg		12/27/22 06:04	12/28/22 02:44	5
Beryllium	0.477	J	0.503	0.0693	mg/Kg		12/27/22 06:04	12/28/22 02:44	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/27/22 06:04	12/28/22 02:44	5
Cobalt	5.38		1.01	0.207	mg/Kg		12/27/22 06:04	12/28/22 02:44	5
Chromium	11.6		1.01	0.187	mg/Kg		12/27/22 06:04	12/28/22 02:44	5
Copper	12.6		2.01	0.963	mg/Kg		12/27/22 06:04	12/28/22 02:44	5
Molybdenum	ND		2.01	0.518	mg/Kg		12/27/22 06:04	12/28/22 02:44	5
Nickel	7.93		2.01	0.364	mg/Kg		12/27/22 06:04	12/28/22 02:44	5
Antimony	ND		10.1	2.87	mg/Kg		12/27/22 06:04	12/28/22 02:44	5
Selenium	ND		3.02	1.23	mg/Kg		12/27/22 06:04	12/28/22 02:44	5
Thallium	ND		10.1	2.12	mg/Kg		12/27/22 06:04	12/28/22 02:44	5
Vanadium	24.7		1.01	0.169	mg/Kg		12/27/22 06:04	12/28/22 02:44	5
Zinc	38.9		5.03	1.16	mg/Kg		12/27/22 06:04	12/28/22 02:44	5
Lead	9.32		2.01	0.411	mg/Kg		12/27/22 06:04	12/28/22 02:44	5

Client Sample ID: B-25@10'  
Date Collected: 12/22/22 13:08  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-10  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.49	0.143	mg/Kg		12/27/22 06:04	12/28/22 02:47	5
Arsenic	26.6		2.99	1.38	mg/Kg		12/27/22 06:04	12/28/22 02:47	5
Barium	152		2.99	0.141	mg/Kg		12/27/22 06:04	12/28/22 02:47	5
Beryllium	0.473	J	0.498	0.0687	mg/Kg		12/27/22 06:04	12/28/22 02:47	5
Cadmium	ND		0.498	0.0826	mg/Kg		12/27/22 06:04	12/28/22 02:47	5
Cobalt	3.15		0.995	0.205	mg/Kg		12/27/22 06:04	12/28/22 02:47	5
Chromium	10.6		0.995	0.185	mg/Kg		12/27/22 06:04	12/28/22 02:47	5
Copper	18.4		1.99	0.953	mg/Kg		12/27/22 06:04	12/28/22 02:47	5
Molybdenum	ND		1.99	0.512	mg/Kg		12/27/22 06:04	12/28/22 02:47	5
Nickel	3.96		1.99	0.360	mg/Kg		12/27/22 06:04	12/28/22 02:47	5
Antimony	ND		9.95	2.84	mg/Kg		12/27/22 06:04	12/28/22 02:47	5
Selenium	ND		2.99	1.22	mg/Kg		12/27/22 06:04	12/28/22 02:47	5
Thallium	ND		9.95	2.10	mg/Kg		12/27/22 06:04	12/28/22 02:47	5
Vanadium	29.7		0.995	0.167	mg/Kg		12/27/22 06:04	12/28/22 02:47	5
Zinc	32.2		4.98	1.15	mg/Kg		12/27/22 06:04	12/28/22 02:47	5
Lead	34.6		1.99	0.407	mg/Kg		12/27/22 06:04	12/28/22 02:47	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Method: SW846 6010B - Metals (ICP)

Client Sample ID: B-25@15'  
Date Collected: 12/22/22 13:28  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-11  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/27/22 06:04	12/28/22 02:49	5
Arsenic	10.7		3.06	1.42	mg/Kg		12/27/22 06:04	12/28/22 02:49	5
Barium	79.1		3.06	0.145	mg/Kg		12/27/22 06:04	12/28/22 02:49	5
Beryllium	0.357	J	0.510	0.0704	mg/Kg		12/27/22 06:04	12/28/22 02:49	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/27/22 06:04	12/28/22 02:49	5
Cobalt	3.92		1.02	0.210	mg/Kg		12/27/22 06:04	12/28/22 02:49	5
Chromium	27.3		1.02	0.190	mg/Kg		12/27/22 06:04	12/28/22 02:49	5
Copper	28.4		2.04	0.978	mg/Kg		12/27/22 06:04	12/28/22 02:49	5
Molybdenum	3.25		2.04	0.526	mg/Kg		12/27/22 06:04	12/28/22 02:49	5
Nickel	6.80		2.04	0.369	mg/Kg		12/27/22 06:04	12/28/22 02:49	5
Antimony	ND		10.2	2.92	mg/Kg		12/27/22 06:04	12/28/22 02:49	5
Selenium	ND		3.06	1.25	mg/Kg		12/27/22 06:04	12/28/22 02:49	5
Thallium	ND		10.2	2.15	mg/Kg		12/27/22 06:04	12/28/22 02:49	5
Vanadium	22.5		1.02	0.171	mg/Kg		12/27/22 06:04	12/28/22 02:49	5
Zinc	34.5		5.10	1.18	mg/Kg		12/27/22 06:04	12/28/22 02:49	5
Lead	61.6		2.04	0.417	mg/Kg		12/27/22 06:04	12/28/22 02:49	5

Client Sample ID: B-25@20'  
Date Collected: 12/22/22 14:16  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.51	0.145	mg/Kg		12/27/22 06:04	12/28/22 02:51	5
Arsenic	4.25		3.02	1.40	mg/Kg		12/27/22 06:04	12/28/22 02:51	5
Barium	73.3		3.02	0.143	mg/Kg		12/27/22 06:04	12/28/22 02:51	5
Beryllium	0.214	J	0.503	0.0693	mg/Kg		12/27/22 06:04	12/28/22 02:51	5
Cadmium	ND		0.503	0.0834	mg/Kg		12/27/22 06:04	12/28/22 02:51	5
Cobalt	2.60		1.01	0.207	mg/Kg		12/27/22 06:04	12/28/22 02:51	5
Chromium	10.2		1.01	0.187	mg/Kg		12/27/22 06:04	12/28/22 02:51	5
Copper	25.9		2.01	0.963	mg/Kg		12/27/22 06:04	12/28/22 02:51	5
Molybdenum	ND		2.01	0.518	mg/Kg		12/27/22 06:04	12/28/22 02:51	5
Nickel	3.13		2.01	0.364	mg/Kg		12/27/22 06:04	12/28/22 02:51	5
Antimony	ND		10.1	2.87	mg/Kg		12/27/22 06:04	12/28/22 02:51	5
Selenium	ND		3.02	1.23	mg/Kg		12/27/22 06:04	12/28/22 02:51	5
Thallium	ND		10.1	2.12	mg/Kg		12/27/22 06:04	12/28/22 02:51	5
Vanadium	21.6		1.01	0.169	mg/Kg		12/27/22 06:04	12/28/22 02:51	5
Zinc	24.8		5.03	1.16	mg/Kg		12/27/22 06:04	12/28/22 02:51	5
Lead	67.8		2.01	0.411	mg/Kg		12/27/22 06:04	12/28/22 02:51	5

Client Sample ID: B-25@25'  
Date Collected: 12/22/22 14:34  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.146	mg/Kg		12/27/22 06:04	12/28/22 02:54	5
Arsenic	8.45		3.05	1.41	mg/Kg		12/27/22 06:04	12/28/22 02:54	5
Barium	84.6		3.05	0.144	mg/Kg		12/27/22 06:04	12/28/22 02:54	5
Beryllium	0.355	J	0.508	0.0701	mg/Kg		12/27/22 06:04	12/28/22 02:54	5
Cadmium	ND		0.508	0.0843	mg/Kg		12/27/22 06:04	12/28/22 02:54	5
Cobalt	3.88		1.02	0.209	mg/Kg		12/27/22 06:04	12/28/22 02:54	5
Chromium	8.16		1.02	0.189	mg/Kg		12/27/22 06:04	12/28/22 02:54	5
Copper	91.2		2.03	0.973	mg/Kg		12/27/22 06:04	12/28/22 02:54	5

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B-25@25'  
Date Collected: 12/22/22 14:34  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		2.03	0.523	mg/Kg		12/27/22 06:04	12/28/22 02:54	5
Nickel	4.57		2.03	0.368	mg/Kg		12/27/22 06:04	12/28/22 02:54	5
Antimony	6.97	J	10.2	2.90	mg/Kg		12/27/22 06:04	12/28/22 02:54	5
Selenium	ND		3.05	1.24	mg/Kg		12/27/22 06:04	12/28/22 02:54	5
Thallium	ND		10.2	2.14	mg/Kg		12/27/22 06:04	12/28/22 02:54	5
Vanadium	20.5		1.02	0.171	mg/Kg		12/27/22 06:04	12/28/22 02:54	5
Zinc	41.0		5.08	1.17	mg/Kg		12/27/22 06:04	12/28/22 02:54	5
Lead	1130		2.03	0.415	mg/Kg		12/27/22 06:04	12/28/22 02:54	5

Client Sample ID: B-25@30'  
Date Collected: 12/22/22 14:55  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-14  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.53	0.147	mg/Kg		12/27/22 06:04	12/28/22 02:56	5
Arsenic	11.4		3.06	1.42	mg/Kg		12/27/22 06:04	12/28/22 02:56	5
Barium	83.4		3.06	0.145	mg/Kg		12/27/22 06:04	12/28/22 02:56	5
Beryllium	0.332	J	0.510	0.0704	mg/Kg		12/27/22 06:04	12/28/22 02:56	5
Cadmium	ND		0.510	0.0847	mg/Kg		12/27/22 06:04	12/28/22 02:56	5
Cobalt	4.43		1.02	0.210	mg/Kg		12/27/22 06:04	12/28/22 02:56	5
Chromium	10.5		1.02	0.190	mg/Kg		12/27/22 06:04	12/28/22 02:56	5
Copper	221		2.04	0.978	mg/Kg		12/27/22 06:04	12/28/22 02:56	5
Molybdenum	ND		2.04	0.526	mg/Kg		12/27/22 06:04	12/28/22 02:56	5
Nickel	5.15		2.04	0.369	mg/Kg		12/27/22 06:04	12/28/22 02:56	5
Antimony	7.05	J	10.2	2.92	mg/Kg		12/27/22 06:04	12/28/22 02:56	5
Selenium	ND		3.06	1.25	mg/Kg		12/27/22 06:04	12/28/22 02:56	5
Thallium	ND		10.2	2.15	mg/Kg		12/27/22 06:04	12/28/22 02:56	5
Vanadium	21.0		1.02	0.171	mg/Kg		12/27/22 06:04	12/28/22 02:56	5
Zinc	65.1		5.10	1.18	mg/Kg		12/27/22 06:04	12/28/22 02:56	5
Lead	1640		2.04	0.417	mg/Kg		12/27/22 06:04	12/28/22 02:56	5

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Method: SW846 7471A - Mercury (CVAA)

**Client Sample ID: B-8@2'**  
**Date Collected: 12/22/22 07:16**  
**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-1**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/27/22 20:32	12/28/22 18:07	1

**Client Sample ID: B-9@2'**  
**Date Collected: 12/22/22 07:40**  
**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-2**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/27/22 20:32	12/28/22 18:12	1

**Client Sample ID: B-4@2'**  
**Date Collected: 12/22/22 08:06**  
**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-3**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/27/22 20:32	12/28/22 18:14	1

**Client Sample ID: B-5@2'**  
**Date Collected: 12/22/22 08:29**  
**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-4**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/27/22 20:32	12/28/22 18:20	1

**Client Sample ID: B-10@2'**  
**Date Collected: 12/22/22 08:46**  
**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-5**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/27/22 20:32	12/28/22 18:22	1

**Client Sample ID: B-27@2'**  
**Date Collected: 12/22/22 09:28**  
**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-6**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/27/22 20:32	12/28/22 18:23	1

**Client Sample ID: B-27@5'**  
**Date Collected: 12/22/22 09:35**  
**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-7**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/27/22 20:32	12/28/22 18:25	1

**Client Sample ID: B-25@2'**  
**Date Collected: 12/22/22 12:41**  
**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-8**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/27/22 20:32	12/28/22 18:27	1

**Client Sample ID: B-25@5'**  
**Date Collected: 12/22/22 12:57**  
**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-9**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/27/22 20:32	12/28/22 18:29	1

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Method: SW846 7471A - Mercury (CVAA)

Client Sample ID: B-25@10'  
Date Collected: 12/22/22 13:08  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-10  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/27/22 20:32	12/28/22 18:31	1

Client Sample ID: B-25@15'  
Date Collected: 12/22/22 13:28  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-11  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/27/22 20:32	12/28/22 18:33	1

Client Sample ID: B-25@20'  
Date Collected: 12/22/22 14:16  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/27/22 20:32	12/28/22 18:35	1

Client Sample ID: B-25@25'  
Date Collected: 12/22/22 14:34  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		12/27/22 20:32	12/28/22 18:37	1

Client Sample ID: B-25@30'  
Date Collected: 12/22/22 14:55  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-14  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		12/27/22 20:32	12/28/22 18:42	1

# Surrogate Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	BFB1 (42-126)
570-121847-1	B-8@2'	99
570-121847-1 MS	B-8@2'	104
570-121847-1 MSD	B-8@2'	98
570-121847-2	B-9@2'	90
570-121847-3	B-4@2'	101
570-121847-4	B-5@2'	94
570-121847-5	B-10@2'	79
570-121847-6	B-27@2'	95
570-121847-7	B-27@5'	70
570-121847-8	B-25@2'	80
570-121847-9	B-25@5'	72
570-121847-10	B-25@10'	75
570-121847-11	B-25@15'	73
570-121847-12	B-25@20'	69
570-121847-13	B-25@25'	68
570-121847-14	B-25@30'	79
LCS 570-291881/1-A	Lab Control Sample	97
LCSD 570-291881/2-A	Lab Control Sample Dup	104
MB 570-291881/3-A	Method Blank	93
<b>Surrogate Legend</b>		
BFB = 4-Bromofluorobenzene (Surr)		

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	OTCSN1 (60-138)
570-121847-1	B-8@2'	118
570-121847-1 MS	B-8@2'	120
570-121847-1 MSD	B-8@2'	125
570-121847-2	B-9@2'	125
570-121847-3	B-4@2'	117
570-121847-4	B-5@2'	113
570-121847-5	B-10@2'	117
570-121847-6	B-27@2'	113
570-121847-7	B-27@5'	111
570-121847-8	B-25@2'	113
570-121847-9	B-25@5'	110
570-121847-10	B-25@10'	113
570-121847-11	B-25@15'	117
570-121847-12	B-25@20'	116
570-121847-13	B-25@25'	109
570-121847-14	B-25@30'	105
LCS 570-291937/2-A	Lab Control Sample	109
LCSD 570-291937/3-A	Lab Control Sample Dup	120
MB 570-291937/1-A	Method Blank	133
<b>Surrogate Legend</b>		
OTCSN = n-Octacosane (Surr)		

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-291881/3-A

Matrix: Solid

Analysis Batch: 291881

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 291881

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10	0.056	mg/Kg		12/27/22 10:13	12/27/22 22:30	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		42 - 126				12/27/22 10:13	12/27/22 22:30	1

Lab Sample ID: LCS 570-291881/1-A

Matrix: Solid

Analysis Batch: 291881

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 291881

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (C4-C13)	1.93	1.942		mg/Kg		101	70 - 124	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	97		42 - 126					

Lab Sample ID: LCSD 570-291881/2-A

Matrix: Solid

Analysis Batch: 291881

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 291881

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	1.91	1.985		mg/Kg		104	70 - 124	2	18
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	104		42 - 126						

Lab Sample ID: 570-121847-1 MS

Matrix: Solid

Analysis Batch: 291881

Client Sample ID: B-8@2'

Prep Type: Total/NA

Prep Batch: 291881

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (C4-C13)	ND		1.91	1.477		mg/Kg		77	48 - 114	
Surrogate	MS %Recovery	MS Qualifier	Limits							
4-Bromofluorobenzene (Surr)	104		42 - 126							

Lab Sample ID: 570-121847-1 MSD

Matrix: Solid

Analysis Batch: 291881

Client Sample ID: B-8@2'

Prep Type: Total/NA

Prep Batch: 291881

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	ND		1.93	1.453		mg/Kg		75	48 - 114	2	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	98		42 - 126								

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-291937/1-A

Matrix: Solid

Analysis Batch: 292286

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 291937

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0	3.8	mg/Kg		12/27/22 13:32	12/28/22 15:56	1
C23-C40	ND		5.0	3.8	mg/Kg		12/27/22 13:32	12/28/22 15:56	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	133		60 - 138				12/27/22 13:32	12/28/22 15:56	1

Lab Sample ID: LCS 570-291937/2-A

Matrix: Solid

Analysis Batch: 291869

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 291937

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Diesel Range Organics [C10-C28]	400	463.6		mg/Kg		116	80 - 130	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
n-Octacosane (Surr)	109		60 - 138					

Lab Sample ID: LCSD 570-291937/3-A

Matrix: Solid

Analysis Batch: 291869

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 291937

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	400	485.6		mg/Kg		121	80 - 130	5	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
n-Octacosane (Surr)	120		60 - 138						

Lab Sample ID: 570-121847-1 MS

Matrix: Solid

Analysis Batch: 291869

Client Sample ID: B-8@2'

Prep Type: Total/NA

Prep Batch: 291937

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
Diesel Range Organics [C10-C28]	180		401	608.7		mg/Kg		106	43 - 165	
Surrogate	MS %Recovery	MS Qualifier	Limits							
n-Octacosane (Surr)	120		60 - 138							

Lab Sample ID: 570-121847-1 MSD

Matrix: Solid

Analysis Batch: 291869

Client Sample ID: B-8@2'

Prep Type: Total/NA

Prep Batch: 291937

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	180		400	482.0		mg/Kg		74	43 - 165	23	35

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 570-121847-1 MSD

Matrix: Solid

Analysis Batch: 291869

Client Sample ID: B-8@2'

Prep Type: Total/NA

Prep Batch: 291937

Surrogate	MSD %Recovery	MSD Qualifier	Limits
n-Octacosane (Surr)	125		60 - 138

## Method: 6010B - Metals (ICP)

Lab Sample ID: MB 570-291776/1-A ^5

Matrix: Solid

Analysis Batch: 292247

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 291776

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.52	0.146	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Arsenic	ND		3.05	1.41	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Barium	ND		3.05	0.144	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Beryllium	ND		0.508	0.0701	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Cadmium	ND		0.508	0.0843	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Cobalt	ND		1.02	0.209	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Chromium	ND		1.02	0.189	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Copper	ND		2.03	0.973	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Molybdenum	ND		2.03	0.523	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Nickel	ND		2.03	0.368	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Antimony	ND		10.2	2.90	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Selenium	ND		3.05	1.24	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Thallium	ND		10.2	2.14	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Vanadium	ND		1.02	0.171	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Zinc	ND		5.08	1.17	mg/Kg		12/27/22 05:57	12/28/22 00:50	5
Lead	ND		2.03	0.415	mg/Kg		12/27/22 05:57	12/28/22 00:50	5

Lab Sample ID: LCS 570-291776/2-A ^5

Matrix: Solid

Analysis Batch: 292247

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 291776

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	25.4	23.40		mg/Kg		92	80 - 120
Arsenic	50.8	46.19		mg/Kg		91	80 - 120
Barium	50.8	47.51		mg/Kg		94	80 - 120
Beryllium	50.8	47.14		mg/Kg		93	80 - 120
Cadmium	50.8	47.12		mg/Kg		93	80 - 120
Cobalt	50.8	47.72		mg/Kg		94	80 - 120
Chromium	50.8	47.72		mg/Kg		94	80 - 120
Copper	50.8	47.84		mg/Kg		94	80 - 120
Molybdenum	50.8	47.87		mg/Kg		94	80 - 120
Nickel	50.8	47.99		mg/Kg		95	80 - 120
Antimony	50.8	52.28		mg/Kg		103	80 - 120
Selenium	50.8	43.82		mg/Kg		86	80 - 120
Thallium	50.8	47.20		mg/Kg		93	80 - 120
Vanadium	50.8	47.45		mg/Kg		93	80 - 120
Zinc	50.8	46.89		mg/Kg		92	80 - 120
Lead	50.8	46.69		mg/Kg		92	80 - 120

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSD 570-291776/3-A ^5

Matrix: Solid

Analysis Batch: 292247

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 291776

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	24.9	23.18		mg/Kg		93	80 - 120	1	20
Arsenic	49.8	45.96		mg/Kg		92	80 - 120	1	20
Barium	49.8	46.90		mg/Kg		94	80 - 120	1	20
Beryllium	49.8	46.62		mg/Kg		94	80 - 120	1	20
Cadmium	49.8	46.68		mg/Kg		94	80 - 120	1	20
Cobalt	49.8	46.99		mg/Kg		94	80 - 120	2	20
Chromium	49.8	47.06		mg/Kg		95	80 - 120	1	20
Copper	49.8	47.35		mg/Kg		95	80 - 120	1	20
Molybdenum	49.8	47.09		mg/Kg		95	80 - 120	2	20
Nickel	49.8	47.40		mg/Kg		95	80 - 120	1	20
Antimony	49.8	51.69		mg/Kg		104	80 - 120	1	20
Selenium	49.8	43.20		mg/Kg		87	80 - 120	1	20
Thallium	49.8	46.59		mg/Kg		94	80 - 120	1	20
Vanadium	49.8	46.93		mg/Kg		94	80 - 120	1	20
Zinc	49.8	46.37		mg/Kg		93	80 - 120	1	20
Lead	49.8	46.24		mg/Kg		93	80 - 120	1	20

Lab Sample ID: MB 570-291782/1-A ^5

Matrix: Solid

Analysis Batch: 292247

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 291782

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.47	0.141	mg/Kg		12/27/22 06:04	12/28/22 02:05	5
Arsenic	ND		2.94	1.36	mg/Kg		12/27/22 06:04	12/28/22 02:05	5
Barium	ND		2.94	0.139	mg/Kg		12/27/22 06:04	12/28/22 02:05	5
Beryllium	ND		0.490	0.0676	mg/Kg		12/27/22 06:04	12/28/22 02:05	5
Cadmium	ND		0.490	0.0814	mg/Kg		12/27/22 06:04	12/28/22 02:05	5
Cobalt	ND		0.980	0.202	mg/Kg		12/27/22 06:04	12/28/22 02:05	5
Chromium	ND		0.980	0.182	mg/Kg		12/27/22 06:04	12/28/22 02:05	5
Copper	ND		1.96	0.939	mg/Kg		12/27/22 06:04	12/28/22 02:05	5
Molybdenum	ND		1.96	0.505	mg/Kg		12/27/22 06:04	12/28/22 02:05	5
Nickel	ND		1.96	0.355	mg/Kg		12/27/22 06:04	12/28/22 02:05	5
Antimony	ND		9.80	2.80	mg/Kg		12/27/22 06:04	12/28/22 02:05	5
Selenium	ND		2.94	1.20	mg/Kg		12/27/22 06:04	12/28/22 02:05	5
Thallium	ND		9.80	2.06	mg/Kg		12/27/22 06:04	12/28/22 02:05	5
Vanadium	ND		0.980	0.165	mg/Kg		12/27/22 06:04	12/28/22 02:05	5
Zinc	ND		4.90	1.13	mg/Kg		12/27/22 06:04	12/28/22 02:05	5
Lead	ND		1.96	0.401	mg/Kg		12/27/22 06:04	12/28/22 02:05	5

Lab Sample ID: LCS 570-291782/2-A ^5

Matrix: Solid

Analysis Batch: 292247

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 291782

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	25.4	22.89		mg/Kg		90	80 - 120
Arsenic	50.8	45.27		mg/Kg		89	80 - 120
Barium	50.8	46.60		mg/Kg		92	80 - 120
Beryllium	50.8	46.19		mg/Kg		91	80 - 120
Cadmium	50.8	46.41		mg/Kg		91	80 - 120

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 570-291782/2-A ^5

Matrix: Solid

Analysis Batch: 292247

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 291782

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cobalt	50.8	46.28		mg/Kg		91	80 - 120
Chromium	50.8	46.99		mg/Kg		93	80 - 120
Copper	50.8	47.14		mg/Kg		93	80 - 120
Molybdenum	50.8	47.41		mg/Kg		93	80 - 120
Nickel	50.8	47.17		mg/Kg		93	80 - 120
Antimony	50.8	52.14		mg/Kg		103	80 - 120
Selenium	50.8	42.74		mg/Kg		84	80 - 120
Thallium	50.8	46.55		mg/Kg		92	80 - 120
Vanadium	50.8	46.55		mg/Kg		92	80 - 120
Zinc	50.8	46.59		mg/Kg		92	80 - 120
Lead	50.8	46.23		mg/Kg		91	80 - 120

Lab Sample ID: LCSD 570-291782/3-A ^5

Matrix: Solid

Analysis Batch: 292247

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 291782

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	24.9	22.80		mg/Kg		92	80 - 120	0	20
Arsenic	49.8	44.96		mg/Kg		90	80 - 120	1	20
Barium	49.8	46.06		mg/Kg		93	80 - 120	1	20
Beryllium	49.8	45.71		mg/Kg		92	80 - 120	1	20
Cadmium	49.8	45.66		mg/Kg		92	80 - 120	2	20
Cobalt	49.8	46.19		mg/Kg		93	80 - 120	0	20
Chromium	49.8	46.49		mg/Kg		93	80 - 120	1	20
Copper	49.8	46.31		mg/Kg		93	80 - 120	2	20
Molybdenum	49.8	47.18		mg/Kg		95	80 - 120	0	20
Nickel	49.8	46.60		mg/Kg		94	80 - 120	1	20
Antimony	49.8	51.13		mg/Kg		103	80 - 120	2	20
Selenium	49.8	41.41		mg/Kg		83	80 - 120	3	20
Thallium	49.8	45.51		mg/Kg		91	80 - 120	2	20
Vanadium	49.8	46.04		mg/Kg		93	80 - 120	1	20
Zinc	49.8	45.44		mg/Kg		91	80 - 120	3	20
Lead	49.8	45.47		mg/Kg		91	80 - 120	2	20

Lab Sample ID: 570-121847-5 MS

Matrix: Solid

Analysis Batch: 292247

Client Sample ID: B-10@2'

Prep Type: Total/NA

Prep Batch: 291782

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	ND		25.0	23.04		mg/Kg		92	75 - 125
Arsenic	3.34		50.0	46.34		mg/Kg		86	75 - 125
Barium	98.1	F1 F2	50.0	296.9	F1	mg/Kg		398	75 - 125
Beryllium	0.201	J	50.0	47.06		mg/Kg		94	75 - 125
Cadmium	ND		50.0	45.56		mg/Kg		91	75 - 125
Cobalt	1.81		50.0	48.75		mg/Kg		94	75 - 125
Chromium	7.07		50.0	57.04		mg/Kg		100	75 - 125
Copper	16.1		50.0	62.24		mg/Kg		92	75 - 125
Molybdenum	ND		50.0	45.33		mg/Kg		91	75 - 125
Nickel	2.88		50.0	49.94		mg/Kg		94	75 - 125

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 570-121847-5 MS

Matrix: Solid

Analysis Batch: 292247

Client Sample ID: B-10@2'

Prep Type: Total/NA

Prep Batch: 291782

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND	F1	50.0	20.71	F1	mg/Kg		41	75 - 125
Selenium	ND		50.0	42.39		mg/Kg		85	75 - 125
Thallium	ND		50.0	46.24		mg/Kg		92	75 - 125
Vanadium	14.5		50.0	65.58		mg/Kg		102	75 - 125
Zinc	20.1		50.0	70.20		mg/Kg		100	75 - 125
Lead	3.10		50.0	48.98		mg/Kg		92	75 - 125

Lab Sample ID: 570-121847-5 MSD

Matrix: Solid

Analysis Batch: 292247

Client Sample ID: B-10@2'

Prep Type: Total/NA

Prep Batch: 291782

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	ND		25.3	22.66		mg/Kg		90	75 - 125	2	20
Arsenic	3.34		50.5	45.13		mg/Kg		83	75 - 125	3	20
Barium	98.1	F1 F2	50.5	101.5	F1 F2	mg/Kg		7	75 - 125	98	20
Beryllium	0.201	J	50.5	45.98		mg/Kg		91	75 - 125	2	20
Cadmium	ND		50.5	44.38		mg/Kg		88	75 - 125	3	20
Cobalt	1.81		50.5	47.22		mg/Kg		90	75 - 125	3	20
Chromium	7.07		50.5	55.93		mg/Kg		97	75 - 125	2	20
Copper	16.1		50.5	55.64		mg/Kg		78	75 - 125	11	20
Molybdenum	ND		50.5	44.36		mg/Kg		88	75 - 125	2	20
Nickel	2.88		50.5	48.71		mg/Kg		91	75 - 125	2	20
Antimony	ND	F1	50.5	21.52	F1	mg/Kg		43	75 - 125	4	20
Selenium	ND		50.5	40.18		mg/Kg		80	75 - 125	5	20
Thallium	ND		50.5	45.49		mg/Kg		90	75 - 125	2	20
Vanadium	14.5		50.5	62.64		mg/Kg		95	75 - 125	5	20
Zinc	20.1		50.5	66.70		mg/Kg		92	75 - 125	5	20
Lead	3.10		50.5	47.69		mg/Kg		88	75 - 125	3	20

## Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 570-292076/1-A

Matrix: Solid

Analysis Batch: 292349

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 292076

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817	0.0314	mg/Kg		12/27/22 20:32	12/28/22 18:01	1

Lab Sample ID: LCS 570-292076/2-A

Matrix: Solid

Analysis Batch: 292349

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 292076

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.408	0.4064		mg/Kg		100	80 - 120

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# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCSD 570-292076/3-A

Matrix: Solid

Analysis Batch: 292349

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 292076

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			0.392	0.3942		mg/Kg		101	80 - 120	3	10

Lab Sample ID: 570-121847-1 MS

Matrix: Solid

Analysis Batch: 292349

Client Sample ID: B-8@2'

Prep Type: Total/NA

Prep Batch: 292076

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	ND		0.392	0.3897		mg/Kg		99	80 - 120		

Lab Sample ID: 570-121847-1 MSD

Matrix: Solid

Analysis Batch: 292349

Client Sample ID: B-8@2'

Prep Type: Total/NA

Prep Batch: 292076

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.408	0.4062		mg/Kg		100	80 - 120	4	20

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## GC VOA

### Prep Batch: 291881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121847-1	B-8@2'	Total/NA	Solid	5030C	
570-121847-2	B-9@2'	Total/NA	Solid	5030C	
570-121847-3	B-4@2'	Total/NA	Solid	5030C	
570-121847-4	B-5@2'	Total/NA	Solid	5030C	
570-121847-5	B-10@2'	Total/NA	Solid	5030C	
570-121847-6	B-27@2'	Total/NA	Solid	5030C	
570-121847-7	B-27@5'	Total/NA	Solid	5030C	
570-121847-8	B-25@2'	Total/NA	Solid	5030C	
570-121847-9	B-25@5'	Total/NA	Solid	5030C	
570-121847-10	B-25@10'	Total/NA	Solid	5030C	
570-121847-11	B-25@15'	Total/NA	Solid	5030C	
570-121847-12	B-25@20'	Total/NA	Solid	5030C	
570-121847-13	B-25@25'	Total/NA	Solid	5030C	
570-121847-14	B-25@30'	Total/NA	Solid	5030C	
MB 570-291881/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-291881/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-291881/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	
570-121847-1 MS	B-8@2'	Total/NA	Solid	5030C	
570-121847-1 MSD	B-8@2'	Total/NA	Solid	5030C	

### Analysis Batch: 291981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121847-1	B-8@2'	Total/NA	Solid	8015B	291881
570-121847-2	B-9@2'	Total/NA	Solid	8015B	291881
570-121847-3	B-4@2'	Total/NA	Solid	8015B	291881
570-121847-4	B-5@2'	Total/NA	Solid	8015B	291881
570-121847-5	B-10@2'	Total/NA	Solid	8015B	291881
570-121847-6	B-27@2'	Total/NA	Solid	8015B	291881
570-121847-7	B-27@5'	Total/NA	Solid	8015B	291881
570-121847-8	B-25@2'	Total/NA	Solid	8015B	291881
570-121847-9	B-25@5'	Total/NA	Solid	8015B	291881
570-121847-10	B-25@10'	Total/NA	Solid	8015B	291881
570-121847-11	B-25@15'	Total/NA	Solid	8015B	291881
570-121847-12	B-25@20'	Total/NA	Solid	8015B	291881
570-121847-13	B-25@25'	Total/NA	Solid	8015B	291881
570-121847-14	B-25@30'	Total/NA	Solid	8015B	291881
MB 570-291881/3-A	Method Blank	Total/NA	Solid	8015B	291881
LCS 570-291881/1-A	Lab Control Sample	Total/NA	Solid	8015B	291881
LCSD 570-291881/2-A	Lab Control Sample Dup	Total/NA	Solid	8015B	291881
570-121847-1 MS	B-8@2'	Total/NA	Solid	8015B	291881
570-121847-1 MSD	B-8@2'	Total/NA	Solid	8015B	291881

## GC Semi VOA

### Analysis Batch: 291869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121847-1	B-8@2'	Total/NA	Solid	8015B	291937
570-121847-2	B-9@2'	Total/NA	Solid	8015B	291937
570-121847-3	B-4@2'	Total/NA	Solid	8015B	291937
570-121847-4	B-5@2'	Total/NA	Solid	8015B	291937
570-121847-5	B-10@2'	Total/NA	Solid	8015B	291937

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## GC Semi VOA (Continued)

### Analysis Batch: 291869 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121847-6	B-27@2'	Total/NA	Solid	8015B	291937
570-121847-7	B-27@5'	Total/NA	Solid	8015B	291937
570-121847-8	B-25@2'	Total/NA	Solid	8015B	291937
570-121847-9	B-25@5'	Total/NA	Solid	8015B	291937
570-121847-10	B-25@10'	Total/NA	Solid	8015B	291937
570-121847-11	B-25@15'	Total/NA	Solid	8015B	291937
570-121847-12	B-25@20'	Total/NA	Solid	8015B	291937
570-121847-13	B-25@25'	Total/NA	Solid	8015B	291937
570-121847-14	B-25@30'	Total/NA	Solid	8015B	291937
LCS 570-291937/2-A	Lab Control Sample	Total/NA	Solid	8015B	291937
LCSD 570-291937/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	291937
570-121847-1 MS	B-8@2'	Total/NA	Solid	8015B	291937
570-121847-1 MSD	B-8@2'	Total/NA	Solid	8015B	291937

### Prep Batch: 291937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121847-1	B-8@2'	Total/NA	Solid	3550C	
570-121847-2	B-9@2'	Total/NA	Solid	3550C	
570-121847-3	B-4@2'	Total/NA	Solid	3550C	
570-121847-4	B-5@2'	Total/NA	Solid	3550C	
570-121847-5	B-10@2'	Total/NA	Solid	3550C	
570-121847-6	B-27@2'	Total/NA	Solid	3550C	
570-121847-7	B-27@5'	Total/NA	Solid	3550C	
570-121847-8	B-25@2'	Total/NA	Solid	3550C	
570-121847-9	B-25@5'	Total/NA	Solid	3550C	
570-121847-10	B-25@10'	Total/NA	Solid	3550C	
570-121847-11	B-25@15'	Total/NA	Solid	3550C	
570-121847-12	B-25@20'	Total/NA	Solid	3550C	
570-121847-13	B-25@25'	Total/NA	Solid	3550C	
570-121847-14	B-25@30'	Total/NA	Solid	3550C	
MB 570-291937/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 570-291937/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 570-291937/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	
570-121847-1 MS	B-8@2'	Total/NA	Solid	3550C	
570-121847-1 MSD	B-8@2'	Total/NA	Solid	3550C	

### Analysis Batch: 292286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-291937/1-A	Method Blank	Total/NA	Solid	8015B	291937

## Metals

### Prep Batch: 291776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121847-1	B-8@2'	Total/NA	Solid	3050B	
MB 570-291776/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-291776/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-291776/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	

# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Metals

### Prep Batch: 291782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121847-2	B-9@2'	Total/NA	Solid	3050B	
570-121847-3	B-4@2'	Total/NA	Solid	3050B	
570-121847-4	B-5@2'	Total/NA	Solid	3050B	
570-121847-5	B-10@2'	Total/NA	Solid	3050B	
570-121847-6	B-27@2'	Total/NA	Solid	3050B	
570-121847-7	B-27@5'	Total/NA	Solid	3050B	
570-121847-8	B-25@2'	Total/NA	Solid	3050B	
570-121847-9	B-25@5'	Total/NA	Solid	3050B	
570-121847-10	B-25@10'	Total/NA	Solid	3050B	
570-121847-11	B-25@15'	Total/NA	Solid	3050B	
570-121847-12	B-25@20'	Total/NA	Solid	3050B	
570-121847-13	B-25@25'	Total/NA	Solid	3050B	
570-121847-14	B-25@30'	Total/NA	Solid	3050B	
MB 570-291782/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-291782/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-291782/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	
570-121847-5 MS	B-10@2'	Total/NA	Solid	3050B	
570-121847-5 MSD	B-10@2'	Total/NA	Solid	3050B	

### Prep Batch: 292076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121847-1	B-8@2'	Total/NA	Solid	7471A	
570-121847-2	B-9@2'	Total/NA	Solid	7471A	
570-121847-3	B-4@2'	Total/NA	Solid	7471A	
570-121847-4	B-5@2'	Total/NA	Solid	7471A	
570-121847-5	B-10@2'	Total/NA	Solid	7471A	
570-121847-6	B-27@2'	Total/NA	Solid	7471A	
570-121847-7	B-27@5'	Total/NA	Solid	7471A	
570-121847-8	B-25@2'	Total/NA	Solid	7471A	
570-121847-9	B-25@5'	Total/NA	Solid	7471A	
570-121847-10	B-25@10'	Total/NA	Solid	7471A	
570-121847-11	B-25@15'	Total/NA	Solid	7471A	
570-121847-12	B-25@20'	Total/NA	Solid	7471A	
570-121847-13	B-25@25'	Total/NA	Solid	7471A	
570-121847-14	B-25@30'	Total/NA	Solid	7471A	
MB 570-292076/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-292076/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-292076/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
570-121847-1 MS	B-8@2'	Total/NA	Solid	7471A	
570-121847-1 MSD	B-8@2'	Total/NA	Solid	7471A	

### Analysis Batch: 292247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121847-2	B-9@2'	Total/NA	Solid	6010B	291782
570-121847-3	B-4@2'	Total/NA	Solid	6010B	291782
570-121847-4	B-5@2'	Total/NA	Solid	6010B	291782
570-121847-5	B-10@2'	Total/NA	Solid	6010B	291782
570-121847-6	B-27@2'	Total/NA	Solid	6010B	291782
570-121847-7	B-27@5'	Total/NA	Solid	6010B	291782
570-121847-8	B-25@2'	Total/NA	Solid	6010B	291782
570-121847-9	B-25@5'	Total/NA	Solid	6010B	291782

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

## Metals (Continued)

### Analysis Batch: 292247 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121847-10	B-25@10'	Total/NA	Solid	6010B	291782
570-121847-11	B-25@15'	Total/NA	Solid	6010B	291782
570-121847-12	B-25@20'	Total/NA	Solid	6010B	291782
570-121847-13	B-25@25'	Total/NA	Solid	6010B	291782
570-121847-14	B-25@30'	Total/NA	Solid	6010B	291782
MB 570-291776/1-A ^5	Method Blank	Total/NA	Solid	6010B	291776
MB 570-291782/1-A ^5	Method Blank	Total/NA	Solid	6010B	291782
LCS 570-291776/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	291776
LCS 570-291782/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	291782
LCSD 570-291776/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	291776
LCSD 570-291782/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	291782
570-121847-5 MS	B-10@2'	Total/NA	Solid	6010B	291782
570-121847-5 MSD	B-10@2'	Total/NA	Solid	6010B	291782

### Analysis Batch: 292349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121847-1	B-8@2'	Total/NA	Solid	7471A	292076
570-121847-2	B-9@2'	Total/NA	Solid	7471A	292076
570-121847-3	B-4@2'	Total/NA	Solid	7471A	292076
570-121847-4	B-5@2'	Total/NA	Solid	7471A	292076
570-121847-5	B-10@2'	Total/NA	Solid	7471A	292076
570-121847-6	B-27@2'	Total/NA	Solid	7471A	292076
570-121847-7	B-27@5'	Total/NA	Solid	7471A	292076
570-121847-8	B-25@2'	Total/NA	Solid	7471A	292076
570-121847-9	B-25@5'	Total/NA	Solid	7471A	292076
570-121847-10	B-25@10'	Total/NA	Solid	7471A	292076
570-121847-11	B-25@15'	Total/NA	Solid	7471A	292076
570-121847-12	B-25@20'	Total/NA	Solid	7471A	292076
570-121847-13	B-25@25'	Total/NA	Solid	7471A	292076
570-121847-14	B-25@30'	Total/NA	Solid	7471A	292076
MB 570-292076/1-A	Method Blank	Total/NA	Solid	7471A	292076
LCS 570-292076/2-A	Lab Control Sample	Total/NA	Solid	7471A	292076
LCSD 570-292076/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	292076
570-121847-1 MS	B-8@2'	Total/NA	Solid	7471A	292076
570-121847-1 MSD	B-8@2'	Total/NA	Solid	7471A	292076

### Analysis Batch: 292394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121847-1	B-8@2'	Total/NA	Solid	6010B	291776



# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

**Client Sample ID: B-8@2'**

**Date Collected: 12/22/22 07:16**

**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-1**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.04 g	5 mL	291881	12/27/22 10:13	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291981	12/27/22 23:19	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.01 g	10 mL	291937	12/27/22 13:32	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		5	10 mL	10 mL	291869	12/28/22 03:31	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.96 g	50 mL	291776	12/27/22 05:57	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292394	12/28/22 17:43	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	292076	12/27/22 20:32	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 18:07	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-9@2'**

**Date Collected: 12/22/22 07:40**

**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-2**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	291881	12/27/22 10:13	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291981	12/28/22 00:33	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.04 g	10 mL	291937	12/27/22 13:32	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		5	10 mL	10 mL	291869	12/28/22 03:51	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.96 g	50 mL	291782	12/27/22 06:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 02:25	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	292076	12/27/22 20:32	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 18:12	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-4@2'**

**Date Collected: 12/22/22 08:06**

**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-3**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	291881	12/27/22 10:13	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291981	12/28/22 00:57	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			9.99 g	10 mL	291937	12/27/22 13:32	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291869	12/28/22 04:13	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.96 g	50 mL	291782	12/27/22 06:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 02:27	K1UV	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

**Client Sample ID: B-4@2'**

**Date Collected: 12/22/22 08:06**

**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-3**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.50 g	50 mL	292076	12/27/22 20:32	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 18:14	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-5@2'**

**Date Collected: 12/22/22 08:29**

**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-4**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	291881	12/27/22 10:13	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291981	12/28/22 01:22	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			9.97 g	10 mL	291937	12/27/22 13:32	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291869	12/28/22 04:34	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.96 g	50 mL	291782	12/27/22 06:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 02:35	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	292076	12/27/22 20:32	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 18:20	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-10@2'**

**Date Collected: 12/22/22 08:46**

**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-5**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	291881	12/27/22 10:13	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291981	12/28/22 01:46	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.02 g	10 mL	291937	12/27/22 13:32	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291869	12/28/22 04:55	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.99 g	50 mL	291782	12/27/22 06:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 02:15	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	292076	12/27/22 20:32	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 18:22	C0YH	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

**Client Sample ID: B-27@2'**

**Date Collected: 12/22/22 09:28**

**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-6**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	291881	12/27/22 10:13	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291981	12/28/22 02:10	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.07 g	10 mL	291937	12/27/22 13:32	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291869	12/28/22 05:16	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.00 g	50 mL	291782	12/27/22 06:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 02:37	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	292076	12/27/22 20:32	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 18:23	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-27@5'**

**Date Collected: 12/22/22 09:35**

**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-7**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	291881	12/27/22 10:13	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291981	12/28/22 02:35	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.02 g	10 mL	291937	12/27/22 13:32	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291869	12/28/22 05:37	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.96 g	50 mL	291782	12/27/22 06:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 02:39	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	292076	12/27/22 20:32	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 18:25	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-25@2'**

**Date Collected: 12/22/22 12:41**

**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-8**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	291881	12/27/22 10:13	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291981	12/28/22 02:59	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.05 g	10 mL	291937	12/27/22 13:32	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291869	12/28/22 06:19	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.99 g	50 mL	291782	12/27/22 06:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 02:42	K1UV	EET CAL 4
Instrument ID: ICP11										

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# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

**Client Sample ID: B-25@2'**

**Date Collected: 12/22/22 12:41**

**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-8**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.50 g	50 mL	292076	12/27/22 20:32	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 18:27	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-25@5'**

**Date Collected: 12/22/22 12:57**

**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-9**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	291881	12/27/22 10:13	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291981	12/28/22 03:24	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			9.97 g	10 mL	291937	12/27/22 13:32	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291869	12/28/22 05:58	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.99 g	50 mL	291782	12/27/22 06:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 02:44	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.49 g	50 mL	292076	12/27/22 20:32	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 18:29	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-25@10'**

**Date Collected: 12/22/22 13:08**

**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-10**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	291881	12/27/22 10:13	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291981	12/28/22 03:48	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.00 g	10 mL	291937	12/27/22 13:32	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291869	12/28/22 06:40	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			2.01 g	50 mL	291782	12/27/22 06:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 02:47	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	292076	12/27/22 20:32	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 18:31	C0YH	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

**Client Sample ID: B-25@15'**

**Date Collected: 12/22/22 13:28**

**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-11**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.04 g	5 mL	291881	12/27/22 10:13	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291981	12/28/22 04:37	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.08 g	10 mL	291937	12/27/22 13:32	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291869	12/28/22 07:01	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.96 g	50 mL	291782	12/27/22 06:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 02:49	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.51 g	50 mL	292076	12/27/22 20:32	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 18:33	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-25@20'**

**Date Collected: 12/22/22 14:16**

**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-12**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.04 g	5 mL	291881	12/27/22 10:13	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291981	12/28/22 05:01	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			10.03 g	10 mL	291937	12/27/22 13:32	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291869	12/28/22 08:04	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.99 g	50 mL	291782	12/27/22 06:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 02:51	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	292076	12/27/22 20:32	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 18:35	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-25@25'**

**Date Collected: 12/22/22 14:34**

**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-13**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.06 g	5 mL	291881	12/27/22 10:13	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291981	12/28/22 05:26	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			9.96 g	10 mL	291937	12/27/22 13:32	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291869	12/28/22 08:25	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.97 g	50 mL	291782	12/27/22 06:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 02:54	K1UV	EET CAL 4
Instrument ID: ICP11										

Eurofins Calscience

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

**Client Sample ID: B-25@25'**

**Lab Sample ID: 570-121847-13**

**Date Collected: 12/22/22 14:34**

**Matrix: Solid**

**Date Received: 12/22/22 18:36**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.49 g	50 mL	292076	12/27/22 20:32	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 18:37	C0YH	EET CAL 4
Instrument ID: HG7										

**Client Sample ID: B-25@30'**

**Lab Sample ID: 570-121847-14**

**Date Collected: 12/22/22 14:55**

**Matrix: Solid**

**Date Received: 12/22/22 18:36**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	291881	12/27/22 10:13	U1MC	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	291981	12/28/22 05:50	A9VE	EET CAL 4
Instrument ID: GC53										
Total/NA	Prep	3550C			9.98 g	10 mL	291937	12/27/22 13:32	KH3Z	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	291869	12/28/22 08:46	A1W	EET CAL 4
Instrument ID: GC47										
Total/NA	Prep	3050B			1.96 g	50 mL	291782	12/27/22 06:04	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			292247	12/28/22 02:56	K1UV	EET CAL 4
Instrument ID: ICP11										
Total/NA	Prep	7471A			0.50 g	50 mL	292076	12/27/22 20:32	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			292349	12/28/22 18:42	C0YH	EET CAL 4
Instrument ID: HG7										

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

## Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

Method	Method Description	Protocol	Laboratory
8015B	Gasoline Range Organics - (GC)	SW846	EET CAL 4
8015B	Diesel Range Organics (DRO) (GC)	SW846	EET CAL 4
6010B	Metals (ICP)	SW846	EET CAL 4
7471A	Mercury (CVAA)	SW846	EET CAL 4
3050B	Preparation, Metals	SW846	EET CAL 4
3550C	Ultrasonic Extraction	SW846	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
7471A	Preparation, Mercury	SW846	EET CAL 4

### Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

# Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-121847-1	B-8@2'	Solid	12/22/22 07:16	12/22/22 18:36
570-121847-2	B-9@2'	Solid	12/22/22 07:40	12/22/22 18:36
570-121847-3	B-4@2'	Solid	12/22/22 08:06	12/22/22 18:36
570-121847-4	B-5@2'	Solid	12/22/22 08:29	12/22/22 18:36
570-121847-5	B-10@2'	Solid	12/22/22 08:46	12/22/22 18:36
570-121847-6	B-27@2'	Solid	12/22/22 09:28	12/22/22 18:36
570-121847-7	B-27@5'	Solid	12/22/22 09:35	12/22/22 18:36
570-121847-8	B-25@2'	Solid	12/22/22 12:41	12/22/22 18:36
570-121847-9	B-25@5'	Solid	12/22/22 12:57	12/22/22 18:36
570-121847-10	B-25@10'	Solid	12/22/22 13:08	12/22/22 18:36
570-121847-11	B-25@15'	Solid	12/22/22 13:28	12/22/22 18:36
570-121847-12	B-25@20'	Solid	12/22/22 14:16	12/22/22 18:36
570-121847-13	B-25@25'	Solid	12/22/22 14:34	12/22/22 18:36
570-121847-14	B-25@30'	Solid	12/22/22 14:55	12/22/22 18:36





Calscience



Loc: 570  
121847

CHAIN OF CUSTODY RECORD

570-121847 Chain of Custody

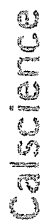
DATE: 12/22/2022

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

PAGE: 1 OF 2

LABORATORY CLIENT		CLIENT PROJECT NAME / NUMBER: Science Research Park / SD-54		P.O. NO.	
ADDRESS: 9245 Activity Road Suite 103		PROJECT CONTACT: Matt Fagan		SAMPLER(S) (PRINT) Cathy Roussel-Johnson	
CITY: San Diego		STATE: CA		ZIP: 92126	
TEL: 858 536 1000		E-MAIL: mattf@groupdelta.com			
TURNAROUND TIME (Rush surcharges may apply to any TAT not STANDARD): <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD					
<input type="checkbox"/> COELT EDF		GLOBAL ID:		LOG CODE:	
SPECIAL INSTRUCTIONS:					
LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.
1	B-8 @ 2'	12/22	7:10	Soil	1
2	B-9 @ 2'	12/22	7:40	Soil	1
3	B-4 @ 2'	12/22	8:06	Soil	1
4	B-5 @ 2'	12/22	8:29	Soil	1
5	B-10 @ 2'	12/22	8:46	Soil	1
6	B-27 @ 2'	12/22	9:28	Soil	1
7	B-27 @ 5'	12/22	9:35	Soil	1
8	B-25 @ 2'	12/22	12:41	Soil	1
9	B-25 @ 5'	12/22	12:57	Soil	1
10	B-25 @ 10'	12/22	1:08	Soil	1
Relinquished by (Signature):		Received by (Signature/Affiliation):		Date: 12/22/22 Time: 15:55	
Relinquished by (Signature):		Received by (Signature/Affiliation):		Date: 12-22-22 Time: 18:36	
Relinquished by (Signature):		Received by (Signature/Affiliation):		Date: Time:	

1.5 / 1.3 SC 11



3  
-  
5  
6  
7  
8  
9  
0  
1  
2  
3  
4

## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-121847-1

**Login Number: 121847**

**List Number: 1**

**Creator: Thompson, Lori**

**List Source: Eurofins Calscience**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Matt Fagan  
Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Generated 1/12/2023 12:32:13 PM

## JOB DESCRIPTION

Science Research Park / SD754

## JOB NUMBER

570-121847-2

# Eurofins Calscience

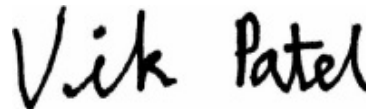
## Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

## Authorization



Generated  
1/12/2023 12:32:13 PM

Authorized for release by  
Vikas Patel, Project Manager I  
[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)  
(714)895-5494

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## Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-2

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-2

**Job ID: 570-121847-2**

**Laboratory: Eurofins Calscience**

## Narrative

**Job Narrative**  
**570-121847-2**

## Comments

No additional comments.

## Receipt

The samples were received on 12/22/2022 6:36 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.3° C.

## Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



## Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-2

### Client Sample ID: B-27@2'

### Lab Sample ID: 570-121847-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	4.80		1.00	0.105	mg/L	1		6010B	STLC Citrate

### Client Sample ID: B-25@15'

### Lab Sample ID: 570-121847-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	3.40		1.00	0.105	mg/L	1		6010B	STLC Citrate

### Client Sample ID: B-25@20'

### Lab Sample ID: 570-121847-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	13.4		1.00	0.105	mg/L	1		6010B	STLC Citrate

### Client Sample ID: B-25@25'

### Lab Sample ID: 570-121847-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	67.6		0.500	0.0527	mg/L	1		6010B	TCLP
Lead	256		1.00	0.105	mg/L	1		6010B	STLC Citrate

### Client Sample ID: B-25@30'

### Lab Sample ID: 570-121847-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	41.5		0.500	0.0527	mg/L	1		6010B	TCLP
Lead	319		1.00	0.105	mg/L	1		6010B	STLC Citrate

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-2

## Method: SW846 6010B - Metals (ICP) - TCLP

Client Sample ID: B-25@25'  
Date Collected: 12/22/22 14:34  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	67.6		0.500	0.0527	mg/L		01/10/23 09:14	01/10/23 17:15	1

Client Sample ID: B-25@30'  
Date Collected: 12/22/22 14:55  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-14  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	41.5		0.500	0.0527	mg/L		01/10/23 09:14	01/10/23 17:18	1

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-2

## Method: SW846 6010B - Metals (ICP) - STLC Citrate

Client Sample ID: B-27@2'  
Date Collected: 12/22/22 09:28  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-6  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	4.80		1.00	0.105	mg/L		01/11/23 11:57	01/11/23 12:55	1

Client Sample ID: B-25@15'  
Date Collected: 12/22/22 13:28  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-11  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	3.40		1.00	0.105	mg/L		01/11/23 11:57	01/11/23 13:02	1

Client Sample ID: B-25@20'  
Date Collected: 12/22/22 14:16  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	13.4		1.00	0.105	mg/L		01/11/23 11:57	01/11/23 13:05	1

Client Sample ID: B-25@25'  
Date Collected: 12/22/22 14:34  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-13  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	256		1.00	0.105	mg/L		01/11/23 11:57	01/11/23 13:07	1

Client Sample ID: B-25@30'  
Date Collected: 12/22/22 14:55  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-14  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	319		1.00	0.105	mg/L		01/11/23 11:57	01/11/23 13:09	1

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-2

## Method: 6010B - Metals (ICP)

Lab Sample ID: LB 570-294363/1-B

Matrix: Solid

Analysis Batch: 294978

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 294717

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.500	0.0527	mg/L		01/10/23 09:14	01/10/23 16:46	1

Lab Sample ID: LCS 570-294363/2-B

Matrix: Solid

Analysis Batch: 294978

Client Sample ID: Lab Control Sample

Prep Type: TCLP

Prep Batch: 294717

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	2.00	1.950		mg/L		98	80 - 120

Lab Sample ID: LCSD 570-294363/3-B

Matrix: Solid

Analysis Batch: 294978

Client Sample ID: Lab Control Sample Dup

Prep Type: TCLP

Prep Batch: 294717

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Lead	2.00	1.946		mg/L		97	80 - 120	0	20

Lab Sample ID: LB4 570-294367/1-B

Matrix: Solid

Analysis Batch: 295163

Client Sample ID: Method Blank

Prep Type: STLC Citrate

Prep Batch: 295100

Analyte	LB4 Result	LB4 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.00	0.105	mg/L		01/11/23 11:57	01/11/23 12:35	1

Lab Sample ID: LCS 570-294367/2-B

Matrix: Solid

Analysis Batch: 295163

Client Sample ID: Lab Control Sample

Prep Type: STLC Citrate

Prep Batch: 295100

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	20.0	20.06		mg/L		100	80 - 120

Lab Sample ID: LCSD 570-294367/3-B

Matrix: Solid

Analysis Batch: 295163

Client Sample ID: Lab Control Sample Dup

Prep Type: STLC Citrate

Prep Batch: 295100

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Lead	20.0	19.25		mg/L		96	80 - 120	4	20

Lab Sample ID: 570-121847-6 MS

Matrix: Solid

Analysis Batch: 295163

Client Sample ID: B-27@2'

Prep Type: STLC Citrate

Prep Batch: 295100

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	4.80		20.0	24.50		mg/L		98	84 - 120

Lab Sample ID: 570-121847-6 MSD

Matrix: Solid

Analysis Batch: 295163

Client Sample ID: B-27@2'

Prep Type: STLC Citrate

Prep Batch: 295100

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Lead	4.80		20.0	23.96		mg/L		96	84 - 120	2	7

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# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-2

## Metals

### Leach Batch: 294363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121847-13	B-25@25'	TCLP	Solid	1311	
570-121847-14	B-25@30'	TCLP	Solid	1311	
LB 570-294363/1-B	Method Blank	TCLP	Solid	1311	
LCS 570-294363/2-B	Lab Control Sample	TCLP	Solid	1311	
LCSD 570-294363/3-B	Lab Control Sample Dup	TCLP	Solid	1311	

### Leach Batch: 294367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121847-6	B-27@2'	STLC Citrate	Solid	CA WET Citrate	
570-121847-11	B-25@15'	STLC Citrate	Solid	CA WET Citrate	
570-121847-12	B-25@20'	STLC Citrate	Solid	CA WET Citrate	
570-121847-13	B-25@25'	STLC Citrate	Solid	CA WET Citrate	
570-121847-14	B-25@30'	STLC Citrate	Solid	CA WET Citrate	
LB4 570-294367/1-B	Method Blank	STLC Citrate	Solid	CA WET Citrate	
LCS 570-294367/2-B	Lab Control Sample	STLC Citrate	Solid	CA WET Citrate	
LCSD 570-294367/3-B	Lab Control Sample Dup	STLC Citrate	Solid	CA WET Citrate	
570-121847-6 MS	B-27@2'	STLC Citrate	Solid	CA WET Citrate	
570-121847-6 MSD	B-27@2'	STLC Citrate	Solid	CA WET Citrate	

### Prep Batch: 294717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121847-13	B-25@25'	TCLP	Solid	3010A	294363
570-121847-14	B-25@30'	TCLP	Solid	3010A	294363
LB 570-294363/1-B	Method Blank	TCLP	Solid	3010A	294363
LCS 570-294363/2-B	Lab Control Sample	TCLP	Solid	3010A	294363
LCSD 570-294363/3-B	Lab Control Sample Dup	TCLP	Solid	3010A	294363

### Analysis Batch: 294978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121847-13	B-25@25'	TCLP	Solid	6010B	294717
570-121847-14	B-25@30'	TCLP	Solid	6010B	294717
LB 570-294363/1-B	Method Blank	TCLP	Solid	6010B	294717
LCS 570-294363/2-B	Lab Control Sample	TCLP	Solid	6010B	294717
LCSD 570-294363/3-B	Lab Control Sample Dup	TCLP	Solid	6010B	294717

### Prep Batch: 295100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121847-6	B-27@2'	STLC Citrate	Solid	Dilution	294367
570-121847-11	B-25@15'	STLC Citrate	Solid	Dilution	294367
570-121847-12	B-25@20'	STLC Citrate	Solid	Dilution	294367
570-121847-13	B-25@25'	STLC Citrate	Solid	Dilution	294367
570-121847-14	B-25@30'	STLC Citrate	Solid	Dilution	294367
LB4 570-294367/1-B	Method Blank	STLC Citrate	Solid	Dilution	294367
LCS 570-294367/2-B	Lab Control Sample	STLC Citrate	Solid	Dilution	294367
LCSD 570-294367/3-B	Lab Control Sample Dup	STLC Citrate	Solid	Dilution	294367
570-121847-6 MS	B-27@2'	STLC Citrate	Solid	Dilution	294367
570-121847-6 MSD	B-27@2'	STLC Citrate	Solid	Dilution	294367

### Analysis Batch: 295163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121847-6	B-27@2'	STLC Citrate	Solid	6010B	295100

Eurofins Calscience

## QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-2

### Metals (Continued)

#### Analysis Batch: 295163 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121847-11	B-25@15'	STLC Citrate	Solid	6010B	295100
570-121847-12	B-25@20'	STLC Citrate	Solid	6010B	295100
570-121847-13	B-25@25'	STLC Citrate	Solid	6010B	295100
570-121847-14	B-25@30'	STLC Citrate	Solid	6010B	295100
LB4 570-294367/1-B	Method Blank	STLC Citrate	Solid	6010B	295100
LCS 570-294367/2-B	Lab Control Sample	STLC Citrate	Solid	6010B	295100
LCSD 570-294367/3-B	Lab Control Sample Dup	STLC Citrate	Solid	6010B	295100
570-121847-6 MS	B-27@2'	STLC Citrate	Solid	6010B	295100
570-121847-6 MSD	B-27@2'	STLC Citrate	Solid	6010B	295100

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-2

**Client Sample ID: B-27@2'**

**Date Collected: 12/22/22 09:28**

**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-6**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.03 g	500 mL	294367	01/09/23 03:34	XBO9	EET CAL 4
STLC Citrate	Prep	Dilution			2.5 mL	50 mL	295100	01/11/23 11:57	VZOK	EET CAL 4
STLC Citrate	Analysis	6010B		1			295163	01/11/23 12:55	P1R	EET CAL 4
Instrument ID: ICP10										

**Client Sample ID: B-25@15'**

**Date Collected: 12/22/22 13:28**

**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-11**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.01 g	500 mL	294367	01/09/23 03:34	XBO9	EET CAL 4
STLC Citrate	Prep	Dilution			2.5 mL	50 mL	295100	01/11/23 11:57	VZOK	EET CAL 4
STLC Citrate	Analysis	6010B		1			295163	01/11/23 13:02	P1R	EET CAL 4
Instrument ID: ICP10										

**Client Sample ID: B-25@20'**

**Date Collected: 12/22/22 14:16**

**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-12**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.05 g	500 mL	294367	01/09/23 03:34	XBO9	EET CAL 4
STLC Citrate	Prep	Dilution			2.5 mL	50 mL	295100	01/11/23 11:57	VZOK	EET CAL 4
STLC Citrate	Analysis	6010B		1			295163	01/11/23 13:05	P1R	EET CAL 4
Instrument ID: ICP10										

**Client Sample ID: B-25@25'**

**Date Collected: 12/22/22 14:34**

**Date Received: 12/22/22 18:36**

**Lab Sample ID: 570-121847-13**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.05 g	500 mL	294367	01/09/23 03:34	XBO9	EET CAL 4
STLC Citrate	Prep	Dilution			2.5 mL	50 mL	295100	01/11/23 11:57	VZOK	EET CAL 4
STLC Citrate	Analysis	6010B		1			295163	01/11/23 13:07	P1R	EET CAL 4
Instrument ID: ICP10										
TCLP	Leach	1311			100.04 g	2000 mL	294363	01/08/23 17:10	XBO9	EET CAL 4
TCLP	Prep	3010A			5 mL	50 mL	294717	01/10/23 09:14	ECX6	EET CAL 4
TCLP	Analysis	6010B		1			294978	01/10/23 17:15	P1R	EET CAL 4
Instrument ID: ICP11										

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-2

**Client Sample ID: B-25@30'**

**Lab Sample ID: 570-121847-14**

**Date Collected: 12/22/22 14:55**

**Matrix: Solid**

**Date Received: 12/22/22 18:36**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.02 g	500 mL	294367	01/09/23 03:34	XBO9	EET CAL 4
STLC Citrate	Prep	Dilution			2.5 mL	50 mL	295100	01/11/23 11:57	VZOK	EET CAL 4
STLC Citrate	Analysis	6010B		1			295163	01/11/23 13:09	P1R	EET CAL 4
Instrument ID: ICP10										
TCLP	Leach	1311			100.01 g	2000 mL	294363	01/08/23 17:10	XBO9	EET CAL 4
TCLP	Prep	3010A			5 mL	50 mL	294717	01/10/23 09:14	ECX6	EET CAL 4
TCLP	Analysis	6010B		1			294978	01/10/23 17:18	P1R	EET CAL 4
Instrument ID: ICP11										

<sup>1</sup> Completion dates and times are reported or not reported per method requirements or individual lab discretion.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494



Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-2

Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

- 1
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# Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	EET CAL 4
1311	TCLP Extraction	SW846	EET CAL 4
3010A	Preparation, Total Metals	SW846	EET CAL 4
CA WET Citrate	California - Waste Extraction Test with Citrate Leach	CA-WET	EET CAL 4
Dilution	Preparation / Dilution Process	None	EET CAL 4

## Protocol References:

CA-WET = California Waste Extraction Test, from Title 22

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

## Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-121847-6	B-27@2'	Solid	12/22/22 09:28	12/22/22 18:36
570-121847-11	B-25@15'	Solid	12/22/22 13:28	12/22/22 18:36
570-121847-12	B-25@20'	Solid	12/22/22 14:16	12/22/22 18:36
570-121847-13	B-25@25'	Solid	12/22/22 14:34	12/22/22 18:36
570-121847-14	B-25@30'	Solid	12/22/22 14:55	12/22/22 18:36

## Virendra Patel

---

**From:** Alexandre Santini <alexandres@groupdelta.com>  
**Sent:** Tuesday, January 3, 2023 11:20 AM  
**To:** Virendra Patel; Jack Packwood; Matt Fagan; Vikas Patel  
**Subject:** RE: Eurofins Calscience report and EDD files from 570-121847-1 Science Research Park / SD754

EXTERNAL EMAIL\*

Hello Vik – Please analyze for lead STLC only samples:

B-27@2'  
B-25@15'  
B-25@20'

Please also analyze for lead STCL and TCLP samples:

B-25@25'  
B-25@30'

Please confirm it.

Thanks,

Alex Santini, P.E. | [Senior Project Engineer](#)  
Office: (858) 536-1000  
Mobile: (310) 310-5686  
Email: [AlexandreS@groupdelta.com](mailto:AlexandreS@groupdelta.com)

---

**From:** Virendra Patel <Virendra.Patel@et.eurofinsus.com>  
**Sent:** Thursday, December 29, 2022 7:46 PM  
**To:** Jack Packwood <jackp@groupdelta.com>; Matt Fagan <mattf@groupdelta.com>  
**Subject:** Eurofins Calscience report and EDD files from 570-121847-1 Science Research Park / SD754

Hello,

Attached please find the report and EDD files for job 570-121847-1; Science Research Park / SD754

Please feel free to contact me or your PM Vikas Patel if you have any questions.

Thank you.

**Virendra Patel**  
Project Manager

Eurofins Calscience  
Phone: 714-895-5494  
Mobile: 714-887-9901

E-mail: [Virendra.Patel@et.eurofinsus.com](mailto:Virendra.Patel@et.eurofinsus.com)  
[www.eurofinsus.com/env](http://www.eurofinsus.com/env)



Reference: [570-406301]  
Attachments: 2

> > Bank information has changed, please refer to remittance information on invoice. < <

\* WARNING - EXTERNAL: This email originated from outside of Eurofins Environment Testing America. Do not click any links or open any attachments unless you trust the sender and know that the content is safe!



Calscience



Loc: 570  
121847

CHAIN OF CUSTODY RECORD

570-121847 Chain of Custody

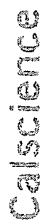
DATE: 12/22/2022

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

PAGE: 1 OF 2

LABORATORY CLIENT		CLIENT PROJECT NAME / NUMBER: Science Research Park / SD-54		P.O. NO.	
ADDRESS: 9245 Activity Road Suite 103		PROJECT CONTACT: Matt Fagan		SAMPLER(S) (PRINT) Cary Kousset-Johnson	
CITY: San Diego		STATE: CA		ZIP: 92126	
TEL: 858 536 1000		E-MAIL: mattf@groupdelta.com			
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"): <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD					
<input type="checkbox"/> COELT EDF		GLOBAL ID:		LOG CODE:	
SPECIAL INSTRUCTIONS:					
LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.
1	B-8 @ 2'	12/22	7:10	Soil	1
2	B-9 @ 2'	12/22	7:40	Soil	1
3	B-4 @ 2'	12/22	8:06	Soil	1
4	B-5 @ 2'	12/22	8:29	Soil	1
5	B-10 @ 2'	12/22	8:46	Soil	1
6	B-27 @ 2'	12/22	9:28	Soil	1
7	B-27 @ 5'	12/22	9:35	Soil	1
8	B-25 @ 2'	12/22	12:41	Soil	1
9	B-25 @ 5'	12/22	12:57	Soil	1
10	B-25 @ 10'	12/22	1:08	Soil	1
Relinquished by (Signature):		Received by (Signature/Affiliation):		Date: 12/22/22 Time: 15:55	
Relinquished by (Signature):		Received by (Signature/Affiliation):		Date: 12-22-22 Time: 18:36	
Relinquished by (Signature):		Received by (Signature/Affiliation):		Date: Time:	

1.5 / 1.3 SC 11



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## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-121847-2

**Login Number: 121847**

**List Source: Eurofins Calscience**

**List Number: 1**

**Creator: Thompson, Lori**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





# ANALYTICAL REPORT

## PREPARED FOR

Attn: Matt Fagan  
Group Delta Consultants, Inc  
9245 Activity Road  
Suite 103  
San Diego, California 92126

Generated 1/18/2023 1:39:23 PM

## JOB DESCRIPTION

Science Research Park / SD754

## JOB NUMBER

570-121847-3

# Eurofins Calscience

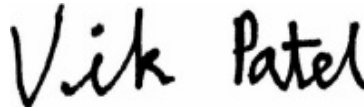
## Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

## Authorization



Generated  
1/18/2023 1:39:23 PM

Authorized for release by  
Vikas Patel, Project Manager I  
[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)  
(714)895-5494

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## Definitions/Glossary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-3

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-3

**Job ID: 570-121847-3**

**Laboratory: Eurofins Calscience**

## Narrative

**Job Narrative**  
**570-121847-3**

## Comments

No additional comments.

## Receipt

The samples were received on 12/22/2022 6:36 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.3° C.

## Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Detection Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-3

**Client Sample ID: B-25@20'**

**Lab Sample ID: 570-121847-12**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.886		0.500	0.0527	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Client Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-3

## Method: SW846 6010B - Metals (ICP) - TCLP

Client Sample ID: B-25@20'  
Date Collected: 12/22/22 14:16  
Date Received: 12/22/22 18:36

Lab Sample ID: 570-121847-12  
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.886		0.500	0.0527	mg/L		01/17/23 08:57	01/18/23 01:34	1

# QC Sample Results

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-3

## Method: 6010B - Metals (ICP)

Lab Sample ID: LB 570-295955/1-B

Matrix: Solid

Analysis Batch: 296650

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 296347

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.500	0.0527	mg/L		01/17/23 08:57	01/18/23 00:33	1

Lab Sample ID: LCS 570-295955/2-B

Matrix: Solid

Analysis Batch: 296650

Client Sample ID: Lab Control Sample

Prep Type: TCLP

Prep Batch: 296347

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	2.00	2.024		mg/L		101	80 - 120

Lab Sample ID: LCSD 570-295955/3-B

Matrix: Solid

Analysis Batch: 296650

Client Sample ID: Lab Control Sample Dup

Prep Type: TCLP

Prep Batch: 296347

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	2.00	2.049		mg/L		102	80 - 120	1	20



# QC Association Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-3

## Metals

### Leach Batch: 295955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121847-12	B-25@20'	TCLP	Solid	1311	
LB 570-295955/1-B	Method Blank	TCLP	Solid	1311	
LCS 570-295955/2-B	Lab Control Sample	TCLP	Solid	1311	
LCSD 570-295955/3-B	Lab Control Sample Dup	TCLP	Solid	1311	

### Prep Batch: 296347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121847-12	B-25@20'	TCLP	Solid	3010A	295955
LB 570-295955/1-B	Method Blank	TCLP	Solid	3010A	295955
LCS 570-295955/2-B	Lab Control Sample	TCLP	Solid	3010A	295955
LCSD 570-295955/3-B	Lab Control Sample Dup	TCLP	Solid	3010A	295955

### Analysis Batch: 296650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-121847-12	B-25@20'	TCLP	Solid	6010B	296347
LB 570-295955/1-B	Method Blank	TCLP	Solid	6010B	296347
LCS 570-295955/2-B	Lab Control Sample	TCLP	Solid	6010B	296347
LCSD 570-295955/3-B	Lab Control Sample Dup	TCLP	Solid	6010B	296347

# Lab Chronicle

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-3

**Client Sample ID: B-25@20'**

**Lab Sample ID: 570-121847-12**

**Date Collected: 12/22/22 14:16**

**Matrix: Solid**

**Date Received: 12/22/22 18:36**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			100.07 g	2000 mL	295955	01/15/23 16:00	XBO9	EET CAL 4
TCLP	Prep	3010A			5 mL	50 mL	296347	01/17/23 08:57	ECX6	EET CAL 4
TCLP	Analysis	6010B		1			296650	01/18/23 01:34	VZOK	EET CAL 4
Instrument ID: ICP11										

<sup>1</sup> Completion dates and times are reported or not reported per method requirements or individual lab discretion.

## Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

## Accreditation/Certification Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-3

### Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-23

1

2

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## Method Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-3

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	EET CAL 4
1311	TCLP Extraction	SW846	EET CAL 4
3010A	Preparation, Total Metals	SW846	EET CAL 4

### Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

## Sample Summary

Client: Group Delta Consultants, Inc  
Project/Site: Science Research Park / SD754

Job ID: 570-121847-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-121847-12	B-25@20'	Solid	12/22/22 14:16	12/22/22 18:36

1

2

3

4

5

6

7

8

9

10

11

12

13

14

## Vikas Patel

---

**From:** Alexandre Santini <alexandres@groupdelta.com>  
**Sent:** Thursday, January 12, 2023 1:46 PM  
**To:** Vikas Patel  
**Subject:** RE: Eurofins Calscience report and EDD files from 570-121847-2 Science Research Park / SD754

Please provide us the fastest TAT (2-3 days).

Alex Santini, P.E. | [Senior Project Engineer](#)  
Office: (858) 536-1000  
Mobile: (310) 310-5686  
Email: [AlexandreS@groupdelta.com](mailto:AlexandreS@groupdelta.com)

---

**From:** Vikas Patel <[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)>  
**Sent:** Thursday, January 12, 2023 12:50 PM  
**To:** Alexandre Santini <[alexandres@groupdelta.com](mailto:alexandres@groupdelta.com)>  
**Subject:** RE: Eurofins Calscience report and EDD files from 570-121847-2 Science Research Park / SD754

No problem Alex

Best Regards,

Vikas Patel  
Project Manager

Eurofins Environment Testing Southwest, LLC  
Phone: +1 714-895-5494

---

**From:** Alexandre Santini <[alexandres@groupdelta.com](mailto:alexandres@groupdelta.com)>  
**Sent:** Thursday, January 12, 2023 12:49 PM  
**To:** Vikas Patel <[Vikas.Patel@et.eurofinsus.com](mailto:Vikas.Patel@et.eurofinsus.com)>; Jack Packwood <[jackp@groupdelta.com](mailto:jackp@groupdelta.com)>; Matt Fagan <[mattf@groupdelta.com](mailto:mattf@groupdelta.com)>  
**Cc:** Natalia Delgadillo <[nataliad@groupdelta.com](mailto:nataliad@groupdelta.com)>  
**Subject:** RE: Eurofins Calscience report and EDD files from 570-121847-2 Science Research Park / SD754

Vik – Please analyze for lead TCLP sample B-25@20' due to STLC exceedance.

Please confirm it.

Thanks,

Alex Santini, P.E. | [Senior Project Engineer](#)  
Office: (858) 536-1000  
Mobile: (310) 310-5686  
Email: [AlexandreS@groupdelta.com](mailto:AlexandreS@groupdelta.com)



Calscience



Loc: 570  
121847

CHAIN OF CUSTODY RECORD

570-121847 Chain of Custody

DATE: 12/22/2022

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

PAGE: 1 OF 2

LABORATORY CLIENT		CLIENT PROJECT NAME / NUMBER: Science Research Park / SD754		P.O. NO.	
ADDRESS: 9245 Activity Road Suite 103		PROJECT CONTACT: Matt Fagan		SAMPLER(S) (PRINT) Cary Roussel-Johnson	
CITY: San Diego		STATE: CA		ZIP: 92126	
TEL: 858 536 1000		E-MAIL: mattf@groupdelta.com			
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"): <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input checked="" type="checkbox"/> 5 DAYS <input type="checkbox"/> STANDARD					
<input type="checkbox"/> COELT EDF		GLOBAL ID:		LOG CODE:	
SPECIAL INSTRUCTIONS:					
LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.
1	B-8 @ 2'	12/22	7:10	Soil	1
2	B-9 @ 2'	12/22	7:40	Soil	1
3	B-4 @ 2'	12/22	8:06	Soil	1
4	B-5 @ 2'	12/22	8:29	Soil	1
5	B-10 @ 2'	12/22	8:46	Soil	1
6	B-27 @ 2'	12/22	9:28	Soil	1
7	B-27 @ 5'	12/22	9:35	Soil	1
8	B-25 @ 2'	12/22	12:41	Soil	1
9	B-25 @ 5'	12/22	12:57	Soil	1
10	B-25 @ 10'	12/22	1:08	Soil	1
Relinquished by (Signature):		Received by (Signature/Affiliation):		Date: 12/22/22 Time: 15:55	
Relinquished by (Signature):		Received by (Signature/Affiliation):		Date: 12-22-22 Time: 18:36	
Relinquished by (Signature):		Received by (Signature/Affiliation):		Date: Time:	

1.5 / 1.3 SC 11



Calscience

# CHAIN OF CUSTODY RECORD

DATE: 12/22/2022

PAGE: 2 OF 2

7440 Lincoln Way Garden Grove, CA 92641-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT: Group Delta Consultants Address: 9245 Activity Road Suite 103 City: San Diego State: CA ZIP: 92126 Tel: 858 536 1000 Email: mattf@groupdelta.com		CLIENT PROJECT NAME / NUMBER: Science Research Park / SD-54 PROJECT CONTACT: Matt Fagan		P.O. NO. SAMPLER(S): (PRINT)	
TURNAROUND TIME (Rush surcharges may apply to any TAT not STANDARD): <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD		REQUESTED ANALYSES			
GLOBAL ID: COELT EDF		Please check box or fill in blank as needed			
SPECIAL INSTRUCTIONS:					
LOG CODE:					
UNPRESERVED					
PRESERVED					
FIELD FILTERED					
NO. OF CONT.					
MATRIX					
SAMPLING DATE TIME					
SAMPLE ID					
LAB USE ONLY					
11 B-25 @ 15'		TPH (g) <input type="checkbox"/> GRO <input type="checkbox"/> TPH(d) <input type="checkbox"/> DRO <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44			
12 B-25 @ 20'		TPH C4-C12, C13-C22, C23-C4			
13 B-25 @ 25'		BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>			
14 B-25 @ 30'		VOCs (8260)			
		Oxygenates (8260)			
		Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core			
		SVOCs (8270)			
		Pesticides (8081)			
		PCBs (8082)			
		PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM			
		T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X			
		Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6			
Relinquished by (Signature)		Received by (Signature/Affiliation)		Date: 12/22/22 Time: 15 55	
Relinquished by (Signature)		Received by (Signature/Affiliation)		Date: 12-22-22 Time: 18 36	
Relinquished by (Signature)		Received by (Signature/Affiliation)		Date: Time:	



## Login Sample Receipt Checklist

Client: Group Delta Consultants, Inc

Job Number: 570-121847-3

Login Number: 121847

List Number: 1

Creator: Thompson, Lori

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

***APPENDIX D***  
***ARSENIC STATISTICAL ANALYSES***

---

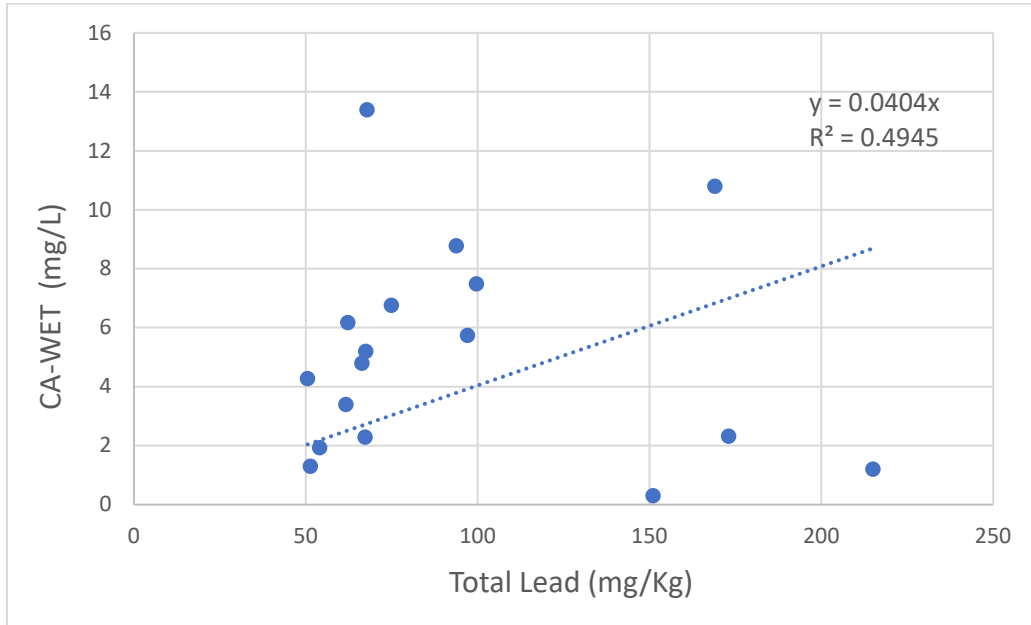
	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Uncensored Full Data Sets											
2												
3	Arsenic											
4												
5	General Statistics											
6	Total Number of Observations				218		Number of Distinct Observations				187	
7							Number of Missing Observations				0	
8	Minimum				0.956		Mean				5.966	
9	Maximum				42.6		Median				4.77	
10	SD				4.885		Std. Error of Mean				0.331	
11	Coefficient of Variation				0.819		Skewness				3.888	
12												
13	Normal GOF Test											
14	Shapiro Wilk Test Statistic				0.672		Shapiro Wilk GOF Test					
15	5% Shapiro Wilk P Value				0		Data Not Normal at 5% Significance Level					
16	Lilliefors Test Statistic				0.197		Lilliefors GOF Test					
17	5% Lilliefors Critical Value				0.0604		Data Not Normal at 5% Significance Level					
18	Data Not Normal at 5% Significance Level											
19												
20	Assuming Normal Distribution											
21	95% Normal UCL					95% UCLs (Adjusted for Skewness)						
22	95% Student's-t UCL				6.513		95% Adjusted-CLT UCL (Chen-1995)				6.603	
23							95% Modified-t UCL (Johnson-1978)				6.527	
24												
25	Gamma GOF Test											
26	A-D Test Statistic				3.684		Anderson-Darling Gamma GOF Test					
27	5% A-D Critical Value				0.762		Data Not Gamma Distributed at 5% Significance Level					
28	K-S Test Statistic				0.107		Kolmogorov-Smirnov Gamma GOF Test					
29	5% K-S Critical Value				0.0621		Data Not Gamma Distributed at 5% Significance Level					
30	Data Not Gamma Distributed at 5% Significance Level											
31												
32	Gamma Statistics											
33	k hat (MLE)				2.703		k star (bias corrected MLE)				2.669	
34	Theta hat (MLE)				2.207		Theta star (bias corrected MLE)				2.235	
35	nu hat (MLE)				1179		nu star (bias corrected)				1164	
36	MLE Mean (bias corrected)				5.966		MLE Sd (bias corrected)				3.652	
37							Approximate Chi Square Value (0.05)				1086	
38	Adjusted Level of Significance				0.0489		Adjusted Chi Square Value				1085	
39												
40	Assuming Gamma Distribution											
41	95% Approximate Gamma UCL (use when n>=50))				6.396		95% Adjusted Gamma UCL (use when n<50)				6.399	
42												
43	Lognormal GOF Test											
44	Shapiro Wilk Test Statistic				0.977		Shapiro Wilk Lognormal GOF Test					
45	5% Shapiro Wilk P Value				0.161		Data appear Lognormal at 5% Significance Level					
46	Lilliefors Test Statistic				0.0577		Lilliefors Lognormal GOF Test					
47	5% Lilliefors Critical Value				0.0604		Data appear Lognormal at 5% Significance Level					
48	Data appear Lognormal at 5% Significance Level											
49												
50	Lognormal Statistics											

	A	B	C	D	E	F	G	H	I	J	K	L
51	Minimum of Logged Data				-0.045	Mean of logged Data						1.59
52	Maximum of Logged Data				3.752	SD of logged Data						0.589
53												
54	<b>Assuming Lognormal Distribution</b>											
55	95% H-UCL				6.283	90% Chebyshev (MVUE) UCL						6.582
56	95% Chebyshev (MVUE) UCL				6.923	97.5% Chebyshev (MVUE) UCL						7.397
57	99% Chebyshev (MVUE) UCL				8.328							
58												
59	<b>Nonparametric Distribution Free UCL Statistics</b>											
60	<b>Data appear to follow a Discernible Distribution at 5% Significance Level</b>											
61												
62	<b>Nonparametric Distribution Free UCLs</b>											
63	95% CLT UCL				6.51	95% Jackknife UCL						6.513
64	95% Standard Bootstrap UCL				6.495	95% Bootstrap-t UCL						6.616
65	95% Hall's Bootstrap UCL				6.685	95% Percentile Bootstrap UCL						6.548
66	95% BCA Bootstrap UCL				6.61							
67	90% Chebyshev(Mean, Sd) UCL				6.959	95% Chebyshev(Mean, Sd) UCL						7.408
68	97.5% Chebyshev(Mean, Sd) UCL				8.032	99% Chebyshev(Mean, Sd) UCL						9.258
69												
70	<b>Suggested UCL to Use</b>											
71	95% H-UCL				6.283							
72												
73	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
74	Recommendations are based upon data size, data distribution, and skewness.											
75	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
76	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
77												
78	<b>ProUCL computes and outputs H-statistic based UCLs for historical reasons only.</b>											
79	<b>H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.</b>											
80	<b>It is therefore recommended to avoid the use of H-statistic based 95% UCLs.</b>											
81	<b>Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.</b>											
82												

***APPENDIX E***  
***LEAD STATISTICAL ANALYSES***

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**Appendix E**  
**Linear Regression Analysis**  
**Supplemental Phase II Environmental Site Assessment**  
**San Diego, California**



$$y = mx + b$$

Where:

y = soluble lead by CA-WET (citric acid) (mg/l)

x = total lead concentration (mg/kg)

b = y-intercept = **0**

m = slope =  $(r \times s_t)/s_s = \mathbf{0.0404}$

Where:

r = correlation coefficient = **0.706**

$s_t$  = standard deviation of the total lead concentrations

$s_s$  = standard deviation of the soluble lead concentrations

	A	B	C	D	E	F	G	H	I	J	K	L
1					Outlier Tests for Selected Uncensored Variables							
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.11/26/2023 11:41:50 AM								
4				From File	WorkSheet.xls							
5				Full Precision	OFF							
6												
7												
8	Rosner's Outlier Test for Full Site											
9												
10												
11	Mean			86.25								
12	Standard Deviation			462.2								
13	Number of data			224								
14	Number of suspected outliers			1								
15												
16				Potential	Obs.	Test	Critical	Critical				
17	#	Mean	sd	outlier	Number	value	value (5%)	value (1%)				
18	1	86.25	461.1	5420	210	11.57	3.638	4.009				
19												
20	For 5% Significance Level, there is 1 Potential Outlier											
21	Potential outliers is: 5420											
22												
23	For 1% Significance Level, there is 1 Potential Outlier											
24	Potential outliers is: 5420											
25												

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Uncensored Full Data Sets											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.11/26/2023 11:24:19 AM								
5	From File			WorkSheet.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10												
11	1. Full Site											
12												
13	General Statistics											
14	Total Number of Observations					224	Number of Distinct Observations					200
15							Number of Missing Observations					0
16	Minimum					0.84	Mean					86.25
17	Maximum					5420	Median					10.95
18	SD					462.2	Std. Error of Mean					30.88
19	Coefficient of Variation					5.358	Skewness					8.979
20												
21	Normal GOF Test											
22	Shapiro Wilk Test Statistic					0.19	Shapiro Wilk GOF Test					
23	5% Shapiro Wilk P Value					0	Data Not Normal at 5% Significance Level					
24	Lilliefors Test Statistic					0.444	Lilliefors GOF Test					
25	5% Lilliefors Critical Value					0.0596	Data Not Normal at 5% Significance Level					
26	Data Not Normal at 5% Significance Level											
27												
28	Assuming Normal Distribution											
29	95% Normal UCL					95% UCLs (Adjusted for Skewness)						
30	95% Student's-t UCL					137.3	95% Adjusted-CLT UCL (Chen-1995)					156.8
31							95% Modified-t UCL (Johnson-1978)					140.3
32												
33	Gamma GOF Test											
34	A-D Test Statistic					38.55	Anderson-Darling Gamma GOF Test					
35	5% A-D Critical Value					0.853	Data Not Gamma Distributed at 5% Significance Level					
36	K-S Test Statistic					0.313	Kolmogorov-Smirnov Gamma GOF Test					
37	5% K-S Critical Value					0.0655	Data Not Gamma Distributed at 5% Significance Level					
38	Data Not Gamma Distributed at 5% Significance Level											
39												
40	Gamma Statistics											
41	k hat (MLE)					0.37	k star (bias corrected MLE)					0.368
42	Theta hat (MLE)					233.2	Theta star (bias corrected MLE)					234.4
43	nu hat (MLE)					165.7	nu star (bias corrected)					164.8
44	MLE Mean (bias corrected)					86.25	MLE Sd (bias corrected)					142.2
45							Approximate Chi Square Value (0.05)					136.2
46	Adjusted Level of Significance					0.0489	Adjusted Chi Square Value					136
47												
48	Assuming Gamma Distribution											
49	95% Approximate Gamma UCL (use when n>=50))					104.4	95% Adjusted Gamma UCL (use when n<50)					104.5
50												



	A	B	C	D	E	F	G	H	I	J	K	L
51	Lognormal GOF Test											
52	Shapiro Wilk Test Statistic					0.868	Shapiro Wilk Lognormal GOF Test					
53	5% Shapiro Wilk P Value					0	Data Not Lognormal at 5% Significance Level					
54	Lilliefors Test Statistic					0.117	Lilliefors Lognormal GOF Test					
55	5% Lilliefors Critical Value					0.0596	Data Not Lognormal at 5% Significance Level					
56	Data Not Lognormal at 5% Significance Level											
57												
58	Lognormal Statistics											
59	Minimum of Logged Data					-0.174	Mean of logged Data					2.656
60	Maximum of Logged Data					8.598	SD of logged Data					1.263
61												
62	Assuming Lognormal Distribution											
63	95% H-UCL					38.69	90% Chebyshev (MVUE) UCL					41.92
64	95% Chebyshev (MVUE) UCL					46.68	97.5% Chebyshev (MVUE) UCL					53.28
65	99% Chebyshev (MVUE) UCL					66.25						
66												
67	Nonparametric Distribution Free UCL Statistics											
68	Data do not follow a Discernible Distribution (0.05)											
69												
70	Nonparametric Distribution Free UCLs											
71	95% CLT UCL					137	95% Jackknife UCL					137.3
72	95% Standard Bootstrap UCL					137	95% Bootstrap-t UCL					202.9
73	95% Hall's Bootstrap UCL					298.3	95% Percentile Bootstrap UCL					141.8
74	95% BCA Bootstrap UCL					166.6						
75	90% Chebyshev(Mean, Sd) UCL					178.9	95% Chebyshev(Mean, Sd) UCL					220.8
76	97.5% Chebyshev(Mean, Sd) UCL					279.1	99% Chebyshev(Mean, Sd) UCL					393.5
77												
78	Suggested UCL to Use											
79	95% Chebyshev (Mean, Sd) UCL					220.8						
80												
81	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
82	Recommendations are based upon data size, data distribution, and skewness.											
83	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
84	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
85												
86												
87	1a. Full Site											
88												
89	General Statistics											
90	Total Number of Observations					216	Number of Distinct Observations					192
91							Number of Missing Observations					0
92	Minimum					0.84	Mean					19.79
93	Maximum					215	Median					10.5
94	SD					27.85	Std. Error of Mean					1.895
95	Coefficient of Variation					1.408	Skewness					4.064
96												
97	Normal GOF Test											
98	Shapiro Wilk Test Statistic					0.566	Shapiro Wilk GOF Test					
99	5% Shapiro Wilk P Value					0	Data Not Normal at 5% Significance Level					
100	Lilliefors Test Statistic					0.258	Lilliefors GOF Test					

	A	B	C	D	E	F	G	H	I	J	K	L	
101	5% Lilliefors Critical Value					0.0607	Data Not Normal at 5% Significance Level						
102	Data Not Normal at 5% Significance Level												
103													
104	Assuming Normal Distribution												
105	95% Normal UCL						95% UCLs (Adjusted for Skewness)						
106	95% Student's-t UCL					22.92	95% Adjusted-CLT UCL (Chen-1995)					23.46	
107							95% Modified-t UCL (Johnson-1978)					23	
108													
109	Gamma GOF Test												
110	A-D Test Statistic					7.263	Anderson-Darling Gamma GOF Test						
111	5% A-D Critical Value					0.78	Data Not Gamma Distributed at 5% Significance Level						
112	K-S Test Statistic					0.134	Kolmogorov-Smirnov Gamma GOF Test						
113	5% K-S Critical Value					0.0634	Data Not Gamma Distributed at 5% Significance Level						
114	Data Not Gamma Distributed at 5% Significance Level												
115													
116	Gamma Statistics												
117	k hat (MLE)					1.15	k star (bias corrected MLE)					1.137	
118	Theta hat (MLE)					17.21	Theta star (bias corrected MLE)					17.4	
119	nu hat (MLE)					496.7	nu star (bias corrected)					491.2	
120	MLE Mean (bias corrected)					19.79	MLE Sd (bias corrected)					18.56	
121							Approximate Chi Square Value (0.05)					440.8	
122	Adjusted Level of Significance					0.0489	Adjusted Chi Square Value					440.5	
123													
124	Assuming Gamma Distribution												
125	95% Approximate Gamma UCL (use when n>=50))					22.05	95% Adjusted Gamma UCL (use when n<50)					22.06	
126													
127	Lognormal GOF Test												
128	Shapiro Wilk Test Statistic					0.973	Shapiro Wilk Lognormal GOF Test						
129	5% Shapiro Wilk P Value					0.0376	Data Not Lognormal at 5% Significance Level						
130	Lilliefors Test Statistic					0.0665	Lilliefors Lognormal GOF Test						
131	5% Lilliefors Critical Value					0.0607	Data Not Lognormal at 5% Significance Level						
132	Data Not Lognormal at 5% Significance Level												
133													
134	Lognormal Statistics												
135	Minimum of Logged Data					-0.174	Mean of logged Data					2.491	
136	Maximum of Logged Data					5.371	SD of logged Data					0.923	
137													
138	Assuming Lognormal Distribution												
139	95% H-UCL					21.07	90% Chebyshev (MVUE) UCL					22.54	
140	95% Chebyshev (MVUE) UCL					24.4	97.5% Chebyshev (MVUE) UCL					26.98	
141	99% Chebyshev (MVUE) UCL					32.06							
142													
143	Nonparametric Distribution Free UCL Statistics												
144	Data do not follow a Discernible Distribution (0.05)												
145													
146	Nonparametric Distribution Free UCLs												
147	95% CLT UCL					22.9	95% Jackknife UCL					22.92	
148	95% Standard Bootstrap UCL					22.89	95% Bootstrap-t UCL					23.6	
149	95% Hall's Bootstrap UCL					23.87	95% Percentile Bootstrap UCL					22.96	
150	95% BCA Bootstrap UCL					23.76							

	A	B	C	D	E	F	G	H	I	J	K	L
151	90% Chebyshev(Mean, Sd) UCL					25.47	95% Chebyshev(Mean, Sd) UCL					28.05
152	97.5% Chebyshev(Mean, Sd) UCL					31.62	99% Chebyshev(Mean, Sd) UCL					38.64
153												
154	Suggested UCL to Use											
155	95% Chebyshev (Mean, Sd) UCL					28.05						
156												
157	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
158	Recommendations are based upon data size, data distribution, and skewness.											
159	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
160	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
161												
162												
163	1b. Full Site											
164												
165	General Statistics											
166	Total Number of Observations					208	Number of Distinct Observations					184
167							Number of Missing Observations					0
168	Minimum					0.84	Mean					17.03
169	Maximum					215	Median					10.2
170	SD					23.65	Std. Error of Mean					1.64
171	Coefficient of Variation					1.389	Skewness					5.353
172												
173	Normal GOF Test											
174	Shapiro Wilk Test Statistic					0.522	Shapiro Wilk GOF Test					
175	5% Shapiro Wilk P Value					0	Data Not Normal at 5% Significance Level					
176	Lilliefors Test Statistic					0.26	Lilliefors GOF Test					
177	5% Lilliefors Critical Value					0.0619	Data Not Normal at 5% Significance Level					
178	Data Not Normal at 5% Significance Level											
179												
180	Assuming Normal Distribution											
181	95% Normal UCL						95% UCLs (Adjusted for Skewness)					
182	95% Student's-t UCL					19.74	95% Adjusted-CLT UCL (Chen-1995)					20.38
183							95% Modified-t UCL (Johnson-1978)					19.84
184												
185	Gamma GOF Test											
186	A-D Test Statistic					5.23	Anderson-Darling Gamma GOF Test					
187	5% A-D Critical Value					0.776	Data Not Gamma Distributed at 5% Significance Level					
188	K-S Test Statistic					0.119	Kolmogorov-Smirnov Gamma GOF Test					
189	5% K-S Critical Value					0.0641	Data Not Gamma Distributed at 5% Significance Level					
190	Data Not Gamma Distributed at 5% Significance Level											
191												
192	Gamma Statistics											
193	k hat (MLE)					1.332	k star (bias corrected MLE)					1.316
194	Theta hat (MLE)					12.78	Theta star (bias corrected MLE)					12.94
195	nu hat (MLE)					554.3	nu star (bias corrected)					547.6
196	MLE Mean (bias corrected)					17.03	MLE Sd (bias corrected)					14.84
197							Approximate Chi Square Value (0.05)					494.3
198	Adjusted Level of Significance					0.0488	Adjusted Chi Square Value					494
199												
200	Assuming Gamma Distribution											

	A	B	C	D	E	F	G	H	I	J	K	L
201	95% Approximate Gamma UCL (use when n>=50))					18.86	95% Adjusted Gamma UCL (use when n<50)					18.88
202												
203	Lognormal GOF Test											
204	Shapiro Wilk Test Statistic					0.982	Shapiro Wilk Lognormal GOF Test					
205	5% Shapiro Wilk P Value					0.466	Data appear Lognormal at 5% Significance Level					
206	Lilliefors Test Statistic					0.055	Lilliefors Lognormal GOF Test					
207	5% Lilliefors Critical Value					0.0619	Data appear Lognormal at 5% Significance Level					
208	Data appear Lognormal at 5% Significance Level											
209												
210	Lognormal Statistics											
211	Minimum of Logged Data					-0.174	Mean of logged Data					2.415
212	Maximum of Logged Data					5.371	SD of logged Data					0.851
213												
214	Assuming Lognormal Distribution											
215	95% H-UCL					18.12	90% Chebyshev (MVUE) UCL					19.33
216	95% Chebyshev (MVUE) UCL					20.82	97.5% Chebyshev (MVUE) UCL					22.88
217	99% Chebyshev (MVUE) UCL					26.95						
218												
219	Nonparametric Distribution Free UCL Statistics											
220	Data appear to follow a Discernible Distribution at 5% Significance Level											
221												
222	Nonparametric Distribution Free UCLs											
223	95% CLT UCL					19.73	95% Jackknife UCL					19.74
224	95% Standard Bootstrap UCL					19.71	95% Bootstrap-t UCL					20.64
225	95% Hall's Bootstrap UCL					20.81	95% Percentile Bootstrap UCL					19.79
226	95% BCA Bootstrap UCL					20.71						
227	90% Chebyshev(Mean, Sd) UCL					21.95	95% Chebyshev(Mean, Sd) UCL					24.18
228	97.5% Chebyshev(Mean, Sd) UCL					27.27	99% Chebyshev(Mean, Sd) UCL					33.34
229												
230	Suggested UCL to Use											
231	95% H-UCL					18.12						
232												
233	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
234	Recommendations are based upon data size, data distribution, and skewness.											
235	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
236	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
237												
238	ProUCL computes and outputs H-statistic based UCLs for historical reasons only.											
239	H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.											
240	It is therefore recommended to avoid the use of H-statistic based 95% UCLs.											
241	Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.											
242												
243												
244	2. North Side											
245												
246	General Statistics											
247	Total Number of Observations					56	Number of Distinct Observations					53
248							Number of Missing Observations					0
249	Minimum					2.51	Mean					14.33
250	Maximum					242	Median					7.39

[illegible]

	A	B	C	D	E	F	G	H	I	J	K	L
301	Data appear to follow a Discernible Distribution at 5% Significance Level											
302												
303	Nonparametric Distribution Free UCLs											
304	95% CLT UCL				21.48	95% Jackknife UCL				21.6		
305	95% Standard Bootstrap UCL				21.29	95% Bootstrap-t UCL				39.51		
306	95% Hall's Bootstrap UCL				45.02	95% Percentile Bootstrap UCL				22.68		
307	95% BCA Bootstrap UCL				27.58							
308	90% Chebyshev(Mean, Sd) UCL				27.37	95% Chebyshev(Mean, Sd) UCL				33.28		
309	97.5% Chebyshev(Mean, Sd) UCL				41.47	99% Chebyshev(Mean, Sd) UCL				57.57		
310												
311	Suggested UCL to Use											
312	95% H-UCL				14.84							
313												
314	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
315	Recommendations are based upon data size, data distribution, and skewness.											
316	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
317	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
318												
319	ProUCL computes and outputs H-statistic based UCLs for historical reasons only.											
320	H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.											
321	It is therefore recommended to avoid the use of H-statistic based 95% UCLs.											
322	Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.											
323												
324												
325	2a. North Side											
326												
327	General Statistics											
328	Total Number of Observations				55	Number of Distinct Observations				52		
329						Number of Missing Observations				0		
330	Minimum				2.51	Mean				10.19		
331	Maximum				54	Median				7.17		
332	SD				9.993	Std. Error of Mean				1.347		
333	Coefficient of Variation				0.98	Skewness				3.054		
334												
335	Normal GOF Test											
336	Shapiro Wilk Test Statistic				0.656	Shapiro Wilk GOF Test						
337	5% Shapiro Wilk P Value				6.661E-16	Data Not Normal at 5% Significance Level						
338	Lilliefors Test Statistic				0.223	Lilliefors GOF Test						
339	5% Lilliefors Critical Value				0.119	Data Not Normal at 5% Significance Level						
340	Data Not Normal at 5% Significance Level											
341												
342	Assuming Normal Distribution											
343	95% Normal UCL					95% UCLs (Adjusted for Skewness)						
344	95% Student's-t UCL				12.45	95% Adjusted-CLT UCL (Chen-1995)				13		
345						95% Modified-t UCL (Johnson-1978)				12.54		
346												
347	Gamma GOF Test											
348	A-D Test Statistic				1.428	Anderson-Darling Gamma GOF Test						
349	5% A-D Critical Value				0.764	Data Not Gamma Distributed at 5% Significance Level						
350	K-S Test Statistic				0.122	Kolmogorov-Smirnov Gamma GOF Test						

	A	B	C	D	E	F	G	H	I	J	K	L
351	5% K-S Critical Value				0.122	Data Not Gamma Distributed at 5% Significance Level						
352	Data Not Gamma Distributed at 5% Significance Level											
353												
354	Gamma Statistics											
355	k hat (MLE)				1.906	k star (bias corrected MLE)						1.814
356	Theta hat (MLE)				5.348	Theta star (bias corrected MLE)						5.619
357	nu hat (MLE)				209.7	nu star (bias corrected)						199.6
358	MLE Mean (bias corrected)				10.19	MLE Sd (bias corrected)						7.568
359						Approximate Chi Square Value (0.05)						167.9
360	Adjusted Level of Significance				0.0456	Adjusted Chi Square Value						167.1
361												
362	Assuming Gamma Distribution											
363	95% Approximate Gamma UCL (use when n>=50))				12.12	95% Adjusted Gamma UCL (use when n<50)						12.17
364												
365	Lognormal GOF Test											
366	Shapiro Wilk Test Statistic				0.953	Shapiro Wilk Lognormal GOF Test						
367	5% Shapiro Wilk P Value				0.057	Data appear Lognormal at 5% Significance Level						
368	Lilliefors Test Statistic				0.0796	Lilliefors Lognormal GOF Test						
369	5% Lilliefors Critical Value				0.119	Data appear Lognormal at 5% Significance Level						
370	Data appear Lognormal at 5% Significance Level											
371												
372	Lognormal Statistics											
373	Minimum of Logged Data				0.92	Mean of logged Data						2.037
374	Maximum of Logged Data				3.989	SD of logged Data						0.71
375												
376	Assuming Lognormal Distribution											
377	95% H-UCL				12.01	90% Chebyshev (MVUE) UCL						12.9
378	95% Chebyshev (MVUE) UCL				14.3	97.5% Chebyshev (MVUE) UCL						16.25
379	99% Chebyshev (MVUE) UCL				20.06							
380												
381	Nonparametric Distribution Free UCL Statistics											
382	Data appear to follow a Discernible Distribution at 5% Significance Level											
383												
384	Nonparametric Distribution Free UCLs											
385	95% CLT UCL				12.41	95% Jackknife UCL						12.45
386	95% Standard Bootstrap UCL				12.37	95% Bootstrap-t UCL						13.71
387	95% Hall's Bootstrap UCL				15.34	95% Percentile Bootstrap UCL						12.5
388	95% BCA Bootstrap UCL				13.23							
389	90% Chebyshev(Mean, Sd) UCL				14.24	95% Chebyshev(Mean, Sd) UCL						16.07
390	97.5% Chebyshev(Mean, Sd) UCL				18.61	99% Chebyshev(Mean, Sd) UCL						23.6
391												
392	Suggested UCL to Use											
393	95% H-UCL				12.01							
394												
395	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
396	Recommendations are based upon data size, data distribution, and skewness.											
397	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
398	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
399												
400	ProUCL computes and outputs H-statistic based UCLs for historical reasons only.											

	A	B	C	D	E	F	G	H	I	J	K	L
401	H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.											
402	It is therefore recommended to avoid the use of H-statistic based 95% UCLs.											
403	Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.											
404												
405												
406	2b. North Side											
407												
408	General Statistics											
409	Total Number of Observations				55		Number of Distinct Observations				52	
410							Number of Missing Observations				0	
411	Minimum				2.51		Mean				10.19	
412	Maximum				54		Median				7.17	
413	SD				9.993		Std. Error of Mean				1.347	
414	Coefficient of Variation				0.98		Skewness				3.054	
415												
416	Normal GOF Test											
417	Shapiro Wilk Test Statistic				0.656		Shapiro Wilk GOF Test					
418	5% Shapiro Wilk P Value				6.661E-16		Data Not Normal at 5% Significance Level					
419	Lilliefors Test Statistic				0.223		Lilliefors GOF Test					
420	5% Lilliefors Critical Value				0.119		Data Not Normal at 5% Significance Level					
421	Data Not Normal at 5% Significance Level											
422												
423	Assuming Normal Distribution											
424	95% Normal UCL						95% UCLs (Adjusted for Skewness)					
425	95% Student's-t UCL				12.45		95% Adjusted-CLT UCL (Chen-1995)				13	
426							95% Modified-t UCL (Johnson-1978)				12.54	
427												
428	Gamma GOF Test											
429	A-D Test Statistic				1.428		Anderson-Darling Gamma GOF Test					
430	5% A-D Critical Value				0.764		Data Not Gamma Distributed at 5% Significance Level					
431	K-S Test Statistic				0.122		Kolmogorov-Smirnov Gamma GOF Test					
432	5% K-S Critical Value				0.122		Data Not Gamma Distributed at 5% Significance Level					
433	Data Not Gamma Distributed at 5% Significance Level											
434												
435	Gamma Statistics											
436	k hat (MLE)				1.906		k star (bias corrected MLE)				1.814	
437	Theta hat (MLE)				5.348		Theta star (bias corrected MLE)				5.619	
438	nu hat (MLE)				209.7		nu star (bias corrected)				199.6	
439	MLE Mean (bias corrected)				10.19		MLE Sd (bias corrected)				7.568	
440							Approximate Chi Square Value (0.05)				167.9	
441	Adjusted Level of Significance				0.0456		Adjusted Chi Square Value				167.1	
442												
443	Assuming Gamma Distribution											
444	95% Approximate Gamma UCL (use when n>=50))				12.12		95% Adjusted Gamma UCL (use when n<50)				12.17	
445												
446	Lognormal GOF Test											
447	Shapiro Wilk Test Statistic				0.953		Shapiro Wilk Lognormal GOF Test					
448	5% Shapiro Wilk P Value				0.057		Data appear Lognormal at 5% Significance Level					
449	Lilliefors Test Statistic				0.0796		Lilliefors Lognormal GOF Test					
450	5% Lilliefors Critical Value				0.119		Data appear Lognormal at 5% Significance Level					



	A	B	C	D	E	F	G	H	I	J	K	L
451	Data appear Lognormal at 5% Significance Level											
452												
453	Lognormal Statistics											
454	Minimum of Logged Data				0.92		Mean of logged Data				2.037	
455	Maximum of Logged Data				3.989		SD of logged Data				0.71	
456												
457	Assuming Lognormal Distribution											
458	95% H-UCL				12.01		90% Chebyshev (MVUE) UCL				12.9	
459	95% Chebyshev (MVUE) UCL				14.3		97.5% Chebyshev (MVUE) UCL				16.25	
460	99% Chebyshev (MVUE) UCL				20.06							
461												
462	Nonparametric Distribution Free UCL Statistics											
463	Data appear to follow a Discernible Distribution at 5% Significance Level											
464												
465	Nonparametric Distribution Free UCLs											
466	95% CLT UCL				12.41		95% Jackknife UCL				12.45	
467	95% Standard Bootstrap UCL				12.45		95% Bootstrap-t UCL				13.86	
468	95% Hall's Bootstrap UCL				15.1		95% Percentile Bootstrap UCL				12.49	
469	95% BCA Bootstrap UCL				13.31							
470	90% Chebyshev(Mean, Sd) UCL				14.24		95% Chebyshev(Mean, Sd) UCL				16.07	
471	97.5% Chebyshev(Mean, Sd) UCL				18.61		99% Chebyshev(Mean, Sd) UCL				23.6	
472												
473	Suggested UCL to Use											
474	95% H-UCL				12.01							
475												
476	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
477	Recommendations are based upon data size, data distribution, and skewness.											
478	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
479	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
480												
481	ProUCL computes and outputs H-statistic based UCLs for historical reasons only.											
482	H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.											
483	It is therefore recommended to avoid the use of H-statistic based 95% UCLs.											
484	Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.											
485												
486												
487	3. South Side											
488												
489	General Statistics											
490	Total Number of Observations				168		Number of Distinct Observations				155	
491							Number of Missing Observations				0	
492	Minimum				0.84		Mean				110.2	
493	Maximum				5420		Median				13.5	
494	SD				531.6		Std. Error of Mean				41.01	
495	Coefficient of Variation				4.823		Skewness				7.768	
496												
497	Normal GOF Test											
498	Shapiro Wilk Test Statistic				0.217		Shapiro Wilk GOF Test					
499	5% Shapiro Wilk P Value				0		Data Not Normal at 5% Significance Level					
500	Lilliefors Test Statistic				0.443		Lilliefors GOF Test					

	A	B	C	D	E	F	G	H	I	J	K	L	
501	5% Lilliefors Critical Value					0.0688	Data Not Normal at 5% Significance Level						
502	Data Not Normal at 5% Significance Level												
503													
504	Assuming Normal Distribution												
505	95% Normal UCL						95% UCLs (Adjusted for Skewness)						
506	95% Student's-t UCL					178.1	95% Adjusted-CLT UCL (Chen-1995)					203.9	
507							95% Modified-t UCL (Johnson-1978)					182.1	
508													
509	Gamma GOF Test												
510	A-D Test Statistic					28.88	Anderson-Darling Gamma GOF Test						
511	5% A-D Critical Value					0.854	Data Not Gamma Distributed at 5% Significance Level						
512	K-S Test Statistic					0.312	Kolmogorov-Smirnov Gamma GOF Test						
513	5% K-S Critical Value					0.0775	Data Not Gamma Distributed at 5% Significance Level						
514	Data Not Gamma Distributed at 5% Significance Level												
515													
516	Gamma Statistics												
517	k hat (MLE)					0.36	k star (bias corrected MLE)					0.357	
518	Theta hat (MLE)					306.4	Theta star (bias corrected MLE)					308.5	
519	nu hat (MLE)					120.9	nu star (bias corrected)					120	
520	MLE Mean (bias corrected)					110.2	MLE Sd (bias corrected)					184.4	
521							Approximate Chi Square Value (0.05)				95.74		
522	Adjusted Level of Significance					0.0486	Adjusted Chi Square Value					95.55	
523													
524	Assuming Gamma Distribution												
525	95% Approximate Gamma UCL (use when n>=50))					138.2	95% Adjusted Gamma UCL (use when n<50)					138.5	
526													
527	Lognormal GOF Test												
528	Shapiro Wilk Test Statistic					0.868	Shapiro Wilk Lognormal GOF Test						
529	5% Shapiro Wilk P Value					0	Data Not Lognormal at 5% Significance Level						
530	Lilliefors Test Statistic					0.132	Lilliefors Lognormal GOF Test						
531	5% Lilliefors Critical Value					0.0688	Data Not Lognormal at 5% Significance Level						
532	Data Not Lognormal at 5% Significance Level												
533													
534	Lognormal Statistics												
535	Minimum of Logged Data					-0.174	Mean of logged Data					2.841	
536	Maximum of Logged Data					8.598	SD of logged Data					1.327	
537													
538	Assuming Lognormal Distribution												
539	95% H-UCL					53.22	90% Chebyshev (MVUE) UCL					57.74	
540	95% Chebyshev (MVUE) UCL					65.37	97.5% Chebyshev (MVUE) UCL					75.94	
541	99% Chebyshev (MVUE) UCL					96.72							
542													
543	Nonparametric Distribution Free UCL Statistics												
544	Data do not follow a Discernible Distribution (0.05)												
545													
546	Nonparametric Distribution Free UCLs												
547	95% CLT UCL					177.7	95% Jackknife UCL					178.1	
548	95% Standard Bootstrap UCL					178.2	95% Bootstrap-t UCL					267.5	
549	95% Hall's Bootstrap UCL					390.4	95% Percentile Bootstrap UCL					185.2	
550	95% BCA Bootstrap UCL					214							

	A	B	C	D	E	F	G	H	I	J	K	L
551	90% Chebyshev(Mean, Sd) UCL					233.3	95% Chebyshev(Mean, Sd) UCL					289
552	97.5% Chebyshev(Mean, Sd) UCL					366.3	99% Chebyshev(Mean, Sd) UCL					518.3
553												
554	Suggested UCL to Use											
555	95% Chebyshev (Mean, Sd) UCL					289						
556												
557	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
558	Recommendations are based upon data size, data distribution, and skewness.											
559	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
560	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
561												
562												
563	3a. South Side											
564												
565	General Statistics											
566	Total Number of Observations					161	Number of Distinct Observations					148
567							Number of Missing Observations					0
568	Minimum					0.84	Mean					23.06
569	Maximum					215	Median					12.7
570	SD					31.09	Std. Error of Mean					2.45
571	Coefficient of Variation					1.348	Skewness					3.629
572												
573	Normal GOF Test											
574	Shapiro Wilk Test Statistic					0.594	Shapiro Wilk GOF Test					
575	5% Shapiro Wilk P Value					0	Data Not Normal at 5% Significance Level					
576	Lilliefors Test Statistic					0.251	Lilliefors GOF Test					
577	5% Lilliefors Critical Value					0.0702	Data Not Normal at 5% Significance Level					
578	Data Not Normal at 5% Significance Level											
579												
580	Assuming Normal Distribution											
581	95% Normal UCL						95% UCLs (Adjusted for Skewness)					
582	95% Student's-t UCL					27.12	95% Adjusted-CLT UCL (Chen-1995)					27.84
583							95% Modified-t UCL (Johnson-1978)					27.23
584												
585	Gamma GOF Test											
586	A-D Test Statistic					4.979	Anderson-Darling Gamma GOF Test					
587	5% A-D Critical Value					0.78	Data Not Gamma Distributed at 5% Significance Level					
588	K-S Test Statistic					0.12	Kolmogorov-Smirnov Gamma GOF Test					
589	5% K-S Critical Value					0.0756	Data Not Gamma Distributed at 5% Significance Level					
590	Data Not Gamma Distributed at 5% Significance Level											
591												
592	Gamma Statistics											
593	k hat (MLE)					1.154	k star (bias corrected MLE)					1.136
594	Theta hat (MLE)					19.99	Theta star (bias corrected MLE)					20.3
595	nu hat (MLE)					371.4	nu star (bias corrected)					365.9
596	MLE Mean (bias corrected)					23.06	MLE Sd (bias corrected)					21.64
597							Approximate Chi Square Value (0.05)					322.5
598	Adjusted Level of Significance					0.0485	Adjusted Chi Square Value					322.2
599												
600	Assuming Gamma Distribution											

	A	B	C	D	E	F	G	H	I	J	K	L
601	95% Approximate Gamma UCL (use when n>=50))					26.16	95% Adjusted Gamma UCL (use when n<50)					26.19
602												
603	Lognormal GOF Test											
604	Shapiro Wilk Test Statistic					0.978	Shapiro Wilk Lognormal GOF Test					
605	5% Shapiro Wilk P Value					0.276	Data appear Lognormal at 5% Significance Level					
606	Lilliefors Test Statistic					0.0612	Lilliefors Lognormal GOF Test					
607	5% Lilliefors Critical Value					0.0702	Data appear Lognormal at 5% Significance Level					
608	Data appear Lognormal at 5% Significance Level											
609												
610	Lognormal Statistics											
611	Minimum of Logged Data					-0.174	Mean of logged Data					2.646
612	Maximum of Logged Data					5.371	SD of logged Data					0.938
613												
614	Assuming Lognormal Distribution											
615	95% H-UCL					25.58	90% Chebyshev (MVUE) UCL					27.53
616	95% Chebyshev (MVUE) UCL					30.12	97.5% Chebyshev (MVUE) UCL					33.73
617	99% Chebyshev (MVUE) UCL					40.81						
618												
619	Nonparametric Distribution Free UCL Statistics											
620	Data appear to follow a Discernible Distribution at 5% Significance Level											
621												
622	Nonparametric Distribution Free UCLs											
623	95% CLT UCL					27.09	95% Jackknife UCL					27.12
624	95% Standard Bootstrap UCL					27.04	95% Bootstrap-t UCL					28.1
625	95% Hall's Bootstrap UCL					28.1	95% Percentile Bootstrap UCL					27.21
626	95% BCA Bootstrap UCL					27.65						
627	90% Chebyshev(Mean, Sd) UCL					30.41	95% Chebyshev(Mean, Sd) UCL					33.74
628	97.5% Chebyshev(Mean, Sd) UCL					38.36	99% Chebyshev(Mean, Sd) UCL					47.44
629												
630	Suggested UCL to Use											
631	95% H-UCL					25.58						
632												
633	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
634	Recommendations are based upon data size, data distribution, and skewness.											
635	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
636	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
637												
638	ProUCL computes and outputs H-statistic based UCLs for historical reasons only.											
639	H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.											
640	It is therefore recommended to avoid the use of H-statistic based 95% UCLs.											
641	Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.											
642												
643												
644	3b. South Side											
645												
646	General Statistics											
647	Total Number of Observations					153	Number of Distinct Observations					140
648							Number of Missing Observations					0
649	Minimum					0.84	Mean					19.49
650	Maximum					215	Median					11.8

[illegible]

	A	B	C	D	E	F	G	H	I	J	K	L
701	Data appear to follow a Discernible Distribution at 5% Significance Level											
702												
703	Nonparametric Distribution Free UCLs											
704	95% CLT UCL				23.01	95% Jackknife UCL					23.03	
705	95% Standard Bootstrap UCL				23.06	95% Bootstrap-t UCL					24.75	
706	95% Hall's Bootstrap UCL				25.78	95% Percentile Bootstrap UCL					23.23	
707	95% BCA Bootstrap UCL				24.04							
708	90% Chebyshev(Mean, Sd) UCL				25.92	95% Chebyshev(Mean, Sd) UCL					28.83	
709	97.5% Chebyshev(Mean, Sd) UCL				32.87	99% Chebyshev(Mean, Sd) UCL					40.81	
710												
711	Suggested UCL to Use											
712	95% H-UCL				21.43							
713												
714	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
715	Recommendations are based upon data size, data distribution, and skewness.											
716	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
717	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
718												
719	ProUCL computes and outputs H-statistic based UCLs for historical reasons only.											
720	H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.											
721	It is therefore recommended to avoid the use of H-statistic based 95% UCLs.											
722	Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.											
723												

***APPENDIX F***  
***DATA VALIDATION REVIEW OF SOIL ANALYSES***

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# Technical Memorandum

January 31, 2023

**From:** Group Delta Consultants, Inc.

**Subject:** Data Validation Review of Soil Analyses  
UCSD Science Research Park

---

## **Data Validation Review of Soil Analyses**

Group Delta performed a data validation review for the soil samples analyzed during the initial phase including six borings completed between October 13 and 14, 2022, and supplemental phase of including another 50 borings completed between December 12 and 22, 2022. Quality assurance/quality control (QA/QC) procedures were implemented to ensure the quality, accuracy, and overall reliability of the soil analytical results.

Laboratory data quality was evaluated in accordance with the National Functional Guidelines for Organic Superfund Methods Data Review (EPA, 2017A) and the National Functional Guidelines for Inorganic Superfund Methods Data Review (EPA, 2017B). Laboratory QA/QC measures include the use of surrogates, method blanks, laboratory control samples (LCS), laboratory control sample duplicates (LCSD), matrix spikes (MS), and matrix spike duplicates (MSD). The quality assurance sample results reported by the laboratory were reviewed and are discussed below:

**Surrogates:** The soil samples were spiked with surrogate compounds to evaluate laboratory data quality. The percent recovery of the surrogate compounds was compared against laboratory acceptable limits. The percent recovery of surrogate compounds was within laboratory acceptance limits for all analytical methods except for the following:

- Method 8015B (sample date December 16, 2022): Surrogate recovery for the following sample was outside control limits: B-37@30' (570-121270-21). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

**Method Blanks:** Method blanks were analyzed for each of the EPA methods used during the investigation to test for cross-contamination in the laboratory. No constituents were detected in any of the method blank samples indicating no cross-contamination during laboratory analysis of the soil samples except for the following:

- Method 6010B (sample date October 13, 2022): The method blank for preparation batch 570-273093 and analytical batch 570-273818 contained vanadium above the method detection limit. This target analyte concentration was less than the reporting limit (RL) or greater than 10X the value found in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.



- Method 8015B (sample date October 14, 2022): The method blank for preparation batch 570-274009 and analytical batch 570-274089 contained C4-C12 and C4-C13 above the method detection limit. This target analyte concentration was less than the RL or greater than 10X the value found in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.
- Method 6010B (sample date October 14, 2022): The method blank for preparation batch 570-273864 and analytical batch 570-274130 contained chromium and nickel above the method detection limit. These target analytes concentrations were less than the RL; therefore, re-extraction and/or re-analysis of samples were not performed.
- Method 6010B (sample date December 12, 2022): The method blank for preparation batch 570-289211 and analytical batch 570-289520 contained chromium above the method detection limit. This target analyte concentration was less than the RL or greater than 10X the value found in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.
- Method 6010B (sample date December 13, 2022): The method blank for preparation batch 570-289221 and analytical batch 570-289521 contained chromium above the method detection limit. This target analyte concentration was less than the RL or greater than 10X the value found in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.
- Method 6010B (sample date December 14, 2022): The method blank for preparation batch 570-289631 and analytical batch 570-290332 contained barium above the method detection limit. This target analyte concentration was less than the RL or greater than 10X the value found in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.
- Method 6010B (sample date December 14, 2022): The method blank for preparation batch 570-289631 and analytical batch 570-290654 contained barium above the method detection limit. This target analyte concentration was less than the RL; therefore, re-extraction and/or re-analysis of samples was not performed.
- Method 6010B (sample date December 20, 2022): The method blank for preparation batch 570-292465 and analytical batch 570-292907 contained barium above the method detection limit. This target analyte concentration was less than the RL; therefore, re-extraction and/or re-analysis of samples was not performed.

LCS/LCSD: Laboratory control samples and duplicates containing known concentrations of target compounds were analyzed for each analytical method. The percent recovery of the target compounds was compared against laboratory acceptance limits. The relative percent difference between the control sample and duplicate sample results was also compared against laboratory acceptance limits. The percent recovery and relative percent difference of target compounds in the LCS and LCSD samples were within laboratory acceptance limits for all analytical methods tested except the following:

- Method 6010B (sample date October 13, 2022): The LCS and/or LCSD for preparation batch 570-273093 and analytical batch 570-273818 recovered outside control limits for antimony. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

MS/MSD: Select soil samples were spiked with known concentrations of target compounds. The percent recovery of the target compounds and the relative percent difference between the MS and MSD results were compared against laboratory acceptance limits. The percent recovery and relative percent difference of target compounds in the MS and MSD samples were within laboratory acceptance limits except for the following:

- Method 6010B (sample date October 13, 2022): The MS/MSD recoveries of antimony for preparation batch 570-273093 and analytical batch 570-273818 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery was within acceptance limits.
- Method 6010B (sample date October 13, 2022): The MS/MSD recoveries of barium and antimony for preparation batch 570-273094 and analytical batch 570-273334 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery was within acceptance limits.
- Method 8015B (sample date October 14, 2022): The native sample, MS, and MSD associated with preparation batch 570-274356 and analytical batch 570-274304 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of TPH as Diesel (C13-C22) and TPH as Diesel (C10-C28) in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.
- Method 6010B (sample date October 14, 2022): The MS/MSD recoveries of antimony for preparation batch 570-273864 and analytical batch 570-274130 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery was within acceptance limits.
- Method 6010B (sample date October 14, 2022): The MS/MSD recoveries of copper, lead, antimony, selenium, and zinc for preparation batch 570-274247 and analytical batch 570-274780 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery was within acceptance limits.
- Method 6010B (sample date October 14, 2022): The MS/MSD recoveries of antimony and selenium for preparation batch 570-273880 and analytical batch 570-275325 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery was within acceptance limits.
- Method 8015B (sample date December 12, 2022): The MS/MSD recoveries of Gasoline Range Organics (C4-C13) for preparation batch 570-288913 and analytical batch 570-288885 were outside control limits for one or more analytes. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery is within acceptance limits.

- Method 6010B (sample date December 12, 2022): The MS/MSD recoveries of barium, antimony, vanadium and zinc for preparation batch 570-289211 and analytical batch 570-289520 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery was within acceptance limits.
- Method 6010B (sample date December 12, 2022): The MS/MSD recoveries of antimony for preparation batch 570-289212 and analytical batch 570-289910 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery was within acceptance limits.
- Method 8015B (sample date December 13, 2022): The MS/MSD precision for preparation batch 570-289299 and analytical batch 570-289480 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS/LCSD precision was within acceptance limits.
- Method 6010B (sample date December 13, 2022): The MS/MSD recoveries of antimony for preparation batch 570-289571 and analytical batch 570-289919 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery was within acceptance limits.
- Method 6010B (sample date December 13, 2022): The MS/MSD recoveries of barium and antimony for preparation batch 570-289221 and analytical batch 570-289521 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery was within acceptance limits.
- Method 6010B (sample date December 14, 2022): The MS/MSD recoveries of antimony for preparation batch 570-289571 and analytical batch 570-289919 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery was within acceptance limits.
- Method 6010B (sample date December 14, 2022): The MS/MSD recoveries of antimony for preparation batch 570-289631 and analytical batch 570-290332 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery was within acceptance limits.
- Method 6010B (sample date December 14, 2022): The MS/MSD recoveries and precision of antimony and lead for preparation batch 570-289576 and analytical batch 570-290646 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS/LCSD precision was within acceptance limits.
- Method 6010B (sample date December 14, 2022): The MS/MSD recoveries of antimony for preparation batch 570-289631 and analytical batch 570-290654 were outside control limits for one or more analytes. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery is within acceptance limits.
- Method 6010B (sample date December 14, 2022): The MS/MSD recoveries of antimony for preparation batch 570-290635 and analytical batch 570-290962 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery was within acceptance limits.

- Method 6010B (sample date December 15, 2022): The MS/MSD recoveries of barium and antimony for preparation batch 570-289930 and analytical batch 570-290424 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery was within acceptance limits.
- Method 6010B (sample date December 15, 2022): The MS/MSD recoveries and precision of antimony and Lead for preparation batch 570-289932 and analytical batch 570-290646 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS/LCSD precision was within acceptance limits.
- Method 8015B (sample date December 16, 2022): The MS/MSD recoveries and precision for preparation batch 570-290981 and analytical batch 570-290951 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS/LCSD precision was within acceptance limits.
- Method 6010B (sample date December 16, 2022): The MS/MSD recoveries of antimony for preparation batch 570-290513 and analytical batch 570-290973 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery was within acceptance limits.
- Method 6010B (sample date December 16, 2022): The MS/MSD recoveries of silver, barium, lead and antimony for preparation batch 570-290515 and analytical batch 570-290973 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery was within acceptance limits.
- Method 8015B (sample date December 19, 2022): The MS/MSD recoveries and precision for preparation batch 570-290981 and analytical batch 570-290951 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS/LCSD precision was within acceptance limits.
- Method 6010B (sample date December 19, 2022): The MS/MSD recoveries for preparation batch 570-290517 and analytical batch 570-291371 were outside control limits for one or more analytes. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery is within acceptance limits.
- Method 6010B (sample date December 19, 2022): The MS/MSD recoveries of silver, barium, lead and antimony for preparation batch 570-290515 and analytical batch 570-290973 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery was within acceptance limits.
- Method 8015B (sample date December 20, 2022): The MS/MSD recoveries and precision for preparation batch 570-291878 and analytical batch 570-291816 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS/LCSD precision was within acceptance limits.
- Method 6010B (sample date December 20, 2022): The MS/MSD recoveries/ precision of arsenic, barium, copper, antimony, and zinc for preparation batch 570-292464 and analytical batch 570-292903 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS/LCSD precision was within acceptance limits.

- Method 6010B (sample date December 20, 2022): The MS/MSD recoveries/precision of arsenic, barium, antimony, selenium, and lead for preparation batch 570-292465 and analytical batch 570-292907 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS/LCSD precision was within acceptance limits.
- Method 8015B (sample date December 21, 2022): The MS/MSD recoveries and precision for preparation batch 570-291878 and analytical batch 570-291816 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS/LCSD precision was within acceptance limits.
- Method 6010B (sample date December 21, 2022): The MS/MSD recoveries for preparation batch 570-291764 and analytical batch 570-292247 were outside control limits for barium and antimony. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery is within acceptance limits.
- Method 6010B (sample date December 21, 2022): MS/MSD recoveries/precision of zinc, lead, barium and antimony for preparation batch 570-291776 and analytical batch 570-292247 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS/LCSD precision was within acceptance limits.
- Method 6010B (sample date December 21, 2022): The MS/MSD recoveries of antimony and selenium for preparation batch 570-292280 and analytical batch 570-292657 were outside control limits for one or more analytes. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery is within acceptance limits.
- Method 6010B (sample date December 22, 2022): The MS/MSD recoveries/precision of zinc, lead, barium, and antimony for preparation batch 570-291776 and analytical batch 570-292247 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS/LCSD precision was within acceptance limits.
- Method 6010B (sample date December 22, 2022): The MS/MSD recoveries/precision of barium and antimony for preparation batch 570-291782 and analytical batch 570-292247 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS/LCSD precision was within acceptance limits.

A review of the laboratory QA/QC results indicates satisfactory data quality, and therefore, the soil analytical results are of sufficient quality for purposes of site characterization.



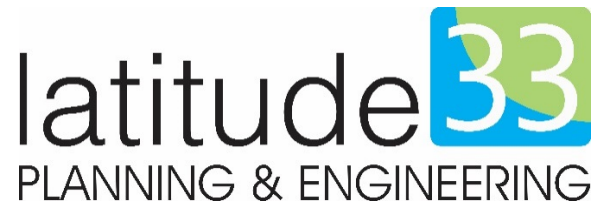
## **Appendix F. Drainage Study**

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# **UC SAN DIEGO SCIENCE RESEARCH PARK DRAINAGE REPORT**

**PREPARED BY:**



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**DATE: 2023-03-29**

---

Matthew J. Semic RCE  
Registration Expires: 6-30-2023

Prepared By: AV  
Checked By: VB

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Appendix A – Existing Condition Modeling Results

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## **Abbreviations**

ASF	Assignable Square Footage
CPM	Capital Program Management
CFS	Cubic Feet Per Second
Dn	Normal Depth
D	Depth
FPS	Feet per Second
GPD	Gallons per Day
GSF	Gross Square Footage
LRDP	Long Range Development Plan
OSHPD	Office of Statewide Health Planning and Development
MGD	Million Gallons per Day
MPF	Multi-Purpose Facility
PVC	Polyvinyl Chloride
UC	University of California

## **SECTION 1 – INTRODUCTION**

---

### **1.1 PURPOSE**

The purpose of this drainage report is to analyze the existing and proposed UC San Diego facilities for the development of Science Research Park (SRP) project based on the established campus guidelines referenced in Section 3. Recommendations on storm drain improvements, water quality treatment devices, storm water storage, and overall hydrologic conditions will be given for the existing condition and proposed condition of the site. It is the goal of this report to forecast needed utilities and ensure the project meets or exceeds the University of California San Diego hydrologic/hydraulic requirements.

### **1.2 SCOPE**

The scope of this report includes the following elements:

- Existing UC San Diego Storm Drain System investigation and description.
- Determine estimated hydrologic flow rates for the existing and proposed conditions.
- Ensure compliance with UC San Diego flowrate requirements for projects creating/replacing 10,000 SqFt of Impervious Area.
- Determine any storm drain improvements necessary to convey flow in the proposed condition.

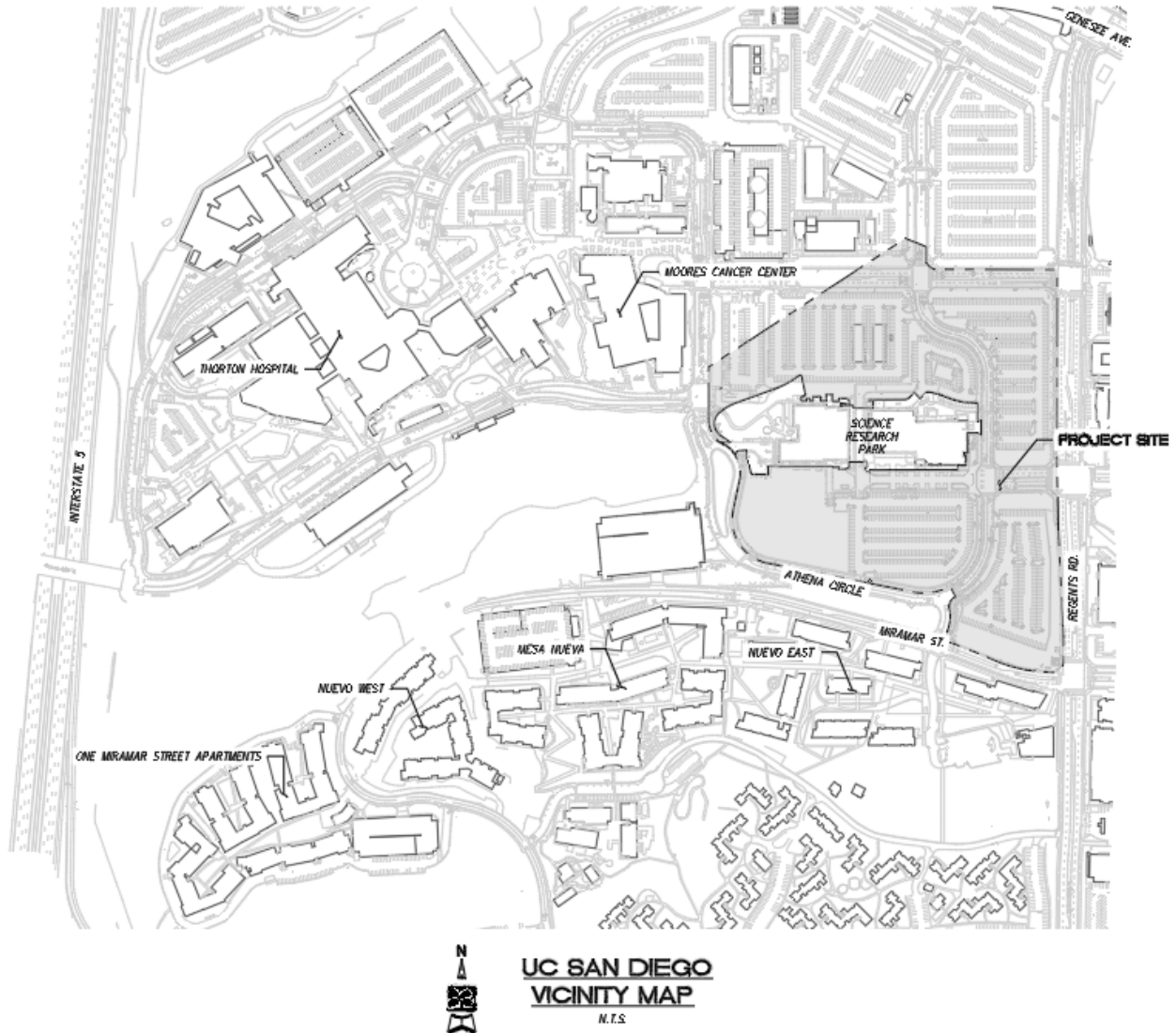
## **SECTION 2 – EXECUTIVE SUMMARY**

---

The UC San Diego Science Research Park project is located east of Interstate-5 and north of La Jolla Village Drive, in the northwest corner of Regents Road and Miramar Street. The site is part of the main UC San Diego Campus. See **Figure 1** for the project location. SRP proposed three new buildings with two new parking structures, the Center for Novel Therapeutics Building and La Jolla Institute for Allergy and Immunology Building will remain in place at the center of the site. In the proposed condition, new storm drain pipe, inlets and bio-filtration basins have been designed to enhance the drainage of the site and ensure that the project meets or exceeds all UC San Diego Design Guidelines.

The project will comply with all guidelines and requirements through design of on-site storm drain infrastructure, utilization of a biofiltration basins and modular wetland units for treatment; and underground concrete storage vaults for peak flow detention. The construction of the biofiltration basins and Modular Wetland Units are in support of the post-construction BMP requirements as set forth in the MS4 Phase II permit.

**Figure 1 – Vicinity Map**



## **SECTION 3 – REGULATORY SETTING & PERFORMANCE CRITERIA**

---

### **3.1 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

UC San Diego is one of ten UC campuses governed and administrated by the Regents of the University of California. As such, UC San Diego is regulated by the Federal Environmental Protection Agency (EPA) Phase II storm water regulations, the Clean Water Act (CWA) and the Small Municipal Separate Storm Sewer System's (MS4's) Order No. 2013-0001-DEG, NPDES No. CAS00004. UC San Diego adopted the revised Phase II Small MS4 General Permit as a Non-Traditional Permittee on July 1<sup>st</sup>, 2013. In response to section F of said permit, UC San Diego is required to create and maintain a Storm Water Management Plan (SWMP) to govern Storm Water policy on the campus.

As part of the SWMP, design guidelines were created for all new projects on campus requiring drainage reports for any regulated project (those that create/replace 5,000 sq. ft or greater impervious area) that meet the following conditions:

- A development or redevelopment project that would result in an increase or decrease in impervious area
- A project that will install or modify an existing storm drain system
- A project that is in the Coastal Zone and will be reviewed by the Coastal Commission as determined by the University
- A project site area that is one acre or greater and SWPPP is required
- Project-level CEQA analysis is required
- A project or building that will be attaining a LEED Certification
- Projects that create or replace 2,500 sq. ft. or more of impervious area are required to follow the post-construction storm water management program as set by the UC San Diego Storm Water Management Plan and enforced by the EH&S department. These requirements are shown in Table 1 on the next page.

UC San Diego Storm Water BMP Requirements for all Development Projects	
All projects that create or replace more than 2,500 sq. ft.	Complete and submit the "Post-Construction Stormwater Management Checklist" and receive project approval from UC San Diego Civil Engineers as well as Environmental Health and Safety Staff during the planning phase, Design Development Phase, and Construction Document Phase.
All projects that create or replace less than 2,500 sq. ft of impervious surface	Complete page 1 & 2 of the checklist for 2,500 SF -5,000 SF and submit for record.
All projects that create or replace between 2,500 sq. ft. and less than 5,000 sq. ft. of impervious area	<p>Complete Post-Construction Stormwater Management Checklist for 2,500 SF to 5,000 SF.</p> <p>Quantify the runoff reduction using State's Post-Construction Water Balance Calculator, available at <a href="http://stormwater.ucsd.edu">http://stormwater.ucsd.edu</a> or request from EH&amp;S Environmental Affairs at <a href="mailto:ehsea@ucsd.edu">ehsea@ucsd.edu</a> and attach to the checklist.</p>
All projects that create or replace 5,000 sq. ft. or more of impervious area	<p>Classified as a regulated project. Complete in full the Post-Construction Stormwater Management Checklist for 5,000 sq. ft. or greater.</p> <p>Quantify "Site Design" BMPs using State's Post-Construction Water Balance Calculator and show that post-construction water balance is achieved. If balancing is not possible, see below.</p> <p>"Treatment Control" BMPs are <u>only</u> required if the Site Design BMPs above cannot fully meet Permit requirements.</p> <p>a) Quantify and explain in the Post-Construction Stormwater Management Checklist and include any attachments as needed.</p> <p>b) Design shall be based on the Flow-Based or Volume-Based criteria specified in Section F.5.g.2.b (Numeric Sizing Criteria) of the Phase II Small MS4 Permit</p> <p>c) Bioretention facilities are preferred, however alternative treatment BMPs can be used if proper documentation and supporting calculations prepared by a Registered Civil Engineer are provided and attached to the checklist.</p> <p>d) <u>An Operations and Maintenance Plan (O&amp;M)</u> for each Post-Construction BMP <u>must</u> be included in the checklist.</p>



### 3.2 UC San Diego Design Guidelines

UC San Diego design guidelines, dated April 1<sup>st</sup>, 2015, give specific guidelines for both hydrologic and hydraulic requirements per project. These are listed below in greater detail:

#### Hydrologic Requirements:

UC San Diego guidelines require the use of the 2003 County of San Diego Hydrology Manual for the generation of flow rate for overland flow. Based on the size of the UC San Diego Triton Center project, the rational method was utilized within this report. The rational method is a mathematical formula that calculates the peak rate of runoff (Q) at any given location in a watershed. This is computed using the drainage area (A), the runoff coefficient (C), and rainfall intensity (I) for a duration equal to the time of the concentration (Tc).

$$Q = C * I * A$$

Table 2 shows the criteria for Hydrologic modeling of the Modified Rational Method at UC San Diego:

Table 2	
UC San Diego Hydrologic Criteria:	
Hydrologic Soil Type:	Soil Types C and D, as specified by Geotechnical Engineer
Runoff Coefficients (Based on Land Use)	See Table 2
Rainfall Intensity:	Based on County of San Diego Rainfall Isopluvials
Storm Event:	100 year, 6 - hour storm event

All projects on campus are required to use Soil Type D for poor infiltration unless specified otherwise by the Project Geotechnical Engineer. Runoff coefficients (C) are based on land use per table 3-1 of the 2003 County of San Diego Hydrology Manual, seen in Table 3 of this report. Rainfall intensities are provided by the County of San Diego Rainfall Isopluvial Maps and Section 3.1.3 of the County of San Diego Hydrology manual, and are selected by the storm duration to be modeled.

Table 3						
C-Values						
<u>Land Use</u>		Runoff Coefficient “C”				
		<u>Soil Type</u>				
<u>NRCS Elements</u>	<u>County Elements</u>	<u>% IMPER.</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
Undisturbed Natural Terrain (Natural)	Permanent Open Space	0*	0.2	0.25	0.3	0.35
Low Density Residential (LDR)	Residential, 1.0 DU/A or less	10	0.27	0.32	0.36	0.41
Low Density Residential (LDR)	Residential, 2.0 DU/A or less	20	0.34	0.38	0.42	0.46
Low Density Residential (LDR)	Residential, 2.9 DU/A or less	25	0.38	0.41	0.45	0.49
Medium Density Residential (MDR)	Residential, 4.3 DU/A or less	30	0.41	0.45	0.48	0.52
Medium Density Residential (MDR)	Residential, 7.3 DU/A or less	40	0.48	0.51	0.54	0.57
Medium Density Residential (MDR)	Residential, 10.9 DU/A or less	45	0.52	0.54	0.57	0.6
Medium Density Residential (MDR)	Residential, 14.5 DU/A or less	50	0.55	0.58	0.6	0.63
High Density Residential (HDR)	Residential, 24.0 DU/A or less	65	0.66	0.67	0.69	0.71
High Density Residential (HDR)	Residential, 43.0 DU/A or less	80	0.76	0.77	0.78	0.79
Commercial/Industrial (N. Com)	Neighborhood Commercial	80	0.76	0.77	0.78	0.79
Commercial/Industrial (G. Com)	General Commercial	85	0.8	0.8	0.81	0.82
Commercial/Industrial (O.P. Com)	Office Professional/Commercial	90	0.83	0.84	0.84	0.85
Commercial/Industrial (Limited I.)	Limited Industrial	90	0.83	0.84	0.84	0.85
Commercial/Industrial (General I.)	General Industrial	95	0.87	0.87	0.87	0.87

Furthermore, per UC San Diego Design Guidelines, all projects that generate 10,000 sq. ft of new impervious area are required to adhere to pre-project 10 year, 6-hour flow rate per overall discharge.

**Hydraulic Requirements:**

UC San Diego guidelines require the use of the County of San Diego Drainage Design Manual (2014) for hydraulic design of storm drain systems on campus. Some of these requirements, but not limited to, are shown in Table 4.

Table 4
UC San Diego Hydraulic Requirements
HGL for 100-year 6-hour storm shall maintain a minimum of 1 foot freeboard below ground surface
If 1 foot freeboard is not possible, provide calculations and an exhibit that the overflow damage will not damage any improvements.
Minimum 1% slope*
Concentrated flow in unpaved areas shall be designed with natural swales to convey surface runoff.

\* If not achievable, obtain approval from FD&C  
Civil Engineer

Based on the year this drainage report was written, evaluation of storm drain structures was based on the latest version of the County of San Diego Drainage Design Manual (2014). Future analysis of Storm Drain hydraulics should adhere to the latest version of the County San Diego Drainage Design Manual.

**3.3 Hydrologic/Hydraulic Modeling Software/Base Mapping**

This report utilizes the hydrologic modeling software Advanced Engineering Software (AES) to run the Rational Method criteria stated earlier in this section. This program creates a dynamic model of the hydrologic conditions of the site.

## **SECTION 4 – EXISTING CONDITION ASSESSMENT**

---

### **4.1 EXISTING CONDITION HYDROLOGIC SUMMARY**

In the existing condition the 14.6 acre UC San Diego Science Research Park project generally drains into five distinct drainage discharge points; see the Existing Condition Hydrology Exhibit provided as Figure 2. See below for a description of these drainage basins in further detail:

Basin 1 consists of a portion of an existing parking lot that drains west towards existing infrastructure north of the existing Center for Novel Therapeutics building.

Basin 2 consists of an undeveloped lot that also generally drains west towards existing infrastructure in Athena Road.

Basin 3 consists of the northeastern portion of the site, a portion of Athena Circle and the adjacent parking lot which is generally draining south towards the existing storm drain in Athena Way..

Basin 4 consists of a parking lot located in the middle southern portion of the site. This existing parking lot drains generally to the south towards Athena Circle.

Basin 5 consists of the southeast parking lot in the corner of Regents Road and Miramar Street. This parking lot generally drains towards Athena Circle.

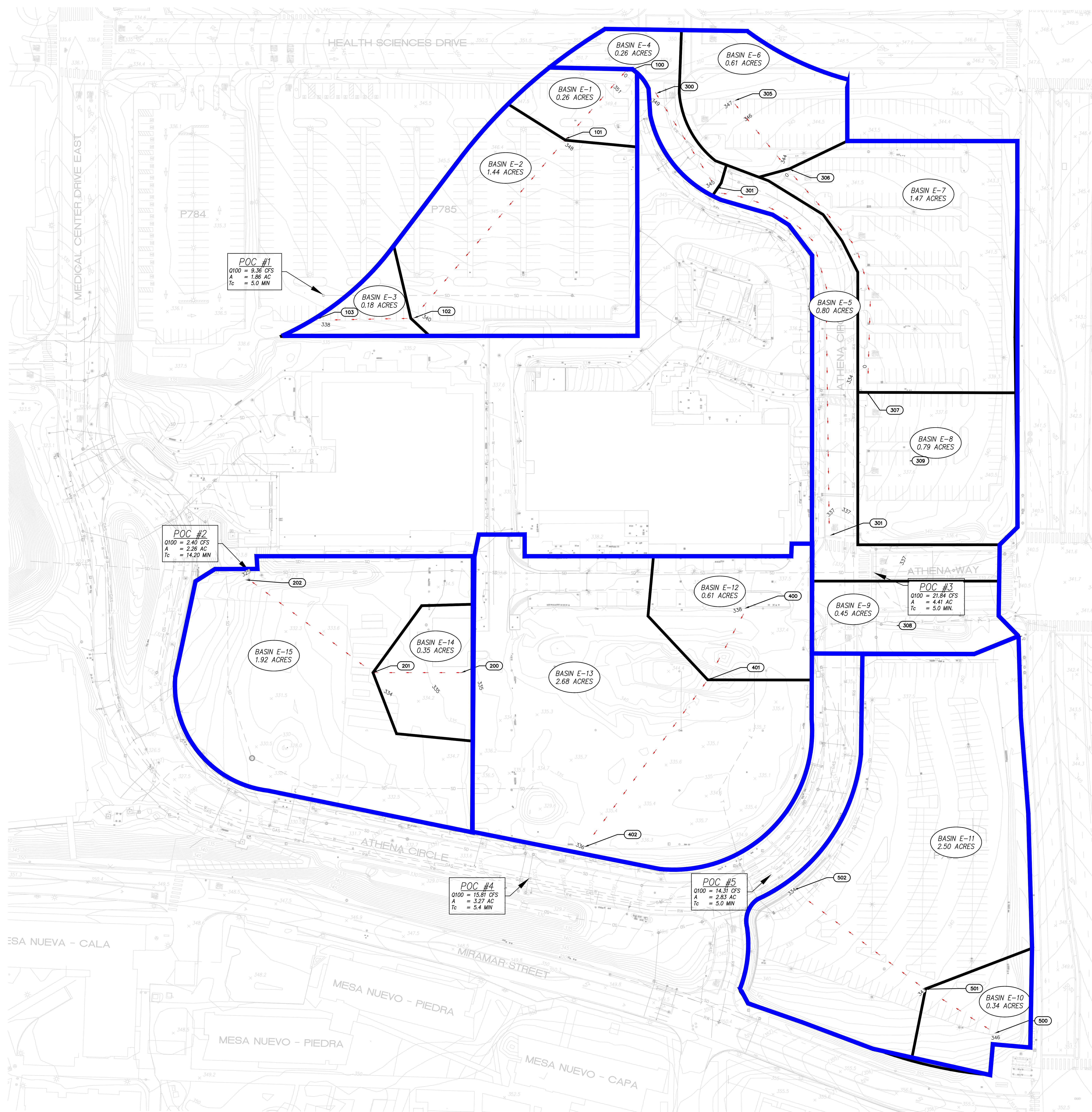
## 4.2 EXISTING CONDITION MODELING RESULTS

Existing conditions modeling results for the three drainage basins can be seen below in table 5:

Table 5		
Existing Condition Hydrology Results		
POC #	Area (acres)	100 Year 6-Hour Event (CFS)
1	1.8	9.36
2	2.3	2.49
3	4.4	21.84
4	3.3	15.81
5	2.8	14.31
TOTAL	14.6	63.81

**Figure 2 – Existing Condition Hydrology Exhibit**





POINT OF COMPLIANCE FLOW RATES		
POC #	AREA (AC)	EXISTING Q100 (CFS)
1	1.8	9.36
2	2.3	2.40
3	4.4	21.84
4	3.3	15.81
5	2.8	14.31
TOTAL	14.6	63.72

**LEGEND**

CAMPUS BOUNDARY  
EXISTING HYDROLOGY BASIN BOUNDARY  
EXISTING HYDROLOGY BASIN SUB-BOUNDARY  
EXISTING STORM DRAIN  
DIRECTION OF FLOW  
FLOW PATH NODE  
BASIN NUMBER & AREA

---  
---  
---  
---  
XX  
EL-XXXX  
BASIN E-X  
X.XX ACRES

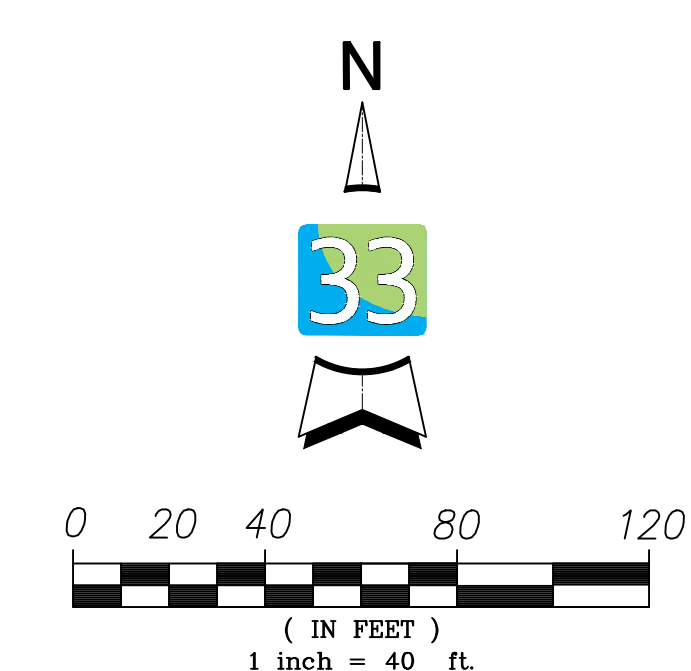


FIGURE 2  
SCIENCE RESEARCH PARK  
EXISTING HYDROLOGY EXHIBIT



## **SECTION 5 – PROPOSED CONDITION ASSESSMENT**

---

### **5.1 PROPOSED CONDITION HYDROLOGIC SUMMARY**

The SRP project consists of the construction of multiple buildings and parking structures. The site is divided into 5 distinct drainage basins. Overall, the 5 distinct drainage basins will not increase peak flow in the proposed condition compared to existing conditions.

100 year detention routing for each POC that increases peak flow in the proposed condition will be provided at the next submittal.

**Figures 3** shows the Proposed Condition for Hydrology and Storm Drain Routing for the UC San Diego Science Research Park.



## 5.2 PROPOSED CONDITIONS MODELING RESULTS

Proposed Condition modeling results for the three drainage basins can be seen below in Table 6:

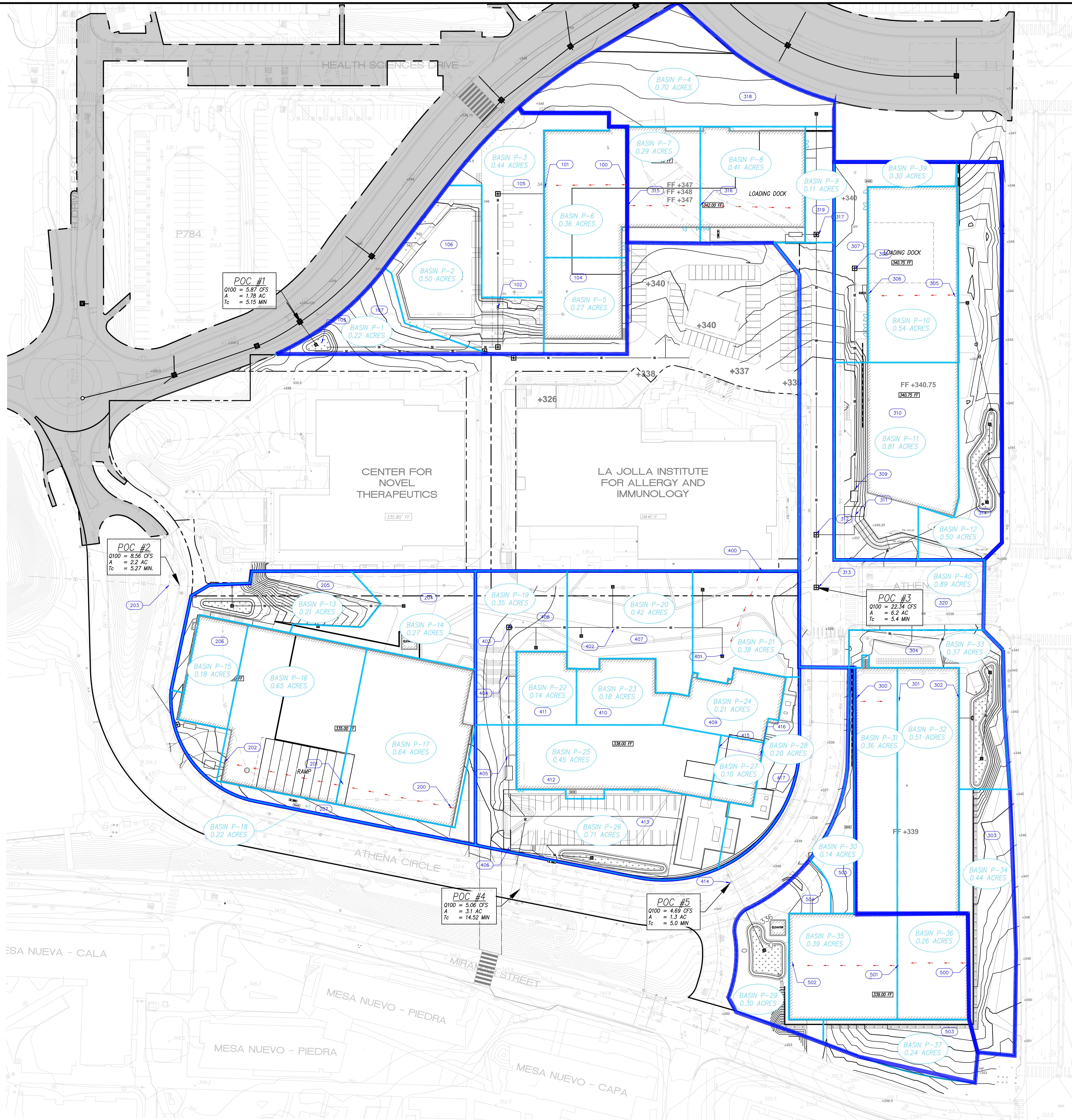
Table 6				
	Existing Condition	Existing Condition Q100	Proposed Condition	Proposed Condition Q100
POC #	Area (acres)	100 Year 6-Hour Event (CFS)	Area (acres)	100 Year 6-Hour Event (CFS)
1	1.8	9.36	1.8	5.87
2	2.3	2.40	2.2	8.56
3	4.4	21.84	6.2	22.34
4	3.3	15.81	3.1	5.06
5	2.8	14.31	1.3	4.69
TOTAL	14.6	63.72	14.6	46.52

(\*) Detention will be provided to attenuate the peak flow to match the pre-project conditions.

More detailed hydrology and hydraulic analysis for the existing condition will be provided at Final Engineering.

### **Figure 3 – Proposed Condition Hydrology Exhibit**





POINT OF COMPLIANCE FLOW RATES

POC #	AREA (AC)	PROPOSED Q100 (CFS)
1	1.8	5.87
2	2.2	8.56
3	6.2	22.34
4	3.1	5.06
5	1.3	4.69
TOTAL	14.6	46.52

LEGEND

- PROPOSED HYDROLOGY BASIN BOUNDARY
- PROPOSED HYDROLOGY BASIN SUB-BOUNDARY
- PROPOSED STORM DRAIN
- SURFACE FLOW PATH
- FLOW PATH NODE
- BASIN NUMBER & AREA

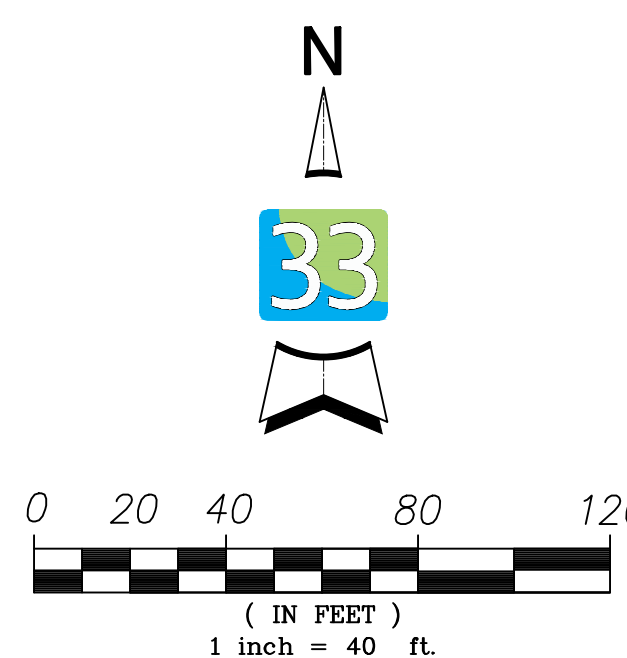


FIGURE 3  
SCIENCE RESEARCH PARK  
PROPOSED HYDROLOGY EXHIBIT

SCALE: 1"=40'

DATE: \_\_\_\_\_ DRAWN BY: AV

JOB NO.: \_\_\_\_\_ CHECKED BY: \_\_\_\_\_

SHEET: 1

UC San Diego

latitude 33  
PLANNING & ENGINEERING  
3600 La Jolla Village Drive, Suite 200, San Diego, CA 92161  
Tel: 619.737.0000



## **SECTION 6 – CONCLUSION**

---

This drainage report has been prepared to quantify the hydrology demands associated with all developmental phases of the UC San Diego Science Research Park. The analysis demonstrates that the added demands from the development of the SCR project are accounted for within the proposed underground detention vaults. Additionally, all on-site storm drain proposed is designed to meet University standards and will meet or exceed campus design guidelines.

## **Appendix A – Existing Conditions Modeling Results**

\*\*\*\*\*

RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE  
Reference: SAN DIEGO COUNTY FLOOD CONTROL DISTRICT  
2003,1985,1981 HYDROLOGY MANUAL  
(c) Copyright 1982-2016 Advanced Engineering Software (aes)  
Ver. 23.0 Release Date: 07/01/2016 License ID 1523

Analysis prepared by:

Latitude 33 Planning and Engineering  
9968 Hibert Street 2nd Floor San Diego, CA 92131

\*\*\*\*\* DESCRIPTION OF STUDY \*\*\*\*\*  
\* UCSD SCIENCE RESEARCH PARK \*  
\* EXISTING CONDITION SYSTEM 100 \*  
\* 100 YEAR DESIGN STORM \*  
\*\*\*\*\*

FILE NAME: S100E100.DAT  
TIME/DATE OF STUDY: 16:24 03/29/2023

-----  
USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:  
-----

2003 SAN DIEGO MANUAL CRITERIA

USER SPECIFIED STORM EVENT(YEAR) = 100.00  
6-HOUR DURATION PRECIPITATION (INCHES) = 2.250  
SPECIFIED MINIMUM PIPE SIZE(INCH) = 12.00  
SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.85  
SAN DIEGO HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD  
NOTE: USE MODIFIED RATIONAL METHOD PROCEDURES FOR CONFLUENCE ANALYSIS  
\*USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL\*

NO.	HALF- WIDTH (FT)	CROWN TO CROSSFALL (FT)	STREET-CROSSFALL: IN- / OUT- / PARK- SIDE / SIDE / WAY	CURB HEIGHT (FT)	GUTTER-GEOMETRIES: WIDTH LIP HIKE (FT) (FT) (FT)	MANNING FACTOR (n)
1	30.0	20.0	0.018/0.018/0.020	0.67	2.00 0.0313 0.167	0.0150

GLOBAL STREET FLOW-DEPTH CONSTRAINTS:

1. Relative Flow-Depth = 0.00 FEET  
as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
2. (Depth)\*(Velocity) Constraint = 6.0 (FT\*FT/S)

\*SIZE PIPE WITH A FLOW CAPACITY GREATER THAN  
OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.\*

\*\*\*\*\*  
FLOW PROCESS FROM NODE 100.00 TO NODE 101.00 IS CODE = 21  
-----

>>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<  
=====

LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8400  
SOIL CLASSIFICATION IS "C"  
S.C.S. CURVE NUMBER (AMC II) = 96  
INITIAL SUBAREA FLOW-LENGTH(FEET) = 100.00  
UPSTREAM ELEVATION(FEET) = 351.00  
DOWNSTREAM ELEVATION(FEET) = 348.00

ELEVATION DIFFERENCE (FEET) = 3.00  
 SUBAREA OVERLAND TIME OF FLOW (MIN.) = 2.902  
 WARNING: INITIAL SUBAREA FLOW PATH LENGTH IS GREATER THAN  
 THE MAXIMUM OVERLAND FLOW LENGTH = 80.00  
 (Reference: Table 3-1B of Hydrology Manual)  
 THE MAXIMUM OVERLAND FLOW LENGTH IS USED IN  $T_c$  CALCULATION!  
 100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 5.928  
 NOTE: RAINFALL INTENSITY IS BASED ON  $T_c$  = 5-MINUTE.  
 SUBAREA RUNOFF (CFS) = 1.29  
 TOTAL AREA (ACRES) = 0.26 TOTAL RUNOFF (CFS) = 1.29

\*\*\*\*\*  
 FLOW PROCESS FROM NODE 101.00 TO NODE 102.00 IS CODE = 51  
 -----

>>>> COMPUTE TRAPEZOIDAL CHANNEL FLOW <<<<  
 >>>> TRAVELTIME THRU SUBAREA (EXISTING ELEMENT) <<<<

=====  
 CHANNEL LENGTH THRU SUBAREA (FEET) = 286.00  
 REPRESENTATIVE CHANNEL SLOPE = 0.0270  
 CHANNEL BASE (FEET) = 10.00 "Z" FACTOR = 20.000  
 MANNING'S FACTOR = 0.015 MAXIMUM DEPTH (FEET) = 2.00  
 100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 5.928  
 NOTE: RAINFALL INTENSITY IS BASED ON  $T_c$  = 5-MINUTE.  
 LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8400  
 SOIL CLASSIFICATION IS "C"  
 S.C.S. CURVE NUMBER (AMC II) = 96  
 TRAVEL TIME COMPUTED USING ESTIMATED FLOW (CFS) = 4.88  
 TRAVEL TIME THRU SUBAREA BASED ON VELOCITY (FEET/SEC.) = 3.37  
 AVERAGE FLOW DEPTH (FEET) = 0.12 TRAVEL TIME (MIN.) = 1.41  
 $T_c$  (MIN.) = 4.32  
 SUBAREA AREA (ACRES) = 1.44 SUBAREA RUNOFF (CFS) = 7.17  
 AREA-AVERAGE RUNOFF COEFFICIENT = 0.840  
 TOTAL AREA (ACRES) = 1.7 PEAK FLOW RATE (CFS) = 8.47

END OF SUBAREA CHANNEL FLOW HYDRAULICS:  
 DEPTH (FEET) = 0.16 FLOW VELOCITY (FEET/SEC.) = 4.09  
 LONGEST FLOWPATH FROM NODE 100.00 TO NODE 102.00 = 386.00 FEET.

\*\*\*\*\*  
 FLOW PROCESS FROM NODE 102.00 TO NODE 103.00 IS CODE = 51  
 -----

>>>> COMPUTE TRAPEZOIDAL CHANNEL FLOW <<<<  
 >>>> TRAVELTIME THRU SUBAREA (EXISTING ELEMENT) <<<<

=====  
 CHANNEL LENGTH THRU SUBAREA (FEET) = 100.00  
 REPRESENTATIVE CHANNEL SLOPE = 0.0200  
 CHANNEL BASE (FEET) = 0.00 "Z" FACTOR = 1.000  
 MANNING'S FACTOR = 0.015 MAXIMUM DEPTH (FEET) = 2.00  
 100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 5.928  
 NOTE: RAINFALL INTENSITY IS BASED ON  $T_c$  = 5-MINUTE.  
 LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8400  
 SOIL CLASSIFICATION IS "C"  
 S.C.S. CURVE NUMBER (AMC II) = 96  
 TRAVEL TIME COMPUTED USING ESTIMATED FLOW (CFS) = 8.91  
 TRAVEL TIME THRU SUBAREA BASED ON VELOCITY (FEET/SEC.) = 7.45  
 AVERAGE FLOW DEPTH (FEET) = 1.09 TRAVEL TIME (MIN.) = 0.22  
 $T_c$  (MIN.) = 4.54  
 SUBAREA AREA (ACRES) = 0.18 SUBAREA RUNOFF (CFS) = 0.90  
 AREA-AVERAGE RUNOFF COEFFICIENT = 0.840  
 TOTAL AREA (ACRES) = 1.9 PEAK FLOW RATE (CFS) = 9.36

END OF SUBAREA CHANNEL FLOW HYDRAULICS:

DEPTH( FEET ) = 1.12      FLOW VELOCITY( FEET/SEC. ) = 7.51

LONGEST FLOWPATH FROM NODE 100.00 TO NODE 103.00 = 486.00 FEET.

=====

END OF STUDY SUMMARY:

TOTAL AREA( ACRES ) = 1.9      TC( MIN. ) = 4.54

PEAK FLOW RATE( CFS ) = 9.36

=====

END OF RATIONAL METHOD ANALYSIS



\*\*\*\*\*

RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE  
Reference: SAN DIEGO COUNTY FLOOD CONTROL DISTRICT  
2003,1985,1981 HYDROLOGY MANUAL  
(c) Copyright 1982-2016 Advanced Engineering Software (aes)  
Ver. 23.0 Release Date: 07/01/2016 License ID 1523

Analysis prepared by:

Latitude 33 Planning and Engineering  
9968 Hibert Street 2nd Floor San Diego, CA 92131

\*\*\*\*\* DESCRIPTION OF STUDY \*\*\*\*\*  
\* UCSD SCIENCE RESEARCH PARK \*  
\* SYSTEM 200 EXISTING CONDITION \*  
\* 100 YEAR DESIGN STORM \*  
\*\*\*\*\*

FILE NAME: S200E100.DAT  
TIME/DATE OF STUDY: 11:33 03/30/2023

-----  
USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:  
-----

2003 SAN DIEGO MANUAL CRITERIA

USER SPECIFIED STORM EVENT(YEAR) = 100.00  
6-HOUR DURATION PRECIPITATION (INCHES) = 2.250  
SPECIFIED MINIMUM PIPE SIZE(INCH) = 12.00  
SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.85  
SAN DIEGO HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD  
NOTE: USE MODIFIED RATIONAL METHOD PROCEDURES FOR CONFLUENCE ANALYSIS  
\*USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL\*

NO.	HALF- WIDTH (FT)	CROWN TO CROSSFALL (FT)	STREET-CROSSFALL: IN- / OUT-/PARK- SIDE / SIDE/ WAY	CURB HEIGHT (FT)	GUTTER-GEOMETRIES: WIDTH LIP HIKE (FT) (FT) (FT)	MANNING FACTOR (n)
1	30.0	20.0	0.018/0.018/0.020	0.67	2.00 0.0313 0.167	0.0150

GLOBAL STREET FLOW-DEPTH CONSTRAINTS:

1. Relative Flow-Depth = 0.00 FEET  
as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
2. (Depth)\*(Velocity) Constraint = 6.0 (FT\*FT/S)

\*SIZE PIPE WITH A FLOW CAPACITY GREATER THAN  
OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.\*

\*\*\*\*\*  
FLOW PROCESS FROM NODE 200.00 TO NODE 201.00 IS CODE = 21  
-----

>>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<

=====

NATURAL DESERT LANDSCAPING RUNOFF COEFFICIENT = .3500  
SOIL CLASSIFICATION IS "D"  
S.C.S. CURVE NUMBER (AMC II) = 88  
INITIAL SUBAREA FLOW-LENGTH(FEET) = 100.00  
UPSTREAM ELEVATION(FEET) = 335.00  
DOWNSTREAM ELEVATION(FEET) = 334.00

ELEVATION DIFFERENCE (FEET) = 1.00  
SUBAREA OVERLAND TIME OF FLOW (MIN.) = 11.295  
WARNING: INITIAL SUBAREA FLOW PATH LENGTH IS GREATER THAN  
THE MAXIMUM OVERLAND FLOW LENGTH = 70.00  
(Reference: Table 3-1B of Hydrology Manual)  
THE MAXIMUM OVERLAND FLOW LENGTH IS USED IN  $T_c$  CALCULATION!  
100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 3.505  
SUBAREA RUNOFF (CFS) = 0.43  
TOTAL AREA (ACRES) = 0.35 TOTAL RUNOFF (CFS) = 0.43

\*\*\*\*\*  
FLOW PROCESS FROM NODE 201.00 TO NODE 202.00 IS CODE = 51  
-----

>>>> COMPUTE TRAPEZOIDAL CHANNEL FLOW <<<<  
>>>> TRAVELTIME THRU SUBAREA (EXISTING ELEMENT) <<<<  
=====

CHANNEL LENGTH THRU SUBAREA (FEET) = 300.00  
REPRESENTATIVE CHANNEL SLOPE = 0.0300  
CHANNEL BASE (FEET) = 10.00 "Z" FACTOR = 20.000  
MANNING'S FACTOR = 0.025 MAXIMUM DEPTH (FEET) = 2.00  
100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 3.023  
NATURAL DESERT LANDSCAPING RUNOFF COEFFICIENT = .3500  
SOIL CLASSIFICATION IS "D"  
S.C.S. CURVE NUMBER (AMC II) = 88  
TRAVEL TIME COMPUTED USING ESTIMATED FLOW (CFS) = 1.45  
TRAVEL TIME THRU SUBAREA BASED ON VELOCITY (FEET/SEC.) = 1.72  
AVERAGE FLOW DEPTH (FEET) = 0.07 TRAVEL TIME (MIN.) = 2.91  
 $T_c$  (MIN.) = 14.20  
SUBAREA AREA (ACRES) = 1.92 SUBAREA RUNOFF (CFS) = 2.03  
AREA-AVERAGE RUNOFF COEFFICIENT = 0.350  
TOTAL AREA (ACRES) = 2.3 PEAK FLOW RATE (CFS) = 2.40

END OF SUBAREA CHANNEL FLOW HYDRAULICS:  
DEPTH (FEET) = 0.10 FLOW VELOCITY (FEET/SEC.) = 1.95  
LONGEST FLOWPATH FROM NODE 200.00 TO NODE 202.00 = 400.00 FEET.  
=====

END OF STUDY SUMMARY:  
TOTAL AREA (ACRES) = 2.3  $T_c$  (MIN.) = 14.20  
PEAK FLOW RATE (CFS) = 2.40  
=====

END OF RATIONAL METHOD ANALYSIS

\*\*\*\*\*

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2003,1985,1981 HYDROLOGY MANUAL  
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Ver. 23.0 Release Date: 07/01/2016 License ID 1523

Analysis prepared by:

Latitude 33 Planning and Engineering  
9968 Hibert Street 2nd Floor San Diego, CA 92131

\*\*\*\*\* DESCRIPTION OF STUDY \*\*\*\*\*  
\* UCSD SCIENCE RESEARCH PARK \*  
\* SYSTEM 300 EXISTING CONDITION \*  
\* 100 YEAR DESIGN STORM \*  
\*\*\*\*\*

FILE NAME: S300E100.DAT  
TIME/DATE OF STUDY: 16:51 03/29/2023

-----  
USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:  
-----

2003 SAN DIEGO MANUAL CRITERIA

USER SPECIFIED STORM EVENT(YEAR) = 100.00  
6-HOUR DURATION PRECIPITATION (INCHES) = 2.250  
SPECIFIED MINIMUM PIPE SIZE(INCH) = 12.00  
SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.85  
SAN DIEGO HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD  
NOTE: USE MODIFIED RATIONAL METHOD PROCEDURES FOR CONFLUENCE ANALYSIS  
\*USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL\*

NO.	HALF- WIDTH (FT)	CROWN TO CROSSFALL (FT)	STREET-CROSSFALL: IN- / OUT-/PARK- SIDE / SIDE/ WAY	CURB HEIGHT (FT)	GUTTER-GEOMETRIES: WIDTH LIP HIKE (FT) (FT) (FT)	MANNING FACTOR (n)
1	30.0	20.0	0.018/0.018/0.020	0.67	2.00 0.0313 0.167	0.0150

GLOBAL STREET FLOW-DEPTH CONSTRAINTS:

1. Relative Flow-Depth = 0.00 FEET  
as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
2. (Depth)\*(Velocity) Constraint = 6.0 (FT\*FT/S)

\*SIZE PIPE WITH A FLOW CAPACITY GREATER THAN  
OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.\*

\*\*\*\*\*  
FLOW PROCESS FROM NODE 300.00 TO NODE 301.00 IS CODE = 21  
-----

>>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<  
=====

LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8400  
SOIL CLASSIFICATION IS "C"  
S.C.S. CURVE NUMBER (AMC II) = 96  
INITIAL SUBAREA FLOW-LENGTH(FEET) = 100.00  
UPSTREAM ELEVATION(FEET) = 349.00  
DOWNSTREAM ELEVATION(FEET) = 345.00

ELEVATION DIFFERENCE (FEET) = 4.00  
 SUBAREA OVERLAND TIME OF FLOW (MIN.) = 2.718  
 WARNING: INITIAL SUBAREA FLOW PATH LENGTH IS GREATER THAN  
 THE MAXIMUM OVERLAND FLOW LENGTH = 85.00  
 (Reference: Table 3-1B of Hydrology Manual)  
 THE MAXIMUM OVERLAND FLOW LENGTH IS USED IN  $T_c$  CALCULATION!  
 100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 5.928  
 NOTE: RAINFALL INTENSITY IS BASED ON  $T_c$  = 5-MINUTE.  
 SUBAREA RUNOFF (CFS) = 1.29  
 TOTAL AREA (ACRES) = 0.26 TOTAL RUNOFF (CFS) = 1.29

\*\*\*\*\*  
 FLOW PROCESS FROM NODE 301.00 TO NODE 302.00 IS CODE = 51  
 -----

>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<  
 >>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<

=====  
 CHANNEL LENGTH THRU SUBAREA (FEET) = 485.00  
 REPRESENTATIVE CHANNEL SLOPE = 0.0165  
 CHANNEL BASE (FEET) = 0.50 "Z" FACTOR = 2.000  
 MANNING'S FACTOR = 0.015 MAXIMUM DEPTH (FEET) = 2.00  
 100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 5.928  
 NOTE: RAINFALL INTENSITY IS BASED ON  $T_c$  = 5-MINUTE.  
 LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8400  
 SOIL CLASSIFICATION IS "C"  
 S.C.S. CURVE NUMBER (AMC II) = 96  
 TRAVEL TIME COMPUTED USING ESTIMATED FLOW (CFS) = 3.29  
 TRAVEL TIME THRU SUBAREA BASED ON VELOCITY (FEET/SEC.) = 5.12  
 AVERAGE FLOW DEPTH (FEET) = 0.45 TRAVEL TIME (MIN.) = 1.58  
 $T_c$  (MIN.) = 4.30  
 SUBAREA AREA (ACRES) = 0.80 SUBAREA RUNOFF (CFS) = 3.98  
 AREA-AVERAGE RUNOFF COEFFICIENT = 0.840  
 TOTAL AREA (ACRES) = 1.1 PEAK FLOW RATE (CFS) = 5.28  
  
 END OF SUBAREA CHANNEL FLOW HYDRAULICS:  
 DEPTH (FEET) = 0.56 FLOW VELOCITY (FEET/SEC.) = 5.79  
 LONGEST FLOWPATH FROM NODE 300.00 TO NODE 302.00 = 585.00 FEET.

\*\*\*\*\*  
 FLOW PROCESS FROM NODE 308.00 TO NODE 301.00 IS CODE = 81  
 -----

>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<

=====  
 100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 5.928  
 NOTE: RAINFALL INTENSITY IS BASED ON  $T_c$  = 5-MINUTE.  
 LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8500  
 SOIL CLASSIFICATION IS "D"  
 S.C.S. CURVE NUMBER (AMC II) = 96  
 AREA-AVERAGE RUNOFF COEFFICIENT = 0.8430  
 SUBAREA AREA (ACRES) = 0.45 SUBAREA RUNOFF (CFS) = 2.27  
 TOTAL AREA (ACRES) = 1.5 TOTAL RUNOFF (CFS) = 7.55  
 $T_c$  (MIN.) = 4.30

\*\*\*\*\*  
 FLOW PROCESS FROM NODE 300.00 TO NODE 308.00 IS CODE = 1  
 -----

>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<

=====  
 TOTAL NUMBER OF STREAMS = 2  
 CONFLUENCE VALUES USED FOR INDEPENDENT STREAM 1 ARE:

TIME OF CONCENTRATION(MIN.) = 4.30  
RAINFALL INTENSITY(INCH/HR) = 5.93  
TOTAL STREAM AREA(ACRES) = 1.51  
PEAK FLOW RATE(CFS) AT CONFLUENCE = 7.55

\*\*\*\*\*

FLOW PROCESS FROM NODE 305.00 TO NODE 306.00 IS CODE = 21

>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<

=====

LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8400  
SOIL CLASSIFICATION IS "C"  
S.C.S. CURVE NUMBER (AMC II) = 96  
INITIAL SUBAREA FLOW-LENGTH(Feet) = 100.00  
UPSTREAM ELEVATION(Feet) = 347.00  
DOWNSTREAM ELEVATION(Feet) = 344.00  
ELEVATION DIFFERENCE(Feet) = 3.00  
SUBAREA OVERLAND TIME OF FLOW(MIN.) = 2.902  
WARNING: INITIAL SUBAREA FLOW PATH LENGTH IS GREATER THAN  
THE MAXIMUM OVERLAND FLOW LENGTH = 80.00  
(Reference: Table 3-1B of Hydrology Manual)  
THE MAXIMUM OVERLAND FLOW LENGTH IS USED IN Tc CALCULATION!  
100 YEAR RAINFALL INTENSITY(INCH/HOUR) = 5.928  
NOTE: RAINFALL INTENSITY IS BASED ON Tc = 5-MINUTE.  
SUBAREA RUNOFF(CFS) = 3.04  
TOTAL AREA(ACRES) = 0.61 TOTAL RUNOFF(CFS) = 3.04

\*\*\*\*\*

FLOW PROCESS FROM NODE 306.00 TO NODE 307.00 IS CODE = 51

>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<

>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<

=====

CHANNEL LENGTH THRU SUBAREA(Feet) = 300.00  
REPRESENTATIVE CHANNEL SLOPE = 0.0330  
CHANNEL BASE(Feet) = 0.50 "Z" FACTOR = 2.000  
MANNING'S FACTOR = 0.015 MAXIMUM DEPTH(Feet) = 2.00  
100 YEAR RAINFALL INTENSITY(INCH/HOUR) = 5.928  
NOTE: RAINFALL INTENSITY IS BASED ON Tc = 5-MINUTE.  
LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8400  
SOIL CLASSIFICATION IS "C"  
S.C.S. CURVE NUMBER (AMC II) = 96  
TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) = 6.70  
TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(Feet/Sec.) = 7.93  
AVERAGE FLOW DEPTH(Feet) = 0.54 TRAVEL TIME(MIN.) = 0.63  
Tc(MIN.) = 3.53  
SUBAREA AREA(ACRES) = 1.47 SUBAREA RUNOFF(CFS) = 7.32  
AREA-AVERAGE RUNOFF COEFFICIENT = 0.840  
TOTAL AREA(ACRES) = 2.1 PEAK FLOW RATE(CFS) = 10.36

END OF SUBAREA CHANNEL FLOW HYDRAULICS:

DEPTH(Feet) = 0.65 FLOW VELOCITY(Feet/Sec.) = 8.82  
LONGEST FLOWPATH FROM NODE 305.00 TO NODE 307.00 = 400.00 FEET.

\*\*\*\*\*

FLOW PROCESS FROM NODE 309.00 TO NODE 307.00 IS CODE = 81

>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<

=====

100 YEAR RAINFALL INTENSITY(INCH/HOUR) = 5.928

NOTE: RAINFALL INTENSITY IS BASED ON  $T_c = 5$ -MINUTE.  
 LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8400  
 SOIL CLASSIFICATION IS "C"  
 S.C.S. CURVE NUMBER (AMC II) = 96  
 AREA-AVERAGE RUNOFF COEFFICIENT = 0.8400  
 SUBAREA AREA (ACRES) = 0.79 SUBAREA RUNOFF (CFS) = 3.93  
 TOTAL AREA (ACRES) = 2.9 TOTAL RUNOFF (CFS) = 14.29  
 $TC (MIN.) = 3.53$

\*\*\*\*\*

FLOW PROCESS FROM NODE 305.00 TO NODE 309.00 IS CODE = 1

>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<  
 >>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<

=====

TOTAL NUMBER OF STREAMS = 2  
 CONFLUENCE VALUES USED FOR INDEPENDENT STREAM 2 ARE:  
 TIME OF CONCENTRATION (MIN.) = 3.53  
 RAINFALL INTENSITY (INCH/HR) = 5.93  
 TOTAL STREAM AREA (ACRES) = 2.87  
 PEAK FLOW RATE (CFS) AT CONFLUENCE = 14.29

\*\* CONFLUENCE DATA \*\*

STREAM NUMBER	RUNOFF (CFS)	$T_c$ (MIN.)	INTENSITY (INCH/HOUR)	AREA (ACRE)
1	7.55	4.30	5.928	1.51
2	14.29	3.53	5.928	2.87

RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO  
 CONFLUENCE FORMULA USED FOR 2 STREAMS.

\*\* PEAK FLOW RATE TABLE \*\*

STREAM NUMBER	RUNOFF (CFS)	$T_c$ (MIN.)	INTENSITY (INCH/HOUR)
1	20.50	3.53	5.928
2	21.84	4.30	5.928

COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:

PEAK FLOW RATE (CFS) = 21.84  $T_c (MIN.) = 4.30$   
 TOTAL AREA (ACRES) = 4.4  
 LONGEST FLOWPATH FROM NODE 300.00 TO NODE 309.00 = 585.00 FEET.

=====

END OF STUDY SUMMARY:

TOTAL AREA (ACRES) = 4.4  $TC (MIN.) = 4.30$   
 PEAK FLOW RATE (CFS) = 21.84

=====

END OF RATIONAL METHOD ANALYSIS

\*\*\*\*\*

RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE  
Reference: SAN DIEGO COUNTY FLOOD CONTROL DISTRICT  
2003,1985,1981 HYDROLOGY MANUAL  
(c) Copyright 1982-2016 Advanced Engineering Software (aes)  
Ver. 23.0 Release Date: 07/01/2016 License ID 1523

Analysis prepared by:

Latitude 33 Planning and Engineering  
9968 Hibert Street 2nd Floor San Diego, CA 92131

\*\*\*\*\* DESCRIPTION OF STUDY \*\*\*\*\*  
\* UCSD SCIENCE RESEARCH PARK \*  
\* SYSTEM 400 EXISTING CONDITION \*  
\* 100 YEAR DESIGN STORM \*  
\*\*\*\*\*

FILE NAME: S400E100.DAT  
TIME/DATE OF STUDY: 16:40 03/29/2023

-----  
USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:  
-----

2003 SAN DIEGO MANUAL CRITERIA

USER SPECIFIED STORM EVENT(YEAR) = 100.00  
6-HOUR DURATION PRECIPITATION (INCHES) = 2.250  
SPECIFIED MINIMUM PIPE SIZE(INCH) = 12.00  
SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.85  
SAN DIEGO HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD  
NOTE: USE MODIFIED RATIONAL METHOD PROCEDURES FOR CONFLUENCE ANALYSIS  
\*USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL\*

NO.	HALF- WIDTH (FT)	CROWN TO CROSSFALL (FT)	STREET-CROSSFALL: IN- / OUT-/PARK- SIDE / SIDE/ WAY	CURB HEIGHT (FT)	GUTTER-GEOMETRIES: WIDTH LIP HIKE (FT) (FT) (FT)	MANNING FACTOR (n)
1	30.0	20.0	0.018/0.018/0.020	0.67	2.00 0.0313 0.167	0.0150

GLOBAL STREET FLOW-DEPTH CONSTRAINTS:

1. Relative Flow-Depth = 0.00 FEET  
as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
2. (Depth)\*(Velocity) Constraint = 6.0 (FT\*FT/S)

\*SIZE PIPE WITH A FLOW CAPACITY GREATER THAN  
OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.\*

\*\*\*\*\*  
FLOW PROCESS FROM NODE 400.00 TO NODE 401.00 IS CODE = 21  
-----

>>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<  
=====

LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8500  
SOIL CLASSIFICATION IS "D"  
S.C.S. CURVE NUMBER (AMC II) = 96  
INITIAL SUBAREA FLOW-LENGTH(FEET) = 100.00  
UPSTREAM ELEVATION(FEET) = 338.00  
DOWNSTREAM ELEVATION(FEET) = 337.50

ELEVATION DIFFERENCE (FEET) = 0.50  
 SUBAREA OVERLAND TIME OF FLOW (MIN.) = 4.009  
 WARNING: INITIAL SUBAREA FLOW PATH LENGTH IS GREATER THAN  
 THE MAXIMUM OVERLAND FLOW LENGTH = 50.00  
 (Reference: Table 3-1B of Hydrology Manual)  
 THE MAXIMUM OVERLAND FLOW LENGTH IS USED IN  $T_c$  CALCULATION!  
 100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 5.928  
 NOTE: RAINFALL INTENSITY IS BASED ON  $T_c$  = 5-MINUTE.  
 SUBAREA RUNOFF (CFS) = 3.07  
 TOTAL AREA (ACRES) = 0.61 TOTAL RUNOFF (CFS) = 3.07

\*\*\*\*\*  
 FLOW PROCESS FROM NODE 401.00 TO NODE 402.00 IS CODE = 51

>>>> COMPUTE TRAPEZOIDAL CHANNEL FLOW <<<<  
 >>>> TRAVELTIME THRU SUBAREA (EXISTING ELEMENT) <<<<

=====  
 CHANNEL LENGTH THRU SUBAREA (FEET) = 250.00  
 REPRESENTATIVE CHANNEL SLOPE = 0.0100  
 CHANNEL BASE (FEET) = 10.00 "Z" FACTOR = 20.000  
 MANNING'S FACTOR = 0.015 MAXIMUM DEPTH (FEET) = 2.00  
 100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 5.652  
 LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8500  
 SOIL CLASSIFICATION IS "D"  
 S.C.S. CURVE NUMBER (AMC II) = 96  
 TRAVEL TIME COMPUTED USING ESTIMATED FLOW (CFS) = 9.51  
 TRAVEL TIME THRU SUBAREA BASED ON VELOCITY (FEET/SEC.) = 3.03  
 AVERAGE FLOW DEPTH (FEET) = 0.22 TRAVEL TIME (MIN.) = 1.37  
 $T_c$  (MIN.) = 5.38  
 SUBAREA AREA (ACRES) = 2.68 SUBAREA RUNOFF (CFS) = 12.88  
 AREA-AVERAGE RUNOFF COEFFICIENT = 0.850  
 TOTAL AREA (ACRES) = 3.3 PEAK FLOW RATE (CFS) = 15.81

END OF SUBAREA CHANNEL FLOW HYDRAULICS:  
 DEPTH (FEET) = 0.29 FLOW VELOCITY (FEET/SEC.) = 3.50  
 LONGEST FLOWPATH FROM NODE 400.00 TO NODE 402.00 = 350.00 FEET.

=====  
 END OF STUDY SUMMARY:  
 TOTAL AREA (ACRES) = 3.3  $T_c$  (MIN.) = 5.38  
 PEAK FLOW RATE (CFS) = 15.81

=====  
 END OF RATIONAL METHOD ANALYSIS



\*\*\*\*\*

RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE  
Reference: SAN DIEGO COUNTY FLOOD CONTROL DISTRICT  
2003,1985,1981 HYDROLOGY MANUAL  
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Ver. 23.0 Release Date: 07/01/2016 License ID 1523

Analysis prepared by:

Latitude 33 Planning and Engineering  
9968 Hibert Street 2nd Floor San Diego, CA 92131

\*\*\*\*\* DESCRIPTION OF STUDY \*\*\*\*\*  
\* UCSD SCIENCE RESEARCH PARK \*  
\* SYSTEM 500 EXISTING CONDITION \*  
\* 100 YEAR DESIGN STORM \*  
\*\*\*\*\*

FILE NAME: S500E100.DAT  
TIME/DATE OF STUDY: 16:44 03/29/2023

-----  
USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:  
-----

2003 SAN DIEGO MANUAL CRITERIA

USER SPECIFIED STORM EVENT(YEAR) = 100.00  
6-HOUR DURATION PRECIPITATION (INCHES) = 2.250  
SPECIFIED MINIMUM PIPE SIZE(INCH) = 12.00  
SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.85  
SAN DIEGO HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD  
NOTE: USE MODIFIED RATIONAL METHOD PROCEDURES FOR CONFLUENCE ANALYSIS  
\*USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL\*

NO.	HALF- WIDTH (FT)	CROWN TO CROSSFALL (FT)	STREET-CROSSFALL: IN- / OUT-/PARK- SIDE / SIDE/ WAY	CURB HEIGHT (FT)	GUTTER-GEOMETRIES: WIDTH LIP HIKE (FT) (FT) (FT)	MANNING FACTOR (n)
1	30.0	20.0	0.018/0.018/0.020	0.67	2.00 0.0313 0.167	0.0150

GLOBAL STREET FLOW-DEPTH CONSTRAINTS:

1. Relative Flow-Depth = 0.00 FEET  
as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
2. (Depth)\*(Velocity) Constraint = 6.0 (FT\*FT/S)

\*SIZE PIPE WITH A FLOW CAPACITY GREATER THAN  
OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.\*

\*\*\*\*\*  
FLOW PROCESS FROM NODE 500.00 TO NODE 501.00 IS CODE = 21  
-----

>>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<  
=====

LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8500  
SOIL CLASSIFICATION IS "D"  
S.C.S. CURVE NUMBER (AMC II) = 96  
INITIAL SUBAREA FLOW-LENGTH(FEET) = 100.00  
UPSTREAM ELEVATION(FEET) = 346.00  
DOWNSTREAM ELEVATION(FEET) = 341.00

ELEVATION DIFFERENCE (FEET) = 5.00  
 SUBAREA OVERLAND TIME OF FLOW (MIN.) = 2.497  
 WARNING: INITIAL SUBAREA FLOW PATH LENGTH IS GREATER THAN  
 THE MAXIMUM OVERLAND FLOW LENGTH = 90.00  
 (Reference: Table 3-1B of Hydrology Manual)  
 THE MAXIMUM OVERLAND FLOW LENGTH IS USED IN  $T_c$  CALCULATION!  
 100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 5.928  
 NOTE: RAINFALL INTENSITY IS BASED ON  $T_c$  = 5-MINUTE.  
 SUBAREA RUNOFF (CFS) = 1.71  
 TOTAL AREA (ACRES) = 0.34 TOTAL RUNOFF (CFS) = 1.71

\*\*\*\*\*  
 FLOW PROCESS FROM NODE 501.00 TO NODE 502.00 IS CODE = 51

>>>> COMPUTE TRAPEZOIDAL CHANNEL FLOW <<<<  
 >>>> TRAVELTIME THRU SUBAREA (EXISTING ELEMENT) <<<<

=====  
 CHANNEL LENGTH THRU SUBAREA (FEET) = 200.00  
 REPRESENTATIVE CHANNEL SLOPE = 0.0350  
 CHANNEL BASE (FEET) = 10.00 "Z" FACTOR = 20.000  
 MANNING'S FACTOR = 0.015 MAXIMUM DEPTH (FEET) = 2.00  
 100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 5.928  
 NOTE: RAINFALL INTENSITY IS BASED ON  $T_c$  = 5-MINUTE.  
 LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8500  
 SOIL CLASSIFICATION IS "D"  
 S.C.S. CURVE NUMBER (AMC II) = 96  
 TRAVEL TIME COMPUTED USING ESTIMATED FLOW (CFS) = 8.01  
 TRAVEL TIME THRU SUBAREA BASED ON VELOCITY (FEET/SEC.) = 4.39  
 AVERAGE FLOW DEPTH (FEET) = 0.14 TRAVEL TIME (MIN.) = 0.76  
 $T_c$  (MIN.) = 3.26  
 SUBAREA AREA (ACRES) = 2.50 SUBAREA RUNOFF (CFS) = 12.60  
 AREA-AVERAGE RUNOFF COEFFICIENT = 0.850  
 TOTAL AREA (ACRES) = 2.8 PEAK FLOW RATE (CFS) = 14.31

END OF SUBAREA CHANNEL FLOW HYDRAULICS:  
 DEPTH (FEET) = 0.20 FLOW VELOCITY (FEET/SEC.) = 5.26  
 LONGEST FLOWPATH FROM NODE 500.00 TO NODE 502.00 = 300.00 FEET.

=====  
 END OF STUDY SUMMARY:  
 TOTAL AREA (ACRES) = 2.8  $T_c$  (MIN.) = 3.26  
 PEAK FLOW RATE (CFS) = 14.31  
 =====

=====  
 END OF RATIONAL METHOD ANALYSIS

## **Appendix B – Proposed Condition Modeling Results**

\*\*\*\*\*

RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE  
Reference: SAN DIEGO COUNTY FLOOD CONTROL DISTRICT  
2003,1985,1981 HYDROLOGY MANUAL  
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Ver. 23.0 Release Date: 07/01/2016 License ID 1523

Analysis prepared by:

Latitude 33 Planning and Engineering  
9968 Hibert Street 2nd Floor San Diego, CA 92131

\*\*\*\*\* DESCRIPTION OF STUDY \*\*\*\*\*  
\* UCSD SCIENCE RESEARCH PARK \*  
\* SYSTEM 100 PROPOSED CONDITION \*  
\* 100 YEAR DESIGN STORM \*  
\*\*\*\*\*

FILE NAME: S100S.DAT  
TIME/DATE OF STUDY: 18:35 03/29/2023

-----  
USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:  
-----

2003 SAN DIEGO MANUAL CRITERIA

USER SPECIFIED STORM EVENT(YEAR) = 100.00  
6-HOUR DURATION PRECIPITATION (INCHES) = 2.250  
SPECIFIED MINIMUM PIPE SIZE(INCH) = 12.00  
SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.85  
SAN DIEGO HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD  
NOTE: USE MODIFIED RATIONAL METHOD PROCEDURES FOR CONFLUENCE ANALYSIS  
\*USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL\*

NO.	HALF- WIDTH (FT)	CROWN TO CROSSFALL (FT)	STREET-CROSSFALL: IN- / OUT- / PARK- SIDE / SIDE / WAY	CURB HEIGHT (FT)	GUTTER-GEOMETRIES: WIDTH LIP HIKE (FT) (FT) (FT)	MANNING FACTOR (n)
1	30.0	20.0	0.018/0.018/0.020	0.67	2.00 0.0313 0.167	0.0150

GLOBAL STREET FLOW-DEPTH CONSTRAINTS:

1. Relative Flow-Depth = 0.00 FEET  
as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
2. (Depth)\*(Velocity) Constraint = 6.0 (FT\*FT/S)

\*SIZE PIPE WITH A FLOW CAPACITY GREATER THAN  
OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.\*

\*\*\*\*\*  
FLOW PROCESS FROM NODE 100.00 TO NODE 101.00 IS CODE = 21  
-----

>>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<  
=====

LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8400  
SOIL CLASSIFICATION IS "C"  
S.C.S. CURVE NUMBER (AMC II) = 96  
INITIAL SUBAREA FLOW-LENGTH(FEET) = 100.00  
UPSTREAM ELEVATION(FEET) = 346.00  
DOWNSTREAM ELEVATION(FEET) = 345.00

ELEVATION DIFFERENCE (FEET) = 1.00  
SUBAREA OVERLAND TIME OF FLOW (MIN.) = 3.625  
WARNING: INITIAL SUBAREA FLOW PATH LENGTH IS GREATER THAN  
THE MAXIMUM OVERLAND FLOW LENGTH = 60.00  
(Reference: Table 3-1B of Hydrology Manual)  
THE MAXIMUM OVERLAND FLOW LENGTH IS USED IN  $T_c$  CALCULATION!  
100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 5.928  
NOTE: RAINFALL INTENSITY IS BASED ON  $T_c$  = 5-MINUTE.  
SUBAREA RUNOFF (CFS) = 1.79  
TOTAL AREA (ACRES) = 0.36 TOTAL RUNOFF (CFS) = 1.79

\*\*\*\*\*  
FLOW PROCESS FROM NODE 101.00 TO NODE 102.00 IS CODE = 41  
-----

>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<  
>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<

=====

REPRESENTATIVE SLOPE =	0.0100
FLOW LENGTH (FEET) =	205.00
MANNING'S N =	0.013
DEPTH OF FLOW IN 18.0 INCH PIPE IS	5.3 INCHES
PIPE-FLOW VELOCITY (FEET/SEC.) =	4.18
GIVEN PIPE DIAMETER (INCH) =	18.00
NUMBER OF PIPES =	1
PIPE-FLOW (CFS) =	1.79
PIPE TRAVEL TIME (MIN.) =	0.82
$T_c$ (MIN.) =	4.44
LONGEST FLOWPATH FROM NODE 100.00 TO NODE 102.00 =	305.00 FEET.

\*\*\*\*\*  
FLOW PROCESS FROM NODE 104.00 TO NODE 102.00 IS CODE = 81  
-----

>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<

=====

100 YEAR RAINFALL INTENSITY (INCH/HOUR) =	5.928
NOTE: RAINFALL INTENSITY IS BASED ON $T_c$ = 5-MINUTE.	
LIMITED INDUSTRIAL RUNOFF COEFFICIENT =	.8400
SOIL CLASSIFICATION IS "C"	
S.C.S. CURVE NUMBER (AMC II) =	96
AREA-AVERAGE RUNOFF COEFFICIENT =	0.8400
SUBAREA AREA (ACRES) =	0.27
SUBAREA RUNOFF (CFS) =	1.34
TOTAL AREA (ACRES) =	0.6
TOTAL RUNOFF (CFS) =	3.14
$T_c$ (MIN.) =	4.44

\*\*\*\*\*  
FLOW PROCESS FROM NODE 102.00 TO NODE 103.00 IS CODE = 41  
-----

>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<  
>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<

=====

REPRESENTATIVE SLOPE =	0.0100
FLOW LENGTH (FEET) =	207.00
MANNING'S N =	0.013
DEPTH OF FLOW IN 18.0 INCH PIPE IS	7.0 INCHES
PIPE-FLOW VELOCITY (FEET/SEC.) =	4.89
GIVEN PIPE DIAMETER (INCH) =	18.00
NUMBER OF PIPES =	1
PIPE-FLOW (CFS) =	3.14
PIPE TRAVEL TIME (MIN.) =	0.71
$T_c$ (MIN.) =	5.15
LONGEST FLOWPATH FROM NODE 100.00 TO NODE 103.00 =	512.00 FEET.

\*\*\*\*\*  
FLOW PROCESS FROM NODE 105.00 TO NODE 103.00 IS CODE = 81  
-----

>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<

```

=====
100 YEAR RAINFALL INTENSITY(INCH/HOUR) = 5.818
RESIDENTIAL (14.5 DU/AC OR LESS) RUNOFF COEFFICIENT = .6000
SOIL CLASSIFICATION IS "C"
S.C.S. CURVE NUMBER (AMC II) = 86
AREA-AVERAGE RUNOFF COEFFICIENT = 0.7413
SUBAREA AREA(ACRES) = 0.44 SUBAREA RUNOFF(CFS) = 1.54
TOTAL AREA(ACRES) = 1.1 TOTAL RUNOFF(CFS) = 4.61
TC(MIN.) = 5.15

*****
FLOW PROCESS FROM NODE 106.00 TO NODE 103.00 IS CODE = 81
-----
>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<
=====
100 YEAR RAINFALL INTENSITY(INCH/HOUR) = 5.818
NATURAL DESERT LANDSCAPING RUNOFF COEFFICIENT = .3000
SOIL CLASSIFICATION IS "C"
S.C.S. CURVE NUMBER (AMC II) = 85
AREA-AVERAGE RUNOFF COEFFICIENT = 0.6008
SUBAREA AREA(ACRES) = 0.50 SUBAREA RUNOFF(CFS) = 0.87
TOTAL AREA(ACRES) = 1.6 TOTAL RUNOFF(CFS) = 5.49
TC(MIN.) = 5.15

*****
FLOW PROCESS FROM NODE 107.00 TO NODE 103.00 IS CODE = 81
-----
>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<
=====
100 YEAR RAINFALL INTENSITY(INCH/HOUR) = 5.818
NATURAL DESERT LANDSCAPING RUNOFF COEFFICIENT = .3000
SOIL CLASSIFICATION IS "C"
S.C.S. CURVE NUMBER (AMC II) = 85
AREA-AVERAGE RUNOFF COEFFICIENT = 0.5638
SUBAREA AREA(ACRES) = 0.22 SUBAREA RUNOFF(CFS) = 0.38
TOTAL AREA(ACRES) = 1.8 TOTAL RUNOFF(CFS) = 5.87
TC(MIN.) = 5.15

=====
END OF STUDY SUMMARY:
TOTAL AREA(ACRES) = 1.8 TC(MIN.) = 5.15
PEAK FLOW RATE(CFS) = 5.87
=====
END OF RATIONAL METHOD ANALYSIS
=====

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\*\*\*\*\*

RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE  
Reference: SAN DIEGO COUNTY FLOOD CONTROL DISTRICT  
2003,1985,1981 HYDROLOGY MANUAL  
(c) Copyright 1982-2016 Advanced Engineering Software (aes)  
Ver. 23.0 Release Date: 07/01/2016 License ID 1523

Analysis prepared by:

Latitude 33 Planning and Engineering  
9968 Hibert Street 2nd Floor San Diego, CA 92131

\*\*\*\*\* DESCRIPTION OF STUDY \*\*\*\*\*  
\* UCSD SCIENCE RESEARCH PARK \*  
\* SYSTEM 200 PROPOSED CONDITION \*  
\* 100 YEAR DESIGN STORM \*  
\*\*\*\*\*

FILE NAME: S200P100.DAT  
TIME/DATE OF STUDY: 18:42 03/29/2023

-----  
USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:  
-----

2003 SAN DIEGO MANUAL CRITERIA

USER SPECIFIED STORM EVENT(YEAR) = 100.00  
6-HOUR DURATION PRECIPITATION (INCHES) = 2.250  
SPECIFIED MINIMUM PIPE SIZE(INCH) = 12.00  
SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.85  
SAN DIEGO HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD  
NOTE: USE MODIFIED RATIONAL METHOD PROCEDURES FOR CONFLUENCE ANALYSIS  
\*USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL\*

NO.	HALF- WIDTH (FT)	CROWN TO CROSSFALL (FT)	STREET-CROSSFALL: IN- / OUT-/PARK- SIDE / SIDE/ WAY	CURB HEIGHT (FT)	GUTTER-GEOMETRIES: WIDTH LIP HIKE (FT) (FT) (FT)	MANNING FACTOR (n)
1	30.0	20.0	0.018/0.018/0.020	0.67	2.00 0.0313 0.167	0.0150

GLOBAL STREET FLOW-DEPTH CONSTRAINTS:

1. Relative Flow-Depth = 0.00 FEET  
as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
2. (Depth)\*(Velocity) Constraint = 6.0 (FT\*FT/S)

\*SIZE PIPE WITH A FLOW CAPACITY GREATER THAN  
OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.\*

\*\*\*\*\*  
FLOW PROCESS FROM NODE 200.00 TO NODE 201.00 IS CODE = 21  
-----

>>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<  
=====

LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8500  
SOIL CLASSIFICATION IS "D"  
S.C.S. CURVE NUMBER (AMC II) = 96  
INITIAL SUBAREA FLOW-LENGTH(FEET) = 100.00  
UPSTREAM ELEVATION(FEET) = 346.00  
DOWNSTREAM ELEVATION(FEET) = 345.00

ELEVATION DIFFERENCE (FEET) = 1.00  
SUBAREA OVERLAND TIME OF FLOW (MIN.) = 3.486  
WARNING: INITIAL SUBAREA FLOW PATH LENGTH IS GREATER THAN  
THE MAXIMUM OVERLAND FLOW LENGTH = 60.00  
(Reference: Table 3-1B of Hydrology Manual)  
THE MAXIMUM OVERLAND FLOW LENGTH IS USED IN  $T_c$  CALCULATION!  
100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 5.928  
NOTE: RAINFALL INTENSITY IS BASED ON  $T_c$  = 5-MINUTE.  
SUBAREA RUNOFF (CFS) = 3.22  
TOTAL AREA (ACRES) = 0.64 TOTAL RUNOFF (CFS) = 3.22

\*\*\*\*\*  
FLOW PROCESS FROM NODE 201.00 TO NODE 202.00 IS CODE = 51  
-----

>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<  
>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<

=====

CHANNEL LENGTH THRU SUBAREA (FEET) = 142.00  
REPRESENTATIVE CHANNEL SLOPE = 0.0100  
CHANNEL BASE (FEET) = 10.00 "Z" FACTOR = 20.000  
MANNING'S FACTOR = 0.015 MAXIMUM DEPTH (FEET) = 2.00  
100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 5.928  
NOTE: RAINFALL INTENSITY IS BASED ON  $T_c$  = 5-MINUTE.  
LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8500  
SOIL CLASSIFICATION IS "D"  
S.C.S. CURVE NUMBER (AMC II) = 96  
TRAVEL TIME COMPUTED USING ESTIMATED FLOW (CFS) = 4.86  
TRAVEL TIME THRU SUBAREA BASED ON VELOCITY (FEET/SEC.) = 2.50  
AVERAGE FLOW DEPTH (FEET) = 0.15 TRAVEL TIME (MIN.) = 0.95  
 $T_c$  (MIN.) = 4.43  
SUBAREA AREA (ACRES) = 0.65 SUBAREA RUNOFF (CFS) = 3.28  
AREA-AVERAGE RUNOFF COEFFICIENT = 0.850  
TOTAL AREA (ACRES) = 1.3 PEAK FLOW RATE (CFS) = 6.50

END OF SUBAREA CHANNEL FLOW HYDRAULICS:  
DEPTH (FEET) = 0.18 FLOW VELOCITY (FEET/SEC.) = 2.69  
LONGEST FLOWPATH FROM NODE 200.00 TO NODE 202.00 = 242.00 FEET.

\*\*\*\*\*  
FLOW PROCESS FROM NODE 207.00 TO NODE 202.00 IS CODE = 81  
-----

>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<

=====

100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 5.928  
NOTE: RAINFALL INTENSITY IS BASED ON  $T_c$  = 5-MINUTE.  
NATURAL DESERT LANDSCAPING RUNOFF COEFFICIENT = .3500  
SOIL CLASSIFICATION IS "D"  
S.C.S. CURVE NUMBER (AMC II) = 88  
AREA-AVERAGE RUNOFF COEFFICIENT = 0.7772  
SUBAREA AREA (ACRES) = 0.22 SUBAREA RUNOFF (CFS) = 0.46  
TOTAL AREA (ACRES) = 1.5 TOTAL RUNOFF (CFS) = 6.96  
 $T_c$  (MIN.) = 4.43

\*\*\*\*\*  
FLOW PROCESS FROM NODE 202.00 TO NODE 203.00 IS CODE = 41  
-----

>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<  
>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<

=====

REPRESENTATIVE SLOPE = 0.0100



FLOW LENGTH(FEET) = 300.00 MANNING'S N = 0.013  
DEPTH OF FLOW IN 18.0 INCH PIPE IS 11.3 INCHES  
PIPE-FLOW VELOCITY(FEET/SEC.) = 5.96  
GIVEN PIPE DIAMETER(INCH) = 18.00 NUMBER OF PIPES = 1  
PIPE-FLOW(CFS) = 6.96  
PIPE TRAVEL TIME(MIN.) = 0.84 TC(MIN.) = 5.27  
LONGEST FLOWPATH FROM NODE 200.00 TO NODE 203.00 = 542.00 FEET.

\*\*\*\*\*

FLOW PROCESS FROM NODE 204.00 TO NODE 203.00 IS CODE = 81

-----  
>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<

=====

100 YEAR RAINFALL INTENSITY(INCH/HOUR)	=	5.729
NATURAL DESERT LANDSCAPING RUNOFF COEFFICIENT	=	.3500
SOIL CLASSIFICATION IS "D"		
S.C.S. CURVE NUMBER (AMC II)	=	88
AREA-AVERAGE RUNOFF COEFFICIENT	=	0.7124
SUBAREA AREA(ACRES)	=	0.27
SUBAREA RUNOFF(CFS)	=	0.54
TOTAL AREA(ACRES)	=	1.8
TOTAL RUNOFF(CFS)	=	7.26
TC(MIN.)	=	5.27

\*\*\*\*\*

FLOW PROCESS FROM NODE 205.00 TO NODE 203.00 IS CODE = 81

-----  
>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<

=====

100 YEAR RAINFALL INTENSITY(INCH/HOUR)	=	5.729
NATURAL DESERT LANDSCAPING RUNOFF COEFFICIENT	=	.3500
SOIL CLASSIFICATION IS "D"		
S.C.S. CURVE NUMBER (AMC II)	=	88
AREA-AVERAGE RUNOFF COEFFICIENT	=	0.6741
SUBAREA AREA(ACRES)	=	0.21
SUBAREA RUNOFF(CFS)	=	0.42
TOTAL AREA(ACRES)	=	2.0
TOTAL RUNOFF(CFS)	=	7.69
TC(MIN.)	=	5.27

\*\*\*\*\*

FLOW PROCESS FROM NODE 206.00 TO NODE 203.00 IS CODE = 81

-----  
>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<

=====

100 YEAR RAINFALL INTENSITY(INCH/HOUR)	=	5.729
LIMITED INDUSTRIAL RUNOFF COEFFICIENT	=	.8500
SOIL CLASSIFICATION IS "D"		
S.C.S. CURVE NUMBER (AMC II)	=	96
AREA-AVERAGE RUNOFF COEFFICIENT	=	0.6887
SUBAREA AREA(ACRES)	=	0.18
SUBAREA RUNOFF(CFS)	=	0.88
TOTAL AREA(ACRES)	=	2.2
TOTAL RUNOFF(CFS)	=	8.56
TC(MIN.)	=	5.27

-----  
END OF STUDY SUMMARY:

TOTAL AREA(ACRES)	=	2.2	TC(MIN.)	=	5.27
PEAK FLOW RATE(CFS)	=	8.56			

-----  
END OF RATIONAL METHOD ANALYSIS

\*\*\*\*\*

RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE  
Reference: SAN DIEGO COUNTY FLOOD CONTROL DISTRICT  
2003,1985,1981 HYDROLOGY MANUAL  
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Ver. 23.0 Release Date: 07/01/2016 License ID 1523

Analysis prepared by:

Latitude 33 Planning and Engineering  
9968 Hibert Street 2nd Floor San Diego, CA 92131

\*\*\*\*\* DESCRIPTION OF STUDY \*\*\*\*\*  
\* UCSD SCIENCE RESEARCH PARK \*  
\* SYSTEM 300 PROPOSED CONDITION \*  
\* 100 YEAR DESIGN STORM \*  
\*\*\*\*\*

FILE NAME: S300P100.DAT  
TIME/DATE OF STUDY: 18:22 03/29/2023

-----  
USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:  
-----

2003 SAN DIEGO MANUAL CRITERIA

USER SPECIFIED STORM EVENT(YEAR) = 100.00  
6-HOUR DURATION PRECIPITATION (INCHES) = 2.250  
SPECIFIED MINIMUM PIPE SIZE(INCH) = 12.00  
SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.85  
SAN DIEGO HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD  
NOTE: USE MODIFIED RATIONAL METHOD PROCEDURES FOR CONFLUENCE ANALYSIS  
\*USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL\*

NO.	HALF- WIDTH (FT)	CROWN TO CROSSFALL (FT)	STREET-CROSSFALL: IN- / OUT-/PARK- SIDE / SIDE/ WAY	CURB HEIGHT (FT)	GUTTER-GEOMETRIES: WIDTH LIP HIKE (FT) (FT) (FT)	MANNING FACTOR (n)
1	30.0	20.0	0.018/0.018/0.020	0.67	2.00 0.0313 0.167	0.0150

GLOBAL STREET FLOW-DEPTH CONSTRAINTS:

1. Relative Flow-Depth = 0.00 FEET  
as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
2. (Depth)\*(Velocity) Constraint = 6.0 (FT\*FT/S)

\*SIZE PIPE WITH A FLOW CAPACITY GREATER THAN  
OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.\*

\*\*\*\*\*  
FLOW PROCESS FROM NODE 300.00 TO NODE 301.00 IS CODE = 21  
-----

>>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<  
=====

LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8500  
SOIL CLASSIFICATION IS "D"  
S.C.S. CURVE NUMBER (AMC II) = 96  
INITIAL SUBAREA FLOW-LENGTH(FEET) = 100.00  
UPSTREAM ELEVATION(FEET) = 364.50  
DOWNSTREAM ELEVATION(FEET) = 363.50

ELEVATION DIFFERENCE (FEET) = 1.00  
SUBAREA OVERLAND TIME OF FLOW (MIN.) = 3.486  
WARNING: INITIAL SUBAREA FLOW PATH LENGTH IS GREATER THAN  
THE MAXIMUM OVERLAND FLOW LENGTH = 60.00  
(Reference: Table 3-1B of Hydrology Manual)  
THE MAXIMUM OVERLAND FLOW LENGTH IS USED IN  $T_c$  CALCULATION!  
100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 5.928  
NOTE: RAINFALL INTENSITY IS BASED ON  $T_c$  = 5-MINUTE.  
SUBAREA RUNOFF (CFS) = 1.81  
TOTAL AREA (ACRES) = 0.36 TOTAL RUNOFF (CFS) = 1.81

\*\*\*\*\*  
FLOW PROCESS FROM NODE 301.00 TO NODE 302.00 IS CODE = 61  
-----

>>>> COMPUTE STREET FLOW TRAVEL TIME THRU SUBAREA <<<<  
>>>> (STANDARD CURB SECTION USED) <<<<  
=====

REPRESENTATIVE SLOPE = 0.0100  
STREET LENGTH (FEET) = 70.00 CURB HEIGHT (INCHES) = 6.0  
STREET HALFWIDTH (FEET) = 35.00

DISTANCE FROM CROWN TO CROSSFALL GRADEBREAK (FEET) = 20.00  
INSIDE STREET CROSSFALL (DECIMAL) = 0.020  
OUTSIDE STREET CROSSFALL (DECIMAL) = 0.020

SPECIFIED NUMBER OF HALFSTREETS CARRYING RUNOFF = 1  
Manning's FRICTION FACTOR for Streetflow Section (curb-to-curb) = 0.0150

\*\*TRAVEL TIME COMPUTED USING ESTIMATED FLOW (CFS) = 3.10  
STREETFLOW MODEL RESULTS USING ESTIMATED FLOW:  
STREET FLOW DEPTH (FEET) = 0.35  
HALFSTREET FLOOD WIDTH (FEET) = 10.95  
AVERAGE FLOW VELOCITY (FEET/SEC.) = 2.35  
PRODUCT OF DEPTH & VELOCITY (FT\*FT/SEC.) = 0.81  
STREET FLOW TRAVEL TIME (MIN.) = 0.50  $T_c$  (MIN.) = 3.98  
100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 5.928  
NOTE: RAINFALL INTENSITY IS BASED ON  $T_c$  = 5-MINUTE.  
LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8500  
SOIL CLASSIFICATION IS "D"  
S.C.S. CURVE NUMBER (AMC II) = 96  
AREA-AVERAGE RUNOFF COEFFICIENT = 0.850  
SUBAREA AREA (ACRES) = 0.51 SUBAREA RUNOFF (CFS) = 2.57  
TOTAL AREA (ACRES) = 0.9 PEAK FLOW RATE (CFS) = 4.38

END OF SUBAREA STREET FLOW HYDRAULICS:  
DEPTH (FEET) = 0.38 HALFSTREET FLOOD WIDTH (FEET) = 12.66  
FLOW VELOCITY (FEET/SEC.) = 2.55 DEPTH\*VELOCITY (FT\*FT/SEC.) = 0.97  
LONGEST FLOWPATH FROM NODE 300.00 TO NODE 302.00 = 170.00 FEET.

\*\*\*\*\*  
FLOW PROCESS FROM NODE 303.00 TO NODE 302.00 IS CODE = 81  
-----

>>>> ADDITION OF SUBAREA TO MAINLINE PEAK FLOW <<<<  
=====

100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 5.928  
NOTE: RAINFALL INTENSITY IS BASED ON  $T_c$  = 5-MINUTE.  
NATURAL DESERT LANDSCAPING RUNOFF COEFFICIENT = .3500  
SOIL CLASSIFICATION IS "D"  
S.C.S. CURVE NUMBER (AMC II) = 88  
AREA-AVERAGE RUNOFF COEFFICIENT = 0.6821

```

SUBAREA AREA(ACRES) =      0.44    SUBAREA RUNOFF(CFS) =      0.91
TOTAL AREA(ACRES) =      1.3      TOTAL RUNOFF(CFS) =      5.30
TC(MIN.) =      3.98

*****
FLOW PROCESS FROM NODE      304.00 TO NODE      302.00 IS CODE =   81
-----
>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<
=====
100 YEAR RAINFALL INTENSITY(INCH/HOUR) =   5.928
NOTE: RAINFALL INTENSITY IS BASED ON Tc = 5-MINUTE.
NATURAL DESERT LANDSCAPING RUNOFF COEFFICIENT = .3500
SOIL CLASSIFICATION IS "D"
S.C.S. CURVE NUMBER (AMC II) =   88
AREA-AVERAGE RUNOFF COEFFICIENT = 0.6089
SUBAREA AREA(ACRES) =      0.37    SUBAREA RUNOFF(CFS) =      0.77
TOTAL AREA(ACRES) =      1.7      TOTAL RUNOFF(CFS) =      6.06
TC(MIN.) =      3.98

*****
FLOW PROCESS FROM NODE      302.00 TO NODE      3013.00 IS CODE =   41
-----
>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<
>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<
=====
REPRESENTATIVE SLOPE =   0.0100
FLOW LENGTH(FEET) =   230.00    MANNING'S N =   0.013
DEPTH OF FLOW IN 18.0 INCH PIPE IS 10.3 INCHES
PIPE-FLOW VELOCITY(FEET/SEC.) =   5.79
GIVEN PIPE DIAMETER(INCH) = 18.00    NUMBER OF PIPES =   1
PIPE-FLOW(CFS) =      6.06
PIPE TRAVEL TIME(MIN.) =   0.66    Tc(MIN.) =   4.64
LONGEST FLOWPATH FROM NODE      300.00 TO NODE      3013.00 =      400.00 FEET.

*****
FLOW PROCESS FROM NODE      302.00 TO NODE      313.00 IS CODE =   10
-----
>>>>MAIN-STREAM MEMORY COPIED ONTO MEMORY BANK # 1 <<<<
=====

*****
FLOW PROCESS FROM NODE      302.00 TO NODE      313.00 IS CODE =   13
-----
>>>>CLEAR THE MAIN-STREAM MEMORY<<<<
=====

*****
FLOW PROCESS FROM NODE      315.00 TO NODE      316.00 IS CODE =   21
-----
>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<
=====
LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8400
SOIL CLASSIFICATION IS "C"
S.C.S. CURVE NUMBER (AMC II) =   96
INITIAL SUBAREA FLOW-LENGTH(FEET) = 100.00
UPSTREAM ELEVATION(FEET) =      345.00
DOWNSTREAM ELEVATION(FEET) =      344.00
ELEVATION DIFFERENCE(FEET) =      1.00
SUBAREA OVERLAND TIME OF FLOW(MIN.) =   3.625
WARNING: INITIAL SUBAREA FLOW PATH LENGTH IS GREATER THAN

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      THE MAXIMUM OVERLAND FLOW LENGTH =      60.00
      (Reference: Table 3-1B of Hydrology Manual)
      THE MAXIMUM OVERLAND FLOW LENGTH IS USED IN Tc CALCULATION!
      100 YEAR RAINFALL INTENSITY(INCH/HOUR) =   5.928
NOTE: RAINFALL INTENSITY IS BASED ON Tc = 5-MINUTE.
SUBAREA RUNOFF(CFS) =           1.44
TOTAL AREA(ACRES) =           0.29   TOTAL RUNOFF(CFS) =           1.44

*****
FLOW PROCESS FROM NODE      316.00 TO NODE      317.00 IS CODE =   51
-----
>>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
>>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
=====
CHANNEL LENGTH THRU SUBAREA(FEET) =   127.00
REPRESENTATIVE CHANNEL SLOPE =   0.0100
CHANNEL BASE(FEET) =     0.00   "Z" FACTOR =   2.000
MANNING'S FACTOR = 0.015   MAXIMUM DEPTH(FEET) =   2.00
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =   5.928
NOTE: RAINFALL INTENSITY IS BASED ON Tc = 5-MINUTE.
LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8400
SOIL CLASSIFICATION IS "C"
S.C.S. CURVE NUMBER (AMC II) =   96
TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =           2.46
TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   3.93
AVERAGE FLOW DEPTH(FEET) =   0.56   TRAVEL TIME(MIN.) =   0.54
Tc(MIN.) =     4.16
SUBAREA AREA(ACRES) =     0.41   SUBAREA RUNOFF(CFS) =     2.04
AREA-AVERAGE RUNOFF COEFFICIENT =   0.840
TOTAL AREA(ACRES) =     0.7   PEAK FLOW RATE(CFS) =           3.49

END OF SUBAREA CHANNEL FLOW HYDRAULICS:
DEPTH(FEET) =   0.64   FLOW VELOCITY(FEET/SEC.) =   4.28
LONGEST FLOWPATH FROM NODE      315.00 TO NODE      317.00 =   227.00 FEET.

*****
FLOW PROCESS FROM NODE      318.00 TO NODE      317.00 IS CODE =   81
-----
>>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
=====
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =   5.928
NOTE: RAINFALL INTENSITY IS BASED ON Tc = 5-MINUTE.
NATURAL DESERT LANDSCAPING RUNOFF COEFFICIENT = .3000
SOIL CLASSIFICATION IS "C"
S.C.S. CURVE NUMBER (AMC II) =   85
AREA-AVERAGE RUNOFF COEFFICIENT = 0.5700
SUBAREA AREA(ACRES) =     0.70   SUBAREA RUNOFF(CFS) =     1.24
TOTAL AREA(ACRES) =     1.4   TOTAL RUNOFF(CFS) =     4.73
TC(MIN.) =     4.16

*****
FLOW PROCESS FROM NODE      319.00 TO NODE      317.00 IS CODE =   81
-----
>>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
=====
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =   5.928
NOTE: RAINFALL INTENSITY IS BASED ON Tc = 5-MINUTE.
NATURAL DESERT LANDSCAPING RUNOFF COEFFICIENT = .3000
SOIL CLASSIFICATION IS "C"
S.C.S. CURVE NUMBER (AMC II) =   85

```

AREA-AVERAGE RUNOFF COEFFICIENT = 0.5503  
SUBAREA AREA(ACRES) = 0.11 SUBAREA RUNOFF(CFS) = 0.20  
TOTAL AREA(ACRES) = 1.5 TOTAL RUNOFF(CFS) = 4.93  
TC(MIN.) = 4.16

\*\*\*\*\*  
FLOW PROCESS FROM NODE 317.00 TO NODE 312.00 IS CODE = 41  
-----

>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<  
>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<

=====

REPRESENTATIVE SLOPE = 0.0100  
FLOW LENGTH(FEET) = 360.00 MANNING'S N = 0.013  
DEPTH OF FLOW IN 18.0 INCH PIPE IS 9.1 INCHES  
PIPE-FLOW VELOCITY(FEET/SEC.) = 5.50  
GIVEN PIPE DIAMETER(INCH) = 18.00 NUMBER OF PIPES = 1  
PIPE-FLOW(CFS) = 4.93  
PIPE TRAVEL TIME(MIN.) = 1.09 Tc(MIN.) = 5.25  
LONGEST FLOWPATH FROM NODE 315.00 TO NODE 312.00 = 587.00 FEET.

\*\*\*\*\*  
FLOW PROCESS FROM NODE 317.00 TO NODE 312.00 IS CODE = 1  
-----

>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<

=====

TOTAL NUMBER OF STREAMS = 2  
CONFLUENCE VALUES USED FOR INDEPENDENT STREAM 1 ARE:  
TIME OF CONCENTRATION(MIN.) = 5.25  
RAINFALL INTENSITY(INCH/HR) = 5.74  
TOTAL STREAM AREA(ACRES) = 1.51  
PEAK FLOW RATE(CFS) AT CONFLUENCE = 4.93

\*\*\*\*\*  
FLOW PROCESS FROM NODE 305.00 TO NODE 306.00 IS CODE = 21  
-----

>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<

=====

LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8400  
SOIL CLASSIFICATION IS "C"  
S.C.S. CURVE NUMBER (AMC II) = 96  
INITIAL SUBAREA FLOW-LENGTH(FEET) = 100.00  
UPSTREAM ELEVATION(FEET) = 350.00  
DOWNSTREAM ELEVATION(FEET) = 349.50  
ELEVATION DIFFERENCE(FEET) = 0.50  
SUBAREA OVERLAND TIME OF FLOW(MIN.) = 4.169  
WARNING: INITIAL SUBAREA FLOW PATH LENGTH IS GREATER THAN  
THE MAXIMUM OVERLAND FLOW LENGTH = 50.00  
(Reference: Table 3-1B of Hydrology Manual)  
THE MAXIMUM OVERLAND FLOW LENGTH IS USED IN Tc CALCULATION!  
100 YEAR RAINFALL INTENSITY(INCH/HOUR) = 5.928  
NOTE: RAINFALL INTENSITY IS BASED ON Tc = 5-MINUTE.  
SUBAREA RUNOFF(CFS) = 2.69  
TOTAL AREA(ACRES) = 0.54 TOTAL RUNOFF(CFS) = 2.69

\*\*\*\*\*  
FLOW PROCESS FROM NODE 306.00 TO NODE 308.00 IS CODE = 41  
-----

>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<  
>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<

```

REPRESENTATIVE SLOPE = 0.0100
FLOW LENGTH(FEET) = 20.00 MANNING'S N = 0.013
DEPTH OF FLOW IN 18.0 INCH PIPE IS 6.5 INCHES
PIPE-FLOW VELOCITY(FEET/SEC.) = 4.70
GIVEN PIPE DIAMETER(INCH) = 18.00 NUMBER OF PIPES = 1
PIPE-FLOW(CFS) = 2.69
PIPE TRAVEL TIME(MIN.) = 0.07 Tc(MIN.) = 4.24
LONGEST FLOWPATH FROM NODE 305.00 TO NODE 308.00 = 120.00 FEET.

*****
FLOW PROCESS FROM NODE 307.00 TO NODE 318.00 IS CODE = 81
-----
>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<
=====
100 YEAR RAINFALL INTENSITY(INCH/HOUR) = 5.928
NOTE: RAINFALL INTENSITY IS BASED ON Tc = 5-MINUTE.
NATURAL DESERT LANDSCAPING RUNOFF COEFFICIENT = .3000
SOIL CLASSIFICATION IS "C"
S.C.S. CURVE NUMBER (AMC II) = 85
AREA-AVERAGE RUNOFF COEFFICIENT = 0.6471
SUBAREA AREA(ACRES) = 0.30 SUBAREA RUNOFF(CFS) = 0.53
TOTAL AREA(ACRES) = 0.8 TOTAL RUNOFF(CFS) = 3.22
TC(MIN.) = 4.24

*****
FLOW PROCESS FROM NODE 308.00 TO NODE 309.00 IS CODE = 41
-----
>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<
>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<
=====
REPRESENTATIVE SLOPE = 0.0100
FLOW LENGTH(FEET) = 260.00 MANNING'S N = 0.013
DEPTH OF FLOW IN 18.0 INCH PIPE IS 7.2 INCHES
PIPE-FLOW VELOCITY(FEET/SEC.) = 4.92
GIVEN PIPE DIAMETER(INCH) = 18.00 NUMBER OF PIPES = 1
PIPE-FLOW(CFS) = 3.22
PIPE TRAVEL TIME(MIN.) = 0.88 Tc(MIN.) = 5.12
LONGEST FLOWPATH FROM NODE 305.00 TO NODE 309.00 = 380.00 FEET.

*****
FLOW PROCESS FROM NODE 310.00 TO NODE 309.00 IS CODE = 81
-----
>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<
=====
100 YEAR RAINFALL INTENSITY(INCH/HOUR) = 5.838
LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8400
SOIL CLASSIFICATION IS "C"
S.C.S. CURVE NUMBER (AMC II) = 96
AREA-AVERAGE RUNOFF COEFFICIENT = 0.7418
SUBAREA AREA(ACRES) = 0.81 SUBAREA RUNOFF(CFS) = 3.97
TOTAL AREA(ACRES) = 1.7 TOTAL RUNOFF(CFS) = 7.15
TC(MIN.) = 5.12

*****
FLOW PROCESS FROM NODE 309.00 TO NODE 311.00 IS CODE = 41
-----
>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<
>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<
=====
REPRESENTATIVE SLOPE = 0.0100

```

FLOW LENGTH(FEET) = 20.00 MANNING'S N = 0.013  
DEPTH OF FLOW IN 18.0 INCH PIPE IS 11.5 INCHES  
PIPE-FLOW VELOCITY(FEET/SEC.) = 6.00  
GIVEN PIPE DIAMETER(INCH) = 18.00 NUMBER OF PIPES = 1  
PIPE-FLOW(CFS) = 7.15  
PIPE TRAVEL TIME(MIN.) = 0.06 Tc(MIN.) = 5.18  
LONGEST FLOWPATH FROM NODE 305.00 TO NODE 311.00 = 400.00 FEET.

\*\*\*\*\*

FLOW PROCESS FROM NODE 311.00 TO NODE 312.00 IS CODE = 41

-----  
>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<  
>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<

=====

REPRESENTATIVE SLOPE = 0.0100  
FLOW LENGTH(FEET) = 50.00 MANNING'S N = 0.013  
DEPTH OF FLOW IN 18.0 INCH PIPE IS 11.5 INCHES  
PIPE-FLOW VELOCITY(FEET/SEC.) = 6.00  
GIVEN PIPE DIAMETER(INCH) = 18.00 NUMBER OF PIPES = 1  
PIPE-FLOW(CFS) = 7.15  
PIPE TRAVEL TIME(MIN.) = 0.14 Tc(MIN.) = 5.32  
LONGEST FLOWPATH FROM NODE 305.00 TO NODE 312.00 = 450.00 FEET.

\*\*\*\*\*

FLOW PROCESS FROM NODE 311.00 TO NODE 312.00 IS CODE = 1

-----  
>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<  
>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<

=====

TOTAL NUMBER OF STREAMS = 2  
CONFLUENCE VALUES USED FOR INDEPENDENT STREAM 2 ARE:  
TIME OF CONCENTRATION(MIN.) = 5.32  
RAINFALL INTENSITY(INCH/HR) = 5.70  
TOTAL STREAM AREA(ACRES) = 1.65  
PEAK FLOW RATE(CFS) AT CONFLUENCE = 7.15

\*\* CONFLUENCE DATA \*\*

STREAM NUMBER	RUNOFF (CFS)	Tc (MIN.)	INTENSITY (INCH/HOUR)	AREA (ACRE)
1	4.93	5.25	5.742	1.51
2	7.15	5.32	5.699	1.65

RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO  
CONFLUENCE FORMULA USED FOR 2 STREAMS.

\*\* PEAK FLOW RATE TABLE \*\*

STREAM NUMBER	RUNOFF (CFS)	Tc (MIN.)	INTENSITY (INCH/HOUR)
1	11.99	5.25	5.742
2	12.03	5.32	5.699

COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:

PEAK FLOW RATE(CFS) = 12.03 Tc(MIN.) = 5.32  
TOTAL AREA(ACRES) = 3.2  
LONGEST FLOWPATH FROM NODE 315.00 TO NODE 312.00 = 587.00 FEET.

\*\*\*\*\*

FLOW PROCESS FROM NODE 314.00 TO NODE 312.00 IS CODE = 81

-----  
>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<



```

=====
100 YEAR RAINFALL INTENSITY(INCH/HOUR) = 5.699
NATURAL DESERT LANDSCAPING RUNOFF COEFFICIENT = .3000
SOIL CLASSIFICATION IS "C"
S.C.S. CURVE NUMBER (AMC II) = 85
AREA-AVERAGE RUNOFF COEFFICIENT = 0.6025
SUBAREA AREA(ACRES) = 0.50 SUBAREA RUNOFF(CFS) = 0.85
TOTAL AREA(ACRES) = 3.7 TOTAL RUNOFF(CFS) = 12.57
TC(MIN.) = 5.32

*****
FLOW PROCESS FROM NODE 312.00 TO NODE 313.00 IS CODE = 41
-----
>>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
>>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
=====
REPRESENTATIVE SLOPE = 0.0100
FLOW LENGTH(FEET) = 50.00 MANNING'S N = 0.013
ASSUME FULL-FLOWING PIPELINE
PIPE-FLOW VELOCITY(FEET/SEC.) = 7.11
PIPE FLOW VELOCITY = (TOTAL FLOW)/(PIPE CROSS SECTION AREA)
GIVEN PIPE DIAMETER(INCH) = 18.00 NUMBER OF PIPES = 1
PIPE-FLOW(CFS) = 12.57
PIPE TRAVEL TIME(MIN.) = 0.12 Tc(MIN.) = 5.43
LONGEST FLOWPATH FROM NODE 315.00 TO NODE 313.00 = 637.00 FEET.

*****
FLOW PROCESS FROM NODE 312.00 TO NODE 313.00 IS CODE = 11
-----
>>>>>CONFLUENCE MEMORY BANK # 1 WITH THE MAIN-STREAM MEMORY<<<<<
=====

** MAIN STREAM CONFLUENCE DATA **
STREAM RUNOFF Tc INTENSITY AREA
NUMBER (CFS) (MIN.) (INCH/HOUR) (ACRE)
1 12.57 5.43 5.619 3.66
LONGEST FLOWPATH FROM NODE 315.00 TO NODE 313.00 = 637.00 FEET.

** MEMORY BANK # 1 CONFLUENCE DATA **
STREAM RUNOFF Tc INTENSITY AREA
NUMBER (CFS) (MIN.) (INCH/HOUR) (ACRE)
1 6.06 4.64 5.928 1.68
LONGEST FLOWPATH FROM NODE 300.00 TO NODE 313.00 = 400.00 FEET.

** PEAK FLOW RATE TABLE **
STREAM RUNOFF Tc INTENSITY
NUMBER (CFS) (MIN.) (INCH/HOUR)
1 16.81 4.64 5.928
2 18.31 5.43 5.619

COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
PEAK FLOW RATE(CFS) = 18.31 Tc(MIN.) = 5.43
TOTAL AREA(ACRES) = 5.3

*****
FLOW PROCESS FROM NODE 302.00 TO NODE 313.00 IS CODE = 12
-----
>>>>>CLEAR MEMORY BANK # 1 <<<<<
=====

```

\*\*\*\*\*

FLOW PROCESS FROM NODE 320.00 TO NODE 313.00 IS CODE = 81

-----  
>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<  
=====

100 YEAR RAINFALL INTENSITY(INCH/HOUR) = 5.619  
LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8400  
SOIL CLASSIFICATION IS "C"  
S.C.S. CURVE NUMBER (AMC II) = 96  
AREA-AVERAGE RUNOFF COEFFICIENT = 0.6381  
SUBAREA AREA(ACRES) = 0.89 SUBAREA RUNOFF(CFS) = 4.20  
TOTAL AREA(ACRES) = 6.2 TOTAL RUNOFF(CFS) = 22.34  
TC(MIN.) = 5.43  
=====

END OF STUDY SUMMARY:  
TOTAL AREA(ACRES) = 6.2 TC(MIN.) = 5.43  
PEAK FLOW RATE(CFS) = 22.34  
=====

=====

END OF RATIONAL METHOD ANALYSIS

\*\*\*\*\*

RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE  
Reference: SAN DIEGO COUNTY FLOOD CONTROL DISTRICT  
2003,1985,1981 HYDROLOGY MANUAL  
(c) Copyright 1982-2016 Advanced Engineering Software (aes)  
Ver. 23.0 Release Date: 07/01/2016 License ID 1523

Analysis prepared by:

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\*\*\*\*\* DESCRIPTION OF STUDY \*\*\*\*\*  
\* UCSD SCIENCE RESEARCH PARK \*  
\* SYSTEM 400 PROPOSED CONDITION \*  
\* 100 YEAR DESIGN STORM \*  
\*\*\*\*\*

FILE NAME: S400P100.DAT  
TIME/DATE OF STUDY: 18:57 03/29/2023

-----  
USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:  
-----

2003 SAN DIEGO MANUAL CRITERIA

USER SPECIFIED STORM EVENT(YEAR) = 100.00  
6-HOUR DURATION PRECIPITATION (INCHES) = 2.250  
SPECIFIED MINIMUM PIPE SIZE(INCH) = 12.00  
SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.85  
SAN DIEGO HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD  
NOTE: USE MODIFIED RATIONAL METHOD PROCEDURES FOR CONFLUENCE ANALYSIS  
\*USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL\*

NO.	HALF- WIDTH (FT)	CROWN TO CROSSFALL (FT)	STREET-CROSSFALL: IN- / OUT-/PARK- SIDE / SIDE/ WAY	CURB HEIGHT (FT)	GUTTER-GEOMETRIES: WIDTH LIP HIKE (FT) (FT) (FT)	MANNING FACTOR (n)
1	30.0	20.0	0.018/0.018/0.020	0.67	2.00 0.0313 0.167	0.0150

GLOBAL STREET FLOW-DEPTH CONSTRAINTS:

1. Relative Flow-Depth = 0.00 FEET  
as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
2. (Depth)\*(Velocity) Constraint = 6.0 (FT\*FT/S)

\*SIZE PIPE WITH A FLOW CAPACITY GREATER THAN  
OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.\*

\*\*\*\*\*  
FLOW PROCESS FROM NODE 400.00 TO NODE 401.00 IS CODE = 21  
-----

>>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<

=====

NATURAL DESERT LANDSCAPING RUNOFF COEFFICIENT = .3500  
SOIL CLASSIFICATION IS "D"  
S.C.S. CURVE NUMBER (AMC II) = 88  
INITIAL SUBAREA FLOW-LENGTH(FEET) = 100.00  
UPSTREAM ELEVATION(FEET) = 346.00  
DOWNSTREAM ELEVATION(FEET) = 345.00

ELEVATION DIFFERENCE (FEET) = 1.00  
SUBAREA OVERLAND TIME OF FLOW (MIN.) = 11.295  
WARNING: INITIAL SUBAREA FLOW PATH LENGTH IS GREATER THAN  
THE MAXIMUM OVERLAND FLOW LENGTH = 70.00  
(Reference: Table 3-1B of Hydrology Manual)  
THE MAXIMUM OVERLAND FLOW LENGTH IS USED IN  $T_c$  CALCULATION!  
100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 3.505  
SUBAREA RUNOFF (CFS) = 0.47  
TOTAL AREA (ACRES) = 0.38 TOTAL RUNOFF (CFS) = 0.47

\*\*\*\*\*  
FLOW PROCESS FROM NODE 401.00 TO NODE 402.00 IS CODE = 41  
-----

>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<  
>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<  
=====

REPRESENTATIVE SLOPE = 0.0100  
FLOW LENGTH (FEET) = 160.00 MANNING'S N = 0.013  
DEPTH OF FLOW IN 12.0 INCH PIPE IS 3.1 INCHES  
PIPE-FLOW VELOCITY (FEET/SEC.) = 2.96  
GIVEN PIPE DIAMETER (INCH) = 12.00 NUMBER OF PIPES = 1  
PIPE-FLOW (CFS) = 0.47  
PIPE TRAVEL TIME (MIN.) = 0.90  $T_c$  (MIN.) = 12.19  
LONGEST FLOWPATH FROM NODE 400.00 TO NODE 402.00 = 260.00 FEET.

\*\*\*\*\*  
FLOW PROCESS FROM NODE 407.00 TO NODE 402.00 IS CODE = 81  
-----

>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<  
=====

100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 3.336  
NATURAL DESERT LANDSCAPING RUNOFF COEFFICIENT = .3500  
SOIL CLASSIFICATION IS "D"  
S.C.S. CURVE NUMBER (AMC II) = 88  
AREA-AVERAGE RUNOFF COEFFICIENT = 0.3500  
SUBAREA AREA (ACRES) = 0.42 SUBAREA RUNOFF (CFS) = 0.49  
TOTAL AREA (ACRES) = 0.8 TOTAL RUNOFF (CFS) = 0.93  
TC (MIN.) = 12.19

\*\*\*\*\*  
FLOW PROCESS FROM NODE 402.00 TO NODE 403.00 IS CODE = 41  
-----

>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<  
>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<  
=====

REPRESENTATIVE SLOPE = 0.0100  
FLOW LENGTH (FEET) = 125.00 MANNING'S N = 0.013  
DEPTH OF FLOW IN 12.0 INCH PIPE IS 4.4 INCHES  
PIPE-FLOW VELOCITY (FEET/SEC.) = 3.61  
GIVEN PIPE DIAMETER (INCH) = 12.00 NUMBER OF PIPES = 1  
PIPE-FLOW (CFS) = 0.93  
PIPE TRAVEL TIME (MIN.) = 0.58  $T_c$  (MIN.) = 12.77  
LONGEST FLOWPATH FROM NODE 400.00 TO NODE 403.00 = 385.00 FEET.

\*\*\*\*\*  
FLOW PROCESS FROM NODE 408.00 TO NODE 403.00 IS CODE = 81  
-----

>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<  
=====

100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 3.238

NATURAL DESERT LANDSCAPING RUNOFF COEFFICIENT = .3500  
SOIL CLASSIFICATION IS "D"  
S.C.S. CURVE NUMBER (AMC II) = 88  
AREA-AVERAGE RUNOFF COEFFICIENT = 0.3500  
SUBAREA AREA(ACRES) = 0.35 SUBAREA RUNOFF(CFS) = 0.40  
TOTAL AREA(ACRES) = 1.1 TOTAL RUNOFF(CFS) = 1.30  
TC(MIN.) = 12.77

\*\*\*\*\*

FLOW PROCESS FROM NODE 403.00 TO NODE 404.00 IS CODE = 41

-----  
>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<  
>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<

=====

REPRESENTATIVE SLOPE = 0.0100  
FLOW LENGTH(FEET) = 60.00 MANNING'S N = 0.013  
DEPTH OF FLOW IN 12.0 INCH PIPE IS 5.3 INCHES  
PIPE-FLOW VELOCITY(FEET/SEC.) = 3.94  
GIVEN PIPE DIAMETER(INCH) = 12.00 NUMBER OF PIPES = 1  
PIPE-FLOW(CFS) = 1.30  
PIPE TRAVEL TIME(MIN.) = 0.25 Tc(MIN.) = 13.03  
LONGEST FLOWPATH FROM NODE 400.00 TO NODE 404.00 = 445.00 FEET.

\*\*\*\*\*

FLOW PROCESS FROM NODE 409.00 TO NODE 404.00 IS CODE = 81

-----  
>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<

=====

100 YEAR RAINFALL INTENSITY(INCH/HOUR) = 3.197  
LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8500  
SOIL CLASSIFICATION IS "D"  
S.C.S. CURVE NUMBER (AMC II) = 96  
AREA-AVERAGE RUNOFF COEFFICIENT = 0.4272  
SUBAREA AREA(ACRES) = 0.21 SUBAREA RUNOFF(CFS) = 0.57  
TOTAL AREA(ACRES) = 1.4 TOTAL RUNOFF(CFS) = 1.86  
TC(MIN.) = 13.03

\*\*\*\*\*

FLOW PROCESS FROM NODE 410.00 TO NODE 404.00 IS CODE = 81

-----  
>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<

=====

100 YEAR RAINFALL INTENSITY(INCH/HOUR) = 3.197  
LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8500  
SOIL CLASSIFICATION IS "D"  
S.C.S. CURVE NUMBER (AMC II) = 96  
AREA-AVERAGE RUNOFF COEFFICIENT = 0.4766  
SUBAREA AREA(ACRES) = 0.18 SUBAREA RUNOFF(CFS) = 0.49  
TOTAL AREA(ACRES) = 1.5 TOTAL RUNOFF(CFS) = 2.35  
TC(MIN.) = 13.03

\*\*\*\*\*

FLOW PROCESS FROM NODE 411.00 TO NODE 404.00 IS CODE = 81

-----  
>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<

=====

100 YEAR RAINFALL INTENSITY(INCH/HOUR) = 3.197  
LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8500  
SOIL CLASSIFICATION IS "D"  
S.C.S. CURVE NUMBER (AMC II) = 96

AREA-AVERAGE RUNOFF COEFFICIENT = 0.5077  
SUBAREA AREA(ACRES) = 0.14 SUBAREA RUNOFF(CFS) = 0.38  
TOTAL AREA(ACRES) = 1.7 TOTAL RUNOFF(CFS) = 2.73  
TC(MIN.) = 13.03

\*\*\*\*\*  
FLOW PROCESS FROM NODE 404.00 TO NODE 405.00 IS CODE = 41  
-----

>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<  
>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<

=====

REPRESENTATIVE SLOPE = 0.0100  
FLOW LENGTH(FEET) = 80.00 MANNING'S N = 0.013  
DEPTH OF FLOW IN 18.0 INCH PIPE IS 6.5 INCHES  
PIPE-FLOW VELOCITY(FEET/SEC.) = 4.70  
GIVEN PIPE DIAMETER(INCH) = 18.00 NUMBER OF PIPES = 1  
PIPE-FLOW(CFS) = 2.73  
PIPE TRAVEL TIME(MIN.) = 0.28 Tc(MIN.) = 13.31  
LONGEST FLOWPATH FROM NODE 400.00 TO NODE 405.00 = 525.00 FEET.

\*\*\*\*\*  
FLOW PROCESS FROM NODE 412.00 TO NODE 405.00 IS CODE = 81  
-----

>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<

=====

100 YEAR RAINFALL INTENSITY(INCH/HOUR) = 3.153  
LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8500  
SOIL CLASSIFICATION IS "D"  
S.C.S. CURVE NUMBER (AMC II) = 96  
AREA-AVERAGE RUNOFF COEFFICIENT = 0.5800  
SUBAREA AREA(ACRES) = 0.45 SUBAREA RUNOFF(CFS) = 1.21  
TOTAL AREA(ACRES) = 2.1 TOTAL RUNOFF(CFS) = 3.90  
TC(MIN.) = 13.31

\*\*\*\*\*  
FLOW PROCESS FROM NODE 405.00 TO NODE 406.00 IS CODE = 41  
-----

>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<  
>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<

=====

REPRESENTATIVE SLOPE = 0.0100  
FLOW LENGTH(FEET) = 110.00 MANNING'S N = 0.013  
DEPTH OF FLOW IN 18.0 INCH PIPE IS 7.9 INCHES  
PIPE-FLOW VELOCITY(FEET/SEC.) = 5.18  
GIVEN PIPE DIAMETER(INCH) = 18.00 NUMBER OF PIPES = 1  
PIPE-FLOW(CFS) = 3.90  
PIPE TRAVEL TIME(MIN.) = 0.35 Tc(MIN.) = 13.66  
LONGEST FLOWPATH FROM NODE 400.00 TO NODE 406.00 = 635.00 FEET.

\*\*\*\*\*  
FLOW PROCESS FROM NODE 413.00 TO NODE 406.00 IS CODE = 81  
-----

>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<

=====

100 YEAR RAINFALL INTENSITY(INCH/HOUR) = 3.100  
NATURAL DESERT LANDSCAPING RUNOFF COEFFICIENT = .3500  
SOIL CLASSIFICATION IS "D"  
S.C.S. CURVE NUMBER (AMC II) = 88  
AREA-AVERAGE RUNOFF COEFFICIENT = 0.5225  
SUBAREA AREA(ACRES) = 0.71 SUBAREA RUNOFF(CFS) = 0.77

TOTAL AREA (ACRES) = 2.8 TOTAL RUNOFF (CFS) = 4.60  
TC (MIN.) = 13.66

\*\*\*\*\*

FLOW PROCESS FROM NODE 406.00 TO NODE 414.00 IS CODE = 41

-----  
>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<  
>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<

=====

REPRESENTATIVE SLOPE = 0.0100  
FLOW LENGTH (FEET) = 280.00 MANNING'S N = 0.013  
DEPTH OF FLOW IN 18.0 INCH PIPE IS 8.7 INCHES  
PIPE-FLOW VELOCITY (FEET/SEC.) = 5.41  
GIVEN PIPE DIAMETER (INCH) = 18.00 NUMBER OF PIPES = 1  
PIPE-FLOW (CFS) = 4.60  
PIPE TRAVEL TIME (MIN.) = 0.86 Tc (MIN.) = 14.52  
LONGEST FLOWPATH FROM NODE 400.00 TO NODE 414.00 = 915.00 FEET.

\*\*\*\*\*

FLOW PROCESS FROM NODE 406.00 TO NODE 414.00 IS CODE = 1

-----  
>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<

=====

TOTAL NUMBER OF STREAMS = 2  
CONFLUENCE VALUES USED FOR INDEPENDENT STREAM 1 ARE:  
TIME OF CONCENTRATION (MIN.) = 14.52  
RAINFALL INTENSITY (INCH/HR) = 2.98  
TOTAL STREAM AREA (ACRES) = 2.84  
PEAK FLOW RATE (CFS) AT CONFLUENCE = 4.60

\*\*\*\*\*

FLOW PROCESS FROM NODE 415.00 TO NODE 416.00 IS CODE = 21

-----  
>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<

=====

LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8500  
SOIL CLASSIFICATION IS "D"  
S.C.S. CURVE NUMBER (AMC II) = 96  
INITIAL SUBAREA FLOW-LENGTH (FEET) = 100.00  
UPSTREAM ELEVATION (FEET) = 344.00  
DOWNSTREAM ELEVATION (FEET) = 343.50  
ELEVATION DIFFERENCE (FEET) = 0.50  
SUBAREA OVERLAND TIME OF FLOW (MIN.) = 4.009  
WARNING: INITIAL SUBAREA FLOW PATH LENGTH IS GREATER THAN  
THE MAXIMUM OVERLAND FLOW LENGTH = 50.00  
(Reference: Table 3-1B of Hydrology Manual)  
THE MAXIMUM OVERLAND FLOW LENGTH IS USED IN Tc CALCULATION!  
100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 5.928  
NOTE: RAINFALL INTENSITY IS BASED ON Tc = 5-MINUTE.  
SUBAREA RUNOFF (CFS) = 0.50  
TOTAL AREA (ACRES) = 0.10 TOTAL RUNOFF (CFS) = 0.50

\*\*\*\*\*

FLOW PROCESS FROM NODE 417.00 TO NODE 416.00 IS CODE = 81

-----  
>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<

=====

100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 5.928  
NOTE: RAINFALL INTENSITY IS BASED ON Tc = 5-MINUTE.  
NATURAL DESERT LANDSCAPING RUNOFF COEFFICIENT = .3500

SOIL CLASSIFICATION IS "D"

S.C.S. CURVE NUMBER (AMC II) = 88

AREA-AVERAGE RUNOFF COEFFICIENT = 0.5167

SUBAREA AREA(ACRES) = 0.20 SUBAREA RUNOFF(CFS) = 0.41

TOTAL AREA(ACRES) = 0.3 TOTAL RUNOFF(CFS) = 0.92

TC(MIN.) = 4.01

\*\*\*\*\*

FLOW PROCESS FROM NODE 416.00 TO NODE 414.00 IS CODE = 41

>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<

>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<

REPRESENTATIVE SLOPE = 0.0100

FLOW LENGTH(FEET) = 100.00 MANNING'S N = 0.013

DEPTH OF FLOW IN 18.0 INCH PIPE IS 3.7 INCHES

PIPE-FLOW VELOCITY(FEET/SEC.) = 3.46

GIVEN PIPE DIAMETER(INCH) = 18.00 NUMBER OF PIPES = 1

PIPE-FLOW(CFS) = 0.92

PIPE TRAVEL TIME(MIN.) = 0.48 Tc(MIN.) = 4.49

LONGEST FLOWPATH FROM NODE 415.00 TO NODE 414.00 = 200.00 FEET.

\*\*\*\*\*

FLOW PROCESS FROM NODE 416.00 TO NODE 414.00 IS CODE = 1

>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<

>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<

TOTAL NUMBER OF STREAMS = 2

CONFLUENCE VALUES USED FOR INDEPENDENT STREAM 2 ARE:

TIME OF CONCENTRATION(MIN.) = 4.49

RAINFALL INTENSITY(INCH/HR) = 5.93

TOTAL STREAM AREA(ACRES) = 0.30

PEAK FLOW RATE(CFS) AT CONFLUENCE = 0.92

\*\* CONFLUENCE DATA \*\*

STREAM NUMBER	RUNOFF (CFS)	Tc (MIN.)	INTENSITY (INCH/HOUR)	AREA (ACRE)
1	4.60	14.52	2.980	2.84
2	0.92	4.49	5.928	0.30

RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO

CONFLUENCE FORMULA USED FOR 2 STREAMS.

\*\* PEAK FLOW RATE TABLE \*\*

STREAM NUMBER	RUNOFF (CFS)	Tc (MIN.)	INTENSITY (INCH/HOUR)
1	2.34	4.49	5.928
2	5.06	14.52	2.980

COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:

PEAK FLOW RATE(CFS) = 5.06 Tc(MIN.) = 14.52

TOTAL AREA(ACRES) = 3.1

LONGEST FLOWPATH FROM NODE 400.00 TO NODE 414.00 = 915.00 FEET.

END OF STUDY SUMMARY:

TOTAL AREA(ACRES) = 3.1 TC(MIN.) = 14.52

PEAK FLOW RATE(CFS) = 5.06



END OF RATIONAL METHOD ANALYSIS

\*\*\*\*\*

RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE  
Reference: SAN DIEGO COUNTY FLOOD CONTROL DISTRICT  
2003,1985,1981 HYDROLOGY MANUAL  
(c) Copyright 1982-2016 Advanced Engineering Software (aes)  
Ver. 23.0 Release Date: 07/01/2016 License ID 1523

Analysis prepared by:

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\*\*\*\*\* DESCRIPTION OF STUDY \*\*\*\*\*  
\* UCSD SCIENCE RESEARCH PARK \*  
\* SYSTEM 500 PROPOSED CONDITION \*  
\* 100 YEAR DESIGN STORM \*  
\*\*\*\*\*

FILE NAME: S500P100.DAT  
TIME/DATE OF STUDY: 17:53 03/29/2023

-----  
USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:  
-----

2003 SAN DIEGO MANUAL CRITERIA

USER SPECIFIED STORM EVENT(YEAR) = 100.00  
6-HOUR DURATION PRECIPITATION (INCHES) = 2.250  
SPECIFIED MINIMUM PIPE SIZE(INCH) = 12.00  
SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.85  
SAN DIEGO HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD  
NOTE: USE MODIFIED RATIONAL METHOD PROCEDURES FOR CONFLUENCE ANALYSIS  
\*USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL\*

NO.	HALF- WIDTH (FT)	CROWN TO CROSSFALL (FT)	STREET-CROSSFALL: IN- / OUT-/PARK- SIDE / SIDE/ WAY	CURB HEIGHT (FT)	GUTTER-GEOMETRIES: WIDTH LIP HIKE (FT) (FT) (FT)	MANNING FACTOR (n)
1	30.0	20.0	0.018/0.018/0.020	0.67	2.00 0.0313 0.167	0.0150

GLOBAL STREET FLOW-DEPTH CONSTRAINTS:

1. Relative Flow-Depth = 0.00 FEET  
as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
2. (Depth)\*(Velocity) Constraint = 6.0 (FT\*FT/S)

\*SIZE PIPE WITH A FLOW CAPACITY GREATER THAN  
OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.\*

\*\*\*\*\*  
FLOW PROCESS FROM NODE 500.00 TO NODE 501.00 IS CODE = 21  
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>>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<  
=====

LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8500  
SOIL CLASSIFICATION IS "D"  
S.C.S. CURVE NUMBER (AMC II) = 96  
INITIAL SUBAREA FLOW-LENGTH(FEET) = 100.00  
UPSTREAM ELEVATION(FEET) = 346.00  
DOWNSTREAM ELEVATION(FEET) = 345.00

ELEVATION DIFFERENCE (FEET) = 1.00  
 SUBAREA OVERLAND TIME OF FLOW (MIN.) = 3.486  
 WARNING: INITIAL SUBAREA FLOW PATH LENGTH IS GREATER THAN  
 THE MAXIMUM OVERLAND FLOW LENGTH = 60.00  
 (Reference: Table 3-1B of Hydrology Manual)  
 THE MAXIMUM OVERLAND FLOW LENGTH IS USED IN  $T_c$  CALCULATION!  
 100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 5.928  
 NOTE: RAINFALL INTENSITY IS BASED ON  $T_c$  = 5-MINUTE.  
 SUBAREA RUNOFF (CFS) = 1.31  
 TOTAL AREA (ACRES) = 0.26 TOTAL RUNOFF (CFS) = 1.31

\*\*\*\*\*  
 FLOW PROCESS FROM NODE 501.00 TO NODE 502.00 IS CODE = 51  
 -----

>>>> COMPUTE TRAPEZOIDAL CHANNEL FLOW <<<<  
 >>>> TRAVELTIME THRU SUBAREA (EXISTING ELEMENT) <<<<

=====  
 CHANNEL LENGTH THRU SUBAREA (FEET) = 126.00  
 REPRESENTATIVE CHANNEL SLOPE = 0.0100  
 CHANNEL BASE (FEET) = 10.00 "Z" FACTOR = 20.000  
 MANNING'S FACTOR = 0.015 MAXIMUM DEPTH (FEET) = 2.00  
 100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 5.928  
 NOTE: RAINFALL INTENSITY IS BASED ON  $T_c$  = 5-MINUTE.  
 LIMITED INDUSTRIAL RUNOFF COEFFICIENT = .8500  
 SOIL CLASSIFICATION IS "D"  
 S.C.S. CURVE NUMBER (AMC II) = 96  
 TRAVEL TIME COMPUTED USING ESTIMATED FLOW (CFS) = 2.29  
 TRAVEL TIME THRU SUBAREA BASED ON VELOCITY (FEET/SEC.) = 1.87  
 AVERAGE FLOW DEPTH (FEET) = 0.10 TRAVEL TIME (MIN.) = 1.13  
 $T_c$  (MIN.) = 4.61  
 SUBAREA AREA (ACRES) = 0.39 SUBAREA RUNOFF (CFS) = 1.97  
 AREA-AVERAGE RUNOFF COEFFICIENT = 0.850  
 TOTAL AREA (ACRES) = 0.6 PEAK FLOW RATE (CFS) = 3.28  
  
 END OF SUBAREA CHANNEL FLOW HYDRAULICS:  
 DEPTH (FEET) = 0.12 FLOW VELOCITY (FEET/SEC.) = 2.22  
 LONGEST FLOWPATH FROM NODE 500.00 TO NODE 502.00 = 226.00 FEET.

\*\*\*\*\*  
 FLOW PROCESS FROM NODE 503.00 TO NODE 502.00 IS CODE = 81  
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>>>> ADDITION OF SUBAREA TO MAINLINE PEAK FLOW <<<<

=====  
 100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 5.928  
 NOTE: RAINFALL INTENSITY IS BASED ON  $T_c$  = 5-MINUTE.  
 NATURAL DESERT LANDSCAPING RUNOFF COEFFICIENT = .3500  
 SOIL CLASSIFICATION IS "D"  
 S.C.S. CURVE NUMBER (AMC II) = 88  
 AREA-AVERAGE RUNOFF COEFFICIENT = 0.7152  
 SUBAREA AREA (ACRES) = 0.24 SUBAREA RUNOFF (CFS) = 0.50  
 TOTAL AREA (ACRES) = 0.9 TOTAL RUNOFF (CFS) = 3.77  
 $T_c$  (MIN.) = 4.61

\*\*\*\*\*  
 FLOW PROCESS FROM NODE 504.00 TO NODE 502.00 IS CODE = 81  
 -----

>>>> ADDITION OF SUBAREA TO MAINLINE PEAK FLOW <<<<

=====  
 100 YEAR RAINFALL INTENSITY (INCH/HOUR) = 5.928  
 NOTE: RAINFALL INTENSITY IS BASED ON  $T_c$  = 5-MINUTE.

NATURAL DESERT LANDSCAPING RUNOFF COEFFICIENT = .3500  
SOIL CLASSIFICATION IS "D"  
S.C.S. CURVE NUMBER (AMC II) = 88  
AREA-AVERAGE RUNOFF COEFFICIENT = 0.6231  
SUBAREA AREA(ACRES) = 0.30 SUBAREA RUNOFF(CFS) = 0.62  
TOTAL AREA(ACRES) = 1.2 TOTAL RUNOFF(CFS) = 4.40  
TC(MIN.) = 4.61

\*\*\*\*\*

FLOW PROCESS FROM NODE 505.00 TO NODE 502.00 IS CODE = 81

-----  
>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<  
=====

100 YEAR RAINFALL INTENSITY(INCH/HOUR) = 5.928  
NOTE: RAINFALL INTENSITY IS BASED ON Tc = 5-MINUTE.  
NATURAL DESERT LANDSCAPING RUNOFF COEFFICIENT = .3500  
SOIL CLASSIFICATION IS "D"  
S.C.S. CURVE NUMBER (AMC II) = 88  
AREA-AVERAGE RUNOFF COEFFICIENT = 0.5944  
SUBAREA AREA(ACRES) = 0.14 SUBAREA RUNOFF(CFS) = 0.29  
TOTAL AREA(ACRES) = 1.3 TOTAL RUNOFF(CFS) = 4.69  
TC(MIN.) = 4.61  
=====

END OF STUDY SUMMARY:

TOTAL AREA(ACRES) = 1.3 TC(MIN.) = 4.61  
PEAK FLOW RATE(CFS) = 4.69  
=====

END OF RATIONAL METHOD ANALYSIS