

Appendices

Appendix F: Phase II Environmental Site Assessment

Appendices

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PHASE II ENVIRONMENTAL SITE INVESTIGATION

**SEARS AT BREA MALL
100 BREA MALL DRIVE
BREA, CA 92821**

Prepared for:

**SPS Portfolio Holdings, LLC
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225 West Washington Street
Indianapolis, IN 46204**

Apex Project No.: SIMON1801-001.02

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1.0 INTRODUCTION

Apex Companies, LLC (Apex) has prepared this Phase II Environmental Site Assessment (ESA) of the Sears Auto Center located within the Brea Mall property, addressed as 100 Brea Mall Road, Brea, California, (**Figure 1** and **Figure 2**). The focus of the investigation was at the former auto center (the "Site") which was closed on January 27, 2018. A sump or floor drain in the former lawnmower service shop and sampling of hydraulic fluid in two elevators was also included in the scope of work.

1.1 Site Description

The Site is located within the Brea Mall at 100 Brea Mall Road in Brea, Orange County, California. (**Figure 1** and **Figure 2**). The mall comprises approximately 13.21 acres and includes the retail building and adjoining parking areas. The Sears store occupies approximately 167,000 square-feet and the automotive service center (the Site) occupies approximately 12,250 square-feet. The Site is located in an area that is primarily comprised of commercial development and is bordered to the north and east by retail tenants associated with the Brea Mall and parking areas to the west and south. The Brea Mall is bordered to the north by East Birch Street, to the east by South State College Boulevard, to the south by Imperial Highway 90, and to the west by South Randolph Avenue (**Figure 2**).

1.2 Previous Investigations

A Phase I Environmental Site Assessment report was prepared by Terracon and dated May 5, 2015. Terracon reported the Site was occupied by Sears at the time of their inspection and was used as a department store, automotive service center, and parking.

Terracon summarized a 1988 subsurface investigation associated with the removal of a 550-gallon waste oil underground storage tank (UST) located south of the existing oil-water separator (OWS). Petroleum Industry Consultants, Inc. (PIC) completed a letter report for the removal of the waste oil UST. Under the supervision of the Orange County Fire Authority and Orange County Environmental Health Department (OCEHD), PIC conducted confirmation sampling on September 30, 1988. The PIC Tank Removal Letter indicated no significant release and was dated October 7, 1988.

Terracon summarized an additional subsurface investigation associated with the removal of one hydraulic hoist/reservoir from the automotive service center in 2007. MACTEC Engineering removed the lift and performed confirmation sampling from July 31 to August 2, 2007. The samples reportedly exhibited total petroleum hydrocarbon (TPH) concentrations ranging from 68 to 143 milligrams per kilogram (mg/kg). Subsequent soil samples were collected from the excavation and analyzed for TPH and polychlorinated biphenyls (PCBs). Analytical results indicated that TPH and PCBs concentrations were below laboratory reporting limits. Based on the analytical results, no further action was recommended by Terracon.

A Phase II Environmental Site Assessment was prepared by Terracon and was dated April 17, 2015. The purpose of the assessment was to assess possible impacts resulting from the operation of the six active hydraulic hoists and the 4-stage oil/water separator at the Site. Based on the soil sampling results, impacts to soil were not detected in the hydraulic lift areas or adjacent to the oil/water separator. Terracon concluded

that the usage of petroleum and volatile organic compounds (VOCs) in the locations of the hydraulic lifts and oil/water separator did not appear to have impacted the Site.

Apex completed a Phase I ESA of the Sears store and parking lot May 2018. Apex concluded that the presence of a sump, and floor drains, hydraulic lifts, oil/water separator and former waste oil tank associated with an automotive center with 40+ years of operation constituted Recognized Environmental Conditions (REC). Apex conducted this investigation at the request of SPS Portfolio Holdings, LLC to evaluate the RECs.

1.3 Hydrology

The Water Quality Control Plan (Basin Plan) for the Santa Ana Region (Region 8), prepared by the Santa Ana Regional Water Quality Control Board (SARWQCB) defines the Site as located within the La Habra Hydrologic Sub Area (845.62), of the Anaheim Hydrologic Area (845.60), of the Los Angeles-San Gabriel River Hydrologic Unit (805.00), within the Lower Santa Ana Basin. The Basin Plan identifies existing beneficial uses of groundwater for municipal and agricultural supply.

The nearest major surface water body is the Brea Creek, located approximately 1 mile west of the Site. The Brea Creek is a tributary of Coyote Creek which eventually flows to the San Gabriel River.

Depth to groundwater in the area is approximately 30 to 40 feet below ground surface, as identified in the February 27, 2018 *Preliminary Geotechnical Investigation* Report prepared by Professional Service Industries, Inc for the subject site. Apex did not encounter groundwater during our investigation. Based on the *Semi-Annual Status Report, Fourth Quarter 2016 and First Quarter 2017* for a Thrifty Oil service station located 0.70 miles west of the Site, the hydraulic gradient is reported as 0.038 ft./ft. with a southerly flow direction.

2.0 FIELD ACTIVITIES AND SAMPLING METHODOLOGY

This section describes field methodologies used to conduct site assessment activities, including soil boring installation, soil sample collection, and hydraulic fluid sampling. Groundwater sampling activities were proposed in the original scope of work, but groundwater was not encountered during this investigation.

Prior to conducting the subsurface investigation, Apex notified Underground Service Alert (USA) of the proposed subsurface investigation activities as required by law prior to drilling. Apex also contracted a private utility locator, Pacific Coast Locators (PCL), to evaluate the proposed soil boring locations for possible conflicts with buried utilities not previously marked. PCL used ground penetrating radar (GPR), magnetic and electromagnetic methods to locate subsurface objects and utilities at and around the proposed borings.

Apex created a site-specific Health and Safety Plan (HASP) was created and reviewed during the daily tailgate meeting each day before work commenced.

2.1 Soil Borings and Sample Collection - Sears Auto Center

Apex mobilized to the Site with the private utility locator on March 20, 2018, to mark the position of the proposed boring locations and clear the locations of potential unmarked utilities. During this mobilization, Apex observed that all of the formerly operational hydraulic lifts, tools, equipment, fluid reservoirs, parts, supplies, and materials had been removed from the auto service center. The hydraulic lifts had been decommissioned by removing all surficial equipment. The outer hydraulic ram cylinders were abandoned in place with concrete.

Between April 3 and April 5, 2018, Apex and J & H Drilling (J & H) mobilized to the Site with a truck-mounted Geoprobe direct-push drill rig to perform the subsurface investigation.

Prior to sampling each location, surficial concrete or asphalt was either cored or drilled through with a star-bit used by the drill rig. The upper 5 feet of each boring was hand cleared with a hand auger to avoid damaging any unidentified subsurface utilities. Soil borings deeper than 5 feet below ground surface (bgs) were collected continuously during drilling using a core barrel lined with clear acetate sleeves. Apex opened each sleeve and logged and described soil types in general conformance with the unified soil classification system (USCS). The soil samples were screened in the field using a calibrated photoionization detector (PID) and samples were selected based on observed physical visual or odor evidence of contamination and/or PID detections. Apex collected samples into laboratory-provided 8-ounce glass jars with Teflon-lined caps for non-volatile analysis. Samples analyzed for VOCs were collected using a single-use *Terracore* sampler and preserved in the field using laboratory-prepared United States Environmental Protection Agency (EPA) Method 5035 sample vials. Samples were placed on ice in a cooler and submitted under proper chain-of-custody (COC) procedures to Enthalpy Analytical.

The soil borings locations are presented by the areas or features they intended to assess, as shown on **Figure 3**:

- 1) The hydraulic lifts and floor drains inside of the auto service area
- 2) The oil/water separator and former waste oil tank area in front of the auto service area
- 3) A former sump or floor drain in the lawn mower service shop located in the southwest portion of the Sears building. The sump or drain was covered with plywood that was glued into the lip of the frame of the drain.
- 4) Passenger and freight elevator hydraulic fluid reservoirs

Hydraulic Lift and Floor Drain Locations

Sixteen soil borings (L1 to L16) were drilled next to former in ground hydraulic lift stations inside the auto service center. All sixteen hydraulic lift locations were drilled to 12 feet bgs using the Geoprobe drill rig and select soil samples were retained for analysis, as discussed above.

Seven soil borings (D-1 to D-7) were drilled to a depth of 4 feet bgs with a hand auger adjacent to each floor drain and select soil samples were retained for analysis.

Oil/water Separator and Former Waste Oil UST Locations

Apex drilled four borings (OW1 to OW4) around the oil/water separator located directly outside of the service center. The borings were drilled to a depth of 12 feet using the Geoprobe drill rig and select soil samples were retained for analysis.

Apex drilled one boring (OT1) in the center of the former waste oil tank excavation located directly outside of the service center and adjacent to the oil/water separator. The boring was drilled to a depth of 16 feet using the Geoprobe drill rig and select soil samples were retained for analysis.

Lawn Mower Service Shop

Apex drilled one boring to a depth of 4 feet with a hand auger adjacent to the sump or floor drain in the former lawn mower service shop and select soil samples were retained for analysis.

Elevators

Apex collected one hydraulic fluid sample from each reservoir tank of the passenger and freight elevators located on the first floor in the Sales Area using a hand-held dipper.

The sampling locations are presented in **Figure 3**.

After sampling was completed, the boreholes were filled with hydrated bentonite granules and the pavement/floor was patched with like materials. One soil sample from each of the borings described above

was selected for laboratory analysis based on evidence of contamination. Additional soil samples were collected from each boring and archived by the laboratory for future analysis as warranted. A total of 93 soil samples were collected and of these, 31 samples were analyzed. Two hydraulic oil samples were collected and analyzed for PCBs only.

Boring logs for each sample location are included in **Appendix A**.

2.2 Investigation-Derived Waste Disposal

A total of two 55-gallon drums containing soil cuttings are being temporarily stored onsite. Documentation of their disposal will be provided when disposal is complete.

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3.0 LABORATORY ANALYSIS

The analyses for soil samples collected from the Sears Auto Center are described below.

Hydraulic Lifts – Soil samples were analyzed for TPH-gasoline-range organics (GRO), diesel-range organics (DRO), and oil-range organics (ORO), and polychlorinated biphenyls (PCBs).

Floor Drains –The soil samples were analyzed for TPH-GRO, TPH-DRO, TPH-ORO, VOCs, polycyclic aromatic hydrocarbons (PAHs), PCBs, and the California Leaking Underground Gasoline Tank (LUFT) Guidance Manual 5 metals (cadmium, chromium, lead, nickel, and zinc).

Oil/water Separator – The soil samples were analyzed for TPH-GRO, TPH-DRO, TPH-ORO, VOCs, PAHs, PCBs, and LUFT 5 metals.

Former Waste Oil UST – The soil samples were analyzed for TPH-GRO, TPH-DRO, TPH-ORO, VOCs, PAHs, PCBs, and LUFT 5 metals.

Lawn Mower Service Shop – The soil sample was analyzed for TPH-GRO, TPH-DRO, TPH-ORO, and BTEX (benzene, toluene, ethylbenzene, and xylenes) and methyl tertiary butyl ether, (MTBE).

Passenger and Freight Elevator Hydraulic Oil – Hydraulic oil samples were analyzed for PCBs,

TPH-GRO, TPH-DRO, and TPH-ORO were analyzed using modified EPA Method 8015B.

PAHs were analyzed using EPA Method 8270C, selective ion method (SIM).

PCBs were analyzed using EPA Method 8082.

LUFT 5 metals were analyzed using EPA method 6010B.

4.0 FINDINGS

The findings of the soil sampling activities are presented below. Groundwater was not encountered during this investigation.

4.1 Soil Types

In general, the soil in the upper 16 feet of the Site consists predominantly of densely packed sandy silts and silty sands with increasing silt and moisture content at depth. There were no obvious indications of contamination based on PID screening and/or odor characteristics in the samples collected. Groundwater was not encountered in any of the borings.

4.2 Soil Sample Analytical Results

Apex analyzed a total of 31 soil samples from the 29 borings. The soil sample results are discussed below according to the area that they were collected from. Apex compared detections of individual analytes to the screening levels (SLs) published by the DTSC in Human Health Risk Assessment (HHRA) Note No. 3, February 2018 or the USEPA Regional Screening Levels (RSLs), November 2017 if there is no value published in HHRA Note 3.

There are no definitive state cleanup standards for TPH in soil; however, the Orange County Health Care Agency publishes their own TPH cleanup standards. For TPH detections less than 10 feet bgs in a commercial/industrial setting, residual TPH concentrations cannot exceed 100 mg/kg for TPH-GRO, 500 mg/kg for TPH-DRO, and 2,500 mg/kg for TPH-ORO.

A summary of the soil sample analytical results is in **Table 1** and shown on **Figures 4 through 7**.

4.2.1 Hydraulic Lifts

A total of sixteen soil samples were analyzed from the former hydraulic lift locations (L1 to L16), between the depths of 1 and 8 feet (**Figure 6**). TPH-GRO was not detected above the laboratory reporting limit in any of the soil samples from the hydraulic lifts. TPH-DRO and TPH-ORO was detected in three soil samples with concentrations of TPH-DRO ranging from 12 mg/kg in L7-5 to 26 mg/kg in L11-3. TPH-ORO concentrations range from 20 mg/kg in L4-2 to 24 mg/kg in L3-2 (**Table 1**). None of the TPH detections exceeded their respective OCHCA cleanup levels.

PCBs were not detected in any of the lift samples at or above the laboratory reporting limit (**Figure 7 and Table 1**).

4.2.2 Floor Drains

Seven soil samples were analyzed from the floor drain locations (D1 to D7) at depths ranging between 1 and 4 feet bgs. TPH-DRO was detected in two samples (D5-1 and D7-2), both with detections of 11 mg/kg (**Figure 6 and Table 1**). Neither TPH-GRO nor TPH-ORO were detected in any of the samples analyzed. None of the TPH-DRO detections exceeded the OCHCA cleanup level.

Chromium, lead, nickel, and zinc were detected in all seven samples. Cadmium was detected in all but one sample. None of the metals detections exceed their respective health risk screening levels (**Figure 4 and Table 1**).

None of the floor drain samples analyzed had reported detections of VOCs, PAHs, or PCBs at or above the laboratory reporting limit (**Figure 5, Figure 7, and Table 1**).

4.2.3 Oil/Water Separator

Eight soil samples were analyzed from the area surrounding the oil-water separator. Soil samples were collected between 1 and 7 feet bgs.

There were no reported detections of PCBs, TPH-GRO, TPH-DRO, or TPH-ORO for any the samples collected at this location, except for OW-3 at 7 feet. This sample exhibited 61 mg/kg TPH-ORO. (**Figure 6, Figure 7 and Table 1**).

VOC analysis of the soil samples had one reported detection of 4-Isopropyltoluene (OW1-1) at 23 micrograms per kilogram ($\mu\text{g/kg}$). A health risk screening level has not been established for this constituent (**Figure 5 and Table 1**).

Two reported PAH detections (benzo(a)pyrene and pyrene) were detected in soil boring OW4-1 with concentrations of 10 and 11 $\mu\text{g/kg}$, respectively. Health risk screening levels have not been established for these constituents (**Figure 5 and Table 1**).

Cadmium, chromium, lead, nickel, and zinc were detected in every sample. None of the metals detections exceed their respective health risk screening levels (**Figure 4 and Table 1**).

4.2.4 Former Waste Oil UST

Three soil samples were analyzed from one soil boring (OT1) at depths of 4 feet, 9 feet, and 12 feet bgs. The sample collected at 4 feet bgs was analyzed for TPH-GRO, TPH-DRO, TPH-ORO, VOCs, PCBs, PAHs, and LUFT 5 metals.

At sample OT1-4, TPH-ORO was reported at 650 mg/kg. Additional soil samples from boring OT1 were analyzed for TPH at depths of 9 and 12 feet bgs and had no reported laboratory detections (**Figure 6 and Table 1**). None of the TPH detections exceeded their respective OCHCA cleanup levels.

None of the samples analyzed for VOCs, PCBs, or PAHs had reported detections at or above their respective laboratory reporting limits (**Figure 5, Figure 7, and Table 1**).

Cadmium, chromium, lead, nickel, and zinc were detected in every sample. None of the metals detections exceed their respective health risk screening levels (**Figure 4 and Table 1**).

4.2.5 Lawn Mower Service Shop

One soil sample (LS-1) was collected from the lawn mower service shop and analyzed for TPH-GRO, TPH-DRO, TPH-ORO, BTEX, and MTBE. None of these constituents were detected at or above their respective laboratory reporting limits (**Figure 3 and Table 1**).

4.3 Elevator Hydraulic Fluid Analytical Results

Two hydraulic oil samples were collected from the passenger elevator (SE1) and freight elevator (FE1) hydraulic oil reservoirs. PCBs were not detected at or above the laboratory limit in either sample (**Figure 2 and Table 1**).

5.0 CONCLUSIONS AND RECOMMENDATIONS

Hydraulic Lifts and Floor Drains

- Five detections of TPH-DRO and TPH-ORO were reported from the hydraulic lift and floor drain samples. None of the concentrations reported were above their respective OCHCA cleanup levels. None of the samples had reported detections of PCBs and detected metals were all below their respective screening levels.

No further assessment of the hydraulic lifts or floor drains are warranted.

Oil/water Separator and Former Waste Oil Tank

- At the former waste oil tank area, TPH-ORO was reported at 650 mg/kg at 4 feet bgs and subsequent samples analyzed from the 9 and 12-foot depth intervals did not have any reported concentrations of TPH. Documents reporting the oil tank removal in 1988 indicate that one sample collected beneath the former tank (at an unknown depth) was “non-detect” (<5 mg/kg) for total recoverable petroleum hydrocarbons (TRPH), and a stockpile soil sample had a reported TRPH detection of 27 mg/kg. During Apex’s investigation of this area, no VOCs, PAHs, or PCBs were detected at or above reporting limits. Reported detections of metals were all below their respective health risk screening levels. TPH detected at this location did not exceed the OCHCA cleanup level. However, based upon historical data and recent data collected by Apex, limited amounts of TPH impacted soil may be present within the footprint of the former waste oil tank excavation which could require special handling if encountered during redevelopment of the Site, depending on the depth of any excavation or remedial grading.
- Around the oil/water separator area, there were no reported detections of TPH or PCBs, except for sample OW3 at 2 feet that exhibited a TPH-ORO concentration of 61 mg/kg. This concentration does not exceed OCHCA’s cleanup goal of 2,500 mg/kg.

Two samples had reported detections of VOCs and PAHs all of which were below established health risk screening levels. All reported metals detections were also below their respective health risk screening levels.

- No further assessment of the former waste oil tank or oil/water separator is warranted at this time.

Lawn Mower Service Shop

- The soil sample collected from the lawn mower service shop did not have any reported concentrations of TPH-GRO, TPH-DRO, TPH-ORO, BTEX or MTBE. Further assessment in this area is not recommended.

Passenger and Freight Elevator Hydraulic Oil

- PCBs were not detected in either of the two hydraulic fluid samples collected from the passenger and freight elevator reservoirs. Remnant hydraulic fluid can be managed as non-hazardous waste.

Because the length of occupation and history of activities at this Site, there is the potential to encounter previously undetected areas of contaminated soil. Apex recommends preparing a soil management plan (SMP) to describe the procedures that Site contractors must follow if contaminated soil is encountered and removed, stockpiled, stored, or transported offsite for disposal during the grading of the Site. If contaminated soil is encountered during any construction, this soil should be excavated, segregated, characterized, and managed separately for offsite disposal, and not be allowed to be re-used as fill on the Site.

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6.0 RELIANCE

This report was prepared as contracted with SPS Portfolio Holdings, LLC. This report can be used and relied upon by SPS Portfolio Holdings, LLC and the Simon Property Group. The parties' right to rely on, and use, the contents of the Report shall be subject to all limiting conditions and provisions set forth in the agreement between Apex and SPS Portfolio Holdings, LLC dated January 2, 2018

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7.0 LIMITATIONS

The information obtained is only relevant for the dates of the soil sampling performed or as of the date of the latest site visit. The information contained herein is only valid as of the date of the report and will require an update to reflect additional information obtained. The findings and conclusions as presented in this report are based on the services provided. In addition, the information obtained is not intended to address potential impacts related to sources other than those specified herein. The findings and conclusions presented in this report are relevant only to the portions of the site investigated. This report is conclusive only with respect to the information obtained. No guarantee or warranty, express or implied, is made regarding the results of this report and any subsequent reports, correspondence or consultation. The services summarized herein were performed in accordance with the local standard of care in the geographic region at the time the services were rendered.

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8.0 REFERENCES

DTSC Human Health Risk Assessment (HHRA) Note No. 3, February 2018

USEPA Regional Screening Levels (RSLs), November 2017

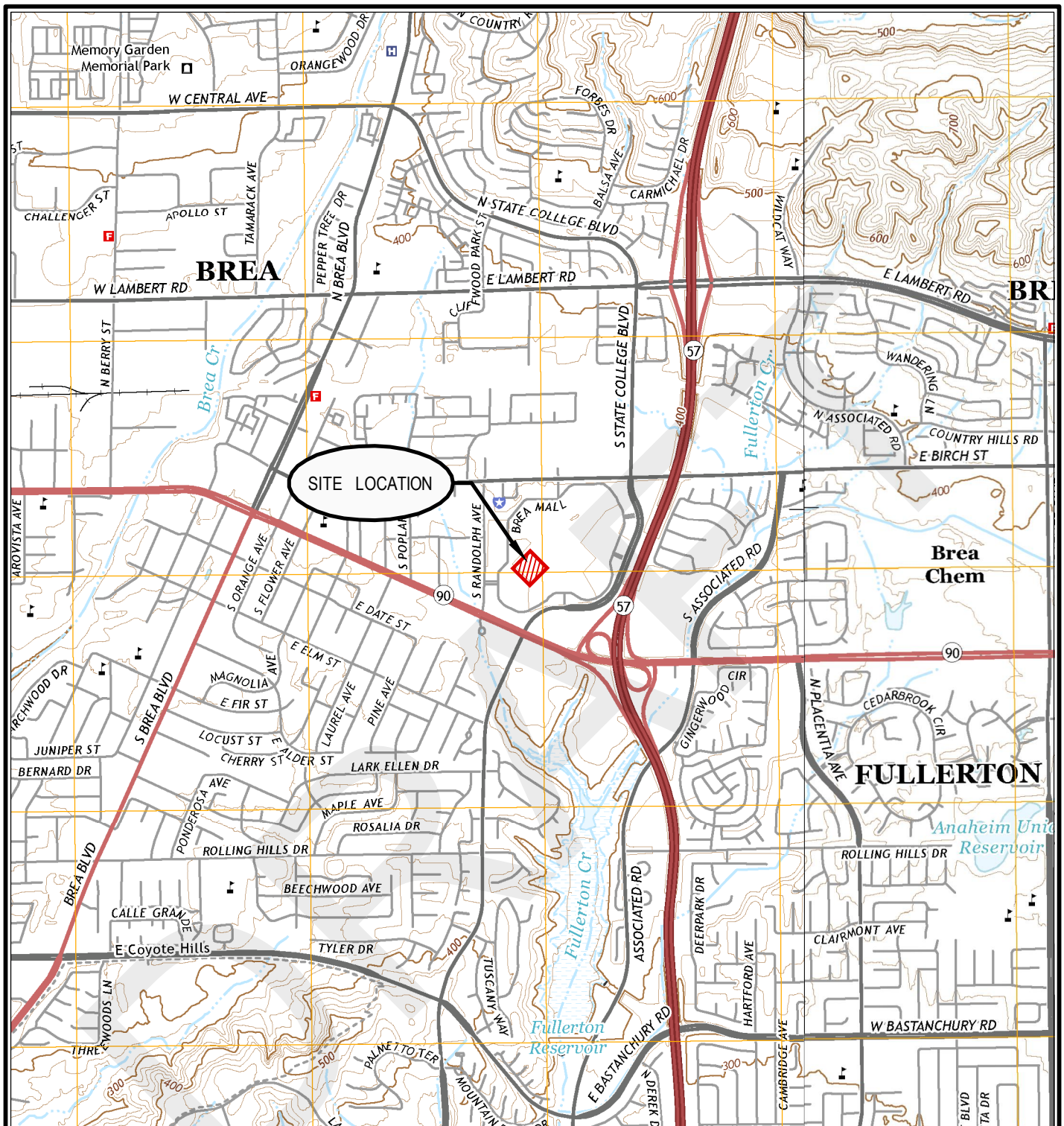
Terracon, 2014. Phase I Environmental Site Assessment Sears Store #1638/6558, 100 Brea Mall, Brea, California. Terracon, October 27.

Terracon, 2015. Phase II Environmental Site Assessment Sears Store #1638/6558, 100 Brea Mall, Brea, California. Terracon, April 17.

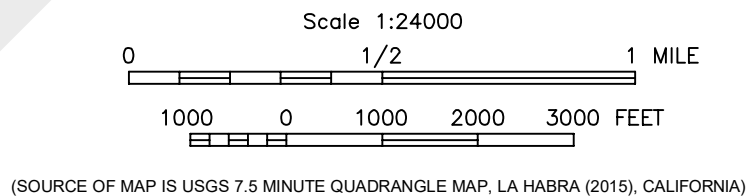
Terracon, 2015. Phase I Environmental Site Assessment Sears Store #1638 & Sears Auto Center# 6558, 100 Brea Mall, Brea, California. May 6.

Apex Companies, LLC, 2018. Phase I Environmental Site Assessment Brea Mall Sears, 100 Brea Mall Drive, Brea, California. May 2018

FIGURES



QUADRANGLE LOCATION



CHECK BY TS
DRAWN BY EM
DATE 05-01-18
SCALE AS SHOWN
CAD NO. SIMON1801.01.02-A
PRJ NO. SIMON1801-001.02

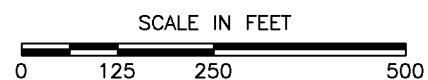
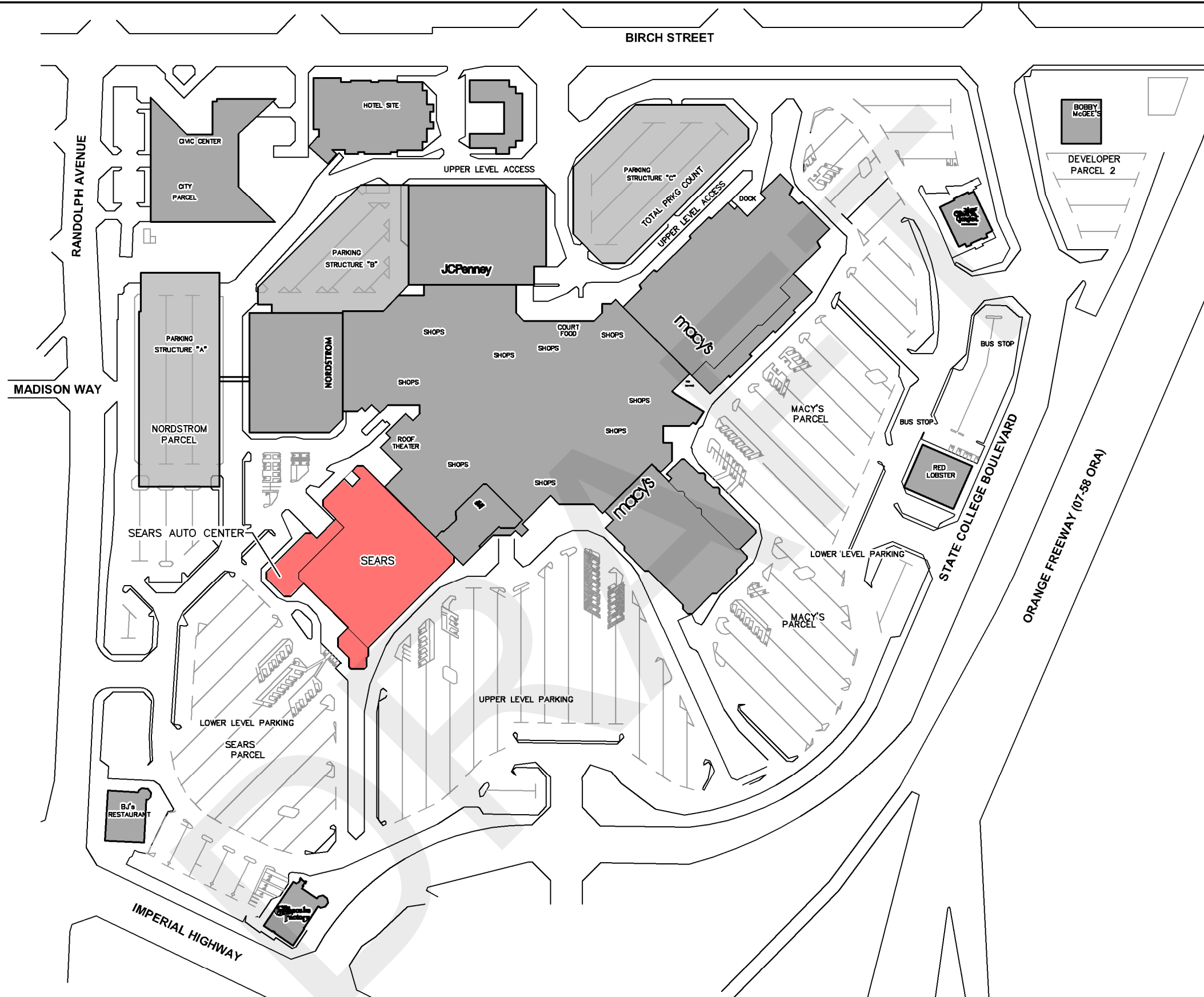
SITE LOCATION MAP

FORMER SEARS
BREA MALL
100 BREA MALL DRIVE
BREA, CALIFORNIA 92821



FIGURE

1



CHECK BY	TS
DRAWN BY	EM
DATE	05-01-18
SCALE	AS SHOWN
CAD NO.	SIMON1801.01.02-B
PRJ NO.	SIMON1801-001.02

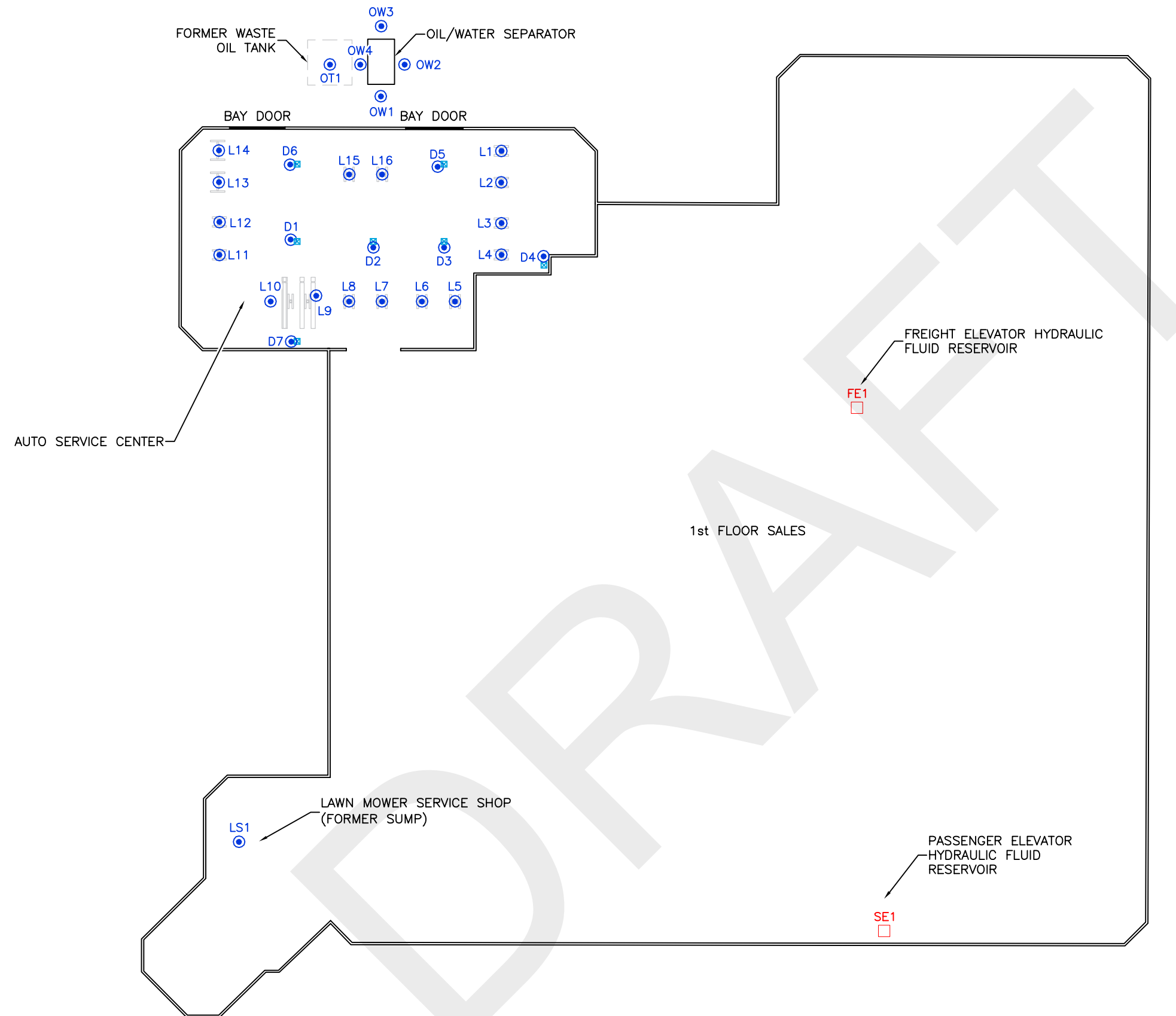
GENERAL SITE PLAN

FORMER SEARS
BREA MALL
100 BREA MALL DRIVE
BREA, CALIFORNIA 92821

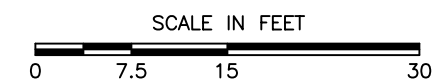


FIGURE

2



- LEGEND
- SOIL BORING LOCATION
 - HYDRAULIC FLUID RESERVOIR
 - FORMER HYDRAULIC LIFT
 - ⊠ FLOOR DRAIN



CHECK BY	TS
DRAWN BY	EM
DATE	05-01-18
SCALE	AS SHOWN
CAD NO.	SIMON1801.01.02-C
PRJ NO.	SIMON1801-001.02

SAMPLE LOCATION MAP

FORMER SEARS
BREA MALL
100 BREA MALL DRIVE
BREA, CALIFORNIA 92821



FIGURE

3



OT1		
Analytes	4 feet	
Cadmium	0.67	
Chromium	13.1	
Lead	5.32	
Nickel	13.5	
Zinc	29.5	

FORMER WASTE OIL TANK

OW3		
Analytes	2 feet	7 feet
Cadmium	0.86	<0.5
Chromium	7.74	3.59
Lead	1.82	1.45
Nickel	9.02	5.04
Zinc	18.8	10.5

OW2		
Analytes	1 foot	5 feet
Cadmium	0.79	2.09
Chromium	8.06	11.8
Lead	1.79	3.10
Nickel	9.22	14.6
Zinc	18.3	27.0

OW4		
Analytes	1 foot	6 feet
Cadmium	0.74	0.61
Chromium	9.07	3.74
Lead	2.79	1.45
Nickel	8.88	5.36
Zinc	25.2	10.7

OW1		
Analytes	1 foot	3 feet
Cadmium	0.75	1.65
Chromium	16	8.9
Lead	3.63	1.86
Nickel	15.8	11.3
Zinc	36.2	17.1

D6	
Analytes	1 foot
Cadmium	0.83
Chromium	15.4
Lead	3.47
Nickel	13.9
Zinc	33.5

D5	
Analytes	1 foot
Cadmium	1.28
Chromium	16.7
Lead	4.11
Nickel	15.5
Zinc	35.4

D1	
Analytes	2 feet
Cadmium	0.92
Chromium	14.8
Lead	2.34
Nickel	16.5
Zinc	31.5

D3	
Analytes	1 foot
Cadmium	0.78
Chromium	16.4
Lead	3.9
Nickel	15.4
Zinc	34.6

D4	
Analytes	4 feet
Cadmium	0.63
Chromium	7.02
Lead	1.81
Nickel	6.8
Zinc	14.0

D2	
Analytes	4 feet
Cadmium	0.74
Chromium	7.28
Lead	1.99
Nickel	8.94
Zinc	18

D7	
Analytes	2 feet
Cadmium	<0.5
Chromium	17.0
Lead	2.88
Nickel	7.63
Zinc	28.9

BAY DOOR

BAY DOOR

AUTO SERVICE CENTER

LEGEND

SOIL BORING LOCATION

FORMER HYDRAULIC LIFT

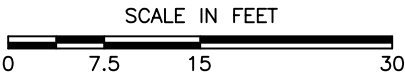
FLOOR DRAIN

DRAIN LINE

<0.5

ANALYTE NOT DETECTED AT OR ABOVE
LABORATORY REPORTING LIMIT

ALL UNITS ARE IN MILIGRAMS PER KILOGRAM
(mg/kg)



CHECK BY TS	
DRAWN BY EM	
DATE	05-11-18
SCALE	AS SHOWN
CAD NO.	SIMON1801.01.02-D
PRJ NO.	SIMON1801-001.02

METALS IN SOIL

FORMER SEARS AUTO CENTER
BREA MALL
100 BREA MALL DRIVE
BREA, CALIFORNIA 92821



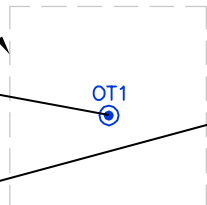
FIGURE

4



OT1		
Analytes	1 foot	3 feet
VOCS	ALL ND	--
PAHS	ALL ND	ALL ND

FORMER WASTE OIL TANK



OIL/WATER SEPARATOR

OW3		
Analytes	1 foot	7 feet
VOCS	ALL ND	--
PAHS	ALL ND	ALL ND

OW2		
Analytes	1 foot	5 foot
VOCS	ALL ND	--
PAHS	ALL ND	ALL ND

OW4		
Analytes	1 foot	6 feet
VOCS	ALL ND	--
PAHS	Benzo(a)pyrene - 10.0 Pyrene - 11.0	ALL ND

BAY DOOR

BAY DOOR

OW1		
Analytes	1 foot	3 feet
VOCS	4-Isopropyltoluene - 23.0	--
PAHS	ALL ND	ALL ND

D6	
Analytes	1 foot
VOCS	ALL ND
PAHS	ALL ND

D5	
Analytes	1 foot
VOCS	ALL ND
PAHS	ALL ND

D1	
Analytes	2 feet
VOCS	ALL ND
PAHS	ALL ND

D3	
Analytes	1 foot
VOCS	ALL ND
PAHS	ALL ND

D4	
Analytes	4 feet
VOCS	ALL ND
PAHS	ALL ND

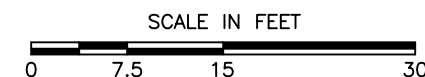
D2	
Analytes	4 feet
VOCS	ALL ND
PAHS	ALL ND

D7	
Analytes	2 feet
VOCS	ALL ND
PAHS	ALL ND

AUTO SERVICE CENTER

LEGEND

- SOIL BORING LOCATION
- FORMER HYDRAULIC LIFT
- FLOOR DRAIN
- DRAIN LINE
- ALL ND ANALYTE NOT DETECTED AT OR ABOVE LABORATORY REPORTING LIMIT
- VOCS VOLATILE ORGANIC COMPOUNDS
- PAHS POLYCYCLIC AROMATIC HYDROCARBONS
- ALL UNITS ARE IN MICROGRAMS PER KILOGRAM (ug/kg)



CHECK BY TS	
DRAWN BY EM	
DATE	05-11-18
SCALE	AS SHOWN
CAD NO.	SIMON1801.01.02-D
PRJ NO.	SIMON1801-001.02

VOCs AND PAHs IN SOIL
FORMER SEARS AUTO CENTER
BREA MALL
100 BREA MALL DRIVE
BREA, CALIFORNIA 92821



FIGURE

5



OT1			
Analytes	4 feet	9 feet	12 feet
TPH - GRO	<3.0	<4.2	<4.2
TPH - DRO	<10.0	<10.0	<10.0
TPH - ORO	650.0	<20.0	<20.0

FORMER WASTE
OIL TANK

OT1

OW4

OW3

OIL/WATER
SEPARATOR

OW2

OW1

OW3		
Analytes	2 feet	7 feet
TPH - GRO	<3.0	--
TPH - DRO	<10.0	<10.0
TPH - ORO	<20.0	61

OW2		
Analytes	1 foot	5 foot
TPH - GRO	<3.0	--
TPH - DRO	<10.0	<10.0
TPH - ORO	<20.0	<20.0

D6	
Analytes	1 foot
TPH - GRO	<3.0
TPH - DRO	<10.0
TPH - ORO	<20.0

OW4		
Analytes	1 foot	6 feet
TPH - GRO	<3.0	--
TPH - DRO	<10.0	<10.0
TPH - ORO	<20.0	<20.0

OW1		
Analytes	1 foot	3 foot
TPH - GRO	<3.0	--
TPH - DRO	<10.0	<10.0
TPH - ORO	<20.0	<20.0

D5	
Analytes	1 foot
TPH - GRO	<3.0
TPH - DRO	11.0
TPH - ORO	<20.0

L14	
Analytes	3 feet
TPH - GRO	<3.0
TPH - DRO	<10.0
TPH - ORO	<20.0

L13	
Analytes	2 feet
TPH - GRO	<3.0
TPH - DRO	<10.0
TPH - ORO	<20.0

L15	
Analytes	1 foot
TPH - GRO	<3.0
TPH - DRO	<10.0
TPH - ORO	<20.0

L16	
Analytes	2 feet
TPH - GRO	<3.0
TPH - DRO	<10.0
TPH - ORO	<20.0

L1	
Analytes	4 feet
TPH - GRO	<3.0
TPH - DRO	<10.0
TPH - ORO	<20.0

L2	
Analytes	3 feet
TPH - GRO	<3.0
TPH - DRO	<3.0
TPH - ORO	<20.0

L3	
Analytes	2 feet
TPH - GRO	<3.0
TPH - DRO	<3.0
TPH - ORO	24.0

L12	
Analytes	1 foot
TPH - GRO	<3.0
TPH - DRO	<10.0
TPH - ORO	<20.0

D1	
Analytes	2 feet
TPH - GRO	<3.0
TPH - DRO	<10.0
TPH - ORO	<20.0

D2	
Analytes	4 feet
TPH - GRO	<3.0
TPH - DRO	<10.0
TPH - ORO	<20.0

L1

L2

L3

L4

D4	
Analytes	4 feet
TPH - GRO	<3.0
TPH - DRO	<10.0
TPH - ORO	<20.0

L4	
Analytes	2 feet
TPH - GRO	<3.0
TPH - DRO	17.0
TPH - ORO	20.0

L11	
Analytes	3 feet
TPH - GRO	<3.0
TPH - DRO	26.0
TPH - ORO	21.0

L10	
Analytes	5 feet
TPH - GRO	<3.0
TPH - DRO	<10.0
TPH - ORO	<20.0

D3	
Analytes	1 foot
TPH - GRO	<3.0
TPH - DRO	<10.0
TPH - ORO	<20.0

AUTO SERVICE CENTER

L10

L9

L8

L7

L6

L5

L8	
Analytes	2 feet
TPH - GRO	<3.0
TPH - DRO	<10.0
TPH - ORO	<20.0

L7	
Analytes	5 feet
TPH - GRO	<3.0
TPH - DRO	12.0
TPH - ORO	<20.0

L6	
Analytes	8 feet
TPH - GRO	<3.0
TPH - DRO	<10.0
TPH - ORO	<20.0

L5	
Analytes	5 feet
TPH - GRO	<3.0
TPH - DRO	<10.0
TPH - ORO	<20.0

L9	
Analytes	3 feet
TPH - GRO	<3.0
TPH - DRO	<10.0
TPH - ORO	<20.0

D7	
Analytes	2 feet
TPH - GRO	<3.0
TPH - DRO	11.0
TPH - ORO	<20.0

LEGEND

- SOIL BORING LOCATION
- FORMER HYDRAULIC LIFT
- FLOOR DRAIN
- DRAIN LINE
- <3.0 ANALYTE NOT DETECTED AT OR ABOVE LABORATORY REPORTING LIMIT
- TPH TOTAL PETROLEUM HYDROCARBONS
- GRO GASOLINE RANGE ORGANICS
- DRO DIESEL RANGE ORGANICS
- ORO OIL RANGE ORGANICS
- ALL UNITS ARE IN MILIGRAMS PER KILOGRAM (mg/kg)

SCALE IN FEET
0 7.5 15 30

CHECK BY TS
DRAWN BY EM
DATE 05-11-18
SCALE AS SHOWN
CAD NO. SIMON1801.01.02-D
PRJ NO. SIMON1801-001.02

TPH IN SOIL
FORMER SEARS AUTO CENTER
BREA MALL
100 BREA MALL DRIVE
BREA, CALIFORNIA 92821



FIGURE

6



OT1		
Analytes	4 feet	
PCBS	ALL ND	

FORMER WASTE
OIL TANK

OT1

OW4

OW3

OW3		
Analytes	2 feet	7 feet
PCBS	ALL ND	ALL ND

OW2		
Analytes	1 foot	5 feet
PCBS	ALL ND	ALL ND

OIL/WATER
SEPARATOR

OW2

OW1		
Analytes	1 foot	3 feet
PCBS	ALL ND	ALL ND

D5	
Analytes	1 foot
PCBS	ALL ND

OW1

D6	
Analytes	1 foot
PCBS	ALL ND

OW4		
Analytes	1 foot	6 feet
PCBS	ALL ND	ALL ND

L14	
Analytes	3 feet
PCBS	ALL ND

L13	
Analytes	5 feet
PCBS	ALL ND

L12	
Analytes	1 foot
PCBS	ALL ND

D1	
Analytes	2 feet
PCBS	ALL ND

L11	
Analytes	3 feet
PCBS	ALL ND

L10	
Analytes	5 feet
PCBS	ALL ND

BAY DOOR

L15	
Analytes	1 foot
PCBS	ALL ND

BAY DOOR

L16	
Analytes	2 feet
PCBS	ALL ND

L1	
Analytes	4 feet
PCBS	ALL ND

L2	
Analytes	3 feet
PCBS	ALL ND

L3	
Analytes	2 feet
PCBS	ALL ND

D4	
Analytes	4 feet
PCBS	ALL ND

L4	
Analytes	2 feet
PCBS	ALL ND

D2	
Analytes	4 feet
PCBS	ALL ND

AUTO SERVICE CENTER

D3	
Analytes	1 foot
PCBS	ALL ND

L8	
Analytes	2 feet
PCBS	ALL ND

L7	
Analytes	5 feet
PCBS	ALL ND

L6	
Analytes	8 feet
PCBS	ALL ND

L5	
Analytes	5 feet
PCBS	ALL ND

L9	
Analytes	3 feet
PCBS	ALL ND

D7	
Analytes	2 feet
PCBS	ALL ND

LEGEND



SOIL BORING LOCATION



FORMER HYDRAULIC LIFT



FLOOR DRAIN

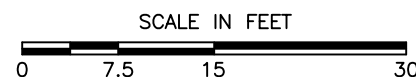


DRAIN LINE

ALL ND NOT DETECTED AT OR ABOVE
LABORATORY REPORTING LIMIT

PCBS POLYCHLORINATED BIPHENYLS

ALL UNITS ARE IN MICROGRAMS PER KILOGRAM
(ug/kg)



CHECK BY TS	
DRAWN BY EM	
DATE	05-11-18
SCALE	AS SHOWN
CAD NO.	SIMON1801.01.02-D
PRJ NO.	SIMON1801-001.02

PCBs IN SOIL
FORMER SEARS AUTO CENTER
BREA MALL
100 BREA MALL DRIVE
BREA, CALIFORNIA 92821



FIGURE

7

TABLES

Table 1
Soil Sample Results
Sears Brea Mall
100 Brea Mall Drive
Brea, California

Sample Location	Sample Date	Sample Depth (ft)	TPH - GRO	TPH - DRO	TPH - ORO	BTEX & MTBE	VOCs	PAHs	PCBs	LUFT 5 Metals, mg/kg					
			mg/kg	mg/kg	mg/kg	µg/kg	µg/kg	ug/kg	ug/kg	Cadmium	Chromium	Lead	Nickel	Zinc	
Hydraulic Lifts															
L1	4/5/2018	4	<3.0	<10.0	<20.0	--	--	--	ALL ND	--	--	--	--	--	
L2	4/5/2018	3	<3.0	<10.0	<20.0	--	--	--	ALL ND	--	--	--	--	--	
L3	4/5/2018	2	<3.0	<10.0	24.0	--	--	--	ALL ND	--	--	--	--	--	
L4	4/5/2018	2	<3.0	17.0	20.0	--	--	--	ALL ND	--	--	--	--	--	
L5	4/3/2018	5	<3.0	<10.0	<20.0	--	--	--	ALL ND	--	--	--	--	--	
L6	4/3/2018	8	<3.0	<10.0	<20.0	--	--	--	ALL ND	--	--	--	--	--	
L7	4/3/2018	5	<3.0	12.0	<20.0	--	--	--	ALL ND	--	--	--	--	--	
L8	4/3/2018	2	<3.0	<10.0	<20.0	--	--	--	ALL ND	--	--	--	--	--	
L9	4/4/2018	3	<3.0	<10.0	<20.0	--	--	--	ALL ND	--	--	--	--	--	
L10	4/4/2018	5	<3.0	<10.0	<20.0	--	--	--	ALL ND	--	--	--	--	--	
L11	4/4/2018	3	<3.0	26.0	21.0	--	--	--	ALL ND	--	--	--	--	--	
L12	4/4/2018	1	<3.0	<10.0	<20.0	--	--	--	ALL ND	--	--	--	--	--	
L13*	4/5/2018	2	<3.0	<10.0	<20.0	--	--	--	ALL ND	--	--	--	--	--	
L14	4/5/2018	3	<3.0	<10.0	<20.0	--	--	--	ALL ND	--	--	--	--	--	
L15	4/5/2018	1	<3.0	<10.0	<20.0	--	--	--	ALL ND	--	--	--	--	--	
L16	4/5/2018	2	<3.0	<10.0	<20.0	--	--	--	ALL ND	--	--	--	--	--	
Floor Drains															
D1	4/3/2018	2	<3.0	<10.0	<20.0	--	ALL ND	ALL ND	ALL ND	0.92	14.8	2.34	16.5	31.5	
D2	4/4/2018	4	<3.0	<10.0	<20.0	--	ALL ND	ALL ND	ALL ND	0.74	7.28	1.99	8.94	18.0	
D3	4/4/2018	1	<3.0	<10.0	<20.0	--	ALL ND	ALL ND	ALL ND	0.78	16.4	3.9	15.4	34.6	
D4	4/5/2018	4	<3.0	<10.0	<20.0	--	ALL ND	ALL ND	ALL ND	0.63	7.02	1.81	6.8	14.0	
D5	4/4/2018	1	<3.0	11.0	<20.0	--	ALL ND	ALL ND	ALL ND	1.28	16.7	4.11	15.5	35.4	
D6	4/4/2018	1	<3.0	<10.0	<20.0	--	ALL ND	ALL ND	ALL ND	0.83	15.4	3.47	13.9	33.5	
D7	4/3/2018	2	<3.0	11.0	<20.0	--	ALL ND	ALL ND	ALL ND	<0.5	17.0	2.88	7.63	28.9	
Oil Water Separator															
OW1	4/5/2018	1	<3.0	<10.0	<20.0	--	4-Isopropyltoluene - 23.0	ALL ND	ALL ND	0.75	16.0	3.63	15.8	36.2	
OW1*	4/5/2018	3	--	<10.0	<20.0	--	--	--	ALL ND	1.65	8.9	1.86	11.3	17.1	
OW2	4/5/2018	1	<3.0	<10.0	<20.0	--	ALL ND	ALL ND	ALL ND	0.79	8.06	1.79	9.22	18.3	
OW2*	4/5/2018	5	--	<10.0	<20.0	--	--	--	ALL ND	2.09	11.8	3.10	14.6	27.0	
OW3	4/5/2018	2	<3.0	<10.0	<20.0	--	ALL ND	ALL ND	ALL ND	0.86	7.74	1.82	9.02	18.8	
OW3*	4/5/2018	7	--	<10.0	61	--	--	--	ALL ND	<0.5	3.59	1.45	5.04	10.5	
OW4	4/5/2018	1	<3.0	<10.0	<20.0	--	ALL ND	Benzo(a)pyrene - 10.0 Pyrene - 11.0	ALL ND	0.74	9.07	2.79	8.88	25.2	
OW4*	4/5/2018	6	--	<10.0	<20.0	--	--	ALL ND	ALL ND	0.61	3.74	1.45	5.36	10.7	
Former Waste Oil UST															
OT1	4/4/2018	4	<3.0	<10.0	650.0	--	ALL ND	ALL ND	ALL ND	0.67	13.1	5.32	13.5	29.5	
OT1	4/4/2018	9	<4.2	<10.0	<20.0	--	--	--	--	--	--	--	--	--	
OT1	4/4/2018	12	<4.2	<10.0	<20.0	--	--	--	--	--	--	--	--	--	
Former Lawn Service Room															
LS1	4/3/2018	2	<3.0	<10.0	<20.0	ALL ND	--	--	--	--	--	--	--	--	
Elevator Hydraulic Fluid Reservoir															
FE-1	4/3/2018	N/A	--	--	--	--	--	--	ALL ND	--	--	--	--	--	
SE-1	4/3/2018	N/A	--	--	--	--	--	--	ALL ND	--	--	--	--	--	
Screening Levels															
HHRA or USEPA RSL ¹			NE	NE	NE	Varies by compound. None detected this investigation	Varies by compound. None detected this investigation	Benzo(a)pyrene - 2,100 Pyrene - 23,000,000	0.72 - 27.0, depending on Aroclor	9,300	170,000 (Cr III)	320	3,100	350,000	
OCHCA			100	500	2,500	NE	NE	NE	NE	NE	NE	NE	NE	NE	

NOTES:

ALL ND = NOT DETECTED AT OR ABOVE LABORATORY REPORTING LIMIT
-- - Not analyzed
mg/kg = milligrams per kilogram
TPH - Total Petroleum Hydrocarbons
ORO - Oil Range Organics
* - Sample analyzed past holding time
NE - Not Established
µg/kg = micrograms per kilogram
GRO - Gasoline Range Organics
DRO - Diesel Range Organics

BTEX - Benzene, Toluene, Ethylbenzene, Xylenes MTBE - Methyl tertiary butyl ether
PAHs - Polycyclic Aromatic Hydrocarbons PCBs - Polychlorinated Biphenyls
LUFT - California State Water Resources Control Board - Leaking Underground Fuel Tank (LUFT) Guidance Manual, 2012
1 - California Department of Toxic Substances Control - Human Health Risk Assessment (HHRA) Commercial/Industrial Screening Level, Jan. 2018,
or United States Environmental Protection Agency Regional Screening Levels (RSLs), November 2017
OCHCA - Orange County Health Care Agency - TPH cleanup standards for commercial/industrial setting

APPENDIX A

BORING LOGS

**Apex Companies, LLC**

10675 Sorrento Valley Road
San Diego, CA 92121
Phone: 858-558-1120

Boring No:**L1**

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

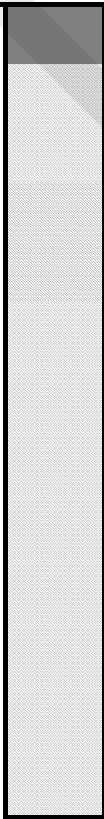
Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction
		Sample number	PID (PPM)		
0				Poorly Graded SAND with Silt (SP-SM) - dense, dry, light brown (7.5YR 6/4), 90% fine to medium grained sand, 10% silt	 ← Concrete ← Hydrated Granular Bentonite
1	X	L1-1	2.6		
2	X	L1-2	1.9		
3			0.3		
4	X	L1-4	0.2		
5			0.0		
6					
7	X	L1-7	0	Poorly Graded SAND with Silt (SP-SM) - dense, dry, dark brown (7.5YR 3/3), 90% fine to medium grained sand, 10% silt	
8				Poorly Graded SAND with Silt (SP-SM) - dense, dry, light brown (7.5YR 6/4), 90% fine to medium grained sand, 10% silt	
9					
10					
11					
12	X	L1-12	0		
13				BOTTOM OF BORING	
14					
15					
16					
17					
18					
19					
20					

**Apex Companies, LLC**

10675 Sorrento Valley Road
San Diego, CA 92121
Phone: 858-558-1120

Boring No:**L2**

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

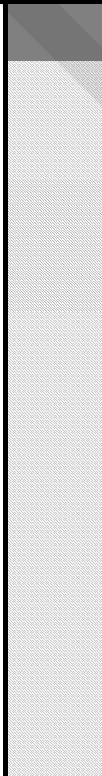
Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction
		Sample number	PID (PPM)		
0				Silty SAND (SM) - dense, dry, light brown (7.5YR 6/4), 70% fine to medium grained sand, 30% silt	 ← Concrete ← Hydrated Granular Bentonite
1	X	L2-1	1.1		
2			0.6		
3	X	L2-3	0.2		
4			0		
5			0		
6					
7	X	L2-7	0	Silty SAND (SM) - dense, dry, brown (7.5YR 4/3), 70% fine grained sand, 30% silt	
8				Silty SAND (SM) - dense, slightly moist, brown (7.5YR 4/3), 70% fine grained sand, 30% silt	
9					
10					
11					
12	X	L2-12	0		
13				BOTTOM OF BORING	
14					
15					
16					
17					
18					
19					
20					

**Apex Companies, LLC**

10675 Sorrento Valley Road
San Diego, CA 92121
Phone: 858-558-1120

Boring No:**L3**

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction
		Sample number	PID (PPM)		
0				Silty SAND (SM) - dense, dry, light brown (7.5YR 6/4), 70% fine to medium grained sand, 30% silt	

**Apex Companies, LLC**

10675 Sorrento Valley Road
San Diego, CA 92121
Phone: 858-558-1120

Boring No:**L4**

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction
		Sample number	PID (PPM)		
0				Silty SAND (SM) - dense, dry, very pale brown (10YR 8/8), 75% fine to medium grained sand, 25% silt	<

**Apex Companies, LLC**

10675 Sorrento Valley Road
San Diego, CA 92121
Phone: 858-558-1120

Boring No:**L5**

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction
		Sample number	PID (PPM)		
0				Well Graded SAND (SW) - dense, dry, very pale brown (10YR 8/8), 95% sand, 5% gravel up to 1",	<

**Apex Companies, LLC**

10675 Sorrento Valley Road
San Diego, CA 92121
Phone: 858-558-1120

Boring No:**L6**

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea MallProj. Number: SIMON1801-001Date Start: 4/3/2018Date End: 4/5/2018

Logged By:

Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction
		Sample number	PID (PPM)		
0				Poorly Graded SAND (SP) - dense, dry, brownish gray (10YR 6/2), 100% fine to medium grained sand	



Apex Companies, LLC
10675 Sorrento Valley Road
San Diego, CA 92121
Phone: 858-558-1120

Boring No:

L7

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

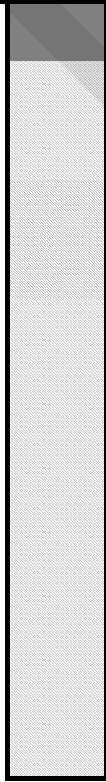
Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction	
		Sample number	PID (PPM)			
0				Poorly Graded SAND (SP) - dense, dry, light brownish gray (10YR 6/2), 100% fine to medium grained sand		← Concrete
1			0			
2			0			
3			0			
4			0			
5	X	L7-5	0	Poorly Graded SAND (SP) - loose, slightly moist, light brownish gray (10YR 6/2), 95% fine to medium grained sand, 5% silt		← Hydrated Granular Bentonite
6						
7	X	L7-7.5	0			
8	X		0			
9				Poorly Graded SAND (SP) - loose, slightly moist, reddish brown (2.5YR 4/4), 95% fine grained sand, 5% silt		
10						
11						
12	X	L7-12	0			
13				BOTTOM OF BORING		
14						
15						
16						
17						
18						
19						
20						



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Phone: 858-558-1120

Boring No:

L8

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction
		Sample number	PID (PPM)		
0				Poorly Graded SAND with Silt (SP-SM) - medium dense, slightly moist, brown (7.5YR 4/3), 90% fine grained sand, 10% silt	← Concrete ← Hydrated Granular Bentonite
1			0.6		
2	X	L8-2	0.6		
3			0.4		
4			0.4		
5			0		
6	X	L8-6	0		
7					
8					
9	X	L8-9	0		
10					
11					
12	X	L8-12	0		
13				BOTTOM OF BORING	
14					
15					
16					
17					
18					
19					
20					

**Apex Companies, LLC**

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Phone: 858-558-1120

Boring No:**L9**

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction	
		Sample number	PID (PPM)			
0				Poorly Graded SAND with Silt (SP-SM) - dense, dry, brown (2.5YR 5/3), 90% fine to medium grained sand, 10% silt,		

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Boring No:**L10**

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction
		Sample number	PID (PPM)		
0				Poorly Graded SAND (SP) - dense, dry, dark brown (7.5YR 3/3), 90% fine to medium grained sand, 10% gravel	</

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Phone: 858-558-1120

Boring No:**L11**

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction
		Sample number	PID (PPM)		
0				Poorly Graded SAND with Silt (SP-SM) - dense, dry, light brown (2.5YR 7/3), 90% fine grained sand, 10% silt	<

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Phone: 858-558-1120

Boring No:**L12**

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

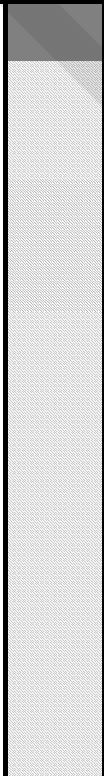
Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction
		Sample number	PID (PPM)		
0				Poorly Graded SAND with Silt (SP-SM) - dense, slightly moist, dark brown (7.5YR 3/3), 90% fine to medium grained sand, 10% silt	
1	X	L12-1	0		
2			0		
3			0		
4			0		
5			0		
6					
7	X	L12-7	0	Well Graded SAND with Silt (SW-SM) - dense, dry, light brown (2.5YR 7/3), 90% sand, 10% silt	
8					
9					
10					
11					
12	X	L12-12	0	BOTTOM OF BORING	
13					
14					
15					
16					
17					
18					
19					
20					

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Boring No:**L13**

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

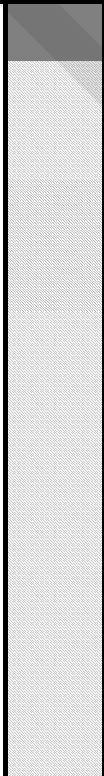
Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction
		Sample number	PID (PPM)		
0				Silty SAND (SM) - dense, dry, very pale brown (10YR 8/8), 70% fine to medium grained sand, 30% silt	 ← Concrete ← Hydrated Granular Bentonite
1			0		
2	X	L13-2	0		
3			0		
4			0		
5			0		
6					
7					
8					
9	X	L13-9	0	Silty SAND (SM) - dense, slightly moist, very pale brown (10YR 8/8), 70% fine to medium grained sand, 30% silt	
10					
11					
12	X	L13-12	0		
13				BOTTOM OF BORING	
14					
15					
16					
17					
18					
19					
20					



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Phone: 858-558-1120

Boring No:

L14

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

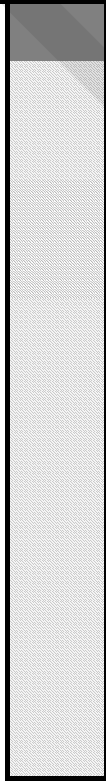
Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction	
		Sample number	PID (PPM)			
0				Silty SAND (SM) - dense, dry, very pale brown (10YR 8/8), 70% fine to medium grained sand, 30% silt		← Concrete
1			0			
2			0			
3	X	L14-3	0			
4			0			
5			0			← Hydrated Granular Bentonite
6				Silty SAND (SM) - dense, slightly moist, brown (7.5YR 4/3), 70% fine to medium grained sand, 30% silt		
7						
8	X	L14-8	0			
9						
10						
11				BOTTOM OF BORING		
12	X	L14-12	0			
13						
14						
15						
16						
17						
18						
19						
20						

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Boring No:**L15**

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction
		Sample number	PID (PPM)		
0				Silty SAND (SM) - dense, dry, dark brown (7.5YR 3/3), 80% fine grained sand, 20% silt	← Concrete ← Hydrated Granular Bentonite
1	X	L15-1	0		
2	X	L15-2	0		
3			0		
4			0		
5			0		
6					
7	X	L15-7	0		
8					
9					
10					
11					
12	X	L15-12	0		
				BOTTOM OF BORING	
13					
14					
15					
16					
17					
18					
19					
20					

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Boring No:**L16**

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

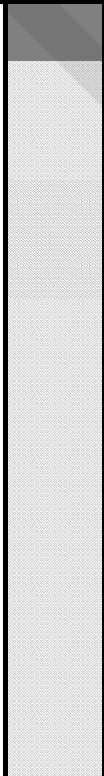
Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction
		Sample number	PID (PPM)		
0				Silty SAND (SM) - dense, dry, light brown (7.5YR 6/4), 80% fine grained sand, 20% silt	 ← Concrete ← Hydrated Granular Bentonite
1			0		
2	X	L16-2	0		
3			0		
4			0		
5			0	Silty SAND (SM) - dense, slightly moist, light brown (7.5YR 6/4), 80% fine to medium grained sand, 20% silt	
6					
7	X	L16-7	0		
8					
9					
10				BOTTOM OF BORING	
11					
12	X	L16-12	0		
13					
14					
15					
16					
17					
18					
19					
20					



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Boring No:

D1

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

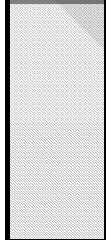
Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction	
		Sample number	PID (PPM)			
0				Silty SAND (SM) - dense, dry, brownish gray (10YR 6/2), 75% fine grained sand, 25% silt		← Concrete
1			0			
2	X	D1-2	0	Silty SAND (SM) - dense, dry, brown (7.5YR 4/3), 75% fine grained sand, 25% silt		← Hydrated Granular Bentonite
3			0.2			
4	X	D1-4	0.2			
5			0	BOTTOM OF BORING		
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						



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Boring No:

D2

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

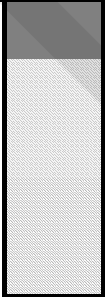
Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction
		Sample number	PID (PPM)		
0				Silty SAND (SM) - dense, dry, light brown (7.5YR 6/4), 75% fine to medium grained sand, 25% silt	 ← Concrete ← Hydrated Granular Bentonite
1	X	D2-1	0.1		
2			0		
3			0.3		
4	X	D2-4	0.3		
5				BOTTOM OF BORING	
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					



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Boring No:

D3

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

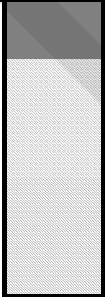
Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction
		Sample number	PID (PPM)		
0				Silty SAND (SM) - dense, dry, light brown (7.5YR 6/4), 75% fine to medium grained sand, 25% silt	 ← Concrete ← Hydrated Granular Bentonite
1	X	D4-1	0		
2			0		
3			0		
4	X	D4-4	0		
5				BOTTOM OF BORING	
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					



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Boring No:

D4

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

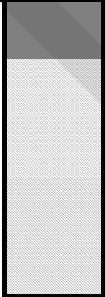
Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction
		Sample number	PID (PPM)		
0				Silty SAND (SM) - dense, dry, brown (7.5YR 4/4), 80% fine to medium grained sand, 20% silt	 ← Concrete ← Hydrated Granular Bentonite
1	X	D4-1	0		
2			0		
3			0		
4	X	D4-4	0		
5				BOTTOM OF BORING	
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					



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Boring No:

D5

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

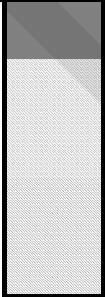
Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction
		Sample number	PID (PPM)		
0				Silty SAND (SM) - dense, dry, light brown (7.5YR 6/4), 75% fine to medium grained sand, 25% silt	 ← Concrete ← Hydrated Granular Bentonite
1	X	D5-1	0		
2			0		
3			0		
4	X	D5-4	0		
5				BOTTOM OF BORING	
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					



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Boring No:

D6

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

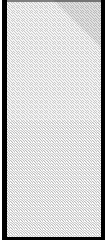
Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction
		Sample number	PID (PPM)		
0				Silty SAND (SM) - dense, dry, reddish brown (2.5YR 4/4), 75% fine grained sand, 25% silt	 ← Concrete
1	X	D6-1	0.1		
2			0	Silty SAND (SM) - dense, dry, light brown (7.5YR 6/4), 75% fine to medium grained sand, 25% silt	 ← Hydrated Granular Bentonite
3			0		
4	X	D6-4	0.2		
5				BOTTOM OF BORING	
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					



Apex Companies, LLC
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Phone: 858-558-1120

Boring No:

D7

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

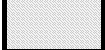
Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction
		Sample number	PID (PPM)		
0				Silty SAND (SM) - dense, dry, light brown (7.5YR 6/4), 40% fine to medium grained sand, 60% silt	 ← Concrete  ← Hydrated Granular Bentonite
1			0		
2	X	D7-2	0		
3				BOTTOM OF BORING (Boring kept caving in on itself past the 2 foot depth)	
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					



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Phone: 858-558-1120

Boring No:

OT1

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction	
		Sample number	PID (PPM)			
0				Silty SAND (SM) - dense, dry, dark brown (7.5YR 3/3), 85% fine grained sand, 15% silt	<	

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Boring No:**OW1**

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

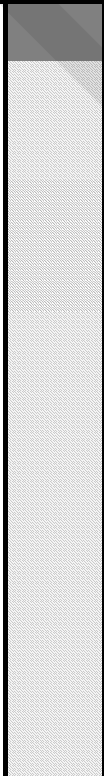
Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction
		Sample number	PID (PPM)		
0				Silty SAND (SM) - dense, dry, brownish gray (10YR 6/2), 75% fine to medium grained sand, 25% silt	 ← Concrete ← Hydrated Granular Bentonite
1	X	OW1-1	16.8		
2			1.6		
3	X	OW1-3	1.7		
4			0.8		
5			0		
6	X	OW1-6	0	Silty SAND (SM) - dense, slightly moist, brown (7.5YR 4/3), 75% fine to medium grained sand, 25% silt	
7					
8					
9	X	OW1-9	0		
10					
11					
12	X	OW1-12	0	BOTTOM OF BORING	
13					
14					
15					
16					
17					
18					
19					
20					

**Apex Companies, LLC**

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San Diego, CA 92121
Phone: 858-558-1120

Boring No:**OW2**

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

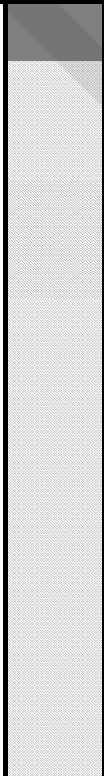
Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction
		Sample number	PID (PPM)		
0				Silty SAND (SM) - dense, dry, brownish gray (10YR 6/2), 80% fine grained sand, 20% silt	 ← Concrete ← Hydrated Granular Bentonite
1	X	OW2-1	16.0		
2	X	OW2-2	12.5		
3			2.2		
4			0.9		
5	X	OW2-5	1.1	Silty SAND (SM) - dense, slightly moist, brown (7.5YR 4/3), 80% fine to medium grained sand, 20% silt	
6					
7	X	OW2-7	0		
8					
9				Well Graded SAND with Silt (SW-SM) - dense, slightly moist, dark brown (7.5YR 3/3), 90% sand, 10% silt	
10	X	OW2-10	0		
11				Silty SAND (SM) - dense, slightly moist, brown (7.5YR 4/3), 80% fine grained sand, 20% silt	
12	X	OW2-12	0		
13				BOTTOM OF BORING	
14					
15					
16					
17					
18					
19					
20					

**Apex Companies, LLC**

10675 Sorrento Valley Road
San Diego, CA 92121
Phone: 858-558-1120

Boring No:**OW3**

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

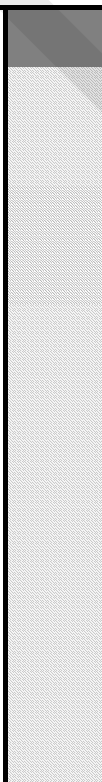
Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction
		Sample number	PID (PPM)		
0				Silty SAND (SM) - dense, slightly dry, brown (7.5YR 4/3), 80% fine to medium grained sand, 20% silt	
1			0		
2	X	OW3-2	0		
3			0		
4			0		
5			0		
6					
7	X	OW3-7	0	Well Graded SAND with Silt (SW-SM) - dense, slightly moist, dark brown (7.5YR 3/3), 90% sand, 10% silt	
8					
9					
10					
11					
12	X	OW3-12	0	BOTTOM OF BORING	
13					
14					
15					
16					
17					
18					
19					
20					

**Apex Companies, LLC**

10675 Sorrento Valley Road
San Diego, CA 92121
Phone: 858-558-1120

Boring No:**OW4**

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

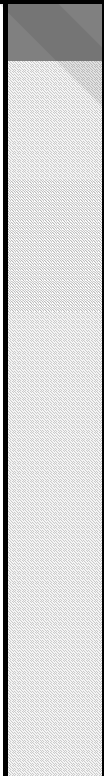
Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction
		Sample number	PID (PPM)		
0				Silty SAND (SM) - dense, slightly dry, brown (7.5YR 4/3), 80% fine to medium grained sand, 20% silt	 ← Concrete ← Hydrated Granular Bentonite
1	X	OW4-1	0		
2			0		
3			0		
4			0		
5			0		
6	X	OW4-6	0	Well Graded SAND with Silt (SW-SM) - dense, slightly moist, brown (7.5YR 4/3), 90% sand, 10% silt	
7				Silty SAND (SM) - dense, slightly moist, brown (7.5YR 4/3), 80% fine to medium grained sand, 20% silt	
8					
9					
10					
11					
12	X	OW4-12	0		
13				BOTTOM OF BORING	
14					
15					
16					
17					
18					
19					
20					



Apex Companies, LLC
10675 Sorrento Valley Road
San Diego, CA 92121
Phone: 858-558-1120

Boring No:

LS1

Sample Method: Hand Auger and Direct
Push Drill Rig

Proj. Name: Sears-Brea Mall

Proj. Number: SIMON1801-001

Date Start: 4/3/2018

Date End: 4/5/2018

Logged By:

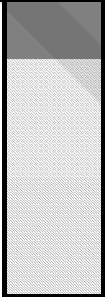
Tyler Steimel

Depth to Water (ATD):

Not Encountered

Boring Diameter:

4.0-Inches

Depth	Interval	Sample Information		Sample Description & Classification	Boring Backfill Construction
		Sample number	PID (PPM)		
0				Silty SAND (SM) - dense, slightly dry, dark brown (7.5YR 3/3), 80% fine to medium grained sand, 20% silt	 ← Concrete ← Hydrated Granular Bentonite
1			0		
2	X	LS1-2	0		
3			0		
4			0		
5				BOTTOM OF BORING	
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

DRAFT

APPENDIX B

LABORATORY REPORTS



Enthalpy Analytical, LLC

931 W. Barkley Ave - Orange, CA 92868
Tel: (714)771-6900 Fax: (714)538-1209
www.enthalpy.com
info-sc@enthalpy.com



Client: APEX
Address: 10675 Sorrento Valley Rd.
Suite 203
San Diego, CA 92121
Attn: Paul Garcia

Comments: Sears Brea Mall
3616-A1000-003

Lab Request: 401318
Report Date: 04/13/2018
Date Received: 04/03/2018
Client ID: 10359

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

<u>Sample #</u>	<u>Client Sample ID</u>
-----------------	-------------------------

401318-001	L5-5
401318-005	L6-8
401318-006	L7-5
401318-009	D7-2
401318-011	L8-2
401318-015	LSI-2
401318-017	FE-1
401318-018	SE-1

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Diane M. Galvan

Report Review performed by: Diane Galvan, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 60 days from date received.

The reports of the Enthalpy Analytical, Inc. are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.



Matrix: Solid	Client: APEX	Collector:
Sampled: 04/03/2018 09:56	Site:	
Sample #: <u>401318-001</u>	Client Sample #: L5-5	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 8015B <i>NELAC</i>	Prep Method: EPA 5030					QCBatchID: QC1189772	
TPH Gasoline	ND	1	3	mg/Kg		04/05/18	EW
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
4-Bromofluorobenzene (SUR)	105		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189962	
TPH Diesel	ND	1	10	mg/Kg	04/10/18	04/10/18	AJ
TPH Motor Oil	ND	1	20	mg/Kg	04/10/18	04/10/18	AJ
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Triacotane (SUR)	69		50-150				
Method: EPA 8082 <i>NELAC</i>	Prep Method: EPA 3545					QCBatchID: QC1189759	
PCB-1016	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1221	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1232	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1242	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1248	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1254	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1260	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1262	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1268	ND	1	50	ug/Kg	04/04/18	04/06/18	
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Decachlorobiphenyl DCB (SUR)	65		50-150				

Matrix: Solid	Client: APEX	Collector:
Sampled: 04/03/2018 13:07	Site:	
Sample #: <u>401318-005</u>	Client Sample #: L6-8	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 8015B <i>NELAC</i>	Prep Method: EPA 5030					QCBatchID: QC1189772	
TPH Gasoline	ND	1	3	mg/Kg		04/05/18	EW
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
4-Bromofluorobenzene (SUR)	105		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189962	
TPH Diesel	ND	1	10	mg/Kg	04/10/18	04/10/18	AJ
TPH Motor Oil	ND	1	20	mg/Kg	04/10/18	04/10/18	AJ
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Triacotane (SUR)	64		50-150				
Method: EPA 8082 <i>NELAC</i>	Prep Method: EPA 3545					QCBatchID: QC1189759	
PCB-1016	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1221	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1232	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1242	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1248	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1254	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1260	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1262	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1268	ND	1	50	ug/Kg	04/04/18	04/06/18	
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Decachlorobiphenyl DCB (SUR)	72		50-150				

Matrix: Solid	Client: APEX	Collector:
Sampled: 04/03/2018 13:22	Site:	
Sample #: <u>401318-006</u>	Client Sample #: L7-5	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 8015B <i>NELAC</i>	Prep Method: EPA 5030					QCBatchID: QC1189772	
TPH Gasoline	ND	1	3	mg/Kg		04/05/18	EW
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
4-Bromofluorobenzene (SUR)	105		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189962	
TPH Diesel	12	1	10	mg/Kg	04/10/18	04/10/18	AJ
TPH Motor Oil	ND	1	20	mg/Kg	04/10/18	04/10/18	AJ
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Triacontane (SUR)	70		50-150				
Method: EPA 8082 <i>NELAC</i>	Prep Method: EPA 3545					QCBatchID: QC1189942	
PCB-1016	ND	1	50	ug/Kg	04/10/18	04/11/18	
PCB-1221	ND	1	50	ug/Kg	04/10/18	04/11/18	
PCB-1232	ND	1	50	ug/Kg	04/10/18	04/11/18	
PCB-1242	ND	1	50	ug/Kg	04/10/18	04/11/18	
PCB-1248	ND	1	50	ug/Kg	04/10/18	04/11/18	
PCB-1254	ND	1	50	ug/Kg	04/10/18	04/11/18	
PCB-1260	ND	1	50	ug/Kg	04/10/18	04/11/18	
PCB-1262	ND	1	50	ug/Kg	04/10/18	04/11/18	
PCB-1268	ND	1	50	ug/Kg	04/10/18	04/11/18	
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Decachlorobiphenyl DCB (SUR)	54		50-150				

Matrix: Solid	Client: APEX	Collector:
Sampled: 04/03/2018 12:24	Site:	
Sample #: 401318-009	Client Sample #: D7-2	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 8015B NELAC	Prep Method: EPA 5030					QCBatchID: QC1189772	
TPH Gasoline	ND	1	3	mg/Kg		04/05/18	EW
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
4-Bromofluorobenzene (SUR)	100		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189962	
TPH Diesel	11	1	10	mg/Kg	04/10/18	04/10/18	AJ
TPH Motor Oil	ND	1	20	mg/Kg	04/10/18	04/10/18	AJ
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Triacontane (SUR)	70		50-150				
Method: EPA 8082 NELAC	Prep Method: EPA 3545					QCBatchID: QC1189759	
PCB-1016	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1221	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1232	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1242	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1248	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1254	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1260	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1262	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1268	ND	1	50	ug/Kg	04/04/18	04/06/18	
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Decachlorobiphenyl DCB (SUR)	80		50-150				
Method: EPA 8260B NELAC	Prep Method: EPA 5035A					QCBatchID: QC1189710	
1,1,1,2-Tetrachloroethane	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
1,1,1-Trichloroethane	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
1,1,2,2-Tetrachloroethane	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
1,1,2-Trichloroethane	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
1,1,2-Trichlorotrifluoroethane	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
1,1-Dichloroethane	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
1,1-Dichloroethene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
1,1-Dichloropropene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
1,2,3-Trichlorobenzene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
1,2,3-Trichloropropane	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
1,2,4-Trichlorobenzene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
1,2,4-Trimethylbenzene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
1,2-Dibromo-3-chloropropane	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
1,2-Dibromoethane	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
1,2-Dichlorobenzene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
1,2-Dichloroethane	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
1,2-Dichloropropane	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
1,3,5-Trimethylbenzene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
1,3-Dichlorobenzene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
1,3-Dichloropropane	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
1,4-Dichlorobenzene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
2,2-Dichloropropane	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
2-Butanone (MEK)	ND	1.11	111	ug/Kg		04/04/18	ZZ
2-Chloroethyl Vinyl Ether	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
2-Chlorotoluene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
4-Chlorotoluene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
4-Isopropyltoluene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
4-Methyl-2-pentanone (MIBK)	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Acetone	ND	1.11	111	ug/Kg		04/04/18	ZZ
Allyl Chloride	ND	1.11	5.55	ug/Kg		04/04/18	ZZ

Matrix: Solid	Client: APEX	Collector:
Sampled: 04/03/2018 12:24	Site:	
Sample #: 401318-009	Client Sample #: D7-2	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Benzene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Bromobenzene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Bromochloromethane	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Bromodichloromethane	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Bromoform	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Bromomethane	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Carbon Tetrachloride	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Chlorobenzene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Chlorodibromomethane	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Chloroethane	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Chloroform	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Chloromethane	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
cis-1,2-Dichloroethene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
cis-1,3-dichloropropene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
cis-1,4-dichloro-2-butene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Dibromomethane	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Dichlorodifluoromethane	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Di-isopropyl ether (DIPE)	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Ethylbenzene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Ethyl-tertbutylether (ETBE)	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Hexachlorobutadiene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Isopropylbenzene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
m and p-Xylene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Methylene chloride	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Methyl-t-butyl Ether (MTBE)	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Naphthalene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
N-butylbenzene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
N-propylbenzene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
o-Xylene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Sec-butylbenzene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Styrene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
t-Butyl alcohol (TBA)	ND	1.11	11.1	ug/Kg		04/04/18	ZZ
Tert-amylmethylether (TAME)	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Tert-butylbenzene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Tetrachloroethene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Toluene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
trans-1,2-dichloroethene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
trans-1,3-dichloropropene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
trans-1,4-dichloro-2-butene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Trichloroethene	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Trichlorofluoromethane	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Vinyl Chloride	ND	1.11	5.55	ug/Kg		04/04/18	ZZ
Xylenes (Total)	ND	1.11	5.55	ug/Kg		04/04/18	ZZ

Surrogate	% Recovery	Limits	Notes
1,2-Dichloroethane-d4 (SUR)	94	70-145	
4-Bromofluorobenzene (SUR)	96	70-145	
Dibromofluoromethane (SUR)	96	70-145	
Toluene-d8 (SUR)	97	70-145	

Method:	EPA 8270CM	Prep Method:	EPA 3545				QCBatchID:	QC1189712
1-Methylnaphthalene	ND	1	10	ug/Kg	04/04/18	04/04/18	DP	
2-Methylnaphthalene	ND	1	10	ug/Kg	04/04/18	04/04/18	DP	
Acenaphthene	ND	1	10	ug/Kg	04/04/18	04/04/18	DP	
Acenaphthylene	ND	1	10	ug/Kg	04/04/18	04/04/18	DP	

Matrix: Solid	Client: APEX	Collector:
Sampled: 04/03/2018 12:24	Site:	
Sample #: <u>401318-009</u>	Client Sample #: D7-2	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Anthracene	ND	1	10	ug/Kg	04/04/18	04/04/18	DP
Benz(a)anthracene	ND	1	10	ug/Kg	04/04/18	04/04/18	DP
Benzo(a)pyrene	ND	1	10	ug/Kg	04/04/18	04/04/18	DP
Benzo(b)fluoranthene	ND	1	10	ug/Kg	04/04/18	04/04/18	DP
Benzo(g,h,i)perylene	ND	1	10	ug/Kg	04/04/18	04/04/18	DP L
Benzo(k)fluoranthene	ND	1	10	ug/Kg	04/04/18	04/04/18	DP
Chrysene	ND	1	10	ug/Kg	04/04/18	04/04/18	DP
Dibenz(a,h)anthracene	ND	1	10	ug/Kg	04/04/18	04/04/18	DP
Fluoranthene	ND	1	10	ug/Kg	04/04/18	04/04/18	DP
Fluorene	ND	1	10	ug/Kg	04/04/18	04/04/18	DP
Indeno(1,2,3-cd)pyrene	ND	1	10	ug/Kg	04/04/18	04/04/18	DP
Naphthalene	ND	1	10	ug/Kg	04/04/18	04/04/18	DP
Phenanthrene	ND	1	10	ug/Kg	04/04/18	04/04/18	DP
Pyrene	ND	1	10	ug/Kg	04/04/18	04/04/18	DP
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
2-Fluorobiphenyl (SUR)	59		30-120				
Nitrobenzene-d5 (SUR)	51		27-125				
p-Terphenyl (SUR)	51		33-155				

Matrix: Solid	Client: APEX	Collector:
Sampled: 04/03/2018 13:27	Site:	
Sample #: <u>401318-011</u>	Client Sample #: L8-2	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 8015B <i>NELAC</i>	Prep Method: EPA 5030					QCBatchID: QC1189772	
TPH Gasoline	ND	1	3	mg/Kg		04/05/18	EW
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
4-Bromofluorobenzene (SUR)	105		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189962	
TPH Diesel	ND	1	10	mg/Kg	04/10/18	04/10/18	AJ
TPH Motor Oil	ND	1	20	mg/Kg	04/10/18	04/10/18	AJ
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Triacontane (SUR)	69		50-150				
Method: EPA 8082 <i>NELAC</i>	Prep Method: EPA 3545					QCBatchID: QC1189759	
PCB-1016	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1221	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1232	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1242	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1248	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1254	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1260	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1262	ND	1	50	ug/Kg	04/04/18	04/06/18	
PCB-1268	ND	1	50	ug/Kg	04/04/18	04/06/18	
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Decachlorobiphenyl DCB (SUR)	68		50-150				

Matrix: Solid	Client: APEX	Collector:
Sampled: 04/03/2018 15:40	Site:	
Sample #: <u>401318-015</u>	Client Sample #: LSI-2	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 8015B <i>NELAC</i>	Prep Method: EPA 5030					QCBatchID: QC1189772	
TPH Gasoline	ND	1	3	mg/Kg		04/05/18	EW
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
4-Bromofluorobenzene (SUR)	100		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189962	
TPH Diesel	ND	1	10	mg/Kg	04/10/18	04/10/18	AJ
TPH Motor Oil	ND	1	20	mg/Kg	04/10/18	04/10/18	AJ
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Triacontane (SUR)	66		50-150				
Method: EPA 8260B <i>NELAC</i>	Prep Method: EPA 5035A					QCBatchID: QC1189710	
1,1,1,2-Tetrachloroethane	ND	1.25	6.25	ug/Kg		04/04/18	ZZ
Benzene	ND	1.25	6.25	ug/Kg		04/04/18	ZZ
Ethylbenzene	ND	1.25	6.25	ug/Kg		04/04/18	ZZ
Methyl-t-butyl Ether (MTBE)	ND	1.25	6.25	ug/Kg		04/04/18	ZZ
Toluene	ND	1.25	6.25	ug/Kg		04/04/18	ZZ
Xylenes (Total)	ND	1.25	6.25	ug/Kg		04/04/18	ZZ
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
1,2-Dichloroethane-d4 (SUR)	96		70-145				
4-Bromofluorobenzene (SUR)	98		70-145				
Dibromofluoromethane (SUR)	97		70-145				
Toluene-d8 (SUR)	97		70-145				

Matrix: Water	Client: APEX	Collector:
Sampled: 04/03/2018 13:40	Site:	
Sample #: <u>401318-017</u>	Client Sample #: FE-1	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 8082 <i>NELAC</i>	Prep Method: EPA 3510C					QCBatchID: QC1190114	
PCB-1016	ND	10	5	ug/L		04/12/18	
PCB-1221	ND	10	5	ug/L		04/12/18	
PCB-1232	ND	10	5	ug/L		04/12/18	
PCB-1242	ND	10	5	ug/L		04/12/18	
PCB-1248	ND	10	5	ug/L		04/12/18	
PCB-1254	ND	10	5	ug/L		04/12/18	
PCB-1260	ND	10	5	ug/L		04/12/18	
PCB-1262	ND	10	5	ug/L		04/12/18	
PCB-1268	ND	10	5	ug/L		04/12/18	
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Decachlorobiphenyl DCB (SUR)	76		50-150				

Matrix: Water	Client: APEX	Collector:
Sampled: 04/03/2018 13:50	Site:	
Sample #: <u>401318-018</u>	Client Sample #: SE-1	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 8082 <i>NELAC</i>	Prep Method: EPA 3510C					QCBatchID: QC1190114	
PCB-1016	ND	10	5	ug/L		04/12/18	
PCB-1221	ND	10	5	ug/L		04/12/18	
PCB-1232	ND	10	5	ug/L		04/12/18	
PCB-1242	ND	10	5	ug/L		04/12/18	
PCB-1248	ND	10	5	ug/L		04/12/18	
PCB-1254	ND	10	5	ug/L		04/12/18	
PCB-1260	ND	10	5	ug/L		04/12/18	
PCB-1262	ND	10	5	ug/L		04/12/18	
PCB-1268	ND	10	5	ug/L		04/12/18	
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Decachlorobiphenyl DCB (SUR)	71		50-150				

QCBatchID: **QC1189710**

Analyst: nicollez

Method: EPA 8260B

Matrix: Solid

Analyzed: 04/04/2018

Instrument: VOA-MS (group)

Blank Summary

Analyte	Blank Result	Units	RDL	Notes
QC1189710MB1				
1,1,1,2-Tetrachloroethane	ND	ug/Kg	5	
1,1,1-Trichloroethane	ND	ug/Kg	5	
1,1,2,2-Tetrachloroethane	ND	ug/Kg	5	
1,1,2-Trichloroethane	ND	ug/Kg	5	
1,1,2-Trichlorotrifluoroethane	ND	ug/Kg	5	
1,1-Dichloroethane	ND	ug/Kg	5	
1,1-Dichloroethene	ND	ug/Kg	5	
1,1-Dichloropropene	ND	ug/Kg	5	
1,2,3-Trichlorobenzene	ND	ug/Kg	5	
1,2,3-Trichloropropane	ND	ug/Kg	5	
1,2,4-Trichlorobenzene	ND	ug/Kg	5	
1,2,4-Trimethylbenzene	ND	ug/Kg	5	
1,2-Dibromo-3-chloropropane	ND	ug/Kg	5	
1,2-Dibromoethane	ND	ug/Kg	5	
1,2-Dichlorobenzene	ND	ug/Kg	5	
1,2-Dichloroethane	ND	ug/Kg	5	
1,2-Dichloropropane	ND	ug/Kg	5	
1,3,5-Trimethylbenzene	ND	ug/Kg	5	
1,3-Dichlorobenzene	ND	ug/Kg	5	
1,3-Dichloropropane	ND	ug/Kg	5	
1,4-Dichlorobenzene	ND	ug/Kg	5	
2,2-Dichloropropane	ND	ug/Kg	5	
2-Butanone (MEK)	ND	ug/Kg	100	
2-Chloroethyl Vinyl Ether	ND	ug/Kg	5	
2-Chlorotoluene	ND	ug/Kg	5	
4-Chlorotoluene	ND	ug/Kg	5	
4-Isopropyltoluene	ND	ug/Kg	5	
4-Methyl-2-pentanone (MIBK)	ND	ug/Kg	5	
Acetone	ND	ug/Kg	100	
Allyl Chloride	ND	ug/Kg	5	
Benzene	ND	ug/Kg	5	
Bromobenzene	ND	ug/Kg	5	
Bromochloromethane	ND	ug/Kg	5	
Bromodichloromethane	ND	ug/Kg	5	
Bromoform	ND	ug/Kg	5	
Bromomethane	ND	ug/Kg	5	
Carbon Tetrachloride	ND	ug/Kg	5	
Chlorobenzene	ND	ug/Kg	5	
Chlorodibromomethane	ND	ug/Kg	5	
Chloroethane	ND	ug/Kg	5	
Chloroform	ND	ug/Kg	5	
Chloromethane	ND	ug/Kg	5	
cis-1,2-Dichloroethene	ND	ug/Kg	5	
cis-1,3-dichloropropene	ND	ug/Kg	5	
cis-1,4-dichloro-2-butene	ND	ug/Kg	5	
Dibromomethane	ND	ug/Kg	5	
Dichlorodifluoromethane	ND	ug/Kg	5	
Di-isopropyl ether (DIPE)	ND	ug/Kg	5	
Ethylbenzene	ND	ug/Kg	5	
Ethyl-terbutylether (ETBE)	ND	ug/Kg	5	
Hexachlorobutadiene	ND	ug/Kg	5	

QCBatchID: **QC1189710**

Analyst: nicollez

Method: EPA 8260B

Matrix: Solid

Analyzed: 04/04/2018

Instrument: VOA-MS (group)

Analyte	Blank Result	Units	RDL	Notes
QC1189710MB1				
Isopropylbenzene	ND	ug/Kg	5	
m and p-Xylene	ND	ug/Kg	5	
Methylene chloride	ND	ug/Kg	5	
Methyl-t-butyl Ether (MTBE)	ND	ug/Kg	5	
Naphthalene	ND	ug/Kg	5	
N-butylbenzene	ND	ug/Kg	5	
N-propylbenzene	ND	ug/Kg	5	
o-Xylene	ND	ug/Kg	5	
Sec-butylbenzene	ND	ug/Kg	5	
Styrene	ND	ug/Kg	5	
t-Butyl alcohol (TBA)	ND	ug/Kg	10	
Tert-amylmethylether (TAME)	ND	ug/Kg	5	
Tert-butylbenzene	ND	ug/Kg	5	
Tetrachloroethene	ND	ug/Kg	5	
Toluene	ND	ug/Kg	5	
trans-1,2-dichloroethene	ND	ug/Kg	5	
trans-1,3-dichloropropene	ND	ug/Kg	5	
trans-1,4-dichloro-2-butene	ND	ug/Kg	5	
Trichloroethene	ND	ug/Kg	5	
Trichlorofluoromethane	ND	ug/Kg	5	
Vinyl Chloride	ND	ug/Kg	5	
Xylenes (Total)	ND	ug/Kg	5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1189710LCS1, QC1189710LCSD1											
1,1-Dichloroethene	50	50	38	34	ug/Kg	76	68	11	59-172	22	
Benzene	50	50	44	41	ug/Kg	88	82	7	62-137	24	
Chlorobenzene	50	50	43	40	ug/Kg	86	80	7	60-133	24	
Methyl-t-butyl Ether (MTBE)	50	50	36	34	ug/Kg	72	68	6	62-137	21	
Toluene	50	50	42	39	ug/Kg	84	78	7	59-139	21	
Trichloroethene	50	50	44	41	ug/Kg	88	82	7	66-142	21	

QCBatchID: QC1189712

Analyst: Abanh

Method: EPA 8270CM

Matrix: Solid

Analyzed: 04/04/2018

Instrument: SVOA-MS (group)

Blank Summary

Analyte	Blank Result	Units	RDL	Notes
QC1189712MB1				
1-Methylnaphthalene	ND	ug/Kg	10	
2-Methylnaphthalene	ND	ug/Kg	10	
Acenaphthene	ND	ug/Kg	10	
Acenaphthylene	ND	ug/Kg	10	
Anthracene	ND	ug/Kg	10	
Benz(a)anthracene	ND	ug/Kg	10	
Benzo(a)pyrene	ND	ug/Kg	10	
Benzo(b)fluoranthene	ND	ug/Kg	10	
Benzo(g,h,i)perylene	ND	ug/Kg	10	
Benzo(k)fluoranthene	ND	ug/Kg	10	
Chrysene	ND	ug/Kg	10	
Dibenz(a,h)anthracene	ND	ug/Kg	10	
Fluoranthene	ND	ug/Kg	10	
Fluorene	ND	ug/Kg	10	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	10	
Naphthalene	ND	ug/Kg	10	
Phenanthrene	ND	ug/Kg	10	
Pyrene	ND	ug/Kg	10	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1189712LCS1											
1-Methylnaphthalene	50		36		ug/Kg	72			70-130		
2-Methylnaphthalene	50		47		ug/Kg	94			70-130		
Acenaphthene	50		39		ug/Kg	78			70-130		
Acenaphthylene	50		49		ug/Kg	98			70-130		
Anthracene	50		41		ug/Kg	82			70-130		
Benz(a)anthracene	50		46		ug/Kg	92			70-130		
Benzo(a)pyrene	50		37		ug/Kg	74			70-130		
Benzo(b)fluoranthene	50		40		ug/Kg	80			70-130		
Benzo(g,h,i)perylene	50		34		ug/Kg	68			70-130		L
Benzo(k)fluoranthene	50		41		ug/Kg	82			70-130		
Chrysene	50		42		ug/Kg	84			70-130		
Dibenz(a,h)anthracene	50		37		ug/Kg	74			70-130		
Fluoranthene	50		46		ug/Kg	92			70-130		
Fluorene	50		45		ug/Kg	90			70-130		
Indeno(1,2,3-cd)pyrene	50		38		ug/Kg	76			70-130		
Naphthalene	50		46		ug/Kg	92			70-130		
Phenanthrene	50		43		ug/Kg	86			70-130		
Pyrene	50		45		ug/Kg	90			70-130		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	Amount	MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1189712MS1, QC1189712MSD1											Source: 401318-009	
1-Methylnaphthalene	ND	50	50	30	31	ug/Kg	60	62	3.3	70-130	35	M
2-Methylnaphthalene	ND	50	50	42	40	ug/Kg	84	80	4.9	70-130	35	
Acenaphthene	ND	50	50	30	36	ug/Kg	60	72	18.2	70-130	35	M
Acenaphthylene	ND	50	50	30	36	ug/Kg	60	72	18.2	70-130	35	M
Anthracene	ND	50	50	35	40	ug/Kg	70	80	13.3	70-130	35	

Source: 401318-009

QCBatchID: **QC1189712**

Analyst: Abanh

Method: EPA 8270CM

Matrix: Solid

Analyzed: 04/04/2018

Instrument: SVOA-MS (group)

Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1189712MS1, QC1189712MSD1											Source: 401318-009	
Benz(a)anthracene	ND	50	50	39	40	ug/Kg	78	80	2.5	70-130	35	
Benzo(a)pyrene	ND	50	50	49	44	ug/Kg	98	88	10.8	70-130	35	
Benzo(b)fluoranthene	ND	50	50	47	43	ug/Kg	94	86	8.9	70-130	35	
Benzo(g,h,i)perylene	ND	50	50	30	38	ug/Kg	60	76	23.5	70-130	35	M
Benzo(k)fluoranthene	ND	50	50	47	44	ug/Kg	94	88	6.6	70-130	35	
Chrysene	ND	50	50	40	41	ug/Kg	80	82	2.5	70-130	35	
Dibenz(a,h)anthracene	ND	50	50	32	40	ug/Kg	64	80	22.2	70-130	35	M
Fluoranthene	ND	50	50	40	41	ug/Kg	80	82	2.5	70-130	35	
Fluorene	ND	50	50	32	38	ug/Kg	64	76	17.1	70-130	35	M
Indeno(1,2,3-cd)pyrene	ND	50	50	33	42	ug/Kg	66	84	24.0	70-130	35	M
Naphthalene	ND	50	50	39	39	ug/Kg	78	78	0.0	70-130	35	
Phenanthrene	ND	50	50	35	40	ug/Kg	70	80	13.3	70-130	35	
Pyrene	ND	50	50	38	39	ug/Kg	76	78	2.6	70-130	35	

QCBatchID: <u>QC1189759</u>	Analyst: Abanh	Method: EPA 8082
Matrix: Solid	Analyzed: 04/04/2018	Instrument: SVOA-GC (group)

Blank Summary						
Analyte	Blank Result	Units		RDL	Notes	
QC1189759MB1						
PCB-1016	ND	ug/Kg		50		
PCB-1221	ND	ug/Kg		50		
PCB-1232	ND	ug/Kg		50		
PCB-1242	ND	ug/Kg		50		
PCB-1248	ND	ug/Kg		50		
PCB-1254	ND	ug/Kg		50		
PCB-1260	ND	ug/Kg		50		
PCB-1262	ND	ug/Kg		50		
PCB-1268	ND	ug/Kg		50		

Lab Control Spike/ Lab Control Spike Duplicate Summary											
Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1189759LCS1											
PCB-1016	500		470		ug/Kg	94			70-130		
PCB-1260	500		500		ug/Kg	100			70-130		

Matrix Spike/Matrix Spike Duplicate Summary												
Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	MS	MSD	MS	MSD	MS		MSD	%Rec		RPD		
QC1189759MS1, QC1189759MSD1											Source: 401231-017	
PCB-1016	ND	500	500	570	590	ug/Kg	114	118	3.4	70-130	20	
PCB-1260	ND	500	500	510	500	ug/Kg	102	100	2.0	70-130	20	

QCBatchID: <u>QC1189772</u>	Analyst: sandyw	Method: EPA 8015B
Matrix: Solid	Analyzed: 04/05/2018	Instrument: VOA-GC (group)

Blank Summary						
Analyte	Blank Result	Units		RDL	Notes	
QC1189772MB1						
TPH Gasoline	ND	mg/Kg		3		

Lab Control Spike/ Lab Control Spike Duplicate Summary								
Analyte	Spike Amount		Spike Result		Units	Recoveries		Limits
	LCS	LCSD	LCS	LCSD		LCS	LCSD	
						RPD		%Rec RPD
QC1189772LCS1								
TPH Gasoline	5		5.82		mg/Kg	116		70-130

Matrix Spike/Matrix Spike Duplicate Summary											
Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		Limits		Notes
		MS	MSD	MS	MSD		MS	MSD			
							RPD		%Rec RPD		
QC1189772MS1, QC1189772MSD1											Source: 401318-001
TPH Gasoline	ND	5	5	5.76	5.64	mg/Kg	115	113	2.1	70-130	20

QCBatchID: <u>QC1189942</u>	Analyst: Abanh	Method: EPA 8082
Matrix: Solid	Analyzed: 04/09/2018	Instrument: SVOA-GC (group)

Blank Summary						
Analyte	Blank Result	Units		RDL	Notes	
QC1189942MB1						
PCB-1016	ND	ug/Kg		50		
PCB-1221	ND	ug/Kg		50		
PCB-1232	ND	ug/Kg		50		
PCB-1242	ND	ug/Kg		50		
PCB-1248	ND	ug/Kg		50		
PCB-1254	ND	ug/Kg		50		
PCB-1260	ND	ug/Kg		50		
PCB-1262	ND	ug/Kg		50		
PCB-1268	ND	ug/Kg		50		

Lab Control Spike/ Lab Control Spike Duplicate Summary											
Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1189942LCS1											
PCB-1016	500		420		ug/Kg	84			70-130		
PCB-1260	500		490		ug/Kg	98			70-130		

Matrix Spike/Matrix Spike Duplicate Summary												
Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	MS	MSD	MS	MSD	MS		MSD	%Rec		RPD		
QC1189942MS1, QC1189942MSD1											Source: 401318-006	
PCB-1016	ND	500	500	420	440	ug/Kg	84	88	4.7	70-130	20	
PCB-1260	ND	500	500	370	380	ug/Kg	74	76	2.7	70-130	20	

QCBatchID: <u>QC1189962</u>	Analyst: Jarriaga	Method: EPA 8015M
Matrix: Solid	Analyzed: 04/10/2018	Instrument: SVOA-GC (group)

Blank Summary						
Analyte	Blank Result	Units		RDL	Notes	
QC1189962MB1						
TPH (C10 to C28)	ND	mg/Kg		10		
TPH (C13 to C22)	ND	mg/Kg		10		
TPH (C23 to C40)	ND	mg/Kg		20		
TPH (C28 to C40)	ND	mg/Kg		20		
TPH (C28 to C44)	ND	mg/Kg		20		
TPH (C8 to C10)	ND	mg/Kg		10		
TPH Diesel	ND	mg/Kg		10		
TPH Motor Oil	ND	mg/Kg		20		

Lab Control Spike/ Lab Control Spike Duplicate Summary											
Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1189962LCS1											
TPH (C10 to C28)	250		220		mg/Kg	88			70-130		

Matrix Spike/Matrix Spike Duplicate Summary												
Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1189962MS1, QC1189962MSD1											Source: 401318-001	
TPH (C10 to C28)	ND	250	250	260	260	mg/Kg	104	0.0	70-130	20		

QCBatchID: **QC1190114**

Analyst: MSolanki

Method: EPA 8082

Matrix: Water

Analyzed: 04/13/2018

Instrument: SVOA-GC (group)

Blank Summary

Analyte	Blank Result	Units	RDL	Notes
QC1190114MB1				
PCB-1016	ND	ug/L	0.5	
PCB-1221	ND	ug/L	0.5	
PCB-1232	ND	ug/L	0.5	
PCB-1242	ND	ug/L	0.5	
PCB-1248	ND	ug/L	0.5	
PCB-1254	ND	ug/L	0.5	
PCB-1260	ND	ug/L	0.5	
PCB-1262	ND	ug/L	0.5	
PCB-1268	ND	ug/L	0.5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1190114LCS1											
PCB-1016	500		520		ug/L	104			70-130		
PCB-1260	500		510		ug/L	102			70-130		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1190114MS1, QC1190114MSD1											Source: 401318-017	
PCB-1016	ND	500	500	530	520	ug/L	106	104	1.9	70-130	20	
PCB-1260	ND	500	500	470	470	ug/L	94	94	0.0	70-130	20	

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
D3	Insufficient sample was supplied for TCLP. Client was notified. TCLP was performed per the Client's instructions.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
P3	Per Client request, sample was composited for volatile analysis. Sample compositing for volatile analysis is not recommended due to potential loss of target analytes. Results may be biased low.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

ENTHALPY ANALYTICAL		Chain of Custody Record		Turn Around Time (Rush by advanced notice only)						
931 W. Barkley Ave., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714) 538-1209		Lab No: 401318		Standard: 4 Day: 3 Day:						
Billing: Enthalpy Analytical 1 Park Plaza, Suite 1000 Irvine, CA 92614		Page: 1 of 2		2 Day: 1 Day: Same Day:						
		Matrix: A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other		Preservatives: 1 = Na ₂ S ₂ O ₃ 2 = HCl 3 = HNO ₃ 4 = H ₂ SO ₄ 5 = NaOH 6 = Other						
CUSTOMER INFORMATION		PROJECT INFORMATION		Analysis Request		Test Instructions / Comments				
Company:	Apex Companies	Name:	Sears Brea Mall							
Report To:	Paul Garcia	Number:								
Email:	paul.garcia@apexcos.com	P.O. #:	3616-A1000-003							
Address:	10675 Sorrento Valley Road STE 203	Address:	100 Brea Mall							
	San Diego, CA 92121		Brea, CA 92821							
Phone:	858-558-1120	Global ID:								
Fax:	858-558-1121	Sampled By:	Tyler Steimel							
Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	TPH Extended Range (8015B)	VOCs (8260B)	PCBs (8082)	PAHs (8270 SIM)	Luft-5 Metals (6010B)
1. L5-5	4/13/18	956	S	2, 402+802	N/A	X	X	X		
2. L5-10	11	1000	S	1, 802	N/A					Hold
3. L5-12	11	1002 1002	S	1, 402	N/A					Hold
4. L6-3	11	1140	S	2, 402+802	1	X	X	X		Hold
5. L6-8	11	1307	S	2, 402+802	1	X	X	X		Hold Analyze
6. L7-5	11	1322	S	2, 402+802	1	X	X	X		Hold
7. L7-7.5	11	1322	S	1, 802	1					Hold
8. L7-12	11	1320	S	1, 802	1					Hold
9. D7-2	11	1224	S	4, 802, 3, 402	5035	X	X	X		
10. L6-12	11	1309	S	1, 802	N/A					Hold
Signature		Print Name		Company / Title		Date / Time				
1. Relinquished By:	TLB	Tyler Steimel		Apex		4/13/18 / 1612				
1. Received By:		Jesse Mares		Enthalpy		4-3-18 4:12 pm				
2. Relinquished By:		Jesse Mares		Enthalpy		4-3-18 4:40				
2. Received By:		Andrew L. Smith		E.A.		04/03/18 16:40				
3. Relinquished By:										
3. Received By:										

* 1 week Turn *

ENTHALPY ANALYTICAL				Chain of Custody Record				Turn Around Time (Rush by advanced notice only)							
931 W. Barkley Ave., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714) 538-1209 Billing: Enthalpy Analytical 1 Park Plaza, Suite 1000 Irvine, CA 92614				Lab No: 401318				Standard:							
				Page: 2 of 2				2 Day: 1 Day: 3 Day: Same Day:							
Matrix: A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other				Preservatives: 1 = Na ₂ S ₂ O ₃ 2 = HCl 3 = HNO ₃ 4 = H ₂ SO ₄ 5 = NaOH 6 = Other											
CUSTOMER INFORMATION				PROJECT INFORMATION				Analysis Request				Test Instructions / Comments			
Company:	Apex Companies			Name:	Sears Brea Mall										
Report To:	Paul Garcia			Number:											
Email:	paul.garcia@apexcos.com			P.O. #:	3616-A1000-003										
Address:	10675 Sorrento Valley Road STE 203			Address:	100 Brea Mall										
	San Diego, CA 92121				Brea, CA 92821										
Phone:	858-558-1120			Global ID:											
Fax:	858-558-1121			Sampled By:	Tyler Steimel										
Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	TPH Extended Range (8015B)	VOCs (8260B)	PCBs (8082)	PAHs (8270 SIM)	Luft-5 Metals (6010B)	BTEX+MTBE				
1 L8-2	4/3/18	1327	S	402+802	N/A	X		X							
2 L8-6	"	1428	"	802	N/A							Hold			
3 L8-9	"	1430	"	802	N/A							Hold			
4 L8-12	"	1432	"	802	N/A							Hold			
5 L8-1-2	"	1540	"	4802+340ml	5035	X				X					
6 L8-1-4	"	1548	"	802+340ml	5035										
7 L8-1	"	1340	L	1 Amber			X								
8 SE-1	"	1350	L	1 Amber			X								
9															
10															
Signature		Print Name		Company / Title		Date / Time									
1 Relinquished By: Tyl SA		Tyler Steimel		Apex		4/3/18; 1612									
1 Received By: [Signature]		TAYLOR		Enthalpy		4-3-18 4:12 pm									
2 Relinquished By: [Signature]		TAYLOR		4/3		4-3-18 4:40 pm									
2 Received By: [Signature]		Andrew L. Shaw		E.A.		04/03/18 16:40									
3 Relinquished By:															
3 Received By:															



ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Apex Companies

Project: Sears Brea Mall

Date Received: 04/03/18

Sampler's Name Present: ☒ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☒ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler) : _____

Sample Temp (°C), One from each cooler: #1: 4.2 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☒ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam
☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 5.9 #2: _____ #3: _____ #4: _____

Section 4

	YES	NO	N/A
Was a COC received?	☒	☐	☐
Are sample IDs present?	☒	☐	☐
Are sampling dates & times present?	☒	☐	☐
Is a relinquished signature present?	☒	☐	☐
Are the tests required clearly indicated on the COC?	☒	☐	☐
Are custody seals present?	☐	☒	☐
If custody seals are present, were they intact?	☐	☐	☒
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)	☒	☐	☐
Did all samples arrive intact? If no, indicate in Section 4 below.	☒	☐	☐
Did all bottle labels agree with COC? (ID, dates and times)	☒	☐	☐
Were the samples collected in the correct containers for the required tests?	☒	☐	☐
Are the containers labeled with the correct preservatives?	☒	☐	☐
Is there headspace in the VOA vials greater than 5-6 mm in diameter?	☐	☐	☒
Was a sufficient amount of sample submitted for the requested tests?	☒	☐	☐

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time: _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response: _____

Completed By: [Signature]

Date: 04/03/18

Enthalpy Analytical Field Technician Request Form

Version # 2.7
Effective 9/10/15

Client Info	
Client Name:	APEX
Address:	10675 Sorrento Valley Rd.
City:	San Diego, CA 92121
Ordered By:	Paul Garcia
Client Project Manager:	
Phone:	858-558-1120 x 1507
Email:	paul.garcia@apexcos.com
Site Info	
Address:	Sears Brea Mall Auto Center 100 Brea Mall
City:	Brea, CA 92821
Site Contact:	Tyler Steimel
Phone:	619-540-3067
2nd Site Contact:	
Phone:	

Request Completed By	
Enthalpy Contact:	Diane Galvan
Date / Time:	3/27/18 @ 11:30

Date(s) Needed:		4/3/18 @ 4:00pm	
Before:		After:	
Assigned Field Technician:			
Arrival Time:		Leave Time:	
Pick Up	✓	Delivery	

Micro Sampling			
1st Day:		Sampling Time:	
2nd Day:		Sampling Time:	
Verbal Notification required (ASAP):			
Primary Notification Contact Info:			
Secondary Notification Contact Info:			
Analysis:			

Water/Soil Sampling			
ISCO:		Soil:	
Meter readings (ISCO):		# of samples:	
Analysis:			

Sampling Notes			
TAT:		Return ASAP:	
Return by:			
Comments/Instructions:			

Enthalpy Coordinator Use Only		Enthalpy PM Use Only	
Request Approved:		☒ Emailed ☐ Phoned ☐ No Notification	
Alternate Date/Time proposed:		Client contact notified:	Paul Garcia
Request Denied:		Name / Signature:	Diane Galvan
Date/Time:	4/02/18	Date/Time:	3/27/18 @ 11:30

Please initial and date any changes.



Enthalpy Analytical, LLC

931 W. Barkley Ave - Orange, CA 92868
Tel: (714)771-6900 Fax: (714)538-1209
www.enthalpy.com
info-sc@enthalpy.com



Client: APEX
Address: 10675 Sorrento Valley Rd.
Suite 203
San Diego, CA 92121
Attn: Paul Garcia

Comments: Sears Brea Mall
3616-A1000-003

Lab Request: 401382
Report Date: 04/18/2018
Date Received: 04/04/2018
Client ID: 10359

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

<u>Sample #</u>	<u>Client Sample ID</u>
-----------------	-------------------------

401382-001	D1-2
401382-003	L9-3
401382-006	L10-5
401382-009	L11-3
401382-013	L12-1
401382-017	D2-4
401382-018	D3-1
401382-020	D5-1
401382-022	D6-1

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Diane M. Galvan

Report Review performed by: Diane Galvan, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 60 days from date received.

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Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/03/2018 16:28	Site:	
Sample #: 401382-001	Client Sample #: D1-2	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1189874	
Cadmium	0.92	1	0.5	mg/Kg	04/06/18	04/09/18	SBW
Chromium	14.8	1	1	mg/Kg	04/06/18	04/09/18	SBW
Lead	2.34	1	1	mg/Kg	04/06/18	04/09/18	SBW
Nickel	16.5	1	1.5	mg/Kg	04/06/18	04/09/18	SBW
Zinc	31.5	1	5	mg/Kg	04/06/18	04/09/18	SBW
Method: EPA 8015B NELAC	Prep Method: EPA 5030					QCBatchID: QC1189821	
TPH Gasoline	ND	1	3	mg/Kg		04/06/18	EW
Surrogate	% Recovery		Limits				Notes
4-Bromofluorobenzene (SUR)	105		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189883	
TPH Diesel	ND	1	10	mg/Kg	04/09/18	04/09/18	BB
TPH Motor Oil	ND	1	20	mg/Kg	04/09/18	04/09/18	BB
Surrogate	% Recovery		Limits				Notes
Triacotane (SUR)	80		50-150				
Method: EPA 8082 NELAC	Prep Method: EPA 3545					QCBatchID: QC1190193	
PCB-1016	ND	1	50	ug/Kg	04/16/18	04/17/18	MTS
PCB-1221	ND	1	50	ug/Kg	04/16/18	04/17/18	MTS
PCB-1232	ND	1	50	ug/Kg	04/16/18	04/17/18	MTS
PCB-1242	ND	1	50	ug/Kg	04/16/18	04/17/18	MTS
PCB-1248	ND	1	50	ug/Kg	04/16/18	04/17/18	MTS
PCB-1254	ND	1	50	ug/Kg	04/16/18	04/17/18	MTS
PCB-1260	ND	1	50	ug/Kg	04/16/18	04/17/18	MTS
PCB-1262	ND	1	50	ug/Kg	04/16/18	04/17/18	MTS
PCB-1268	ND	1	50	ug/Kg	04/16/18	04/17/18	MTS
Surrogate	% Recovery		Limits				Notes
Decachlorobiphenyl DCB (SUR)	70		50-150				
Method: EPA 8260B NELAC	Prep Method: EPA 5035A					QCBatchID: QC1189855	
1,1,1,2-Tetrachloroethane	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
1,1,1-Trichloroethane	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
1,1,2,2-Tetrachloroethane	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
1,1,2-Trichloroethane	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
1,1,2-Trichlorotrifluoroethane	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
1,1-Dichloroethane	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
1,1-Dichloroethene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
1,1-Dichloropropene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
1,2,3-Trichlorobenzene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
1,2,3-Trichloropropane	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
1,2,4-Trichlorobenzene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
1,2,4-Trimethylbenzene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
1,2-Dibromo-3-chloropropane	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
1,2-Dibromoethane	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
1,2-Dichlorobenzene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
1,2-Dichloroethane	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
1,2-Dichloropropane	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
1,3,5-Trimethylbenzene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
1,3-Dichlorobenzene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
1,3-Dichloropropane	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
1,4-Dichlorobenzene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
2,2-Dichloropropane	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
2-Butanone (MEK)	ND	1.02	102	ug/Kg		04/06/18	ZZ
2-Chloroethyl Vinyl Ether	ND	1.02	5.1	ug/Kg		04/06/18	ZZ

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/03/2018 16:28	Site:	
Sample #: <u>401382-001</u>	Client Sample #: D1-2	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
2-Chlorotoluene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
4-Chlorotoluene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
4-Isopropyltoluene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
4-Methyl-2-pentanone (MIBK)	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Acetone	ND	1.02	102	ug/Kg		04/06/18	ZZ
Allyl Chloride	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Benzene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Bromobenzene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Bromochloromethane	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Bromodichloromethane	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Bromoform	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Bromomethane	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Carbon Tetrachloride	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Chlorobenzene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Chlorodibromomethane	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Chloroethane	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Chloroform	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Chloromethane	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
cis-1,2-Dichloroethene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
cis-1,3-dichloropropene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
cis-1,4-dichloro-2-butene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Dibromomethane	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Dichlorodifluoromethane	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Di-isopropyl ether (DIPE)	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Ethylbenzene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Ethyl-tertbutylether (ETBE)	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Hexachlorobutadiene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Isopropylbenzene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
m and p-Xylene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Methylene chloride	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Methyl-t-butyl Ether (MTBE)	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Naphthalene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
N-butylbenzene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
N-propylbenzene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
o-Xylene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Sec-butylbenzene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Styrene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
t-Butyl alcohol (TBA)	ND	1.02	10.2	ug/Kg		04/06/18	ZZ
Tert-amylmethylether (TAME)	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Tert-butylbenzene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Tetrachloroethene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Toluene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
trans-1,2-dichloroethene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
trans-1,3-dichloropropene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
trans-1,4-dichloro-2-butene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Trichloroethene	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Trichlorofluoromethane	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Vinyl Chloride	ND	1.02	5.1	ug/Kg		04/06/18	ZZ
Xylenes (Total)	ND	1.02	5.1	ug/Kg		04/06/18	ZZ

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/03/2018 16:28	Site:	
Sample #: 401382-001	Client Sample #: D1-2	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
1,2-Dichloroethane-d4 (SUR)	105		70-145				
4-Bromofluorobenzene (SUR)	97		70-145				
Dibromofluoromethane (SUR)	106		70-145				
Toluene-d8 (SUR)	93		70-145				
Method: EPA 8270CM	Prep Method: EPA 3545					QCBatchID: QC1190108	
1-Methylnaphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
2-Methylnaphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Acenaphthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Acenaphthylene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benz(a)anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(a)pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(b)fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(g,h,i)perylene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(k)fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Chrysene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Dibenz(a,h)anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Fluorene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Indeno(1,2,3-cd)pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Naphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Phenanthrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
2-Fluorobiphenyl (SUR)	72		30-120				
Nitrobenzene-d5 (SUR)	78		27-125				
p-Terphenyl (SUR)	76		33-155				

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/04/2018 09:20	Site:	
Sample #: <u>401382-003</u>	Client Sample #: L9-3	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 8015B <i>NELAC</i>	Prep Method: EPA 5030					QCBatchID: QC1189821	
TPH Gasoline	ND	1	3	mg/Kg		04/06/18	EW
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
4-Bromofluorobenzene (SUR)	105		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189962	
TPH Diesel	ND	1	10	mg/Kg	04/10/18	04/10/18	JAR
TPH Motor Oil	ND	1	20	mg/Kg	04/10/18	04/10/18	JAR
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Triacontane (SUR)	53		50-150				
Method: EPA 8082 <i>NELAC</i>	Prep Method: EPA 3545					QCBatchID: QC1189972	
PCB-1016	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1221	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1232	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1242	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1248	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1254	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1260	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1262	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1268	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Decachlorobiphenyl DCB (SUR)	76		50-150				

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/04/2018 10:50	Site:	
Sample #: <u>401382-006</u>	Client Sample #: L10-5	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 8015B <i>NELAC</i>	Prep Method: EPA 5030					QCBatchID: QC1189821	
TPH Gasoline	ND	1	3	mg/Kg		04/06/18	EW
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
4-Bromofluorobenzene (SUR)	100		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189962	
TPH Diesel	ND	1	10	mg/Kg	04/10/18	04/10/18	JAR
TPH Motor Oil	ND	1	20	mg/Kg	04/10/18	04/10/18	JAR
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Triacontane (SUR)	59		50-150				
Method: EPA 8082 <i>NELAC</i>	Prep Method: EPA 3545					QCBatchID: QC1189972	
PCB-1016	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1221	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1232	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1242	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1248	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1254	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1260	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1262	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1268	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Decachlorobiphenyl DCB (SUR)	62		50-150				

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/04/2018 11:02	Site:	
Sample #: <u>401382-009</u>	Client Sample #: L11-3	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 8015B <i>NELAC</i>	Prep Method: EPA 5030					QCBatchID: QC1189821	
TPH Gasoline	ND	1	3	mg/Kg		04/06/18	EW
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
4-Bromofluorobenzene (SUR)	105		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189883	
TPH Diesel	26	1	10	mg/Kg	04/09/18	04/09/18	BB
TPH Motor Oil	21	1	20	mg/Kg	04/09/18	04/09/18	BB
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Triacontane (SUR)	96		50-150				
Method: EPA 8082 <i>NELAC</i>	Prep Method: EPA 3545					QCBatchID: QC1189972	
PCB-1016	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1221	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1232	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1242	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1248	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1254	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1260	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1262	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1268	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Decachlorobiphenyl DCB (SUR)	65		50-150				

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/04/2018 12:41	Site:	
Sample #: <u>401382-013</u>	Client Sample #: L12-1	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 8015B <i>NELAC</i>	Prep Method: EPA 5030					QCBatchID: QC1189821	
TPH Gasoline	ND	1	3	mg/Kg		04/06/18	EW
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
4-Bromofluorobenzene (SUR)	100		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189883	
TPH Diesel	ND	1	10	mg/Kg	04/09/18	04/09/18	BB
TPH Motor Oil	ND	1	20	mg/Kg	04/09/18	04/09/18	BB
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Triacontane (SUR)	87		50-150				
Method: EPA 8082 <i>NELAC</i>	Prep Method: EPA 3545					QCBatchID: QC1189972	
PCB-1016	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1221	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1232	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1242	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1248	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1254	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1260	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1262	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1268	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Decachlorobiphenyl DCB (SUR)	78		50-150				

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/04/2018 12:03	Site:	
Sample #: 401382-017	Client Sample #: D2-4	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1189874	
Cadmium	0.74	1	0.5	mg/Kg	04/06/18	04/09/18	SBW
Chromium	7.28	1	1	mg/Kg	04/06/18	04/09/18	SBW
Lead	1.99	1	1	mg/Kg	04/06/18	04/09/18	SBW
Nickel	8.94	1	1.5	mg/Kg	04/06/18	04/09/18	SBW
Zinc	18.0	1	5	mg/Kg	04/06/18	04/09/18	SBW
Method: EPA 8015B NELAC	Prep Method: EPA 5030					QCBatchID: QC1189821	
TPH Gasoline	ND	1	3	mg/Kg		04/06/18	EW
Surrogate	% Recovery		Limits				Notes
4-Bromofluorobenzene (SUR)	100		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189962	
TPH Diesel	ND	1	10	mg/Kg	04/10/18	04/10/18	JAR
TPH Motor Oil	ND	1	20	mg/Kg	04/10/18	04/10/18	JAR
Surrogate	% Recovery		Limits				Notes
Triacantane (SUR)	46		50-150	S			
Method: EPA 8082 NELAC	Prep Method: EPA 3545					QCBatchID: QC1189972	
PCB-1016	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1221	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1232	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1242	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1248	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1254	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1260	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1262	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1268	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
Surrogate	% Recovery		Limits				Notes
Decachlorobiphenyl DCB (SUR)	70		50-150				
Method: EPA 8260B NELAC	Prep Method: EPA 5035A					QCBatchID: QC1189855	
1,1,1,2-Tetrachloroethane	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
1,1,1-Trichloroethane	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
1,1,2,2-Tetrachloroethane	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
1,1,2-Trichloroethane	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
1,1,2-Trichlorotrifluoroethane	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
1,1-Dichloroethane	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
1,1-Dichloroethene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
1,1-Dichloropropene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
1,2,3-Trichlorobenzene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
1,2,3-Trichloropropane	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
1,2,4-Trichlorobenzene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
1,2,4-Trimethylbenzene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
1,2-Dibromo-3-chloropropane	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
1,2-Dibromoethane	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
1,2-Dichlorobenzene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
1,2-Dichloroethane	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
1,2-Dichloropropane	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
1,3,5-Trimethylbenzene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
1,3-Dichlorobenzene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
1,3-Dichloropropane	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
1,4-Dichlorobenzene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
2,2-Dichloropropane	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
2-Butanone (MEK)	ND	1.28	128	ug/Kg		04/06/18	ZZ
2-Chloroethyl Vinyl Ether	ND	1.28	6.4	ug/Kg		04/06/18	ZZ

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/04/2018 12:03	Site:	
Sample #: <u>401382-017</u>	Client Sample #: D2-4	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
2-Chlorotoluene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
4-Chlorotoluene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
4-Isopropyltoluene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
4-Methyl-2-pentanone (MIBK)	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Acetone	ND	1.28	128	ug/Kg		04/06/18	ZZ
Allyl Chloride	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Benzene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Bromobenzene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Bromochloromethane	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Bromodichloromethane	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Bromoform	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Bromomethane	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Carbon Tetrachloride	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Chlorobenzene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Chlorodibromomethane	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Chloroethane	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Chloroform	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Chloromethane	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
cis-1,2-Dichloroethene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
cis-1,3-dichloropropene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
cis-1,4-dichloro-2-butene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Dibromomethane	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Dichlorodifluoromethane	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Di-isopropyl ether (DIPE)	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Ethylbenzene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Ethyl-tertbutylether (ETBE)	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Hexachlorobutadiene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Isopropylbenzene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
m and p-Xylene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Methylene chloride	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Methyl-t-butyl Ether (MTBE)	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Naphthalene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
N-butylbenzene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
N-propylbenzene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
o-Xylene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Sec-butylbenzene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Styrene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
t-Butyl alcohol (TBA)	ND	1.28	12.8	ug/Kg		04/06/18	ZZ
Tert-amylmethylether (TAME)	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Tert-butylbenzene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Tetrachloroethene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Toluene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
trans-1,2-dichloroethene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
trans-1,3-dichloropropene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
trans-1,4-dichloro-2-butene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Trichloroethene	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Trichlorofluoromethane	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Vinyl Chloride	ND	1.28	6.4	ug/Kg		04/06/18	ZZ
Xylenes (Total)	ND	1.28	6.4	ug/Kg		04/06/18	ZZ

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/04/2018 12:03	Site:	
Sample #: 401382-017	Client Sample #: D2-4	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
1,2-Dichloroethane-d4 (SUR)	98		70-145				
4-Bromofluorobenzene (SUR)	99		70-145				
Dibromofluoromethane (SUR)	101		70-145				
Toluene-d8 (SUR)	98		70-145				
Method: EPA 8270CM	Prep Method: EPA 3545					QCBatchID: QC1190108	
1-Methylnaphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
2-Methylnaphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Acenaphthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Acenaphthylene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benz(a)anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(a)pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(b)fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(g,h,i)perylene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(k)fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Chrysene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Dibenz(a,h)anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Fluorene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Indeno(1,2,3-cd)pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Naphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Phenanthrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
2-Fluorobiphenyl (SUR)	73		30-120				
Nitrobenzene-d5 (SUR)	79		27-125				
p-Terphenyl (SUR)	79		33-155				

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/04/2018 12:33	Site:	
Sample #: 401382-018	Client Sample #: D3-1	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1189874	
Cadmium	0.78	1	0.5	mg/Kg	04/06/18	04/09/18	SBW
Chromium	16.4	1	1	mg/Kg	04/06/18	04/09/18	SBW
Lead	3.90	1	1	mg/Kg	04/06/18	04/09/18	SBW
Nickel	15.4	1	1.5	mg/Kg	04/06/18	04/09/18	SBW
Zinc	34.6	1	5	mg/Kg	04/06/18	04/09/18	SBW
Method: EPA 8015B NELAC	Prep Method: EPA 5030					QCBatchID: QC1189821	
TPH Gasoline	ND	1	3	mg/Kg		04/06/18	EW
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
4-Bromofluorobenzene (SUR)	105		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189883	
TPH Diesel	ND	1	10	mg/Kg	04/09/18	04/10/18	BB
TPH Motor Oil	ND	1	20	mg/Kg	04/09/18	04/10/18	BB
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Triacotane (SUR)	89		50-150				
Method: EPA 8082 NELAC	Prep Method: EPA 3545					QCBatchID: QC1189972	
PCB-1016	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1221	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1232	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1242	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1248	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1254	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1260	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1262	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1268	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Decachlorobiphenyl DCB (SUR)	87		50-150				
Method: EPA 8260B NELAC	Prep Method: EPA 5035A					QCBatchID: QC1189855	
1,1,1,2-Tetrachloroethane	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
1,1,1-Trichloroethane	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
1,1,2,2-Tetrachloroethane	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
1,1,2-Trichloroethane	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
1,1,2-Trichlorotrifluoroethane	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
1,1-Dichloroethane	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
1,1-Dichloroethene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
1,1-Dichloropropene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
1,2,3-Trichlorobenzene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
1,2,3-Trichloropropane	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
1,2,4-Trichlorobenzene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
1,2,4-Trimethylbenzene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
1,2-Dibromo-3-chloropropane	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
1,2-Dibromoethane	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
1,2-Dichlorobenzene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
1,2-Dichloroethane	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
1,2-Dichloropropane	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
1,3,5-Trimethylbenzene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
1,3-Dichlorobenzene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
1,3-Dichloropropane	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
1,4-Dichlorobenzene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
2,2-Dichloropropane	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
2-Butanone (MEK)	ND	1.09	109	ug/Kg		04/06/18	ZZ
2-Chloroethyl Vinyl Ether	ND	1.09	5.45	ug/Kg		04/06/18	ZZ

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/04/2018 12:33	Site:	
Sample #: <u>401382-018</u>	Client Sample #: D3-1	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
2-Chlorotoluene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
4-Chlorotoluene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
4-Isopropyltoluene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
4-Methyl-2-pentanone (MIBK)	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Acetone	ND	1.09	109	ug/Kg		04/06/18	ZZ
Allyl Chloride	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Benzene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Bromobenzene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Bromochloromethane	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Bromodichloromethane	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Bromoform	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Bromomethane	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Carbon Tetrachloride	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Chlorobenzene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Chlorodibromomethane	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Chloroethane	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Chloroform	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Chloromethane	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
cis-1,2-Dichloroethene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
cis-1,3-dichloropropene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
cis-1,4-dichloro-2-butene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Dibromomethane	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Dichlorodifluoromethane	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Di-isopropyl ether (DIPE)	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Ethylbenzene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Ethyl-tertbutylether (ETBE)	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Hexachlorobutadiene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Isopropylbenzene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
m and p-Xylene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Methylene chloride	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Methyl-t-butyl Ether (MTBE)	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Naphthalene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
N-butylbenzene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
N-propylbenzene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
o-Xylene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Sec-butylbenzene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Styrene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
t-Butyl alcohol (TBA)	ND	1.09	10.9	ug/Kg		04/06/18	ZZ
Tert-amylmethylether (TAME)	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Tert-butylbenzene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Tetrachloroethene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Toluene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
trans-1,2-dichloroethene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
trans-1,3-dichloropropene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
trans-1,4-dichloro-2-butene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Trichloroethene	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Trichlorofluoromethane	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Vinyl Chloride	ND	1.09	5.45	ug/Kg		04/06/18	ZZ
Xylenes (Total)	ND	1.09	5.45	ug/Kg		04/06/18	ZZ

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/04/2018 12:33	Site:	
Sample #: 401382-018	Client Sample #: D3-1	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
1,2-Dichloroethane-d4 (SUR)	94		70-145				
4-Bromofluorobenzene (SUR)	95		70-145				
Dibromofluoromethane (SUR)	98		70-145				
Toluene-d8 (SUR)	99		70-145				
Method: EPA 8270CM	Prep Method: EPA 3545					QCBatchID: QC1190108	
1-Methylnaphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
2-Methylnaphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Acenaphthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Acenaphthylene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benz(a)anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(a)pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(b)fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(g,h,i)perylene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(k)fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Chrysene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Dibenz(a,h)anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Fluorene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Indeno(1,2,3-cd)pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Naphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Phenanthrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
2-Fluorobiphenyl (SUR)	61		30-120				
Nitrobenzene-d5 (SUR)	71		27-125				
p-Terphenyl (SUR)	85		33-155				

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/04/2018 14:45	Site:	
Sample #: 401382-020	Client Sample #: D5-1	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1189874	
Cadmium	1.28	1	0.5	mg/Kg	04/06/18	04/09/18	SBW
Chromium	16.7	1	1	mg/Kg	04/06/18	04/09/18	SBW
Lead	4.11	1	1	mg/Kg	04/06/18	04/09/18	SBW
Nickel	15.5	1	1.5	mg/Kg	04/06/18	04/09/18	SBW
Zinc	35.4	1	5	mg/Kg	04/06/18	04/09/18	SBW
Method: EPA 8015B NELAC	Prep Method: EPA 5030					QCBatchID: QC1189821	
TPH Gasoline	ND	1	3	mg/Kg		04/06/18	EW
Surrogate	% Recovery		Limits				Notes
4-Bromofluorobenzene (SUR)	105		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189883	
TPH Diesel	11	1	10	mg/Kg	04/09/18	04/10/18	BB
TPH Motor Oil	ND	1	20	mg/Kg	04/09/18	04/10/18	BB
Surrogate	% Recovery		Limits				Notes
Triacantane (SUR)	93		50-150				
Method: EPA 8082 NELAC	Prep Method: EPA 3545					QCBatchID: QC1190193	
PCB-1016	ND	1	50	ug/Kg	04/16/18	04/17/18	MTS
PCB-1221	ND	1	50	ug/Kg	04/16/18	04/17/18	MTS
PCB-1232	ND	1	50	ug/Kg	04/16/18	04/17/18	MTS
PCB-1242	ND	1	50	ug/Kg	04/16/18	04/17/18	MTS
PCB-1248	ND	1	50	ug/Kg	04/16/18	04/17/18	MTS
PCB-1254	ND	1	50	ug/Kg	04/16/18	04/17/18	MTS
PCB-1260	ND	1	50	ug/Kg	04/16/18	04/17/18	MTS
PCB-1262	ND	1	50	ug/Kg	04/16/18	04/17/18	MTS
PCB-1268	ND	1	50	ug/Kg	04/16/18	04/17/18	MTS
Surrogate	% Recovery		Limits				Notes
Decachlorobiphenyl DCB (SUR)	69		50-150				
Method: EPA 8260B NELAC	Prep Method: EPA 5035A					QCBatchID: QC1189855	
1,1,1,2-Tetrachloroethane	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
1,1,1-Trichloroethane	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
1,1,2,2-Tetrachloroethane	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
1,1,2-Trichloroethane	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
1,1,2-Trichlorotrifluoroethane	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
1,1-Dichloroethane	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
1,1-Dichloroethene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
1,1-Dichloropropene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
1,2,3-Trichlorobenzene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
1,2,3-Trichloropropane	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
1,2,4-Trichlorobenzene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
1,2,4-Trimethylbenzene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
1,2-Dibromo-3-chloropropane	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
1,2-Dibromoethane	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
1,2-Dichlorobenzene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
1,2-Dichloroethane	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
1,2-Dichloropropane	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
1,3,5-Trimethylbenzene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
1,3-Dichlorobenzene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
1,3-Dichloropropane	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
1,4-Dichlorobenzene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
2,2-Dichloropropane	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
2-Butanone (MEK)	ND	1.56	156	ug/Kg		04/06/18	ZZ
2-Chloroethyl Vinyl Ether	ND	1.56	7.8	ug/Kg		04/06/18	ZZ

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/04/2018 14:45	Site:	
Sample #: <u>401382-020</u>	Client Sample #: D5-1	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
2-Chlorotoluene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
4-Chlorotoluene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
4-Isopropyltoluene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
4-Methyl-2-pentanone (MIBK)	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Acetone	ND	1.56	156	ug/Kg		04/06/18	ZZ
Allyl Chloride	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Benzene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Bromobenzene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Bromochloromethane	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Bromodichloromethane	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Bromoform	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Bromomethane	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Carbon Tetrachloride	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Chlorobenzene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Chlorodibromomethane	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Chloroethane	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Chloroform	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Chloromethane	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
cis-1,2-Dichloroethene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
cis-1,3-dichloropropene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
cis-1,4-dichloro-2-butene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Dibromomethane	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Dichlorodifluoromethane	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Di-isopropyl ether (DIPE)	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Ethylbenzene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Ethyl-tertbutylether (ETBE)	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Hexachlorobutadiene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Isopropylbenzene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
m and p-Xylene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Methylene chloride	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Methyl-t-butyl Ether (MTBE)	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Naphthalene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
N-butylbenzene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
N-propylbenzene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
o-Xylene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Sec-butylbenzene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Styrene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
t-Butyl alcohol (TBA)	ND	1.56	15.6	ug/Kg		04/06/18	ZZ
Tert-amylmethylether (TAME)	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Tert-butylbenzene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Tetrachloroethene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Toluene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
trans-1,2-dichloroethene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
trans-1,3-dichloropropene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
trans-1,4-dichloro-2-butene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Trichloroethene	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Trichlorofluoromethane	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Vinyl Chloride	ND	1.56	7.8	ug/Kg		04/06/18	ZZ
Xylenes (Total)	ND	1.56	7.8	ug/Kg		04/06/18	ZZ

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/04/2018 14:45	Site:	
Sample #: <u>401382-020</u>	Client Sample #: D5-1	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
1,2-Dichloroethane-d4 (SUR)	101		70-145				
4-Bromofluorobenzene (SUR)	97		70-145				
Dibromofluoromethane (SUR)	103		70-145				
Toluene-d8 (SUR)	96		70-145				
Method: EPA 8270CM	Prep Method: EPA 3545					QCBatchID: QC1190108	
1-Methylnaphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
2-Methylnaphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Acenaphthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Acenaphthylene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benz(a)anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(a)pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(b)fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(g,h,i)perylene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(k)fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Chrysene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Dibenz(a,h)anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Fluorene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Indeno(1,2,3-cd)pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Naphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Phenanthrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
2-Fluorobiphenyl (SUR)	71		30-120				
Nitrobenzene-d5 (SUR)	93		27-125				
p-Terphenyl (SUR)	94		33-155				

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/04/2018 11:50	Site:	
Sample #: 401382-022	Client Sample #: D6-1	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1189874	
Cadmium	0.83	1	0.5	mg/Kg	04/06/18	04/09/18	SBW
Chromium	15.4	1	1	mg/Kg	04/06/18	04/09/18	SBW
Lead	3.47	1	1	mg/Kg	04/06/18	04/09/18	SBW
Nickel	13.9	1	1.5	mg/Kg	04/06/18	04/09/18	SBW
Zinc	33.5	1	5	mg/Kg	04/06/18	04/09/18	SBW
Method: EPA 8015B NELAC	Prep Method: EPA 5030					QCBatchID: QC1189821	
TPH Gasoline	ND	1	3	mg/Kg		04/06/18	EW
Surrogate	% Recovery		Limits				Notes
4-Bromofluorobenzene (SUR)	100		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189883	
TPH Diesel	ND	1	10	mg/Kg	04/09/18	04/10/18	BB
TPH Motor Oil	ND	1	20	mg/Kg	04/09/18	04/10/18	BB
Surrogate	% Recovery		Limits				Notes
Triacantane (SUR)	90		50-150				
Method: EPA 8082 NELAC	Prep Method: EPA 3545					QCBatchID: QC1189972	
PCB-1016	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1221	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1232	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1242	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1248	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1254	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1260	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1262	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1268	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
Surrogate	% Recovery		Limits				Notes
Decachlorobiphenyl DCB (SUR)	73		50-150				
Method: EPA 8260B NELAC	Prep Method: EPA 5035A					QCBatchID: QC1189855	
1,1,1,2-Tetrachloroethane	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
1,1,1-Trichloroethane	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
1,1,2,2-Tetrachloroethane	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
1,1,2-Trichloroethane	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
1,1,2-Trichlorotrifluoroethane	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
1,1-Dichloroethane	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
1,1-Dichloroethene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
1,1-Dichloropropene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
1,2,3-Trichlorobenzene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
1,2,3-Trichloropropane	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
1,2,4-Trichlorobenzene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
1,2,4-Trimethylbenzene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
1,2-Dibromo-3-chloropropane	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
1,2-Dibromoethane	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
1,2-Dichlorobenzene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
1,2-Dichloroethane	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
1,2-Dichloropropane	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
1,3,5-Trimethylbenzene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
1,3-Dichlorobenzene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
1,3-Dichloropropane	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
1,4-Dichlorobenzene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
2,2-Dichloropropane	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
2-Butanone (MEK)	ND	1.06	106	ug/Kg		04/06/18	ZZ
2-Chloroethyl Vinyl Ether	ND	1.06	5.3	ug/Kg		04/06/18	ZZ

Matrix: Solid

Client: APEX

Collector: Client

Sampled: 04/04/2018 11:50

Site:

Sample #: 401382-022

Client Sample #: D6-1

Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
2-Chlorotoluene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
4-Chlorotoluene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
4-Isopropyltoluene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
4-Methyl-2-pentanone (MIBK)	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Acetone	ND	1.06	106	ug/Kg		04/06/18	ZZ
Allyl Chloride	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Benzene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Bromobenzene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Bromochloromethane	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Bromodichloromethane	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Bromoform	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Bromomethane	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Carbon Tetrachloride	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Chlorobenzene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Chlorodibromomethane	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Chloroethane	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Chloroform	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Chloromethane	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
cis-1,2-Dichloroethene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
cis-1,3-dichloropropene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
cis-1,4-dichloro-2-butene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Dibromomethane	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Dichlorodifluoromethane	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Di-isopropyl ether (DIPE)	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Ethylbenzene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Ethyl-tertbutylether (ETBE)	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Hexachlorobutadiene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Isopropylbenzene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
m and p-Xylene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Methylene chloride	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Methyl-t-butyl Ether (MTBE)	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Naphthalene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
N-butylbenzene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
N-propylbenzene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
o-Xylene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Sec-butylbenzene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Styrene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
t-Butyl alcohol (TBA)	ND	1.06	10.6	ug/Kg		04/06/18	ZZ
Tert-amylmethylether (TAME)	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Tert-butylbenzene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Tetrachloroethene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Toluene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
trans-1,2-dichloroethene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
trans-1,3-dichloropropene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
trans-1,4-dichloro-2-butene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Trichloroethene	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Trichlorofluoromethane	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Vinyl Chloride	ND	1.06	5.3	ug/Kg		04/06/18	ZZ
Xylenes (Total)	ND	1.06	5.3	ug/Kg		04/06/18	ZZ

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/04/2018 11:50	Site:	
Sample #: <u>401382-022</u>	Client Sample #: D6-1	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
1,2-Dichloroethane-d4 (SUR)	99		70-145				
4-Bromofluorobenzene (SUR)	95		70-145				
Dibromofluoromethane (SUR)	101		70-145				
Toluene-d8 (SUR)	98		70-145				
Method: EPA 8270CM	Prep Method: EPA 3545					QCBatchID: QC1190108	
1-Methylnaphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
2-Methylnaphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Acenaphthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Acenaphthylene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benz(a)anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(a)pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(b)fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(g,h,i)perylene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(k)fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Chrysene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Dibenz(a,h)anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Fluorene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Indeno(1,2,3-cd)pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Naphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Phenanthrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
2-Fluorobiphenyl (SUR)	73		30-120				
Nitrobenzene-d5 (SUR)	89		27-125				
p-Terphenyl (SUR)	93		33-155				

QCBatchID: <u>QC1189821</u>	Analyst: sandyw	Method: EPA 8015B
Matrix: Solid	Analyzed: 04/06/2018	Instrument: VOA-GC (group)

Blank Summary						
Analyte	Blank Result	Units		RDL	Notes	
QC1189821MB1						
TPH Gasoline	ND	mg/Kg		3		

Lab Control Spike/ Lab Control Spike Duplicate Summary								
Analyte	Spike Amount		Spike Result		Units	Recoveries		Limits
	LCS	LCSD	LCS	LCSD		LCS	LCSD	
						RPD		%Rec RPD
QC1189821LCS1								
TPH Gasoline	5		5.79		mg/Kg	116		70-130

Matrix Spike/Matrix Spike Duplicate Summary											
Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		Limits		Notes
		MS	MSD	MS	MSD		MS	MSD			
							RPD		%Rec	RPD	
QC1189821MS1, QC1189821MSD1											Source: 401382-009
TPH Gasoline	ND	5	5	5.37	5.03	mg/Kg	107	101	6.5	70-130	20

QCBatchID: **QC1189855**

Analyst: nicollez

Method: EPA 8260B

Matrix: Solid

Analyzed: 04/06/2018

Instrument: VOA-MS (group)

Blank Summary

Analyte	Blank Result	Units	RDL	Notes
QC1189855MB1				
1,1,1,2-Tetrachloroethane	ND	ug/Kg	5	
1,1,1-Trichloroethane	ND	ug/Kg	5	
1,1,2,2-Tetrachloroethane	ND	ug/Kg	5	
1,1,2-Trichloroethane	ND	ug/Kg	5	
1,1,2-Trichlorotrifluoroethane	ND	ug/Kg	5	
1,1-Dichloroethane	ND	ug/Kg	5	
1,1-Dichloroethene	ND	ug/Kg	5	
1,1-Dichloropropene	ND	ug/Kg	5	
1,2,3-Trichlorobenzene	ND	ug/Kg	5	
1,2,3-Trichloropropane	ND	ug/Kg	5	
1,2,4-Trichlorobenzene	ND	ug/Kg	5	
1,2,4-Trimethylbenzene	ND	ug/Kg	5	
1,2-Dibromo-3-chloropropane	ND	ug/Kg	5	
1,2-Dibromoethane	ND	ug/Kg	5	
1,2-Dichlorobenzene	ND	ug/Kg	5	
1,2-Dichloroethane	ND	ug/Kg	5	
1,2-Dichloropropane	ND	ug/Kg	5	
1,3,5-Trimethylbenzene	ND	ug/Kg	5	
1,3-Dichlorobenzene	ND	ug/Kg	5	
1,3-Dichloropropane	ND	ug/Kg	5	
1,4-Dichlorobenzene	ND	ug/Kg	5	
2,2-Dichloropropane	ND	ug/Kg	5	
2-Butanone (MEK)	ND	ug/Kg	100	
2-Chloroethyl Vinyl Ether	ND	ug/Kg	5	
2-Chlorotoluene	ND	ug/Kg	5	
4-Chlorotoluene	ND	ug/Kg	5	
4-Isopropyltoluene	ND	ug/Kg	5	
4-Methyl-2-pentanone (MIBK)	ND	ug/Kg	5	
Acetone	ND	ug/Kg	100	
Allyl Chloride	ND	ug/Kg	5	
Benzene	ND	ug/Kg	5	
Bromobenzene	ND	ug/Kg	5	
Bromochloromethane	ND	ug/Kg	5	
Bromodichloromethane	ND	ug/Kg	5	
Bromoform	ND	ug/Kg	5	
Bromomethane	ND	ug/Kg	5	
Carbon Tetrachloride	ND	ug/Kg	5	
Chlorobenzene	ND	ug/Kg	5	
Chlorodibromomethane	ND	ug/Kg	5	
Chloroethane	ND	ug/Kg	5	
Chloroform	ND	ug/Kg	5	
Chloromethane	ND	ug/Kg	5	
cis-1,2-Dichloroethene	ND	ug/Kg	5	
cis-1,3-dichloropropene	ND	ug/Kg	5	
cis-1,4-dichloro-2-butene	ND	ug/Kg	5	
Dibromomethane	ND	ug/Kg	5	
Dichlorodifluoromethane	ND	ug/Kg	5	
Di-isopropyl ether (DIPE)	ND	ug/Kg	5	
Ethylbenzene	ND	ug/Kg	5	
Ethyl-tertbutylether (ETBE)	ND	ug/Kg	5	
Hexachlorobutadiene	ND	ug/Kg	5	

QCBatchID: **QC1189855**

Analyst: nicollez

Method: EPA 8260B

Matrix: Solid

Analyzed: 04/06/2018

Instrument: VOA-MS (group)

Analyte	Blank Result	Units	RDL	Notes
QC1189855MB1				
Isopropylbenzene	ND	ug/Kg	5	
m and p-Xylene	ND	ug/Kg	5	
Methylene chloride	ND	ug/Kg	5	
Methyl-t-butyl Ether (MTBE)	ND	ug/Kg	5	
Naphthalene	ND	ug/Kg	5	
N-butylbenzene	ND	ug/Kg	5	
N-propylbenzene	ND	ug/Kg	5	
o-Xylene	ND	ug/Kg	5	
Sec-butylbenzene	ND	ug/Kg	5	
Styrene	ND	ug/Kg	5	
t-Butyl alcohol (TBA)	ND	ug/Kg	10	
Tert-amylmethylether (TAME)	ND	ug/Kg	5	
Tert-butylbenzene	ND	ug/Kg	5	
Tetrachloroethene	ND	ug/Kg	5	
Toluene	ND	ug/Kg	5	
trans-1,2-dichloroethene	ND	ug/Kg	5	
trans-1,3-dichloropropene	ND	ug/Kg	5	
trans-1,4-dichloro-2-butene	ND	ug/Kg	5	
Trichloroethene	ND	ug/Kg	5	
Trichlorofluoromethane	ND	ug/Kg	5	
Vinyl Chloride	ND	ug/Kg	5	
Xylenes (Total)	ND	ug/Kg	5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1189855LCS1, QC1189855LCSD1											
1,1-Dichloroethene	50	50	40	38	ug/Kg	80	76	5	59-172	22	
Benzene	50	50	44	42	ug/Kg	88	84	5	62-137	24	
Chlorobenzene	50	50	43	42	ug/Kg	86	84	2	60-133	24	
Methyl-t-butyl Ether (MTBE)	50	50	38	36	ug/Kg	76	72	5	62-137	21	
Toluene	50	50	42	41	ug/Kg	84	82	2	59-139	21	
Trichloroethene	50	50	44	44	ug/Kg	88	88	0	66-142	21	

QCBatchID: <u>QC1189874</u>	Analyst: dswafford	Method: EPA 6010B
Matrix: Solid	Analyzed: 04/08/2018	Instrument: AAICP (group)

Blank Summary						
Analyte	Blank Result	Units		RDL	Notes	
QC1189874MB1						
Aluminum	ND	mg/Kg		5		
Antimony	ND	mg/Kg		3		
Arsenic	ND	mg/Kg		1		
Barium	ND	mg/Kg		1		
Beryllium	ND	mg/Kg		0.5		
Cadmium	ND	mg/Kg		0.5		
Calcium	ND	mg/Kg		50		
Chromium	ND	mg/Kg		1		
Cobalt	ND	mg/Kg		0.5		
Copper	ND	mg/Kg		1		
Iron	ND	mg/Kg		5		
Lead	ND	mg/Kg		1		
Magnesium	ND	mg/Kg		25		
Manganese	ND	mg/Kg		1		
Molybdenum	ND	mg/Kg		1		
Nickel	ND	mg/Kg		1.5		
Potassium	ND	mg/Kg		50		
Selenium	ND	mg/Kg		3		
Silver	ND	mg/Kg		0.5		
Sodium	ND	mg/Kg		50		
Thallium	ND	mg/Kg		3		
Vanadium	ND	mg/Kg		0.5		
Zinc	ND	mg/Kg		5		

Lab Control Spike/ Lab Control Spike Duplicate Summary											
Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1189874LCS1											
Antimony	100		97.2		mg/Kg	97			80-120		
Arsenic	100		93.5		mg/Kg	94			80-120		
Barium	100		99.7		mg/Kg	100			80-120		
Beryllium	100		105		mg/Kg	105			80-120		
Cadmium	100		99.9		mg/Kg	100			80-120		
Chromium	100		97.1		mg/Kg	97			80-120		
Cobalt	100		100		mg/Kg	100			80-120		
Copper	100		103		mg/Kg	103			80-120		
Lead	100		98.0		mg/Kg	98			80-120		
Molybdenum	100		92.8		mg/Kg	93			80-120		
Nickel	100		100		mg/Kg	100			80-120		
Selenium	100		92.8		mg/Kg	93			80-120		
Silver	100		97.0		mg/Kg	97			80-120		
Thallium	100		95.9		mg/Kg	96			80-120		
Vanadium	100		104		mg/Kg	104			80-120		
Zinc	100		99.0		mg/Kg	99			80-120		

Matrix Spike/Matrix Spike Duplicate Summary												
Analyte	Sample	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	Amount	MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1189874MS1, QC1189874MSD1											Source: 401373-008	
Antimony	ND	100	100	42.1	39.6	mg/Kg	42	40	6.1	75-125	20	M
Arsenic	4.11	100	100	97.7	93.1	mg/Kg	94	89	4.8	75-125	20	

QCBatchID: **QC1189874**

Analyst: dswafford

Method: EPA 6010B

Matrix: Solid

Analyzed: 04/08/2018

Instrument: AAICP (group)

Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1189874MS1, QC1189874MSD1											Source: 401373-008	
Barium	78.1	100	100	163	156	mg/Kg	85	78	4.4	75-125	20	M
Beryllium	ND	100	100	97.2	98.6	mg/Kg	97	99	1.4	75-125	20	
Cadmium	0.45	100	100	93.8	91.2	mg/Kg	93	91	2.8	75-125	20	
Chromium	12.5	100	100	103	101	mg/Kg	91	89	2.0	75-125	20	
Cobalt	4.61	100	100	98.5	93.7	mg/Kg	94	89	5.0	75-125	20	
Copper	6.98	100	100	98.6	97.3	mg/Kg	92	90	1.3	75-125	20	
Lead	5.60	100	100	97.4	91.6	mg/Kg	92	86	6.1	75-125	20	
Molybdenum	0.49	100	100	86.6	82.7	mg/Kg	86	82	4.6	75-125	20	
Nickel	6.92	100	100	102	97.0	mg/Kg	95	90	5.0	75-125	20	
Selenium	ND	100	100	66.7	66.4	mg/Kg	67	66	0.5	75-125	20	
Silver	ND	100	100	89.2	87.3	mg/Kg	89	87	2.2	75-125	20	
Thallium	ND	100	100	88.8	84.3	mg/Kg	89	84	5.2	75-125	20	
Vanadium	25.9	100	100	118	115	mg/Kg	92	89	2.6	75-125	20	
Zinc	34.4	100	100	127	122	mg/Kg	93	88	4.0	75-125	20	

QCBatchID: <u>QC1189883</u>	Analyst: Jarriaga	Method: EPA 8015M
Matrix: Solid	Analyzed: 04/09/2018	Instrument: SVOA-GC (group)

Blank Summary						
Analyte	Blank Result	Units		RDL	Notes	
QC1189883MB1						
TPH (C10 to C28)	ND	mg/Kg		10		
TPH (C13 to C22)	ND	mg/Kg		10		
TPH (C23 to C40)	ND	mg/Kg		20		
TPH Diesel	ND	mg/Kg		10		
TPH Motor Oil	ND	mg/Kg		20		

Lab Control Spike/ Lab Control Spike Duplicate Summary											
Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1189883LCS1											
TPH (C10 to C28)	250		240		mg/Kg	96			70-130		

Matrix Spike/Matrix Spike Duplicate Summary												
Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1189883MS1, QC1189883MSD1											Source: 401382-001	
TPH (C10 to C28)	ND	250	250	310	310	mg/Kg	124	124	0.0	70-130	20	

QCBatchID: <u>QC1189962</u>	Analyst: Jarriaga	Method: EPA 8015M
Matrix: Solid	Analyzed: 04/10/2018	Instrument: SVOA-GC (group)

Blank Summary						
Analyte	Blank Result	Units		RDL	Notes	
QC1189962MB1						
TPH (C10 to C28)	ND	mg/Kg		10		
TPH (C13 to C22)	ND	mg/Kg		10		
TPH (C23 to C40)	ND	mg/Kg		20		
TPH (C28 to C40)	ND	mg/Kg		20		
TPH (C28 to C44)	ND	mg/Kg		20		
TPH (C8 to C10)	ND	mg/Kg		10		
TPH Diesel	ND	mg/Kg		10		
TPH Motor Oil	ND	mg/Kg		20		

Lab Control Spike/ Lab Control Spike Duplicate Summary											
Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1189962LCS1											
TPH (C10 to C28)	250		220		mg/Kg	88			70-130		

Matrix Spike/Matrix Spike Duplicate Summary												
Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1189962MS1, QC1189962MSD1											Source: 401318-001	
TPH (C10 to C28)	ND	250	250	260	260	mg/Kg	104	0.0	70-130	20		

QCBatchID: <u>QC1189972</u>	Analyst: Abanh	Method: EPA 8082
Matrix: Solid	Analyzed: 04/10/2018	Instrument: SVOA-GC (group)

Blank Summary						
Analyte	Blank Result	Units		RDL	Notes	
QC1189972MB1						
PCB-1016	ND	ug/Kg		50		
PCB-1221	ND	ug/Kg		50		
PCB-1232	ND	ug/Kg		50		
PCB-1242	ND	ug/Kg		50		
PCB-1248	ND	ug/Kg		50		
PCB-1254	ND	ug/Kg		50		
PCB-1260	ND	ug/Kg		50		
PCB-1262	ND	ug/Kg		50		
PCB-1268	ND	ug/Kg		50		

Lab Control Spike/ Lab Control Spike Duplicate Summary											
Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1189972LCS1											
PCB-1016	500		400		ug/Kg	80			70-130		
PCB-1260	500		500		ug/Kg	100			70-130		

Matrix Spike/Matrix Spike Duplicate Summary												
Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	MS	MSD	MS	MSD	MS		MSD	%Rec		RPD		
QC1189972MS1, QC1189972MSD1											Source: 401382-001	
PCB-1016	ND	500	500	390	270	ug/Kg	78	54	36.4	70-130	20	
PCB-1260	ND	500	500	380	310	ug/Kg	76	62	20.3	70-130	20	

QCBatchID: <u>QC1190108</u>	Analyst: ssabir	Method: EPA 8270CM
Matrix: Solid	Analyzed: 04/13/2018	Instrument: SVOA-MS (group)

Blank Summary						
Analyte	Blank Result	Units		RDL	Notes	
QC1190108MB1						
1-Methylnaphthalene	ND	ug/Kg		10		
2-Methylnaphthalene	ND	ug/Kg		10		
Acenaphthene	ND	ug/Kg		10		
Acenaphthylene	ND	ug/Kg		10		
Anthracene	ND	ug/Kg		10		
Benz(a)anthracene	ND	ug/Kg		10		
Benzo(a)pyrene	ND	ug/Kg		10		
Benzo(b)fluoranthene	ND	ug/Kg		10		
Benzo(g,h,i)perylene	ND	ug/Kg		10		
Benzo(k)fluoranthene	ND	ug/Kg		10		
Chrysene	ND	ug/Kg		10		
Dibenz(a,h)anthracene	ND	ug/Kg		10		
Fluoranthene	ND	ug/Kg		10		
Fluorene	ND	ug/Kg		10		
Indeno(1,2,3-cd)pyrene	ND	ug/Kg		10		
Naphthalene	ND	ug/Kg		10		
Phenanthrene	ND	ug/Kg		10		
Pyrene	ND	ug/Kg		10		

Lab Control Spike/ Lab Control Spike Duplicate Summary											
Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1190108LCS1											
1-Methylnaphthalene	50		36		ug/Kg	72			70-130		
2-Methylnaphthalene	50		45		ug/Kg	90			70-130		
Acenaphthene	50		42		ug/Kg	84			70-130		
Acenaphthylene	50		44		ug/Kg	88			70-130		
Anthracene	50		45		ug/Kg	90			70-130		
Benz(a)anthracene	50		50		ug/Kg	100			70-130		
Benzo(a)pyrene	50		50		ug/Kg	100			70-130		
Benzo(b)fluoranthene	50		50		ug/Kg	100			70-130		
Benzo(g,h,i)perylene	50		42		ug/Kg	84			70-130		
Benzo(k)fluoranthene	50		49		ug/Kg	98			70-130		
Chrysene	50		44		ug/Kg	88			70-130		
Dibenz(a,h)anthracene	50		47		ug/Kg	94			70-130		
Fluoranthene	50		49		ug/Kg	98			70-130		
Fluorene	50		44		ug/Kg	88			70-130		
Indeno(1,2,3-cd)pyrene	50		48		ug/Kg	96			70-130		
Naphthalene	50		42		ug/Kg	84			70-130		
Phenanthrene	50		46		ug/Kg	92			70-130		
Pyrene	50		48		ug/Kg	96			70-130		

Matrix Spike/Matrix Spike Duplicate Summary												
Analyte	Sample	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	Amount	MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1190108MS1, QC1190108MSD1										Source: 401382-001		
1-Methylnaphthalene	ND	50	50	31	36	ug/Kg	62	72	14.9	70-130	35	M
2-Methylnaphthalene	ND	50	50	38	45	ug/Kg	76	90	16.9	70-130	35	
Acenaphthene	ND	50	50	37	43	ug/Kg	74	86	15.0	70-130	35	
Acenaphthylene	ND	50	50	37	44	ug/Kg	74	88	17.3	70-130	35	
Anthracene	ND	50	50	39	45	ug/Kg	78	90	14.3	70-130	35	

QCBatchID: **QC1190108**

Analyst: ssabir

Method: EPA 8270CM

Matrix: Solid

Analyzed: 04/13/2018

Instrument: SVOA-MS (group)

Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1190108MS1, QC1190108MSD1											Source: 401382-001	
Benz(a)anthracene	ND	50	50	37	50	ug/Kg	74	100	29.9	70-130	35	M
Benzo(a)pyrene	ND	50	50	43	51	ug/Kg	86	102	17.0	70-130	35	
Benzo(b)fluoranthene	ND	50	50	42	52	ug/Kg	84	104	21.3	70-130	35	
Benzo(g,h,i)perylene	ND	50	50	34	42	ug/Kg	68	84	21.1	70-130	35	
Benzo(k)fluoranthene	ND	50	50	42	53	ug/Kg	84	106	23.2	70-130	35	
Chrysene	ND	50	50	36	45	ug/Kg	72	90	22.2	70-130	35	
Dibenz(a,h)anthracene	ND	50	50	38	44	ug/Kg	76	88	14.6	70-130	35	
Fluoranthene	ND	50	50	40	48	ug/Kg	80	96	18.2	70-130	35	
Fluorene	ND	50	50	38	45	ug/Kg	76	90	16.9	70-130	35	
Indeno(1,2,3-cd)pyrene	ND	50	50	39	48	ug/Kg	78	96	20.7	70-130	35	
Naphthalene	ND	50	50	36	42	ug/Kg	72	84	15.4	70-130	35	
Phenanthrene	ND	50	50	38	45	ug/Kg	76	90	16.9	70-130	35	
Pyrene	ND	50	50	39	47	ug/Kg	78	94	18.6	70-130	35	

QCBatchID: <u>QC1190193</u>	Analyst: Abanh	Method: EPA 8082
Matrix: Solid	Analyzed: 04/16/2018	Instrument: SVOA-GC (group)

Blank Summary

Analyte	Blank Result	Units		RDL	Notes
QC1190193MB1					
PCB-1016	ND	ug/Kg		50	
PCB-1221	ND	ug/Kg		50	
PCB-1232	ND	ug/Kg		50	
PCB-1242	ND	ug/Kg		50	
PCB-1248	ND	ug/Kg		50	
PCB-1254	ND	ug/Kg		50	
PCB-1260	ND	ug/Kg		50	
PCB-1262	ND	ug/Kg		50	
PCB-1268	ND	ug/Kg		50	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1190193LCS1											
PCB-1016	500		370		ug/Kg	74			70-130		
PCB-1260	500		400		ug/Kg	80			70-130		

Matrix Spike/Matrix Spike Duplicate Summary
--

Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1190193MS1, QC1190193MSD1												Source: 401382-001
PCB-1016	ND	500	500	390	360	ug/Kg	78	72	8.0	70-130	20	
PCB-1260	ND	500	500	410	380	ug/Kg	82	76	7.6	70-130	20	

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
D3	Insufficient sample was supplied for TCLP. Client was notified. TCLP was performed per the Client's instructions.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
P3	Per Client request, sample was composited for volatile analysis. Sample compositing for volatile analysis is not recommended due to potential loss of target analytes. Results may be biased low.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

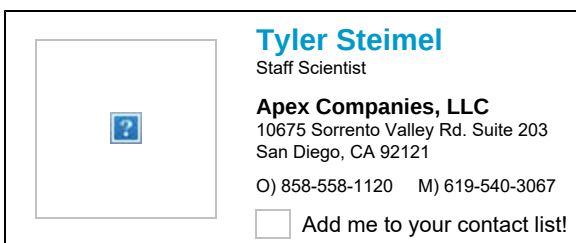
DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

From: [Tyler Steimel](#)
To: [Diane Galvan](#)
Subject: RE: Sears Brea Mall, LR# 401382
Date: Friday, April 06, 2018 1:04:43 PM
Attachments: [image001.png](#)

Date is 4/4/18.

I have the time as 1445 in my notes, unless there is a time noted on the lid of the sample.

Thanks,



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From: Diane Galvan [mailto:diane.galvan@enthalpy.com]
Sent: Friday, April 06, 2018 1:01 PM
To: Tyler Steimel <Tyler.Steimel@apexcos.com>
Subject: Sears Brea Mall, LR# 401382

Hi Tyler,

Happy Friday! I'd like to confirm if the collection date for sample D5-1 is 4/4/18 and the collection time? Please advise.

Thanks,



Diane Galvan
Senior Project Manager
West Coast

Enthalpy Analytical
931 W. Barkley Ave., Orange, CA 92868
O: 714.771.6900 D: 714.771.9928 M: 714.812.8119
diane.galvan@enthalpy.com

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DRAFT

ENTHALPY ANALYTICAL 931 W. Barkley Ave., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714) 538-1209		Chain of Custody Record Lab No: 401382 Page: 2 of 3		Turn Around Time (Rush by advanced notice only) Standard: 4 Day: 3 Day: 2 Day: 1 Day: Same Day:																																					
Billing: Enthalpy Analytical 1 Park Plaza, Suite 1000 Irvine, CA 92614		ENTHALPY analytical, inc.		Matrix: A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other Preservatives: 1 = Na ₂ S ₂ O ₃ 2 = HCl 3 = HNO ₃ 4 = H ₂ SO ₄ 5 = NaOH 6 = Other																																					
CUSTOMER INFORMATION		PROJECT INFORMATION		Analysis Request		Test Instructions / Comments																																			
Company:	Apex Companies	Name:	Sears Brea Mall																																						
Report To:	Paul Garcia	Number:																																							
Email:	paul.garcia@apexc.com	P.O. #:	3616-A1000-003																																						
Address:	10675 Sorrento Valley Road STE 203	Address:	100 Brea Mall																																						
	San Diego, CA 92121		Brea, CA 92821																																						
Phone:	858-558-1120	Global ID:																																							
Fax:	858-558-1121	Sampled By:	Tyler Steimel																																						
Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	TPH Extended Range (8015B)						VOCs (8260B)						PCBs (8082)						PAHs (8270 SIM)						Luft-5 Metals (6010B)											
1 D1-2	4/13/18	1628	S	8oz, 4oz, 340mL	5035																																				
2 D1-4	"	1632	S	"	"																																				
3 L4-3	4/14/18	920	S	8+4 oz																																					
4 L9-8	"	940	S	"																																					
5 L9-12	"	950	S	"																																					
6 L10-5	"	1050	u	"																																					
7 L10-8	"	1030	"	"																																					
8 L10-12	"	1035	"	"																																					
9 L11-3	"	1102	"	"																																					
10 L11-7	"	1127	"	"																																					
Signature		Print Name		Company / Title		Date / Time																																			
1 Relinquished By: [Signature]		Tyler Steimel		Apex		4/11/18, 1610																																			
1 Received By: [Signature]		HAR 7 MAR		Enthalpy		4-4-18 4:10 PM																																			
2 Relinquished By: [Signature]		HAR 2 MAR		"		4-4-18 4:37 PM																																			
2 Received By: [Signature]		6 KUNE		GA		9/11/18 1035																																			
3 Relinquished By:																																									
3 Received By:																																									

ENTHALPY ANALYTICAL

931 W. Barkley Ave., Orange, CA 92868
Phone: (714) 771-6900 Fax: (714) 538-1209

Billing: Enthalpy Analytical
1 Park Plaza, Suite 1000
Irvine, CA 92614



Chain of Custody Record

Lab No: _____
Page: 2 of 3
Matrix: A = Air DW = Drinking Water
FL = Food Liquid FS = Food Solid L = Liquid
PP = Pure Product S = Solid SeaW = Sea Water
SW = Swab W = Water WP = Wipe O = Other

Turn Around Time (Rush by advanced notice only)

Standard: _____
2 Day: _____
3 Day: _____
4 Day: _____
1 Day: _____
Same Day: _____

Preservatives: 1 = Na₂S₂O₃ 2 = HCl 3 = HNO₃
4 = H₂SO₄ 5 = NaOH 6 = Other

CUSTOMER INFORMATION

Company: Apex Companies
Report To: Paul Garcia
Email: paul.garcia@apexcos.com
Address: 10675 Sorrento Valley Road STE 203
San Diego, CA 92121
Phone: 858-558-1120
Fax: 858-558-1121
Sampled By: Tyler Steimel

PROJECT INFORMATION

Name: Sears Brea Mall
Number: _____
P.O. #: 3616-A1000-003
Address: 100 Brea Mall
Brea, CA 92821
Global ID: _____
Sampled By: Tyler Steimel

Analysis Request

TPH Extended Range (8015B)
VOCs (8260B)
PCBs (8082)
PAHs (8270 SIM)
Luft-5 Metals (6010B)

Test Instructions / Comments

* 1 week Turn

Sample ID

Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.
1 L11-9	4/4/18	1130	S	802	N/A
2 L11-12	"	1135	S	402+802	N/A
3 L12-1	"	1241	"	"	"
4 L12-7	"	1240	"	"	"
5 L12-12	"	1245	"	"	"
6 D2-1	"	1200	"	4+802, 3402	5035
7 D2-4	"	1203	"	"	5035
8 D3-1	"	1233	"	"	"
9 D3-4	"	1230	"	"	"
10 D5-1	"	"	"	"	"

Signature

Print Name

Company / Title

Date / Time

1 Relinquished By: _____

1 Received By: _____

2 Relinquished By: _____

2 Received By: _____

3 Relinquished By: _____

3 Received By: _____

4/4/18, 16:10
4-4-18 4:50 pm
4-4-18 4:37 pm
4/4/18 16:37

ENTHALPY ANALYTICAL			Chain of Custody Record			Turn Around Time (Rush by advanced notice only)					
931 W. Barkley Ave., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714) 538-1209			Lab No: Page: 3 of 3			Standard: 1 Day: 2 Day: 3 Day: Same Day:					
Billing: Enthalpy Analytical 1 Park Plaza, Suite 1000 Irvine, CA 92614			Matrix: A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other			Preservatives: 1 = Na ₂ S ₂ O ₃ 2 = HCl 3 = HNO ₃ 4 = H ₂ SO ₄ 5 = NaOH 6 = Other					
CUSTOMER INFORMATION			PROJECT INFORMATION			Analysis Request			Test Instructions / Comments		
Company:	Apex Companies	Name:	Sears Brea Mail						1 week Turn.		
Report To:	Paul Garcia	Number:									
Email:	paul.garcia@apexcos.com	P.O. #:	3616-A1000-003								
Address:	10675 Sorrento Valley Road STE 203	Address:	100 Brea Mall								
	San Diego, CA 92121		Brea, CA 92821								
Phone:	858-558-1120	Global ID:									
Fax:	858-558-1121	Sampled By:	Tyler Steimel								
Sample ID		Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.					
1 105-4	4/4/18	1500	S	14.8oz, 3.40 mL	5035		TPH Extended Range (8015B)	VOCs (8260B)	PCBs (8082)	PAHs (8270 SIM)	Luft-5 Metals (6010B)
2 06-1	"	1150	"	"	"						hold
3 06-4	"	1152	"	"	"						hold
4											
5											
6											
7											
8											
9											
10											
Signature		Print Name		Company / Title		Date / Time					
1 Relinquished By:	Tyler Steimel	Tyler Steimel		Apex		4/4/18, 1610					
1 Received By:	Paul Garcia	Paul Garcia		Enthalpy		4-4-18 4:10 pm					
2 Relinquished By:	Paul Garcia	Paul Garcia		Enthalpy		4-4-18 4:37 pm					
2 Received By:	Paul Garcia	Paul Garcia		Enthalpy		4/4/18 1637					
3 Relinquished By:											
3 Received By:											



ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Apex

Project: Sears Brea Mall

Date Received: 4/4/18

Sampler's Name Present: ☒ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☒ Yes, How many? 1 ☐ No (skip section 2)

Sample Temp (°C)
(No Cooler) : _____

Sample Temp (°C), One from each cooler: #1: 4.4 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☒ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam
☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 0.7 #2: _____ #3: _____ #4: _____

Section 4

	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?		✓	
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)	✓		
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?	✓		
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Sample 20: No sample dates or time

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time: _____
☐ Email (email sent to/on): _____ / _____

Project Manager's response: _____

Completed By: Cg Date: 4/4/18

Enthalpy Analytical, a subsidiary of Montrose Environmental Group, Inc.
931 W. Barkley Ave, Orange, CA 92868 • T: (714) 771-6900 • F: (714) 538-1209

www.enthalpy.com/socal

Sample Acceptance Checklist – Rev 4, 8/8/2017



Enthalpy Analytical, LLC

931 W. Barkley Ave - Orange, CA 92868
Tel: (714)771-6900 Fax: (714)538-1209
www.enthalpy.com
info-sc@enthalpy.com



Client: APEX
Address: 10675 Sorrento Valley Rd.
Suite 203
San Diego, CA 92121
Attn: Paul Garcia

Lab Request: 401424
Report Date: 04/19/2018
Date Received: 04/05/2018
Client ID: 10359

Comments: Sears Brea Mall
3616-A1000-003
100 Brea Mall, Brea, CA 92821

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

<u>Sample #</u>	<u>Client Sample ID</u>
-----------------	-------------------------

401424-002	OT1-4
401424-009	L1-4
401424-013	L2-3
401424-016	L3-2
401424-020	L4-2
401424-026	L14-3
401424-029	L15-1
401424-034	D4-4
401424-035	OW1-1
401424-040	OW2-1
401424-046	OW3-2
401424-049	L16-2
401424-052	OW4-1

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Diane M. Galvan

Report Review performed by: Diane Galvan, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 60 days from date received.

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Matrix: Solid		Client: APEX		Collector: Client			
Sampled: 04/04/2018 16:20		Site:					
Sample #: 401424-002		Client Sample #: OT1-4		Sample Type:			
Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B		QCBatchID: QC1189875				
Cadmium	0.67	1	0.5	mg/Kg	04/06/18	04/09/18	SBW
Chromium	13.1	1	1	mg/Kg	04/06/18	04/09/18	SBW
Lead	5.32	1	1	mg/Kg	04/06/18	04/09/18	SBW
Nickel	13.5	1	1.5	mg/Kg	04/06/18	04/09/18	SBW
Zinc	29.5	1	5	mg/Kg	04/06/18	04/09/18	SBW
Method: EPA 8015B NELAC	Prep Method: EPA 5030		QCBatchID: QC1189937				
TPH Gasoline	ND	1	3	mg/Kg		04/10/18	EW
Surrogate	% Recovery		Limits				Notes
4-Bromofluorobenzene (SUR)	90		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A		QCBatchID: QC1189883				
TPH Diesel	ND	1	10	mg/Kg	04/09/18	04/17/18	BB
TPH Motor Oil	650	1	20	mg/Kg	04/09/18	04/17/18	BB
Surrogate	% Recovery		Limits				Notes
Triacotane (SUR)	00		50-150	S2			Surrogate is diluted out
Method: EPA 8082 NELAC	Prep Method: EPA 3545		QCBatchID: QC1189972				
PCB-1016	ND	20	1000	ug/Kg	04/10/18	04/13/18	MTS
PCB-1221	ND	20	1000	ug/Kg	04/10/18	04/13/18	MTS
PCB-1232	ND	20	1000	ug/Kg	04/10/18	04/13/18	MTS
PCB-1242	ND	20	1000	ug/Kg	04/10/18	04/13/18	MTS
PCB-1248	ND	20	1000	ug/Kg	04/10/18	04/13/18	MTS
PCB-1254	ND	20	1000	ug/Kg	04/10/18	04/13/18	MTS
PCB-1260	ND	20	1000	ug/Kg	04/10/18	04/13/18	MTS
PCB-1262	ND	20	1000	ug/Kg	04/10/18	04/13/18	MTS
PCB-1268	ND	20	1000	ug/Kg	04/10/18	04/13/18	MTS
Surrogate	% Recovery		Limits				Notes
Decachlorobiphenyl DCB (SUR)	00		50-150	S2			Surrogate high due to interference and ba
Method: EPA 8260B NELAC	Prep Method: EPA 5035A		QCBatchID: QC1190001				
1,1,1,2-Tetrachloroethane	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1,1-Trichloroethane	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1,2,2-Tetrachloroethane	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1,2-Trichloroethane	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1,2-Trichlorotrifluoroethane	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1-Dichloroethane	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1-Dichloroethene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1-Dichloropropene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2,3-Trichlorobenzene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2,3-Trichloropropane	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2,4-Trichlorobenzene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2,4-Trimethylbenzene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dibromo-3-chloropropane	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dibromoethane	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dichlorobenzene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dichloroethane	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dichloropropane	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,3,5-Trimethylbenzene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,3-Dichlorobenzene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,3-Dichloropropane	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,4-Dichlorobenzene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
2,2-Dichloropropane	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
2-Butanone (MEK)	ND	1.06	106	ug/Kg	04/10/18 00:00	04/10/18	ZZ
2-Chloroethyl Vinyl Ether	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/04/2018 16:20	Site:	
Sample #: <u>401424-002</u>	Client Sample #: OT1-4	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
2-Chlorotoluene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
4-Chlorotoluene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
4-Isopropyltoluene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
4-Methyl-2-pentanone (MIBK)	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Acetone	ND	1.06	106	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Allyl Chloride	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Benzene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromobenzene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromochloromethane	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromodichloromethane	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromoform	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromomethane	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Carbon Tetrachloride	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chlorobenzene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chlorodibromomethane	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chloroethane	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chloroform	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chloromethane	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
cis-1,2-Dichloroethene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
cis-1,3-dichloropropene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
cis-1,4-dichloro-2-butene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Dibromomethane	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Dichlorodifluoromethane	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Di-isopropyl ether (DIPE)	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Ethylbenzene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Ethyl-tertbutylether (ETBE)	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Hexachlorobutadiene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Isopropylbenzene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
m and p-Xylene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Methylene chloride	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Methyl-t-butyl Ether (MTBE)	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Naphthalene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
N-butylbenzene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
N-propylbenzene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
o-Xylene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Sec-butylbenzene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Styrene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
t-Butyl alcohol (TBA)	ND	1.06	10.6	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Tert-amylmethylether (TAME)	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Tert-butylbenzene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Tetrachloroethene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Toluene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
trans-1,2-dichloroethene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
trans-1,3-dichloropropene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
trans-1,4-dichloro-2-butene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Trichloroethene	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Trichlorofluoromethane	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Vinyl Chloride	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Xylenes (Total)	ND	1.06	5.3	ug/Kg	04/10/18 00:00	04/10/18	ZZ

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/04/2018 16:20	Site:	
Sample #: <u>401424-002</u>	Client Sample #: OT1-4	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
1,2-Dichloroethane-d4 (SUR)	100		70-145				
4-Bromofluorobenzene (SUR)	113		70-145				
Dibromofluoromethane (SUR)	97		70-145				
Toluene-d8 (SUR)	100		70-145				
Method: EPA 8270CM	Prep Method: EPA 3545					QCBatchID: QC1190108	
1-Methylnaphthalene	ND	100	1000	ug/Kg	04/13/18	04/13/18	DP D2
2-Methylnaphthalene	ND	100	1000	ug/Kg	04/13/18	04/13/18	DP D2
Acenaphthene	ND	100	1000	ug/Kg	04/13/18	04/13/18	DP D2
Acenaphthylene	ND	100	1000	ug/Kg	04/13/18	04/13/18	DP D2
Anthracene	ND	100	1000	ug/Kg	04/13/18	04/13/18	DP D2
Benz(a)anthracene	ND	100	1000	ug/Kg	04/13/18	04/13/18	DP D2
Benzo(a)pyrene	ND	100	1000	ug/Kg	04/13/18	04/13/18	DP D2
Benzo(b)fluoranthene	ND	100	1000	ug/Kg	04/13/18	04/13/18	DP D2
Benzo(g,h,i)perylene	ND	100	1000	ug/Kg	04/13/18	04/13/18	DP D2
Benzo(k)fluoranthene	ND	100	1000	ug/Kg	04/13/18	04/13/18	DP D2
Chrysene	ND	100	1000	ug/Kg	04/13/18	04/13/18	DP D2
Dibenz(a,h)anthracene	ND	100	1000	ug/Kg	04/13/18	04/13/18	DP D2
Fluoranthene	ND	100	1000	ug/Kg	04/13/18	04/13/18	DP D2
Fluorene	ND	100	1000	ug/Kg	04/13/18	04/13/18	DP D2
Indeno(1,2,3-cd)pyrene	ND	100	1000	ug/Kg	04/13/18	04/13/18	DP D2
Naphthalene	ND	100	1000	ug/Kg	04/13/18	04/13/18	DP D2
Phenanthrene	ND	100	1000	ug/Kg	04/13/18	04/13/18	DP D2
Pyrene	ND	100	1000	ug/Kg	04/13/18	04/13/18	DP D2
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
2-Fluorobiphenyl (SUR)	97		30-120				
Nitrobenzene-d5 (SUR)	97		27-125				
p-Terphenyl (SUR)	89		33-155				

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/05/2018 10:25	Site:	
Sample #: <u>401424-009</u>	Client Sample #: L1-4	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 8015B <i>NELAC</i>	Prep Method: EPA 5030					QCBatchID: QC1189937	
TPH Gasoline	ND	1	3	mg/Kg		04/10/18	EW
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
4-Bromofluorobenzene (SUR)	95		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189883	
TPH Diesel	ND	1	10	mg/Kg	04/09/18	04/10/18	BB
TPH Motor Oil	ND	1	20	mg/Kg	04/09/18	04/10/18	BB
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Triacontane (SUR)	106		50-150				
Method: EPA 8082 <i>NELAC</i>	Prep Method: EPA 3545					QCBatchID: QC1189972	
PCB-1016	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1221	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1232	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1242	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1248	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1254	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1260	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1262	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1268	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Decachlorobiphenyl DCB (SUR)	58		50-150				

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/05/2018 12:20	Site:	
Sample #: <u>401424-013</u>	Client Sample #: L2-3	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 8015B <i>NELAC</i>	Prep Method: EPA 5030					QCBatchID: QC1189937	
TPH Gasoline	ND	1	3	mg/Kg		04/10/18	EW
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
4-Bromofluorobenzene (SUR)	90		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189883	
TPH Diesel	ND	1	10	mg/Kg	04/09/18	04/10/18	BB
TPH Motor Oil	ND	1	20	mg/Kg	04/09/18	04/10/18	BB
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Triacontane (SUR)	105		50-150				
Method: EPA 8082 <i>NELAC</i>	Prep Method: EPA 3545					QCBatchID: QC1189972	
PCB-1016	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1221	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1232	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1242	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1248	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1254	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1260	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1262	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1268	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Decachlorobiphenyl DCB (SUR)	68		50-150				

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/05/2018 11:50	Site:	
Sample #: <u>401424-016</u>	Client Sample #: L3-2	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 8015B <i>NELAC</i>	Prep Method: EPA 5030					QCBatchID: QC1189937	
TPH Gasoline	ND	1	3	mg/Kg		04/10/18	EW
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
4-Bromofluorobenzene (SUR)	90		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189883	
TPH Diesel	ND	1	10	mg/Kg	04/09/18	04/10/18	BB
TPH Motor Oil	24	1	20	mg/Kg	04/09/18	04/10/18	BB
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Triacontane (SUR)	106		50-150				
Method: EPA 8082 <i>NELAC</i>	Prep Method: EPA 3545					QCBatchID: QC1189972	
PCB-1016	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1221	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1232	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1242	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1248	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1254	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1260	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1262	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1268	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Decachlorobiphenyl DCB (SUR)	74		50-150				

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/05/2018 12:43	Site:	
Sample #: <u>401424-020</u>	Client Sample #: L4-2	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 8015B <i>NELAC</i>	Prep Method: EPA 5030					QCBatchID: QC1189937	
TPH Gasoline	ND	1	3	mg/Kg		04/10/18	EW
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
4-Bromofluorobenzene (SUR)	90		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189883	
TPH Diesel	17	1	10	mg/Kg	04/09/18	04/10/18	BB
TPH Motor Oil	20	1	20	mg/Kg	04/09/18	04/10/18	BB
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Triacontane (SUR)	102		50-150				
Method: EPA 8082 <i>NELAC</i>	Prep Method: EPA 3545					QCBatchID: QC1189972	
PCB-1016	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1221	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1232	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1242	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1248	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1254	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1260	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1262	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1268	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Decachlorobiphenyl DCB (SUR)	76		50-150				

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/05/2018 16:25	Site:	
Sample #: <u>401424-026</u>	Client Sample #: L14-3	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 8015B <i>NELAC</i>	Prep Method: EPA 5030					QCBatchID: QC1189937	
TPH Gasoline	ND	1	3	mg/Kg		04/10/18	EW
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
4-Bromofluorobenzene (SUR)	95		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189883	
TPH Diesel	ND	1	10	mg/Kg	04/09/18	04/10/18	BB
TPH Motor Oil	ND	1	20	mg/Kg	04/09/18	04/10/18	BB
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Triacotane (SUR)	98		50-150				
Method: EPA 8082 <i>NELAC</i>	Prep Method: EPA 3545					QCBatchID: QC1189972	
PCB-1016	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1221	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1232	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1242	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1248	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1254	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1260	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1262	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1268	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Decachlorobiphenyl DCB (SUR)	78		50-150				

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/05/2018 08:35	Site:	
Sample #: <u>401424-029</u>	Client Sample #: L15-1	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 8015B <i>NELAC</i>	Prep Method: EPA 5030					QCBatchID: QC1189937	
TPH Gasoline	ND	1	3	mg/Kg		04/10/18	EW
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
4-Bromofluorobenzene (SUR)	95		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189883	
TPH Diesel	ND	1	10	mg/Kg	04/09/18	04/17/18	BB
TPH Motor Oil	ND	1	20	mg/Kg	04/09/18	04/17/18	BB
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Triacotane (SUR)	100		50-150				
Method: EPA 8082 <i>NELAC</i>	Prep Method: EPA 3545					QCBatchID: QC1189972	
PCB-1016	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1221	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1232	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1242	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1248	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1254	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1260	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1262	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1268	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Decachlorobiphenyl DCB (SUR)	72		50-150				

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/05/2018 10:03	Site:	
Sample #: 401424-034	Client Sample #: D4-4	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1189876	
Cadmium	0.63	1	0.5	mg/Kg	04/06/18	04/09/18	SBW
Chromium	7.02	1	1	mg/Kg	04/06/18	04/09/18	SBW
Lead	1.81	1	1	mg/Kg	04/06/18	04/09/18	SBW
Nickel	6.80	1	1.5	mg/Kg	04/06/18	04/09/18	SBW
Zinc	14.0	1	5	mg/Kg	04/06/18	04/09/18	SBW
Method: EPA 8015B NELAC	Prep Method: EPA 5030					QCBatchID: QC1189937	
TPH Gasoline	ND	1	3	mg/Kg		04/10/18	EW
Surrogate	% Recovery		Limits				Notes
4-Bromofluorobenzene (SUR)	95		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189962	
TPH Diesel	ND	1	10	mg/Kg	04/10/18	04/10/18	JAR
TPH Motor Oil	ND	1	20	mg/Kg	04/10/18	04/10/18	JAR
Surrogate	% Recovery		Limits				Notes
Triacotane (SUR)	45		50-150				
Method: EPA 8082 NELAC	Prep Method: EPA 3545					QCBatchID: QC1189972	
PCB-1016	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1221	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1232	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1242	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1248	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1254	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1260	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1262	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1268	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
Surrogate	% Recovery		Limits				Notes
Decachlorobiphenyl DCB (SUR)	74		50-150				
Method: EPA 8260B NELAC	Prep Method: EPA 5035A					QCBatchID: QC1190001	
1,1,1,2-Tetrachloroethane	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1,1-Trichloroethane	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1,2,2-Tetrachloroethane	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1,2-Trichloroethane	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1,2-Trichlorotrifluoroethane	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1-Dichloroethane	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1-Dichloroethene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1-Dichloropropene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2,3-Trichlorobenzene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2,3-Trichloropropane	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2,4-Trichlorobenzene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2,4-Trimethylbenzene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dibromo-3-chloropropane	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dibromoethane	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dichlorobenzene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dichloroethane	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dichloropropane	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,3,5-Trimethylbenzene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,3-Dichlorobenzene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,3-Dichloropropane	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,4-Dichlorobenzene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
2,2-Dichloropropane	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
2-Butanone (MEK)	ND	1.16	116	ug/Kg	04/10/18 00:00	04/10/18	ZZ
2-Chloroethyl Vinyl Ether	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ

Matrix: Solid

Client: APEX

Collector: Client

Sampled: 04/05/2018 10:03

Site:

Sample #: 401424-034

Client Sample #: D4-4

Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
2-Chlorotoluene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
4-Chlorotoluene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
4-Isopropyltoluene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
4-Methyl-2-pentanone (MIBK)	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Acetone	ND	1.16	116	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Allyl Chloride	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Benzene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromobenzene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromochloromethane	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromodichloromethane	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromoform	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromomethane	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Carbon Tetrachloride	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chlorobenzene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chlorodibromomethane	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chloroethane	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chloroform	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chloromethane	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
cis-1,2-Dichloroethene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
cis-1,3-dichloropropene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
cis-1,4-dichloro-2-butene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Dibromomethane	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Dichlorodifluoromethane	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Di-isopropyl ether (DIPE)	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Ethylbenzene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Ethyl-tertbutylether (ETBE)	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Hexachlorobutadiene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Isopropylbenzene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
m and p-Xylene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Methylene chloride	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Methyl-t-butyl Ether (MTBE)	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Naphthalene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
N-butylbenzene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
N-propylbenzene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
o-Xylene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Sec-butylbenzene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Styrene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
t-Butyl alcohol (TBA)	ND	1.16	11.6	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Tert-amylmethylether (TAME)	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Tert-butylbenzene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Tetrachloroethene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Toluene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
trans-1,2-dichloroethene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
trans-1,3-dichloropropene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
trans-1,4-dichloro-2-butene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Trichloroethene	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Trichlorofluoromethane	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Vinyl Chloride	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Xylenes (Total)	ND	1.16	5.8	ug/Kg	04/10/18 00:00	04/10/18	ZZ

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/05/2018 10:03	Site:	
Sample #: 401424-034	Client Sample #: D4-4	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
1,2-Dichloroethane-d4 (SUR)	100		70-145				
4-Bromofluorobenzene (SUR)	106		70-145				
Dibromofluoromethane (SUR)	97		70-145				
Toluene-d8 (SUR)	98		70-145				
Method: EPA 8270CM	Prep Method: EPA 3545					QCBatchID: QC1190108	
1-Methylnaphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
2-Methylnaphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Acenaphthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Acenaphthylene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benz(a)anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(a)pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(b)fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(g,h,i)perylene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(k)fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Chrysene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Dibenz(a,h)anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Fluorene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Indeno(1,2,3-cd)pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Naphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Phenanthrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
2-Fluorobiphenyl (SUR)	75		30-120				
Nitrobenzene-d5 (SUR)	89		27-125				
p-Terphenyl (SUR)	86		33-155				

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/05/2018 14:31	Site:	
Sample #: 401424-035	Client Sample #: OW1-1	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1189876	
Cadmium	0.75	1	0.5	mg/Kg	04/06/18	04/09/18	SBW
Chromium	16.0	1	1	mg/Kg	04/06/18	04/09/18	SBW
Lead	3.63	1	1	mg/Kg	04/06/18	04/09/18	SBW
Nickel	15.8	1	1.5	mg/Kg	04/06/18	04/09/18	SBW
Zinc	36.2	1	5	mg/Kg	04/06/18	04/09/18	SBW
Method: EPA 8015B NELAC	Prep Method: EPA 5030					QCBatchID: QC1189937	
TPH Gasoline	ND	1	3	mg/Kg		04/10/18	EW
Surrogate	% Recovery		Limits				Notes
4-Bromofluorobenzene (SUR)	95		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189883	
TPH Diesel	ND	1	10	mg/Kg	04/09/18	04/17/18	BB
TPH Motor Oil	ND	1	20	mg/Kg	04/09/18	04/17/18	BB
Surrogate	% Recovery		Limits				Notes
Triacotane (SUR)	112		50-150				
Method: EPA 8082 NELAC	Prep Method: EPA 3545					QCBatchID: QC1189972	
PCB-1016	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1221	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1232	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1242	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1248	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1254	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1260	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1262	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1268	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
Surrogate	% Recovery		Limits				Notes
Decachlorobiphenyl DCB (SUR)	75		50-150				
Method: EPA 8260B NELAC	Prep Method: EPA 5035A					QCBatchID: QC1190001	
1,1,1,2-Tetrachloroethane	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1,1-Trichloroethane	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1,2,2-Tetrachloroethane	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1,2-Trichloroethane	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1,2-Trichlorotrifluoroethane	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1-Dichloroethane	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1-Dichloroethene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1-Dichloropropene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2,3-Trichlorobenzene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2,3-Trichloropropane	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2,4-Trichlorobenzene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2,4-Trimethylbenzene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dibromo-3-chloropropane	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dibromoethane	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dichlorobenzene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dichloroethane	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dichloropropane	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,3,5-Trimethylbenzene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,3-Dichlorobenzene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,3-Dichloropropane	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,4-Dichlorobenzene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
2,2-Dichloropropane	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
2-Butanone (MEK)	ND	1.19	119	ug/Kg	04/10/18 00:00	04/10/18	ZZ
2-Chloroethyl Vinyl Ether	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/05/2018 14:31	Site:	
Sample #: <u>401424-035</u>	Client Sample #: OW1-1	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
2-Chlorotoluene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
4-Chlorotoluene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
4-Isopropyltoluene	23	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
4-Methyl-2-pentanone (MIBK)	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Acetone	ND	1.19	119	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Allyl Chloride	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Benzene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromobenzene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromochloromethane	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromodichloromethane	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromoform	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromomethane	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Carbon Tetrachloride	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chlorobenzene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chlorodibromomethane	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chloroethane	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chloroform	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chloromethane	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
cis-1,2-Dichloroethene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
cis-1,3-dichloropropene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
cis-1,4-dichloro-2-butene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Dibromomethane	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Dichlorodifluoromethane	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Di-isopropyl ether (DIPE)	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Ethylbenzene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Ethyl-tertbutylether (ETBE)	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Hexachlorobutadiene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Isopropylbenzene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
m and p-Xylene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Methylene chloride	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Methyl-t-butyl Ether (MTBE)	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Naphthalene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
N-butylbenzene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
N-propylbenzene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
o-Xylene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Sec-butylbenzene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Styrene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
t-Butyl alcohol (TBA)	ND	1.19	11.9	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Tert-amylmethylether (TAME)	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Tert-butylbenzene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Tetrachloroethene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Toluene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
trans-1,2-dichloroethene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
trans-1,3-dichloropropene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
trans-1,4-dichloro-2-butene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Trichloroethene	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Trichlorofluoromethane	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Vinyl Chloride	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Xylenes (Total)	ND	1.19	5.95	ug/Kg	04/10/18 00:00	04/10/18	ZZ

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/05/2018 14:31	Site:	
Sample #: 401424-035	Client Sample #: OW1-1	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
1,2-Dichloroethane-d4 (SUR)	102		70-145				
4-Bromofluorobenzene (SUR)	97		70-145				
Dibromofluoromethane (SUR)	97		70-145				
Toluene-d8 (SUR)	97		70-145				
Method: EPA 8270CM	Prep Method: EPA 3545					QCBatchID: QC1190108	
1-Methylnaphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
2-Methylnaphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Acenaphthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Acenaphthylene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benz(a)anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(a)pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(b)fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(g,h,i)perylene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(k)fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Chrysene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Dibenz(a,h)anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Fluorene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Indeno(1,2,3-cd)pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Naphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Phenanthrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
2-Fluorobiphenyl (SUR)	76		30-120				
Nitrobenzene-d5 (SUR)	96		27-125				
p-Terphenyl (SUR)	88		33-155				

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/05/2018 15:56	Site:	
Sample #: 401424-040	Client Sample #: OW2-1	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1189876	
Cadmium	0.79	1	0.5	mg/Kg	04/06/18	04/09/18	SBW
Chromium	8.06	1	1	mg/Kg	04/06/18	04/09/18	SBW
Lead	1.79	1	1	mg/Kg	04/06/18	04/09/18	SBW
Nickel	9.22	1	1.5	mg/Kg	04/06/18	04/09/18	SBW
Zinc	18.3	1	5	mg/Kg	04/06/18	04/09/18	SBW
Method: EPA 8015B NELAC	Prep Method: EPA 5030					QCBatchID: QC1189937	
TPH Gasoline	ND	1	3	mg/Kg		04/10/18	EW
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
4-Bromofluorobenzene (SUR)	90		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189883	
TPH Diesel	ND	1	10	mg/Kg	04/09/18	04/10/18	BB
TPH Motor Oil	ND	1	20	mg/Kg	04/09/18	04/10/18	BB
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Triacotane (SUR)	113		50-150				
Method: EPA 8082 NELAC	Prep Method: EPA 3545					QCBatchID: QC1189972	
PCB-1016	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1221	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1232	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1242	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1248	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1254	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1260	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1262	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1268	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Decachlorobiphenyl DCB (SUR)	58		50-150				
Method: EPA 8260B NELAC	Prep Method: EPA 5035A					QCBatchID: QC1190001	
1,1,1,2-Tetrachloroethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1,1-Trichloroethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1,2,2-Tetrachloroethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1,2-Trichloroethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1,2-Trichlorotrifluoroethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1-Dichloroethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1-Dichloroethene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1-Dichloropropene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2,3-Trichlorobenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2,3-Trichloropropane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2,4-Trichlorobenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2,4-Trimethylbenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dibromo-3-chloropropane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dibromoethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dichlorobenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dichloroethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dichloropropane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,3,5-Trimethylbenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,3-Dichlorobenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,3-Dichloropropane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,4-Dichlorobenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
2,2-Dichloropropane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
2-Butanone (MEK)	ND	1.11	111	ug/Kg	04/10/18 00:00	04/10/18	ZZ
2-Chloroethyl Vinyl Ether	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ

Matrix: Solid

Client: APEX

Collector: Client

Sampled: 04/05/2018 15:56

Site:

Sample #: 401424-040

Client Sample #: OW2-1

Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
2-Chlorotoluene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
4-Chlorotoluene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
4-Isopropyltoluene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
4-Methyl-2-pentanone (MIBK)	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Acetone	ND	1.11	111	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Allyl Chloride	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Benzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromobenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromochloromethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromodichloromethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromoform	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromomethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Carbon Tetrachloride	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chlorobenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chlorodibromomethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chloroethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chloroform	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chloromethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
cis-1,2-Dichloroethene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
cis-1,3-dichloropropene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
cis-1,4-dichloro-2-butene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Dibromomethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Dichlorodifluoromethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Di-isopropyl ether (DIPE)	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Ethylbenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Ethyl-tertbutylether (ETBE)	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Hexachlorobutadiene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Isopropylbenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
m and p-Xylene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Methylene chloride	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Methyl-t-butyl Ether (MTBE)	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Naphthalene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
N-butylbenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
N-propylbenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
o-Xylene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Sec-butylbenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Styrene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
t-Butyl alcohol (TBA)	ND	1.11	11.1	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Tert-amylmethylether (TAME)	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Tert-butylbenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Tetrachloroethene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Toluene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
trans-1,2-dichloroethene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
trans-1,3-dichloropropene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
trans-1,4-dichloro-2-butene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Trichloroethene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Trichlorofluoromethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Vinyl Chloride	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Xylenes (Total)	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/05/2018 15:56	Site:	
Sample #: <u>401424-040</u>	Client Sample #: OW2-1	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
1,2-Dichloroethane-d4 (SUR)	101		70-145				
4-Bromofluorobenzene (SUR)	109		70-145				
Dibromofluoromethane (SUR)	96		70-145				
Toluene-d8 (SUR)	100		70-145				
Method: EPA 8270CM	Prep Method: EPA 3545					QCBatchID: QC1190108	
1-Methylnaphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
2-Methylnaphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Acenaphthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Acenaphthylene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benz(a)anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(a)pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(b)fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(g,h,i)perylene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(k)fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Chrysene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Dibenz(a,h)anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Fluorene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Indeno(1,2,3-cd)pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Naphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Phenanthrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
2-Fluorobiphenyl (SUR)	76		30-120				
Nitrobenzene-d5 (SUR)	91		27-125				
p-Terphenyl (SUR)	87		33-155				

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/05/2018 15:09	Site:	
Sample #: 401424-046	Client Sample #: OW3-2	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1189876	
Cadmium	0.86	1	0.5	mg/Kg	04/06/18	04/09/18	SBW
Chromium	7.74	1	1	mg/Kg	04/06/18	04/09/18	SBW
Lead	1.82	1	1	mg/Kg	04/06/18	04/09/18	SBW
Nickel	9.02	1	1.5	mg/Kg	04/06/18	04/09/18	SBW
Zinc	18.8	1	5	mg/Kg	04/06/18	04/09/18	SBW
Method: EPA 8015B NELAC	Prep Method: EPA 5030					QCBatchID: QC1189937	
TPH Gasoline	ND	1	3	mg/Kg		04/10/18	EW
Surrogate	% Recovery		Limits				Notes
4-Bromofluorobenzene (SUR)	90		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189903	
TPH Diesel	ND	1	10	mg/Kg	04/09/18	04/09/18	BB
TPH Motor Oil	ND	1	20	mg/Kg	04/09/18	04/09/18	BB
Surrogate	% Recovery		Limits				Notes
Triacotane (SUR)	88		50-150				
Method: EPA 8082 NELAC	Prep Method: EPA 3545					QCBatchID: QC1189972	
PCB-1016	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1221	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1232	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1242	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1248	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1254	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1260	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1262	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
PCB-1268	ND	1	50	ug/Kg	04/10/18	04/13/18	MTS
Surrogate	% Recovery		Limits				Notes
Decachlorobiphenyl DCB (SUR)	78		50-150				
Method: EPA 8260B NELAC	Prep Method: EPA 5035A					QCBatchID: QC1190001	
1,1,1,2-Tetrachloroethane	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1,1-Trichloroethane	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1,2,2-Tetrachloroethane	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1,2-Trichloroethane	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1,2-Trichlorotrifluoroethane	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1-Dichloroethane	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1-Dichloroethene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1-Dichloropropene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2,3-Trichlorobenzene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2,3-Trichloropropane	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2,4-Trichlorobenzene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2,4-Trimethylbenzene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dibromo-3-chloropropane	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dibromoethane	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dichlorobenzene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dichloroethane	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dichloropropane	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,3,5-Trimethylbenzene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,3-Dichlorobenzene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,3-Dichloropropane	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,4-Dichlorobenzene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
2,2-Dichloropropane	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
2-Butanone (MEK)	ND	1	100	ug/Kg	04/10/18 00:00	04/10/18	ZZ
2-Chloroethyl Vinyl Ether	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ

Matrix: Solid

Client: APEX

Collector: Client

Sampled: 04/05/2018 15:09

Site:

Sample #: 401424-046

Client Sample #: OW3-2

Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
2-Chlorotoluene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
4-Chlorotoluene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
4-Isopropyltoluene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
4-Methyl-2-pentanone (MIBK)	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Acetone	ND	1	100	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Allyl Chloride	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Benzene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromobenzene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromochloromethane	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromodichloromethane	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromoform	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromomethane	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Carbon Tetrachloride	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chlorobenzene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chlorodibromomethane	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chloroethane	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chloroform	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chloromethane	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
cis-1,2-Dichloroethene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
cis-1,3-dichloropropene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
cis-1,4-dichloro-2-butene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Dibromomethane	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Dichlorodifluoromethane	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Di-isopropyl ether (DIPE)	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Ethylbenzene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Ethyl-tertbutylether (ETBE)	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Hexachlorobutadiene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Isopropylbenzene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
m and p-Xylene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Methylene chloride	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Methyl-t-butyl Ether (MTBE)	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Naphthalene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
N-butylbenzene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
N-propylbenzene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
o-Xylene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Sec-butylbenzene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Styrene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
t-Butyl alcohol (TBA)	ND	1	10	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Tert-amylmethylether (TAME)	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Tert-butylbenzene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Tetrachloroethene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Toluene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
trans-1,2-dichloroethene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
trans-1,3-dichloropropene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
trans-1,4-dichloro-2-butene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Trichloroethene	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Trichlorofluoromethane	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Vinyl Chloride	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Xylenes (Total)	ND	1	5	ug/Kg	04/10/18 00:00	04/10/18	ZZ

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/05/2018 15:09	Site:	
Sample #: <u>401424-046</u>	Client Sample #: OW3-2	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
1,2-Dichloroethane-d4 (SUR)	102		70-145				
4-Bromofluorobenzene (SUR)	112		70-145				
Dibromofluoromethane (SUR)	98		70-145				
Toluene-d8 (SUR)	98		70-145				
Method: EPA 8270CM	Prep Method: EPA 3545					QCBatchID: QC1190108	
1-Methylnaphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
2-Methylnaphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Acenaphthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Acenaphthylene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benz(a)anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(a)pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(b)fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(g,h,i)perylene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(k)fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Chrysene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Dibenz(a,h)anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Fluorene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Indeno(1,2,3-cd)pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Naphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Phenanthrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
2-Fluorobiphenyl (SUR)	67		30-120				
Nitrobenzene-d5 (SUR)	84		27-125				
p-Terphenyl (SUR)	85		33-155				

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/05/2018 17:00	Site:	
Sample #: <u>401424-049</u>	Client Sample #: L16-2	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 8015B <i>NELAC</i>	Prep Method: EPA 5030					QCBatchID: QC1189937	
TPH Gasoline	ND	1	3	mg/Kg		04/10/18	EW
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
4-Bromofluorobenzene (SUR)	90		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189903	
TPH Diesel	ND	1	10	mg/Kg	04/09/18	04/09/18	BB
TPH Motor Oil	ND	1	20	mg/Kg	04/09/18	04/09/18	BB
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Triacontane (SUR)	89		50-150				
Method: EPA 8082 <i>NELAC</i>	Prep Method: EPA 3545					QCBatchID: QC1190094	
PCB-1016	ND	1	50	ug/Kg	04/12/18	04/13/18	MTS
PCB-1221	ND	1	50	ug/Kg	04/12/18	04/13/18	MTS
PCB-1232	ND	1	50	ug/Kg	04/12/18	04/13/18	MTS
PCB-1242	ND	1	50	ug/Kg	04/12/18	04/13/18	MTS
PCB-1248	ND	1	50	ug/Kg	04/12/18	04/13/18	MTS
PCB-1254	ND	1	50	ug/Kg	04/12/18	04/13/18	MTS
PCB-1260	ND	1	50	ug/Kg	04/12/18	04/13/18	MTS
PCB-1262	ND	1	50	ug/Kg	04/12/18	04/13/18	MTS
PCB-1268	ND	1	50	ug/Kg	04/12/18	04/13/18	MTS
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Decachlorobiphenyl DCB (SUR)	122		50-150				

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/05/2018 14:05	Site:	
Sample #: 401424-052	Client Sample #: OW4-1	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1189876	
Cadmium	0.74	1	0.5	mg/Kg	04/06/18	04/09/18	SBW
Chromium	9.07	1	1	mg/Kg	04/06/18	04/09/18	SBW
Lead	2.79	1	1	mg/Kg	04/06/18	04/09/18	SBW
Nickel	8.88	1	1.5	mg/Kg	04/06/18	04/09/18	SBW
Zinc	25.2	1	5	mg/Kg	04/06/18	04/09/18	SBW
Method: EPA 8015B NELAC	Prep Method: EPA 5030					QCBatchID: QC1189937	
TPH Gasoline	ND	1	3	mg/Kg		04/10/18	EW
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
4-Bromofluorobenzene (SUR)	90		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1189903	
TPH Diesel	ND	1	10	mg/Kg	04/09/18	04/09/18	BB
TPH Motor Oil	ND	1	20	mg/Kg	04/09/18	04/09/18	BB
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Triacotane (SUR)	80		50-150				
Method: EPA 8082 NELAC	Prep Method: EPA 3545					QCBatchID: QC1190094	
PCB-1016	ND	1	50	ug/Kg	04/12/18	04/13/18	MTS
PCB-1221	ND	1	50	ug/Kg	04/12/18	04/13/18	MTS
PCB-1232	ND	1	50	ug/Kg	04/12/18	04/13/18	MTS
PCB-1242	ND	1	50	ug/Kg	04/12/18	04/13/18	MTS
PCB-1248	ND	1	50	ug/Kg	04/12/18	04/13/18	MTS
PCB-1254	ND	1	50	ug/Kg	04/12/18	04/13/18	MTS
PCB-1260	ND	1	50	ug/Kg	04/12/18	04/13/18	MTS
PCB-1262	ND	1	50	ug/Kg	04/12/18	04/13/18	MTS
PCB-1268	ND	1	50	ug/Kg	04/12/18	04/13/18	MTS
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Decachlorobiphenyl DCB (SUR)	122		50-150				
Method: EPA 8260B NELAC	Prep Method: EPA 5035A					QCBatchID: QC1190001	
1,1,1,2-Tetrachloroethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1,1-Trichloroethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1,2,2-Tetrachloroethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1,2-Trichloroethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1,2-Trichlorotrifluoroethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1-Dichloroethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1-Dichloroethene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,1-Dichloropropene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2,3-Trichlorobenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2,3-Trichloropropane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2,4-Trichlorobenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2,4-Trimethylbenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dibromo-3-chloropropane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dibromoethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dichlorobenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dichloroethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,2-Dichloropropane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,3,5-Trimethylbenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,3-Dichlorobenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,3-Dichloropropane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
1,4-Dichlorobenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
2,2-Dichloropropane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
2-Butanone (MEK)	ND	1.11	111	ug/Kg	04/10/18 00:00	04/10/18	ZZ
2-Chloroethyl Vinyl Ether	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ

Matrix: Solid

Client: APEX

Collector: Client

Sampled: 04/05/2018 14:05

Site:

Sample #: 401424-052

Client Sample #: OW4-1

Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
2-Chlorotoluene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
4-Chlorotoluene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
4-Isopropyltoluene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
4-Methyl-2-pentanone (MIBK)	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Acetone	ND	1.11	111	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Allyl Chloride	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Benzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromobenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromochloromethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromodichloromethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromoform	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Bromomethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Carbon Tetrachloride	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chlorobenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chlorodibromomethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chloroethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chloroform	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Chloromethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
cis-1,2-Dichloroethene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
cis-1,3-dichloropropene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
cis-1,4-dichloro-2-butene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Dibromomethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Dichlorodifluoromethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Di-isopropyl ether (DIPE)	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Ethylbenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Ethyl-tertbutylether (ETBE)	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Hexachlorobutadiene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Isopropylbenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
m and p-Xylene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Methylene chloride	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Methyl-t-butyl Ether (MTBE)	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Naphthalene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
N-butylbenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
N-propylbenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
o-Xylene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Sec-butylbenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Styrene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
t-Butyl alcohol (TBA)	ND	1.11	11.1	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Tert-amylmethylether (TAME)	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Tert-butylbenzene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Tetrachloroethene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Toluene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
trans-1,2-dichloroethene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
trans-1,3-dichloropropene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
trans-1,4-dichloro-2-butene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Trichloroethene	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Trichlorofluoromethane	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Vinyl Chloride	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ
Xylenes (Total)	ND	1.11	5.55	ug/Kg	04/10/18 00:00	04/10/18	ZZ

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/05/2018 14:05	Site:	
Sample #: <u>401424-052</u>	Client Sample #: OW4-1	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
1,2-Dichloroethane-d4 (SUR)	101		70-145				
4-Bromofluorobenzene (SUR)	108		70-145				
Dibromofluoromethane (SUR)	97		70-145				
Toluene-d8 (SUR)	100		70-145				
Method: EPA 8270CM	Prep Method: EPA 3545					QCBatchID: QC1190108	
1-Methylnaphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
2-Methylnaphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Acenaphthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Acenaphthylene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benz(a)anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(a)pyrene	10	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(b)fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(g,h,i)perylene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Benzo(k)fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Chrysene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Dibenz(a,h)anthracene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Fluoranthene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Fluorene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Indeno(1,2,3-cd)pyrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Naphthalene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Phenanthrene	ND	1	10	ug/Kg	04/13/18	04/13/18	DP
Pyrene	11	1	10	ug/Kg	04/13/18	04/13/18	DP
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
2-Fluorobiphenyl (SUR)	71		30-120				
Nitrobenzene-d5 (SUR)	86		27-125				
p-Terphenyl (SUR)	85		33-155				

QCBatchID: <u>QC1189875</u>	Analyst: dswafford	Method: EPA 6010B
Matrix: Solid	Analyzed: 04/08/2018	Instrument: AAICP (group)

Blank Summary						
Analyte	Blank Result	Units		RDL	Notes	
QC1189875MB1						
Arsenic	ND	mg/Kg		1		
Cadmium	ND	mg/Kg		0.5		
Chromium	ND	mg/Kg		1		
Lead	ND	mg/Kg		1		
Nickel	ND	mg/Kg		1.5		
Zinc	ND	mg/Kg		5		

Lab Control Spike/ Lab Control Spike Duplicate Summary											
Analyte	Spike Amount		Spike Result		Units	Recoveries			Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD	RPD	%Rec	RPD	
QC1189875LCS1											
Arsenic	100		93.2		mg/Kg	93			80-120		
Cadmium	100		102		mg/Kg	102			80-120		
Chromium	100		98.1		mg/Kg	98			80-120		
Lead	100		98.5		mg/Kg	99			80-120		
Nickel	100		102		mg/Kg	102			80-120		
Zinc	100		100		mg/Kg	100			80-120		

Matrix Spike/Matrix Spike Duplicate Summary												
Analyte	Sample	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	Amount	MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1189875MS1, QC1189875MSD1											Source: 401416-003	
Arsenic	4.92	100	100	96.3	97.9	mg/Kg	91	93	1.6	75-125	20	
Cadmium	0.44	100	100	91.8	96.1	mg/Kg	91	96	4.6	75-125	20	
Chromium	17.7	100	100	110	114	mg/Kg	92	96	3.6	75-125	20	
Lead	8.08	100	100	96.5	98.3	mg/Kg	88	90	1.8	75-125	20	
Nickel	10.6	100	100	103	106	mg/Kg	92	95	2.9	75-125	20	
Zinc	70.7	100	100	165	174	mg/Kg	94	103	5.3	75-125	20	

QCBatchID: **QC1189876**

Analyst: dswafford

Method: EPA 6010B

Matrix: Solid

Analyzed: 04/08/2018

Instrument: AAICP (group)

Blank Summary

Analyte	Blank Result	Units	RDL	Notes
QC1189876MB1				
Antimony	ND	mg/Kg	3	
Arsenic	ND	mg/Kg	1	
Barium	ND	mg/Kg	1	
Beryllium	ND	mg/Kg	0.5	
Cadmium	ND	mg/Kg	0.5	
Chromium	ND	mg/Kg	1	
Cobalt	ND	mg/Kg	0.5	
Copper	ND	mg/Kg	1	
Lead	ND	mg/Kg	1	
Molybdenum	ND	mg/Kg	1	
Nickel	ND	mg/Kg	1.5	
Selenium	ND	mg/Kg	3	
Silver	ND	mg/Kg	0.5	
Thallium	ND	mg/Kg	3	
Vanadium	ND	mg/Kg	0.5	
Zinc	ND	mg/Kg	5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1189876LCS1											
Antimony	100		100		mg/Kg	100			80-120		
Arsenic	100		95.1		mg/Kg	95			80-120		
Barium	100		102		mg/Kg	102			80-120		
Beryllium	100		111		mg/Kg	111			80-120		
Cadmium	100		104		mg/Kg	104			80-120		
Chromium	100		100		mg/Kg	100			80-120		
Cobalt	100		102		mg/Kg	102			80-120		
Copper	100		99.6		mg/Kg	100			80-120		
Lead	100		103		mg/Kg	103			80-120		
Molybdenum	100		95.2		mg/Kg	95			80-120		
Nickel	100		104		mg/Kg	104			80-120		
Selenium	100		97.7		mg/Kg	98			80-120		
Silver	100		94.4		mg/Kg	94			80-120		
Thallium	100		98.0		mg/Kg	98			80-120		
Vanadium	100		101		mg/Kg	101			80-120		
Zinc	100		102		mg/Kg	102			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1189876MS1, QC1189876MSD1											Source: 401424-034	
Antimony	ND	100	100	68.9	63.4	mg/Kg	69	63	8.3	75-125	20	M
Arsenic	3.66	100	100	98.7	89.5	mg/Kg	95	86	9.8	75-125	20	
Barium	42.0	100	100	139	125	mg/Kg	97	83	10.6	75-125	20	
Beryllium	ND	100	100	98.8	98.6	mg/Kg	99	99	0.2	75-125	20	
Cadmium	0.63	100	100	101	91.6	mg/Kg	100	91	9.8	75-125	20	
Chromium	7.02	100	100	104	94.5	mg/Kg	97	87	9.6	75-125	20	
Cobalt	2.88	100	100	100	91.4	mg/Kg	97	89	9.0	75-125	20	
Copper	3.85	100	100	101	91.8	mg/Kg	97	88	9.5	75-125	20	
Lead	1.81	100	100	96.0	86.6	mg/Kg	94	85	10.3	75-125	20	

QCBatchID: **QC1189876**

Analyst: dswafford

Method: EPA 6010B

Matrix: Solid

Analyzed: 04/08/2018

Instrument: AAICP (group)

Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1189876MS1, QC1189876MSD1											Source: 401424-034	
Molybdenum	1.63	100	100	92.5	84.1	mg/Kg	91	82	9.5	75-125	20	
Nickel	6.80	100	100	106	96.4	mg/Kg	99	90	9.5	75-125	20	
Selenium	ND	100	100	86.1	78.6	mg/Kg	86	79	9.1	75-125	20	
Silver	ND	100	100	91.4	82.8	mg/Kg	91	83	9.9	75-125	20	
Thallium	ND	100	100	93.5	84.3	mg/Kg	94	84	10.3	75-125	20	
Vanadium	15.9	100	100	118	106	mg/Kg	102	90	10.7	75-125	20	
Zinc	14.0	100	100	113	102	mg/Kg	99	88	10.2	75-125	20	

QCBatchID: <u>QC1189883</u>	Analyst: Jarriaga	Method: EPA 8015M
Matrix: Solid	Analyzed: 04/09/2018	Instrument: SVOA-GC (group)

Blank Summary						
Analyte	Blank Result	Units		RDL	Notes	
QC1189883MB1						
TPH (C10 to C28)	ND	mg/Kg		10		
TPH (C13 to C22)	ND	mg/Kg		10		
TPH (C23 to C40)	ND	mg/Kg		20		
TPH Diesel	ND	mg/Kg		10		
TPH Motor Oil	ND	mg/Kg		20		

Lab Control Spike/ Lab Control Spike Duplicate Summary											
Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1189883LCS1											
TPH (C10 to C28)	250		240		mg/Kg	96			70-130		

Matrix Spike/Matrix Spike Duplicate Summary												
Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1189883MS1, QC1189883MSD1										Source: 401382-001		
TPH (C10 to C28)	ND	250	250	310	310	mg/Kg	124	124	0.0	70-130	20	

QCBatchID: <u>QC1189903</u>	Analyst: Jarriaga	Method: EPA 8015M
Matrix: Solid	Analyzed: 04/09/2018	Instrument: SVOA-GC (group)

Blank Summary						
Analyte	Blank Result	Units		RDL	Notes	
QC1189903MB1						
TPH (C10 to C28)	ND	mg/Kg		10		
TPH (C13 to C22)	ND	mg/Kg		10		
TPH (C23 to C40)	ND	mg/Kg		20		
TPH (C23 to C44)	ND	mg/Kg		20		
TPH (C6 to C12)	ND	mg/Kg		10		

Lab Control Spike/ Lab Control Spike Duplicate Summary											
Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1189903LCS1											
TPH (C10 to C28)	250		230		mg/Kg	92			70-130		

DRAFT

QCBatchID: <u>QC1189937</u>	Analyst: sandyw	Method: EPA 8015B
Matrix: Solid	Analyzed: 04/10/2018	Instrument: VOA-GC (group)

Blank Summary						
Analyte	Blank Result	Units		RDL	Notes	
QC1189937MB1						
TPH (C6 to C12)	ND	mg/Kg		3		

Lab Control Spike/ Lab Control Spike Duplicate Summary											
Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1189937LCS1											
TPH (C6 to C12)	5		5.86		mg/Kg	117			70-130		

Matrix Spike/Matrix Spike Duplicate Summary												
Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1189937MS1, QC1189937MSD1												Source: 401424-002
TPH (C6 to C12)	ND	5	5	4.47	4.25	mg/Kg	89	85	5.0	70-130	20	

QCBatchID: <u>QC1189962</u>	Analyst: Jarriaga	Method: EPA 8015M
Matrix: Solid	Analyzed: 04/10/2018	Instrument: SVOA-GC (group)

Blank Summary						
Analyte	Blank Result	Units		RDL	Notes	
QC1189962MB1						
TPH (C10 to C28)	ND	mg/Kg		10		
TPH (C13 to C22)	ND	mg/Kg		10		
TPH (C23 to C40)	ND	mg/Kg		20		
TPH (C28 to C40)	ND	mg/Kg		20		
TPH (C28 to C44)	ND	mg/Kg		20		
TPH (C8 to C10)	ND	mg/Kg		10		
TPH Diesel	ND	mg/Kg		10		
TPH Motor Oil	ND	mg/Kg		20		

Lab Control Spike/ Lab Control Spike Duplicate Summary											
Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1189962LCS1											
TPH (C10 to C28)	250		220		mg/Kg	88			70-130		

Matrix Spike/Matrix Spike Duplicate Summary												
Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1189962MS1, QC1189962MSD1											Source: 401318-001	
TPH (C10 to C28)	ND	250	250	260	260	mg/Kg	104	0.0	70-130	20		

QCBatchID: <u>QC1189972</u>	Analyst: Abanh	Method: EPA 8082
Matrix: Solid	Analyzed: 04/10/2018	Instrument: SVOA-GC (group)

Blank Summary						
Analyte	Blank Result	Units		RDL	Notes	
QC1189972MB1						
PCB-1016	ND	ug/Kg		50		
PCB-1221	ND	ug/Kg		50		
PCB-1232	ND	ug/Kg		50		
PCB-1242	ND	ug/Kg		50		
PCB-1248	ND	ug/Kg		50		
PCB-1254	ND	ug/Kg		50		
PCB-1260	ND	ug/Kg		50		
PCB-1262	ND	ug/Kg		50		
PCB-1268	ND	ug/Kg		50		

Lab Control Spike/ Lab Control Spike Duplicate Summary											
Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1189972LCS1											
PCB-1016	500		400		ug/Kg	80			70-130		
PCB-1260	500		500		ug/Kg	100			70-130		

Matrix Spike/Matrix Spike Duplicate Summary												
Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	MS	MSD	MS	MSD	MS		MSD	%Rec		RPD		
QC1189972MS1, QC1189972MSD1											Source: 401382-001	
PCB-1016	ND	500	500	390	270	ug/Kg	78	54	36.4	70-130	20	
PCB-1260	ND	500	500	380	310	ug/Kg	76	62	20.3	70-130	20	

QCBatchID: **QC1190001**

Analyst: bbuilt

Method: EPA 8260B

Matrix: Solid

Analyzed: 04/10/2018

Instrument: VOA-MS (group)

Blank Summary

Analyte	Blank Result	Units	RDL	Notes
QC1190001MB1				
1,1,1,2-Tetrachloroethane	ND	ug/Kg	5	
1,1,1-Trichloroethane	ND	ug/Kg	5	
1,1,2,2-Tetrachloroethane	ND	ug/Kg	5	
1,1,2-Trichloroethane	ND	ug/Kg	5	
1,1,2-Trichlorotrifluoroethane	ND	ug/Kg	5	
1,1-Dichloroethane	ND	ug/Kg	5	
1,1-Dichloroethene	ND	ug/Kg	5	
1,1-Dichloropropene	ND	ug/Kg	5	
1,2,3-Trichlorobenzene	ND	ug/Kg	5	
1,2,3-Trichloropropane	ND	ug/Kg	5	
1,2,4-Trichlorobenzene	ND	ug/Kg	5	
1,2,4-Trimethylbenzene	ND	ug/Kg	5	
1,2-Dibromo-3-chloropropane	ND	ug/Kg	5	
1,2-Dibromoethane	ND	ug/Kg	5	
1,2-Dichlorobenzene	ND	ug/Kg	5	
1,2-Dichloroethane	ND	ug/Kg	5	
1,2-Dichloropropane	ND	ug/Kg	5	
1,3,5-Trimethylbenzene	ND	ug/Kg	5	
1,3-Dichlorobenzene	ND	ug/Kg	5	
1,3-Dichloropropane	ND	ug/Kg	5	
1,4-Dichlorobenzene	ND	ug/Kg	5	
2,2-Dichloropropane	ND	ug/Kg	5	
2-Butanone (MEK)	ND	ug/Kg	100	
2-Chloroethyl Vinyl Ether	ND	ug/Kg	5	
2-Chlorotoluene	ND	ug/Kg	5	
4-Chlorotoluene	ND	ug/Kg	5	
4-Isopropyltoluene	ND	ug/Kg	5	
4-Methyl-2-pentanone (MIBK)	ND	ug/Kg	5	
Acetone	ND	ug/Kg	100	
Allyl Chloride	ND	ug/Kg	5	
Benzene	ND	ug/Kg	5	
Bromobenzene	ND	ug/Kg	5	
Bromochloromethane	ND	ug/Kg	5	
Bromodichloromethane	ND	ug/Kg	5	
Bromoform	ND	ug/Kg	5	
Bromomethane	ND	ug/Kg	5	
Carbon Tetrachloride	ND	ug/Kg	5	
Chlorobenzene	ND	ug/Kg	5	
Chlorodibromomethane	ND	ug/Kg	5	
Chloroethane	ND	ug/Kg	5	
Chloroform	ND	ug/Kg	5	
Chloromethane	ND	ug/Kg	5	
cis-1,2-Dichloroethene	ND	ug/Kg	5	
cis-1,3-dichloropropene	ND	ug/Kg	5	
cis-1,4-dichloro-2-butene	ND	ug/Kg	5	
Dibromomethane	ND	ug/Kg	5	
Dichlorodifluoromethane	ND	ug/Kg	5	
Di-isopropyl ether (DIPE)	ND	ug/Kg	5	
Ethylbenzene	ND	ug/Kg	5	
Ethyl-terbutylether (ETBE)	ND	ug/Kg	5	
Hexachlorobutadiene	ND	ug/Kg	5	

QCBatchID: **QC1190001**

Analyst: bbuilt

Method: EPA 8260B

Matrix: Solid

Analyzed: 04/10/2018

Instrument: VOA-MS (group)

Analyte	Blank Result	Units	RDL	Notes
QC1190001MB1				
Isopropylbenzene	ND	ug/Kg	5	
m and p-Xylene	ND	ug/Kg	5	
Methylene chloride	ND	ug/Kg	5	
Methyl-t-butyl Ether (MTBE)	ND	ug/Kg	5	
Naphthalene	ND	ug/Kg	5	
N-butylbenzene	ND	ug/Kg	5	
N-propylbenzene	ND	ug/Kg	5	
o-Xylene	ND	ug/Kg	5	
Sec-butylbenzene	ND	ug/Kg	5	
Styrene	ND	ug/Kg	5	
t-Butyl alcohol (TBA)	ND	ug/Kg	10	
Tert-amylmethylether (TAME)	ND	ug/Kg	5	
Tert-butylbenzene	ND	ug/Kg	5	
Tetrachloroethene	ND	ug/Kg	5	
Toluene	ND	ug/Kg	5	
trans-1,2-dichloroethene	ND	ug/Kg	5	
trans-1,3-dichloropropene	ND	ug/Kg	5	
trans-1,4-dichloro-2-butene	ND	ug/Kg	5	
Trichloroethene	ND	ug/Kg	5	
Trichlorofluoromethane	ND	ug/Kg	5	
Vinyl Chloride	ND	ug/Kg	5	
Xylenes (Total)	ND	ug/Kg	5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1190001LCS1, QC1190001LCSD1											
1,1-Dichloroethene	50	50	49	50	ug/Kg	98	100	2	59-172	22	
Benzene	50	50	48	50	ug/Kg	96	100	4	62-137	24	
Chlorobenzene	50	50	47	49	ug/Kg	94	98	4	60-133	24	
Methyl-t-butyl Ether (MTBE)	50	50	45	47	ug/Kg	90	94	4	62-137	21	
Toluene	50	50	47	48	ug/Kg	94	96	2	59-139	21	
Trichloroethene	50	50	46	49	ug/Kg	92	98	6	66-142	21	

QCBatchID: **QC1190094**

Analyst: ssabir

Method: EPA 8082

Matrix: Solid

Analyzed: 04/12/2018

Instrument: SVOA-GC (group)

Blank Summary

Analyte	Blank Result	Units	RDL	Notes
QC1190094MB1				
PCB-1016	ND	ug/Kg	50	
PCB-1221	ND	ug/Kg	50	
PCB-1232	ND	ug/Kg	50	
PCB-1242	ND	ug/Kg	50	
PCB-1248	ND	ug/Kg	50	
PCB-1254	ND	ug/Kg	50	
PCB-1260	ND	ug/Kg	50	
PCB-1262	ND	ug/Kg	50	
PCB-1268	ND	ug/Kg	50	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1190094LCS1											
PCB-1016	500		480		ug/Kg	96			70-130		
PCB-1260	500		570		ug/Kg	114			70-130		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1190094MS1, QC1190094MSD1											Source: 401275-003	
PCB-1016	ND	500	500	410	510	ug/Kg	82	102	21.7	70-130	20	
PCB-1260	ND	500	500	1500	1300	ug/Kg	300	260	14.3	70-130	20	

Duplicate Summary

Analyte	Sample Amount	Duplicate Amount	Units	RPD	Limits	Notes
QC1190094DUP1						
PCB-1016	ND	ND	ug/Kg		20	
PCB-1221	ND	ND	ug/Kg		20	
PCB-1232	ND	ND	ug/Kg		20	
PCB-1242	ND	ND	ug/Kg		20	
PCB-1248	ND	ND	ug/Kg		20	
PCB-1254	ND	ND	ug/Kg		20	
PCB-1260	ND	ND	ug/Kg		20	
PCB-1262	ND	ND	ug/Kg		20	
PCB-1268	ND	ND	ug/Kg		20	

QCBatchID: <u>QC1190108</u>	Analyst: ssabir	Method: EPA 8270CM
Matrix: Solid	Analyzed: 04/13/2018	Instrument: SVOA-MS (group)

Blank Summary						
Analyte	Blank Result	Units		RDL	Notes	
QC1190108MB1						
1-Methylnaphthalene	ND	ug/Kg		10		
2-Methylnaphthalene	ND	ug/Kg		10		
Acenaphthene	ND	ug/Kg		10		
Acenaphthylene	ND	ug/Kg		10		
Anthracene	ND	ug/Kg		10		
Benz(a)anthracene	ND	ug/Kg		10		
Benzo(a)pyrene	ND	ug/Kg		10		
Benzo(b)fluoranthene	ND	ug/Kg		10		
Benzo(g,h,i)perylene	ND	ug/Kg		10		
Benzo(k)fluoranthene	ND	ug/Kg		10		
Chrysene	ND	ug/Kg		10		
Dibenz(a,h)anthracene	ND	ug/Kg		10		
Fluoranthene	ND	ug/Kg		10		
Fluorene	ND	ug/Kg		10		
Indeno(1,2,3-cd)pyrene	ND	ug/Kg		10		
Naphthalene	ND	ug/Kg		10		
Phenanthrene	ND	ug/Kg		10		
Pyrene	ND	ug/Kg		10		

Lab Control Spike/ Lab Control Spike Duplicate Summary											
Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1190108LCS1											
1-Methylnaphthalene	50		36		ug/Kg	72			70-130		
2-Methylnaphthalene	50		45		ug/Kg	90			70-130		
Acenaphthene	50		42		ug/Kg	84			70-130		
Acenaphthylene	50		44		ug/Kg	88			70-130		
Anthracene	50		45		ug/Kg	90			70-130		
Benz(a)anthracene	50		50		ug/Kg	100			70-130		
Benzo(a)pyrene	50		50		ug/Kg	100			70-130		
Benzo(b)fluoranthene	50		50		ug/Kg	100			70-130		
Benzo(g,h,i)perylene	50		42		ug/Kg	84			70-130		
Benzo(k)fluoranthene	50		49		ug/Kg	98			70-130		
Chrysene	50		44		ug/Kg	88			70-130		
Dibenz(a,h)anthracene	50		47		ug/Kg	94			70-130		
Fluoranthene	50		49		ug/Kg	98			70-130		
Fluorene	50		44		ug/Kg	88			70-130		
Indeno(1,2,3-cd)pyrene	50		48		ug/Kg	96			70-130		
Naphthalene	50		42		ug/Kg	84			70-130		
Phenanthrene	50		46		ug/Kg	92			70-130		
Pyrene	50		48		ug/Kg	96			70-130		

Matrix Spike/Matrix Spike Duplicate Summary												
Analyte	Sample	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	Amount	MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1190108MS1, QC1190108MSD1										Source: 401382-001		
1-Methylnaphthalene	ND	50	50	31	36	ug/Kg	62	72	14.9	70-130	35	M
2-Methylnaphthalene	ND	50	50	38	45	ug/Kg	76	90	16.9	70-130	35	
Acenaphthene	ND	50	50	37	43	ug/Kg	74	86	15.0	70-130	35	
Acenaphthylene	ND	50	50	37	44	ug/Kg	74	88	17.3	70-130	35	
Anthracene	ND	50	50	39	45	ug/Kg	78	90	14.3	70-130	35	

QCBatchID: **QC1190108**

Analyst: ssabir

Method: EPA 8270CM

Matrix: Solid

Analyzed: 04/13/2018

Instrument: SVOA-MS (group)

Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	MS	MSD	MS	MSD	MS		MSD	%Rec		RPD		
QC1190108MS1, QC1190108MSD1											Source: 401382-001	
Benz(a)anthracene	ND	50	50	37	50	ug/Kg	74	100	29.9	70-130	35	M
Benzo(a)pyrene	ND	50	50	43	51	ug/Kg	86	102	17.0	70-130	35	
Benzo(b)fluoranthene	ND	50	50	42	52	ug/Kg	84	104	21.3	70-130	35	
Benzo(g,h,i)perylene	ND	50	50	34	42	ug/Kg	68	84	21.1	70-130	35	
Benzo(k)fluoranthene	ND	50	50	42	53	ug/Kg	84	106	23.2	70-130	35	
Chrysene	ND	50	50	36	45	ug/Kg	72	90	22.2	70-130	35	
Dibenz(a,h)anthracene	ND	50	50	38	44	ug/Kg	76	88	14.6	70-130	35	
Fluoranthene	ND	50	50	40	48	ug/Kg	80	96	18.2	70-130	35	
Fluorene	ND	50	50	38	45	ug/Kg	76	90	16.9	70-130	35	
Indeno(1,2,3-cd)pyrene	ND	50	50	39	48	ug/Kg	78	96	20.7	70-130	35	
Naphthalene	ND	50	50	36	42	ug/Kg	72	84	15.4	70-130	35	
Phenanthrene	ND	50	50	38	45	ug/Kg	76	90	16.9	70-130	35	
Pyrene	ND	50	50	39	47	ug/Kg	78	94	18.6	70-130	35	

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
D3	Insufficient sample was supplied for TCLP. Client was notified. TCLP was performed per the Client's instructions.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
P3	Per Client request, sample was composited for volatile analysis. Sample compositing for volatile analysis is not recommended due to potential loss of target analytes. Results may be biased low.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

ENTHALPY ANALYTICAL
 931 W. Barkley Ave., Orange, CA 92868
 Phone: (714) 771-6900 Fax: (714) 538-1209

Billing: Enthalpy Analytical
 1 Park Plaza, Suite 1000
 Irvine, CA 92614

Chain of Custody Record
 Lab No: 401424
 Page: 2 of 6

Turn Around Time (Rush by advanced notice only)
 Standard: ☐ 4 Day: ☐ 3 Day: ☐
 2 Day: ☐ 1 Day: ☐ Same Day: ☐

Matrix: A = Air DW = Drinking Water
 FL = Food Liquid FS = Food Solid L = Liquid
 PP = Pure Product S = Solid SeaW = Sea Water
 SW = Swab W = Water WP = Wipe O = Other

Preservatives: 1 = Na₂S₂O₃ 2 = HCl 3 = HNO₃
 4 = H₂SO₄ 5 = NaOH 6 = Other

CUSTOMER INFORMATION				PROJECT INFORMATION				Analysis Request				Test Instructions / Comments				
Company:	Apex Companies	Name:	Sears Brea Mail	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	TPH Extended Range (8015B)	VOCs (8260B)	PCBs (8082)	PAHs (8270 SIM)	Luft-5 Metals (6010B)		
Report To:	Paul Garcia	Number:														
Email:	paul.garcia@apexcos.com	P.O. #:	3616-A1000-003													
Address:	10675 Sorrento Valley Road STE 203	Address:	100 Brea Mail													
	San Diego, CA 92121		Brea, CA 92821													
Phone:	858-558-1120	Global ID:														
Fax:	858-558-1121	Sampled By:	Tyler Steimel													

Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	TPH Extended Range (8015B)	VOCs (8260B)	PCBs (8082)	PAHs (8270 SIM)	Luft-5 Metals (6010B)	Test Instructions / Comments
1 OT1-1	4/4/18	1615	S	4002, 340mL	neoh						Hold
2 OT1-4	4/4/18	1626	"	"	"	X	X	X	X	X	
3 OT1-9	4/4/18	1642	"	"	"						Hold
4 OT1-12	4/4/18	1645	"	"	"						Hold
5 OT1-16	4/4/18	1650	"	"	"						Hold
6 OT1-6	4/5/18	817	"	"	"						Hold
7 L1-1	4/5/18	1015	"	402 + 802	N/A						Hold
8 L1-2	"	1021	"	"	"						Hold
9 L1-4	"	1025	"	"	"	X	X	X	X	X	
10 L1-7	"	1038	"	"	"						Hold

Signature		Print Name	Company / Title	Date / Time
1 Relinquished By:	<i>Tyler Steimel</i>	Tyler Steimel	Apex	4/5/18 1950
1 Received By:	<i>Paul Garcia</i>	Paul Garcia	EA	4/5/18 1950
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPY ANALYTICAL				Chain of Custody Record				Turn Around Time (Rush by advanced notice only)							
931 W. Barkley Ave., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714) 538-1209 Billing: Enthalpy Analytical 1 Park Plaza, Suite 1000 Irvine, CA 92614				Lab No: 2 of 6				Standard: 4 Day: 3 Day: 							
				Page: 				2 Day: 1 Day: Same Day: 							
Matrix: A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other				Preservatives: 1 = Na ₂ S ₂ O ₃ 2 = HCl 3 = HNO ₃ 4 = H ₂ SO ₄ 5 = NaOH 6 = Other											
CUSTOMER INFORMATION				PROJECT INFORMATION				Analysis Request				Test Instructions / Comments			
Company: Apex Companies				Name: Sears Brea Mall											
Report To: Paul Garcia				Number: 											
Email: paul.garcia@apexc.com				P.O. #: 3616-A1000-003											
Address: 10675 Sorrento Valley Road STE 203				Address: 100 Brea Mall											
San Diego, CA 92121				Brea, CA 92821											
Phone: 858-558-1120				Global ID: 											
Fax: 858-558-1121				Sampled By: Tyler Steimel											
Sample ID				Sampling Date		Sampling Time		Matrix		Container No. / Size		Pres.			
1 61-12				4/5/18		1041		S		3,402		N/A			
2 62-1				"		1215		"		8+402		N/A			
3 62-3				"		1220		"		8+402		N/A			
4 62-7				"		1224		"		8+402		N/A			
5 62-12				"		1230		"		8+402		N/A			
6 63-2				"		1150		"		"		N/A			
7 63-8				"		1158		"		"		"			
8 63-12				"		1202		"		"		"			
9 63-3				"		1155		"		"		"			
10 64-2				"		1243		"		"		"			
Signature				Print Name				Company / Title				Date / Time			
1 Relinquished By: <i>Tyler</i>				Tyler Steimel				Apex				4/5/18 1950			
1 Received By: <i>Carl</i>				Carl Kim				CA				4/5/18 1950			
2 Relinquished By: 															
2 Received By: 															
3 Relinquished By: 															
3 Received By: 															

ENTHALPY ANALYTICAL		Chain of Custody Record		Turn Around Time (Rush by advanced notice only)							
931 W. Barkley Ave., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714) 538-1209 Billing: Enthalpy Analytical 1 Park Plaza, Suite 1000 Irvine, CA 92614		Lab No: _____ Page: <u>3</u> of <u>6</u> Matrix: A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other		Standard: _____ 4 Day: _____ 1 Day: _____ 3 Day: _____ Same Day: _____							
CUSTOMER INFORMATION		PROJECT INFORMATION		Analysis Request		Test Instructions / Comments					
Company:	Apex Companies	Name:	Sears Brea Mall								
Report To:	Paul Garcia	Number:									
Email:	paul.garcia@apexcos.com	P.O. #:	3616-A1000-003								
Address:	10675 Sorrento Valley Road STE 203	Address:	100 Brea Mall								
	San Diego, CA 92121		Brea, CA 92821								
Phone:	858-558-1120	Global ID:									
Fax:	858-558-1121	Sampled By:	Tyler Steimel								
Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	TPH Extended Range (8015B)	VOCs (8260B)	PCBs (8082)	PAHs (8270 SIM)	Luft-5 Metals (6010B)	
1 641-8	4/5/18	1250	S	41802	N/A					H01d	
2 64-12	4/5/18	1255	11	11	11					H01d	
3 613-2	11	800		11	11						
4 613-4	11	810		11	11						
5 613-12	11	817		11	11						
6 614-3	11	1625	11	11	11	X				H01d	
7 614-8	11	1630	11	11	11					H01d	
8 614-12	11	1635	11	11	11					H01d	
9 615-1		835				X		X		H01d	
10 615-2		842									
Signature		Print Name		Company / Title		Date / Time					
1 Relinquished By: <i>[Signature]</i>		Tyler Steimel		Apex		4/5/18 1450					
1 Received By: <i>[Signature]</i>		G Kim		GIA		4/5/18 1450					
2 Relinquished By:											
2 Received By:											
3 Relinquished By:											
3 Received By:											

ENTHALPY ANALYTICAL		Chain of Custody Record		Turn Around Time (Rush by advanced notice only)	
931 W. Barkley Ave., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714) 538-1209		Lab No: _____ Page: <u>1</u> of <u>6</u>		Standard: _____ 2 Day: _____ 4 Day: _____ 1 Day: _____ 3 Day: _____ Same Day: _____	
Billing: Enthalpy Analytical 1 Park Plaza, Suite 1000 Irvine, CA 92614		Matrix: A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other		Preservatives: 1 = Na ₂ S ₂ O ₃ 2 = HCl 3 = HNO ₃ 4 = H ₂ SO ₄ 5 = NaOH 6 = Other	
PROJECT INFORMATION		Analysis Request		Test Instructions / Comments	
Company: Apex Companies Report To: Paul Garcia Email: paul.garcia@apexc.com Address: 10675 Sorrento Valley Road STE 203 San Diego, CA 92121 Phone: 858-558-1120 Fax: 858-558-1121		Name: Sears Brea Mall Number: 3616-A1000-003 P.O. #: 100 Brea Mall Address: Brea, CA 92821 Global ID: Sampled By: Tyler Steimel		TPH Extended Range (8015B) VOCs (8260B) PCBs (8082) PAHs (8270 SIM) Luft-5 Metals (6010B)	
Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.
1 415-7	4/5/18	850	S	2+402	N/A
2 415-12	"	854	S	6+402	N/A
3 04-1	"	958	S	4,602, 340ml	
4 04-4	"	1003	S	"	
5 04-1	"	1431		"	
6 04-3	"	1440			
7 04-6	"	1446			
8 04-9	"	1455			
9 04-12	"	1500			
10 04-2-1	"	1556			
CUSTOMER INFORMATION		Signature		Date / Time	
Relinquished By: _____		Signature: _____		Date / Time: 4/5/18 1850	
Received By: _____		Signature: _____		Date / Time: 4/5/18 1950	
Relinquished By: _____		Signature: _____		Date / Time:	
Received By: _____		Signature: _____		Date / Time:	
Relinquished By: _____		Signature: _____		Date / Time:	
Received By: _____		Signature: _____		Date / Time:	

ENTHALPY ANALYTICAL		Chain of Custody Record		Turn Around Time (Rush by advanced notice only)	
931 W. Barkley Ave., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714) 538-1209		Lab No: _____ Page: 5 of 6		Standard: _____ 2 Day: _____ 4 Day: _____ 1 Day: _____ 3 Day: _____ Same Day: _____	
Billing: Enthalpy Analytical 1 Park Plaza, Suite 1000 Irvine, CA 92614		Matrix: A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other		Preservatives: 1 = Na ₂ S ₂ O ₃ 2 = HCl 3 = HNO ₃ 4 = H ₂ SO ₄ 5 = NaOH 6 = Other	
CUSTOMER INFORMATION			PROJECT INFORMATION		
Company:	Apex Companies	Name:	Sears Brea Mall		
Report To:	Paul Garcia	Number:			
Email:	paul.garcia@apexcos.com	P.O. #:	3616-A1000-003		
Address:	10675 Sorrento Valley Road STE 203	Address:	100 Brea Mall		
	San Diego, CA 92121		Brea, CA 92821		
Phone:	858-558-1120	Global ID:			
Fax:	858-558-1121	Sampled By:	Tyler Steimel		
Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.
1 0W2-2	4/15/18	1600	S	4200, 3400-L	N/A
2 0W2-7	"	1611	"	"	"
3 0W2-5	"	1608	"	"	"
4 0W2-10	"	1615	"	"	"
5 0W2-12	"	1621	"	"	"
6 0W3-2		1509	"	"	"
7 0W3-7		1515	"	"	"
8 0W3-12		1520	"	"	"
9 L16-2		1700	S	"	"
10 L16-7		1708	S	"	"
Signature			Print Name		Date / Time
1 Relinquished By: [Signature]			Tyler Steimel		4/15/18 1750
1 Received By: [Signature]			Garcia		4/15/18 1950
2 Relinquished By:					
2 Received By:					
3 Relinquished By:					
3 Received By:					

ENTHALPY ANALYTICAL 931 W. Barkley Ave., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714) 538-1209			ENTHALPY ANALYTICAL Billing: Enthalpy Analytical 1 Park Plaza, Suite 1000 Irvine, CA 92614						Chain of Custody Record Lab No: _____ Page: <u>6</u> of <u>6</u> Standard: _____ 2 Day: _____ 3 Day: _____ Same Day: _____			Turn Around Time (Rush by advanced notice only)													
Matrix: A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other						Preservatives: 1 = Na ₂ S ₂ O ₃ 2 = HCl 3 = HNO ₃ 4 = H ₂ SO ₄ 5 = NaOH 6 = Other																			
CUSTOMER INFORMATION						PROJECT INFORMATION						Analysis Request						Test Instructions / Comments							
Company: Apex Companies		Name: Sears Brea Mail		Number: 3616-A1000-003		P.O. #: 100 Brea Mail		Address: Brea, CA 92821		Global ID: _____		Sampled By: Tyler Steimel		Sample ID		Sampling Date		Sampling Time		Matrix		Container No. / Size		Pres.	
Report To: Paul Garcia		Email: paul.garcia@apexcos.com		Address: 10675 Sorrento Valley Road STE 203		San Diego, CA 92121		858-558-1120		858-558-1121		Sample ID		Sampling Date		Sampling Time		Matrix		Container No. / Size		Pres.			
1		L16-12		4/15/18		1715		S		3402		N/A		X		X		X		X		X		Hold	
2		OW4-1		11		1405		4802, 3402		11		11		X		X		X		X		X		Hold	
3		OW4-6		11		1410		11		11		11		X		X		X		X		X		Hold	
4		OW4-12		11		1417		11		11		11		X		X		X		X		X		Hold	
5																									
6																									
7																									
8																									
9																									
10																									
Signature						Print Name						Company / Title						Date / Time							
1 Relinquished By: 						Taylor Stanel						APEX						4/15/18 1950							
1 Received By: 						G Kim						GA						4/15/18 1950							
2 Relinquished By:																									
2 Received By:																									
3 Relinquished By:																									
3 Received By:																									

ENTHALPY ANALYTICAL				Chain of Custody Record				Turn Around Time (Rush by advanced notice only)							
 ENTHALPY analytical, inc.				Lab No: _____ Standard: _____				4 Day: _____ 3 Day: _____							
				Page: <u>1</u> of <u>6</u>				2 Day: _____ 1 Day: _____ Same Day: _____							
				Matrix: A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other				Preservatives: 1 = Na ₂ S ₂ O ₃ 2 = HCl 3 = HNO ₃ 4 = H ₂ SO ₄ 5 = NaOH 6 = Other							
CUSTOMER INFORMATION				PROJECT INFORMATION				Analysis Request				Test Instructions / Comments			
Company: Apex Companies Report To: Paul Garcia Email: paul.garcia@apexcos.com Address: 10675 Sorrento Valley Road STE 203 San Diego, CA 92121 Phone: 858-558-1120 Fax: 858-558-1121				Name: Sears Brea Mail Number: 3616-A1000-003 P.O. #: 100 Brea Mail Address: Brea, CA 92821 Global ID: _____ Sampled By: Tyler Steimel				TPH Extended Range (6015B) VOCs (8260B) PCBs (8082) PAHs (8270 SIM) Luf-5 Metals (6010B)							
Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.										
1 OT1-1	4/4/18	1615	S	41862, 340 mL	neoh										
2 OT1-4	4/4/18	1620	"	"	"										
3 OT1-9	4/4/18	1642	"	"	"										
4 OT1-12	4/4/18	1645	"	"	"										
5 OT1-16	4/4/18	1650	"	"	"										
6 OT1-6	4/5/18	817	"	"	"										
7 L1-1	4/5/18	1015	"	402 x 802	N/A										
8 L1-2	"	1021	"	"	"										
9 L1-4	"	1025	"	"	"										
10 L1-7	"	1038	"	"	"										
Signature						Print Name						Company / Title		Date / Time	
1 Relinquished By: <i>Tyler Steimel</i>						Tyler Steimel						Apex		4/5/18 1850	
1 Received By: <i>Paul Garcia</i>						Paul Garcia						PA		4/5/18 1850	
2 Relinquished By:															
2 Received By:															
3 Relinquished By:															
3 Received By:															

ENTHALPY ANALYTICAL

931 W. Barkley Ave., Orange, CA 92868
Phone: (714) 771-6900 Fax: (714) 538-1209

Billing: Enthalpy Analytical

1 Park Plaza, Suite 1000

Irvine, CA 92614



Chain of Custody Record

Lab No:

Page: 2 of 6

Matrix: A = Air DW = Drinking Water

FL = Food Liquid FS = Food Solid L = Liquid

PP = Pure Product S = Solid SeaW = Sea Water

SW = Swab W = Water WP = Wipe O = Other

Preservatives: 1 = Na₂S₂O₃ 2 = HCl 3 = HNO₃
4 = H₂SO₄ 5 = NaOH 6 = Other

Turn Around Time (Rush by advanced notice only)

Standard:

2 Day:

4 Day:

1 Day:

3 Day:

Same Day:

CUSTOMER INFORMATION

Company: Apex Companies

Report To: Paul Garcia

Email: paul.garcia@apexcos.com

Address: 10675 Sorrento Valley Road STE 203

San Diego, CA 92121

Phone: 858-558-1120

Fax: 858-558-1121

Name:

Number:

P.O. #:

Address:

Brea, CA 92821

Global ID:

Sampled By:

Tyler Steimel

PROJECT INFORMATION

Name:

Number:

P.O. #:

Address:

Brea, CA 92821

Global ID:

Sampled By:

Tyler Steimel

Analysis Request

TPH Extended Range (8015B)

VOCs (8260B)

PCBs (8082)

PAHs (8270 SIM)

Luft-5 Metals (6010B)

Test Instructions / Comments

Sample ID

Sampling Date

Sampling Time

Matrix

Container No. / Size

Pres.

1 11-12

4/5/13

1041

S

3,402

N/A

N/A

Hold

2 12-1

"

1215

"

8,402

N/A

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

3 12-3

"

1220

"

8,402

N/A

N/A

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

4 12-7

"

1230

"

8,402

N/A

N/A

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

5 12-12

"

1150

"

"

N/A

N/A

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

6 13-2

"

1158

"

"

"

"

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

7 13-8

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1202

"

"

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Hold

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Hold

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Hold

Hold

Hold

Hold

Hold

8 13-12

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1155

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Hold

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Hold

Hold

Hold

Hold

Hold

Hold

Hold

9 13-3

"

1243

"

"

"

"

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

10 14-2

"

1243

"

"

"

"

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Signature

Print Name

Company / Title

Date / Time

1 Relinquished By:

Tyler Steimel

4/5/13

Apex

4/5/13 1950

1 Received By:

Carl Kim

4/5/13

EA

4/5/13 1950

2 Relinquished By:

2 Received By:

3 Relinquished By:

3 Received By:

ENTHALPY ANALYTICAL

931 W. Barkley Ave., Orange, CA 92868

Phone: (714) 771-6900 Fax: (714) 538-1209



Billing: Enthalpy Analytical

1 Park Plaza, Suite 1000

Irvine, CA 92614

Chain of Custody Record

Lab No:

Page: 3 of 6

Standard:

2 Day:

4 Day:

1 Day:

3 Day:

Same Day:

Turn Around Time (Rush by advanced notice only)

Matrix: A = Air DW = Drinking Water

FL = Food Liquid FS = Food Solid L = Liquid

PP = Pure Product S = Solid SeaW = Sea Water

SW = Swab W = Water WP = Wipe O = Other

Preservatives: 1 = Na₂S₂O₃ 2 = HCl 3 = HNO₃

4 = H₂SO₄ 5 = NaOH 6 = Other

CUSTOMER INFORMATION

Company: Apex Companies

Report To: Paul Garcia

Email: paul.garcia@apexcos.com

Address: 10675 Sorrento Valley Road STE 203

San Diego, CA 92121

Phone: 858-558-1120

Fax: 858-558-1121

Name: Sears Brea Mall

Number: 3616-A1000-003

P.O. #: 100 Brea Mall

Address: Brea, CA 92821

Global ID:

Sampled By: Tyler Steimel

PROJECT INFORMATION

Analysis Request

TPH Extended Range (8015B)

VOCs (8260B)

PCBs (8082)

PAHs (8270 SIM)

Luft-5 Metals (6010B)

Test Instructions / Comments

Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.
1 64-8	4/15/18	1250	S	6 (+802)	N/A
2 64-12	"	1255	"	"	"
3 63-2	"	800	"	"	"
4 63-4	"	810	"	"	"
5 63-12	"	817	"	"	"
6 64-3	"	1625	"	"	"
7 64-8	"	1630	"	"	"
8 64-12	"	1635	"	"	"
9 65-1	"	838	"	"	"
10 65-2	"	842	"	"	"

Signature

Print Name

Company / Title

Date / Time

1 Relinquished By:

1 Received By:

2 Relinquished By:

2 Received By:

3 Relinquished By:

3 Received By:

Apex

GA

4/15/18 1950

4/15/18 1950



ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: APEX CompaniesProject: Sears Brea MallDate Received: 4/5/18Sampler's Name Present: ☒ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☒ Yes, How many? 2 ☐ No (skip section 2)Sample Temp (°C)
(No Cooler) : _____Sample Temp (°C), One from each cooler: #1: 4.8 #2: 4.2 #3: _____ #4: _____*(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)*

Shipping Information: _____

Section 3

Was the cooler packed with: ☒ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam
☐ Paper ☐ None ☐ Other _____Cooler Temp (°C): #1: 4.2 #2: 1.9 #3: _____ #4: _____

Section 4

	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)	✓		
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?	✓		
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____☐ Email (email sent to/on): _____ / _____

Project Manager's response: _____

Completed By: _____

Date: _____

Enthalpy Analytical, a subsidiary of Montrose Environmental Group, Inc.
931 W. Barkley Ave, Orange, CA 92868 • T: (714) 771-6900 • F: (714) 538-1209

www.enthalpy.com/socal

Sample Acceptance Checklist – Rev 4, 8/8/2017



Enthalpy Analytical, LLC

931 W. Barkley Ave - Orange, CA 92868
Tel: (714)771-6900 Fax: (714)538-1209
www.enthalpy.com
info-sc@enthalpy.com



Client: APEX
Address: 10675 Sorrento Valley Rd.
Suite 203
San Diego, CA 92121
Attn: Paul Garcia

Lab Request: 401424
Report Date: 04/24/2018
Date Received: 04/05/2018
Client ID: 10359

Comments: Sears Brea Mall
3616-A1000-003

Supplemental Report

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

<u>Sample #</u>	<u>Client Sample ID</u>
-----------------	-------------------------

401424-003	OT1-9
401424-004	OT1-12

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Report Review performed by: Diane Galvan, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 60 days from date received.

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Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/04/2018 16:42	Site:	
Sample #: <u>401424-003</u>	Client Sample #: OT1-9	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 8015B <i>NELAC</i>	Prep Method: EPA 5030					QCBatchID: QC1190343	
TPH Gasoline	ND	1.4	4.2	mg/Kg		04/20/18	HC T4
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
4-Bromofluorobenzene (SUR)	85		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1190335	
TPH Diesel	ND	1	10	mg/Kg	04/20/18	04/20/18	JAR T4
TPH Motor Oil	ND	1	20	mg/Kg	04/20/18	04/20/18	JAR T4
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Triacontane (SUR)	98		50-150				

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/04/2018 16:45	Site:	
Sample #: <u>401424-004</u>	Client Sample #: OT1-12	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 8015B <i>NELAC</i>	Prep Method: EPA 5030					QCBatchID: QC1190343	
TPH Gasoline	ND	1.4	4.2	mg/Kg		04/20/18	HC T4
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
4-Bromofluorobenzene (SUR)	85		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1190335	
TPH Diesel	ND	1	10	mg/Kg	04/20/18	04/20/18	JAR T4
TPH Motor Oil	ND	1	20	mg/Kg	04/20/18	04/20/18	JAR T4
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Triacontane (SUR)	89		50-150				

QCBatchID: <u>QC1190335</u>	Analyst: Jarriaga	Method: EPA 8015M
Matrix: Solid	Analyzed: 04/20/2018	Instrument: SVOA-GC (group)

Blank Summary						
----------------------	--	--	--	--	--	--

Analyte	Blank Result	Units	RDL	Notes
QC1190335MB1				
TPH (C10 to C28)	ND	mg/Kg	10	
TPH Diesel	ND	mg/Kg	10	
TPH Motor Oil	ND	mg/Kg	20	

Lab Control Spike/ Lab Control Spike Duplicate Summary									
---	--	--	--	--	--	--	--	--	--

Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1190335LCS1											
TPH (C10 to C28)	250		230		mg/Kg	92			70-130		

DRAFT

QCBatchID: <u>QC1190343</u>	Analyst: hongling	Method: EPA 8015B
Matrix: Solid	Analyzed: 04/20/2018	Instrument: VOA-GC (group)

Blank Summary						
Analyte	Blank Result	Units		RDL	Notes	
QC1190343MB1						
TPH Gasoline	ND	mg/Kg		3		

Lab Control Spike/ Lab Control Spike Duplicate Summary											
Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1190343LCS1, QC1190343LCSD1											
TPH Gasoline	5	5	5.88	5.86	mg/Kg	118	117	0	70-130	20	

DRAFT

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
BQ4	Minor Dissolved Oxygen loss was observed in the blank water check, however, the LCS was within criteria, validating the batch.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
D3	Insufficient sample was supplied for TCLP. Client was notified. TCLP was performed per the Client's instructions.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
P3	Per Client request, sample was composited for volatile analysis. Sample compositing for volatile analysis is not recommended due to potential loss of target analytes. Results may be biased low.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

From: [Paul Garcia](#)
To: [Diane Galvan](#)
Cc: [Tyler Steimel](#)
Subject: RE: Sears Brea Mall, Enthalpy Analytical Final Report #401424
Date: Thursday, April 19, 2018 9:16:06 AM
Attachments: [image001.png](#)

Diane,

Please run samples OT1-9 and OT1-12 from this work order for TPH extended.
72hr TAT

Thanks,
Paul



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Enthalpy Analytical, LLC

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www.enthalpy.com
info-sc@enthalpy.com



Client: APEX
Address: 10675 Sorrento Valley Rd.
Suite 203
San Diego, CA 92121
Attn: Paul Garcia

Lab Request: 401424
Report Date: 04/30/2018
Date Received: 04/05/2018
Client ID: 10359

Comments: Sears Brea Mall
3616-A1000-003

Supplemental Report 2

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample # **Client Sample ID**

401424-023 L13-2

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Report Review performed by: Diane Galvan, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 60 days from date received.

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Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/05/2018 08:00	Site:	
Sample #: <u>401424-023</u>	Client Sample #: L13-2	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 8015B <i>NELAC</i>	Prep Method: EPA 5030					QCBatchID: QC1190583	
TPH Gasoline	ND	1	3	mg/Kg		04/27/18	HC
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
4-Bromofluorobenzene (SUR)	95		60-140				
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1190621	
TPH Diesel	ND	1	10	mg/Kg	04/30/18	04/30/18	JAR T4
TPH Motor Oil	ND	1	20	mg/Kg	04/30/18	04/30/18	JAR T4
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Triacontane (SUR)	111		50-150				
Method: EPA 8082 <i>NELAC</i>	Prep Method: EPA 3545					QCBatchID: QC1190565	
PCB-1016	ND	1	50	ug/Kg	04/26/18	04/30/18	MTS
PCB-1221	ND	1	50	ug/Kg	04/26/18	04/30/18	MTS
PCB-1232	ND	1	50	ug/Kg	04/26/18	04/30/18	MTS
PCB-1242	ND	1	50	ug/Kg	04/26/18	04/30/18	MTS
PCB-1248	ND	1	50	ug/Kg	04/26/18	04/30/18	MTS
PCB-1254	ND	1	50	ug/Kg	04/26/18	04/30/18	MTS
PCB-1260	ND	1	50	ug/Kg	04/26/18	04/30/18	MTS
PCB-1262	ND	1	50	ug/Kg	04/26/18	04/30/18	MTS
PCB-1268	ND	1	50	ug/Kg	04/26/18	04/30/18	MTS
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>			
Decachlorobiphenyl DCB (SUR)	87		50-150				

QCBatchID: <u>QC1190565</u>	Analyst: Abanh	Method: EPA 8082
Matrix: Solid	Analyzed: 04/26/2018	Instrument: SVOA-GC (group)

Blank Summary						
Analyte	Blank Result	Units		RDL	Notes	
QC1190565MB1						
PCB-1016	ND	ug/Kg		50		
PCB-1221	ND	ug/Kg		50		
PCB-1232	ND	ug/Kg		50		
PCB-1242	ND	ug/Kg		50		
PCB-1248	ND	ug/Kg		50		
PCB-1254	ND	ug/Kg		50		
PCB-1260	ND	ug/Kg		50		
PCB-1262	ND	ug/Kg		50		
PCB-1268	ND	ug/Kg		50		

Lab Control Spike/ Lab Control Spike Duplicate Summary											
Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1190565LCS1											
PCB-1016	500		460		ug/Kg	92			70-130		
PCB-1260	500		500		ug/Kg	100			70-130		

Matrix Spike/Matrix Spike Duplicate Summary												
Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	MS	MSD	MS	MSD	MS		MSD	%Rec		RPD		
QC1190565MS1, QC1190565MSD1										Source: 401424-023		
PCB-1016	ND	500	500	470	480	ug/Kg	94	96	2.1	70-130	20	
PCB-1260	ND	500	500	480	490	ug/Kg	96	98	2.1	70-130	20	

QCBatchID: <u>QC1190583</u>	Analyst: hongling	Method: EPA 8015B
Matrix: Solid	Analyzed: 04/27/2018	Instrument: VOA-GC (group)

Blank Summary						
Analyte	Blank Result	Units		RDL	Notes	
QC1190583MB1						
TPH Gasoline	ND	mg/Kg		3		

Lab Control Spike/ Lab Control Spike Duplicate Summary											
Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1190583LCS1, QC1190583LCSD1											
TPH Gasoline	5	5	5.29	5.33	mg/Kg	106	107	1	70-130	20	

Matrix Spike/Matrix Spike Duplicate Summary												
Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1190583MS1, QC1190583MSD1											Source: 401424-023	
TPH Gasoline	ND	5	5	4.10	4.26	mg/Kg	82	85	3.8	70-130	20	

QCBatchID: <u>QC1190621</u>	Analyst: Jarriaga	Method: EPA 8015M
Matrix: Solid	Analyzed: 04/30/2018	Instrument: SVOA-GC (group)

Blank Summary						
Analyte	Blank Result	Units		RDL	Notes	
QC1190621MB1						
TPH (C10 to C28)	ND	mg/Kg		10		
TPH (C13 to C28)	ND	mg/Kg		10		
TPH (C28 to C40)	ND	mg/Kg		20		
TPH (C29 to C40)	ND	mg/Kg		20		
TPH (C6 to C12)	ND	mg/Kg		10		
TPH (C8 to C10)	ND	mg/Kg		10		
TPH Diesel	ND	mg/Kg		10		
TPH Motor Oil	ND	mg/Kg		20		

Lab Control Spike/ Lab Control Spike Duplicate Summary											
Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1190621LCS1											
TPH (C10 to C28)	250		230		mg/Kg	92			70-130		

Matrix Spike/Matrix Spike Duplicate Summary												
Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1190621MS1, QC1190621MSD1											Source: 401424-023	
TPH (C10 to C28)	ND	250	250	270	260	mg/Kg	108	104	3.8	70-130	20	

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
BQ4	Minor Dissolved Oxygen loss was observed in the blank water check, however, the LCS was within criteria, validating the batch.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
D3	Insufficient sample was supplied for TCLP. Client was notified. TCLP was performed per the Client's instructions.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
P3	Per Client request, sample was composited for volatile analysis. Sample compositing for volatile analysis is not recommended due to potential loss of target analytes. Results may be biased low.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

ENTHALPY ANALYTICAL

931 W. Barkley Ave., Orange, CA 92868

Phone: (714) 771-6900 Fax: (714) 538-1209

Billing: Enthalpy Analytical

1 Park Plaza, Suite 1000

Irvine, CA 92614

ENTHALPY ANALYTICAL

an analytical inc.

Chain of Custody Record

Lab No:

Page: 3 of 6

Standard:

4 Day:

1 Day:

3 Day:

Same Day:

Matrix: A = Air DW = Drinking Water

FL = Food Liquid FS = Food Solid L = Liquid

PP = Pure Product S = Solid SeaW = Sea Water

SW = Swab W = Water WP = Wipe O = Other

Preservatives: 1 = Na₂S₂O₃ 2 = HCl 3 = HNO₃

4 = H₂SO₄ 5 = NaOH 6 = Other

Turn Around Time (Rush by advanced notice only)

CUSTOMER INFORMATION

Company: Apex Companies

Report To: Paul Garcia

Email: paul.garcia@apexcos.com

Address: 10675 Sorrento Valley Road STE 203

San Diego, CA 92121

Phone: 858-558-1120

Fax: 858-558-1121

Name: Sears Brea Mall

Number: 3616-A1000-003

P.O. #: 100 Brea Mall

Address: Brea, CA 92821

Global ID:

Sampled By: Tyler Steimel

PROJECT INFORMATION

Sample ID

Sampling Date

Sampling Time

Matrix

Container No. / Size

Pres.

1 64-8

2 64-12

3 63-2

4 63-4

5 63-12

6 64-3

7 64-8

8 64-12

9 65-1

10 65-2

4/15/18

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64-8-2

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Analysis Request

TPH Extended Range (8015B)

VOCs (8260B)

PCBs (8082)

PAHs (8270 SIM)

Luft-5 Metals (6010B)

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

Test Instructions / Comments

Need a two day turnaround for this sample. TPH and PCB's

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Signature

Print Name

Company / Title

Date / Time

1 Relinquished By: [Signature]

1 Received By: Tyler Steimel

2 Relinquished By: [Signature]

2 Received By: [Signature]

3 Relinquished By: [Signature]

3 Received By: [Signature]

Apex

GA

4/15/18 1950

4/15/18 1950



Enthalpy Analytical, LLC

931 W. Barkley Ave - Orange, CA 92868
Tel: (714)771-6900 Fax: (714)538-1209
www.enthalpy.com
info-sc@enthalpy.com



Client: APEX
Address: 10675 Sorrento Valley Rd.
Suite 203
San Diego, CA 92121
Attn: Paul Garcia

Lab Request: 401424
Report Date: 05/09/2018
Date Received: 04/05/2018
Client ID: 10359

Comments: Sears Brea Mall
3616-A1000-003

Supplemental Report 3

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

<u>Sample #</u>	<u>Client Sample ID</u>
-----------------	-------------------------

401424-036	OW1-3
401424-043	OW2-5
401424-047	OW3-7
401424-053	OW4-6

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Diane M. Galvan

Report Review performed by: Diane Galvan, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 60 days from date received.

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Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/05/2018 14:40	Site:	
Sample #: 401424-036	Client Sample #: OW1-3	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1190894	
Cadmium	1.65	1	0.5	mg/Kg	05/08/18	05/08/18	KLN
Chromium	8.85	1	1	mg/Kg	05/08/18	05/08/18	KLN
Lead	1.86	1	1	mg/Kg	05/08/18	05/08/18	KLN
Nickel	11.3	1	1.5	mg/Kg	05/08/18	05/08/18	KLN
Zinc	17.1	1	5	mg/Kg	05/08/18	05/08/18	KLN

Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1190932	
TPH Diesel	ND	1	10	mg/Kg	05/09/18	05/09/18	JAR
TPH Motor Oil	ND	1	20	mg/Kg	05/09/18	05/09/18	JAR
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>		<u>Notes</u>		
Triacontane (SUR)	86		50-150				

Method: EPA 8082 NELAC	Prep Method: EPA 3545					QCBatchID: QC1190875	
PCB-1016	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1221	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1232	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1242	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1248	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1254	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1260	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1262	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1268	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>		<u>Notes</u>		
Decachlorobiphenyl DCB (SUR)	79		50-150				

Method: EPA 8270CM	Prep Method: EPA 3545					QCBatchID: QC1190887	
1-Methylnaphthalene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
2-Methylnaphthalene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Acenaphthene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Acenaphthylene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Anthracene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Benz(a)anthracene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Benzo(a)pyrene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Benzo(b)fluoranthene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Benzo(g,h,i)perylene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Benzo(k)fluoranthene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Chrysene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Dibenz(a,h)anthracene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Fluoranthene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Fluorene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Indeno(1,2,3-cd)pyrene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Naphthalene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Phenanthrene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Pyrene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>		<u>Notes</u>		
2-Fluorobiphenyl (SUR)	94		30-120				
Nitrobenzene-d5 (SUR)	101		27-125				
p-Terphenyl (SUR)	113		33-155				

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/05/2018 16:08	Site:	
Sample #: 401424-043	Client Sample #: OW2-5	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1190894	
Cadmium	2.09	1	0.5	mg/Kg	05/08/18	05/08/18	KLN
Chromium	11.8	1	1	mg/Kg	05/08/18	05/08/18	KLN
Lead	3.10	1	1	mg/Kg	05/08/18	05/08/18	KLN
Nickel	14.6	1	1.5	mg/Kg	05/08/18	05/08/18	KLN
Zinc	27.0	1	5	mg/Kg	05/08/18	05/08/18	KLN

Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1190932	
TPH Diesel	ND	1	10	mg/Kg	05/09/18	05/09/18	JAR
TPH Motor Oil	ND	1	20	mg/Kg	05/09/18	05/09/18	JAR

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	79	50-150	

Method: EPA 8082 NELAC	Prep Method: EPA 3545					QCBatchID: QC1190875	
PCB-1016	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1221	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1232	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1242	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1248	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1254	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1260	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1262	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1268	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS

Surrogate	% Recovery	Limits	Notes
Decachlorobiphenyl DCB (SUR)	88	50-150	

Method: EPA 8270CM	Prep Method: EPA 3545					QCBatchID: QC1190887	
1-Methylnaphthalene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
2-Methylnaphthalene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Acenaphthene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Acenaphthylene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Anthracene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Benz(a)anthracene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Benzo(a)pyrene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Benzo(b)fluoranthene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Benzo(g,h,i)perylene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Benzo(k)fluoranthene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Chrysene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Dibenz(a,h)anthracene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Fluoranthene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Fluorene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Indeno(1,2,3-cd)pyrene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Naphthalene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Phenanthrene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Pyrene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4

Surrogate	% Recovery	Limits	Notes
2-Fluorobiphenyl (SUR)	82	30-120	
Nitrobenzene-d5 (SUR)	84	27-125	
p-Terphenyl (SUR)	94	33-155	

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/05/2018 15:15	Site:	
Sample #: 401424-047	Client Sample #: OW3-7	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1190894	
Cadmium	ND	1	0.5	mg/Kg	05/08/18	05/08/18	KLN
Chromium	3.59	1	1	mg/Kg	05/08/18	05/08/18	KLN
Lead	1.45	1	1	mg/Kg	05/08/18	05/08/18	KLN
Nickel	5.04	1	1.5	mg/Kg	05/08/18	05/08/18	KLN
Zinc	10.5	1	5	mg/Kg	05/08/18	05/08/18	KLN

Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1190932	
TPH Diesel	ND	1	10	mg/Kg	05/09/18	05/09/18	JAR
TPH Motor Oil	61	1	20	mg/Kg	05/09/18	05/09/18	JAR
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>		<u>Notes</u>		
Triacontane (SUR)	83		50-150				

Method: EPA 8082 NELAC	Prep Method: EPA 3545					QCBatchID: QC1190875	
PCB-1016	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1221	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1232	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1242	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1248	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1254	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1260	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1262	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1268	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>		<u>Notes</u>		
Decachlorobiphenyl DCB (SUR)	96		50-150				

Method: EPA 8270CM	Prep Method: EPA 3545					QCBatchID: QC1190887	
1-Methylnaphthalene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
2-Methylnaphthalene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Acenaphthene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Acenaphthylene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Anthracene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Benz(a)anthracene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Benzo(a)pyrene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Benzo(b)fluoranthene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Benzo(g,h,i)perylene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Benzo(k)fluoranthene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Chrysene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Dibenz(a,h)anthracene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Fluoranthene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Fluorene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Indeno(1,2,3-cd)pyrene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Naphthalene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Phenanthrene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Pyrene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>		<u>Notes</u>		
2-Fluorobiphenyl (SUR)	88		30-120				
Nitrobenzene-d5 (SUR)	96		27-125				
p-Terphenyl (SUR)	101		33-155				

Matrix: Solid	Client: APEX	Collector: Client
Sampled: 04/05/2018 14:10	Site:	
Sample #: 401424-053	Client Sample #: OW4-6	Sample Type:

Analyte	Result	DF	RDL	Units	Prepared	Analyzed By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1190894	
Cadmium	0.61	1	0.5	mg/Kg	05/08/18	05/08/18	KLN
Chromium	3.74	1	1	mg/Kg	05/08/18	05/08/18	KLN
Lead	1.45	1	1	mg/Kg	05/08/18	05/08/18	KLN
Nickel	5.36	1	1.5	mg/Kg	05/08/18	05/08/18	KLN
Zinc	10.7	1	5	mg/Kg	05/08/18	05/08/18	KLN

Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1190932	
TPH Diesel	ND	1	10	mg/Kg	05/09/18	05/09/18	SS
TPH Motor Oil	ND	1	20	mg/Kg	05/09/18	05/09/18	SS

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	75	50-150	

Method: EPA 8082 NELAC	Prep Method: EPA 3545					QCBatchID: QC1190875	
PCB-1016	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1221	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1232	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1242	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1248	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1254	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1260	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1262	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS
PCB-1268	ND	1	50	ug/Kg	05/07/18	05/08/18	MTS

Surrogate	% Recovery	Limits	Notes
Decachlorobiphenyl DCB (SUR)	73	50-150	

Method: EPA 8270CM	Prep Method: EPA 3545					QCBatchID: QC1190887	
1-Methylnaphthalene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
2-Methylnaphthalene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Acenaphthene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Acenaphthylene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Anthracene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Benz(a)anthracene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Benzo(a)pyrene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Benzo(b)fluoranthene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Benzo(g,h,i)perylene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Benzo(k)fluoranthene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Chrysene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Dibenz(a,h)anthracene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Fluoranthene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Fluorene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Indeno(1,2,3-cd)pyrene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Naphthalene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Phenanthrene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4
Pyrene	ND	1	10	ug/Kg	05/08/18	05/09/18	DP T4

Surrogate	% Recovery	Limits	Notes
2-Fluorobiphenyl (SUR)	78	30-120	
Nitrobenzene-d5 (SUR)	87	27-125	
p-Terphenyl (SUR)	91	33-155	

QCBatchID: <u>QC1190875</u>	Analyst: Abanh	Method: EPA 8082
Matrix: Solid	Analyzed: 05/07/2018	Instrument: SVOA-GC (group)

Blank Summary

Analyte	Blank Result	Units	RDL	Notes
QC1190875MB1				
PCB-1016	ND	ug/Kg	50	
PCB-1221	ND	ug/Kg	50	
PCB-1232	ND	ug/Kg	50	
PCB-1242	ND	ug/Kg	50	
PCB-1248	ND	ug/Kg	50	
PCB-1254	ND	ug/Kg	50	
PCB-1260	ND	ug/Kg	50	
PCB-1262	ND	ug/Kg	50	
PCB-1268	ND	ug/Kg	50	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1190875LCS1											
PCB-1016	500		430		ug/Kg	86			70-130		
PCB-1260	500		400		ug/Kg	80			70-130		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1190875MS1, QC1190875MSD1												Source: 401424-036
PCB-1016	ND	500	500	500	420	ug/Kg	100	84	17.4	70-130	20	
PCB-1260	ND	500	500	470	400	ug/Kg	94	80	16.1	70-130	20	

QCBatchID: **QC1190887**

Analyst: Abanh

Method: EPA 8270CM

Matrix: Solid

Analyzed: 05/08/2018

Instrument: SVOA-MS (group)

Blank Summary

Analyte	Blank Result	Units	RDL	Notes
QC1190887MB1				
1-Methylnaphthalene	ND	ug/Kg	10	
2-Methylnaphthalene	ND	ug/Kg	10	
Acenaphthene	ND	ug/Kg	10	
Acenaphthylene	ND	ug/Kg	10	
Anthracene	ND	ug/Kg	10	
Benz(a)anthracene	ND	ug/Kg	10	
Benzo(a)pyrene	ND	ug/Kg	10	
Benzo(b)fluoranthene	ND	ug/Kg	10	
Benzo(g,h,i)perylene	ND	ug/Kg	10	
Benzo(k)fluoranthene	ND	ug/Kg	10	
Chrysene	ND	ug/Kg	10	
Dibenz(a,h)anthracene	ND	ug/Kg	10	
Fluoranthene	ND	ug/Kg	10	
Fluorene	ND	ug/Kg	10	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	10	
Naphthalene	ND	ug/Kg	10	
Phenanthrene	ND	ug/Kg	10	
Pyrene	ND	ug/Kg	10	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1190887LCS1											
1-Methylnaphthalene	50		41		ug/Kg	82			70-130		
2-Methylnaphthalene	50		51		ug/Kg	102			70-130		
Acenaphthene	50		50		ug/Kg	100			70-130		
Acenaphthylene	50		46		ug/Kg	92			70-130		
Anthracene	50		54		ug/Kg	108			70-130		
Benz(a)anthracene	50		52		ug/Kg	104			70-130		
Benzo(a)pyrene	50		55		ug/Kg	110			70-130		
Benzo(b)fluoranthene	50		58		ug/Kg	116			70-130		
Benzo(g,h,i)perylene	50		57		ug/Kg	114			70-130		
Benzo(k)fluoranthene	50		56		ug/Kg	112			70-130		
Chrysene	50		54		ug/Kg	108			70-130		
Dibenz(a,h)anthracene	50		59		ug/Kg	118			70-130		
Fluoranthene	50		54		ug/Kg	108			70-130		
Fluorene	50		52		ug/Kg	104			70-130		
Indeno(1,2,3-cd)pyrene	50		60		ug/Kg	120			70-130		
Naphthalene	50		51		ug/Kg	102			70-130		
Phenanthrene	50		55		ug/Kg	110			70-130		
Pyrene	50		55		ug/Kg	110			70-130		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1190887MS1, QC1190887MSD1												Source: 402381-001
1-Methylnaphthalene	ND	50	50	43	41	ug/Kg	86	82	4.8	70-130	35	
2-Methylnaphthalene	ND	50	50	53	51	ug/Kg	106	102	3.8	70-130	35	
Acenaphthene	ND	50	50	53	50	ug/Kg	106	100	5.8	70-130	35	
Acenaphthylene	ND	50	50	51	48	ug/Kg	102	96	6.1	70-130	35	
Anthracene	ND	50	50	59	58	ug/Kg	118	116	1.7	70-130	35	

Source: 402381-001

QCBatchID: **QC1190887**

Analyst: Abanh

Method: EPA 8270CM

Matrix: Solid

Analyzed: 05/08/2018

Instrument: SVOA-MS (group)

Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1190887MS1, QC1190887MSD1											Source: 402381-001	
Benz(a)anthracene	ND	50	50	64	65	ug/Kg	128	130	1.6	70-130	35	
Benzo(a)pyrene	ND	50	50	64	66	ug/Kg	128	132	3.1	70-130	35	
Benzo(b)fluoranthene	ND	50	50	65	67	ug/Kg	130	134	3.0	70-130	35	
Benzo(g,h,i)perylene	ND	50	50	56	55	ug/Kg	112	110	1.8	70-130	35	
Benzo(k)fluoranthene	ND	50	50	63	63	ug/Kg	126	126	0.0	70-130	35	
Chrysene	ND	50	50	55	60	ug/Kg	110	120	8.7	70-130	35	
Dibenz(a,h)anthracene	ND	50	50	58	58	ug/Kg	116	116	0.0	70-130	35	
Fluoranthene	1.0	50	50	64	63	ug/Kg	126	124	1.6	70-130	35	
Fluorene	ND	50	50	56	54	ug/Kg	112	108	3.6	70-130	35	
Indeno(1,2,3-cd)pyrene	ND	50	50	61	60	ug/Kg	122	120	1.7	70-130	35	
Naphthalene	ND	50	50	51	49	ug/Kg	102	98	4.0	70-130	35	
Phenanthrene	2.4	50	50	60	58	ug/Kg	116	112	3.4	70-130	35	
Pyrene	1.0	50	50	62	61	ug/Kg	122	120	1.6	70-130	35	

QCBatchID: <u>QC1190894</u>	Analyst: dswafford	Method: EPA 6010B
Matrix: Solid	Analyzed: 05/08/2018	Instrument: AAICP (group)

Blank Summary						
Analyte	Blank Result	Units		RDL	Notes	
QC1190894MB1						
Arsenic	ND	mg/Kg		1		
Cadmium	ND	mg/Kg		0.5		
Chromium	ND	mg/Kg		1		
Iron	ND	mg/Kg		5		
Lead	ND	mg/Kg		1		
Nickel	ND	mg/Kg		1.5		
Zinc	ND	mg/Kg		5		

Lab Control Spike/ Lab Control Spike Duplicate Summary											
Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1190894LCS1											
Arsenic	100		90.6		mg/Kg	91			80-120		
Cadmium	100		91.7		mg/Kg	92			80-120		
Chromium	100		92.6		mg/Kg	93			80-120		
Lead	100		91.2		mg/Kg	91			80-120		
Nickel	100		94.2		mg/Kg	94			80-120		
Zinc	100		90.4		mg/Kg	90			80-120		

Matrix Spike/Matrix Spike Duplicate Summary												
Analyte	Sample	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	Amount	MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1190894MS1, QC1190894MSD1											Source:	401424-036
Arsenic	8.28	100	100	92.8	97.5	mg/Kg	85	89	4.9	75-125	20	
Cadmium	1.65	100	100	91.9	88.3	mg/Kg	90	87	4.0	75-125	20	
Chromium	8.85	100	100	103	101	mg/Kg	94	92	2.0	75-125	20	
Lead	1.86	100	100	84.4	87.9	mg/Kg	83	86	4.1	75-125	20	
Nickel	11.3	100	100	101	97.9	mg/Kg	90	87	3.1	75-125	20	
Zinc	17.1	100	100	109	103	mg/Kg	92	86	5.7	75-125	20	

QCBatchID: <u>QC1190932</u>	Analyst: Jarriaga	Method: EPA 8015M
Matrix: Solid	Analyzed: 05/09/2018	Instrument: SVOA-GC (group)

Blank Summary

Analyte	Blank Result	Units	RDL	Notes
QC1190932MB1				
TPH (C10 to C28)	ND	mg/Kg	10	
TPH Diesel	ND	mg/Kg	10	
TPH Motor Oil	ND	mg/Kg	20	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1190932LCS1											
TPH (C10 to C28)	250		230		mg/Kg	92			70-130		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1190932MS1, QC1190932MSD1											Source: 401424-036	
TPH (C10 to C28)	ND	250	250	250	280	mg/Kg	100	112	11.3	70-130	20	

DRAFT

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
BQ4	Minor Dissolved Oxygen loss was observed in the blank water check, however, the LCS was within criteria, validating the batch.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
D3	Insufficient sample was supplied for TCLP. Client was notified. TCLP was performed per the Client's instructions.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
P3	Per Client request, sample was composited for volatile analysis. Sample compositing for volatile analysis is not recommended due to potential loss of target analytes. Results may be biased low.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds