Appendix

Appendix F Compilation Environmental Report

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Compilation Environmental Report

1619, 1631, 1699 West Lincoln Avenue, and West City Parcel Anaheim, California

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- G. City Parcels Subsurface Investigation Report and Human Health Screening Evaluation Update no appendices (Roux Associates, 2019d)

Compilation Environmental Report

Lincoln Avenue Assemblage 1619, 1631 & 1699 West Lincoln Avenue and "West City Parcel" Anaheim, California

November 25, 2019



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1. Introduction

Roux Associates, Inc. (Roux Associates), on behalf of SLF-West Lincoln, LLC (SLF), prepared this Compilation Environmental Report (Compilation Report) for the Site which consists of four individual parcels bounded by West Lincoln Avenue to the south, South Euclid Street to the west, and by a Southern Pacific Railroad (SPRR) easement to the northeast in the City of Anaheim, California (Figures 1 and 2). Specific information for each of the four parcels is listed below:

- 1631 West Lincoln Avenue is approximately 1.97 acres in size, associated with APN 072-110-21, currently occupied by a cement manufacturing company, and is currently owned by SLF.
- 1699 West Lincoln Avenue is approximately 4.03 acres in size, associated with APN 072-110-50 currently a vacant unpaved lot, and currently owned by SLF.
- The "West City Parcel" does not have a physical street address and is approximately 1.25 acres. The West City Parcel is currently a vacant unpaved lot featuring an earthen berm supporting Euclid Avenue, is not associated with an APN, and is currently owned by the City of Anaheim.
- 1619 West Lincoln Avenue (formerly identified as 1621 West Lincoln Avenue and/or the East City Parcel) is approximately 0.69 acres, associated with APN 072-110-19, currently occupied by a construction equipment storage facility, and is currently owned by the City of Anaheim

The collective parcels described above are considered "the Site" in this Compilation Report. SLF is planning multi-family residential development at the Site.

2. General Background

2.1 Site Identification Information

The Site consists of four irregular-shaped adjoining parcels situated within a triangular city block. Three of the parcels can be identified by street addresses 1619, 1631 and 1699 West Lincoln Avenue and the fourth parcel called the West City Parcel has no physical street address and is located between the 1699 West Lincoln Avenue Parcel and Euclid Avenue. All four parcels are in the City of Anaheim, California, just to the south of the Santa Ana (Interstate 5) Freeway (Figure 1). The Site is bound by West Lincoln Avenue to the south, South Euclid Street to the west, and by a Southern Pacific Railroad (SPRR) easement to the northeast (Figure 2). The Site lies at an elevation of approximately 125 feet above mean sea level with local relief sloping gently to the west-southwest.

2.2 Site Geology and Hydrogeology

2.2.1 Site Geology

According to regional data, the Site is situated in an area of Recent Alluvium fan deposits. The Recent Alluvium generally consists of interlayered sands, silts, and clays derived from the surrounding hills and the ancestral Santa Ana River. The alluvial layer has been found up to 300 feet in thickness and is typically underlain by the Upper Pleistocene Lakewood Formation (including the Artesia and Gage Aquifers), followed by the Lower Pleistocene San Pedro Formation (which includes the Hollydale, Lynwood, and Silverado Aquifers as well as several unnamed aquitards). These deposits overlie a thick sequence of Late Cretaceous to Quaternary-age semi-consolidated sedimentary rocks and basement units (OCWD, 1984). Relief in the vicinity of the Site slopes to the west-southwest, and surface water features have a general westerly flow direction (Smith-Emery, 2019).

An intrusive geotechnical investigation was performed at the Site by LGC Valley, Inc. (LGC) of Vista, California on June 6, 2018. Investigation borings ranged in depth from 9 to 51 feet below ground surface (bgs) and test pits were excavated to depths between 6 and 8 feet bgs. LGC identified artificial undocumented fill "mantling" the majority of the vacant parcel (i.e. 1699 West Lincoln Avenue) and as backfill in the Leaking Underground Storage Tank (LUST) removal area at the 1631 West Lincoln Avenue property. The undocumented fill was generally found to consist of silty fine sands, gravelly sands, sandy gravels and lessor amounts of clayey sands and silty sandy conglomerate with cobbles up to eight inches in maximum dimension (LGC, 2018). Based on the boring and test pit logs, the thickness of the fill observed in the vacant lot ranged from 1.5 to 5.5 feet. LGC also reported a moderate to abundant amount of construction debris within the undocumented fills. The construction debris generally consisted of concrete and asphalt with minor amounts of brick, clay pipe, rebar, welded wire mesh, and recycled aggregate base. Very minor amounts of wood, plastic Visqueen[®], and other materials were also encountered. Underlying the undocumented fill (where present), LGC described the lithology of the Recent Alluvium with the following description:

"...unit consists predominantly of poorly sorted sand to silty sand near the ground surface, with near-horizontal layers of silt, silty clay, and sandy clay below. The soils were found to be slightly moist to moist, loose to very dense (or soft to hard)... ...the upper 1 to 3 feet of this unit was found to be porous to slightly porous and potentially compressible. This unit was found to extend below the maximum depth explored during our boring and test-pit subsurface investigation" (LGC, 2018).

2.2.2 Site Hydrogeology

The Site is located within the northeastern section of the Orange County Coastal Plain, which is part of the larger Coastal Plain of Los Angeles. The Orange County Coastal Plain is bordered to the north and east by the foothills of the Santa Ana Mountains, to the south by the San Joaquin Hills, and to the west by the Pacific Ocean. The Site is located in the East Coast Plain Hydrologic Subarea of the Lower Santa Ana River Hydrologic Area, within the Santa Ana River Hydrologic Unit (SARWQCB, 1995). The Site is located within a Forebay Area of the Orange County Coastal Plain where unconfined water conditions exist. Groundwater within the Shallow Aquifer in the Site vicinity generally flows to the west-southwest (OCWD, 2015).

Depth to groundwater has not been directly measured at the Site, however nearby properties on Geotracker and Envirostor have reported depth to groundwater between approximately 62 and 102 feet below ground surface (bgs). The groundwater depth may vary due to the presence of discontinuous perched aquifers. An investigation occurring at a site west Euclid Avenue and west of the Site (Euclid Way Industrial Park) has reported groundwater depths of approximately 80 to 85 feet bgs and a groundwater flow direction of east-southeast (Centec, 2017)..

2.3 Summary of Site History

The history of the Site presented below has been compiled from sources referenced in previous environmental documents for the Site, including Phase I Environmental Site Assessments (Phase I ESAs) and Phase II Subsurface Investigations prepared by various consultant. The documents used below are summarized in Section 2.4.

The earliest source referencing the Site is a United States Geological Survey (USGS) topographic map dating from 1896. According to the map the Site was undeveloped at that time and the Southern Pacific Rail Road (SPRR) is present to the immediately to the northeast of the Site in its present-day alignment. A network of surface streets is also shown on the map associated with the early settlement of West Anaheim, centered approximately 1.5 miles east of the Site.

Initial development of the Site is first evidenced in an aerial photograph taken in 1938. The photograph shows that the Site and surrounding area had been cultivated with orange orchards (or groves) by that time. The 1619 West Lincoln parcel was first developed prior to 1938 with what appears to be a ranch house style residence and a second small structure was added at some point between 1947 and 1953. The second small structure was present at the Site as of the date of this Compilation Report. The boundaries of the triangular city block featuring the subject Site exists much as it does in the present day; bound by the SPRR easement and the streets precursor to South Euclid Street and West Lincoln Avenue. The photograph shows a diagonally trending northwest-southeast road running roughly parallel to (and on the far side of) the SPRR line. In addition to the ubiquitous orange orchards, some light industrial and residential development can be observed in the area surrounding the Site.

An aerial photograph from 1953 shows development of a small, single-story industrial-style building on the 1631 West Lincoln Avenue parcel. By that time the diagonal trending road had been widened and improved. A city directory entry from 1955 lists the address as occupied by La Habra Stucco, a subdivision of La Habra Products. Aerial photography from 1955 shows thinning of the orange trees, which indicates orchard use of the Site and surrounding area appeared to be on the decline.

The next available aerial photograph of the Site was taken in 1963 and shows significant development of the Site and surrounding area. The Santa Ana (Interstate 5) Freeway had been constructed by that time, along with an overpass for Euclid Avenue and a curved Freeway on/off-ramp passing through the 1699 West Lincoln Avenue and West Lincoln parcels of the Site. The off-ramp is supported on what appears to be a raised earthen embankment, occupying much of the southern portion of the parcel. The remainder of the 1699 West Lincoln Avenue and West City parcels had been cleared of orange trees and appeared to be vacant. Within the 1631 West Lincoln Avenue parcel, the industrial building had been greatly expanded and now resembles its current day footprint. The remainder of the triangular block had been developed by what appear to be independent industrial or commercial operations. City directory listings suggest the street address of 1621 West Lincoln (same parcel as 1619) was associated with a motorcycle paint and brake shop on this parcel (circa 1975, EMS, 2019a).

The land surrounding the Site was continuously developed and redeveloped over the following decades, although use of the Site and other properties within the triangular city block doesn't appear to change until approximately 1994. As observed on subsequent aerial photographs, the Freeway on/off-ramp was removed from the Site between 1994 and 2005. The embankment was removed from the 1699 West Lincoln Avenue and West City parcels and the parcels appears to have been completely vacant since that time. Based on city directory entries, the 1631 West Lincoln Avenue property was operated by CTS Cement Manufacturing from approximately 2004 onwards.

Past use of the properties immediately adjoining the Site (fronting onto West Lincoln Avenue) are described below, based on city directory entries:

- 1659 West Lincoln Avenue (adjoins the 1631 West Lincoln Avenue parcel to the west and the 1699 West Lincoln Avenue parcel to the south). This property appeared to be in use prior to 1963 but no aboveground improvements were ever observed. The 1659 street address was associated with the business/entity names Quality Concrete Products (1966 1970); Anaheim Family Motors (2010); trucks and recreational vehicles (1975); Coastline Auto Brokers (1980); Alexander Motors (1986); and Rollit Motors (1991).
- 1681/1683 West Lincoln Avenue (adjoins the 1699 West Lincoln Avenue parcel to the south). The property was first developed prior to 1963 with a single-story commercial/retail building. The 1681/1683 street addresses were associated with the business names Abbey Rents Hosp Equipment & Supplies (1970); Krupnicks, Inc (1970); Award Bridal (1995); After Five Tux Shops (1995 2010); and APT Enterprises, Inc. (2005-2014). The property is currently operated as a discount furniture retail store.
- 1687 and 1695 West Lincoln Avenue (adjoin the 1699 West Lincoln Avenue parcel to the south). These properties were first developed prior to 1963 with connected single-story buildings. The 1687 and 1695 street addresses were associated with the business names Blue Chip Credit Corp; Furniture Discounts (1980 - 1995); Freeway Tire and Auto Center (1986); Airport Transportation (1991); Rayco Auto Service Store (1970 - 1995); and Calis Wheels and Tires (2005 - 2014). The 1687 West Lincoln Avenue property is currently operated by ABC Liquidator who apparently use the building as general office space.

2.4 Historical Environmental Investigations

Roux Associates reviewed documents that included historical environmental investigations and other relevant studies conducted at the Site. Selected excerpts of the previous environmental investigation reports are included in Appendices A through G of this report. A summary of the previous environmental investigations on or near to the Site is below:

2.4.1 Subsurface Soil Investigation (FREY Environmental, Inc., 2005)

In 2005, the City of Anaheim Public Utilities Department (APUD) requested that FREY Environmental, Inc. (FREY) of Newport Beach, California perform an investigation in connection with a 10,000-gallon diesel underground storage tank (UST) that had been removed in 2004 at 1631 West Lincoln Avenue. It was reported that at the time the 10,000-gallon diesel UST was removed, a soil sample collected within the footprint of the former fuel dispenser was found to contain elevated concentrations of total petroleum hydrocarbons (TPH) in the diesel range (TPH-d). On this basis the APUD requested investigation of the Site to determine the extent and significance of diesel impacts associated with the former UST.

On May 2, 2005 FREY personnel advanced four soil borings (FB1 through FB4) in the vicinity of the former fuel dispenser, associated UST, and piping. Specifically, boring FB1 was advanced within the footprint of the former fuel dispenser and borings FB2, FB3, and FB4 were advanced a short distance to the east, west, and south, respectively. Each of the borings was advanced to a total depth of 40 feet bgs, with soil samples collected at five-foot intervals. None of the samples retrieved from the borings featured any visual or olfactory indications of a hydrocarbon impact. Each of the samples was analyzed for the presence of TPH in the gasoline range (TPH-g) and TPH-d using EPA Method 8015M as well as benzene, toluene, ethylbenzene, and xylenes (BTEX), and fuel oxygenates using EPA Method 8260B. Based on the results of the soil sampling, FREY concluded that "petroleum hydrocarbons previously detected beneath the former fuel dispenser island appear to have been very limited in lateral and vertical extent. As such, FREY recommends that no further action be required at the Site."

On August 31, 2005 the APUD provided case closure for the former diesel UST citing the investigation activities described above. The Santa Ana Regional Water Quality Control Board (SARWQCB) concurred with the determination for case closure (SARWQCB, 2005). FREY documented all work in a *Subsurface Soil Investigation* report (FREY, July 7, 2005).

2.4.2 Phase I Environmental Site Assessment (EMS, 2019)

In July 2018, EMS prepared a Phase I Environmental Site Assessment (ESA) on behalf of SLF for numerous parcels that included 1619 (aka 1621), 1631 and 1699 West Lincoln Avenue. The EMS Phase I ESA (excluding appendices) is included as Appendix B. EMS noted that at the time of reporting 1631 West Lincoln was occupied by CTS Cement Products / Rapidset, 1619/1621 West Lincoln was occupied by Lincoln Construction Company, and the 1699 West Lincoln and the West City Parcel were vacant. Based on the findings of the Phase I ESA, EMS identified several recognized environmental conditions (RECs) for 1619/1621 and off-Site, adjacent parcels. The RECs are summarized as follows:

• The 1619/1621 West Lincoln Avenue (on-Site) property was occupied by Lincoln Construction Corporation at the time of the EMS Phase I ESA and appeared to be used for the storage of equipment and large amounts of soil. In the northeastern corner of the property EMS observed 55gallon drums stored on pallets without secondary containment. EMS noted that approximately seven of the drums did not have lids and were covered using tarps. Spills were noted on the ground in the immediate vicinity of the drums. An additional 55-gallon drum was also noted near the drum storage area that had been partially crushed by a large piece of concrete and had spilled some of its contents onto the soil. Inside the facility building, EMS observed a 30-gallon drum with an attached parts washer. EMS reviewed a Phase I ESA prepared for 1621 West Lincoln Avenue by Advanced GeoEnvironmental, Inc. on March 9, 2005. Conclusions from that report included the past use of the property as a motorcycle paint and brake shop. The operation of the brake shop and painting operations were listed as "potential environmental conditions". EMS considered that the lack of secondary containment for the drums, observed spills, former use of the property as a motorcycle paint and brake shop, and proximity to the Site represented a REC.

- The After Five Tux Shop at 1683 West Lincoln Avenue (off-Site) was identified in several database listings reviewed in the course of the Phase I ESA. A listing for the South Coast Air Quality Management District (SCAQMD) FINDS database indicated that the After Five Tux Shop received a permit to operate tetrachloroethene (PCE) dry cleaning equipment on April 23, 1992. EMS considered the permit for dry cleaning equipment constituted a REC.
- The 1695 West Lincoln Avenue property (off-Site) was occupied by a tire shop (JR's Wheels) at time
 of the EMS Phase I ESA. During an inspection of the property, housekeeping throughout the building
 was noted to be poor with metal shavings on the ground and a number of cans of Johnson's NonChlorinated Brake Parts Cleaner stored and disposed of improperly. Based on the safety data sheet
 for the brake cleaner it appeared to contain methanol, acetone, toluene, benzene and xylene.
 Staining was observed underneath vehicles and in the rear of the property. An aboveground storage
 tank (AST) and buckets of used oil were also observed outdoors and in the warehouse area.
 Chemicals throughout the property did not appear to be properly stored in appropriate (flammable)
 cabinets. EMS concluded that the improper storage and disposal of oils and chemicals, the staining
 observed on the asphalt and proximity to the Site, constituted a REC.
- EMS identified a 4.5-acre multi-structure industrial park developed between 1960 and 1965, which
 is located to the west of the Site (237, 305, and 313-315 North Euclid Way) as part of an open, active
 remedial investigation with the Regional Water Quality Control Board (RWQCB) for PCE impacts.
 Based on its proximity to the Site and its regulatory status, EMS considered this off-Site industrial
 park and a REC.
- EMS identified three additional properties adjacent, northeast and cross gradient/downgradient (with
 regards to groundwater flow) of the Site that appear to be an environmental concern, based on City
 directory listing. These listings included 303 Manchester Avenue, 329 Manchester Avenue, and 225
 North Loara Street. The facility located at 303 Manchester appears to have been a pesticide
 production facility operated by Niagara Chemical and related businesses. Given the likely chemical
 use at these properties and their proximity to the Site, EMS considered that they represented a REC
 in the context of their Phase I ESA.
- EMS cited a historical investigation conducted by Pacific Edge Engineering (Pacific) for 1687 West Lincoln Avenue (Subsurface Investigation Report, dated February 26, 2003). The report was reportedly prepared in response to environmental concerns identified in a 2002 Phase I ESA for the same property prepared by Gilray Enterprises, Inc. According to the conclusions in the Pacific report, PCE was detected in two soil samples and methyl tertiary-butyl ether (MTBE) was detected in six

soil samples. PCE and MTBE detections were localized to the concrete drainage swale and nearby service bays. No further action was recommended by Pacific at the time, but the report did note that if the site were demolished in the future, qualified oversight should be conducted during soil disturbance. Based on the lack of a soil vapor survey performed at the property and its proximity to the Site, EMS considered that the VOC results in soil represented a REC.

EMS also identified historical RECs (hRECs) associated with the leaking underground storage tank (LUST) case for 1631 West Lincoln Avenue and additional closed LUST cases in the Site vicinity.

Considering the RECs/hRECs discussed above, and the potential for vapor encroachment, EMS recommended a Phase II ESA be performed (EMS, 2019a). The recommended Phase II ESA would include "soil testing and soil vapor testing at a minimum in order to evaluate any impacts to the property that could jeopardize human health and/or increase development costs through environmental remediation efforts."

2.4.3 Phase II Environmental Site Assessment (EMS, 2019)

EMS performed an Phase II subsurface investigation at the Site and adjacent parcels in June and July 2018 to further investigate the RECs identified in the Phase I ESA. The EMS Phase II report is provided as Appendix C (EMS, 2019b). The Phase II work included sampling at the properties with the following street addresses: 1631, 1659, 1681, 1683, 1695, and 1699 West Lincoln Avenue. Additional sampling and analysis was initially planned at 1621 (aka 1619) and 1687 West Lincoln Avenue properties but access was denied by the owner (the City of Anaheim).

EMS advanced a total of 17 borings were using a direct-push (GeoProbe[™]) drill rig. The borings were advanced to depths of 5-feet and 15-feet bgs as noted on Figure 4. The direct-push drill rig advanced the borings with five-foot continuous-core acetate sample liners to facilitate continuous logging. Soil samples for laboratory analysis were collected from each liner at depths of approximately 2 to 2.5 and 4.5 to 5 feet bgs by cutting sections of the liner and sealing with Teflon end-caps.

Each of the soil samples was analyzed for the presence of VOCs using EPA Method 2860B; TPH-g, TPH-d and TPH in the oil range (TPH-o) using EPA method 8015B; and for California Administrative Code (CAM) 17 Metals using EPA Method 6000/7000 series. In addition, six selected soil samples were also analyzed for organochlorine pesticides (OCPs) using EPA Method 8081A.

Following collection of soil matrix samples, each of the 17 borings were converted to soil vapor probes. Single probes were set in the 5-foot borings and nested probes were set at 5 and 15 feet in the 15-foot borings. Installation of the probes was performed in accordance with the DTSC July 2015 Advisory on Active Soil Gas Investigations (DTSC, 2015b).

Soil vapor samples were collected by EMS approximately three to four days following probe installation on July 2 and 3, 2018. The soil vapor samples were collected using batch certified clean one-liter passivated stainless-steel canisters (Summa™ Canisters) with 150-200 cc/min flow controllers provided by the National Environmental Laboratory Accreditation Program (NELAP)-accredited Eurofins/Calscience Laboratory located in Garden Grove, California. Collection of soil vapor samples was performed in accordance with the DTSC 2015 Advisory including vacuum shut-in tests and introduction of a liquid leak tracer (isopropanol) during sample collection for each probe. As recommended in the DTSC 2015 Advisory, samples were collected after removing three purge volumes of soil vapor from each probe.

2.4.3.1 Soil Results

As reported by EMS, up to nine metals were detected in soil matrix samples including arsenic, barium, chromium, cobalt, copper, lead, nickel, vanadium and zinc. With the exception of lead detected in one on-Site sample (65 mg/kg in SLF-1-5 ft.) and three off-Site samples, the concentrations of metals detected in soil were at or below the average background concentrations for metals in Southern California (Bradford 1996, DTSC 2008).

Low concentrations of TPH-d were detected in soil samples from two on-Site borings (SLF-1 and SLF-21) ranging from 13 to 30 mg/kg. Low concentrations of TPH-o were detected in soil samples from three on-Site borings (SLF-1, SLF-2 and SLF-21) ranging from 21 to 410 mg/kg. For off-Site soils, TPH-d was reported at concentrations ranging from 13 to 35 mg/kg and TPH-o was reported at concentrations ranging from 58 to 270 mg/kg. TPH-g was not detected in any of the soil samples.

VOCs and OCPs were not detected in any soil samples collected from on-Site borings. Low concentrations of PCE were detected in four soil samples from off-Site borings SLF-10, SLF-19 and SLF-20 ranging from 6.0 to 66 micrograms per kilogram (μ g/kg). These borings were located at 1681/1683 West Lincoln Avenue.

2.4.3.1 Soil Vapor Results

As reported by EMS, 18 VOCs were detected in soil vapor samples collected from on-Site soil vapor probes. Except for PCE, the concentrations of VOCs detected in soil vapor were generally trace to low. PCE was detected in all ten primary on-Site soil vapor samples (and one duplicate sample) collected by EMS. The concentrations of PCE detected in on-Site soil vapor samples ranged from 15 to 680 micrograms per cubic meter (μ g/m³). For purposes of direct comparison, soil vapor screening levels (SVSLs) were established for soil vapor results by applying the 2011 DTSC *Vapor Intrusion Guidance* attenuation factors of 0.001 (residential) and 0.0005 (commercial) to June 2018 DTSC Human and Ecological Risk Office (HERO) Note 3 air screening levels. The concentrations of PCE at one sampling location (680 μ g/m³ SLF-1) exceeded the SVSL for future residential buildings (460 μ g/m³). This location is near the northeast corner of 1699 West Lincoln Avenue. This concentration did not exceed the SVSL for a future commercial building of 4,000 μ g/m³.

Concentrations of VOCs, particularly PCE and TCE were encountered in off-Site vapor probes at greater concentrations than on-Site probes, suggesting an off-Site source. Concentrations of PCE in off-Site soil vapor ranged from 22 to 77,000 μ g/m³, with the highest concentrations encountered beneath the property at 1681/1683 West Lincoln Avenue, where former dry cleaning operations had been identified in the Phase I ESA.

The results for PCE in soil vapor from the EMS Phase II investigation for on- and off-Site probes is presented in Figure 4.

2.4.4 Preliminary Endangerment Assessment Equivalent Report (Roux Associates, 2019a)

In April 2019, Roux prepared a Preliminary Endangerment Assessment Equivalent Report (PEA-E Report) for the parcels located at 1631 and 1699 West Lincoln Avenue in Anaheim, California. The PEA-E report was intended to assess shallow soil and soil vapor conditions in the areas of the Site that would be potentially redeveloped for residential use and to evaluate potential residential development on the Site through a HHSE. The January 2019 investigation worked to build on the data generated for the Site by EMS and focused on defining potential impacts to soil vapor from a suspected PCE release on 1681/1683 West Lincoln

Avenue. The investigation also addressed the possible presence of near-surface soil contaminants that could be attributable to the Site's past use as an orange orchard.

Data generated during the PEA-E Report were compared with published, conservative screening thresholds, including USEPA Regional Screening Levels (RSLs; USEPA, 2018) and DTSC screening levels for residential use. As previously stated, a HHSE was included as an attachment to the PEA-E report.

2.4.4.1 Soil Boring Advancement, Soil Sampling, and Analysis

On January 4, 2019, Roux Associates personnel cleared three soil borings at the Site (SVR-1, SVR-2, and SVR-3; Figure 4) to 5 feet bgs using a mechanical hand auger. After each boring was cleared, the locations were marked with stakes and recorded using a sub-meter resolution handheld GPS unit.

On January 11, 2019, under the direction of Roux Associates, Cascade Drilling LP (Cascade) of Santa Ana, California (C-57 License #938110) advanced three soil borings at the Site (SVR-1 through SVR-3; Figure 4) each to a terminal depth of 31 feet bgs using a track-mounted direct-push drilling rig.

Following direct-push drilling, soil samples were collected at 0.5 and 1.5 feet bgs adjacent to each boring location using hand auger equipment. Soil samples were collected for laboratory analysis from 0.5 and 1.5 feet bgs directly from the hand auger bucket. Discrete soil samples were collected in glass jars, labeled with unique identifiers, placed on ice, and transported under chain-of-custody protocols to Positive Lab Service (Positive) of Los Angeles, California, a California-certified laboratory. Soil samples were analyzed for OCPs using United States Environmental Protection Agency (USEPA) Method 8081A, and for total arsenic and lead using USEPA Method 6010B.

2.4.4.2 Soil Vapor Probe Installation, Soil Vapor Sampling, and Analysis

On January 11, 2019 Cascade, with oversight from Roux Associates, installed three triple-nested soil vapor probes (SVR-1 through SVR-3). Each triple-nested probe location was completed with sample depths of 5, 15, and 30 feet bgs. The soil vapor probes consisted of an expendable vapor tip and screen affixed to Nylaflo® tubing. The probes were constructed by first placing a minimum of 2 inches of coarse sand into the bottom of the borehole. The tip and tubing were then lowered into the borehole through a tremie pipe for support. Additional sand was then placed in the borehole via tremie to create an approximately 1-foot sand-pack interval around the vapor tip. Approximately one foot of dry granular bentonite was placed on top of the same borehole and in the same manner. The tubing was labeled with depth of placement and capped using a vapor-tight Swagelok valve set to the "off" position. The soil vapor probes were installed in accordance with the 2015 DTSC Advisory.

After installation of soil vapor probes, a minimum 2-hour equilibration period was observed prior to sampling the vapor probes consistent with the guidelines presented in the Soil Gas Advisory. Prior to purging or sampling, a shut-in test was performed to confirm that the above-ground lines and three-way valves were properly sealed at each location. As a secondary test, a leak check compound, 1,1-Difluoroethane (1,1-DFA) was introduced in the sample vicinity during sampling and was included among the list of analytes for the soil vapor samples. In accordance with the Soil Gas Advisory, three purge volumes were extracted from the tubing and sand pack prior to sampling.

Soil vapor samples were collected by Positive under oversight of Roux Associates from the three soil vapor probes on January 11, 2019. Following collection, Positive analyzed the soil vapor samples for VOCs by USEPA Method 8260B on the same day using an on-Site mobile laboratory.

Following sampling, each of the soil vapor probes were abandoned by pulling the tubing and filling any void space with hydrated bentonite. Borings were patched to match the existing grade by Cascade.

2.4.4.3 Soil Sample Results

A total of six soil samples were collected from nominal depths of 0.5 and 1.5 feet bgs from the three boring locations (SVR-1, SVR-2, and SVR-3). Each of the samples was analyzed for organochlorine pesticides using USEPA Method 8081A and for total arsenic and lead using USEPA method 6010B. The results of the soils analysis are presented in Table 1 where they are compared to both USEPA residential regional screening levels (RSLs) and DTSC HERO Note 3 residential soil screening levels (SSLs).

- Arsenic: Arsenic was detected above laboratory practical quantitation limits (PQLs) in all six soil samples. Arsenic concentrations ranged from 2.47 mg/kg in sample SVR-2-1.5 to 4.07 mg/kg in sample SVR-2-0.5. All of the arsenic concentrations exceed the RSL (0.68 mg/kg) and SSL (0.11 mg/kg) for residential soil. However, each of the arsenic detections are below the upper bound background concentration of 12 mg/kg for soils in Southern California (DTSC, 2008).
- Lead: Lead was detected above laboratory practical quantitation limits (PQLs) in all six soil samples with concentrations ranging from 10.1 mg/kg (in SVR-1-0.5) to 20.6 mg/kg (in SVR-3-0.5). All of the lead concentrations are below the RSL (400 mg/kg) and SSL (80 mg/kg) for residential soil, and within the mean background range identified for California soils (Kearny, 1996).
- Alpha-Chlordane: Of the 22 pesticide analytes reported for each of the six soil samples, only Alpha-Chlordane was detected above its PQL at a concentration of 0.00807 mg/kg in sample SVR-2-0.5. Because RSLs and SSLs are not available for Alpha-Chlordane, the screening levels for Chlordane were used as a toxicological surrogate to evaluate Alpha-Chlordane. The detection is below the DTSC HERO Note residential cancer screening level for Chlordane of 0.44 mg/kg.

2.4.4.4 Soil Vapor Sample Results and discussion

A total of nine soil vapor samples were collected from sample depths of 5, 15 and 30 feet bgs from the three sampling locations (SVR-1, SVR-2, and SVR-3). The nine soil vapor samples were analyzed for VOCs using USEPA Method 8260B using an on Site mobile laboratory operated by Positive. The results of the soil vapor analyses are presented in Table 2 where they are compared to residential SVSLs and RSLs. For purposes of direct comparison, and for consistency with prior reports, SVSLs were calculated for soil vapor by applying the 2011 DTSC *Vapor Intrusion Guidance* attenuation factor of 0.001 to June 2018 DTSC HERO Note 3 residential air screening levels. The same attenuation factor was also applied to the November 2018 USEPA RSLs (for additional direct comparison).

Five VOC analytes were detected above laboratory PQLs. These can generally be grouped as follows: fuelrelated VOCs, solvents, and refrigerants. A summary of the detected analytes in soil vapor is presented below:

Fuel Related VOCs

Benzene: Benzene was detected above laboratory PQLs in six primary soil vapor samples at concentrations ranging from 25.2 μ g/m³ in sample SVR-3-5' to 46.7 μ g/m³ in sample SVR-2-30'. None of the six detections of benzene exceeded the SVSL or RSL when an attenuation factor of 0.001 was applied.

Solvents

Acetone: Acetone was detected in one soil vapor sample, SVR-1-5', at a concentration of 1,850 µg/m3, below the RSL when an attenuation factor of 0.001 is applied (a DTSC HERO Note 3 SVSL has not been established for acetone).

PCE: PCE was detected in all of the nine primary soil vapor samples at concentrations ranging from 27.0 μ g/m3 in sample SVR-1-5' to 5,440 μ g/m3 in sample SVR-3-30'. Three of the PCE concentrations exceed the SVSL of 460 μ g/m3 when an attenuation factor of 0.001 is applied, and none of the PCE concentrations exceed the RSL for PCE in soil vapor of 11,000 μ g/m3 when an attenuation factor of 0.001 is applied.

Concentrations, locations, and depths of the PCE detections for this and the previous EMS investigations are shown on Figure 4. Figures 5 and 6 present interpreted isoconcentration contours for PCE at depths of 5 and 15 feet bgs, respectively.

Methylene chloride: Methylene chloride was detected in two soil vapor samples, SVR-2-15' and SVR-2-30', at concentrations of 123 μ g/m3 and 124 μ g/m3 respectively, below the SVSL or RSL when an attenuation factor of 0.001 is applied.

Refrigerants

Trichlorofluoromethane: Trichlorofluoromethane was detected in soil vapor sample SVR-3-30' at a concentration of $33.9 \ \mu$ g/m3, below the SVSL when an attenuation factor of 0.001 is applied (a USEPA RSL has not been established for trichlorofluoromethane).

2.4.5 Additional Investigation Report (Roux Associates, 2019b)

To address comments from DTSC and to close remaining data gaps for the 1631 and 1699 West Lincoln Avenue parcels, Roux conducted additional soil vapor sampling in June 2019, which was documented in an *Additional Investigation Report*, dated August 2019.

Roux installed five multi-depth soil vapor probes on June 28 and 29 to assess concentrations of VOCS, including PCE at the Site. The borings were driven to 30 feet bgs with sampling ports set in each probe at depths of 5-, 15-, and 20-, 25-, or 30-feet bgs, whichever depth was attainable by the drilling rig. Borings were driven near historical soil vapor sampling locations (Figure 4).

As shown in Appendix E, Table 1, VOC results in soil vapor were compared to applicable DTSC and USEPA screening levels with an attenuation factor of 0.001 applied. PCE was detected in all samples ranging from 660 μ g/m³ to 8,100 μ g/m³, above the DTSC residential SL of 460 μ g/m³ but below the USEPA RSL of 11,000 μ g/m³. These results were consistent with earlier sampling and the HHSE was updated to include the new data. The results of the HHSE showed that the estimated indoor air concentrations of VOCs in some areas of the Site exceeded the most conservative risk threshold of 1E-06, but were within the range of acceptability established in the NCP (1E-06 to 1E-04). The *Additional Investigation Report* recommended incorporation

of vapor intrusion mitigation measure into building construction plans as well as the recording of a land use covenant to provide an institutional control ensuring operation and maintenance of selected vapor intrusion mitigation measure and equipment.

2.4.6 Phase I Environmental Site Assessment Report (Roux Associates, 2019c)

In September 2019, Roux prepared a Phase I Environmental Site Assessment Report (Phase I ESA) for 1619 West Lincoln Avenue and "West City Parcel" in Anaheim, California. The Phase I ESA identified four recognized environmental conditions (RECs):

- REC 1 On-Site Drum Storage Area and Stained Soil. Roux observed approximately fourteen 55gallon drums towards the northeast corner of the East City Parcel. The majority of the drums were placed on pallets and an attempt had been made to cover the drums with plastic sheeting. Legible labels were not identified for any of the drums, but it appeared that at least some of them were used to store new and used engine lubricant oil. Two of the drums had been left open and appeared to contain a dark, viscous liquid consistent with motor oil. Staining was observed in the vicinity of the drum storage area. Dark colored staining was observed in the vicinity of a damaged drum. Considering the storage conditions and the likelihood of a petroleum release to the subsurface, the drum storage area (and associated areas of stained soil) were considered a REC in the context of the Phase I ESA.
- REC 2 Automotive Maintenance and Repair Operations. The building at 1619 West Lincoln Avenue appears to have been used for automotive servicing operations, possibly dating as far back as the 1970s. Based on historical sources it is suspected that a motorcycle paint and brake repair shop was operated at the Site, specifically within the building. Paints, oils, lubricants, parts cleaners, and other automotive chemicals are known to have been stored and used in and around the building. At the time of Site reconnaissance, housekeeping was observed to be poor and no or insufficient secondary containment was in place around areas of chemical storage or use. Considering the storage and use of petroleum-based chemicals and other potentially hazardous substances over a substantial time period under the conditions described above, the automotive operations within the on-Site building were considered a REC in the context of the Phase I ESA.
- REC 3 Off-Site VOC Impacts to Soil Vapor and Groundwater. Historical documents for off-Site parcels showed that multiple off-Site properties have released chlorinated volatile organic compounds (VOCs), notably PCE, to soil and groundwater. Investigations of soil vapor at 1681/1683 and 1687 West Lincoln Avenue showed significant concentrations of PCE likely from former off-Site dry cleaning activities. In addition, it is known that a PCE release occurred to soil and groundwater to the west of the Site across Euclid Avenue. It is possible that PCE may have migrated beneath the Site and could present a vapor intrusion condition in the context of future residential development. Therefore, the potential for migration of PCE from off-Site sources to the Site was considered a REC in the context of the Phase I ESA.
- **REC 4 Historical Agricultural Use.** According to historical sources, it appeared that both Site Parcels were operated as orange groves prior to 1938 to as late as the early 1960s. There is a potential that agricultural chemicals, such as pesticides, herbicides and fertilizers, were used on-Site, and that the Site has been impacted by the use of such agricultural chemicals. The potential for impacts from agricultural chemicals and lack of on-Site soil data was considered a REC.

Roux identified two additional other environmental features (OEFs) in connection with the current or historical operations at the Site or adjacent properties that did not meet the definition of a REC but warranted mention:

- **OEF 5 Adjacent Interstate Freeway.** The Site is bordered to the north by the I-5 (Santa Ana) Freeway, the on-ramp of which passes within 160 feet of the West City Parcel at its closest approach. Additionally, a freeway on-ramp that transected part of the West City Parcel was present from roughly the late 1950's to the late 1990's. It is not uncommon for near-surface soils at properties in close proximity to freeways that operated in the era of leaded gasoline to be impacted by aerially deposited lead. However, there is no documented lead impact to soils at the Site.
- OEF 6 Adjoining Off-Site Railroad Tracks. According to historical topographic maps, the northeastern adjoining Southern Pacific Railroad had been constructed by 1896. Historical sources suggest that the rail line has been used since that time for both passenger and freight services. The materials transported along the railroad historically are unknown. Both the presence of these railroad lines and the materials transported along the railroad been treated with copper arsenate, creosote (which contains polyaromatic hydrocarbons [PAHs]), PCBs, pentachlorophenol (which also contains dioxins), and copper naphthalene. In addition to these chemicals, railway transportation is associated with heavy metals, herbicides, pesticides, volatile organic compounds (VOCs), and petroleum product impacts. No evidence of a likely release associated with the rail lines was identified during the course of the Phase I ESA..

2.4.7 City Parcels Subsurface Investigation Report and Human Health Screening Evaluation Update (Roux Associates, 2019d)

In order to address the RECs and OEFs described above for 1619 West Lincoln Avenue and the West City Parcel, Roux Associates collected soil and/or soil vapor samples from a total of nine borings or temporary soil vapor probes. The borings were located near the drum storage area at the East City Parcel, in the vicinity of the on-Site structure at the East City Parcel, next to Site boundaries with the SPRR and the I-5, and in the vicinity of the former I-5 off-ramp (Figure 4). Soil samples were analyzed for total petroleum hydrocarbons as carbon chain (TPH-cc), VOCs, organochlorine pesticides (OCPs), lead, and arsenic. Soil vapor samples were analyzed for VOCs. A report dated November 11, 2019 which included an update to the HHSE previously prepared for 1631 and 1699 West Lincoln Avenue.

Soil and soil vapor sampling conducted at the City Parcels did not show evidence of contaminant sources. The HHSE Update findings also were consistent with previous HHSE findings; the calculated risk exceeded the most conservative risk threshold of 1E-06, but was within the range of acceptability established in the National Contingency Plan (NCP, 1E-06 to 1E-04).

The results presented in the report were generally consistent with those described in the Additional Investigation Report and the Preliminary Endangerment Assessment Equivalent Report. Therefore, Roux concluded that with appropriate mitigation, the City Parcels can be developed for residential use and recommended that the Site be added to the DTSC VCA for SLF-West Lincoln Assemblage.

3. Summary and Conclusions

Numerous environmental investigations have been conducted by various environmental consultants at the Site and off-Site. Although comprehensive sampling has not identified any sources of contamination that originate at the Site, soil vapor PCE concentrations have been detected in the shallow subsurface at levels that exceed conservative risk-based residential standards. This contamination is known to originate from former dry cleaning operations at 1683 West Lincoln Avenue, to the immediate south and west of the Site. In order to reduce potential risks to future residents from PCE in soil vapor to acceptable levels, mitigation and administrative measures, as well as long-term Operation and Maintenance (O&M) activities will be required by DTSC prior to certifying the Site for residential development. Specifically, DTSC will require:

- Preparation of a Soil Management Plan (SMP) to provide guidance concerning the proper monitoring, handling, segregation, stockpiling, dust control, testing, transport and disposal of potentially impacted soils, which may be encountered during development activities,
- Passive vapor intrusion mitigation systems (VIMS) below the building foundations, which will include a vapor barrier beneath the building slabs and perforated piping and vent risers to allow ventilation of soil vapor from beneath the buildings to the atmosphere,
- Recording of a land use covenant (LUC) as an institutional control to require that any changes in conditions (i.e., modifications of building slabs, new construction, etc.) be communicated to the DTSC, and that mitigation measures and subsurface conditions be communicated to future buyers and occupants, and
- Preparation of an O&M Plan and O&M Agreement to facilitate inspection and maintenance of the mitigation systems and regular sampling of shallow monitoring soil vapor probes until such time as soil vapor PCE concentrations can be shown to be below conservative residential threshold criteria.

The details of the items described above will be presented to DTSC in a *Removal Action Workplan* (RAW), which will be submitted in December 2019. DTSC will review and provide comments to the RAW and once these are satisfactorily addressed, the RAW will be considered DRAFT Final. The DRAFT Final RAW will be circulated for a 30-day public review and comments period. After the public comment period ends and any public questions and concerns are addressed, the RAW will be considered Final. The Final RAW can then be implemented by the developer once City permits and entitlements are secured. The VIMS design drawings will be included into the building plan check package, which will be submitted to the City of Anaheim for review and approval prior to construction.

At any point after the Final RAW is approved, the developer will engage DTSC to negotiate the LUC and thereafter record it with the County of Orange. Additionally, an O&M Plan will be prepared to define the number of soil vapor sampling probes at the Site, the frequency of sampling, the constituents of concern to be analyzed, and the frequency of reporting. The O&M Plan may also include an action level below which O&M sampling may be discontinued with DTSC approval. The O&M Agreement also will be negotiated between the developer and DTSC and will be a legally binding document to implement the O&M Plan until such time that DTSC allows for its discontinuation.

During grading and earthmoving activities, any potentially impacted soils handled per the protocols and procedures of the SMP will be reported and discussed with DTSC. Once construction of structures begins, the engineer of record for the VIMS design (or someone working under their responsible charge) will be on-Site for inspections during VIMS construction. After construction is completed, stamped as-builts will be prepared and submitted to DTSC, as part of a *Removal Action Completion Report* (RACR). The RACR may be specific to an individual building, set of buildings, or the entire Site, depending on the developer's

preference, and will certify that mitigation beneath the subject building(s) has(have) been implemented as per the requirements of the RAW. DTSC will review the RACR and upon approval, certify that the building, set of buildings, or the Site have met the conditions of the RAW. This Site certification will allow the City of Anaheim to issue Certificates of Occupancy.

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Compilation Environmental Report 1619, 1631, 1699 West Lincoln Avenue, and West City Parcel, Anaheim, California FIGURES

- 1. Site Location Map
- 2. Site Plan
- 3. Soil Vapor PCE Concentrations
- 4. Soil Vapor PCE Isoconcentration 5 Feet bgs
- 5. Soil Vapor PCE Isoconcentration 15 Feet bgs





- 4. EMS SAMPLE DATES: 07/02/2018 AND 07/03/2018
- 5. PREVIOUS ROUX SAMPLE DATES: 01/11/2019 AND 07/03/2019
- 6. ROUX ADDITIONAL INVESTIGATION SAMPLE DATE: 09/26/2019

SVR=1

1619

SVR-90

DESIGNATION

PREVIOUS ROUX SOIL VAPOR PROBE LOCATION AND DESIGNATION

ROUX ADDITIONAL INVESTIGATION SOIL VAPOR PROBE LOCATION AND

ADDRESS(ES) ASSOCIATED WITH PARCELS

1619, 1631, & 1699 WEST LINCOLN AVENUE AND WEST CITY PARCEL ANAHEIM, CALIFORNIA

Prepared for

SLF-WEST LINCOLN, LLC









- A. Subsurface Soil Investigation -no appendices (FREY Environmental, Inc., 2005)
- B. Phase I Environmental Site Assessment no appendices (EMS, 2019a)
- C. Phase II Environmental Site Assessment no appendices (EMS, 2019b)
- D. Preliminary Endangerment Assessment Equivalent Report no appendices (Roux Associates, 2019a)
- E. Additional Investigation Report no appendices (Roux Associates, 2019b)
- F. Phase I Environmental Site Assessment Report no appendices (Roux Associates, 2019c)
- G. City Parcels Subsurface Investigation Report and Human Health Screening Evaluation Update – no appendices (Roux Associates, 2019d)

Compilation Environmental Report 1619, 1631, 1699 West Lincoln Avenue, and West City Parcel, Anaheim, California APPENDIX A

Subsurface Soil Investigation -no appendices (FREY Environmental, Inc., 2005)

SUBSURFACE SOIL INVESTIGATION 1631 WEST LINCOLN AVENUE ANAHEIM, CALIFORNIA (RWQCB Case No. 083004014T) (Geotracker GID #T0605955516)

Prepared for:

Mr. Ralph McCaffrey City of Anaheim Public Utilities Department - Environmental Services 201 S. Anaheim Boulevard, Suite 601 Anaheim, California 92805

Prepared by:

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Project No.: 527-01

July 7, 2005

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1.0 INTRODUCTION

This report presents the results of subsurface soil investigation activities performed by FREY Environmental, Inc. (FREY) at the property located at 1631 West Lincoln Avenue, in Anaheim, California (Site) (Figures 1 and 2). The work was conducted in accordance with a workplan, prepared by FREY dated April 7, 2005 (FREY, 2005). The workplan was conditionally approved by the City of Anaheim Public Utilities Department (APUD) in a letter dated April 19, 2005.

2.0 BACKGROUND

A 10,000-gallon double-walled fiberglass diesel UST with associated fuel dispenser island and piping were previously removed from the Site. It is our understanding that a soil sample collected on December 21, 2004 from beneath the former diesel fuel dispenser island contained total petroleum hydrocarbons as diesel (TPHd) at a concentration of the 670 mg/kg. The APUD subsequently requested that an investigation be conducted to assess the extent and significance of the diesel fuel contamination beneath the Site (APUD, 2005).

3.0 SITE SETTING

The Site is located on the north side of West Lincoln Avenue between North Euclid Street and South Loara Street in Anaheim, California. The Site is currently an operational stucco production and distribution plant in the approximate configuration shown on Figure 2. A 10,000-gallon double-walled fiberglass diesel UST with associated fuel dispenser island and piping were formerly located at the approximate locations shown on Figure 2. The UST cavity and other associated excavated areas were observed to have been backfilled, but not resurfaced, on the date of the current investigation.

The immediate site vicinity consists primarily of commercial and industrial properties. The Site is situated approximately 0.75 mile south of Carbon Creek, at an elevation of approximately 130 feet above mean sea level. The topography at the Site slopes gently to the southwest (USGS, 1978).

3.1 TOPOGRAPHY

According to the USGS topographic map. Anaheim quadrangle (7.5 minute), the Site is situated approximately 0.75 mile south of Carbon Creek, at an elevation of approximately 130 feet above mean sea level. The topography at the Site slopes gently to the southwest (USGS, 1978).

3.2 REGIONAL GEOLOGY

The Site is located on the northeastern section of the Orange County Coastal Plain, which is part of the larger Coastal Plain of Los Angeles (Orange County Water District [OCWD], 1984). The Orange County Coastal Plain is bordered to the north and east by the foothills of the Santa Ana Mountains, on the south by the San Joaquin Hills and on the west by the Pacific Ocean.

FREY

The central and northern portions of the Orange County Coastal Plain consist of structurally downfolded strata of Upper Pleistocene and older age strata, that form a broad synclinal trough. The trough includes successively permeable and impermeable strata, that reach a depth of up to 20,000 feet near the Anaheim/Orange area (OCWD, 1982). The Upper Pleistocene and older unconsolidated deposits consist predominantly of marine and lagoonal sediments that include interbedded silts and clays with occasional lenses of sand and gravel. These deposits overlie a thick sequence of Late Cretaceous to Quaternary-age semiconsolidated sedimentary rocks and basement units (OCWD, 1984).

The Upper Pleistocene and older formations are overlain in the region by recent alluvium, derived from the surrounding hills and the Santa Ana River. Recent alluvial deposits attain a maximum thickness of approximately 300 feet in the Site area, and consist of sands with interbedded gravels, silts and clays (OCWD, 1984).

3.3 REGIONAL HYDROGEOLOGY

The Site is located in the East Coast Plain Hydrologic Subarea of the Lower Santa Ana River Hydrologic Area, within the Santa Ana River Hydrologic Unit of the State of California Regional Water Quality Control Board - Santa Ana Region (RWQCB, 1995). The Site area is located within a pressure zone where semi-confined to confined water conditions exist. Groundwater within the aquifer of the pressure zone in the Site Vicinity generally flows to the west-southwest (OCWD, 1984).

Depth to groundwater at a Site located approximately 0.2 mile west of the Site, at the intersection of West Lincoln Avenue and South Euclid Street, reportedly occurs at approximately 100 feet below ground surface (bgs)(Gregg, 2005).

4.0 OBJECTIVE

The objective of this investigation was to assess the occurrence of petroleum hydrocarbons in soils beneath the Site in the vicinity of the former fuel dispenser island at the Site.

5.0 FIELD INVESTIGATION

All activities related to this subsurface investigation were conducted under the supervision of a State of California Registered Professional Engineer in accordance with accepted engineering practice and protocol.

5.1 PRE-FIELD ACTIVITIES

FREY personnel visited the Site on April 22, 2005, and marked the proposed boring locations. FREY obtained underground service alert number A1161196 prior to the conduct of drilling activities.

5.2 ADVANCEMENT AND SAMPLING OF DIRECT PUSH BORINGS

FREY personnel oversaw the advancement of direct push soil borings FB1 through FB4 on May 2, 2005, at the locations shown on Figure 2. FREY manually excavated boreholes FB2 and FB3 to 4-feet bgs to locate and avoid subsurface obstructions. Soil borings FB1 and FB4 were located in recently backfilled areas, and did not require manual excavation. Soil borings FB1 through FB4 were advanced to final depths of approximately 40 feet bgs with a Geoprobe 6600 hydraulic direct push rig. Boring FB1 was advanced in the approximate location of the former diesel fuel dispenser. Borings FB2, FB3 and FB4 were advanced northeast, northwest and south of the former diesel fuel dispenser (Figure 2).

Soil samples were collected at 5 foot depth intervals to the bottom of each direct-push soil boring. Groundwater was not encountered during the investigation.

Soil samples collected during the investigation did not exhibit visual evidence of the presence of petroleum hydrocarbon, nor were any petroleum hydrocarbon odors detected. Soil samples were screened in the field for undifferentiated volatile organic compounds (UVOCs) using an organic vapor analyzer as described in Appendix A.

Field procedures used in the advancement of borings and collection of soil samples are presented in Appendix A. Boring logs, and explanations regarding the format, terms, and soil classification system used to describe the soil conditions are presented in Appendix B.

5.3 LABORATORY ANALYSES

Soil samples collected from borings FB1 through FB4 were analyzed for total petroleum hydrocarbons as gasoline (TPHg) and TPHd in general accordance with EPA Method No. 8015M, and for benzene, toluene, ethylbenzene and xylenes (BTEX), fuel oxygenates and ethanol in general accordance with EPA Method No. 8260B.

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6.0 RESULTS OF THE FIELD INVESTIGATION

6.1 SUBSURFACE CONDITIONS

In general, subsurface soils encountered during the advancement of borings FB1 through FB4 consisted predominantly of silt and clay with occasional sand lenses from below the ground surface to approximately 20 feet bgs where at this depth a tan layer of fine to medium grained sand was encountered. In borings FB1 and FB2, backfill material was observed from the ground surface to approximately 15 and 5 feet bgs, respectively.

Soil lithologies encountered at the Site during drilling operations are depicted on the boring logs included in Appendix B.

6.2 LABORATORY RESULTS

TPHg, TPHd, BTEX, fuel oxygenates and ethanol were not detected in soil samples collected and analyzed from borings FB1 through FB4 on May 2, 2005.

Soil sample analytical results have been summarized in Table 1. Laboratory analytical and quality control/assurance reports have been attached in Appendix C. Soil samples were analyzed by Baseline On-Site Analysis, a certified hazardous waste testing laboratory based in Huntington Beach, California.

7.0 CONCLUSION AND RECOMMENDATIONS

Based on the data collected during this investigation the petroleum hydrocarbons previously detected beneath the former fuel dispenser island appear to have been very limited in lateral and vertical extent. As such, FREY recommends that no further action be required at the Site.

8.0 LIMITATIONS

The judgements described in this report are professional opinions based solely within the limits of the scope of work authorized, and pertain to conditions judged to be present or applicable at the time the work was performed. Future conditions may differ from those described herein, and this report is not intended for future evaluations of this Site unless an update is conducted by a consultant familiar with environmental assessments.

This report was compiled partially from information supplied to FREY Environmental, Inc. from outside sources, other information that is in the public domain and a visual inspection of the property. FREY Environmental, Inc. makes no warranty as to the accuracy of statements made by others, which may be contained in this report, nor are any other warranties or guarantees, expressed or implied, included or intended by the report, except that it has been prepared in accordance with the current accepted practices and standards consistent with the level of care and skill exercised under similar circumstances by other professional consultants or firms performing similar services.

Site conditions may change with time as the result of natural alterations or man-made changes on this or adjacent properties. Future environmental investigations conducted at the Site may reveal site conditions not indicated in the data reviewed by FREY Environmental, Inc. Additionally, changes in standards or regulations applicable to the Site may occur. The findings of this report may be partially or wholly invalidated by changes of which FREY Environmental, Inc. is not aware or has not had the opportunity to evaluate.

Environmental assessments provide an additional source on information regarding the environmental conditions of a particular property or facility. The report to the Client is a professional opinion and judgement, dependent upon FREY's knowledge and information obtained during the course of performance of the services.

Sincerely, **FREY Environmental, Inc.**

Ed Rands Senior Project Engineer PE #58183



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Josh Moeller Staff Geologist

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REFERENCES

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TABLE

CHEMICAL ANALYSES OF SOIL SAMPLES 1631 WEST LINCOLN AVENUE ANAHEIM, CALIFORNIA **TABLE 1**

(Laboratory results in mg/kg- soil)

SAMPLE NEMBER	DEPTH (feet-bes)	DATE SAMPLED	TPH	HPLESELATI	BENZENE [2]	TOLUENEI21	ETHYL BENZENE[2]	TOTAL XYLENES[2]	MTBE [2]	TBA [2]	DIPE [2]	ETBE [2]	TAME [2]	ETHANOL [2]
FB1	۲.	05 02 2005	ND-0.50	01-10	ND~0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND= 0.0050	ND<0.50
	10	05 02 2005	ND: 0.50	ND-10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND<:0.0050	ND<0.50
	<u>.</u>	05 02 2005	ND: 0.50	01-ON	ND~0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.50
	0,-	05 02:2005	ND: 0.50	ol dN	ND-:0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND< 0.0050	ND~0.50
	5	05.02.2005	ND-0.50	ND-10	ND~0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND~ 0.0050	ND<0.50
	0;	05 02 2005	ND-0.50	01 - ON	ND-:0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND~0.0050	ND<0.50
	5	05 02 2005	ND: 0.50	ND- IO	ND~0.0050	ND~:0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND~0.0050	ND~0.50
	101	05 02 2005	ND 0.50	01 -ON	ND=0.0050	ND~0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.50
Ca d		SUNC CU SU	ND: 0.50	OD-ON	ND=0.0050	ND-<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND~0.0050	ND<0.0050	ND<0.50
107		2000 00 20	NID: 0.50		ND-0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND~0.0050	ND<0.0050	ND<0.50
	<u> </u>	2006 20 20	ND: 0.50	e dv	ND-0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND~0.0050	ND<0.50
		002/20/20	050 GN	e du	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND~0.0050	ND<0.50
	5	000 00 50	05 0 CIN	OF ON	ND-0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND~0.0050	ND=0.50
	0,	02 02 2002	ND: 0.50	ND-10	ND~0.0050	ND~:0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND~0.0050	$ND \le 0.0050$	ND~0.50
	5	2002 2012 20	ND 0.50	ND-19	ND~0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND<0.0050	ND-0.50
	07	05 02 2005	05.0 CIN	ND 10	ND:: 0,0050	ND~0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND~0.0050	ND= 0.50
F														
-3	۰r	(15-02-2005	ND: 0.50	ND- 1-	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.50
9	10	05.02.2005	ND: 0.50	(≕ -QN	ND~0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND-:0.0050	ND<0.50
	1	05 02 2005	05.0 -CIN	(it icit)	ND<0.0050	ND~0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND~:0.0050	ND~0.50
	00	05 02 2005	ND: 0.50	ND- 1-)	ND=0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND=0.0050	ND-0.50
	i c	05 02 2005	05.0 -CIN	ND- 1-)	ND~0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND-:0.0050	ND~0.50
	98	05.02.2005	ND: 0.50	ND-1-	ND 0.0050	ND~0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND~0.0050	ND~0.50
	5	05 02 2005	ND 0.50	(I - ON	ND- 0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.50
	아는	05.02.2005	ND 0.50	CI - QN	ND-0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND≈0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND0.0050	ND~0.50
														02.02.01.0
FB4	v	05 02 2005	ND-0.50	ND-10	ND=0.0050	ND~0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND< 0.025	ND<0.0000	ND~0.000	00000-0N	00.0°UN 00.0°UN
	10	05 02 2005	ND-0.50	(EL -QN	ND=0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND-0:0050	06.0 °CIN
	ř	05.02.2005	ND: 0.50	(:1-QN	ND~0.050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND~0.0050	ND= 0.50
	0ĉ	05-02 2005	ND: 0.50	ND E	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND-0.0050	ND=0.50
	č	05.02.2005	ND-0.50	ND E	ND~0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND=:0.025	ND<0.0050	ND<0.0050	ND~0.0050	ND~0.50
	08	05 02 2005	05.0 CIN	ND 1-)	ND~0.0050	ND<0.0050	ND~0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND<0.0050	ND~0.50
	¥.	05.02.2005	05.0 -CIN	OI -ON	ND~0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND=0.0050	ND: 0.50
	40	05.02.2005	05.0 -CIN	ND-10	ND=0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.0050	ND<0.0050	ND~0.0050	ND= 0.50

NOTI-S
11 Total petroleum hydrocarbons (TPH) analyzed by EPA Method No. 8015M (Gasoline Diesel).
[2] BTI-X and fuel oxygenates analyzed by EPA Method No. 8260B
[2] BTI-X and fuel oxygenates analyzed by EPA Method No. 8260B
[2] BTI-X and fuel oxygenates analyzed by EPA Method No. 8260B
[2] BTI-X and fuel oxygenates analyzed by EPA Method No. 8260B
[2] BTI-X and fuel oxygenates analyzed by EPA Method No. 8015M (Gasoline Diesel).
[2] BTI-X and fuel oxygenates analyzed by EPA Method No. 8260B
[3] 0.50 Not detected at or above the given laboratory detection limits
Not analyzed

FRFY Environmental. Inc

Table 1

FIGURES





SCALE IN MILES

1631 W. LINCOLN AVENUE ANAHEIM, CALIFORNIA

Client: LA HABRA PRODUCTS

Project No.: 527-01

FREY ENVIRONMENTAL, INC.

NOTE:

1) All locations and dimensions are approximate.

 Base map from USGS 7.5 minute Anaheim (1978, photorevised 1981), California topographic quadrangle.

SITE LOCATION MAP

Date: JUNE 2005



WEST LINCOLN AVENUE

EXPLANATION

DIRECT-PUSH SOIL BORING LOCATION

NOTES:

- All locations and dimensions are approximate.
 Base map from Hazardous Materials Disclosure Site Plan for La Habra Stuceo, and field observations made by FREY Environmental, Inc. personnel on 3/24/05.



30 \cap 60 APPROXIMATE SCALE IN FEET

1631 W. LINCOLN AVENUE ANAHEIM, CALIFORNIA

Client: LA HABRA PRODUCTS

Project No.-527-01

FREY ENVIRONMENTAL, INC.

SITE SKETCH SHOWING DIRECT PUSH SOIL BORING LOCATIONS

Compilation Environmental Report 1619, 1631, 1699 West Lincoln Avenue, and West City Parcel, Anaheim, California APPENDIX B

Phase I Environmental Site Assessment – no appendices (EMS, 2019a)

PHASE I ENVIRONMENTAL SITE ASSESSMENT (REVISED FEBRUARY 2019)

ANAHEIM LINCOLN AVENUE ASSEMBLAGE 1631 & 1699 WEST LINCOLN AVENUE ANAHEIM, CA 92801







PROJECT NUMBER EMS570 SHOPOFF LAND FUND V, LP 2 PARK PLAZA, SUITE 700 IRVINE, CA 92614

JULY 2018 (REVISED FEBRUARY 2019)



PHASE I ENVIRONMENTAL SITE ASSESSMENT (REVISED FEBRUARY 2019)

ANAHEIM LINCOLN AVENUE ASSEMBLAGE 1631 & 1699 WEST LINCOLN AVENUE **ANAHEIM, CA 92801**

JULY 2018 (REVISED FEBRUARY 2019)

ENVIRONMENTAL MANAGEMENT STRATEGIES, INC.

Financially Based, 8 Goodyear, Suite 125 Tel (949) 679-9500 Fax (949) 679-9501



Environmental Solutions Irvine, CA 92618

CERTIFICATION

All engineering and geologic information, conclusions, and recommendations in this document were prepared under the supervision of and reviewed by an Environmental Management Strategies, Inc. Professional Geologist in the State of California. Further and to the best of our professional knowledge and belief, the work was performed by professionals who meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312 and these professionals have the specific qualifications based on education, training and experience to assess a property of the nature, history and setting of the subject property. Our investigation conforms to the U.S. Environmental Protection Agency's (EPA) Standards and Practices for All Appropriate Inquiries (AAI, 40 CFR Part 312) as well as ASTM International's (ASTM) Standard E 1527-13 titled "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process".



NTH WY SEVERIN

July 5, 2018

Anthony F. Severini President Professional Geologist

No. 3852

Reused Februar

Date

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Appendix C	EDR Environmental LienSearch TM Report
Appendix D	EDR Property Tax Map Report
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Appendix F	EDR Historical Topographic Map Report
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Appendix H	EDR City Directory Abstract
Appendix I	EDR Building Permit Report
Appendix J	Previous Environmental Reports
Appendix K	Agency Records
Appendix L	ASTM E 1527-05 User Questionnaire

1 Executive Summary

Environmental Management Strategies, Inc. (EMS) is pleased to present this revised Phase I Environmental Site Assessment (Phase I ESA) for the Anaheim Lincoln Avenue Assemblage located at the vacant parcel (1699 West Lincoln Avenue) at the corner of North Euclid Street and West Lincoln Avenue and 1631 West Lincoln Avenue, in the City of Anaheim, Orange County, California 92801 (the "Site", see Figures 1 and 2). SLF – West Lincoln, LLC (SLF) originally retained EMS on May 25, 2018 to perform the Phase I ESA in support of SLF's redevelopment of the properties. The original Phase I ESA was revised to remove certain properties that are no longer part of SLF purchase and redevelopment plans. Our investigation conforms to the U.S. Environmental Protection Agency's (EPA) Standards and Practices for All Appropriate Inquiries (AAI, 40 CFR Part 312) as well as ASTM International's (ASTM) Standard E 1527-13 titled "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process".

1.1 Background

The Site is currently occupied by a vacant lot and CTS Cement Products/RapidSet, The Site consists of two parcels, one vacant and the other used for industrial processes.

1.2 Scope of Work

EMS performed the following scope of work in support of developing this Phase I ESA:

- EMS reviewed previous reports documenting environmental conditions at the site.
- EMS performed a detailed investigation into the historical use of the site. Our historical investigation entailed the review of reasonably ascertainable documents from standard sources from the late 1800's to the present.
- EMS conducted a review of reasonably ascertainable regulatory agency information regarding hazardous material use, disposal, and contaminated property information for the site and surrounding area. This review included a search for environmental liens as well as activity and use limitations (AULs) on the site.
- EMS contacted the following public agencies and utilities for additional information for the site: the EPA; the State of California Department of Toxic Substances Control (DTSC); the California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR); the State of California Water Resources Control Board (SWRCB); the Santa Ana Regional Water Quality Control Board (RWQCB); the South Coast Air Quality Management District (AQMD); Anaheim Public Utilities (APU); and, Anaheim Fire and Rescue (AFR).
- EMS was supplied with an ASTM E 1527-13 User Questionnaire completed by the different owners of each property and have been included in Appendix L.
- EMS performed an inspection of the site on June 6 and June 20, 2018. During the site inspection, EMS interviewed Mr. Craig Ott the So. California Production Manager with CTS Cement/RapidSet and Mr. Don Butts the Director of Sales and Acquisitions with Scott

Anastasi Realty.

1.3 Results of Investigation

EMS performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-13 of the Anaheim Lincoln Avenue Assemblage located at the vacant parcel at the corner of North Euclid Street and West Lincoln Avenue and 1631 West Lincoln Avenue, in the City of Anaheim, Orange County, California 92801. Any exception to, or deletions from, this practice are described in Section 3 of this report. EMS' Phase I ESA revealed no evidence of *Recognized Environmental Conditions, Historical Recognized Environmental Conditions, Controlled Recognized Environmental Conditions* or *De Minimis Conditions* in connection with the site, except for the following:

Recognized Environmental Conditions

- EDR provides a list of the Department of Toxic Substances Control's (DTSC's) EnviroStor database listings which identify sites that have known contamination or sites for which there may be reason to investigate further. Five facilities were listed adjacent to the Site based on the EDR Report. These sites are listed as RUSTLICK INCORPORATED at 303 Manchester, PICOFARD, INC at 237-D N. EUCLID, TOWER PARK INDUSTRIAL at 313-315 Euclid Way, J&H DEBURRING, INC at 307 N. Euclid Way and BURLINGTON ENGINEERING, INC at 307 N. Euclid Way. The facility located at 303 Manchester appears to have been a pesticide production facility. The remaining four facilities appear to be part of the Euclid Way Industrial Park a multi-structured industrial park developed between 1960 and 1965. The location of these properties appears to be adjacent to the Site; therefore, EMS believes they represent a *Recognized Environmental Condition*.
- The EnviroStor website has four listings for the industrial park adjacent and to the west of the Site across Euclid Street. According to the site history the Park is a 4.5 acre multistructure industrial park developed between 1960 and 1965. A soil investigation was performed at the Park and PCE was detected in soil. In 2015 an SVE pilot study and groundwater monitoring activities were being performed at the park. Another listing at the industrial park is for Tower Park Industrial located at 313-353 Euclid Way. The site history states that Robertshaw a cable and appliance thermostat controls manufacturer operated a laboratory and performed industrial activities on the property. According to building permit records a cesspool may have been used to discharge sanitary and industrial waste water. PCE impacts have been detected in shallow soil and in groundwater on the property. Based on the soil data it appears there is an historical source of PCE on the property. Based on the information from the EnviroStor website and the parks proximity to the Site, EMS believes these findings represent a *Recognized Environmental Condition*.
- PRINGLE DRAPERIES located at 307 North Euclid Way was listed on the DRYCLEANERS database which lists drycleaner related facilities that have EPA ID numbers. This database lists what EDR refers to as "High Risk Historical Records" and is a collection of potential dry cleaner sites. The listing for PRINGLE DRAPERIES appears to be adjacent and across Euclid Street to the west of the Site. Based on the proximity of the PRINGLE DRAPERIES listing, EMS believes the 307 North Euclid Way dry cleaner listing represents a *Recognized Environmental Condition*.

- A review of the city directory abstract by EMS also identified three additional properties that are adjacent and upgradient of the Site and appear to be an environmental concern. The three properties are NIAGARA CHEMICAL N MANCHESTER AVE ANH, NIAGARA CHEMICAL DIVISION FMC CORPORATION, NIAGARA CHEM, Elmer A W Anaheim Spray Chemical Co Anaheim Spray Chemical Co at 303 North Manchester Avenue, Orange County Service Station Equip & Tank Testin 30, Peerless Spray Chemical Co and Muckenthaler L A Peerles Spray Chemical Co at 225 North Loara Street and Orange County Lubrication Equipment, Metro Lubrication Equip and Enviro Com at 329 North Manchester. Based on the proximity of these listings, EMS believes they represent a *Recognized Environmental Condition*.
- Pacific Edge Engineering prepared the Subsurface Investigation Report, Luiso Property, 1687 W. Lincoln Avenue, Anaheim, California dated February 26, 2003. This report was prepared due to environmental concerns identified in the 2002 Phase I prepared by Gilray Enterprises, Inc. According to the conclusions in the report PCE was detected in two samples and MTBE was detected in six samples. PCE and MTBE detections were localized to the concrete drainage swale and nearby service bays. No further action was recommended by Pacific Edge Engineering at the time but did note that if the site is demolished in the future, qualified oversight should be conducted during soil disturbance. Based on the lack of a soil gas survey performed at the property and its proximity to the Site, EMS believes the VOC results represent a Recognized Environmental Condition.
- EMS also reviewed the *Phase I Environmental Assessment, 1621 West Lincoln Avenue, Anaheim, California* prepared by Advanced GeoEnvironmental, Inc. on March 9, 2005. Conclusions from the report included the past use of the property as a motorcycle paint shop and brake shop. The operation of a brake shop and painting operations were listed as potential environmental conditions. The report also listed the possibility of asbestos containing building material and lead based paint could be present due to the age of the buildings on the property. Recommendations for the property included a limited soil vapor survey and an asbestos and lead based paint survey. An asbestos survey was completed for the property, but no soil vapor survey or lead based paint survey has been performed. EMS believes the past use of the property as a motorcycle paint shop and brake shop, the lack of a soil vapor survey and the properties proximity to the Site represent a *Recognized Environmental Condition*.
- AQMD's FINDS website listed one permit for After Five Tux Shop at 1683 West Lincoln. After Five Tux Shop received a permit to operate perchloroethylene dry cleaning equipment on April 23, 1992. EMS believes the permit for dry cleaning equipment on the adjacent property represents a *Recognized Environmental Condition*.
- The property of 1695 West Lincoln Avenue which is currently a tire shop by the name JR's Wheels is located adjacent to the Site. During a Site inspection of this property, housekeeping throughout the building on the property was noted to be very poor with metal shavings on the ground and a number of cans of Johnson's Non-Chlorinated Brake Parts Cleaner stored and disposed of improperly. Based on the Safety Data Sheet for the brake cleaner it does contain methanol, acetone, toluene, benzene and xylene. Staining was

observed underneath vehicles and in the rear area of the property. An AST and buckets of used oil were also observed outdoors and in the warehouse area. Chemicals throughout the property did not appear to be properly stored in flammable cabinets. The improper storage and disposal of oils and chemicals, the staining observed on the asphalt and proximity to the Site represent a *Recognized Environmental Condition*.

• The 1621 West Lincoln Avenue property is currently occupied by Lincoln Construction Corporation and appears to store equipment and large amounts of soil. In the northeastern corner of the property EMS observed 55-gallon drums stored on pallets without secondary containment. Approximately seven of the drums did not have lids and were only covered in tarps. Spills were noted on the ground in the immediate vicinity of the drums. An uncovered 5-gallon bucket with used oil was also noted in the 55-gallon drum storage area. An additional 55-gallon drum was also noted near the drum storage area that had been partially crushed by a large piece of concrete and had spilled some of its content onto the soil. Inside this building EMS also observed a 30-gallon drum with an attached parts washer. The lack of secondary containment, observed spills and proximity to the Site represent a *Recognized Environmental Condition*.

Historical Recognized Environmental Conditions

- The Site address of 1631 West Lincoln Avenue appears on the RGA LUST and LUST databases under the name LA HABRA STUCCO. The LUST database lists the current status of the Site as "Completed Case Closed" and the action as "Closure/No Further Action Letter". Based on the case closure for the property on the Site it appears the LUST listing represents an *Historical Recognized Environmental Conditions*.
- The EDR report identified 43 Leaking Underground Storage Tank (LUST) cases within 0.5 mile of the Site. The LUST database contains an inventory of reported leaking underground storage tank incidents. According to the EDR report all the listed LUST cases on adjacent properties attained closure. Based on the case closure and their proximity to the Site adjacent records appear to represent *Historical Recognized Environmental Conditions*.

Although indoor air quality is specifically listed as a non-scope consideration under Section 13.1.5.7 of ASTM E 1527-13, *Environmental Professionals* cannot eliminate migration of vapors from the ASTM E 1527-13 Phase I ESA scope of work as this would result in the Phase I ESA being non-AAI compliant. ASTM has released ASTM E 2600-15 *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*. The Guidance is directed at identifying the likelihood for migrating vapors to encroach onto a target property creating a VEC. The potential findings of the ASTM E 2600-15 screening are the following:

- A VEC exists; or,
- A VEC does not exist.

ASTM E 2600-15 is a two Tier process. Tier 1 focuses on known or suspected contaminated properties identified during the Phase I ESA within an Area of Concern (AOC) about the target property. For volatile and semi-volatile organic compounds (VOCs and SVOCs), such as dry-

cleaning chemicals and industrial solvents, the AOC is defined as 1/3 mile. For petroleum hydrocarbon chemicals such as gasoline the AOC is defined as 1/10 mile. The AOC can be shortened in the down- and cross-gradient directions if the groundwater flow direction is known. Four EnviroStor listings and two dry cleaners were found in close proximity of the Site.

Tier 2 focuses on the contaminated plumes from the contaminated properties identified within the AOC and their proximity (critical distance) to the target property. The critical distance is 100 feet for VOCs and 30 feet for petroleum hydrocarbons. A VEC is likely to exist due to the presence of USTs, oil and waste oil ASTs and 55-gallon drums present on the Site. Based on the an adjacent property previously containing dry cleaning equipment and the contamination on the adjacent property, EMS believes a VEC exists.

Although not considered *Recognized Environmental Conditions* as defined by the EPA AAI rule and ASTM E 1527-13, EMS also noted the following potential environmental concerns and issues:

- The site buildings were constructed prior to 1980; therefore, asbestos-containing building materials and lead based paint are still likely to be present on-site.
- The presence of VOCs in soil underlying the site and the adjacent property represents a potential vapor intrusion issue in connection with the site.

EMS recommends a Phase II Environmental Site Assessment (ESA) be performed at the individual properties of the Site due to the presence of *Recognized Environmental Conditions*, *Historical Environmental Conditions* and Vapor Encroachment Conditions. A Phase II ESA would require soil testing and soil vapor testing at a minimum in order to evaluate any impacts to the property that could jeopardize human health and/or increase development costs through environmental remediation efforts.

2 Introduction

Environmental Management Strategies, Inc. (EMS) is pleased to present this revised Phase I Environmental Site Assessment (Phase I ESA) for the Anaheim Lincoln Avenue Assemblage located at the vacant parcel (1699 West Lincoln Avenue) at the corner of North Euclid Street and West Lincoln Avenue and 1631 West Lincoln Avenue, in the City of Anaheim, Orange County, California 92801 (the "Site", see Figures 1 and 2). SLF – West Lincoln Avenue, LLC (SLF) originally retained EMS on May 25, 2018 to perform the Phase I ESA in support of SLF's development of the Anaheim Lincoln Avenue Assemblage Site.

2.1 Purpose

The purpose of this Phase I ESA is to identify *Recognized Environmental Conditions* as defined by the U.S. Environmental Protection Agency's (EPA) Standards and Practices for All Appropriate Inquiries (AAI, 40 CFR Part 312) as well as the American Society for Testing and Materials (ASTM) Standard E 1527-13 titled "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process". The ASTM standard defines *Recognized Environmental Condition* as follows: "The presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. *De Minimis* conditions are not *recognized environmental conditions*."

The EPA's AAI and ASTM E 1527-13 practices are intended to permit the *User*, SLF, to satisfy one of the requirements to qualify for the *Innocent Landowner*, *Contiguous Property Owner*, or *Bona Fide Prospective Purchaser* limitations on Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) liability (also known as *"Landowner Liability Protections"*). Additional requirements include, but are not limited to, complying with activity and use limitations (AULs), taking reasonable steps to prevent releases, complying with legally required release reporting obligations, etc.

In addition to *Recognized Environmental Conditions*, this Phase I ESA also reports on *Historical Recognized Environmental Conditions*, *Controlled Recognized Environmental Conditions*, *De Minimis* conditions and other potential environmental concerns and issues (also known as *Business Environmental Risks*) such as Vapor Encroachment Conditions (VECs), asbestos-containing materials (ACM), polychlorinated biphenyl (PCB) containing electrical equipment, lead-based paint, radon, etc.

2.1.1 Special Terms and Conditions

Our investigation conforms to the EPA's AAI rule and ASTM E 1527-13. This report was prepared by EMS solely for the use and benefit of SLF, together with its affiliates, participants, successors and assigns. No other parties shall have any right to rely on this document. The use of this report is expressly controlled by the terms and conditions in the contract between SLF and EMS.

2.1.2 Methodology

Mr. Anthony Severini and Mr. Ashley Flores of EMS performed the Phase I ESA. Mr. Severini is a State of California registered Professional Geologists with over thirty years of relevant, full-

time experience performing Phase I ESAs within several states throughout the United States. Mr. Flores holds a Bachelor of Science degree in Environmental Science and has over five years of relevant, full-time experience performing Phase I ESAs.

We declare that, to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312 and we have the specific qualifications based on education, training and experience to assess a property of the nature, history and setting of the Site. We have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Mr. Severini's and Mr. Flores' detailed qualifications are presented in Appendix A. EMS performed the following scope of work in support of developing this Phase I ESA:

- EMS reviewed previous reports documenting environmental conditions at the site.
- EMS performed a detailed investigation into the historical use of the site. Our historical investigation entailed the review of reasonably ascertainable documents from standard sources from the late 1800's to the present.
- EMS conducted a review of reasonably ascertainable regulatory agency information regarding hazardous material use, disposal, and contaminated property information for the site and surrounding area. This review included a search for environmental liens as well as activity and use limitations (AULs) on the site.
- EMS contacted the following public agencies and utilities for additional information for the site: the EPA; the State of California Department of Toxic Substances Control (DTSC); the California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR); the State of California Water Resources Control Board (SWRCB); the Santa Ana Regional Water Quality Control Board (RWQCB); the South Coast Air Quality Management District (AQMD); Anaheim Public Utilities (APU); and, Anaheim Fire and Rescue (AFR).
- EMS was supplied with an ASTM E 1527-13 User Questionnaire completed by the different owners of each property and have been included in Appendix L.
- EMS performed an inspection of the site on June 6 and June 20, 2018. During the site inspection, EMS interviewed Mr Craig Ott the So. California Production Manager with CTS Cement/RapidSet and Mr Don Butts the Director of Sales and Acquisitions with Scott Anastasi Realty.

2.2 Site Description

The site currently consists of two parcels of land totaling approximately 6 acres. The site is currently occupied by a vacant lot and CTS Cement Products/RapidSet. The Site consists of two parcels one vacant and the other used for industrial purposes.

2.2.1 Site Location

The site is located at the vacant parcel at the corner of North Euclid Street and West Lincoln Avenue and 1631 West Lincoln Avenue, in the City of Anaheim, Orange County, California 92801. The site is comprised of two parcels of land identified by parcel numbers 072-110-21 and 072-110-50.

2.2.2 Site and Vicinity Characteristics

The site is located in a primarily commercial/industrial area within the City of Anaheim. The site is bordered to the north by a Southern Pacific Railroad right-of-way, to the east by commercial/industrial properties and auto repair facilities, to the west by an industrial park and to the south by a number of commercial retail buildings.

2.2.3 Description of Structures, Roads and other Improvements

The site currently consists of two lots, one vacant and the other containing cement mixing operations. The surrounding properties included a number of commercial and industrial buildings with a large portion of them involved in auto maintenance and repair.

2.2.4 Information Reported by Property Engineers

During EMS' site visit, information regarding site operations was provided by Mr Craig Ott the So. California Production Manager with CTS Cement/RapidSet and Mr Don Butts the Director of Sales and Acquisitions with Scott Anastasi Realty and tenant interviews during the Site investigation. Pertinent information provided by Mr. Ott, Butts and tenants is included in Section 2.4.

2.2.5 Current Uses of the Property

The site currently consists of two lots, one vacant and the other containing cement mixing operations.

2.2.6 Past Uses of the Property

According to information reviewed by EMS the 1631 Lincoln Avenue property contained industrial businesses and the vacant portion of the property in the northwest corner included the off-ramp for the 5-freeway.

2.2.7 Past and Current Uses of Adjoining Properties

Based on information reviewed by EMS, the Site vicinity has been primarily used for commercial and industrial purposes, including an industrial park, chemical plant and a number of automotive maintenance and repair shops.

2.3 Records Review

EMS conducted a review of reasonably ascertainable and practically reviewable public information for the site and surrounding area. The information was supplied to EMS both by an outside contractor specializing in compiling such information and by direct contacts made by EMS.

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2.3.1 Standard Environmental Records Sources: Federal, State, Tribal and Local

EMS retained Environmental Data Resources, Inc. (EDR) to perform a search of reasonably ascertainable information from databases for facilities with environmental records within the Site vicinity. The information sources utilized by EDR included publicly available databases compiled by federal, state, tribal and local governmental agencies and proprietary databases available The EDR report was designed to assist parties seeking to meet the search through EDR. requirements of the EPA's AAI rule and ASTM E 1527-13. The databases searched provide information on facilities with records including, but not limited to, the following potential environmental concerns: Resource Conservation and Recovery Act Small and Large Quantity Waste Generators (RCRA-SQGs and RCRA-LQGs); the Comprehensive Hazardous Environmental Response, Compensation and Liability Information System (CERCLIS); registered above-ground storage tanks (ASTs); registered underground storage tanks (USTs); historical USTs (HIST USTs); leaking USTs (LUSTs); non-tank spills of hazardous materials; active and inactive landfills; and facilities engaged in the investigation and cleanup of known releases of hazardous materials. In general, the EPA's AAI rule and ASTM E 1527-13 require a larger search radius for databases with information of greater environmental concern (such as LUSTs, landfills and hazardous substance release facilities) than databases with information of lesser environmental concern (such as registered ASTs, USTs, RCRA-SQGs and RCRA-LQGs).

The EPA's AAI rule and ASTM E 1527-13 require the Phase I ESA to include searches for environmental cleanup liens as well as AULs including institutional and engineering controls, recorded under federal, state, tribal, or local laws. The AAI rule and ASTM E 1527-13 allows that either the prospective property owner or the environmental professional may conduct these searches.

EDR's regulatory agency database search included searches for liens and AULs from the following four EPA databases: Federal Superfund Liens (NPL LIENS); CERCLA Lien Information (LIEN2); Engineering Controls Sites (US ENG CONTROLS); and Sites with Institutional Controls (US INST CONTROLS). EDR's regulatory agency database search also included a search of the DTSC's Deed Restriction Listing (DEED) and Lien Holder (LIENS) databases. Specific information regarding the databases searched, corresponding search radii, and search results are presented in EDR's report entitled, *EDR Radius MapTM with GeoCheck*[®], included in Appendix B.

EMS also retained EDR to perform an environmental lien search for the site. Due to the multiple parcel numbers for the site, and in order to reduce costs, the search was conducted for the site's parcel number of 072-110-21 and included a search for environmental liens and other AULs. The results of this lien search are presented in EDR's report entitled, *EDR Environmental LienSearch*TM *Report*, included in Appendix C. The *EDR Property Tax Map Report* is included in Appendix D.

The Site was not identified on the NPL LIENS, LIEN2, US ENG CONTROLS, US INST CONTROLS, DEEDS or LIENS databases. EDR's environmental lien search found no environmental liens or AULs for the Site's parcel number of 072-110-21. The EDR lien search report indicates that the current owner of the Site is Anastasi Dev Co LLC and the title was received from Anastasi Dev Co LLC.

The Site and adjacent addresses of 1631, 1659, 1683 and 1687 West Lincoln Avenue were listed under various names including LA HABRA PRODUCTS IN, LA HABRA STUCCO, LAHABRA PRODUCTS INC, PAREX LAHABRA INC., LA HABRA PRODUCTS IN, LA HABRA PROD, T&C AUTO CENTER, CAROS BARATOS AUTOS, RAYCO AUTO CENTER, TIRE ONE DISTRIBUTOR, T & C AUTOMOTIVE CEN, AFTER 5 TUX SHOPS, RAYCO AUTO CENTERS and AFTER FIVE TUX SHOP.

The Site and adjacent addresses were identified on the following databases indicating that a release to the environment had been reported (except air-pollution releases noted below) and/or an investigation of known soil or groundwater contamination had occurred or is ongoing:

- RGA LUST: Recovered Government Archive Leaking Underground Storage Tank. The EDR RGA LUST database provides a list of LUST incidents derived from historical databases; and
- LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker.

The address of 1687 West Lincoln Avenue was identified on the following database pertaining to air-pollution regulation compliance and releases to the atmosphere: Requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program

• EMI: Emissions Inventory Data. Toxics and criteria pollutant emissions data collected by the Air Resources Board (ARB) and local air pollution agencies.

The Site and addresses 1659, 1683 and 1687 West Lincoln Avenue were also identified on the following databases pertaining to chemical handling, chemical storage, waste generation, and disposal activities:

- RCRA-Non-Gen/NLR (not a current generator of hazardous waste), RCRA-SQG and RCRA-LQG databases;
- Various historical, known and registered UST databases;
- HAZNET: Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC;
- WDS: Waste Discharge System. Sites which have been issued waste discharge requirements;
- DRYCLEANERS: A list of drycleaner related facilities that have EPA ID numbers.

The address of 1687 West Lincoln Avenue was also identified on the following database pertaining to regulatory enforcement actions:

• ECHO: Enforcement & Compliance History Information. ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

The Site address was also identified on the following database that summarizes records from other databases, but does not provide detailed site information:

- CIWQS: The California Integrated Water Quality System. CIWQS is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities
- FINDS: Facility Index System/Facility Registry System. FINDS contains both facility information and 'pointers' to other sources that contain more detail.
- SEMS-ARCHIVE: Superfund Enterprise Management System Archive tracks sites that have no further interest under the Federal Superfund Program based on available information.

A detailed review and summary of all the records identified by EDR for the Site and adjacent properties is not within the scope of this investigation. Below is a summary of environmental records pertaining to releases to the environment, not including air emissions.

The Site address of 1631 West Lincoln Avenue appears on the RGA LUST and LUST databases under the name LA HABRA STUCCO. The RGA LUST listing does not contain any information in the EDR report except for the year, name and address of the Site. The LUST database the current status of the Site as "Completed – Case Closed" and the action as "Closure/No Further Action Letter". Based on the case closure for the property on the Site it appears the LUST listing represents an *Historical Recognized Environmental Conditions*.

Six HAZNET records were identified for the Site address of 1631 West Lincoln Avenue and the addresses of 1659, 1683 and 1687 West Lincoln Avenue. The report for 1631 West Lincoln Avenue with a Site name of PAREX LAHABRA INC. appear to document manifest data from 2004 stating that waste and mixed oil and aqueous solution were transported from the Site. Two manifests from 2003 and 2004 at the CAROS BARATOS AUTOS located at 1659 West Lincoln Street listed waste oil and mixed oil manifests. The address listed as After 5 Tux Shops located at 1683 West Lincoln Avenue reported halogenated solvent waste in 1995 and 1996. The address of 1687 West Lincoln Avenue was listed and had manifests listed under the names T&C AUTO CENTER and RAYCO AUTO CENTER. The manifests from 1993, 1994 and 1998 listed aqueous solution, organic liquid mixture and paint sludge wastes. The remaining years of 1993, 1995 and 1996 reported an unspecified solvent mixture on their manifests.

AFTER FIVE TUX SHOP INC was listed on the DRYCLEANERS database at the address of 1683 West Lincoln Avenue. This address appears to located adjacent to the Site on the 072-110-49 parcel which currently has an address of 1681 West Lincoln Avenue. According to the documentation provided by EDR the address appeared to contain dry cleaning equipment. Additional information for the AFTER FIVE TUX SHOP INC is provided in section 2.3.5.

The EDR report also has several records pertaining to USTs at the Site. The HIST UST listing indicated one diesel and one unleaded tank were installed at the address of 1631 West Lincoln Avenue in 1963. The address of 1631 West Lincoln Avenue was also listed on the CA FID UST,

SWEEPS UST and UST databases. Additional information regarding the HIST UST records is provided in section 2.3.5.

Numerous additional environmental records were identified for facilities in the surrounding area. Due to the distance and direction from the site, and the nature of the information present in the EDR report, most of these records do not appear to represent a potential environmental concern to the site.

The SEMS-ARCHIVE tracks sites that have no further interest under the Federal Superfund Program based on available information. This list was formerly named CERCIS-NFRAP and changed to SEMS-ARCHIVE by the EPA in 2015. According to the EDR report there are 3 SEMS-ARCHIVE site within approximately ½ mile from the Site. The property listed as RUST LICK INC is located at 303 N Manchester Avenue placing it adjacent and upgradient of the Site. No detailed information is provided for the property.

The Environmental Protection Agency (EPA) RCRA-LQG and RCRA-SQG lists sites that generate, transport, store, treat and/or dispose of hazardous waste. The EDR report identified one RCRA-LQG site within ¹/₄ mile of the site. Based on the location and distance of the listings it does not appear the listed property poses an environmental concern to the Site. The EDR report identified 27 RCRA-SQG sites within ¹/₄ mile of the Site. Based on the location and quantity generated it does not appear these properties pose an environmental concern to the Site except for AFTER 5 TUX SHOPS which is located on the Site and is discussed in further detail in the in section 2.3.5.

The Department of Toxic Substances Control's (DTSC's) maintains the EnviroStor database which identifies sites that have known contamination or sites for which there may be reason to investigate further. The EDR report identified 15 ENVIROSTOR facilities within approximately 1-mile of the Site. Five facilities were within ¼ mile and adjacent to the Site based on the EDR Report. These sites are listed as RUSTLICK INCORPORATED at 303 Manchester, PICOFARD, INC at 237-D N. EUCLID, TOWER PARK INDUSTRIAL at 313-315 Euclid Way, J&H DEBURRING, INC at 307 N. Euclid Way and BURLINGTON ENGINEERING, INC at 307 N. Euclid Way and BURLINGTON ENGINEERING, INC at 307 N. Euclid Way and BURLINGTON ENGINEERING, INC at 307 N. Euclid way and BURLINGTON ENGINEERING, INC at 307 N. Euclid way and BURLINGTON ENGINEERING, INC at 307 N. Euclid way and BURLINGTON ENGINEERING, INC at 307 N. Euclid way and BURLINGTON ENGINEERING, INC at 307 N. Euclid way and BURLINGTON ENGINEERING, INC at 307 N. Euclid way and BURLINGTON ENGINEERING, INC at 307 N. Euclid way. The upgradient facility located at 303 Manchester appears to have been a pesticide production facility. In 1995 the DTSC indicated no record of release to the environment and no information to indicate PCB use, therefore they recommended no further action at the property. The remaining four facilities appear to be part of the Euclid Way Industrial Park a multi-structured industrial park developed between 1960 and 1965. The industrial park is further discussed in section 2.3.5. The location of these properties appears to be adjacent to the Site; therefore, EMS believes they represent a *Recognized Environmental Condition*.

The EDR report identified 43 Leaking Underground Storage Tank (LUST) cases within 0.5 mile of the Site. The LUST database contains an inventory of reported leaking underground storage tank incidents. According to the EDR report all the listed LUST cases on adjacent properties attained closure. Based on the case closure and their proximity to the Site adjacent records appear to represent *Historical Recognized Environmental Conditions*.

According to the EDR report two Cleanup Program Sites (CPS-SLIC; also known as Site Cleanups and formerly known as Spills, Leaks, Investigations and Cleanups) were identified within 0.5 mile

of the Site. The CPS-SLIC program is designed to protect and restore water quality from spills, leaks and similar discharges. Both cases were more than a $\frac{1}{4}$ mile from the site and had a status of "Completed – Case Closed". Based on the status and distance of these cases from the Site it does not appear they pose an environmental concern.

State Water Resources Control Board's Hazardous Substance Storage Container Database contains the Underground Storage Database which lists registered USTs. The UST list provided by EDR lists eleven UST sites within approximately 0.25-mile of the Site. None of the facilities appear to pose an environmental concern based on their location and distance to the Site, with the exception of two facilities.

The EDR report also supplied information from databases that list underground storage tanks in the area of the Site. The databases included were Statewide Environmental Evaluation and Planning System (SWEEPS UST), Historical UST Registered Database (HIST UST) and The Facility Inventory Database (Ca FID UST). The EDR report listed two properties with the names of ORANGE CO SVC STA EQUIP at 225 North Loara and ANAHEIM TOC ANH at 205 North Loara St that appear to be adjacent and upgradient of the Site. Based on the depth to groundwater and their distance to the Site they do not appear to pose an environmental concern to the Site.

EDR also provides a review of the aboveground storage tank petroleum storage tank locations (AST) listings. This list revealed 4 AST sites within approximately ¹/₄ mile of the Site. Based on the distance and locations of these records it does not appear they pose an environmental concern to the Site.

Three locations were listed on the DRYCLEANERS database which lists drycleaner related facilities that have EPA ID numbers. One of the facilities listed is the AFTER FIVE TUX SHOP which is located adjacent to the Site and discussed in previous paragraphs. This database lists what EDR refers to as "High Risk Historical Records" and is a collection of potential dry cleaner sites. The remaining two facilities are listed as PRINGLE DRAPERIES at 307 North Euclid Way and DAISY CLEANERS, L.C. at 277 South Euclid Street. The listing for PRINGLE DRAPERIES appears to be adjacent and across Euclid Street to the west of the Site, while the other listing for DAISY CLEANERS, L.C. is close to a quarter mile to the south west of the Site. Based on close proximity of the PRINGLE DRAPERIES listing; EMS believes the listing for 307 North Euclid Way represents a *Recognized Environmental Condition*.

EDR US Hist Auto Stat is a database of potential gas station/filling station/service station sites that EDR has put together from searching selected national collections of business directories. This database listed three EDR US Hist Auto Stat sites within ¼ mile of the site. The properties listed appeared to be to the south and downgradient of the Site and did not appear to pose an environmental concern.

The results of EMS' review of Standard Environmental Records Sources revealed evidence of *Recognized Environmental Conditions* and *Historical Recognized Environmental Conditions* in connection with the site including documented chemical handling activities, hazardous waste generation and releases of chemicals to land on Site and on adjacent properties.

2.3.2 Physical Setting Sources

The EDR Radius MapTM Report provides a physical setting source addendum (Geocheck[®]). The Site is located at an elevation of approximately 146-feet above mean sea level (msl). Local topography decreases in elevation to the west-southwest. The site is located in a 500-year Federal Emergency Management Agency (FEMA) flood zone. The EDR report searched for site-specific hydrogeologic data within a 1.25-mile radius from the site. No site-specific hydrogeologic data was found for the site. EDR has also developed a groundwater information system, known as Aquiflow, which maintains groundwater depth and flow direction data from reports submitted by environmental professionals to regulatory agencies. A total of 18 reports were reviewed by EDR and from locations within 1/8 mile from the site reported groundwater flow direction to the southwest. The EDR report also searched for public water systems and water wells known to the United States Geological Survey (USGS) and water wells known to the State of California. One Federal USGS water well was listed within one mile of the site. No public water supply system was identified within one-mile of the site. The State Database Well Information listed numerous wells within one-mile of the site. The State Oil/Gas Well database identified numerous wells 0.25to one-mile from the site. The EDR report did not identify any earthquake fault lines within one mile of the site.

EMS' review of Physical Setting Sources did not reveal any evidence of *Recognized Environmental Conditions* in connection with the site.

2.3.3 Historical Use Information

EMS conducted a review of reasonably ascertainable historical information from standard sources to determine the past land use of the Site and surrounding area including the following: Sanborn[®] fire insurance maps; historical topographic maps; historical aerial photographs; historical city directories; and, historical building permits. The following paragraphs summarize our findings.

2.3.3.1 Sanborn[®] Fire Insurance Map Review

EMS retained EDR to perform a search for historical Sanborn[®] fire insurance maps for the site vicinity. Sanborn[®] maps were not available for the site vicinity. EDR's *Certified Sanborn[®] Map Report* is included in Appendix E.

2.3.3.2 Historical USGS Topographic Map Review

EMS retained EDR to provide historical topographic maps prepared by the USGS for the site vicinity. Historical topographic maps were available for the years 1896, 1898, 1901, 1902, 1935, 1942, 1949, 1950, 1965, 1972, 1981 and 2012. The *EDR Historical Topographic Map Report* is included in Appendix F.

No specific land use is identified on the site, but immediately adjacent to the Site and to the north are the Southern Pacific Railroad and to the west and south the streets that would become Euclid Street and Lincoln Avenue are visible in the 1896 and 1898 topographic maps. These early topographic maps also show streets in a grid like pattern and structures in the general vicinity of the Site. The 1901 and 1902 topographic maps are the first time a structure appears adjacent to the Site, with the structure located near the corner of Euclid Street and West Lincoln Avenue. The structure in the corner of Euclid Street and West Lincoln Avenue appears to be gone in the 1935 topographic map and has been replaced by two structures to the east. Once we reach the 1942

topographic map the structures near the Euclid Street and West Lincoln Avenue corner appear to have reappeared and the two additional structures to the east are still visible on the map. The 1949 and 1950 topographic maps no longer show a structure near the Euclid Street and West Lincoln Avenue corner. The 1965 topographic map is the first time the commercial/industrial structures currently adjacent and onsite are visible and a ramp connected to the 5 freeway is seen going through the northern portion of the Site. There are no significant changes to the Site in the 1972 and 1981 topographic maps. The 2012 topographic map does not show the building on the Site or the ramp connected to the 5 freeway.

2.3.3.3 Aerial Photograph Review

EMS reviewed historical aerial photographs obtained from EDR for the years, 1938, 1947, 1953, 1963, 1972, 1977, 1987, 1990, 1994, 2005, 2009 and 2012. The *EDR Aerial Photo Decade Package* report is included in Appendix G.

The 1935 to 1953 aerial photographs indicate the Site and a majority of the adjacent properties appear to be comprised of agricultural land with a few small structures with the exception of the land to the north which appears to be a highway. The 1963 aerial photograph is the first time the buildings currently on the Site are visible and the northern most portion of the property is bisected by a 5-freeway off-ramp and a small strip of agricultural land. Commercial buildings are also visible to the east, west and south of the Site and the 5-freeway is also visible to the north. The 1972 aerial photograph does not appear to have any significant changes to the Site with the exception of the agricultural land being replaced with trees to the south of the off-ramp and address 1659 West Lincoln Avenue now being used for parking and possibly storage. Adjacent properties are still primarily commercial/industrial with development continuing to increase in the area overall. There does not appear to be any significant changes to the Site or adjacent properties in the 1977 to 1994 aerial photographs with the exception of the demolition of a large property to the north of the property on the other side of the 5-freeway. The 2005 aerial photograph shows that the 5-freeway off-ramp cutting through the northern portion of the property has been demolished along with a portion of the adjacent property to the west. The northern portion of 1659 West Lincoln Avenue appears to also have been restricted as there are no cars parked in this area. The 2009 and 2012 aerial photographs appear to show an overhang or portion of the building on 1631 West Lincoln Avenue was removed. There does not appear to be any additional significant changes to the Site in the 2009 and 2012 aerial photographs. The only significant changes to adjacent properties appear to be the widening of Euclid Boulevard and the construction of large building to the southwest of the property and overall an increase in the density of commercial/ industrial development.

2.3.3.4 City Directory Abstract

EMS retained EDR to provide a historical city directory search for the site and nearby properties. The city directories identify individuals and businesses by street address. EDR obtained information from sources including city and telephone directories dating from 1920 to 2014. The *EDR City Directory Abstract* is included in Appendix H.

The property addresses of 1621, 1659, 1681, 1687 and 1695 West Lincoln Avenue were identified on The Pacific Telephone and Telegraph Co., Pacific Telephone, Ross Publications, General Telephone Co., of California, Luskey Brothers & Co., Inc. and Pacific Bell directories. The properties were identified under the following entities: 1621 West Lincoln Avenue: CLEM SCHMITT-ADV & DESIGNS W LINCOLN AV ANH and Cycle Painting, Rajas Cycle Painting.

1631 West Lincoln Avenue: LAHABRA PRODUCTS INC W LINCOLN AV ANH, C T S CEMENT MANUFACTURING, PAREXLAHABRA INC, LA HABRA STUCCO DIV OF LA HABRA PRODUCTS Anaheim, Sales Order Desk, From @Los Angeles@ Telephones Call, Sales Order Desk, LA HABRA PRODUCTS INC, La Habra Stucco Co See La Habra Products Inc, LAHABRALITE CO See La Habra Products Inc and LA HABRA STUCCO CO, Lahabralite Co.

1659 West Lincoln Avenue: QUALITY CONCRETE PRODUCTS W LINCOLN AV ANH, ANAHEIM FAMILY MOTORS, RESA ALI, Rollt Motors, Alexander Motors, Dory Ent, Coastline Auto Brokers, Trucks & Recreational Vehicles, QUALITY CONCRETE PRODUCTS and QUALITY CONCRETE PRODUCTS W LINCOLN AV ANH.

1681 West Lincoln Avenue: ABBEY RENTS HOSP EQUIP & SUPS W LINCOLN AV ANH, KRUPNICKS INC W LINCOLN AV ANH, APT ENTERPRISES INC, M B T ENTERPRISE INC, Award Bridal, Anaheim and ABBEY RENTS slckrm & parti equlp.

1687 West Lincoln Avenue: A B C LIQUIDATOR, LAWRENCE ENTERPRISE TRST INC, AMERICA E P R DEVELOPMENT INC, Rayco Auto Center, Airport Transportation, T I C AUTOMOTIVE CENTERS and FRE E W AY TIRE & AUTO CE N TE R.

1695 West Lincoln Avenue: BLUE CHIP CREDIT CORP W LINCOLN AV ANH, RAYCO AUTO SERVICE STORE W LINCOLN AV ANH, CALIS WHEELS & TIRES, LDS AUTO SALES, CALIS WHEELS & TIRES INC, CHEAP PRICE AUTO GLASS, CITY CONNECTIONS, RICKS AUTO SOUND, Furniture Discounts, Furniture Doctor Inc.

A large number of the properties surrounding the Site were occupied with auto maintenance and repair shops dating back to the 1960s. Most of these shops do not appear to pose an environmental concern as they were across a major street and downgradient of the Site.

Automotive maintenance and repair properties listed adjacent and upgradient of the Site included ADVANCE AUTO SAFETY CNTRS W LINCOLN AV ANH at 1615 West Lincoln Avenue, Lancaster Motors Foreign Car Repairs at 214 North Loara Street, I Auto Clinic and TRANSMISSION SER KE 5 aa at 275 North Manchester Avenue, K &K AUTO REPAIR CENTER and Crescent Auto Repair at 1609 West Lincoln Avenue, D & N Auto Discount Brake & Tire Service, S P R Foreign Auto Repair and HE RBS FORE IGN CAR S E RVICE, Herbs Foreign Care Service at 1611 West Lincoln Avenue, RUS S AUTO S E RVICE and Russ Auto Service at 1613 West Lincoln Avenue, Action Muffler at 1615 West Lincoln Avenue, Nationwide Safti Brake Center Anaheim at 1617 West Lincoln Avenue.

A review of the city directory abstract by EMS also identified three additional properties that are adjacent and upgradient of the Site and appear to be an environmental concern to the Site. The three properties are NIAGARA CHEMICAL N MANCHESTER AVE ANH, NIAGARA CHEMICAL DIVISION FMC CORPORATION, NIAGARA CHEM, Elmer A W Anaheim Spray Chemical Co Anaheim Spray Chemical Co at 303 North Manchester Avenue, Orange County

Service Station Equip & Tank Testin 30, Peerless Spray Chemical Co and Muckenthaler L A Peerles Spray Chemical Co at 225 North Loara Street and Orange County Lubrication Equipment, Metro Lubrication Equip and Enviro Com at 329 North Manchester.

A review of the historical city directory abstract provided by EDR identified evidence of *Recognized Environmental Conditions* based on the location and proximity of several auto repair maintenance and repair shops along with chemical companies adjacent and upgradient of the Site.

2.3.3.5 Building Permit Report

EMS retained EDR to provide a building permit report for the site and adjacent properties. Five permits were provided for the Site by EDR. One permits was a building permit related to tenant improvement, while the remaining four related to the conveyer systems installed inside 1631 West Lincoln Avenue building. None of the permits listed in the Building Permit Report for surrounding properties appeared to pose an environmental concern to the Site, with the exception of the installation of a spray booth at the address of 1600 West Lincoln Avenue. Based on its location it does not appear the installation of this spray booth is an environmental concern to the Site. The *EDR Building Permit Report* is included in Appendix I.

2.3.4 Previous Environmental Reports

EMS was provided electronic files of Phase I reports and other environmental issues for different parcels of the Site. Reports reviewed for information used in EMS' Phase I ESA are listed in Section 5. The following summarizes EMS' review of previous environmental reports.

EMS received from Shopoff *the Focused Removal Assessment Report, Libby Sister Site (Asbestos Project) – EPA Region 9 for La Habra Products, Inc., 1631 W. Lincoln Ave., Anaheim, Ca prepared by U.S. Department of Transportation Research and Special Programs Administration, John A. Volpe National Transportation Systems Center, Environmental Engineering Division, DTS-33 dated April 2002. This report documented a focused removal assessment at 20 locations that had been identified as having received ore or vermiculite from Libby, Montana. The potential contaminant of concern being investigated was asbestos, specifically amphibole asbestos (tremolite/actinolite) associated with vermiculte mined from Libby Montana. Eight soil samples were collected and a trace amount (less than 1 percent by visual estimate) of tremolie/actinolite asbestos was detected in two of the samples. The EPA was to evaluate these low levels and decide if they perform additional verification. No asbestos structures were found in the microvacuum dust sampling and ambient air sampling.*

EMS reviewed the *Phase I Environmental Site Assessment Performed at Luiso Property, 1687 West Lincoln Avenue Between Euclid Street and Lora Street, Anaheim, California 92801* prepared by Gilray Enterprises, Inc. dated October 31, 2002. Conclusions from the report included the use of the property as an automotive repair facility for 40 years. The report also discovered Anaheim Fire Department records documenting verbal cease and desist orders for the discharge of liquids from the property. The Orange County Health Care Agency also had records documenting violations for improper labeling of 55-gallon waste drums and not properly covering a waste drum.

Pacific Edge Engineering prepared the Subsurface Investigation Report, Luiso Property, 1687 W. Lincoln Avenue, Anaheim, California dated February 26, 2003. This report was prepared due to environmental concerns identified in the 2002 Phase I prepared by Gilray Enterprises, Inc.

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According to the conclusions in the report soil samples were collected and TRPH did not exceed "commonly accepted industry standards", detected metals were within normal background concentrations and PCBs were not detected above laboratory-reporting limits. PCE and MTBE were the only VOCs detected above laboratory reporting limits. PCE was detected in two samples and MTBE was detected in six samples. PCE and MTBE detections were localized to the concrete drainage swale and nearby service bays. No further action was recommended by Pacific Edge Engineering at the time, but did note that if the site is demolished in the future, qualified oversight should be conducted during soil disturbance.

EMS also reviewed the *Phase I Environmental Assessment, 1621 West Lincoln Avenue, Anaheim, California* prepared by Advanced GeoEnvironmental, Inc. on March 9, 2005. Conclusions from the report included the past use of the property as a motorcycle paint shop and brake shop. The operation of a brake shop and painting operations were listed as potential environmental conditions. The report also listed the possibility of asbestos containing building material and lead based paint could be present due to the age of the buildings on the property. Recommendations for the property included a limited soil vapor survey and an asbestos and lead based paint survey.

An Asbestos-Containing Materials Survey, 1619-1621 West Lincoln Avenue, Anaheim, California prepared by Advanced GeoEnvironmental, Inc. on January 14, 2010 was reviewed by EMS. The asbestos survey found asbestos-containing material and the recommendations included the use of a certified asbestos contractor for demolition.

EMS also reviewed the *Limited Phase One Report for the Vacant Lot Located at the Northeast Corner of Euclid Street and Lincoln Avenue* (1699 West Lincoln Avenue), *Anaheim, California* prepared by Excel Environmental and General Engineering (Excel) dated February 27, 2011. The conclusions from the report stated, "it is the opinion of EEGE the past on-site activities have not posed a threat to the site". Excel in the Phase I report did not recommend any further action with regards to the vacant lot.

EMS' review of previous reports identified evidence of *Recognized Environmental Conditions* in connection with the site including documented VOC soil contamination and use of adjacent parcels for automotive repair and painting operations.

2.3.5 Additional Record Sources

EMS searched the following regulatory agency websites for any additional information for the Anaheim Assemblage property: EPA's Envirofacts; DTSC's EnviroStor; SWRCB's GeoTracker; and the AQMD's FINDS websites. No additional information was available for the Site on the EnviroStor website.

The Envirofacts website listed two adjacent properties on the Site under the RCRA Info facility information database. The address of 1683 West Lincoln was listed as After 5 Tux Shops and was listed as a small quantity generator. The address of 1687 West Lincoln was listed as Rayco Auto Centers and listed the Handler ID for the property.

The SWRCB's Geotracker website listed the Site property of La Habra Stucco at 1631 West Lincoln Avenue. Documents included an Underground Storage Tank Case Summary/Closure Rationale for the removal of a 12,000-gallon, diesel fuel UST and fuel dispenser on December 21,

2004. The property received a "No Further Action" letter for the completion of site investigation and remedial action for the contaminated soil that was found during the UST removal.

AQMD's FINDS website listed one permit for the adjacent properties of After Five Tux Shop at 1683 West Lincoln and six permits for the address of 1687 West Lincoln Avenue under the names Alcaraz & Garcia Enter, Auto Trend Intl, Rayco Auto Centers and T&C Automotive Center. After Five Tux Shop received a permit to operate perchloroethylene dry cleaning equipment on April 23, 1992. The address of 1687 West Lincoln Avenue receive permits to operate for drying ovens and paint spray booths using solvents from 1988 to 1996.

The Geotracker database listed four facilities adjacent to the Site as LUST Cleanup Site. The facilities listed were Mobil #18-GY7 at 101 South Euclid Street, Texaco Service Station at 1680 West Lincoln Avenue, Mills Ford at 1600 Lincoln and Garcia Site at 275 Manchester. All four facilities were listed as "Completed – Case Closed".

The EnviroStor website has four listings for the industrial park adjacent and to the west of the Site across Euclid Street. Two of the listings are for Picofarad, Inc. at 237-D North Euclid and J&H Deburring, Inc. at 307 North Euclid Way and have a current status of "Inactive – Needs Evaluation". One of the other listings is for Euclid Way Industrial Park (Park) at 231-307 North Euclid Way and includes a summary of the site history. According to the site history the Park is a 4.5 acre multi-structure industrial park developed between 1960 and 1965. A soil investigation was performed at the Park and PCE was detected in soil. According to the a report dated September 2007 it was determined there was a potential risk to workers inside three buildings from soil gas intrusion. New ownership entered the picture in 2015 and an SVE pilot study and groundwater monitoring activities are ongoing at the Park. The last listing is for Tower Park Industrial located at 313-353 Euclid Way. The site history and performed industrial activities on the property. According to building permit records a cesspool may have been used to discharge sanitary and industrial waste water. PCE impacts have been detected in shallow soil and in groundwater on the property. Based on the soil data it appears there is a historical source of PCE on the property.

According to the DOGGR Online Mapping System (DOMS) there are no wells located on the site.

EMS visited the Santa Ana Regional Water Quality Control Board (RWQCB) on June 25, 2018 to review files for the 1631 West Lincoln Avenue property. Two documents were available to review and they included the *Preliminary Assessment Report, La Habra Stucco, Anaheim, California* prepared by the DTSC and an associated EPA letter. The letter stated that the Preliminary Assessment Report is used to determine whether a site may qualify for placement on the National Priorities List (NPL) and stated the property did not qualify for Superfund listing.

DTSC Cypress supplied EMS with a copy of the documents they have on file. The file consisted of the *Preliminary Assessment Report, La Habra Stucco, Anaheim, California* prepared by the DTSC. This report is discussed in the previous paragraph.

EMS' review of previous reports identified evidence of *Recognized Environmental Conditions* in connection with the site including documented use of dry cleaning equipment, spray booths and VOC soil contamination on properties adjacent to the Site.

2.3.6 ASTM E 1527-13 User Questionnaire

EMS was provided ASTM E 1527-13 User Questionnaires for the vacant lot, 1631, 1659 and 1695 West Lincoln Avenue on June 5 and 6, 2018. None of the property owners were aware of any environmental cleanup liens against their properties. The owners of the 1631 West Lincoln Avenue property and the vacant parcel have specialized knowledge including prior site use, chemical use, chemical releases, cleanups and investigations. According to the questionnaire the 1631 West Lincoln Avenue property had two USTs removed and the 1659 West Lincoln Avenue property had one UST removed. No other information than past uses of the property was provided on the questionnaire. A copy of the completed ASTM E 1527-13 User Questionnaire is included in Appendix L.

2.4 Information from Site Reconnaissance and Interviews

EMS visited the Site on June 6 and 21, 2018 to perform a Site inspection for seven parcels that were originally part of the Site. EMS performed inspections for six of the seven parcels on June 6 and one parcel on June 21. Mr. Flores and Mr. Marello with EMS were escorted on the 1631 West Lincoln Avenue property by Mr. Craig Ott, So. California Production Manager with CTS Cement and on properties 1681, 1687 and 1695 by Mr. Don Butts, Director of Sales and Acquisitions with Scott Anastasi Realty. Some additional information and access was provided by tenants currently occupying each property.

The first property EMS accessed was the 1631 West Lincoln, CTS Cement/RapidSet facility (see Photograph 1). The first area accessed was the eastern portion of the property where concrete vehicle barriers were seen in a circle around an area that previously contained an aboveground propane tank (see Photograph 2). Continuing along the eastern side of the property is a former research and development area. Nearly all the equipment in this area had been moved out, but some of the aggregate sand and rock was still stored along the building (see Photograph 3). Two transformers were also noted in the area. A drain running along the eastern portion of the property was also noted. No obvious staining was visible around the drain (see Photograph 4). Along the eastern portion of the building on the property are three silos containing bulk cement used in packaging. The interior of the building on the property is primarily used for packaging product and storage before being shipped out (see Photograph 5). The property has a dust collector to reduce concrete dust inside the building. EMS also noted an area where concrete leveler primer was stored in packages prior to being shipped out; a review of the primer did not note any VOCs in the product (see Photograph 6). The building also included a break area, offices, bathrooms and media storage room. EMS did note some cleaning materials in the building. Two compressors were noted on a second-floor room with a 5-gallon bucket of oil in between them. Some staining was noted on the ground between the two compressors (see Photograph 7). A review of environmental documents by EMS noted an UST on the property had been removed, but Mr. Ott did not know where the UST was previously located.

The next property EMS accessed was 1681 West Lincoln Avenue. This property did not currently have any tenants and consisted of a large abandoned commercial building and associated loading dock and parking spaces. The interior of the commercial building had been cleared out with some telephone wiring left behind (see Photograph 8). EMS also checked the bathrooms inside the building and did not note any areas where chemicals may have been disposed of. The interior of the building did contain a drop ceiling and warehouse area in the rear. Outside to the rear of the

building was the loading dock area with one drain in the middle at its lowest point. EMS did not note any obvious staining near the drain. EMS did notice a concrete pad next to the loading dock area, but was not informed what the pad was used for (see Photograph 9). A transformer was also noted in the northwestern portion of the property.

From the 1681 West Lincoln Avenue property EMS accessed the vacant lot that occupies the northwestern portion of the Site. The property is currently vacant and primarily covered with vegetation (see Photograph 10). While walking the property EMS noted trash throughout and one location that may have been used to set a camp fire. A small homeless encampment was noted along the northern fence line with some trash and debris strewn about near the campsite (see Photograph 11). Following the northern fence line in the northeast corner was what appeared to be some concrete rubble and an area where people were illegally dumping and burning trash (see Photograph 12).

Once the investigation of the vacant lot was completed, EMS was given access to the 1659 West Lincoln Avenue property. This property is currently being leased by Rokstad a power line construction and maintenance company. The property appears to be primarily used for the storage of power line construction and maintenance equipment (see Photograph 13). Four roll-off bins were noted in the middle of the property containing what appeared to be treated wood, metal and trash power line construction waste (see Photograph 14). Along the western side of the property was an empty building that EMS was not able to obtain access to but was able to peer into and it appeared the building was empty. Just to the north of the building was a caged area with a hazardous waste sign on the southern portion of the fence (see Photograph 15). Five drums were noted in the materials stored in the hazardous waste storage area include lighting arrestors and liquid fuses.

The next property EMS was able to access was 1687 West Lincoln Avenue, who's current tenant is a furniture liquidation company. According to records reviewed by EMS the property was previously an automotive repair shop but is now primarily used as furniture storage by the current tenant (see Photograph 16). The tenant was also storing tires in the rear portion of the property (see Photograph 17). Near the tire storage area was a table with a 5-gallon bucket full of a blue liquid stored underneath a table. According to the tenant this is a furniture cleaning area where they are just using soap and water (see Photograph 18). The property was previously used as an auto repair shop and some lifts are still in place outside the building on the property. Several vehicles were also parked in the rear of the property. The bays used for auto repair in the past are currently used for storage of furniture.

The last property EMS accessed on June 6 was the 1695 West Lincoln Avenue property who currently has a tire shop by the name JR's Wheels as a tenant. The entrance to the building had a display area with a number of rims the tenant has for sale. Entering the service area in the western portion of the building were a number of auto bays used for rim installation and tire and brake repair. Housekeeping in this area was poor with metal shavings on the ground and tools and auto parts haphazardly stored (see Photograph 19). Housekeeping in general was very poor throughout the auto bay area (see Photograph 20). Cans of Johnson's Non-Chlorinated Brake Parts Cleaner were also improperly stored and disposed of throughout the property. Based on the frequency this can of brake cleaner was observed throughout the property it appears to be used in large quantities.

Based on the Safety Data Sheet for the brake cleaner it does contain Methanol, Acetone, Toluene, Benzene and Xylene. A number of cars appeared to be stored along the northwestern portion of the property and staining was observed underneath the vehicles (see Photograph 21). A large number of used tires were also stored outside behind the building and according to the tenant were removed on a regular basis for recycling (see Photograph 22). New tires were stored in a warehouse area in the northeast portion of the building. Buckets of used oil were also observed in the warehouse area and according to the tenant these buckets were left by the previous tenant of the property (see Photograph 23). An area for re-finishing rotors was also observed with metal shavings in buckets and all over the floor. Accessing the outside area behind the building EMS observed more tire storage and some locations where it appeared some automotive work had occurred, and some staining was observed on the asphalt (see Photograph 24). Along the eastern boundary of the property on a concrete pad, EMS observed an AST with used oil along with four 55-gallon drums containing automotive parts such as springs and shocks (see Photograph 25). According to the tenant the previous tenant had left the AST. EMS also observed two compressors with springs and shocks improperly disposed of near the AST and drums. Chemicals throughout the property did not appear to be properly stored in flammable cabinets.

EMS returned on June 21 to perform the site investigation for the 1621 West Lincoln Avenue property as access was granted on June 6. The property is currently occupied by Lincoln Construction Corporation and appears to store equipment and large amounts of soil. Two large piles of soil were observed on the southeastern portion of the property (see Photograph 26). Parts and equipment was stored along the western, northern and northeastern portions of the property (see Photograph 27). In the northeastern corner EMS also observed 55-gallon drum storage area (see Photograph 28). The drums in this area were not stored in secondary containment and approximately seven of the drums did not have lids and were only covered in tarps. Spills were noted on the ground in the immediate vicinity of the drums (see Photograph 29). An uncovered 5gallon bucket with used oil was also noted in the 55-gallon drum storage area (see Photograph 30). An additional 55-gallon drum was also noted near the drum storage area that had been partially crushed by a large piece of concrete and had spilled some its content (see Photograph 31). On the eastern portion of the property is an old small building with a bathroom and small warehouse. Inside the warehouse portion it appears some vehicle maintenance supplies are stored along with some paint and used fluorescent bulbs (see Photograph 32). Inside this building EMS also observed a 30-gallon drum with an attached parts washer (see Photograph 33).

The Site inspection did reveal the presence of *Recognized Environmental Conditions*.

2.4.1 Hazardous Substances in Connection with Identified Uses

Chemicals including motor oils, paints and maintenance chemicals were noted at the Site. EMS did not observe instances of the misuse or improper storage of chemicals and/or poor housekeeping.

2.4.2 Other Hazardous Substances and Unidentified Substance Containers

There were no hazardous substances (not in connection with identified uses) or unidentified substance containers observed on-site during the site inspection.
2.4.3 Storage Tanks

One AST was observed on an adjacent property at the 1695 West Lincoln Avenue address, which according to the tenant contains used motor oil.

2.4.4 Indications of Polychlorinated Biphenyls (PCBs)

Three pad-mounted electrical transformers were noted on adjacent properties; however, they are the property of the city of Anaheim and any PCBs contained within the transformers would be handled by the city of Anaheim Public Utilities. The adjacent property located at 1659 West Lincoln Avenue leased by Rokstad contained materials stored in the hazardous waste storage area including lighting arrestors and liquid fused that might contain PCBs.

2.4.5 Indications of Solid Waste Disposal

There were no noted concerns regarding on-site solid waste disposal during the site inspection.

2.4.6 Physical Setting Analysis, if Migrating Substances are an Issue

There are four listings for the industrial park adjacent and to the west of the Site across Euclid Street. Investigations have been performed at the park and PCE impacts have been detected in shallow soil and in groundwater. The most recent information states that an SVE pilot study and groundwater monitoring activities are ongoing at the park. The industrial park west of the Site is a possible source for soil vapor and groundwater contamination upgradient of the Site.

2.4.7 Indications of Asbestos Containing Material (ACM)

Site buildings were originally constructed prior to 1980; therefore, ACM may be present in building materials such as floor tile, ceiling tile, wall-board, grout, pipe and equipment insulation, etc. An ACM survey on buildings prior to demolition by a certified asbestos contractor is recommended by EMS.

2.4.8 Radon Accumulation Potential

The National Radon Database has been developed by the EPA and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The EPA has established the following three zone classifications for radon:

Zone 1 indoor average level > 4 picocuries per liter (pCi/L), Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L, Zone 3 indoor average level < 2 pCi/L,

The EDR *Geocheck*[®] report contains radon information for Orange County (Appendix B). The EPA Radon Zone for Orange County is Zone 3 (indoor average level < 2 pCi/L). The EPA recommended guideline for radon is 4.0 pCi/L. Federal radon information also indicates 100% of first floor living areas in the Orange County area were below 4 pCi/L. Second floor living areas and Basements were not reported.

The EDR report also contains data from a California State database for radon. This database indicates that of the 29 sites tested for radon within the 92801 Zip Code, two sites had radon levels greater than 4.0 pCi/L.

EMS noted no potential concerns with respect to radon at the site.

2.4.9 Indications of Lead Based Paint

The site buildings were constructed prior to 1980; therefore, lead based paint may be present in painted surfaces on the site. EMS recommends a lead based paint survey be performed prior to demolition by a certified lead based paint contractor.

3 Data Gaps

EMS retained EDR to perform an environmental lien search for the site. Due to the multiple parcel numbers for the site, and in order to reduce costs, the lien search was not conducted for all of the site's parcel numbers. EMS feels the lack of a lien search for all parcel numbers does not significantly impact EMS' ability to identify *Recognized Environmental Conditions* at the site.

4 Findings and Conclusions

EMS performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-13 of the Anaheim Lincoln Avenue Assemblage located at the vacant parcel at the corner of North Euclid Street and West Lincoln Avenue (1699 West Lincoln Avenue) and 1631 West Lincoln Avenue, in the City of Anaheim, Orange County, California 92801. Any exception to, or deletions from, this practice are described in Section 3 of this report. EMS' Phase I ESA revealed no evidence of *Recognized Environmental Conditions, Historical Recognized Environmental Conditions* or *De Minimis Conditions* in connection with the site, except for the following:

Recognized Environmental Conditions

- EDR provides a list of the Department of Toxic Substances Control's (DTSC's) EnviroStor database listings which identify sites that have known contamination or sites for which there may be reason to investigate further. Five facilities were listed adjacent to the Site based on the EDR Report. These sites are listed as RUSTLICK INCORPORATED at 303 Manchester, PICOFARD, INC at 237-D N. EUCLID, TOWER PARK INDUSTRIAL at 313-315 Euclid Way, J&H DEBURRING, INC at 307 N. Euclid Way and BURLINGTON ENGINEERING, INC at 307 N. Euclid Way. The facility located at 303 Manchester appears to have been a pesticide production facility. The remaining four facilities appear to be part of the Euclid Way Industrial Park a multi-structured industrial park developed between 1960 and 1965. The location of these properties appears to be adjacent to the Site; therefore, EMS believes they represent a *Recognized Environmental Condition*.
- The EnviroStor website has four listings for the industrial park adjacent and to the west of the Site across Euclid Street. According to the site history the Park is a 4.5 acre multistructure industrial park developed between 1960 and 1965. A soil investigation was performed at the Park and PCE was detected in soil. In 2015 an SVE pilot study and groundwater monitoring activities were being performed at the park. Another listing at the industrial park is for Tower Park Industrial located at 313-353 Euclid Way. The site history states that Robertshaw a cable and appliance thermostat controls manufacturer operated a laboratory and performed industrial activities on the property. According to building permit records a cesspool may have been used to discharge sanitary and industrial waste water. PCE impacts have been detected in shallow soil and in groundwater on the property. Based on the soil data it appears there is an historical source of PCE on the property. Based on the information from the EnviroStor website and the parks proximity to the Site, EMS believes these findings represent a *Recognized Environmental Condition*.
- PRINGLE DRAPERIES located at 307 North Euclid Way was listed on the DRYCLEANERS database which lists drycleaner related facilities that have EPA ID numbers. This database lists what EDR refers to as "High Risk Historical Records" and is a collection of potential dry cleaner sites. The listing for PRINGLE DRAPERIES appears to be adjacent and across Euclid Street to the west of the Site. Based on the proximity of the PRINGLE DRAPERIES listing, EMS believes the 307 North Euclid Way dry cleaner listing represents a *Recognized Environmental Condition*.

- A review of the city directory abstract by EMS also identified three additional properties that are adjacent and upgradient of the Site and appear to be an environmental concern. The three properties are NIAGARA CHEMICAL N MANCHESTER AVE ANH, NIAGARA CHEMICAL DIVISION FMC CORPORATION, NIAGARA CHEM, Elmer A W Anaheim Spray Chemical Co Anaheim Spray Chemical Co at 303 North Manchester Avenue, Orange County Service Station Equip & Tank Testin 30, Peerless Spray Chemical Co and Muckenthaler L A Peerles Spray Chemical Co at 225 North Loara Street and Orange County Lubrication Equipment, Metro Lubrication Equip and Enviro Com at 329 North Manchester. Based on the proximity of these listings, EMS believes they represent a *Recognized Environmental Condition*.
- Pacific Edge Engineering prepared the Subsurface Investigation Report, Luiso Property, 1687 W. Lincoln Avenue, Anaheim, California dated February 26, 2003. This report was prepared due to environmental concerns identified in the 2002 Phase I prepared by Gilray Enterprises, Inc. According to the conclusions in the report PCE was detected in two samples and MTBE was detected in six samples. PCE and MTBE detections were localized to the concrete drainage swale and nearby service bays. No further action was recommended by Pacific Edge Engineering at the time but did note that if the site is demolished in the future, qualified oversight should be conducted during soil disturbance. Based on the lack of a soil gas survey performed at the property and its proximity to the Site, EMS believes the VOC results represent a Recognized Environmental Condition.
- EMS also reviewed the *Phase I Environmental Assessment, 1621 West Lincoln Avenue, Anaheim, California* prepared by Advanced GeoEnvironmental, Inc. on March 9, 2005. Conclusions from the report included the past use of the property as a motorcycle paint shop and brake shop. The operation of a brake shop and painting operations were listed as potential environmental conditions. The report also listed the possibility of asbestos containing building material and lead based paint could be present due to the age of the buildings on the property. Recommendations for the property included a limited soil vapor survey and an asbestos and lead based paint survey. An asbestos survey was completed for the property, but no soil vapor survey or lead based paint survey has been performed. EMS believes the past use of the property as a motorcycle paint shop and brake shop, the lack of a soil vapor survey and the properties proximity to the Site represent a *Recognized Environmental Condition*.
- AQMD's FINDS website listed one permit for After Five Tux Shop at 1683 West Lincoln. After Five Tux Shop received a permit to operate perchloroethylene dry cleaning equipment on April 23, 1992. EMS believes the permit for dry cleaning equipment on the adjacent property represents a *Recognized Environmental Condition*.
- The property of 1695 West Lincoln Avenue which is currently a tire shop by the name JR's Wheels is located adjacent to the Site. During a Site inspection of this property, housekeeping throughout the building on the property was noted to be very poor with metal shavings on the ground and a number of cans of Johnson's Non-Chlorinated Brake Parts Cleaner stored and disposed of improperly. Based on the Safety Data Sheet for the brake cleaner it does contain methanol, acetone, toluene, benzene and xylene. Staining was observed underneath vehicles and in the rear area of the property. An AST and buckets of

used oil were also observed outdoors and in the warehouse area. Chemicals throughout the property did not appear to be properly stored in flammable cabinets. The improper storage and disposal of oils and chemicals, the staining observed on the asphalt and proximity to the Site represent a *Recognized Environmental Condition*.

• The 1621 West Lincoln Avenue property is currently occupied by Lincoln Construction Corporation and appears to store equipment and large amounts of soil. In the northeastern corner of the property EMS observed 55-gallon drums stored on pallets without secondary containment. Approximately seven of the drums did not have lids and were only covered in tarps. Spills were noted on the ground in the immediate vicinity of the drums. An uncovered 5-gallon bucket with used oil was also noted in the 55-gallon drum storage area. An additional 55-gallon drum was also noted near the drum storage area that had been partially crushed by a large piece of concrete and had spilled some of its content onto the soil. Inside this building EMS also observed a 30-gallon drum with an attached parts washer. The lack of secondary containment, observed spills and proximity to the Site represent a *Recognized Environmental Condition*.

Historical Recognized Environmental Conditions

- The Site address of 1631 West Lincoln Avenue appears on the RGA LUST and LUST databases under the name LA HABRA STUCCO. The LUST database lists the current status of the Site as "Completed Case Closed" and the action as "Closure/No Further Action Letter". Based on the case closure for the property on the Site it appears the LUST listing represents an *Historical Recognized Environmental Conditions*.
- The EDR report identified 43 Leaking Underground Storage Tank (LUST) cases within 0.5 mile of the Site. The LUST database contains an inventory of reported leaking underground storage tank incidents. According to the EDR report all the listed LUST cases on adjacent properties attained closure. Based on the case closure and their proximity to the Site adjacent records appear to represent *Historical Recognized Environmental Conditions*.

Although indoor air quality is specifically listed as a non-scope consideration under Section 13.1.5.7 of ASTM E 1527-13, *Environmental Professionals* cannot eliminate migration of vapors from the ASTM E 1527-13 Phase I ESA scope of work as this would result in the Phase I ESA being non-AAI compliant. ASTM has released ASTM E 2600-15 *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*. The Guidance is directed at identifying the likelihood for migrating vapors to encroach onto a target property creating a VEC. The potential findings of the ASTM E 2600-15 screening are the following:

- A VEC exists; or,
- A VEC does not exist.

ASTM E 2600-15 is a two Tier process. Tier 1 focuses on known or suspected contaminated properties identified during the Phase I ESA within an Area of Concern (AOC) about the target property. For volatile and semi-volatile organic compounds (VOCs and SVOCs), such as dry-cleaning chemicals and industrial solvents, the AOC is defined as 1/3 mile. For petroleum

hydrocarbon chemicals such as gasoline the AOC is defined as 1/10 mile. The AOC can be shortened in the down- and cross-gradient directions if the groundwater flow direction is known. Four EnviroStor listings and two dry cleaners were found in close proximity of the Site.

Tier 2 focuses on the contaminated plumes from the contaminated properties identified within the AOC and their proximity (critical distance) to the target property. The critical distance is 100 feet for VOCs and 30 feet for petroleum hydrocarbons. A VEC is likely to exist due to the presence of USTs, oil and waste oil ASTs and 55-gallon drums present on the Site. Based on the an adjacent property previously containing dry cleaning equipment and the contamination on the adjacent property, EMS believes a VEC exists.

Although not considered *Recognized Environmental Conditions* as defined by the EPA AAI rule and ASTM E 1527-13, EMS also noted the following potential environmental concerns and issues:

- The site buildings were constructed prior to 1980; therefore, asbestos-containing building materials and lead based paint are still likely to be present on-site.
- The presence of VOCs in soil underlying the site and the adjacent property represents a potential vapor intrusion issue in connection with the site.

EMS recommends a Phase II Environmental Site Assessment (ESA) be performed at the individual properties of the Site due to the presence of *Recognized Environmental Conditions*, *Historical Environmental Conditions* and Vapor Encroachment Conditions. A Phase II ESA would require soil testing and soil vapor testing at a minimum in order to evaluate any impacts to the property that could jeopardize human health and/or increase development costs through environmental remediation efforts.

5 Bibliography

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Subsurface Investigation Report, Luiso Property, 1687 W. Lincoln Avenue, Anaheim, California, Pacific Edge Engineering, February 26, 2003

Phase I Environmental Assessment, 1621 West Lincoln Avenue, Anaheim, California, Advanced GeoEnvironmental, Inc., March 9, 2005

Limited Phase One Report for the Vacant Lot Located at the Northeast Corner of Euclid Street and Lincoln Avenue, Anaheim, California, Excel Environmental and General Engineering, February 27, 2011

FIGURES



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Phase I Environmental Site Assessment

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Map Source: Google Earth

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PHOTOGRAPHS

Adjacent Properties:

Photographs Date:

Project Number: EMS570 1631 & 1699 West Lincoln Avenue, Anaheim, Ca



1621, 1659, 1681/1683, 1687 and 1695 West Lincoln Avenue, Anaheim, Ca June 6 and 20, 2018



Photograph 1: 1631 West Lincoln Avenue - CTS Cement/RapidSet Property.

Photograph 2: 1631 West Lincoln Avenue -Concrete barriers where aboveground propane tank once stood.

Adjacent Properties:

Photographs Date:

Project Number: EMS570 1631 & 1699 West Lincoln Avenue, Anaheim, Ca

1621, 1659, 1681/1683, 1687 and 1695 West Lincoln Avenue, Anaheim, Ca June 6 and 20, 2018





Photograph 3: 1631 West Lincoln Avenue -Aggregate sand and rock stored in bags and drums near former research and development area.

Photograph 4: 1631 West Lincoln Avenue - Drain near eastern portion of the property.

Adjacent Properties:

Photographs Date:

Project Number: EMS570 1631 & 1699 West Lincoln Avenue, Anaheim, Ca



1621, 1659, 1681/1683, 1687 and 1695 West Lincoln Avenue, Anaheim, Ca June 6 and 20, 2018



Photograph 5: 1631 West Lincoln Avenue - Concrete product storage.

Photograph 6: 1631 West Lincoln Avenue -Concrete leveler primer stored inside building.

Adjacent Properties:

Photographs Date:

Project Number: EMS570 1631 & 1699 West Lincoln Avenue, Anaheim, Ca



1621, 1659, 1681/1683, 1687 and 1695 West Lincoln Avenue, Anaheim, Ca June 6 and 20, 2018



Photograph 8: 1681 West Lincoln Avenue -Interior of commercial building on 1687 West Lincoln Avenue property.



Adjacent Properties:

Photographs Date:

1621, 1659, 1681/1683, 1687 and 1695 West Lincoln Avenue, Anaheim, Ca June 6 and 20, 2018

Project Number: EMS570 1631 & 1699 West Lincoln

Avenue, Anaheim, Ca





Photograph 9: 1681 West Lincoln Avenue -Concrete pad outside near loading dock area.

Photograph 10: 1699 West Lincoln Avenue - Vacant lot covered in vegetation.

Adjacent Properties:

Photographs Date:

Project Number: EMS570 1631 & 1699 West Lincoln Avenue, Anaheim, Ca



1621, 1659, 1681/1683, 1687 and 1695 West Lincoln Avenue, Anaheim, Ca June 6 and 20, 2018



Photograph 11: 1699 West Lincoln Avenue -Trash next to homeless encampment.

Photograph 12: 1699 West Lincoln Avenue - Concrete rubble and burned trash.

Adjacent Properties:

Photographs Date:

Avenue, Anaheim, Ca 1621, 1659, 1681/1683, 1687 and 1695 West Lincoln Avenue, Anaheim, Ca June 6 and 20, 2018

Project Number: EMS570 1631 & 1699 West Lincoln







Photograph 13: 1659 West Lincoln Avenue -Power line construction and maintenance equipment.

Photograph 14: 1659 West Lincoln Avenue -Four roll-off bins containing power line construction waste.

Adjacent Properties:

Photographs Date:

Project Number: EMS570 1631 & 1699 West Lincoln Avenue, Anaheim, Ca



1621, 1659, 1681/1683, 1687 and 1695 West Lincoln Avenue, Anaheim, Ca June 6 and 20, 2018



Photograph 16: 1687 West Lincoln Avenue -Furniture stored on the property.

Photograph 15: 1659 West Lincoln Avenue -

Hazardous waste storage area.



Adjacent Properties:

Photographs Date:

1631 & 1699 West Lincoln Avenue, Anaheim, Ca 1621, 1659, 1681/1683, 1687

Project Number: EMS570



1621, 1659, 1681/1683, 1687 and 1695 West Lincoln Avenue, Anaheim, Ca June 6 and 20, 2018





Photograph 17: 1687 West Lincoln Avenue - Tire storage in rear of property.

Photograph 18: 1687 West Lincoln Avenue - Furniture cleaning area.

Adjacent Properties:

Photographs Date:

Project Number: EMS570 1631 & 1699 West Lincoln Avenue, Anaheim, Ca



1621, 1659, 1681/1683, 1687 and 1695 West Lincoln Avenue, Anaheim, Ca June 6 and 20, 2018



Photograph 19: 1695 West Lincoln Avenue -Metal shavings on the ground and tools and auto parts haphazardly stored.

Photograph 20: 1695 West Lincoln Avenue -Items not properly stored or disposed of throughout auto bay area.

Adjacent Properties:

Photographs Date:

1621, 1659, 1681/1683, 1687 and 1695 West Lincoln Avenue, Anaheim, Ca June 6 and 20, 2018

Project Number: EMS570 1631 & 1699 West Lincoln

Avenue, Anaheim, Ca





oln Avenue -

beneath vehicles.

Photograph 21: 1695 West Lincoln Avenue -Cars stored on property and staining observed

Photograph 22: 1695 West Lincoln Avenue -Tires stored behind building.

Adjacent Properties:

Photographs Date:

1631 & 1699 West Lincoln Avenue, Anaheim, Ca 1621, 1659, 1681/1683, 1687

Project Number: EMS570



1621, 1659, 1681/1683, 1687 and 1695 West Lincoln Avenue, Anaheim, Ca June 6 and 20, 2018



Photograph 23: 1695 West Lincoln Avenue - Buckets of used oil in warehouse.

Photograph 24: 1695 West Lincoln Avenue - Staining on asphalt outside of building.

Adjacent Properties:

Photographs Date:

1621, 1659, 1681/1683, 1687 and 1695 West Lincoln Avenue, Anaheim, Ca June 6 and 20, 2018

Project Number: EMS570 1631 & 1699 West Lincoln

Avenue, Anaheim, Ca





Photograph 26: 1621 West Lincoln Avenue -Large piles near southeastern corner of property.

Photograph 25: 1695 West Lincoln Avenue -

Small AST and 55-gallon drums.



Adjacent Properties:

Photographs Date:

Project Number: EMS570 1631 & 1699 West Lincoln Avenue, Anaheim, Ca

1621, 1659, 1681/1683, 1687 and 1695 West Lincoln Avenue, Anaheim, Ca June 6 and 20, 2018





Photograph 27: 1621 West Lincoln Avenue -Parts and equipment stored along property boundary.

Photograph 28: 1621 West Lincoln Avenue -Improperly secured and stored 55-gallon drums filled with oil.

Adjacent Properties:

Photographs Date:

1631 & 1699 West Lincoln Avenue, Anaheim, Ca 1621, 1659, 1681/1683, 1687 and 1695 West Lincoln

Project Number: EMS570



1621, 1659, 1681/1683, 1687 and 1695 West Lincoln Avenue, Anaheim, Ca June 6 and 20, 2018



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Adjacent Properties:

Photographs Date:

1621, 1659, 1681/1683, 1687 and 1695 West Lincoln Avenue, Anaheim, Ca June 6 and 20, 2018

Project Number: EMS570 1631 & 1699 West Lincoln

Avenue, Anaheim, Ca





Photograph 31: 1621 West Lincoln Avenue -Pierced 55-gallon drums spilling its contents onto the soil.

Photograph 32: 1621 West Lincoln Avenue -Storage of vehicle maintenance materials, paint and fluorescent bulbs.

Adjacent Properties:

Photographs Date:

Avenue, Anaheim, Ca 1621, 1659, 1681/1683, 1687 and 1695 West Lincoln

Project Number: EMS570 1631 & 1699 West Lincoln



Avenue, Anaheim, Ca June 6 and 20, 2018



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Compilation Environmental Report 1619, 1631, 1699 West Lincoln Avenue, and West City Parcel, Anaheim, California APPENDIX C

Phase II Environmental Site Assessment – no appendices (EMS, 2019b)

PHASE II ENVIRONMENTAL SITE ASSESSMENT

1631 AND 1699 WEST LINCOLN AVENUE ANAHEIM, CALIFORNIA 92801



PROJECT NUMBER EMS570 SLF-WEST LINCOLN, LLP 2 PARK PLAZA, SUITE 700 IRVINE, CA 92614

JULY 16, 2018 (Revised February 7, 2019)



TECHNICAL REPORT

PHASE II ENVIRONMENTAL SITE ASSESSMENT

1631 AND 1699 WEST LINCOLN AVENUE ANAHEIM, CALIFORNIA 92801

PREPARED FOR:

SLF-WEST LINCOLN, LLC 2 PARK PLAZA, SUITE 700 **IRVINE, CA 92614**

PREPARED BY:

ENVIRONMENTAL MANAGEMENT STRATEGIES, INC. 8 GOODYEAR, SUITE 125 IRVINE, CA 92618

PROJECT NO. EMS570

JULY 16, 2018 (REVISED FEBRUARY 7, 2019)

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Limitations and Certifications

Environmental Management Strategies, Inc. (EMS) has prepared this Report for **SLF-West** Lincoln, LLC assigned parties only. EMS' services in preparation of this document have been performed and rendered in accordance with procedures, practices and standards generally accepted and customary in the consultant's profession for use in similar assignments. No other warranty, expressed or implied, is made.

EMS assumes no responsibility for issues arising from changes in environmental standards, practices, or regulations subsequent to the preparation of this Report and any attached documents. In the event that any changes occur in waste management practices, site conditions, or uses of the property, the information in this document should be reviewed and modified or verified in writing by EMS. EMS does not warrant the accuracy of information supplied by others, or the use of segregated portions of this document.



Michael Marello, PG, CHg. Senior Hydrogeologist



Anthony F. Severini, PG President

July 16, 2018 (Revised February 7, 2019)

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Appendix A: Soil Vapor Sampling Field Logs

Appendix B: Laboratory Reports for Soil

Appendix C: Laboratory Reports for Soil Vapor
List of Acronyms

ASTM	American Society of Testing Methods
bgs	Below Ground Surface
Cal-EPA	California Environmental Protection Agency
CAM	California Administrative Code
C.Hg.	California Certified Hydrogeologist
DTSC	California Department of Toxic Substances Control
ELAP	Environmental Laboratory Accreditation Program
EMS	Environmental Management Strategies, Inc.
ft.	Feet
HERO	DTSC Human and Ecological Risk Office
LTCP	California Low Threat Closure Policy for Petroleum Hydrocarbons
mg/kg	Milligrams per Kilogram
NELAP	National Environmental Laboratory Accreditation Program
PCE	Tetrachloroethene
P.G.	California Professional Geologist
PID	Photoionization Detector
QA/QC	Quality Assurance and Quality Control
RL	Laboratory Reporting Limit
RSL	USEPA Region 9 Regional Screening Level
SSL	Human Health Soil Screening Level
SWRCB	California State Water Resources Control Board
SVSL	Human Health Soil Vapor Screening Level
TCE	Trichloroethene
TPH	Total Petroleum Hydrocarbons
USCS	Uniform Soil Classification System
VOC	Volatile Organic Compound
µg/kg	Micrograms per Kilogram
μg/L	Micrograms per Liter
$\mu g/m^3$	Micrograms per Cubic Meter
USEPA	United States Environmental Protection Agency

1 Introduction

Environmental Management Strategies, Inc. (EMS) completed a Phase II Environmental Site Assessment (Phase II ESA) for the Anaheim West Lincoln Avenue Assemblage properties located on West Lincoln Avenue, in the City of Anaheim, Orange County, California (the Site, **Figure 1**). The Phase II ESA included address of 1631, 1659, 1681, 1683, 1695 and 1699 West Lincoln Avenue. SLF-West Lincoln, LLC retained EMS to perform the Phase II ESA in support of the planned purchase and redevelopment of certain properties at the Site. Phase II ESA Report was performed by EMS to further investigate Recognized Environmental Conditions (RECs) at the Site identified in a Phase I ESA dated July 2018 (Revised February 2019) prepared by EMS.

Properties having addresses of 1621, 1659, 1681, 1683, 1687 and 1695 West Lincoln Avenue were subsequently removed from the planned purchase. EMS' original report dated July 6, 2018 has been revised herein to clarify that only properties with address of 1631 and 1699 are to be considered for purchase and redevelopment by SLF-West Lincoln, LLC. Phase II ESA data collected from 1631 and 1699 West Lincoln Avenue are referred to as "on-Site" data in this revised Phase II ESA Report. Phase II ESA data for the remaining properties are referred to as "off-Site" data.

2 Project Background

The Site consists of two parcels of land composed of the following (Figure 1):

- CTS Cement Products/RapidSet, 1631 West Lincoln Avenue (Property 1)
- Vacant lot, 1699 West Lincoln Avenue (Property 2)

2.1 On-Site Historical RECs

The Phase I ESA prepared by EMS revealed one on-Site Historical Recognized Environmental Condition (HREC) on-Site as follows:

 One 12,000-gallon underground diesel storage tank was removed from the property at 1631 West Lincoln Avenue during 2005. This property is owned by Anastasi Development Company, LLC, and is currently occupied by CTS Cement/RapidSet. The California State Geotracker environmental database lists the current status of the historical underground fuel storage tank case as "Completed – Case Closed" and the action as "Closure/No Further Action Letter" issued by the City of Anaheim.

2.2 Off-Site RECs

A Phase I ESA prepared by EMS dated July 2018 and revised February 2019 identified several off-Site RECs including the following items listed below. EMS recommended a Phase II ESA

be performed to evaluate the potential impact to soil and soil vapor at the Site from these off-Site RECs (EMS, July 2018, Revised February 2019). No on-Site RECs were identified for the properties at 1631 and 1699 West Lincoln Avenue.

- Several facilities are located near the Site with known volatile organic compound (VOC) impact to soil, soil vapor and groundwater. These sites are being managed by the California Department of Toxic Substances Control (DTSC) and are listed as Rustlick Incorporated at 303 Manchester, Picofard, Inc at 237-D N. Euclid, Tower Park Industrial at 313-315 Euclid Way, J&H Deburring, Inc at 307 N. Euclid Way, Burlington Engineering, Inc at 307 N. Euclid Way and Pringle Draperies at 307 North Euclid Way. These facilities appear to be part of the Euclid Way Industrial Park a multi-structured industrial park located across Euclid Avenue from the Site. A facility located at 303 North Manchester Avenue, approximately 160 feet northeast of the Site, appears to have been a pesticide production facility.
- Low concentrations of VOCs were detected in soil samples collected during 2003 from 1687 West Lincoln Avenue by Pacific Edge Engineering, Inc. This property is owned by the City of Anaheim. This property is currently used by ABC Liquidator as a furniture liquidation business but was the location various business including an automotive repair shop, motorcycle paint shop and brake shop prior to 2002. Soil vapor sampling was not performed by Pacific Edge Engineering.
- A tuxedo shop (After Five Tux Shop) was located at 1683 West Lincoln. This address is currently part of a vacant furniture shop at 1681 West Lincoln Avenue. This property is owned by the Goodman Family Trust. After Five Tux Shop received a permit to operate perchloroethylene (PCE) dry cleaning equipment at this address on April 23, 1992. According to hazardous waste records maintained by the DTSC, this business generated 1.14 tons of halogenated solvent waste during 1995 and 1996 that was manifested and transported off-Site.
- The property at 1695 West Lincoln Avenue which is currently a brake and tire shop by the name JR's Wheels. This property is owned by Lawrence A. Grecco. During the Phase I ESA Site inspection housekeeping throughout the building on the property appeared to be poor. Staining was observed underneath vehicles and in the rear area of the property. An above-ground storage tank and buckets of used oil were also observed outdoors and in the warehouse area. Chemicals throughout the property did not appear to be properly stored in flammable cabinets.
- The property at 1621 West Lincoln Avenue is currently occupied by Lincoln Construction Corporation and appears to store equipment and large amounts of soil. This property is owned by the City of Anaheim. During the Phase I ESA inspection, EMS observed 55gallon drums stored on pallets without secondary containment in the northeast corner of the property. Approximately seven of the drums did not have lids and were only covered with degraded plastic sheeting. Spills were observed by EMS on the ground in the immediate

vicinity of the drums. An uncovered 5-gallon bucket with used oil was also observed in the 55-gallon drum storage area. An additional 55-gallon drum was also observed near the drum storage area that had been partially crushed by a large piece of concrete and had spilled some of its content onto the soil. Inside a small building, EMS also observed a 30-gallon drum with an attached parts washer. The drum appeared to be partially filled with an unknown substance.

3 Geology and Hydrogeology

Shallow soil types encountered by EMS beneath the Site to a depth of five-feet bgs primarily consisted of silt with some fine sand and clay. Small amounts of concrete debris were observed in soil samples from borings SLF-1 through SLF-5 advanced in the undeveloped lot (**Figure 2**). Groundwater, or particularly moist soil, was not encountered. According to information contained in the Department of Toxic Substances Control's (DTSC) Envirostor website, groundwater beneath the vicinity of the Site is located near 80 feet below the ground surface (bgs). This information also indicates the direction of local groundwater flow is generally southeast.

A preliminary geotechnical investigation performed at the Site by LGC Valley, Inc., during June 2018 described native soil beneath the Site to be primarily composed of poorly sorted sand to silty sand near the ground surface, with near-horizontal layers of silt, silty clay, and sandy clay below to a maximum explored depth of 51.5 feet bgs (LGC Valley, Inc., June 22, 2018). The soils were found to be slightly moist to moist, loose to very dense (or soft to hard). Artificial fill soil was encountered in some of the borings which primarily consisted of silty fine sands, gravelly sands, sandy gravels that contained a moderate to abundant amount of construction debris including concrete and brick. Groundwater was not encountered in the geotechnical borings to the maximum explored depth of 51.5 feet bgs.

4 Scope of Work

EMS performed the scope of work described below in completion of the Phase II ESA on-Site and off-Site. All Phase II work was directly supervised by a California Professional Geologist (P.G.) and Certified Hydrogeologist (C.Hg). Access to the properties at 1621 and 1683 West Lincoln Avenue for drilling and sampling was denied by the City of Anaheim. Therefore, the scope of sampling work described below was not performed at these properties owned by the City of Anaheim.

- Mark boring locations and Notify Underground Service Alert (Dig Alert) of the proposed work and schedule.
- Prepare a Site Health and Safety Plan for work to be performed.
- Clear proposed boring locations for buried obstacles using a licensed geophysical locating

service.

- Advancement of 17 direct-push (GeoProbe™) borings at the locations indicated on Figure 2. Borings SLF-1 through SLF-4 on 1699 West Lincoln Avenue and SLF-13, SLF-14 and SLF-21 on 1631 West Lincoln Avenue are considered on-Site borings. All other boring are considered off-Site borings. The borings were advanced to depths of 5-feet and 15-feet below the ground surface (bgs).
- Collection of soil samples in each boring at depths of 2-feet and 5-feet bgs. Chemical analysis of soil for volatile organic compounds (VOC) by EPA Method 2860B, total petroleum hydrocarbons (TPH) as gasoline, diesel and motor oil range by EPA method 8015B and for California Administrative Code (CAM) 17 Metals by EPA Method 6000/7000 series. Six soil samples were also analyzed for organo-chlorine pesticides by EPA Method 8081A.
- Installation of soil vapor probes in each of the 17 borings. Single probes were set in the 5foot borings and nested probes were set at 5-feet and 15-feet in the 15-foot borings. Collection of soil vapor samples from each probe according to the DTSC July 2015 Advisory on Active Soil Gas Investigations for chemical analysis of VOCs by EPA Method TO-15.
- Abandonment of the soil vapor monitoring probes after completion of sampling by pulling the tubing and re-paving the boreholes drilled though pavement with rapid-set concrete.
- Preparation of this Phase II ESA Report.

5 Soil Sample Collection Methods

Field work for soil sample collection was performed on June 28 and 29, 2018. Continuous core soil samples were collected from 17 soil borings from the soil surface to a depth of 5-feet bgs using Geoprobe direct-push probe equipment and 5-foot length by 2.25-inch diameter Dual-Tube samplers (**Figure 2**). The samplers were loaded with new cellulose-acetate-butyrate (CAB) liners for retention of the cores.

Approximate six-inch sections of the liners were cut from the cores from the 2 to 2.5-foot and 4.5 to 5-foot depths and sealed using Teflon sheets and plastic end-caps. These sections were labeled and placed in an ice-chest for temporary cold storage. The soil samples were labeled, logged on a chain-of-custody form and transported on the day of collection to Sunstar Laboratory located in Lake Forest, California (California ELAP No. 2250). Remaining soil from each core was screened for volatile organic carbon content using a MiniRae 2000 Portable Photoionization Detector (PID) calibrated with 100 ppmv isobutylene. Volatile organic carbon was not detected by the PID in any of the soil cores.

6 Soil Vapor Sample Collection Methods

Following completion of soil sampling, soil vapor probes were installed in each boring. Single soil vapor probes were installed to a depth of 5-feet in each of eleven 5-foot borings. Nested soil

vapor probes were set at depths of 5-feet and 15-feet in each of six 15-foot borings. A diagram of a 5-foot single and a 15-foot nested soil vapor probe is provided as **Figure 3**. The soil vapor probes were installed in accordance with the DTSC July 2015 Advisory on Active Soil Gas Investigations (DTSC 2015 Advisory).

Soil vapor samples were collected by EMS approximately three to four days following probe installation on July 2 and 3, 2018. The soil vapor samples were collected using batch certified clean one-liter passivated stainless-steel canisters (SummaTM Canisters) and 150-200 cc/min flow controllers provided by Eurofins/Calscience Laboratory located in Garden Grove, California (NELAP Number CA300001). The canisters were supplied with minimum internal vacuums of 29.50 inches of mercury. Probe leak testing was performed in accordance with the DTSC 2015 Advisory which included vacuum shut-in tests and use of a liquid leak tracer (isopropanol). during sample collection for each probe. As recommended in the DTSC 2015 Advisory, samples were collected after removing three purge volume of soil vapor from each probe. Quality assurance and control duplicate soil vapor samples were collected from probe SLF-11-5 ft. on July 2, 2018 and from probe SLF-21-15 ft. on July 3, 2018. Field report logs for soil vapor sampling are provided in **Appendix A.** Following completion of soil vapor sampling, each soil vapor probe was removed, and the bore holes drilled in pavement were patched at the surface with rapid-set concrete.

7 Soil Chemical Analysis Methods and Results

The soil samples collected for this project were submitted on the day of collection to Sunstar Laboratories, Inc., located in Lake Forest, California for chemical analysis. A total of 34 soil samples were analyzed by Sunstar for VOCs using EPA method 8260B, TPH as gasoline, diesel and motor oil range organics using EPA method 8015B and for CAM 17 metals using EPA Method 6000/7000 series. These analytical methods were selected based on historical property use and common priority pollutant concern of these contaminants in industrial urban areas. Six soil samples from on-Site borings SLF-1, SLF-4 and SLF-14 were also analyzed for organo-chlorine pesticides by EPA Method 8081A. Borings SLF-4 and SLF-14 were located nearest to a former pesticide production business at 303 North Manchester Avenue, approximately 160 feet northeast of the Site. The laboratory report and chain-of-custody document for the soils analyses is provided in **Appendix B**. Summaries of the on-Site and off-Site analytical data for VOCs, TPH and pesticides are provided as **Tables 1** and **2**. Summaries of the on-Site and off-Site analytical data for MOCs,

Nine metals were detected in soil consisting of barium, chromium, cobalt, copper, lead, nickel, vanadium and zinc. Except for lead detected in one soil sample (SLF-1-5 ft.) the concentrations of metals detected in on-Site soil samples were at or below the average background concentrations of metals in southern California soil (Bradford 2002, DTSC undated publication).

Low concentrations of TPH-diesel were detected in soil samples from two on-Site borings (SLF-1 and SLF-21) ranging from 13 mg/kg to 30 mg/kg. Low concentrations of TPH-motor oil were detected in soil samples from three on-site borings (SLF-1, SLF-2 and SLF-21) ranging from 22 mg/kg to 410 mg/kg. **Figure 4** is a Site plan showing the distribution of TPH detected in soil.

VOCs and organo-chlorine pesticides were not detected in any soil samples collected from on-Site borings. Low concentrations of tetrachloroethene (PCE) were detected in four soil samples from off-Site borings SLF-10, SLF-19 and SLF-20 ranging from 6.0 micrograms per kilogram (μ g/kg) to 66 μ g/kg.). These borings were advanced at 1683 and 1681 West Lincoln Avenue. **Figure 5** is a site plan showing the distribution of PCE detected in soil.

8 Soil Vapor Chemical Analysis Methods and Results

The soil vapor samples collected for this project were submitted on the day of collection to Eurofins/Calscience Laboratory located in Garden Grove, California for chemical analysis. The soil vapor samples were analyzed for the full-scan list VOCs using EPA Method TO-15. The soil vapor samples were also analyzed for the leak tracer compound isopropanol. The laboratory reports and chain-of-custody documents for the soil vapor analyses are provided in **Appendix C**. A summary of the analytical data for on-Site and off-Site soil vapor samples is provided as **Tables 5** and **6**.

Eighteen VOCs were detected in soil vapor samples collected from on-Site soil vapor probes. Except for tetrachloroethene (PCE), the concentrations of VOCs detected in soil vapor were generally trace to low. PCE was detected in all 11 on-Site soil vapor samples collected by EMS, including the field duplicate sample from probe SLF-21-15 ft. The concentrations of PCE detected in on-Site soil vapor samples ranged from 15 micrograms per cubic meter (μ g/m³) to 680 μ g/m³. **Figure 6** is a site plan showing the distribution of PCE detected in soil vapor.

9 Quality Assurance and Quality Control Review

The laboratory analytical reports were reviewed and evaluated to assess the overall quality and usability of the data. No quality assurance and quality control (QA/QC) deficiencies or data qualifiers were noted that would otherwise disqualify use of the data for the project purpose. Supporting QA/QC documentation that was evaluated for the soil and soil vapor analytical reports included the following major items:

- Chain of Custody
- Sample Holding Times
- Surrogate Spike Recoveries
- Method Blanks (MB)
- Laboratory Control Samples (LCS)
- Laboratory Control Sample Duplicates (LCSD)

- Matrix Spike Samples (MD)
- Matrix Spike Duplicate Samples (MSD)
- Field Duplicates
- Equipment Blanks
- Method Detection Level (MDL) and Reporting Limit (RL)
- Data Qualifiers

9.1 Data Qualifiers

Provided below is a summary of data qualifiers contained in laboratory analytical reports prepared for this investigation.

9.1.1 July 6, 2018 Sunstar Laboratory Report for Soil

- S-GC: Surrogate recovery for dibromofluoromethane was outside of established control limits for samples SLF-1-2 ft., SLF-20-2 ft. and SLF-20-5 ft. The data was accepted based on valid recovery of the remaining surrogates.
- QR-04: The percent recovery of 4,4' DDT in the Matric Spike sample (121%) was slightly above acceptance criteria of 30-120%. The results are accepted based upon percent recovery results in a duplicate QC sample and the Continuing Calibration Verification (CCV) results.

9.1.2 July 9, 2018 Sunstar Laboratory Report for Soil

- S-GC: Surrogate recovery for toluene-d8 was outside of established control limit for sample SLF-7-5 ft. The data was accepted based on valid recovery of the remaining surrogates.
- S-GC: Surrogate recovery for dibromofluoromethane (80.6 μ g/kg) was slightly below the established control limit for laboratory blank sample (85.5-116 μ g/kg). The data was accepted based on valid recovery of the remaining surrogates.
- QR-04: The percent recovery of 4,4'-DDT in the Matric Spike sample (121%) was slightly above acceptance criteria of 30-120%. The results are accepted based upon percent recovery results in a duplicate QC sample and the CCV results.
- QM-05: The spike recovery for barium was outside acceptance limits for the MS and MSD samples due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected.

9.1.3 July 12, 2018 Eurofins Laboratory Report for Soil Vapor

- E: The concentration PCE in soil vapor sample SLF-10-5 ft. exceeded the calibration range for the analysis. The reported value is estimated. This qualifier is not expected to significantly impact data quality.
- ME: LCS Recovery Percentage for 2-butanone and vinyl acetate is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean). The remaining VOCs for the LCS were within the control range. This qualifier is not expected to impact data quality.

• X: The relative percent difference (RPD) for the LCS and LCSD (32%) slightly exceeded the control range of 0-30%. The remaining RPDs were within the control range. This qualifier is not expected to impact data quality.

9.2 Soil Vapor Probe Shut-In and Tracer Leak Testing

The soil vapor sampling apparatus used by EMS for this project is equipped with a vacuum gauge and valves used to perform a shut-in leak test of the sampling train between the top of the probe and the inlet to the vacuum pump. Shut-in tests were performed for each probe at a vacuum of at least 100 inches of water column for a period of at least one minute. No visible movement of the vacuum gauge needle was observed during the tests. Leak testing was also performed by applying a liquid leak tracer (isopropanol) to cotton swabs placed at the points where the probes daylight from the subsurface, and at the connections to the sampling apparatus. Isopropanol was not detected in any of the soil vapor samples analyzed for this project by EPA Method TO-15. These results demonstrate leakage of ambient air into the soil vapor probes did not occur during sampling.

9.3 Soil Vapor Field Duplicate Samples

Except for benzene in sample SLF-11-5 ft. DUP, and 1,2,4-trimethylbenzene (1,2,4-TMB) and oxylene in sample SLF-21-15 ft., VOCs detected in the primary samples were also detected in the duplicate samples at similar concentrations. Benzene, 1,2,4-TMB and o-xylene were detected near the lower reporting limit in these samples. The primary VOCs of concern in soil vapor is PCE. The relative prevent differences (RPD) between the concentrations of PCE in the primary and duplicate samples were 6.5% for sample SLF-11-5 ft. and 18% for sample SLF-21-15 ft. An RPD of less than 30% for field duplicate soil vapor samples demonstrates an acceptable level of sampling precision.

10 Preliminary Risk Screening Evaluation

Provided below is a preliminary screening evaluation of health risk using on-Site soil and soil vapor analytical data collected at 1631 and 1699 West Lincoln Avenue in comparison to "Tier 1" health-based environmental screening levels for soil and vapor published by the California DTSC, US EPA Region 9 and the California State Water Resources Control Board (SWRCB). These publications are listed below.

- DTSC Human and Ecological Risk Office (HERO) Note 3, June 2018
- US EPA Region 9 Regional Screening Levels (RSLs), June 2018
- SWRCB Low Threat Underground Tank Case Closure Policy (LTCP), 2012
- SFRWQCB Environmental Screening Levels (ESLs), 2016

10.1 Metals in On-Site Soil

Except for lead in one soil samples (SLF-1-5 ft.) the concentrations of metals detected in on-Site soil were at or below the average background concentrations of metals in southern California soil. The maximum concentration of lead detected in on-Site soil (65 mg/kg) does not exceed the DTSC June 2018 HERO Note 3 health-based soil screening level (SSL) for residential properties of 80 mg/kg.

Arsenic was not detected in any on-Site soil samples. The laboratory reporting (RL) limit for arsenic in soil was 5.0 mg/kg which exceeded the SSLs for residential and commercial sites. However, the RL did not exceed the background concentration of arsenic in southern California soil of 12 mg/kg established by the DTSC (DTSC undated publication). This background level is used to evaluate the potential for elevated concentrations of arsenic that may require additional evaluation at school sites.

Based on this screening-level evaluation, the concentrations of metals detected in on-Site soil at the locations and depths sampled do not appear to present a significant direct or indirect soil contact health risk to current or potential future human receptors on-Site.

10.2 Total Petroleum Hydrocarbons in On-Site Soil

The concentrations of TPH-diesel detected in soil samples collected by EMS do not exceed the California Low Threat Closure Policy (LTCP) SSL for petroleum impacted sites of 100 mg/kg or the San Francisco Bay Regional Water Quality Control Board (SFRWQCB) ESL of 230 mg/kg for residential sites. A LTCP does not exist for motor oil. However, the concentrations of TPH-motor oil detected in soil do not exceed the SFRWQCB ESL of 11,000 mg/kg for residential sites. Based on this screening-level evaluation, the concentrations of TPH detected in on-Site soil at the locations and depths sampled do not appear to present a significant direct or indirect soil contact health risk to current or potential future human receptors on-Site.

10.3 Volatile Organic Compounds in On-Site Soil

VOCs were not detected in on-Site soil samples. Based on this screening-level evaluation, VOCs do not appear to present a significant direct or indirect soil contact health risk to current or potential future human receptors on-Site.

10.4 Volatile Organic Compounds in On-Site Soil Vapor

Except for PCE, VOCs concentrations detected in on-Site soil vapor were at generally trace to low levels across the Site that do not exceed residential soil vapor screening levels (SVSLs) for vapor intrusion determined using DTSC June 2018 HERO Note 3 indoor air screening levels and the DTSC October 2011 Vapor Intrusion Guideline attenuation factor (α) for future residential buildings of 0.001. A comparisons of VOC concentrations detected in on-Site soil vapor with residential and commercial SVSLs as described above is provided in **Table 5**.

PCE was detected in all 11 on-Site soil vapor samples collected by EMS including the field duplicate sample. The concentrations of PCE detected in soil vapor on-Site ranged from 15 μ g/m³ to 680 μ g/m³. The concentrations of PCE at one sampling location exceeded the vapor intrusion SVSL for future residential buildings (probe location SLF-1). This location is near the northeast corner of 1699 West Lincoln Avenue. This concentration did not exceed the SVSL for future commercial building of 6,000 μ g/m³. The SVSLs were determined using DTSC June 2018 HERO Note 3 indoor air screening levels for residential and commercial sites and the DTSC October 2011 Vapor Intrusion Guideline attenuation factor (α) for future residential and future commercial buildings of 0.001 and 0.0005, respectively.

11 Conclusions

The purpose of this Phase II ESA was to further investigate Recognized Environmental Conditions (RECs) identified in a Phase I ESA prepared for the Site by EMS. EMS concludes the following based on the finding of this Phase II ESA:

- The concentrations of metals detected in soil at the locations and depths sampled on-Site do not appear to present a significant direct or indirect soil contact health risk to current or potential future human receptors at the Site.
- Soil at certain areas on-Site contain generally low concentrations of total petroleum hydrocarbons (TPH) as motor oil-range organics and lesser concentrations of diesel-range organics. The occurrence of TPH in soil may be from fill debris containing small amounts of asphalt. The concentrations of TPH detected in soil at the locations and depths sampled do not appear to present a significant direct or indirect soil contact health risk to current or potential future human receptors at the Site.
- VOCs and organo-chlorine pesticides were not detected in soil on-Site. VOCs and organochlorine pesticides do not appear to present a significant direct or indirect soil contact health risk to current or potential future human receptors on-Site.
- The concentrations of PCE at one on-Site sampling location exceeded the vapor intrusion SVSL for future residential buildings (probe locations SLF-1). This location is near the northeast corner of 1699 West Lincoln Avenue. PCE concentrations detected in other on-Site soil vapor samples did not exceed the residential SVSL. The distribution and concentrations of PCE detected in soil vapor suggest an off-Site vapor intrusion risk appears to exist at 1683 West Lincoln Avenue. This property was the former location of a tuxedo dry-cleaning operation (After 5 Tux Shop). Contribution of PCE in soil vapor from known DTSC-regulated off-Site sources located west across South Euclid Street from the Site may also be occurring (Euclid Way Industrial Park).

12 References

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Tables

Table 1

	-	-	-	,		
Sample	Date Collected	TPH-Gasoline	TPH-Diesel	TPH-Motor Oil	PCE	OC Pesticides
Number/Depth		(mg/kg)	(mg/kg)	(mg/kg)	(µg/kg)	(µg/kg)
SLF-1-2 ft.	6/28/18	ND<10	28	410	ND<5.0	ND
SLF-1-5 ft.	6/28/18	ND<10	30	110	ND<5.0	ND
SLF-2-2 ft.	6/28/18	ND<10	ND<10	ND<10	ND<5.0	
SLF-2-5 ft.	6/28/18	ND<10	ND<10	22	ND<5.0	
SLF-3-2 ft.	6/28/18	ND<10	ND<10	ND<10	ND<5.0	
SLF-3-5 ft.	6/28/18	ND<10	ND<10	ND<10	ND<5.0	
SLF-4-2 ft.	6/28/18	ND<10	ND<10	ND<10	ND<5.0	ND
SLF-4-5 ft.	6/28/18	ND<10	ND<10	ND<10	ND<5.0	ND
SLF-5-2 ft.	6/28/18	ND<10	ND<10	ND<10	ND<5.0	
SLF-5-5 ft.	6/28/18	ND<10	ND<10	ND<10	ND<5.0	
SLF-13-2 ft.	06/28/18	ND<10	ND<10	ND<10	ND<5.0	
SLF-13-5 ft.	06/28/18	ND<10	ND<10	ND<10	ND<5.0	
SLF-14-2 ft.	06/29/18	ND<10	ND<10	ND<10	ND<5.0	ND
SLF-14-5 ft.	06/29/18	ND<10	ND<10	ND<10	ND<5.0	ND
SLF-21-2 ft.	06/28/18	ND<10	20	170	ND<5.0	
SLF-21-5 ft.	06/28/18	ND<10	13	21	ND<5.0	
SSL Residential		NA	100 ^a	11,000 ^b	590 ^c	NA
SSL Commercial		NA	100 ^a	145,000 ^b	2,700 ^c	NA

Total Petroleum Hydrocarbon, Volatile Organic Compound and Pesticide Analytical Data for On-Site Soil 1631 and 1699 West Lincoln Avenue, Anaheim, California

TPH = total petroleum hydrocarbons by EPA method 8015B as gasoline (C6-C12),

diesel (C13-C28) and motor oil (C29-C40)

PCE = tetrachloroethene by EPA Method 8206B

OC Pesticides = organochlorine pesticides by EPA Method 8081A

mg/kg = milligrams per kilogram or parts per million

 μ g/kg = micrograms per kilogram or parts per billion

ND = not detected at or above laboratory reporting limit (RL)

SSL = soil screening level for residential and commercial use properties

^a = California Low-Threat Closure Policy (SARWQCB, 2012)

^b = SFRWQCB ESLs (February 2016)

^c = DTSC HERO Note 3 Cancer End-Point Risk (June 2018)

NA = not applicable, screening level not established or chemical not detected in soil

-- = not analyzed

Table 2

	1055, 1001, 1					
Sample	Date Collected	TPH-Gasoline	TPH-Diesel	TPH-Motor Oil	PCE	OC Pesticides
Number/Depth		(mg/kg)	(mg/kg)	(mg/kg)	(µg/kg)	(µg/kg)
SLF-6-2 ft.	06/29/18	ND<10	18	160	ND<5.0	
SLF-6-5 ft.	06/29/18	ND<10	ND<10	ND<10	ND<5.0	
SLF-7-2 ft.	06/29/18	ND<10	ND<10	ND<10	ND<5.0	
SLF-7-5 ft.	06/29/18	ND<10	ND<10	ND<10	ND<5.0	
SLF-9-2 ft.	06/28/18	ND<10	ND<10	ND<10	ND<5.0	
SLF-9-5 ft.	06/28/18	ND<10	ND<10	ND<10	ND<5.0	
SLF-10-2 ft.	06/28/18	ND<10	15	ND<10	11	
SLF-10-5 ft.	06/28/18	ND<10	ND<10	ND<10	ND<5.0	
SLF-11-2 ft.	06/28/18	ND<10	13	81	ND<5.0	
SLF-11-5 ft.	06/28/18	ND<10	13	58	ND<5.0	
SLF-12-2 ft.	06/28/18	ND<10	35	270	ND<5.0	
SLF-12-5 ft.	06/28/18	ND<10	ND<10	ND<10	ND<5.0	
SLF-13-2 ft.	06/28/18	ND<10	ND<10	ND<10	ND<5.0	
SLF-13-5 ft.	06/28/18	ND<10	ND<10	ND<10	ND<5.0	
SLF-14-2 ft.	06/29/18	ND<10	ND<10	ND<10	ND<5.0	ND
SLF-14-5 ft.	06/29/18	ND<10	ND<10	ND<10	ND<5.0	ND
SLF-17-2 ft.	06/29/18	ND<10	ND<10	ND<10	ND<5.0	
SLF-17-5 ft.	06/29/18	ND<10	ND<10	ND<10	ND<5.0	
SLF-19-2 ft.	06/28/18	ND<10	ND<10	ND<10	66	
SLF-19-5 ft.	06/28/18	ND<10	ND<10	ND<10	38	
SLF-20-2 ft.	06/28/18	ND<10	ND<10	ND<10	6.0	
SLF-20-5 ft.	06/28/18	ND<10	ND<10	ND<10	ND<5.0	
SSL Residential		NA	100 ^a	11,000 ^b	590 ^c	NA
SSI Commercial		NA	100 ^a	145.000 ^b	2.700 ^c	NA

Total Petroleum Hydrocarbon, Volatile Organic Compound and Pesticide Analytical Data for Off-Site Soil 1659, 1681, 1683 and 1695 West Lincoln Avenue, Anaheim, California

TPH = total petroleum hydrocarbons by EPA method 8015B as gasoline (C6-C12),

diesel (C13-C28) and motor oil (C29-C40)

PCE = tetrachloroethene by EPA Method 8206B

OC Pesticides = organochlorine pesticides by EPA Method 8081A

mg/kg = milligrams per kilogram or parts per million

 μ g/kg = micrograms per kilogram or parts per billion

ND = not detected at or above laboratory reporting limit (RL)

SSL = soil screening level for residential and commercial use properties

^a = California Low-Threat Closure Policy (SARWQCB, 2012)

^b = SFRWQCB ESLs (February 2016)

^c = DTSC HERO Note 3 Cancer End-Point Risk (June 2018)

NA = not applicable, screening level not established or chemical not detected in soil

-- = not analyzed

Table 3Summary of CAM Title 22 Metals Analytical Data for On-Site Soil1631 and 1699 West Lincoln Avenue, Anaheim, California

Sample	Arsenic	Barium	Chromium	Cobalt	Copper	Lead	Nickel	Vanadium	Zinc
Number/Depth	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
SLF-1-2 ft.	ND<5.0	89	14	6.1	15	16	9.6	34	58
SLF-1-5 ft.	ND<5.0	57	15	7.7	14	65	11	38	63
SLF-2-2 ft.	ND<5.0	87	15	6.5	14	6.1	12	38	49
SLF-2-5 ft.	ND<5.0	89	19	10	16	4.2	13	46	66
SLF-3-2 ft.	ND<5.0	58	13	6.3	11	8.2	8.5	31	45
SLF-3-5 ft.	ND<5.0	77	18	9,0	17	12	13	44	79
SLF-4-2 ft.	ND<5.0	45	8.5	4.9	7.7	ND<2.0	6.3	25	32
SLF-4-5 ft.	ND<5.0	71	15	8.1	18	4.7	10	39	59
SLF-5-2 ft.	ND<5.0	80	13	7.6	11	ND<2.0	9.0	37	46
SLF-5-5 ft.	ND<5.0	77	16	8.7	12	ND<2.0	12	43	54
SLF-13-2 ft.	ND<5.0	36	8.5	4.5	6.9	ND<2.0	6.6	24	31
SLF-13-5 ft.	ND<5.0	110	18	9.4	15	ND<2.0	16	47	59
SLF-14-2 ft.	ND<5.0	93	18	12	15	ND<2.0	16	47	57
SLF-14-5 ft.	ND<5.0	89	22	14	17	4.0	16	53	66
SLF-21-2 ft.	ND<5.0	82	15	10	12	ND<2.0	11	42	59
SLF-21-5 ft.	ND<5.0	99	16	9.9	14	ND<2.0	13	46	45
SSL - Residential	0.11 ^{a,c}	15,000 ^b	36,000 ^ª	23 ^b	3,100 ^b	80 ^ª	490 ^a	390 ^ª	23,000 ^b
SSL - Commercial	0.36 ^{a,c}	220,000 ^b	170,000 ^ª	350 ^b	47,000 ^b	320 ^a	3,100 ^ª	1,000 ^a	350,000 ^b
Calif. Background	12 ^d	509	122	14.9	28.7	23.9	57	112	149

mg/kg = Milligrams per kilogram or parts per million

ND = Not detected at or above laboratory reporting limit

RL = Laboratory reporting limit

SSL = Soil screening level for residential and commercial properties. Listed value is the lower of either cancer or non-cancer health effect concentration.

Background = Average background concentrations of metals in California soil (Bradford, 1996)

^a = DTSC HERO HHRA Screening Level for residential soil (DTSC June 2018). SSL for Cr as CrIII.

^b = USA EPA Region 9 Regional Screening Level for residential soil (EPA June 2018)

^c = As noted in DTSC HERO HHRA Note 6, the SSL for arsenic assumes 100% of the metal is bioavailable leading to an over

estimation of risk. The DTSC has determined arsenic in southern California soil to be 12 mg/kg. This background level is used as a baseline for determining elevated site-specific sources.

^d = Determination of a Southern California Regional Background Arsenic Concentration in Soil (DTSC, Undated)

Table 4
Summary of CAM Title 22 Metals Analytical Data for Off-Site Soil
1659, 1681, 1683 and 1695 West Lincoln Avenue, Anaheim, California

	1000)	1001, 1003			in / wenue,	/ analienini) (cumornia		
Sample	Arsenic	Barium	Chromium	Cobalt	Copper	Lead	Nickel	Vanadium	Zinc
Number/Depth	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
SLF-6-2 ft.	12	77	17	11	16	9.4	14	44	69
SLF-6-5 ft.	ND<5.0	45	12	8.8	7.9	ND<2.0	9.1	34	40
SLF-7-2 ft.	ND<5.0	69	16	10	13	3.9	13	40	54
SLF-7-5 ft.	ND<5.0	69	15	9.8	13	ND<2.0	13	41	45
SLF-9-2 ft.	ND<5.0	70	15	8.1	13	ND<2.0	9.8	43	44
SLF-9-5 ft.	ND<5.0	100	20	12	18	3.3	14	54	62
SLF-10-2 ft.	ND<5.0	44	9.9	5.5	7.0	ND<2.0	30	34	11
SLF-10-5 ft.	ND<5.0	46	10	5.4	7.2	ND<2.0	7.4	30	34
SLF-11-2 ft.	ND<5.0	65	9.0	3.1	9.0	63	5.4	20	36
SLF-11-5 ft.	ND<5.0	78	16	8.5	15	3.1	12	41	56
SLF-12-2 ft.	ND<5.0	98	26	7.8	14	59	14	34	58
SLF-12-5 ft.	ND<5.0	81	16	8.5	13	ND<2.0	12	42	52
SLF-17-2 ft.	ND<5.0	73	16	10	16	20	13	39	82
SLF-17-5 ft.	ND<5.0	71	16	10	13	ND<2.0	14	43	49
SLF-19-2 ft.	ND<5.0	81	15	9.5	17	19	10	40	91
SLF-19-5 ft.	ND<5.0	65	9.8	6.1	12	25	5.9	26	72
SLF-20-2 ft.	ND<5.0	87	14	9.0	12	ND<2.0	41	49	6.0
SLF-20-5 ft.	ND<5.0	96	20	13	25	7.4	13	60	65
SSL - Residential	0.11 ^{a,c}	15,000 ^b	36,000 ^ª	23 ^b	3,100 ^b	80 ^ª	490 ^a	390 ^a	23,000 ^b
SSL - Commercial	0.36 ^{a,c}	220,000 ^b	170,000 ^ª	350 ^b	47,000 ^b	320 ^a	3,100 ^ª	1,000 ^a	350,000 ^b
Calif. Background	12 ^d	509	122	14.9	28.7	23.9	57	112	149

mg/kg = Milligrams per kilogram or parts per million

ND = Not detected at or above laboratory reporting limit

RL = Laboratory reporting limit

SSL = Soil screening level for residential and commercial properties. Listed value is the lower of either cancer or non-cancer health effect concentration.

Background = Average background concentrations of metals in California soil (Bradford, 1996)

^a = DTSC HERO HHRA Screening Level for residential soil (DTSC June 2018). SSL for Cr as CrIII.

^b = USA EPA Region 9 Regional Screening Level for residential soil (EPA June 2018)

^c = As noted in DTSC HERO HHRA Note 6, the SSL for arsenic assumes 100% of the metal is bioavailable leading to an over estimation of risk. The DTSC has determined arsenic in southern California soil to be 12 mg/kg. This background level is used

as a baseline for determining elevated site-specific sources.

^d = Determination of a Southern California Regional Background Arsenic Concentration in Soil (DTSC, Undated)

Table 5Summary of Volatile Organic Compound Analytical Data for On-Site Soil Vapor Samples

Chemical Analysis by EPA Method TO-15

1631 and 1699 West Lincoln Avenue, Anaheim, California

Sample Number/Depth	Date Collected (mm/dd/yy)	Acetone (µg/m ³)	Benzene (µg/m³)	Bromomethane (µg/m ³)	2-Butanone (μg/m ³)	Carbon Disulfide g/m ³)	Chloroform (μg/m³)	Chloromethane (µg/m ³)	Ethyl Benzene (µg/m ³)	4-Ethyltoluene [°]) (μg/m	Methyl Isobutyl Ketone () (µg/m	Tetrachloroethene (µg/m [°])	rrichloroethyene (سع/m ³)	cis-1,2-Dichloroethene (سع) (پچ	trans-1.2-Dichloroethene (mg/m	1,1,1-Trichloroethane (µg/m	1,1,2-Trichloroethane (щ) (щ)	Toluene (μg/m³)	Freon 11 (µg/m³)	Freon 12 (µg/m ³)	Freon 113 (µg/m ³)	n) 1,2,4-Trimethylbenzene (ش) (پچ	1,3,5-Trimethylbenzene (س پچ	Vinyl Acetate (سع/m ³)	o-Xylene (µg/m³)	p/m-Xylene °) (µg/m	sopropyl Alcohol (µg/m ³)
SLF-1-5 ft.	07/02/18	30	ND	ND	11	ND	ND	2.7	2.7	ND	ND	680	4.7	ND	ND	ND	ND	6.1	ND	ND	ND	ND	ND	ND	5.3	14	ND
SLF-2-5 ft.	07/02/18	42	1.6	ND	9	11	5.2	4.3	4.3	ND	ND	95	8.8	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	4.4	13	ND
SLF-3-5 ft.	07/02/18	14	ND	ND	5.1	ND	ND	1.4	2.3	ND	ND	140	ND	ND	ND	10	ND	5	15	ND	ND	ND	ND	ND	3.5	9	ND
SLF-4-5 ft.	07/02/18	22	ND	ND	ND	ND	ND	ND	11	ND	ND	15	ND	ND	ND	ND	ND	8.9	ND	ND	ND	ND	ND	ND	ND	150	ND
SLF-5-5 ft.	07/02/18	53	ND	ND	16	ND	ND	ND	11	6	ND	300	ND	ND	ND	ND	ND	22	ND	3	ND	21	5.2	ND	17	45	ND
SLF-13-15 ft.	07/03/18	63	11	ND	16	13	ND	ND	2.4	ND	6.6	37	ND	ND	ND	ND	ND	13	7.9	5.5	ND	ND	ND	ND	3.4	ND	ND
SLF-14-5 ft.	07/03/18	ND	ND	ND	6.9	ND	ND	ND	ND	ND	ND	12	ND	ND	ND	2.3	3.6	2.3	ND	5.2	ND	ND	ND	ND	ND	ND	ND
SLF-21-5 ft.	07/03/18	24	ND	ND	7.6	ND	ND	ND	ND	ND	ND	130	ND	ND	ND	ND	ND	3.1	6.8	ND	ND	ND	ND	ND	2.5	ND	ND
SLF-21-15 ft.	07/03/18	130	19	ND	29	33	ND	5.6	18	ND	ND	49	ND	ND	ND	ND	ND	20	ND	ND	ND	11	ND	ND	15	39	ND
SLF-21-15 ft. DUP	07/03/18	78	11	ND	18	34	ND	6.5	7.8	ND	ND	41	ND	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	ND	29	ND
Laboratory Reporti	ng Limit	4.8-760	1.6-260	1.9-310	7.3-710	6.2-1,000	2.4-390	1.0-330	2.2-790	2.5-790	7.2-980	3.4-1,500	2.7-430	2.0-320	2.0-320	2.7-440	2.7-440	2.7-300	5.6-900	2.5-400	11-1,800	7.4-1,200	2.5-790	7.0-1,100	2.2-1,400	8.7-2,800	12-2,000
SVSL - Residential		3.2E+07	97	52,000	5.2E+06	730,000	120	94,000	1,100	NA	3.1E+06	460	480	8,300	83,000	1.0E+06	180	310,000	NA	100,000	5.2E+06	63,000	63,000	210,000	100,000	100,000	NA
SVSL - Commercial		2.8E+08	840	440,000	4.4E+07	6.2E+06	1,060	780,000	9,800	NA	2.6E+07	4,000	6,000	70,000	700,000	8.8E+06	1,540	2.6E+06	NA	880,000	4.4E+07	520,000	520,000	1.8E+06	880,000	880,000	NA
Health Risk		NC	С	NC	NC	NC	С	NC	C	NA	NC	С	C	NC	NC	NC	C	NC	NC	NC	NC	NC	NC	NC	NC	NC	NA

 $\mu g/m^3$ = micrograms per cubic meter

ND = not detected above laboratory reporting limit (RL)

(E) = concentration of analyte exceeded calibration range (E-Flag) and value is estimated

C = cancer end-point human health risk

NC = non-cancer end-point human health risk

SVSL = soil vapor screening level for future residential and commercial buildings. Calculated using DTSC HERO Note 3 (June 2018) and US EPA Region 9 RSLs (May 2018) and DTSC VI Guidance (October 2011) attenuation factors. Concentrations in blue exceed future residential building soil vapor screening levels.

Table 6Summary of Volatile Organic Compound Analytical Data for Off-Site Soil Vapor Samples

Chemical Analysis by EPA Method TO-15

1659, 1681, 1683 and 1695 West Lincoln Avenue, Anaheim, California

Sample Number/Depth	Date Collected (mm/dd/yy)	Acetone (µg/m ³)	Benzene (µg/m ³)	Bromomethane (µg/m ³)	2-Butanone (μg/m ³)	Carbon Disulfide g/m ³)	Chloroform (µg/m ³)	Chloromethane (μg/m ³)	Ethyl Benzene (µg/m ³)	4-Ethyltoluene [°] , (μg/m	Methyl Isobutyl Ketone () (µg/m	Tetrachloroethene m [°]) (µg/m	Trichloroethyene (µg/m ³)	cis-1,2-Dichloroethene (سع) پچ	trans-1.2-Dichloroethene m ³) (μg/m	1,1,1-Trichloroethane (mg/m	1,1,2-Trichloroethane (щ) (щ)	Toluene (μg/m³)	Freon 11 (µg/m ³)	Freon 12 (µg/m ³)	Freon 113 (µg/m ³)	م) 1,2,4-Trimethylbenzene (شم) پ	1,3,5-Trimethylbenzene m [°]) (µg/m	Vinyl Acetate g/m³)	o-Xylene (µg/m³)	p/m-Xylene (پچ	sopropyl Alcohol (سع/m [°])) (µg/m
SLF-6-5 ft.	07/03/18	33	ND	ND	7.3	ND	ND	ND	ND	ND	ND	750	ND	ND	ND	ND	ND	1.9	ND	ND	ND	ND	ND	ND	4.3	ND	ND
SLF-7-5 ft.	07/03/18	62	ND	ND	9.1	ND	ND	ND	3.1	ND	ND	5,100	3.2	ND	ND	ND	ND	10	ND	20	ND	ND	ND	13	ND	ND	ND
SLF-9-5 ft.	07/02/18	48	20	ND	12	7.9	8.8	ND	45	3.7	ND	2,500	12	ND	ND	ND	ND	37	ND	3.2	ND	13	5.6	ND	72	210	ND
SLF-10-5 ft.	07/02/18	76	ND	3.6	12	ND	ND	ND	2.7	ND	ND	24,000 (E)	57	ND	ND	ND	ND	9.3	6	3.9	ND	ND	ND	ND	ND	ND	ND
SLF-10-15 ft.	07/02/18	57	13	ND	11	ND	ND	ND	40	ND	ND	24,000	29	ND	ND	ND	ND	8.5	9.3	4.6	ND	ND	ND	ND	89	180	ND
SLF-11-5 ft.	07/02/18	72	2.4	ND	12	ND	ND	ND	37	ND	ND	1,500	5.2	ND	ND	ND	ND	8.6	ND	2.8	ND	ND	ND	ND	8.7	210	ND
SLF-11-5 ft. DUP	07/02/18	77	ND	ND	14	ND	ND	ND	33	ND	ND	1,600	4.2	ND	ND	ND	ND	7.8	ND	3	ND	ND	ND	ND	7.8	190	ND
SLF-12-5 ft.	07/02/18	ND	ND	ND	ND	ND	ND	ND	39	ND	ND	5,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	92	230	ND
SLF-17-5 ft.	07/03/18	14	ND	ND	ND	ND	ND	ND	ND	ND	ND	41	ND	ND	ND	ND	ND	ND	ND	4.3	ND	ND	ND	ND	ND	ND	ND
SLF-17-15 ft.	07/03/18	20	ND	ND	4.8	ND	ND	ND	ND	ND	ND	3,800	4.8	14	2.9	ND	ND	8.3	ND	2.6	ND	ND	ND	ND	2.2	ND	ND
SLF-19-5 ft.	07/02/18	1,200	ND	ND	ND	ND	ND	ND	ND	ND	ND	77,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SLF-19-15 ft.	07/02/18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	22	ND	ND	ND	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	ND
SLF-20-5 ft.	07/02/18	32	1.9	ND	8.1	ND	ND	ND	3.2	ND	ND	31,000	100	ND	ND	ND	ND	11	8.7	4.4	ND	ND	ND	ND	5	12	ND
SLF-20-15 ft.	07/02/18	ND	ND	ND	7.7	ND	ND	ND	ND	ND	ND	23,000	50	ND	ND	ND	ND	3.9	15	5.3	ND	ND	ND	ND	ND	ND	ND
Laboratory Reportir	ng Limit	4.8-760	1.6-260	1.9-310	7.3-710	6.2-1,000	2.4-390	1.0-330	2.2-790	2.5-790	7.2-980	3.4-1,500	2.7-430	2.0-320	2.0-320	2.7-440	2.7-440	2.7-300	5.6-900	2.5-400	11-1,800	7.4-1,200	2.5-790	7.0-1,100	2.2-1,400	8.7-2,800	12-2,000
SVSL - Residential		3.2E+07	97	52,000	5.2E+06	730,000	120	94,000	1,100	NA	3.1E+06	460	480	8,300	83,000	1.0E+06	180	310,000	NA	100,000	5.2E+06	63,000	63,000	210,000	100,000	100,000	NA
SVSL - Commercial		2.8E+08	840	440,000	4.4E+07	6.2E+06	1,060	780,000	9,800	NA	2.6E+07	4,000	6,000	70,000	700,000	8.8E+06	1,540	2.6E+06	NA	880,000	4.4E+07	520,000	520,000	1.8E+06	880,000	880,000	NA
Health Risk		NC	С	NC	NC	NC	С	NC	С	NA	NC	С	С	NC	NC	NC	С	NC	NC	NC	NC	NC	NC	NC	NC	NC	NA

 $\mu g/m^3$ = micrograms per cubic meter

ND = not detected above laboratory reporting limit (RL)

(E) = concentration of analyte exceeded calibration range (E-Flag) and value is estimated

C = cancer end-point human health risk

NC = non-cancer end-point human health risk

SVSL = soil vapor screening level for future residential and commercial buildings. Calculated using DTSC HERO Note 3 (June 2018) and US EPA Region 9 RSLs (May 2018) and DTSC VI Guidance (October 2011) attenuation factors. Concentrations in blue exceed future residential building soil vapor screening levels. Concentrations in red exceed future commercial building soil vapor screening levels.

Figures



SHOPOFF REALTY INVESTMENTS

Figure 1 Site Location Map 1631 and 1699 West Lincoln Avenue SLF-West Lincoln, LLC Anaheim, California

12/26/2018					
⊥ SITE ADDR	1631 W LINCOLN AVE	SITE CITY	ANAHEIM	SITE ZIP	92801
APN	072-110-21	OWNER NAME 1	ANASTASI DEVELOPMENT CO LLC	ASSESSED VALUE	3573113
DATE TRANSFER	Tue Dec 13 2005 00:00:00 GMT-0800 (Pacific Standard	VALUE TRANSFER		BUILDING SQUARE FEET	18478
LOT ACREAGE	1.97	LOT SQUARE FEET	85881	NUMBER OF UNITS	5
YEAR BUILT	1952	STANDARD USE CODE CATEGORY DESC	INDUSTRIAL	STANDARD USE CODE DESC	LIGHT INDUSTRIAL
2					
SITE ADDR		SITE CITY	ANAHEIM	SITE ZIP	92801
APN	072-110-50	OWNER NAME 1	ANASTASI DEVELOPMENT CO LLC	ASSESSED VALUE	5926346
DATE TRANSFER	Mon Sep 25 2006 00:00:00 GMT-0700 (Pacific Daylight	VALUE TRANSFER	5033000	BUILDING SQUARE FEET	
LOT ACREAGE	4.03	LOT SQUARE FEET	175406	NUMBER OF UNITS	
YEAR BUILT		STANDARD USE CODE CATEGORY DESC	MISCELLANEOUS	STANDARD USE CODE DESC	MISCELLANEOUS, MIS



SCELLANEOUS



	Approxim	late scale	
0	100	200	

Aerial Image Source: Google Earth Pro

300 ft.

Anaheim, California

Date: 7/11/18

Drawn By: MM

Proj. No. EMS570

Environmental Management Strategies, Inc.





Approximate Scale

0	10	00 2	00 30	0 ft.
l				ļ

Мар Кеу
5 ft. soil boring and soil vapor probe (6/2018)
15 ft. soil boring and nested soil vapor probe Probes set at 5 and 15 ft. (6 (2018))
oncentrations in mg/kg
D = Not Detected
-
(
North
and the first of the second
A DETAIL
Concentrations of TPH-Diesel and TPH-Motor Oil
Detected in On-Site and Off-Site Soil Samples
Anaheim, California
Drawn By: MM Date: 7/11/18 Proj. No. EMS570 Environmental Management Strategies Inc
Environmental management strategies, inc.



0	100	200	300 ft.
L			



Approximate Scale

0	100	200	300 ft.
L			

Aerial Image Source: Google Earth Pro

Anaheim, California

Drawn By: MM

Date: 7/11/18

Proj. No. EMS570

Environmental Management Strategies, Inc.

Compilation Environmental Report 1619, 1631, 1699 West Lincoln Avenue, and West City Parcel, Anaheim, California APPENDIX D

Preliminary Endangerment Assessment Equivalent Report – no appendices (Roux Associates, 2019a)



Preliminary Endangerment Assessment Equivalent Report

1631 and 1699 West Lincoln Avenue, Anaheim, California

April 4, 2019

Prepared for:

SLF-West Lincoln, LLC

Prepared by:

Roux Associates, Inc. 5150 East Pacific Coast Highway, Suite 450 Long Beach, California 90804

Environmental Consulting & Management +1.800.322.ROUX rouxinc.com

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- G. Non-Hazardous Waste Manifest
- H. Laboratory Data Reports
- I. Data Validation Memorandum

Preliminary Endangerment Assessment Equivalent Report

Lincoln Avenue Assemblage 1631 & 1699 West Lincoln Avenue Anaheim, California

April 4, 2019

Prepared By:

ave flu

David DeVries, P.G. Senior Geologist

Mauricio H. Escobar, P.G. Principal Geologist



Roux Associates, Inc. 5150 East Pacific Coast Highway, Suite 450 Long Beach, California 90804

Executive Summary

Roux Associates, Inc. (Roux Associates), on behalf of SLF-West Lincoln, LLC (SLF, Client), has prepared this *Preliminary Endangerment Assessment Equivalent Report* (PEA-E Report) for two parcels located at 1631 and 1699 West Lincoln Avenue in the City of Anaheim, California (Site; Figures 1 and 2). The parcel situated at 1631 West Lincoln Avenue is currently occupied by a cement manufacturing company and the parcel at 1699 West Lincoln Avenue is currently vacant. Both properties are currently owned by Anastasi Development Company, LLC (Anastasi).

The first known subsurface assessment was a 2005 leaking underground storage tank (LUST) investigation conducted by FREY Environmental, Inc. (FREY). The investigation targeted a former 10,000-gallon diesel underground storage tank (UST) at 1631 West Lincoln Avenue and included the collection and analysis of samples from five-foot intervals in the vicinity of the former UST to a maximum depth of 40 feet bgs. Soil samples were analyzed for TPH and fuel-related VOCs. Case closure was provided by the oversight agency due to the apparent limited vertical and lateral extent of impacted soil.

In July 2018 Environmental Management Strategies (EMS) prepared a Phase I Environmental Site Assessment (ESA) for 1631 and 1699 West Lincoln Avenue on behalf of SLF which was updated and reissued in February 2019. Based on the findings of the Phase I ESA, EMS identified several recognized environmental conditions (RECs) for off-Site adjacent properties, although none were identified within the Site boundary. The locations of and summaries of the reasons for the off-Site RECs are listed below.

- 1621 West Lincoln Avenue Former use as a motorcycle paint and brake, current lack of secondary containment for drums, observed spills
- 1683 West Lincoln Former use as dry-cleaning operation which used tetrachloroethene (PCE)
- 1687 West Lincoln Previous detections of PCE and methyl tertiary-butyl ether (MTBE) in soil, recommendations for proper soil management if current building is demolished, and the lack of soil vapor data
- 1685 West Lincoln Improper storage and disposal of oils and chemicals and staining observed on the asphalt
- 237, 305 and 313-315 North Euclid Way (west of South Euclid Street) This 4.5-acre multi-structure industrial park has reported PCE impact to groundwater and is located upgradient with respect to the Site
- 303 and 329 Manchester Avenue and 225 North Loaro Street A pesticide production facility operated by Niagara Chemical

EMS also identified historical RECs (hRECs) associated with the leaking underground storage tank (LUST) case and additional closed LUST cases in the Site vicinity.

Considering the RECs/hRECs discussed above, and the potential for vapor encroachment, EMS recommended a Phase II ESA be performed at the Site to include "soil testing and soil vapor testing at a

minimum in order to evaluate any impacts to the property that could jeopardize human health and/or increase development costs through environmental remediation efforts."

EMS performed a Phase II investigation in June and July 2018. During the EMS investigation, soil samples were collected from eight on-Site locations at depths of 2 to 2.5 and 4.5 to 5 feet bgs. Soil vapor samples were obtained from each of these locations at a sample depth of five feet bgs (two locations also had soil vapor samples at 15 feet bgs). A total of 16 on-Site soil samples were analyzed for California Assessment Manual (CAM) metals, total petroleum hydrocarbons (TPH), organochlorine pesticides (OCPs), and volatile organic compounds (VOCs) and a total of ten on-Site soil vapor samples were analyzed for VOCs.

Roux Associates performed additional soil and soil vapor investigation activities in January 2019 to fill in data gaps. Soil and soil vapor samples were collected from three on-Site locations. Discrete soil samples were collected from each location at nominal depths of 0.5 and 1.5 bgs. Nested soil vapor probes were installed at each location with sample depths of 5, 15, and 30 feet bgs. A total of six soil samples were analyzed for lead, arsenic, and OCPs and a total of nine soil vapor samples were analyzed for VOCs.

The bullet list that follows summarizes the analytical historical results for soil and soil vapor samples collected at the Site:

- No TPH or VOCs were found in any of the soil samples collected by FREY to investigate subsurface conditions in the vicinity of the former diesel UST at 1631 West Lincoln Avenue Case closure for the former UST was granted by the City of Anaheim Public Utilities Department (APUD).
- Metals concentrations in on-Site soils were found to be within the expected background range for California.
- No OCPs were encountered in any of the samples collected by EMS. Alpha-Chlordane was detected in one sample collected by Roux Associates at 0.00807 mg/kg; screening levels are not available for Alpha-Chlordane. Because RSLs and SSLs are not available for Alpha-Chlordane, the screening levels for Chlordane were used as a toxicological surrogate to evaluate Alpha-Chlordane. The detection is well below the Chlordane residential cancer screening level of 0.44 mg/kg as found in DTSC HERO Note 3.
- VOCs were not detected in soil samples collected on Site.
- Soil vapor analytical results from the EMS and Roux Associates investigations indicate that concentrations of PCE, suspected to originate from off-Site sources, were present on Site, exceeding residential screening levels when using an attenuation factor of 0.001.

To further evaluate the Site, a Human Health Screening Evaluation (HHSE) was performed using data from the Roux Associates' January 2019 investigation, as well as the June and July 2018 EMS investigation. The risk characterization process integrated the results of the data evaluation, exposure assessment, and toxicity assessment to provide a quantitative estimation of non-carcinogenic and carcinogenic risks. The results of the HHSE for cumulative risk from soil and soil vapor exposures are summarized as follows:

	Future Residential Exposure to Soil and Indoor Air		Future Commercial Exposure to Soil and Indoor Air	
Risk	Target Threshold	Estimated Risk (Low to High)	Target Threshold	Estimated Risk (Low to High)
Cancer Risk	1E-06 to 1E-04	1.1E-06 to 1.2E-05	1E-06 to 1E-04	1.3E-07 to 1.4E-06
Non-Cancer Risk	1.0	9.6E-01 to 1.1E+00	1.0	1.9E-01 to 2.0E-01

The high end cumulative non-cancer risk at the Site for residential exposure to both soil and indoor air (1.1E+00) slightly exceeds the target hazard index (HI) of 1.0. It is noted that the drivers for the exceedance are contributions from lead, cobalt and vanadium in soil. The highest detections reported for each of these three metals were below residential screening levels and as stated previously, with the exception of one lead detection, the metals detected at the Site were within the expected background range for California. The cumulative low end non-cancer risk at the Site (9.6E-01) is below the HI of 1.0. The cumulative non-cancer risk at the Site for residential exposure to both soil and indoor air was found to be 9.7E-01 (also below the HI of 1.0) when using data from five feet bgs. It is likely that this is the most appropriate data to consider in the context of the HHSE.

Conclusions:

- The soil vapor analytical results and the HHSE indicate that estimated indoor air concentrations of VOCs in some areas of the Site exceed the most conservative risk threshold of 1E-06, but are within the range of acceptability established in the NCP (1E-06 to 1E-04).
- The soil sample analytical results and the results of the HHSE indicate that concentrations of COPCs in soil are acceptable for a residential scenario. Although the high end cumulative non-cancer risk slightly exceeds the HI of 1.0, the drivers for that exceedance are concentrations of metals in soil that are within the expected background ranges in California.

Recommendations:

Although there are no on-Site sources of VOCs that have been identified at the Site, the conservative estimated indoor air risk from VOCs entering future buildings via soil vapor intrusion (SVI) are slightly above 1E-06. Therefore, the following actions are recommended as precautionary measures:

- Incorporate vapor intrusion mitigation such as design and installation of a passive membrane below the buildings to act as a vapor barrier into the building construction plans
- Recording of a land use covenant (LUC) as an institutional control to ensure operation and maintenance (O&M) of any selected vapor intrusion mitigation measures or equipment, and disclose the risks, restrictions, and requirements to future buyers and occupants
- Preparation of a Soil Management Plan (SMP) for implementation during future on-Site grading activities

1. Introduction

Roux Associates, Inc. (Roux Associates), on behalf of SLF-West Lincoln, LLC (SLF), prepared this Preliminary Endangerment Assessment Equivalent Report (PEA-E Report) for two parcels located at 1631 and 1699 West Lincoln Avenue in the City of Anaheim, California (Site; Figures 1 and 2). SLF is considering acquiring the Site for potential future development. The proposed multi-unit residential development plans are shown on Figure 3. The parcel situated at 1631 West Lincoln Avenue is currently occupied by a cement manufacturing company and the parcel at 1699 West Lincoln Avenue is currently vacant. Both properties are currently owned by Anastasi Development Company, LLC (Anastasi). SLF completed a Voluntary Cleanup Agreement (VCA) application to the California Department of Toxic Substances Control (DTSC) which was submitted via email on March 1, 2019. This PEA-E Report was prepared in accordance with and the October 2015 PEA Guidance Manual.

The Site consists of two irregular-shaped adjoining parcels situated within a triangular city block. The city block is bound by West Lincoln Avenue to the south, South Euclid Street to the west, and by a Southern Pacific Railroad (SPRR) easement to the northeast (Figure 2). The Site lies at an elevation of approximately 125 feet above mean sea level with local relief sloping gently to the west-southwest.

In June 2018 SLF engaged Environmental Management Strategies, Inc (EMS) to perform Phase I and Phase II investigations on the Site and immediately adjacent, off-Site properties. One of the adjacent, off-Site properties to the south (street address of 1681-1683 West Lincoln Avenue) was reported to be the likely source of a tetrachloroethene (PCE) release to soil and soil vapor (the maximum depth explored was 15 feet below surface). EMS concluded that soil vapor concentrations indicated the likely need for remediation of this off-Site parcel; EMS recommended additional assessment of soil and soil vapor to better define the limits of the impacted area.

On January 11, 2019 Roux Associates performed a limited soil and soil vapor investigation at the two parcels that comprise the Site to evaluate impacts from historical agricultural activities, and to further investigate VOC and PCE impacts from off-Site sources (and potentially groundwater) to soil vapor at the Site. The results of the Roux investigation are reported in this document. The EMS documents were submitted to DTSC by secure file transfer on March 1, 2019.
2. General Background

2.1 Site Identification Information

The Site is identified by street addresses 1631 and 1699 West Lincoln Avenue in the City of Anaheim, California, just to the south of the Santa Ana (Interstate 5) Freeway (Figure 1). The Site consists of two irregular-shaped adjoining parcels situated within a triangular city block. The city block is bound by West Lincoln Avenue to the south, South Euclid Street to the west, and by a Southern Pacific Railroad (SPRR) easement to the northeast (Figure 2). The Site lies at an elevation of approximately 125 feet above mean sea level with local relief sloping gently to the west-southwest.

According to the Orange County Tax Assessor's Office, the parcel situated at 1631 West Lincoln Avenue is identified by Assessor's Parcel Number (APN) 072-110-21, measures 1.97 acres, and is currently occupied by a cement manufacturing company. The parcel at 1699 West Lincoln Avenue is identified by APN 072-110-50, measures 4.03 acres and is currently vacant. Both properties are currently owned by Anastasi Development Company, LLC (Anastasi).

2.2 Site Geology and Hydrogeology

2.2.1 Site Geology

According to regional data, the Site is situated in an area of Recent Alluvium fan deposits. The Recent Alluvium generally consists of interlayered sands, silts, and clays derived from the surrounding hills and the ancestral Santa Ana River. The alluvial layer has been found up to 300 feet in thickness and is typically underlain by the Upper Pleistocene Lakewood Formation (including the Artesia and Gage Aquifers), followed by the Lower Pleistocene San Pedro Formation (which includes the Hollydale, Lynwood, and Silverado Aquifers as well as several unnamed aquitards). These deposits overlie a thick sequence of Late Cretaceous to Quaternary-age semi-consolidated sedimentary rocks and basement units (OCWD, 1984). Relief in the vicinity of the Site slopes to the west-southwest, and surface water features have a general westerly flow direction (Smith-Emery, 2019).

An intrusive geotechnical investigation was performed at the Site by LGC Valley, Inc. (LGC) of Vista, California on June 6, 2018. Investigation borings ranged in depth from 9 to 51 feet below ground surface (bgs) and test pits were excavated to depths between 6 and 8 feet bgs. LGC identified artificial undocumented fill "mantling" the majority of the vacant parcel (i.e. 1699 West Lincoln Avenue) and as backfill in the Leaking Underground Storage Tank (LUST) removal area at the 1631 West Lincoln Avenue property. The undocumented fill was generally found to consist of silty fine sands, gravelly sands, sandy gravels and lessor amounts of clayey sands and silty sandy conglomerate with cobbles up to eight inches in maximum dimension (LGC, 2018). Based on the boring and test pit logs, the thickness of the fill observed in the vacant lot ranged from 1.5 to 5.5 feet. LGC also reported a moderate to abundant amount of construction debris within the undocumented fills. The construction debris generally consisted of concrete and asphalt with minor amounts of brick, clay pipe, rebar, welded wire mesh, and recycled aggregate base. Very minor amounts of wood, plastic Visqueen[®], and other materials were also encountered. Underlying the undocumented fill (where present), LGC described the lithology of the Recent Alluvium with the following description:

"...unit consists predominantly of poorly sorted sand to silty sand near the ground surface, with near-horizontal layers of silt, silty clay, and sandy clay below. The soils were found to be slightly moist to moist, loose to very dense (or soft to hard)... ...the upper 1 to 3 feet of

this unit was found to be porous to slightly porous and potentially compressible. This unit was found to extend below the maximum depth explored during our boring and test-pit subsurface investigation" (LGC, 2018).

2.2.2 Site Hydrogeology

The Site is located within the northeastern section of the Orange County Coastal Plain, which is part of the larger Coastal Plain of Los Angeles. The Orange County Coastal Plain is bordered to the north and east by the foothills of the Santa Ana Mountains, to the south by the San Joaquin Hills, and to the west by the Pacific Ocean. The Site is located in the East Coast Plain Hydrologic Subarea of the Lower Santa Ana River Hydrologic Area, within the Santa Ana River Hydrologic Unit (SARWQCB, 1995). The Site is located within a Forebay Area of the Orange County Coastal Plain where unconfined water conditions exist. Groundwater within the Shallow Aquifer in the Site vicinity generally flows to the west-southwest (OCWD, 2015).

Depth to groundwater has not been directly measured at the Site, however nearby properties on Geotracker and Envirostor have reported depth to groundwater between approximately 62 and 102 feet below ground surface (bgs). The groundwater depth may vary due to the presence of discontinuous perched aquifers. An investigation occurring at a site west Euclid Avenue and west of the Site (Euclid Way Industrial Park) has reported groundwater depths of approximately 80 to 85 feet bgs and a groundwater flow direction of east-southeast (Centec, 2017)..

2.3 Summary of Site History

Roux Associates has compiled the following Site history section using sources obtained and referenced from previous reports. In particular, Site history has been documented based on a review of information presented in a previous Phase I Environmental Site Assessment (ESA) prepared by Environmental Management Strategies (EMS) in July 2018 and updated in February 2019.

The earliest historic source referencing the Site is a topographic map dating from 1896. According to the map the Site was undeveloped at that time. The Southern Pacific Rail Road (SPRR) can be seen on the 1896 map, immediately to the northeast of the Site following its present-day alignment. A network of surface streets is also shown on the map associated with the early settlement of West Anaheim, centered approximately 1.5 miles east of the subject Site.

Initial development of the Site is first evidenced in an aerial photograph taken in 1938. The photograph shows that the Site and surrounding area had been cultivated with orange orchards (or groves) by that time. From the 1940s onward, intensive orange farming was known to involve the use of organochlorine pesticides, as well as other chemical-based pesticides and herbicides. The boundaries of the triangular city block featuring the subject Site exists much as it does in the present day; bound by the SPRR easement and the streets precursor to South Euclid Street and West Lincoln Avenue. Three small ranch properties can be identified in the 1938 photograph within the block, although none appear to be within the subject Site. The photograph shows a diagonally trending northwest-southeast road running roughly parallel to (and on the far side of) the SPRR line. In addition to the ubiquitous orange orchards, some light industrial and residential development can be observed in the area surrounding the Site.

By the time an aerial photograph was taken in 1953, a small, single-story industrial-style building had been constructed on the 1631 West Lincoln Avenue parcel. A city directory entry from 1955 lists the address as occupied by La Habra Stucco, a subdivision of La Habra Products. It is suspected that the property was

used for the manufacture of stucco materials from that time until about 1995. Thinning of the orange trees indicate that the intensive farming at the Site and surrounding area appeared to be on the decline. The 1953 photograph shows that the diagonal trending road had been widened and improved by that time.

The next available aerial photograph of the Site was taken in 1963 and shows significant development of the Site and surrounding area. The Santa Ana (Interstate 5) Freeway had been constructed by that time, along with an overpass for Euclid Avenue and a curved off-ramp passing through the 1699 West Lincoln Avenue parcel of the subject Site. The off-ramp is supported on what appears to be a raised earthen embankment, occupying much of the southern portion of the parcel. The remainder of the 1699 West Lincoln Avenue parcel had been cleared of orange trees and appears to be vacant. Within the 1631 West Lincoln Avenue parcel, the industrial building had been greatly expanded and now resembles its current day footprint. The remainder of the triangular block had been developed by what appear to be independent industrial or commercial operations.

The land surrounding the Site was continuously developed and redeveloped over the following decades, although use of the Site and other properties within the triangular city block doesn't appear to change until around 1994. As can be seen from subsequent aerial photographs, the Freeway off-ramp was replaced between 1994 and 2005. The embankment was removed from the 1699 West Lincoln Avenue parcel (along with the paved off-ramp) and the parcel appears to have completely vacant since that time. Based on city directory entries, the 1631 West Lincoln Avenue property was operated by CTS Cement Manufacturing from approximately 2004 onwards.

Past use of the properties immediately adjoining the Site (fronting onto West Lincoln Avenue) are described below, based on city directory entries:

- **1621 West Lincoln Avenue** (adjoins the 1631 West Lincoln Avenue parcel to the east). This property was first developed prior to 1938 with what appears to be a ranch house style residence. A second small structure was added at some point between 1947 and 1953. The 1621 street address was associated with a motorcycle paint and shop brake (circa 1975, EMS, 2019a). The second small structure (a commercial building) remains at the property at the time of reporting.
- 1659 West Lincoln Avenue (adjoins the 1631 West Lincoln Avenue parcel to the west and the 1699 West Lincoln Avenue parcel to the south). This property appeared to be in use prior to 1963 but no aboveground improvements were ever observed. The 1659 street address was associated with the business/entity names Quality Concrete Products (1966 1970); Anaheim Family Motors (2010); trucks and recreational vehicles (1975); Coastline Auto Brokers (1980); Alexander Motors (1986); and Rollit Motors (1991).
- 1681/1683 West Lincoln Avenue (adjoins the 1699 West Lincoln Avenue parcel to the south). The property was first developed prior to 1963 with a single-story commercial/retail building. The 1681/1683 street addresses were associated with the business names Abbey Rents Hosp Equipment & Supplies (1970); Krupnicks, Inc (1970); Award Bridal (1995); After Five Tux Shops (1995 2010); and APT Enterprises, Inc. (2005-2014). The property is currently operated as a discount furniture retail store.
- **1687 and 1695 West Lincoln Avenue** (adjoin the 1699 West Lincoln Avenue parcel to the south). These properties were first developed prior to 1963 with connected single-story buildings. The 1687and 1695 street addresses were associated with the business names Blue Chip Credit Corp;

Furniture Discounts (1980 - 1995); Freeway Tire and Auto Center (1986); Airport Transportation (1991); Rayco Auto Service Store (1970 - 1995); and Calis Wheels and Tires (2005 - 2014). The 1687 West Lincoln Avenue property is currently operated by ABC Liquidator who apparently use the building as general office space.

2.4 Previous Environmental Investigations

Roux Associates reviewed documents that included historical environmental investigations and other relevant studies conducted at the Site. Previous environmental investigation reports are included in Appendix A following the text of this report.

2.4.1 Subsurface Soil Investigation (FREY Environmental, Inc., 2005)

In 2005, the City of Anaheim Public Utilities Department (APUD) requested that an investigation be performed in connection with a previously removed 10,000-gallon diesel underground storage tank (UST) at 1631 West Lincoln Avenue. FREY Environmental, Inc. (FREY) of Newport Beach, California completed soil sampling in the vicinity of the former UST, which was subsequently documented in their *Subsurface Soil Investigation* report (FREY, July 7, 2005).

By way of background, it was reported that the 10,000-gallon diesel UST, along with the associated fuel dispenser and piping were previously removed from the Site. Following removal of this equipment, on December 21, 2004, a soil sample collected within the footprint of the former fuel dispenser was found to contain 670 milligrams per kilogram (mg/kg) of total petroleum hydrocarbons (TPH) in the diesel range (TPH-d). On this basis the APUD requested investigation of the Site to determine the extent and significance of diesel impacts associated with the former UST.

On May 2, 2005 FREY personnel advanced four soil borings (FB1 through FB4) in the vicinity of the former fuel dispenser, associated UST, and piping. Specifically, boring FB1 was advanced within the footprint of the former fuel dispenser and borings FB2, FB3, and FB4 were advanced a short distance to the east, west, and south, respectively. Each of the borings was advanced to a total depth of 40 feet bgs, with soil samples collected at five-foot intervals. None of the samples retrieved from the borings featured any visual or olfactory indications of a hydrocarbon impact. Each of the samples was analyzed for the presence of TPH in the gasoline range (TPH-g) and TPH-d using EPA Method 8015M as well as benzene, toluene, ethylbenzene, and xylenes (BTEX), fuel oxygenates, and ethanol using EPA Method 8260B.

In short, none of the above compounds were detected in any of the samples above the laboratory reporting limits. Based on the results of the soil sampling, FREY concluded that "petroleum hydrocarbons previously detected beneath the former fuel dispenser island appear to have been very limited in lateral and vertical extent. As such, FREY recommends that no further action be required at the Site."

On August 31, 2005 the APUD provided case closure for the former diesel UST citing the investigation activities described above. The Santa Ana Regional Water Quality Control Board (SARWQCB) concurred with the determination for case closure (SARWQCB, 2005).

2.4.2 Phase I Environmental Site Assessment (EMS, 2019)

In July 2018, EMS prepared a Phase I Environmental Site Assessment (ESA) for 1631 and 1699 West Lincoln Avenue on behalf of SLF which was updated and reissued in February 2019 (EMS, 2019a). The EMS Phase I text, tables, figures and photographs are included in Appendix A. EMS noted that at the time of reporting

the Site was occupied by CTS Cement Products / Rapidset (1631 West Lincoln) and was otherwise vacant (1699 West Lincoln). Based on the findings of the Phase I ESA, EMS identified several recognized environmental conditions (RECs) for off-Site adjacent properties, although none were identified within the Site boundary. Roux Associates has summarized the RECs associated with the known or suspected environmental impacts at off-Site properties as follows:

- The 1621 West Lincoln Avenue property was occupied by Lincoln Construction Corporation at the time of the EMS Phase I ESA and appeared to be used for the storage of equipment and large amounts of soil. In the northeastern corner of the property EMS observed 55-gallon drums stored on pallets without secondary containment. EMS did not indicate how, if at all, these drums were labeled. Approximately seven of the drums did not have lids and were only covered using tarps. Spills were noted on the ground in the immediate vicinity of the drums. An uncovered 5-gallon bucket with used oil was also noted in the drum storage area. An additional 55-gallon drum was also noted near the drum storage area that had been partially crushed by a large piece of concrete and had spilled some of its contents onto the soil. Inside the facility building, EMS observed a 30-gallon drum with an attached parts washer. EMS also reviewed the Phase I ESA prepared for 1621 West Lincoln Avenue by Advanced GeoEnvironmental, Inc. on March 9, 2005. Conclusions from that report included the past use of the property as a motorcycle paint and brake shop. The operation of the brake shop and painting operations were listed as "potential environmental conditions". EMS considered that the lack of secondary containment for the drums, observed spills, former use of the property as a motorcycle paint and brake shop, and proximity to the Site represented a REC.
- The After Five Tux Shop at 1683 West Lincoln Avenue was identified in several database listings reviewed in the course of the Phase I ESA. A listing for the South Coast Air Quality Management District (SCAQMD) FINDS database indicated that the After Five Tux Shop received a permit to operate PCE dry cleaning equipment on April 23, 1992. EMS considered the permit for dry cleaning equipment on the adjoining property constituted a REC.
- Pacific Edge Engineering (Pacific) prepared a Subsurface Investigation Report, for the property at 1687 West Lincoln Avenue (February 26, 2003). The report was prepared in response to environmental concerns identified in a 2002 Phase I ESA prepared by Gilray Enterprises, Inc. for the same property. According to the conclusions in the Pacific report, PCE was detected in two soil samples and methyl tertiary-butyl ether (MTBE) was detected in six soil samples. PCE and MTBE detections were localized to the concrete drainage swale and nearby service bays. No further action was recommended by Pacific at the time, but the report did note that if the site were demolished in the future, qualified oversight should be conducted during soil disturbance. Based on the lack of a soil vapor survey performed at the property and its proximity to the Site, EMS considered that the VOC results in soil represent a REC.
- The property at 1695 West Lincoln Avenue was occupied by a tire shop (JR's Wheels) at time of the EMS Phase I ESA. During an inspection of the property, housekeeping throughout the building was noted to be very poor with metal shavings on the ground and a number of cans of Johnson's Non-Chlorinated Brake Parts Cleaner stored and disposed of improperly. Based on the safety data sheet for the brake cleaner it appeared to contain methanol, acetone, toluene, benzene and xylene. Staining was observed underneath vehicles and in the rear of the property. An aboveground storage tank (AST) and buckets of used oil were also observed outdoors and in the warehouse area. Chemicals throughout the property did not appear to be properly stored in appropriate (flammable)

cabinets. Based on the improper storage and disposal of oils and chemicals, the staining observed on the asphalt and proximity to the Site, EMS considered the property to be a REC in the context of the Phase I ESA.

- A 4.5-acre multi-structure industrial park developed between 1960 and 1965 is located to the west of the Site and west of South Euclid Street (and North Euclid Way). Street addresses associated with the property appear to be 237, 305, and 313-315 North Euclid Way. The property history indicates that Robertshaw, a cable and appliance thermostat controls manufacturer, operated a laboratory and performed industrial activities at the park. According to building permit records a cesspool may have been used to discharge sanitary and industrial wastewater. Additionally, Pringle Draperies were listed as a dry cleaner that had EPA waste generator status. A soil investigation was performed at the park in or around 2007 and PCE was detected in soil, indicating a historical source of PCE on the property. In 2015 an SVE pilot study and groundwater monitoring activities were being performed at the park. Given the PCE impact and ongoing remediation described above, EMS considered the property to be a REC in the context of the Phase I ESA.
- A review of the city directory abstract by EMS also identified three additional properties adjacent, northeast and cross gradient/downgradient (with regards to groundwater flow) of the Site that appear to be an environmental concern. The street addresses for these properties are 303 Manchester Avenue, 329 Manchester Avenue, and 225 North Loara Street. All three properties are located between the SPRR easement and the Interstate 5 Freeway. The facility located at 303 Manchester appears to have been a pesticide production facility operated by Niagara Chemical and related businesses. Given the likely chemical use at these properties and their proximity to the Site, EMS considered that they represent a REC in the context of their Phase I ESA.

EMS also identified historical RECs (hRECs) associated with the leaking underground storage tank (LUST) case discussed in section 2.4.1 and additional closed LUST cases in the Site vicinity.

Considering the RECs/hRECs discussed above, and the potential for vapor encroachment, EMS recommended a Phase II ESA be performed at the Site (EMS, 2019a). The recommended Phase II ESA would include "soil testing and soil vapor testing at a minimum in order to evaluate any impacts to the property that could jeopardize human health and/or increase development costs through environmental remediation efforts."

2.4.3 Phase II Environmental Site Assessment (EMS, 2019)

EMS performed an intrusive Phase II investigation at the subject Site in June and July 2018 to further investigate the RECs identified in the Phase I ESA. The EMS Phase II report is included in Appendix A. The Phase II work included sampling at the properties with the following street addresses: 1631, 1659, 1681, 1683, 1695, and 1699 West Lincoln Avenue. Investigation locations within the subject Site (1631 and 1699 West Lincoln Avenue) were considered to be "on-Site" while remaining locations were considered "off-Site". Additional sampling and analysis was initially planned at 1621 and 1687 West Lincoln Avenue properties but access was denied by the owner (the City of Anaheim). All Phase II work was directly supervised by a California Professional Geologist and Certified Hydrogeologist (EMS, 2019b).

A total of 17 borings were advanced using a direct-push (GeoProbe[™]) drill rig. The locations of the borings are presented in Figure 4. Borings SLF-1 through SLF-5 at 1699 West Lincoln Avenue and SLF-13, SLF-14 and SLF-21 at 1631 West Lincoln Avenue were considered the on-Site borings. All other borings were

considered off-Site. The borings were advanced to depths of 5-feet and 15-feet bgs as noted on Figure 4. The direct-push drill rig advanced the borings with five-foot continuous-core acetate sample liners to facilitate continuous logging. Soil samples for laboratory analysis were collected from each liner at depths of approximately 2 to 2.5 and 4.5 to 5 feet bgs by cutting sections of the liner and sealing with Teflon end-caps.

Each of the soil samples was analyzed for the presence of VOCs using EPA Method 2860B; TPH-g, TPH-d and TPH in the oil range (TPH-o) using EPA method 8015B; and for California Administrative Code (CAM) 17 Metals using EPA Method 6000/7000 series. In addition, six selected soil samples were also analyzed for organochlorine pesticides (OCPs) using EPA Method 8081A.

Following collection of soil matrix samples, each of the 17 borings were converted to soil vapor probes. Single probes were set in the 5-foot borings and nested probes were set at 5 and 15 feet in the 15-foot borings. Installation of the probes was performed in accordance with the Department of Toxic Substances Control (DTSC) July 2015 Advisory on Active Soil Gas Investigations (DTSC, 2015b).

Soil vapor samples were collected by EMS approximately three to four days following probe installation on July 2 and 3, 2018. The soil vapor samples were collected using batch certified clean one-liter passivated stainless-steel canisters (Summa™ Canisters) with 150-200 cc/min flow controllers provided by the National Environmental Laboratory Accreditation Program (NELAP)-accredited Eurofins/Calscience Laboratory located in Garden Grove, California. Collection of soil vapor samples was performed in accordance with the DTSC 2015 Advisory including vacuum shut-in tests and introduction of a liquid leak tracer (isopropanol) during sample collection for each probe. As recommended in the DTSC 2015 Advisory, samples were collected after removing three purge volumes of soil vapor from each probe.

2.4.3.1 Soil Results

As reported by EMS, up to nine metals were detected in soil matrix samples including arsenic, barium, chromium, cobalt, copper, lead, nickel, vanadium and zinc. With the exception of lead detected in one on-Site sample (65 mg/kg in SLF-1-5 ft.) and three off-Site samples, the concentrations of metals detected in soil were at or below the average background concentrations for metals in Southern California (Bradford 1996, DTSC 2008).

Low concentrations of TPH-d were detected in soil samples from two on-Site borings (SLF-1 and SLF-21) ranging from 13 to 30 mg/kg. Low concentrations of TPH-o were detected in soil samples from three on-Site borings (SLF-1, SLF-2 and SLF-21) ranging from 21 to 410 mg/kg. For off-Site soils, TPH-d was reported at concentrations ranging from 13 to 35 mg/kg and TPH-o was reported at concentrations ranging from 58 to 270 mg/kg. TPH-g was not detected in any of the soil samples.

VOCs and OCPs were not detected in any soil samples collected from on-Site borings. Low concentrations of PCE were detected in four soil samples from off-Site borings SLF-10, SLF-19 and SLF-20 ranging from 6.0 to 66 micrograms per kilogram (μ g/kg). These borings were located at 1681/1683 West Lincoln Avenue.

2.4.3.1 Soil Vapor Results

As reported by EMS, 18 VOCs were detected in soil vapor samples collected from on-Site soil vapor probes. Except for PCE, the concentrations of VOCs detected in soil vapor were generally trace to low. PCE was detected in all ten primary on-Site soil vapor samples (and one duplicate sample) collected by EMS. The concentrations of PCE detected in on-Site soil vapor samples ranged from 15 to 680 micrograms per cubic

meter (μ g/m³). For purposes of direct comparison, soil vapor screening levels (SVSLs) were established for soil vapor results by applying the 2011 DTSC *Vapor Intrusion Guidance* attenuation factors of 0.001 (residential) and 0.0005 (commercial) to June 2018 DTSC Human and Ecological Risk Office (HERO) Note 3 air screening levels. The concentrations of PCE at one sampling location (680 μ g/m³ SLF-1) exceeded the SVSL for future residential buildings (460 μ g/m³). This location is near the northeast corner of 1699 West Lincoln Avenue. This concentration did not exceed the SVSL for a future commercial building of 4,000 μ g/m³.

Concentrations of VOCs, particularly PCE and TCE were encountered in off-Site vapor probes at greater concentrations than on-Site probes. Concentrations of PCE in off-Site soil vapor ranged from 22 to 77,000 μ g/m³, with the highest concentrations encountered beneath the property at 1681/1683 West Lincoln Avenue.

The results for PCE in soil vapor from the EMS Phase II investigation for on- and off-Site probes is presented in Figure 4.

3. Environmental Setting

3.1 Conceptual Site Model

American Society for Testing and Materials (ASTM, 2013) defines a conceptual site model (CSM) as a written and/or graphical representation of an environmental system and the biological, physical, and chemical processes that govern the transport of contaminants from sources through environmental media to environmental receptors within the system. The CSM is based on all available information and identifies the potential risk(s) a site may pose to human health and/or the environment such that appropriate assessment or sampling strategies can be developed. The findings of these assessments may, in turn, be used to update the CSM.

A simplified CSM for the subject Site is presented in the table below, including only complete or potentially complete exposure pathways. In simple terms, the Site may pose a risk to human receptors via exposure to OCPs and/or metals in near surface soils or via exposure to chlorinated solvents present in soil vapor originating from off-Site sources. A more detailed exposure pathway analysis in included in the human health screening evaluation (HHSE) included as Appendix B to this report.

Primary Source	Secondary Source	Exposure Media	Exposure Route	Potential Receptor	
Potential Historical on- site Releases	Impacted soil	Soil	Ingestion, dermal contact, or inhalation of particles.	•Current/Future commercial worker •Future Resident •Construction Worker	
Off-Site Releases	Impacted Vadose Zone Soil Vapor	Indoor Air	Inhalation	•Current/Future commercial worker •Future Resident	

Historical agricultural use of the Site, particularly for cultivation of oranges, may have involved the use of OCPs or certain metals (arsenic and lead). Additionally, the historical location of a freeway off-ramp at 1699 West Lincoln Avenue property may have resulted in aerially deposited lead. As a result, these constituents have the potential to be present in near-surface soils. There is therefore a potentially complete pathway for exposure of future residents or Site workers to impacted near-surface soils. This exposure could involve risk to human health resulting from inhalation, ingestion, and/or dermal contact with the potentially impacted materials.

Based on the available data, it appears that chlorinated solvent use at one or more nearby properties has impacted soil vapor in the vadose zone. It also appears that VOCs associated with the solvent use have migrated onto the Site. Considering the potential for vapor intrusion into on-Site buildings, there is a potentially complete pathway for exposure of future Site workers and/or residential occupants to inhalation risks associated with the VOCs.

3.2 Soil Pathway

The Site is paved within the parcel situated at 1631 West Lincoln Avenue and unpaved within the parcel situated at 1699 West Lincoln Avenue. Future redevelopment plans at the Site may entail removal of

pavement, soil disturbing activities, and creation of exposed soil/landscape areas. Therefore, the soil pathway is considered a complete exposure pathway and was quantitatively evaluated in the HHSE.

3.3 Groundwater/Surface Water Pathway

Depth to groundwater has not been directly measured at the Site; however, nearby properties have reported depth to groundwater between approximately 62 and 102 feet bgs. Given the depth to groundwater at nearby sites; exposure to impacted groundwater is not considered a complete exposure pathway at the Site. On this basis, risks associated with direct contact with groundwater have not been evaluated for this Site.

No surface water bodies are located in proximity to the Site. Therefore, exposure to impacted surface water is not a complete exposure pathway at the Site.

3.4 Air Pathway

Given the detections of VOCs emanating from a neighboring property (primarily elevated concentrations of PCE) in soil vapor samples, the indoor air pathway is considered a complete exposure pathway and inhalation of indoor air at the Site was quantitatively evaluated in the HHSE.

4. Sampling Activities and Results

4.1 Investigation Objectives

The subject investigation was intended to assess shallow soil and soil vapor conditions in the areas to be potentially redeveloped for residential use. The investigation focused on potential impacts to soil vapor from a suspected volatile organic compound (VOC) release on the adjoining property associated with street addresses of 1681 and 1683 West Lincoln Avenue and also assessed the possible presence of near-surface soil contaminants possibly attributable to the Site's past use as an orange orchard.

One of the adjacent, off-Site properties to the south (street address of 1681-1683 West Lincoln Avenue) was reported to be the source of a PCE release to shallow soil and soil vapor (the maximum depth explored was 15 feet below surface). The revised EMS Phase II report concluded that an off-Site soil vapor intrusion appears to exist at 1683 West Lincoln Avenue (former tuxedo dry-cleaning operation site) and that contribution of PCE in soil vapor from known DTSC-regulated off-Site sources located west across South Euclid Street from the Site may also be occurring (Euclid Way Industrial Park).

4.3 Data Quality Objectives

The Data Quality Objectives (DQOs) for the PEA-E are based on the Data Quality Objectives Process for Hazardous Waste Site Investigations, published by the United States EPA (USEPA), dated January 2000 (USEPA, 2000). The formal DQO Process is a seven-step iterative planning approach used to prepare plans for environmental data collection activities. It provides a systematic approach for defining the criteria that a data collection design should satisfy, including: when, where, and how to collect samples or measurements; determination of tolerable decision error rates; and the number of samples or measurements that should be collected.

The Site is presently in the investigation phase, and therefore, the purpose of the data collection is to determine the nature and extent of contamination at the Site, quantify risks posed to human health and the environment, and gather information to support the selection and implementation of appropriate remedies, if necessary. With those goals in mind, the following are the DQOs:

- support a comprehensive evaluation of the nature and extent of potential contaminants in the subsurface soil and soil vapor;
- support a human health risk screening evaluation including identification of potential receptors and exposure pathways; and
- develop mitigation measures and/or remediation options for the Site in the context of residential redevelopment, while ensuring protection of receptors, human health, and the environment.

Data generated during this PEA-E and presented in this report are compared with published, conservative screening thresholds, including USEPA Regional Screening Levels (RSLs; USEPA, 2018) and DTSC screening levels for residential use.

4.4 Pre-field Activities

4.4.1 Documentation

Roux Associates personnel used appropriate field forms to document activities conducted during the subject investigation (Appendix C). Field forms were used to provide a record of tasks and procedures performed in the field, record key events during field implementation, identify and track samples in the field and during off-Site transport to the office and/or laboratory, and provide an accurate accounting of progress, deviations, and/or changes to assumed field conditions, if any.

4.4.2 Utility Clearance and Geophysical Investigation

Prior to the start of fieldwork, Roux Associates performed a Site visit to mark areas intended for intrusive work. Work areas were marked in white paint along the Site boundaries, and Underground Service Alert of Southern California was notified at least three business days prior to the start of intrusive field activities.

Additionally, to assess the locations of buried utilities (i.e. natural gas, electric, water, sewer, telephone, fiber optic, etc.) or obstructions, a private geophysical services and utility locating firm, Subsurface Surveys of Carlsbad, California, was contracted to perform a geophysical survey and to clear the proposed boring locations prior to drilling.

4.4.3 Health and Safety

Prior to the start of field activities, Roux Associates prepared a Site-specific Health and Safety Plan (HASP) to ensure worker safety. In addition to containing information regarding Roux Associates' standard safety practices, the HASP describes potential hazards relating to Site activities and provides the locations and contact information of nearby emergency services. The HASP is included as Appendix D.

4.4.4 Permitting

Prior to commencing drilling, a boring permit was obtained from the Anaheim Public Utilities Well Permit Program (permit number UWP-0001628). A copy of the permit is included as Appendix E.

4.5 Field Investigation

The drilling and sampling procedures for soil and soil vapor probes are outlined in the sections below. Photographs are included in the Photographic Log in Appendix F.

4.5.1 Soil Boring Advancement, Soil Sampling, and Analysis

On January 4, 2019, Roux Associates personnel cleared three soil borings at the Site (SVR-1, SVR-2, and SVR-3; Figure 4) to 5 feet below ground surface (bgs) using a hand auger. After each boring was cleared, the locations were marked with stakes and recorded using a sub-meter resolution handheld GPS unit.

On January 11, 2019, under the direction of Roux Associates, Cascade Drilling LP (Cascade) of Santa Ana, California (C-57 License #938110) advanced three soil borings at the Site (SVR-1 through SVR-3; Figure 4) each to a terminal depth of 31 feet bgs. The three locations were advanced to terminal depth using a track-mounted direct-push drilling rig.

Following direct-push drilling, soil samples were collected at 0.5 and 1.5 feet bgs adjacent to each boring location using hand auger equipment. Soil samples were collected for laboratory analysis from 0.5 and 1.5

feet bgs directly from the hand auger bucket. Discrete soil samples were collected in glass jars, labeled with unique identifiers, placed on ice, and transported under chain-of-custody protocols to Positive Lab Service (Positive) of Los Angeles, California, a California-certified laboratory. Soil samples were analyzed for OCPs using United States Environmental Protection Agency (USEPA) Method 8081A, and for total arsenic and lead using USEPA Method 6010B.

4.5.2 Soil Vapor Probe Installation, Soil Vapor Sampling, and Analysis

On January 11, 2019 Cascade, with oversight from Roux Associates, installed three triple-nested soil vapor probes (SVR-1 through SVR-3). Each triple-nested probe location was completed with sample depths of 5, 15, and 30 feet bgs. The soil vapor probes consisted of an expendable vapor tip and screen affixed to Nylaflo® tubing. The probes were constructed by first placing a minimum of 2 inches of coarse sand into the bottom of the borehole. The tip and tubing were then lowered into the borehole through a tremie pipe for support. Additional sand was then placed in the borehole via tremie to create an approximately 1-foot sand-pack interval around the vapor tip. Approximately one foot of dry granular bentonite was placed on top of the same borehole and in the same manner. The tubing was labeled with depth of placement and capped using a vapor-tight Swagelok valve set to the "off" position. The soil vapor probes were installed in accordance with the 2015 DTSC Advisory.

After installation of soil vapor probes, a minimum 2-hour equilibration period was observed prior to sampling the vapor probes consistent with the guidelines presented in the Soil Gas Advisory. Prior to purging or sampling, a shut-in test was performed to confirm that the above-ground lines and three-way valves were properly sealed at each location. As a secondary test, a leak check compound, 1,1-Difluoroethane (1,1-DFA) was introduced in the sample vicinity during sampling and was included among the list of analytes for the soil vapor samples. In accordance with the Soil Gas Advisory, three purge volumes were extracted from the tubing and sand pack prior to sampling.

Soil vapor samples were collected by Positive under oversight of Roux Associates from the three soil vapor probes on January 11, 2019. Following collection, Positive analyzed the soil vapor samples for VOCs by USEPA Method 8260B on the same day using an on-Site mobile laboratory.

Following sampling, each of the soil vapor probes were abandoned by pulling the tubing and filling any void space with hydrated bentonite. Borings were patched to match the existing grade by Cascade.

4.5.5 Sample Handling

Sample Containers, Sample Volume, and Preservation Requirements

Sample containers, volume, and preservation methods were in accordance with the approved methods and laboratory requirements.

Sample Identification

Each sample was labeled with a unique sample number to facilitate tracking and cross-referencing of sample information. Examples of the sample numbering system for soil and soil vapor samples are presented below:

Soil Sample Example: SVR-1-0.5

SVR-1 = Soil boring designation

0.5 = Soil sample collected at a nominal depth of 0.5 feet bgs

Soil vapor Sample Example: SVR-2-30

SVR-2 = Soil vapor probe designation

30 = Soil vapor sample collected from probe installed at approximately 30 feet bgs

Where applicable, a chain-of-custody record was completed during sample collection and accompanied the samples to the analytical laboratory. The field personnel collecting the samples were responsible for the custody of the samples until the samples were relinquished to the laboratory. Sample transfer required the individuals relinquishing and receiving the samples to sign, date, and note the time of sample transfer on the chain-of-custody record.

4.5.6 Packaging and Transport of Samples

Immediately after sample labeling, soil sample containers were bagged in re-sealable plastic bags to protect the samples from moisture and to prevent breakage and potential cross-contamination during transportation to the laboratory. Soil samples were then placed in the mobile laboratory refrigerator for transport to the stationary laboratory. The temperature of the refrigerator was recorded by the laboratory immediately upon receipt of the samples.

All samples collected as part of the subject investigation were either analyzed by Positive's mobile laboratory or transported in the mobile laboratory to Positive's stationary laboratory.

4.5.7 Equipment Decontamination

Soil sampling equipment was either dedicated to the sampling location (i.e., it was not reused), or was cleaned in a solution of laboratory-grade detergent and rinsed with distilled water prior to reuse. Soil vapor sampling equipment was not re-used between sampling locations or depth intervals.

4.5.8 Investigation-Derived Waste

Drilling residuals such as unused portions of soil samples and drill cuttings and the decontamination water were placed into a DOT-approved 55-gallon drum. A sample of the soil/water combination was collected for laboratory analysis to characterize the investigation-derived waste (IDW) for proper off-Site disposal. The soil/water was characterized as non-hazardous and was disposed by Belshire Environmental Services, Inc. in accordance with state and federal regulations. The non-hazardous waste manifest is included as Appendix G.

5. Results and Discussion

This Section presents the findings of the investigation, including lithologic observations and analytical results for soil and soil vapor. A discussion of the results and how the findings are interpreted in consideration of the investigation objectives also is presented. Results for detected analytes in soil and soil vapor are presented in Tables 1 and 2, respectively. The complete analytical laboratory reports are included in Appendix H.

5.1 Soil Sample Results

A total of six soil samples were collected from nominal depths of 0.5 and 1.5 feet bgs from the three boring locations (SVR-1, SVR-2, and SVR-3). Each of the samples was analyzed for organochlorine pesticides using USEPA Method 8081A and for total arsenic and lead using USEPA method 6010B. The results of the soils analysis are presented in Table 1 where they are compared to both USEPA residential regional screening levels (RSLs) and DTSC HERO Note 3 residential soil screening levels (SSLs). The laboratory results are presented in their entirety in Appendix H.

- Arsenic: Arsenic was detected above laboratory practical quantitation limits (PQLs) in all six soil samples. Arsenic concentrations ranged from 2.47 mg/kg in sample SVR-2-1.5 to 4.07 mg/kg in sample SVR-2-0.5. All of the arsenic concentrations exceed the RSL (0.68 mg/kg) and SSL (0.11 mg/kg) for residential soil. However, each of the arsenic detections are below the upper bound background concentration of 12 mg/kg for soils in Southern California (DTSC, 2008).
- Lead: Lead was detected above laboratory practical quantitation limits (PQLs) in all six soil samples with concentrations ranging from 10.1 mg/kg (in SVR-1-0.5) to 20.6 mg/kg (in SVR-3-0.5). All of the lead concentrations are below the RSL (400 mg/kg) and SSL (80 mg/kg) for residential soil, and within the mean background range identified for California soils (Kearny, 1996).
- Alpha-Chlordane: Of the 22 pesticide analytes reported for each of the 6 samples, only Alpha-Chlordane was detected at any concentration and only in one sample (SVR-2-0.5) at 0.00807 mg/kg. Because RSLs and SSLs are not available for Alpha-Chlordane, the screening levels for Chlordane were used as a toxicological surrogate to evaluate Alpha-Chlordane. The detection is well below the Chlordane residential cancer screening level of 0.44 mg/kg as found in DTSC HERO Note 3.

5.2 Soil Vapor Sample Results and discussion

A total of nine soil vapor samples were collected from sample depths of 5, 15 and 30 feet bgs from the three sampling locations (SVR-1, SVR-2, and SVR-3). The nine soil vapor samples were analyzed for VOCs using USEPA Method 8260B in an on Site in a mobile laboratory operated by Positive. The results of the soil vapor analyses are presented in Table 2 where they are compared to residential SVSLs and RSLs. For purposes of direct comparison, and for consistency with prior reports, SVSLs were calculated for soil vapor by applying the 2011 DTSC *Vapor Intrusion Guidance* attenuation factor of 0.001 to June 2018 DTSC HERO Note 3 residential air screening levels. The same attenuation factor was also applied to the November 2018 USEPA RSLs (for additional direct comparison). The laboratory results are presented in their entirety in Appendix H.

Five VOC analytes were detected above laboratory PQLs. These can generally be grouped as follows: fuelrelated VOCs, solvents, and refrigerants. A summary of the detected analytes in soil vapor is presented below:

5.2.1 Fuel-related VOCs

Benzene: Benzene was detected above laboratory PQLs in six primary soil vapor samples at concentrations ranging from 25.2 μ g/m³ in sample SVR-3-5' to 46.7 μ g/m³ in sample SVR-2-30'. None of the six detections of benzene exceed the SVSL or RSL when an attenuation factor of 0.001 is applied.

5.2.2 Solvents

Acetone: Acetone was detected in one soil vapor sample, SVR-1-5', at a concentration of 1,850 μ g/m3, below the RSL when an attenuation factor of 0.001 is applied (a DTSC HERO Note 3 SVSL has not been established for acetone).

Tetrachloroethene (PCE): PCE was detected in all of the nine primary soil vapor samples at concentrations ranging from 27.0 μ g/m3 in sample SVR-1-5' to 5,440 μ g/m3 in sample SVR-3-30'. Three of the PCE concentrations exceed the SVSL of 460 μ g/m3 when an attenuation factor of 0.001 is applied, and none of the PCE concentrations exceed the RSL for PCE in soil vapor of 11,000 μ g/m3 when an attenuation factor of 0.001 is applied.

Concentrations, locations, and depths of the PCE detections for this and the previous EMS investigations are shown on Figure 4. Figures 5 and 6 present interpreted isoconcentration contours for PCE at depths of 5 and 15 feet bgs, respectively.

Methylene chloride: Methylene chloride was detected in two soil vapor samples, SVR-2-15' and SVR-2-30', at concentrations of 123 μ g/m3 and 124 μ g/m3 respectively, below the SVSL or RSL when an attenuation factor of 0.001 is applied.

The Stage 2A data validation completed by Roux Associates (Appendix I) reported that methylene chloride was detected in the method blank at 72.5 μ g/m3, above the method detection limit (MDL) and below the practical quantitation limit (PQL). Therefore, methylene chloride detections greater than the PQL and less than two times the blank concentration should be qualified, "B," for potential blank contamination. Both the detections reported above fall within the range that require a "B" qualification.

5.2.3 Refrigerants

Trichlorofluoromethane: Trichlorofluoromethane was detected in soil vapor sample SVR-3-30' at a concentration of $33.9 \ \mu$ g/m3, below the SVSL when an attenuation factor of 0.001 is applied (a USEPA RSL has not been established for trichlorofluoromethane).

The leak check compound, 1,1-DFA, was not detected in any of the soil vapor samples.

5.3 Quality Control and Data Validation and Verification

5.3.1 Laboratory Quality Control Samples

Laboratory quality control (QC) samples included matrix spikes and matrix spike duplicates (MS/MSD) to provide information to assess the precision and accuracy of the analysis of the target parameters within the environmental media collected at the Site. The MS portion of the sample is an aliquot of a sample that is spiked (by the laboratory) with a known concentration of the target analyte(s), which provides a measure of the method accuracy. The MSD portion of the sample is a laboratory split sample of the MS and is used to evaluate the precision of the analysis.

5.3.3 Data Validation and Verification

Initial data collection, validation, and reporting tasks were performed by the respective laboratories for soil and soil vapor. Data validation outside of the laboratory was performed by Roux Associates to Stage 2A as defined by USEPA's *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use*, dated January 2009. Data validation was performed in accordance with the guidelines presented in and USEPA's *National Functional Guidelines for Inorganic Superfund Methods Data Review*, dated September 2016 and USEPA's *National Functional Guidelines for Organic Superfund Methods Data Review*, dated January 2017. Stage 2A validation includes verification based on "completeness and compliance checks of sample receipt conditions and only sample-related QC results."

With the exception of the two methylene chloride detections discussed above, all data were found to be acceptable for their intended purpose, and no analytical or quality control issues affecting the usability of the data were noted for the analytical results. A formal data validation memorandum, which details the data validation procedures, is included as Appendix I.

6. Human Health Screening Evaluation

An HHSE was conducted in accordance with DTSC's PEA Guidance Manual (DTSC, 2015a). The HHSE utilized data gathered during this PEA-E investigation (January 2019) and the previous June and July 2018 EMS Phase II investigation (EMS, 2019b). The objective of the HHSE was to provide a conservative evaluation of the potential risk due to chemicals of potential concern (COPCs) detected in the subsurface at the Site. Chemicals detected in each evaluated media were considered COPCs in the HHSE. The HHSE calculated the estimated risks associated with the presence of COPCs in each medium where exposure pathways are considered complete using the established USEPA RSLs and DTSC screening levels.

Given the proposed redevelopment, risk to a residential receptor was evaluated in the HHSE. However, in anticipation of an alternate redevelopment scenario, the HHSE also includes evaluation for a future commercial receptor. The methodology and results of the HHSE are summarized below. The full HHSE is included as Appendix B.

6.1 Exposure Pathways and Media of Concern

The future intended use of the property is likely as multi-tenant residential; however, a commercial development may also be considered. As discussed below, points of potential future human contact are limited to soil and indoor air. The simplified CSM presented Section 3.1 and summarized in the table below has been used in this HHSE. In simple terms, the Site may pose a risk to human receptors via exposure to OCPs and/or metals in near surface soils or via exposure to chlorinated solvents present in soil vapor originating from off-Site sources.

Primary Source	Secondary Source	Exposure Media	Exposure Route	Receptor
Potential Historical on- Site Releases	Impacted soil	Soil	Ingestion, dermal contact, or inhalation of particles	•Current/Future commercial worker •Future Resident •Construction Worker
Off-Site Releases	Impacted Vadose Zone Soil Vapor	Indoor Air	Inhalation	•Current/Future commercial worker •Future Resident

6.2 Exposure Concentrations and Chemicals

EPCs are estimated concentrations of contaminants that are contacted by a receptor over an assumed duration. For the purpose of the HHSE, either 95% upper confidence limits (UCLs) of the mean, or maximum detections were selected as EPCs, consistent with the PEA Guidance Manual. DTSC recommended attenuation factors were applied, as appropriate, when evaluating soil vapor concentrations in the context of indoor air risks.

6.3 Human Health Screening Levels

To evaluate future residential and commercial exposures to soil and soil vapor, USEPA RSLs for non-carcinogenic and carcinogenic effects were utilized in the screening. The USEPA residential RSLs for

indoor air account for residential inhalation of ambient air in the home, and assume that the receptor spends "most, if not all, of the day at home".

6.4 Toxicity Values

The toxicity assessment describes the quantitative relationship between the extent of exposure to a contaminant and the increased likelihood and/or severity of adverse effects. This quantitative relationship generally takes the form of toxicity values that are identified for use in risk evaluations. Toxicity values are used to quantify the chance of observing cancer or non-cancer effects in exposed receptors. Toxicity values may be based on epidemiological studies or animal studies. The toxicity values used in the HHSE are embedded within USEPA's carcinogenic and non-carcinogenic RSLs.

6.5 Risk Characterization Summary

The risk characterization process integrates the results of the data evaluation, exposure assessment, and toxicity assessment to provide a quantitative estimation of non-carcinogenic and carcinogenic risks. As summarized in the table below:

- High end and low end risk estimates for future residential exposure exceeded the most conservative target risk thresholds for cancer effects.
- The high end risk estimate for future residential exposure exceeded the most conservative target risk threshold for non-carcinogenic effects, however the low end risk estimate was below target risk thresholds
- High end and low end risk estimates for future commercial scenarios were below target risk thresholds for non-carcinogenic effects
- The high end risk estimate for commercial scenarios exceeded the most conservative target risk threshold for cancer effects, however the low end risk estimate was below target risk thresholds

	Future	Residential	Future Commercial		
	Exposur	e to Soil and	Exposure to Soil and		
	Ind	loor Air	Indoor Air		
Risk	Target Threshold	Estimated Risk (Low to High)	Target Threshold	Estimated Risk (Low to High)	
Cancer Risk	1E-06 to	1.1E-06 to	1E-06 to	1.3E-07 to	
	1E-04	1.2E-05	1E-04	1.4E-06	
Non-Cancer Risk	1.0	9.6E-01 to 1.1E+00	1.0	1.9E-01 to 2.0E-01	

Cumulative Cancer and Non-Cancer Risks

7.1 Cancer Risks

For carcinogens, risk is expressed as the probability that an individual will develop cancer over a lifetime as a result of exposure to the carcinogen and is expressed as incremental lifetime cancer risk (ILCR). The National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300) (NCP) indicates that the

ILCR posed by a site should not exceed a range of 1E-06 to 1E-04. Based on the results of the HHSE the following conclusions can be made regarding cancer risk related to COPCs in soil and soil vapor.

- Estimated cancer risks at the Site do not exceed 1E-06 for residential and commercial exposure to soil.
- Estimated cancer risk for commercial exposure to indoor air was also below 1E-06.
- Cancer risk estimates for residential exposure to indoor air in some areas of the Site exceed the most conservative 1E-06 threshold for each interval evaluated (soil vapor at 5', 15', and 30').
- Even the high end estimate of cumulative cancer risk for residential exposure (to both soil and indoor air) (equal to1.2E-05) is still within the range of acceptability established in the NCP (1E-06 to 1E-04).

7.2 Non-Cancer Risks

Non-carcinogenic risk is calculated by dividing the EPC for each compound by its respective screening level for residential receptors to arrive at a Hazard Quotient (HQ) for each chemical. To assess the potential for non-carcinogenic health effects posed by exposure to multiple constituents, a Hazard Index (HI) approach is used. This approach assumes that non-carcinogenic hazards associated with exposure to more than one constituent are additive (HI = sum of the HQs). The HI is then compared to the DTSC threshold of 1.0 (DTSC 2015). Based on the results of the HHSE the following conclusions can be made regarding non-cancer risk related to COPCs in soil and soil vapor.

- Non-cancer risk estimates for both residential and commercial exposures to soil exposure (equal to 9.3E-01 and 1.9E-01, respectively) were below the DTSC target risk threshold of 1.0.
- All non-cancer risks estimated for the residential and commercial scenario exposures to indoor air (for each soil vapor interval evaluated) were below the target risk threshold of 1.0.
- The high end cumulative non-cancer risk at the Site for residential exposure to both soil and indoor air (1.1E+00) does slightly exceed the target HI of 1.0, but the cumulative low end estimate (9.6E-01) is below the HI of 1.0.
- For the commercial scenario, both high end and low end cumulative non-cancer risk estimates were below the HI of 1.0.

As shown in Table 1a of the attached HHSE report, the main contributors to the exceedance of the residential HI of 1.0 are the three metals lead, cobalt, and vanadium in soil. It is noted that the drivers for the exceedance are contributions from lead, cobalt and vanadium in soil. The highest detections reported for each of these three metals were below residential screening levels and as stated previously, with the exception of one lead detection, the metals detected at the Site were within the expected background range for California. The cumulative low end non-cancer risk at the Site (9.6E-01) is below the HI of 1.0. The cumulative non-cancer risk at the Site for residential exposure to both soil and indoor air was found to be 9.7E-01 (also below the HI of 1.0) when using data from five feet bgs. It is likely that this is the most appropriate data to consider in the context of the HHSE.

7. Summary and Conclusions

The first known subsurface assessment was a 2005 leaking underground storage tank (LUST) investigation conducted by FREY Environmental, Inc. (FREY). The investigation targeted a former 10,000-gallon diesel underground storage tank (UST) at 1631 West Lincoln Avenue and included the collection and analysis of samples from five-foot intervals in the vicinity of the former UST to a maximum depth of 40 feet bgs. Soil samples were analyzed for TPH and fuel-related VOCs. Case closure was provided by the oversight agency due to the apparent limited vertical and lateral extent of impacted soil.

In July 2018 Environmental Management Strategies (EMS) prepared a Phase I Environmental Site Assessment (ESA) for 1631 and 1699 West Lincoln Avenue on behalf of SLF which was updated and reissued in February 2019. Based on the findings of the Phase I ESA, EMS identified several recognized environmental conditions (RECs) for off-Site adjacent properties, although none were identified within the Site boundary. The locations of and summaries of the reasons for the off-Site RECs are listed below.

- 1621 West Lincoln Avenue Former use as a motorcycle paint and brake, current lack of secondary containment for drums, observed spills
- 1683 West Lincoln Former use as dry-cleaning operation which used PCE
- 1687 West Lincoln Previous detections of PCE and methyl tertiary-butyl ether (MTBE) in soil, recommendations for proper soil management if current building is demolished, and the lack of soil vapor data
- 1685 West Lincoln Improper storage and disposal of oils and chemicals and staining observed on the asphalt
- 237, 305 and 313-315 North Euclid Way (west of South Euclid Street) This 4.5-acre multi-structure industrial park has reported PCE impact to groundwater and is located upgradient with respect to the Site
- 303 and 329 Manchester Avenue and 225 North Loaro Street A pesticide production facility operated by Niagara Chemical

EMS also identified historical RECs (hRECs) associated with the leaking underground storage tank (LUST) case and additional closed LUST cases in the Site vicinity.

Considering the RECs/hRECs discussed above, and the potential for vapor encroachment, EMS recommended a Phase II ESA be performed at the Site to include "soil testing and soil vapor testing at a minimum in order to evaluate any impacts to the property that could jeopardize human health and/or increase development costs through environmental remediation efforts."

EMS performed a Phase II investigation in June and July 2018. During the EMS investigation, soil samples were collected from eight on-Site locations at depths of 2 to 2.5 and 4.5 to 5 feet bgs. Soil vapor samples were obtained from each of these locations at a sample depth of five feet bgs (two locations also had soil vapor samples at 15 feet bgs). A total of 16 on-Site soil samples were analyzed for California Assessment

Manual (CAM) metals, total petroleum hydrocarbons (TPH), OCPs, and VOCs and a total of ten on-Site soil vapor samples were analyzed for VOCs.

Roux Associates performed additional soil and soil vapor investigation activities in January 2019 to fill in data gaps. Soil and soil vapor samples were collected from three on-Site locations. Discrete soil samples were collected from each location at nominal depths of 0.5 and 1.5 bgs. Nested soil vapor probes were installed at each location with sample depths of 5, 15, and 30 feet bgs. A total of six soil samples were analyzed for lead, arsenic, and organochlorine pesticides (OCPs) and a total of nine soil vapor samples were analyzed for volatile organic compounds (VOCs).

Based on the results of these investigations, Roux Associates concludes the following:

- Investigation of the former diesel UST at 1631 West Lincoln Avenue indicated that impacts associated with the UST were very limited and case closure was granted by the APUD.
- Metals concentrations in on-Site soils were found to be within the expected background range for California. One sample collected by EMS contained an elevated concentration of lead (65 mg/kg), in excess of the expected mean value for California (23.9 mg/kg). Arsenic was found in all six soil samples collected by Roux Associates (at concentrations ranging from 2.47 to 4.07 mg/kg). All of the arsenic concentrations exceed the USEPA RSL (0.68 mg/kg) and DTSC SSL (0.11 mg/kg) for residential soil. However, all arsenic concentrations are below the upper bound background concentration for soils in Southern California (12.0 mg/kg).
- No OCPs were encountered in any of the samples collected by EMS. Alpha-Chlordane was detected in one sample collected by Roux Associates at 0.00807 mg/kg; RSLs and SSLs are not available for Alpha-Chlordane. Because RSLs and SSLs are not available for Alpha-Chlordane, the screening levels for Chlordane were used as a toxicological surrogate to evaluate Alpha-Chlordane. The detection is well below the Chlordane residential cancer screening level of 0.44 mg/kg as found in DTSC HERO Note 3.
- VOCs were not detected in soil samples collected at the Site.
- Soil vapor analytical results from the EMS and Roux Associates investigations indicate that concentrations of PCE, suspected to originate from off-Site sources, exceed residential screening levels when using an attenuation factor of 0.001 to estimate future indoor air concentrations.

To further evaluate the Site, an HHSE was performed using data from this PEA-E investigation (January 2019) and the previous June and July 2018 EMS investigation and the results are summarized below:

- Estimated cancer risks at the Site do not exceed 1E-06 for residential and commercial exposure to soil.
- Estimated cancer risk for commercial exposure to VOCs indoor air from soil vapor intrusion was also below 1E-06.
- The high end estimate of cumulative cancer risk for residential exposure (to both soil and indoor air, equal to1.2E-05) is within the range of acceptability established in the NCP (1E-06 to 1E-04).

- Non-cancer risk estimates for both residential and commercial exposures to soil exposure (equal to 9.3E-01 and 1.9E-01, respectively) were below the DTSC target risk threshold of 1.0.
- Non-cancer risks estimated for the residential and commercial scenario exposures to indoor air (for each soil vapor interval evaluated) were below the target risk threshold of 1.0.
- For the commercial scenario, both high end and low end cumulative non-cancer risk estimates were below the HI of 1.0.
- The high end cumulative non-cancer risk at the Site for residential exposure to both soil and indoor air (1.1E+00) does slightly exceed the target HI of 1.0. It is noted that the drivers for the exceedance are contributions from lead, cobalt and vanadium in soil. The highest detections reported for each of these three metals were below residential screening levels and as stated previously, with the exception of one lead detection, the metals detected at the Site were within the expected background range for California. The cumulative low end non-cancer risk at the Site (9.6E-01) is below the HI of 1.0. The cumulative non-cancer risk at the Site for residential exposure to both soil and indoor air was found to be 9.7E-01 (also below the HI of 1.0) when using data from five feet bgs. It is likely that this is the most appropriate data to consider in the context of the HHSE.

Conclusions:

- The soil vapor analytical results and the HHSE indicate that estimated indoor air concentrations of VOCs in some areas of the Site exceed the most conservative risk threshold of 1E-06, but are within the range of acceptability established in the NCP (1E-06 to 1E-04).
- The soil sample analytical results and the results of the HHSE indicate that concentrations of COPCs in soil are acceptable for a residential scenario. Although the high end cumulative noncancer risk slightly exceeds the HI of 1.0, the drivers for that exceedance are concentrations of metals in soil that are within the expected background ranges in California.

8. Recommendations

Although there are no on-Site sources of VOCs that have been identified at the Site, the conservative estimated indoor air risk from VOCs entering future buildings via soil vapor intrusion (SVI) are slightly above 1E-06. Therefore, the following actions are recommended as precautionary measures:

- Incorporate vapor intrusion mitigation such as design and installation of a passive membrane below the buildings to act as a vapor barrier into the building construction plans
- Recording of a land use covenant (LUC) as an institutional control to ensure operation and maintenance (O&M) any selected vapor intrusion mitigation measures or equipment, and disclose the risks, restrictions, and requirements to future buyers and occupants
- Preparation of a Soil Management Plan (SMP) for implementation during future on-Site grading activities

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- 1. Soil Analytical Results Arsenic, Lead, and Pesticides
- 2. Soil Vapor Analytical Results Volatile Organic Compounds

ample Depth (feet bgs)	Sample Date	Arsenic	Lead	Alpha-Chlordane			
Analytical Method			EPA 6010B				
Unit			mg/kg				
Typical Range or Upper Background Concentrations		12 ¹	12.4-97.1 mean = 23.9 ²	NS			
USEPA RSLs - Residential Soil			400	NS			
DTSC SLs - Residential Soil		0.11	80	NS			
0.5	1/11/2019	3.15	10.1	<0.004			
1.5	1/11/2019	2.99	10.7	<0.004			
0.5	1/11/2019	4.07	19.1	0.00807			
1.5	1/11/2019	2.47	18.8	< 0.004			
0.5	1/11/2019	3.81	20.6	<0.004			
1.5	1/11/2019	3.18	12.3	<0.004			
	mple Depth (feet bgs) tical Method Unit or Backgroun ntial Soil 0.5 1.5 0.5 1.5 0.5 1.5 0.5 1.5	mple Depth (feet bgs) Sample Date tical Method Date tical Method Init or Background Image: Solic structure ntial Soil 1 0.5 1/11/2019 1.5 1/11/2019 1.5 1/11/2019 0.5 1/11/2019 1.5 1/11/2019 0.5 1/11/2019 1.5 1/11/2019 1.5 1/11/2019 1.5 1/11/2019 1.5 1/11/2019 1.5 1/11/2019	mple Depth (feet bgs) Sample Date	mple Depth (feet bgs)Sample Date $\stackrel{0}{9}_{gg}$ $\stackrel{0}{9}_{gg}$ $\stackrel{0}{9}_{gg}$ tical MethodEPA 6010BUnitmg/kgrr Background 12^1 $12.4-97.1$ mean = 23.9^2 rr Background 0.68 400 I Soil 0.11 80 0.5 $1/11/2019$ 3.15 1.5 $1/11/2019$ 2.99 1.5 $1/11/2019$ 4.07 1.5 $1/11/2019$ 2.47 1.5 $1/11/2019$ 3.81 20.5 $1/11/2019$ 3.18			

Notes:

¹Upper-bound background concentrations from Chernoff, G., Bosan, W., and Outiz, D., DTSC, 2008. Determination of a Southern California Regional Background Arsenic Concentration in Soil.

²Bradford, G.R., Chang, A.C., Page, A.L., Bakhtar, D., Frampton, J.A., and Wright, H., 1996, Background Concentrations of Trace and Major Elements in California Soils, Kearney Foundation of Soil Sciences Special Report, Division of Agriculture and Natural Resources, University of California.

USEPA = United States Environmental Protection Agency

bgs = below ground surface

mg/kg = milligrams per kilogram

USEPA RSLs = USEPA Regional Screening Level (RSL), updated November 2018.

DTSC SLs = Department of Toxic Substances Control (DTSC) Human and Ecological Risk Office Human Health Risk Assessment Note Number 3, updated June 2018.

NS = No standard currently established

Shaded indicates concentration exceeds USEPA RSL and/or DTSC SL for residential soil.

Bold indicates detection above laboratory reporting limit.

<X = analyte not detected above laboratory practical quantitation limit (PQL).

Only analytes above the laboratory PQL are included in the table. See the laboratory report for the full analyte list.

Table 2. Soil Vapor Analytical Results - Volatile Organic Compounds 1631 and 1699 West Lincoln Avenue, Anaheim, California

Sample ID	Sample Depth (feet bgs)	Sample Date	Benzene	Tetrachloroethene (PCE)	Trichlorofluoromethane	Methylene Chloride	Acetone
Analytical Method			USEPA Method 8260B				
	Unit		μg/m³				
USEPA RSLs - Resi	dential Soil Va	apor (AF = 0.001)	360	11,000	NS	100,000	32,000,000
DTSC SLs - Resi	dential Soil Va	apor (AF = 0.001)	97	460	1,300,000	1,000	NS
SVR-1-5'	5	1/11/2019	<25	27.0	<15	<100	1,850
SVR-1-15'	15	1/11/2019	<25	419	<15	<100	<1,000
SVR-1-30'	30	1/11/2019	26.7	132	<15	<100	<1,000
SVR-2-5'	5	1/11/2019	31.8	78.6	<15	<100	<1,000
SVR-2-15'	15	1/11/2019	27.5	267	<15	123B	<1,000
SVR-2-30'	30	1/11/2019	46.7	1,130	<15	124B	<1,000
SVR-3-5'	5	1/11/2019	25.2	91.3	<15	<100	<1,000
SVR-3-15'	15	1/11/2019	27.3	713	<15	<100	<1,000
SVR-3-30'	30	1/11/2019	<25	5,440	33.9	<100	<1,000

Notes:

USEPA = United States Environmental Protection Agency

bgs = below ground surface

 $\mu q/m^3$ = micrograms per cubic meter

USEPA RSLs = USA EPA Region 9 Regional Screening Level for residential soil (EPA June 2018)

DTSC SLs = DTSC HERO HHRA Screening Level for residential soil (DTSC June 2018).

AF = Attenuation factor.

An attenuation factor of 0.001 was applied following the 2011 DTSC Vapor Intrusion Guidance for future residential buildings.

NS = No standard currently established

Shaded indicates concentration exceeds USEPA RSL and/or DTSC SL for residential soil vapor assuming an attenuation factor of 0.001. **Bold** indicates detection above laboratory reporting limit.

1,1-Difluoroethane (DFA) was the leak check compound used in soil vapor sampling.

<X = analyte not detected above laboratory practical quantitation limit (PQL).

Only analytes above the laboratory PQL are included in the table. See the laboratory report for the full analyte list.

B = Potetnial blank contamination. Refer to the data validation summary report for details.

- 1. Site Location Map
- 2. Site Plan
- 3. Proposed Residential Development Plan
- 4. Soil Vapor PCE Concentration
- 5. Soil Vapor PCE Isoconcentration 5 Feet bgs
- 6. Soil Vapor PCE Isoconcentration 15 Feet bgs



S:\Los Angeles\Cients\ShopoffShopoffActions - Anaheim 3224.0003L000\05Workables\Report/figures\CIS\Figure 1 - Site Location Map.mxd





Title:

	Compiled by: A.T.	Date: 28MAR19	FIGURE
POUV	Prepared by: A.T.	Scale: 1" = 120'	
HUU A	Project Mgr: D.D	Project: 3224.0003L000	3
	File: FIGURE3.DWG		






Compilation Environmental Report 1619, 1631, 1699 West Lincoln Avenue, and West City Parcel, Anaheim, California APPENDIX E

Additional Investigation Report – no appendices (Roux Associates, 2019b)



August 1, 2019

Irena Edwards **Environmental Scientist** California Department of Toxic Substances Control 5796 Corporate Avenue Cypress, California 90630 Sent via email to: Irena.Edwards@dtsc.ca.gov

Re: Additional Investigation Report West Lincoln Assemblage 1631 and 1699 West Lincoln Avenue, Anaheim, California Site Code 401869; Envirostor ID 60002802

Dear Ms. Edwards:

Roux Associates, Inc. (Roux Associates), on behalf of SLF-West Lincoln, LLC (SLF), has prepared this Additional Investigation Report (Report) to summarize the findings of recent soil vapor sampling conducted at the West Lincoln Assemblage, located at 1631 and 1699 West Lincoln Avenue, Anaheim, California (Site; Figures 1 and 2). The parcel at 1631 West Lincoln Avenue is currently occupied by a cement manufacturing company and the parcel at 1699 West Lincoln Avenue is currently vacant. This work was completed in accordance with the Additional Investigation Technical Memorandum Workplan dated May 22, 2019 which was approved by the Department of Toxic Substances Control (DTSC) in a letter dated June 25, 2019.

The objectives of this report are to:

- Present the findings of the soil vapor investigation conducted at the Site between June 25 and July 3, 2019;
- Update the Human Health Screening Evaluation (HHSE) previously prepared for the Site as an appendix to Roux Associates' Preliminary Environmental Assessment Equivalent Report (PEA-E Report); and,
- Provide appropriate conclusions and recommendations for preparation of a draft Removal • Action Workplan (RAW) for the Site.

INTRODUCTION

The Site consists of two irregularly shaped adjoining parcels situated within a triangular city block, which SLF plans to acquire for multi-unit residential development. The city block is bound by West Lincoln Avenue to the south, South Euclid Street to the west, and by a Southern Pacific Railroad (SPRR) easement to the northeast (Figure 2). The Site lies at an elevation of approximately 125 feet above mean sea level with local relief sloping gently to the west-southwest.

In June 2018 SLF engaged Environmental Management Strategies, Inc (EMS) to perform Phase I¹ and Phase II² investigations on the Site and immediately adjacent, off-Site properties. One of the adjacent, off-Site properties to the south (street address of 1681-1683 West Lincoln Avenue) was reported to be the likely source of a tetrachloroethene (PCE) release to soil and soil vapor (the maximum depth explored was 15 feet below surface). EMS concluded that soil vapor concentrations indicated the likely need for remediation of this off-Site parcel; EMS recommended additional assessment of soil and soil vapor to better define the limits of the impacted area.

On January 11, 2019 Roux Associates performed a limited soil and soil vapor investigation at the two Site parcels to evaluate impacts from historical agricultural activities, and to further investigate VOC and PCE impacts from off-Site sources (and potentially groundwater) to soil vapor at the Site. The results of the Roux investigation are reported in Roux Associates' PEA-E Report dated April 4, 2019³.

Based on an April 9, 2019 scoping meeting with the Department of Toxic Substances Control (DTSC) and subsequent May 8, 2019 conference call, Roux Associates developed an Additional Investigation Technical Memorandum Workplan (TM Workplan) dated May 22, 2019⁴. The TM Workplan was approved by the Department of Toxic Substances Control (DTSC) in a letter dated June 25, 2019. As outlined in the TM Workplan, the additional investigation to be performed included the installation of a temporary soil vapor probe at one location (SVR-4) near previous soil vapor probe SLF-1 to assess the anomalous detection of PCE at a concentration of 680 µg/m³ and additional locations (SVR 5 through SVR-8) to supplement data from previous investigations(Figure 3). This Report describes the implementation of the TM Workplan.

SOIL VAPOR SAMPLING

Roux Associates performed a soil vapor sampling investigation in June and July 2019 to assess concentrations of VOCs (including PCE) in the vicinity of previous soil vapor probe SLF-1 and in the vicinity of previous investigations. The sub-sections below summarize the investigation.

Pre-Field Activities

Roux Associates updated a previously prepared Site-specific Health and Safety Plan, marked the proposed boring locations with white paint, and notified Underground Service Alert of intended subsurface work at least 48 hours prior to performing the installation of temporary soil vapor probes at the Site. A private geophysical services and utility locating firm, SubSurface Surveys & Associates, Inc. of Carlsbad, California, was contracted to survey the work area for potentially buried utility lines or other features in the areas of proposed soil vapor probe installation.

Prior to advancing borings at the Site, boring permit UWP-0001644 was obtained from the City of Anaheim (Attachment A). At least 48 hours prior to the start of fieldwork, the City of Anaheim was notified per permit requirements. Additionally, DTSC was notified at least one week prior to the start of fieldwork as requested in an email dated June 13, 2019.

Boring Advancement and Probe Installation

On June 28 and 29, 2019, under the direction of Roux Associates, Strongarm Inc. of Fullerton, California advanced five borings (SVR-4 through SVR-8) first to 5 feet below ground surface (bgs) using a

¹Phase I Environmental Site Assessment (Revised February 2019), Anaheim Lincoln Avenue Assemblage, 1631 & 1699 West Lincoln Avenue, Anaheim CA 92801. Environmental Management Strategies, Inc. Dated July 2018 and revised February 2019.

²Phase II Environmental Site Assessment, 1631 & 1699 West Lincoln Avenue, Anaheim CA 92801. Environmental Management Strategies, Inc. Dated July 16, 2018 and revised February 7, 2019.

³Preliminary Endangerment Assessment Equivalent Report, 1631 and 1699 West Lincoln Avenue, Anaheim California. Roux Associates, Inc. Dated April 4, 2019.

⁴Additional Investigation Technical Memorandum Workplan, West Lincoln Assemblage, 1631 and 1699 West Lincoln Avenue, Anaheim, CA. Roux Associates, Inc. Dated May 22, 2019.

mechanical hand auger, then to a maximum depth of 32 feet bgs using a Direct Push Technology (DPT) drill rig. Strongarm subsequently installed temporary triple-nested soil vapor probes at 5, 15, and 30 feet bgs in each of the borings with the exception of SVR-5 and SVR-6. At these locations, collapsing borehole conditions were encountered and after many attempts, the deeper probes were installed at 20 and 25 feet bgs, respectively. The probes were set in 1 foot of clean sand pack, with one foot of dry bentonite above each sand pack. The dry bentonite was then topped with hydrated bentonite to the bottom of the next sand pack, or to the ground surface in the case of the shallowest probe. Quarter-inch Nylaflow[®] tubing was used to complete the probes to the surface. As shown on Figure 3, boring SVR-4 was placed in the vicinity of previous soil vapor probe SLF-1 and borings SVR-5 through SVR-8 were placed near previous soil vapor probes SVR-2 and SVR-3. Boring logs for SVR-4 through SVR-8 are included as Attachment B.

Soil Vapor Sampling and Analysis

Soil vapor samples were collected from the triple-nested soil vapor probes SVR-4 through SVR-8 by H&P Mobile Geochemistry Inc. of Carlsbad, California following at least 48 hours of equilibration. Prior to sampling, each probe was purged with three times the tubing, sand pack, and dry bentonite volume at a pump rate of 200 milliliters per minute (mL/min). During purging and sampling, 1,1-DFA was used as a leak-check compound. Soil vapor samples were collected into glass syringes and analyzed for volatile organic compounds (VOCs) on-Site using a mobile laboratory using a modified version of the United States Environmental Protection Agency (USEPA) Method 8260B. For quality control (QC) purposes, replicate soil vapor sample SVR-7-30 REP was collected from probe SVR-7-30 following the collection of the primary sample and was also analyzed. The measured PCE concentration in the primary (3,500 μ g/m³) and replicate (4,000 μ g/m³) samples from SVR-7-30 was similar.

Investigation Derived Waste

Investigation Derived Waste (IDW) generated from drilling and decontamination activities was placed in a Department of Transportation–rated 55-gallon drum. The drum was labeled and temporarily stored on-Site pending characterization and profile approval. The IDW drum will be transported off-Site under proper manifest for disposal by Belshire Environmental Services, Inc. of Foothill Ranch, California in accordance with state and federal regulations.

Soil Vapor Results

As shown in Table 1 and on Figure 3, PCE was detected in the soil vapor samples analyzed from borings SVR-5 through SVR-8 above the laboratory reporting limit. PCE occurred in concentrations up to 8,100 micrograms per cubic meter (μ g/m³) in soil vapor sample SVR-5-20. PCE was not detected above the laboratory reporting limit in any of the soil vapor samples analyzed from boring SVR-4, and no other VOCs were detected in the soil vapor samples analyzed. The soil vapor analytical laboratory report is included as Attachment C. PCE isoconcentration contours at 5 feet bgs and 15 feet bgs are shown on Figures 4 and 5, respectively.

The soil vapor results were compared to applicable DTSC⁵ and USEPA⁶ screening levels by applying a future residential scenario attenuation factor of 0.001^7 to the most recent published residential indoor air screening levels. Where PCE was detected above the laboratory reporting limit, it occurred at concentrations that exceed the DTSC screening level of 460 µg/m³ when an attenuation factor of 0.001 is applied. However, none of the PCE detections exceed the USEPA screening level of 11,000 µg/m³ using an attenuation factor of 0.001. The detected concentrations of PCE for this additional investigation

⁵California Department of Toxic Substances Control (DTSC) Human and Ecological Risk Office (HERO) Human Health Risk Assessment (HHRA) Note Number 3, DSTC-modified Screening Levels (DTSC-SLs). Dated April 2019.

⁶United States Environmental Protection Agency (USEPA) Regional Screening Levels. Dated April 2019.

⁷Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance). Department of Toxic Substances Control, California Environmental Protection Agency. Dated October 2011.

are similar when compared to previous investigations and support the conclusion that the PCE originates from an off-Site source (likely 1681/1683 West Lincoln Avenue).

HHSE UPDATE

The HHSE, included as Appendix B of the PEA-E report, was updated to include the results of this additional soil vapor investigation (July 2019) in addition to data collected during the PEA-E investigation (January 2019) and the previous June and July 2018 EMS Phase II investigation. The updated HHSE is included as Attachment D. The objective of the HHSE was to provide a conservative evaluation of the potential risk due to chemicals of potential concern (COPCs) detected in the subsurface at the Site.

Following the same methodology used for the HHSE of the PEA-E report, chemicals detected in each evaluated media were considered COPCs in the HHSE. The HHSE calculated the estimated risks associated with the presence of COPCs in each medium where exposure pathways (ingestion, dermal contact, or inhalation of particles) are considered complete using the established USEPA RSLs and DTSC screening levels. Either 95% upper confidence limits (UCLs) of the mean, or maximum detections were selected as EPCs, consistent with the PEA Guidance Manual. DTSC recommended attenuation factors were applied, as appropriate, when evaluating soil vapor concentrations in the context of indoor air risks. To evaluate future residential and commercial exposures to soil and soil vapor, USEPA RSLs for non-carcinogenic and carcinogenic effects were utilized in the screening. The USEPA residential RSLs for indoor air account for residential inhalation of ambient air in the home, and assume that the receptor spends "most, if not all, of the day at home". The toxicity values used in the HHSE are embedded within USEPA's carcinogenic and non-carcinogenic RSLs.

Risk Characterization Summary

The risk characterization process integrates the results of the data evaluation, exposure assessment, and toxicity assessment to provide a quantitative estimation of non-carcinogenic and carcinogenic risks. As summarized in the table below:

- The low end cancer risk estimate for residential exposure to soil and indoor air slightly exceeded the most conservative range of cancer target thresholds, and the high end cancer risk estimate remains within the cancer target threshold range;
- The low end non-cancer risk estimate for residential scenarios is equal to the non-cancer risk threshold, while the high end non-cancer risk estimate slightly exceeds the non-cancer target risk threshold;
- The low end cancer risk estimate for the commercial scenario is below the most conservative range of cancer target thresholds, while the high end estimate slightly exceeds the most conservative end of the cancer target threshold range;
- The low end and high end non-cancer risk estimates for commercial scenarios are both below the non-cancer target risk threshold.

	Future Exposure t	e Residential o Soil and Indoor Air	Future Commercial Exposure to Soil and Indoor Air		
Risk	Target Threshold	Estimated Risk (Low to High)	Target Threshold	Estimated Risk (Low to High)	
Cancer Risk	1E-06 to 1E-04	8.4E-06 to 1.8E-05	1E-06 to 1E-04	9.7E-07 to 2.1E-06	
Non-Cancer Risk	1.0	1.0E+00 to 1.1E+00	1.0	2.0E-01 to 2.1E-01	

Cumulative Cancer and Non-Cancer Risks

Cancer Risk

For carcinogens, risk is expressed as the probability that an individual will develop cancer over a lifetime as a result of exposure to the carcinogen and is expressed as incremental lifetime cancer risk (ILCR). The National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300) (NCP) indicates that the ILCR posed by a site should not exceed a range of 1E-06 to 1E-04. Based on the results of the HHSE, the following conclusions can be made regarding cancer risk related to COPCs in soil and soil vapor.

- Estimated cancer risks for residential and commercial exposure to soil do not exceed 1E-06.
- Estimated cancer risk for commercial exposure to soil vapor intervals at 5' was also below 1E-06.
- Estimated cancer risks for commercial exposure to soil vapor intervals at 15' and 30' were slightly above 1E-06. Even the high end estimate of cumulative cancer risk for commercial exposure (to both soil and indoor air) (equal to 2.1E-06) is still within the range of acceptability established in the NCP (1E-06 to 1E-04).
- Estimated cancer risks for residential exposure to soil vapor intervals at 5', 15', and 30' exceed the most conservative 1E-06 threshold for each interval evaluated. Even the high end estimate of cumulative cancer risk for residential exposure (to both soil and indoor air) (equal to 1.8E-05) is still within the range of acceptability established in the NCP (1E-06 to 1E-04).

Media	Total Incremental Lifetime Cancer Risk (ILCR)		
	Residential	Commercial	
SV-5	8.4E-06	9.6E-07	
SV-15	1.7E-05	1.9E-06	
SV-30	1.8E-05	2.1E-06	
Soil	4.2E-08	1.1E-08	
Cumulative Low End	8.4E-06	9.7E-07	
Cumulative High End	1.8E-05	2.1E-06	

Non-Cancer Risks

Non-carcinogenic risk is calculated by dividing the EPC for each compound by its respective screening level for residential receptors to arrive at a Hazard Quotient (HQ) for each chemical. To assess the potential for non-carcinogenic health effects posed by exposure to multiple constituents, a Hazard Index (HI) approach is used. This approach assumes that non-carcinogenic hazards associated with exposure to more than one constituent are additive (HI = sum of the HQs). The HI is then compared to the DTSC threshold of 1.0 (DTSC 2015). Based on the results of the HHSE, the following conclusions can be made regarding non-cancer risk related to COPCs in soil and soil vapor.

- Non-cancer risk estimates for both residential and commercial exposures to soil exposure (equal to 9.3E-01 and 1.9E-01, respectively) were below the DTSC target risk threshold of 1.0.
- All non-cancer risks estimated for the residential and commercial scenario exposures to indoor air (for each soil vapor interval evaluated) were below the target risk threshold of 1.0.
- The high end cumulative non-cancer risk at the Site for residential exposure to both soil and indoor air (1.1E+00) does slightly exceed the target HI of 1.0, and the cumulative low end estimate (1.0E+00) is equal to the target HI of 1.0.
- For the commercial scenario, both high end and low end cumulative non-cancer risk estimates were below the target HI of 1.0.

Media	Total Hazard Index (HI)		
	Residential	Commercial	
SV-5	1.2E-01	1.3E-02	
SV-15	1.9E-01	2.2E-02	
SV-30	2.1E-01	2.4E-02	
Soil	9.3E-01	1.9E-01	
Cumulative Low End	1.0E+00	2.0E-01	
Cumulative High End	1.1E+00	2.1E-01	

CONCLUSIONS AND RECOMMENDATIONS

The analytical results of this Additional Investigation and the attached HHSE update indicate that the conclusion for indoor air risk to future residential occupants is the same in the PEA-E, which is that the soil vapor analytical results and the HHSE indicate that estimated indoor air concentrations of VOCs in some areas of the Site exceed the most conservative risk threshold of 1E-06, but are within the range of acceptability established in the NCP (1E-06 to 1E-04).

Similarly, the recommendations made as a result of this Additional Investigation remain the same as in the PEA-E, which is that although there are no on-Site sources of VOCs that have been identified at the Site, the conservative estimated indoor air risk from VOCs entering future buildings via soil vapor intrusion (SVI) are slightly above 1E-06. Therefore, the following actions are recommended as precautionary measures:

- Incorporate vapor intrusion mitigation such as design and installation of a passive membrane below future buildings to act as a vapor barrier into the building construction plans
- Recording of a land use covenant (LUC) as an institutional control to ensure operation and maintenance (O&M) any selected vapor intrusion mitigation measures or equipment, and disclose the risks, restrictions, and requirements to future buyers and occupants

Upon receiving DTSC's approval of the conclusions and recommendations, a draft remedial action workplan (RAW) for mitigation, administrative control, and long-term Operation & Maintenance (O&M) for VOCs in soil vapor at the Site will be prepared. The draft RAW will include a preliminary design for active and passive options of vapor intrusion mitigation system (VIMS) to be constructed beneath future on-Site buildings. The draft RAW also will recommend that an O&M Agreement be negotiated between DTSC and SLF, and that an O&M Plan be drafted for future building slab inspections, as well as monitoring for shallow soil vapor. Following approval DTSC's approval of the RAW, SLF and DTSC will negotiate and agree on LUC language.

If you have any questions regarding the contents of this letter report, please do not hesitate to contact David DeVries by telephone at 562-446-8625 or by email at <u>ddevries@rouxinc.com</u>, or Mauricio Escobar by telephone at 310-879-4920 or by email at <u>mescobar@rouxinc.com</u>.

Sincerely,

ROUX ASSOCIATES, INC.

David J. DeVries, P.G. (CA), C.H.g Project Hydrogeologist

Mauricio H. Escobar, P.G. (CA) Principal Geologist



Enclosures:

Table 1 - Soil Vapor Analytical Results

Figure 1 – Site Location Map

Figure 2 – Site Plan

Figure 3 – Soil Vapor PCE Concentrations

Figure 4 – Soil Vapor PCE Isoconcentration – 5 feet bgs

Figure 5 – Soil Vapor PCE Isoconcentration – 15 feet bgs

Attachment A – Boring Permit Attachment B – Boring Logs Attachment C – Laboratory Analytical Report Attachment D – Updated HHSE 1. Soil Vapor Analytical Results

Sample ID	Sample Depth (feet bgs)	Sample Date	Tetrachloroethene (PCE)	
Analyt	H&P 8260SV			
	µg/m³			
USEPA RSLs - Resi	11,000			
DTSC SLs - Resi	dential Soil Va	apor (AF = 0.001)	460	
SVR-4-5	5	7/3/2019	<80	
SVR-4-15	15	7/3/2019	<80	
SVR-4-30	30	7/3/2019	<80	
SVR-5-5	5	7/3/2019	6,600	
SVR-5-15	15	7/3/2019	7,400	
SVR-5-20	20	7/3/2019	8,100	
SVR-6-5	5	7/3/2019	6,100	
SVR-6-15	15	7/3/2019	4,100	
SVR-6-25	25	7/3/2019	5,400	
SVR-7-5	5	7/3/2019	660	
SVR-7-15	15	7/3/2019	1,200	
SVR-7-30	30	7/3/2019	3,500	
SVR-8-5	5	7/3/2019	1,300	
SVR-8-15	15	7/3/2019	2,500	
SVR-8-30	30	7/3/2019	1,900	

Table 1. Soil Vapor Analytical Results - Volatile Organic Compounds 1631 and 1699 West Lincoln Avenue, Anaheim, California

Notes:

* H&P 8260SV = Modified USEPA Method 8260B

* USEPA = United States Environmental Protection Agency

* bgs = below ground surface

* $\mu q/m^3$ = micrograms per cubic meter

* USEPA RSLs = USAEPA Regional Screening Level for residential soil vapor (EPA May 2019)

* DTSC SLs = DTSC HERO Note 3 Cancer Endpoint Screening Level for residential soil vapor (DTSC April 2019).

* AF = Attenuation factor

* An attenuation factor of 0.001 was applied following the 2011 DTSC Vapor Intrusion Guidance for future residential buildings to calculate soil vapor screening levels.

* NS = No standard currently established

* Shaded indicates concentration exceeds USEPA RSL and/or DTSC SL for residential soil vapor assuming an attenuation factor of 0.001.

* Bold indicates detection above laboratory reporting limit.

* Italics indicates a replicate sample.

* 1,1-Difluoroethane (DFA) was the leak check compound used in soil vapor sampling.

* <X = analyte not detected above laboratory reporting limit (RL).

* Only analytes with detection above the laboratory RL are included in the table. See the laboratory report for the full analyte list.

- 1. Site Location Map
- 2. Site Plan
- 3. Soil Vapor PCE Concentrations
- 4. Soil Vapor PCE Isoconcentration 5 feet bgs
- 5. Soil Vapor PCE Isoconcentration 15 feet bgs



S:\Los Angeles\Clients\Shopoff\Shopoff\Shopoff\Advisors - Anaheim 3224.0003L000\05Workables\Report\figures\GIS\Figure 1 - Site Location Map.mxd





		Compiled by: M.A.E.	Date: 17JULY2019	FIGURE
700'	POUY	Prepared by: M.A.E.	Scale: 1" = 350'	
		Project Mgr: D.D.	Project: 3224.0003L002	3
		File: FIGURE3.DWG		





Compilation Environmental Report 1619, 1631, 1699 West Lincoln Avenue, and West City Parcel, Anaheim, California APPENDIX F

Phase I Environmental Site Assessment Report – no appendices (Roux Associates, 2019c)



Phase I Environmental Site Assessment

1619 West Lincoln Avenue and "West City Parcel", Anaheim, California

September 25, 2019

Prepared for:

SLF-West Lincoln, LLC

Prepared by:

Roux Associates, Inc. 5150 East Pacific Coast Highway, Suite 450 Long Beach, California 90804

Environmental Consulting & Management +1.800.322.ROUX rouxinc.com

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Executive Summary

SLF-West Lincoln, LLC (SLF; the User) retained Roux Associates, Inc. (Roux) to perform a Phase I Environmental Site Assessment (ESA) of two discontinuous parcels located in Anaheim, California. The parcels consist of a construction equipment storage facility located at 1619 West Lincoln Avenue, herein referred to as the East City Parcel, and a vacant lot for which no address or assessor parcel number was identified, herein referred to as the West City Parcel. The conglomeration of these two parcels is herein referred to as the Site.

According to the Orange County Tax Assessor's Office, the Assessor's Parcel Number (APN) associated with the East City Parcel is 072-110-19. The East City Parcel located at 1619 West Lincoln Avenue was formerly identified as 1621 West Lincoln Avenue. The West City Parcel is not associated with an address or APN. The West City Parcel is bounded by the SPRR line and the Interstate 5 (Santa Ana) Freeway (I-5) to the north, West Lincoln Avenue to the south, 1699 West Lincoln Avenue (a vacant lot) to the east, and North Euclid Street to the west (Figures 1 and 2). The area of the East City Parcel is approximately 0.69 acres and the area of the West City Parcel is approximately 1.25 acres.

As specified in our Proposal dated July 26, 2019, Roux performed this Phase I ESA in general accordance with the American Society for Testing Materials (ASTM) *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E1527-13) in an effort to identify, to the extent feasible, the presence of recognized environmental conditions (RECs) with respect to the Site as defined in ASTM E1527-13. Exceptions to, or deletions from, this practice are described in Sections 1.5 of this report.

The elevation of the Site is approximately 125 to 135 feet above mean sea level. The Site and vicinity are relatively flat, sloping very gently to the southwest. The Site is located within a mixed commercial and industrial triangular city block, bounded by a branch of the Southern Pacific Railroad and the I-5 to the northeast, West Lincoln Avenue to the south, and South Euclid Street to the west. A vacant lot and mixed commercial/industrial facilities are located between the East City Parcel and the West City Parcel. Aboveground improvements at the East City Parcel include one approximately 35-foot by 20-foot single-story structure. The West City Parcel is primarily covered by grass while the East City Parcel is mostly paved with concrete or asphalt.

The Site appeared to be undeveloped until the early 20th century. Both Site parcels appear to have been used as orange orchards from at least 1938 through 1953. The Site parcels and intervening land were initially developed for commercial and industrial use between 1953 and 1963. By 1953 it appears the East City Parcel had been developed with a single dwelling or small commercial operation. A freeway on-ramp that transected part of the West City Parcel was also constructed between 1953 and 1963. The freeway on-ramp was removed sometime between 1994 and 2005. The Site has remained largely unchanged since then. The East City Parcel is currently occupied by a construction equipment storage facility and the West City Parcel is a vacant lot.

On August 16, 2019, Roux representative Mr. Thomas Warfel visually assessed the Site for potential RECs, including, but not limited to, potential underground storage tanks, aboveground storage tanks, polychlorinated biphenyl (PCB)-containing equipment, hazardous materials storage or handling areas, containerized or bulk wastes, and visual indications of impacted soil.

ASTM E1527-13 defines a REC as:

"The presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. *De minimis* conditions are not recognized environmental conditions."

A Controlled Recognized Environmental Condition (cREC) as:

"A recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting riskbased criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)."

And a Historical Recognized Environmental Condition (hREC) as:

"A past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a historical recognized environmental condition, the environmental professional must determine whether the past release is a *recognized* environmental condition at the time the Phase I Environmental Site Assessment is conducted (for example, if there has been a change in the regulatory criteria). If the EP considers the past release to be a recognized environmental condition at the conclusions section of the report as a recognized environmental be included in the conclusions section of the report as a recognized environmental condition."

The term recognized environmental condition is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Other environmental features (OEFs) are environmental conditions that do not meet the definition of a REC, but which may warrant mention in a comprehensive Phase I ESA.

This Executive Summary provides a brief overview of the findings of this Phase I ESA. Although the Executive Summary is an integral part of a report, it does not substitute for reading the entire report or the appended or referenced documents in order to fully understand the findings and potential environmental concerns associated with the Site.

Based on the information obtained through the performance of this Phase I ESA, Roux identified the following RECs in connection with the current and historical operations at the Site or adjacent properties. To the extent possible, the locations of the RECs are shown in Figure 2.

- REC 1 On-Site Drum Storage Area and Stained Soil. Roux observed approximately fourteen 55gallon drums towards the northeast corner of the East City Parcel. The majority of the drums were placed on pallets and an attempt had been made to cover the drums with plastic sheeting. Legible labels were not identified for any of the drums, but it appeared that at least some of them were used to store new and used engine lubricant oil. Two of the drums had been left open and appeared to contain a dark, viscous liquid consistent with heavy motor oil. Staining was observed in the vicinity of the drum storage area. Dark colored staining was observed in the vicinity of a damaged drum. Considering the storage conditions and the likelihood of a petroleum release to the subsurface, the drum storage area (and associated areas of stained soil) are considered a REC in the context of this Phase I ESA.
- REC 2 Automotive Maintenance and Repair Operations. The building at the East City Parcel appears to have been used for automotive servicing operations, possibly dating as far back as the 1970s. Based on historical sources it is suspected that a motorcycle paint and brake repair shop was operated at the Site, specifically within the building. Paints, oils, lubricants, parts cleaners, and other automotive chemicals are known to have been stored and used in and around the building. At the time of Site reconnaissance, housekeeping was observed to be poor and no or insufficient secondary containment was in place around areas of chemical storage or use. Considering the storage and use of petroleum-based chemicals and other potentially hazardous substances over a substantial time period under the conditions described above, the automotive operations within the on-Site building are considered a REC in the context of this Phase I ESA.
- REC 3 Off-Site VOC Impacts to Soil Vapor and Groundwater. Historical documents for off-Site parcels reviewed as part of this Phase I ESA, show that multiple off-Site properties have released chlorinated volatile organic compounds (VOCs), notably PCE, to soil and groundwater. Investigations of soil vapor at 1681/1683 and 1687 West Lincoln Avenue suggest that a PCE release occurred at one or both of these properties located between the two Site parcels. In addition, it is known that a PCE release occurred to soil and groundwater to the west of the Site across Euclid Avenue. It is possible that PCE may have migrated beneath the Site in soil, soil gas, and/or groundwater and could present a vapor intrusion condition in the context of future redevelopment. Therefore, the potential for migration of PCE from off-Site sources to the Site is considered a REC in the context of this Phase I ESA.
- REC 4 Historical Agricultural Use. According to historical sources, it appears that both Site Parcels were operated as orange groves prior to 1938 to as late as the early 1960s. There is a potential that agricultural chemicals, such as pesticides, herbicides and fertilizers, were used on-Site, and that the Site has been impacted by the use of such agricultural chemicals. The potential for impacts from agricultural chemicals and lack of on-Site soil data represents a REC.

Roux did not identify cRECs or hRECs in connection with the current or historical operations at the Site or adjacent properties.

The term recognized environmental condition is not intended to include de minimis conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Other environmental features (OEFs) are environmental conditions that do not meet the definition of a REC, but which may warrant

mention in a comprehensive Phase I ESA. Based on the subject Phase I ESA, Roux identified the following OEFs. To the extent possible, the locations of the OEFs are shown in Figure 2. To minimize possible confusion, the REC and OEF identification numbers are sequential.

- **OEF 5 Adjacent Interstate Freeway.** The Site is bordered to the north by the I-5 (Santa Ana) Freeway, the on-ramp of which passes within 160 feet of the West City Parcel at its closest approach. Additionally, a freeway on-ramp that transected part of the West City Parcel was present from roughly the late 1950's to the late 1990's. It is not uncommon for near-surface soils at properties in close proximity to freeways that operated in the era of leaded gasoline to be impacted by aerially deposited lead. However, there is no documented lead impact to soils at the Site.
- OEF 6 Adjoining Off-Site Railroad Tracks. According to historical topographic maps, the northeastern adjoining Southern Pacific Railroad had been constructed by 1896. Historical sources suggest that the rail line has been used since that time for both passenger and freight services. The materials transported along the railroad historically are unknown. Both the presence of these railroad lines and the materials transported along the railroad been treated with copper arsenate, creosote (which contains polyaromatic hydrocarbons [PAHs]), PCBs, pentachlorophenol (which also contains dioxins), and copper naphthalene. In addition to these chemicals, railway transportation is associated with heavy metals, herbicides, pesticides, volatile organic compounds (VOCs), and petroleum product impacts. No evidence of a likely release associated with the rail lines was identified during the course of the Phase I ESA.

1. Introduction

Roux Associates, Inc. (Roux) completed this Phase I Environmental Site Assessment (ESA) of two discontinuous parcels located in Anaheim, California (Figures 1 and 2). Roux has performed this Phase I ESA in compliance with the scope and limitations of American Society for Testing Materials (ASTM) *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E1527-13) and the terms and conditions of Roux's proposal dated July 26, 2019. Roux conducted this Phase I ESA for the benefit of SLF-West Lincoln, LLC (SLF; the User).

The following sections of this report present our Phase I ESA findings and conclusions. A glossary containing terms and definitions presented in ASTM E1527-13 is included as Appendix A – Glossary of Terms. Other appendices presented at the end of the report consist of tables, figures, User-provided information, historical records, regulatory records review documentation, and personnel qualifications.

1.1 Purpose

The purpose of this Phase I ESA is to identify and report, to the extent feasible, recognized environmental conditions (RECs) with respect to the Site. Performing a Phase I ESA in general compliance with ASTM E1527-13 may enable a User to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) liability. That is, the practice that constitutes one of the requirements for "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" as defined in 42 USC Section 9601(35) (B).

1.2 Scope of Services

The scope of services for this Phase I ESA included, but was not limited to, the activities listed below:

- A review of reasonably ascertainable and practicably reviewable topographic maps, historical aerial photographs, and city directories to investigate past Site conditions;
- A review of specific government lists pursuant to ASTM Standard E1527-13 regarding environmental activities for the Site and local area properties;
- A review of records, permits, citations, and/or reports connected to the Site that were reasonably ascertainable, practicably reviewable, and publicly available within reasonable time and cost;
- An inspection by an environmental professional to investigate the current use of the Site and to identify environmental concerns including but not limited to, the presence of hazardous substances or petroleum products, wastes, underground storage tanks (USTs), aboveground storage tanks (ASTs), or other environmental concerns; and
- Preparation of this Phase I ESA Report.

Roux initiated this Phase I ESA pursuant to written authorization received from the User on August 2, 2019.

1.3 Standard of Care

Roux conducted this Phase I ESA using a defined scope of services considered appropriate and agreed upon by all parties on the date the service was authorized, unless the scope of services or the methods used were later modified, in writing, and accepted by all parties prior to performance. Roux conducted this Phase I ESA in accordance with generally accepted practices in a manner consistent with that level of care exercised by other members of our profession in the same locality and under similar conditions of time and accessibility of improvements and information. No other representations, expressed or implied, and no warranty or guarantee is included or intended to be part of this Phase I ESA.

Please note that the scope of services performed in execution of this assessment may not be appropriate to satisfy the needs of other parties. We, therefore, are not responsible for independent conclusions, opinions, or recommendations of others based on our assessment. Furthermore, this Phase I ESA relates to the environmental conditions of the Site and does not address issues raised in transactions such as business risk, purchase of business entities, or interests therein, or of their assets, that may well involve environmental liabilities pertaining to properties previously owned or operated or other off-site liabilities.

Additionally, the findings of this Phase I ESA are based on Roux's observations, inquiries, and historical research using reasonably ascertainable and practically reviewable information obtained within reasonable time and cost constraints. Roux does not represent that this Phase I ESA is an exhaustive investigation that reflects the findings of all of the information available for the Site, nor is it representative of future Site conditions. If additional information is generated from the Site, it should be provided to Roux so that we may evaluate its impact on our conclusions. As such, activities or episodes that transpire subsequent to this Phase I ESA are not considered in this assessment. It is not intended that a Phase I ESA in accordance with ASTM E1527-13 be an exhaustive assessment of a property nor can it wholly eliminate uncertainty regarding the potential for RECs in connection with a property.

1.4 Assumptions

This Phase I ESA Report, including the exhibits attached hereto, describes the results of Roux's investigation to identify the presence of RECs connected with the Site in accordance with ASTM E1527-13, as allowed by and consistent with the regulatory requirements of the All Appropriate Inquiry (AAI) Rule, 40 CFR Part 312, Amendment to Standards and Practices for All Appropriate Inquires Under CERCLA, Final Rule, published December 30, 2013 (AAI Rule). Specifically, the preamble to the amended AAI Rule states:

The Environmental Protection Agency (EPA) today is taking final action to amend the standards and practices for conducting all appropriate inquiries under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) to reference a standard practice recently made available by ASTM International, a widely recognized standards development organization. Specifically, this final rule amends the "All Appropriate Inquiries Rule" at 40 CFR Part 312 to reference ASTM International's E1527–13 "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" and make clear that persons conducting all appropriate inquiries may use the procedures included in this standard to comply with the All Appropriate Inquiries Rule¹.

¹ Federal Register: December 30, 2013 (Volume 78, Number 250) Page 79319

One of the requirements that a person acquiring real property must meet in order to qualify for either the innocent landowner, contiguous owner, or bona fide prospective purchaser (collectively hereinafter "Prospective Purchaser") defense to liability under the federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986, and the Small Business Liability Relief and Brownfields' Revitalization Act of 2002, 42 U.S.C. 9601-9675 (collectively referred to hereafter as "CERCLA") is that person must conduct all appropriate inquiries into the previous ownership and uses of the property in conformance with the AAI Rule (or the ASTM E1527-13) prior to acquisition of the property. The User has acknowledged that, under the AAI Rule, Roux's performance of this Phase I ESA in accordance with ASTM E1527-13 will not alone result in the User satisfying all requirements of the AAI Rule and will not in itself provide a defense to CERCLA liability. The User has acknowledged that the AAI Rule also requires that the Prospective Purchaser undertake certain additional inquiries and post-acquisition activities to satisfy the CERCLA AAI requirements. Accordingly, Roux makes no guarantees or warranties, expressed or implied, regarding this Phase I ESA, including without limitation, that this Phase I ESA will qualify the User for a defense to CERCLA liability.

Roux has performed this Phase I ESA in a professional manner using that degree of skill and care exercised for similar projects under similar conditions by reputable and competent environmental consultants. Professional judgments expressed herein are based on the facts currently available to Roux.

The AAI Rule requires, and the conclusions stated herein represent, the application of a variety of engineering and technical disciplines to material facts and conditions associated with the Site. As such, these conclusions are based on subjective interpretations and the exercise of discretion based on the facts available to Roux and conditions at the time of the performance of this Phase I ESA. Many of these facts and conditions are subject to change over time. Accordingly, the conclusions must be considered within this context.

The User has agreed that Roux shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time this Phase I ESA was performed. To the extent practicable, Roux has identified data gaps, and has evaluated the potential significance of such data gaps. Recommendations to address those data gaps may be provided to the User upon request and are based on the data available at the time of the performance of this Phase I ESA. Implementation of the recommendations may not fully address the data gaps, and the information obtained from execution of those recommendations may alter and/or modify the interpretation of the Site conditions and conclusions, herein. This Phase I ESA does not include consideration of matters specifically excluded by ASTM E1527-13, including but not limited to, asbestos-containing materials (ACM), radon, lead-based paint (LBP), lead in drinking water, wetlands, regulatory compliance, and mold unless specifically identified herein.

Roux has not collected samples at the Site and is relying on information from other sources. By referencing this information, Roux does not accept responsibility for the accuracy of the underlying data, sampling methods, laboratory analysis, or documentation.

This Phase I ESA Report should not be considered a legal interpretation of existing environmental laws and regulations. This Phase I ESA was conducted with a reasonable degree of inquiry to identify RECs, but uncertainty is not eliminated. No Phase I ESA can wholly eliminate uncertainty regarding the potential for

RECs in connection with a property. The Phase I ESA process is intended to reduce, but not eliminate, the uncertainty involved with identifying RECs.

This Phase I ESA Report is not an appraisal or value judgment of the Site. The User has agreed that Roux shall not be liable for any use of this Phase I ESA Report as an appraisal or value judgment of the Site.

This Phase I ESA Report has been prepared for the exclusive use of the User for specific application to the Site covered by this Phase I ESA Report. The User has agreed that any third-party use of this Phase I ESA Report, upon disclosure by the User, is the sole responsibility and at the sole liability of the User.

1.5 Limitations and Exceptions

There were no noted limitations and exceptions associated with performing this assessment.

1.6 Special Terms and Conditions

There were no special terms and conditions associated with performing this assessment.

1.7 User Reliance

This report is confidential and has been prepared for the exclusive use of the User. No additional parties may use the information contained in this report without obtaining the written permission of Roux or the User. Roux's duties and obligations extend to the User and to no other party. Roux's duties and obligations to the User are not transferable to persons, corporations, or organizations without the express written consent of the User and Roux. The User may rely upon the information provided in this Phase I ESA report for a period of 180 days from the date of issue. After 180 days, this Phase I ESA should be updated in accordance with ASTM guidance. Roux will not be liable for any consequential damages arising from the use of this report for other than its intended purpose, for use of this report beyond 180 days of its issue date, or from unauthorized use by third parties.

This Phase I ESA Report must be read and interpreted as a whole and can only be considered representative of the conditions of the Site as of the date of our Site reconnaissance described herein. Roux makes no representation whatsoever concerning the condition of the Site beyond the date of our Site reconnaissance described herein. Individual sections and appendices of this report are dependent on the balance of this report, and on the terms, conditions, and stipulations contained in the proposal and written amendments accepted by Roux.

2. Site Description

2.1 Location and Legal Description

The Site consists of two discontinuous parcels located in the City of Anaheim, in Orange County, California. The parcels are referred to as the West City Parcel and the East City Parcel. The East City Parcel is located at 1619 West Lincoln Avenue, and was formerly identified as 1621 West Lincoln Avenue. According to the Orange County Tax Assessor's Office, the Assessor's Parcel Number (APN) associated with the East City Parcel is 072-110-19. The West City Parcel is not associated with an address or APN. It is bounded by the Southern Pacific Railroad (SPRR) and the Interstate 5 (Santa Ana) Freeway (I-5) to the north, West Lincoln Avenue to the south, 1699 West Lincoln Avenue (a vacant lot) to the east, and North Euclid Street to the west (Figures 1 and 2). The area of the East City Parcel is approximately 0.69 acres and the area of the West City Parcel is approximately 1.25 acres.

2.2 Site and Vicinity General Characteristics

According to several sources including the Google Earth[™] application, United States Geological Survey (USGS) topographic maps (Appendix B), and an Environmental Data Resources Inc. (EDR) Radius Map Report, the elevation of the Site is approximately 125 to 135 feet above mean sea level (amsl). The Site and vicinity are relatively flat, sloping very gently to the southwest. The Site is located within a mixed commercial and industrial triangular city block, bounded by a branch of the Southern Pacific Railroad and the I-5 to the northeast, West Lincoln Avenue to the south, and South Euclid Street to the west. A vacant lot and mixed commercial/industrial facilities are located between the East City Parcel and the West City Parcel. Aboveground improvements at the East City Parcel include one approximately 35-foot by 20-foot single-story structure. The West City Parcel is primarily covered by grass while the East City Parcel is mostly paved with concrete or asphalt. The concrete and asphalt covering the East City Parcel is cracked and severely weathered in places.

2.3 Current and Past Use of the Site

The Site appeared to be undeveloped until the early 20th century. Both Site parcels appear to have been used as orange orchards from at least 1938 through 1953. The Site parcels and intervening land were initially developed for commercial and industrial use between 1953 and 1963. By 1953 it appears the East City Parcel had been developed with a single dwelling or small commercial operation. A freeway on-ramp that transected part of the West City Parcel was also constructed between 1953 and 1963. The freeway on-ramp was removed sometime between 1994 and 2005. The Site has remained largely unchanged since then. The East City Parcel is currently occupied by a construction equipment storage facility and the West City Parcel is a vacant lot featuring an earthen berm supporting the South Euclid Avenue city street.

2.4 Physical Setting

Roux obtained and reviewed published, reasonably ascertainable information concerning the physical setting of the Site. The following is a summary of our review of those physical setting sources.

2.4.1 Surface Water and Drainage

The nearest significant surface water feature to the Site is Carbon Creek, a concrete-lined stormwater drainage channel located approximately 0.5 miles north of the Site at its closest approach.

2.4.2 Physiographic Setting

The Site is located in the Peninsular Ranges Geomorphic Province of Southern California. This geomorphic province encompasses an area that extends 125 miles from the Transverse Ranges and the Los Angeles Basin south to the Mexican Border and beyond another 775 miles to the tip of Baja California. In general, the province consists of rugged mountains underlain by Mesozoic igneous and metamorphic rocks to the east, and a dissected coastal plain underlain by Cenozoic sediments to the west. The province varies in width from approximately 30 to 100 miles and is traversed by a group of faults and fault zones trending roughly northwest.

2.4.3 Regional and Local Geology

The Site is located within the Coastal Plain of Orange County groundwater basin. The Coastal Plain of Orange County groundwater basin underlies a coastal alluvial plain in northwestern Orange County. The basin is bound on the northwest and the north by the Los Angeles-Orange County line. The Whittier fault zone and consolidated rocks of the Puente Hills and Chino Hills bound the northeast extent of the basin. The basin is bound on the east by consolidated rocks of the Santa Ana Mountains and on the south by consolidated rocks of the Laguna Hills and San Joaquin Hills. The Pacific Ocean is the southwest extent of the basin. The upper Santa Ana River watershed flows toward the Santa Ana River and Prado Reservoir. Controlled releases from Prado Dam supply the Santa Ana River in the lower Santa Ana River watershed (Groundwater Bulletin 118, May 2018).

According to regional data, the Site is situated in an area of Recent Alluvium fan deposits. The Recent Alluvium generally consists of interlayered sands, silts, and clays derived from the surrounding hills and the ancestral Santa Ana River. The alluvial layer has been found up to 300 feet in thickness and is typically underlain by the Upper Pleistocene Lakewood Formation (including the Artesia and Gage Aquifers), followed by the Lower Pleistocene San Pedro Formation (which includes the Hollydale, Lynwood, and Silverado Aquifers as well as several unnamed aquitards). These deposits overlie a thick sequence of Late Cretaceous to Quaternary-age semi-consolidated sedimentary rocks and basement units (OCWD, 1984). Relief in the vicinity of the Site slopes to the west-southwest, and surface water features have a general westerly flow direction (Smith-Emery, 2019).

An intrusive geotechnical investigation was performed in the Site vicinity by LGC Valley, Inc. (LGC) of Vista, California on June 6, 2018. Investigation borings ranged in depth from 9 to 51 feet below ground surface (bgs) and test pits were excavated to depths between 6 and 8 feet bgs. LGC described the lithology of the Recent Alluvium with the following description:

"...unit consists predominantly of poorly sorted sand to silty sand near the ground surface, with near-horizontal layers of silt, silty clay, and sandy clay below. The soils were found to be slightly moist to moist, loose to very dense (or soft to hard)... ...the upper 1 to 3 feet of this unit was found to be porous to slightly porous and potentially compressible. This unit was

found to extend below the maximum depth explored during our boring and test-pit subsurface investigation" (LGC, 2018).

2.4.4 Regional and Local Hydrogeology

The Site is located within the northeastern region of the Orange County Coastal Plain, which is part of the larger Coastal Plain of Los Angeles. The Orange County Coastal Plain is bordered to the north and east by the foothills of the Santa Ana Mountains, to the south by the San Joaquin Hills, and to the west by the Pacific Ocean. The Site is located in the East Coast Plain Hydrologic Subarea of the Lower Santa Ana River Hydrologic Area, within the Santa Ana River Hydrologic Unit (Santa Ana Regional Water Quality Board [SA RWQCB], 1995). The Site is located within a Forebay Area of the Orange County Coastal Plain where unconfined water conditions exist. Groundwater within the Shallow Aquifer in the Site vicinity generally flows to the west-southwest (OCWD, 2015).

Depth to groundwater has not been directly measured at the Site, however nearby properties on GeoTracker and Envirostor have reported depth to groundwater between approximately 62 and 102 feet below ground surface (bgs). The groundwater depth may vary due to the presence of discontinuous perched aquifers. An investigation occurring at a site west Euclid Avenue and west of the Site (Euclid Way Industrial Park) has reported groundwater depths of approximately 80 to 85 feet bgs and a groundwater flow direction of east-southeast (Centec, 2017).

3. Sources of Information

Sources of information utilized in preparing this Phase I ESA report included historical topographic maps; historical aerial photographs; a walkover survey of the Site and adjoining properties; in-person discussions with User and tenant personnel; a review of records available at selected local and state regulatory agencies; a review of databases maintained by local, state, and federal government agencies; and other records available from commercial and online sources.

3.1 **Topographic Maps**

To help understand the history of the Site and past land uses, copies of historical U.S. Geological Survey topographic maps published between 1896 and 2012 were obtained from Environmental Data Resources, Inc. (EDR), of Shelton, Connecticut. These maps have been included, in reverse chronological order as Appendix B.

3.2 Aerial Photographs

To supplement the information from the topographic maps, a "Decade Package" of aerial photographs taken between 1938 and 2016 was obtained from EDR. The aerial photographs obtained by EDR have been consolidated and included, in reverse chronological order, as Appendix C.

3.3 Fire Insurance Maps

At Roux's request, EDR conducted a search for fire insurance map coverage of the Site. No Certified Sanborn Maps were available for either Site parcel. A copy of EDR's "Certified Sanborn® Map Report" to that effect is included as Appendix D to this report.

3.4 City Directories

City directories have been published for cities and towns across the United States since the 1700s. Originally a list of residents, the city directories subsequently developed into a useful tool for locating individuals or businesses in certain areas. A copy of "The EDR-City Directory Image Report," is included as Appendix E to this report.

3.5 Government Databases

To document potential sources of contamination at or near the Site, a government records search was conducted by EDR. The search included local, state, and federal records for the Site and for other properties within ASTM-standard distances of the Site. The records search is summarized in Section 7.0 and a copy of "The EDR Radius Map[™] Report with GeoCheck®," dated August 05, 2019, is included in its entirety as Appendix F. As recommended by ASTM, all but a few of the databases searched were "current," i.e., had been updated within 90 days prior to the search date.

3.6 Site Reconnaissance

On August 16, 2019, Roux personnel conducted reconnaissance of both Site parcels, including building interior on the East City Parcel. A detailed description of the reconnaissance is provided in Section 4.2. Selected photographs taken during the reconnaissance have been annotated and are included in Appendix G.

3.7 Information from Government Agencies

- Federal;
 - United States Environmental Protection Agency (EPA),
 - o National Pipeline Mapping System (NPMS),
- State;
 - o State Water Resources Control Board (SWRCB): GeoTracker,
 - o SWRCB: Storm Water Multiple Application and Report Tracking System (SMARTS),
 - o Department of Toxic Substances Control (DTSC),
 - DTSC: EnviroStor,
 - o DTSC: Hazardous Waste Tracking System (HWTS),
 - o California Air Resources Board (CARB),
 - o California Office of Environmental Health Hazard Assessment (OEHHA),
 - o CalEPA: CalRecycle,
 - o CalRecycle: Solid Waste Information System (SWIS),
 - State of California Department of Conservation: Division of Oil, Gas and Geothermal Resources (DOGGR),
- County/Regional;
 - o Santa Ana Regional Water Quality Control Board (SA RWQCB),
 - o South Coast Air Quality Management District (SC-AQMD),
 - Orange County Sanitation Department (OCSD),
 - Orange County Public Works (OCPW),
 - o Orange County Environmental Health,
 - o Orange County Waste and Recycling, and
- City/Local;
 - City of Anaheim City Clerk.

The following sections summarize Roux's review of those records. Copies of the records are provided in Appendix H – Regulatory Records Documentation.

3.7.1 Federal Agencies

3.7.1.1. US EPA

Roux submitted an online Public Records Request on FOIAonline [Freedom of Information Act web portal] on August 2, 2019. Roux Associate also queried the MyProperty database. No listings associated with the Site were identified.

3.7.1.2. NPMS

Roux queried the online NPMS Public View database on August 2, 2019. According to the database, a gas transmission pipeline and a hazardous liquid pipeline are located off-Site within the SPRR line right-of-way. No additional information is provided regarding the content of the hazardous liquid pipeline, although it is suspected to transmit petroleum products. There is no indication of a release from either pipeline in the vicinity of the Site.

3.7.3 State Agencies

3.7.3.1. SWQCB GeoTracker

Roux queried the online SWRCB GeoTracker database on August 2, 2019. No listings were identified for the Site. Five listings, summarized below, were identified within 1,000 feet of the Site.

- La Habra Stucco, 1631 West Lincoln Avenue, is a closed LUST case.
- Garcia Site, 275 North Manchester Avenue, is a closed LUST case.
- Mills Ford, 1600 West Lincoln Avenue, is a closed LUST case.
- Texaco Service Station, 1680 West Lincoln Avenue, is a closed LUST case.
- Mobile #18-GY7, 101 South Euclid Street, is a closed LUST case.

These listings are addressed in Section 5.0 or Section 7.0 of this report.

3.7.3.2. SWQCB SMARTS

Roux queried the online SWRCB SMARTS database on August 2, 2019. One listing associated with the Site was identified. Due to construction activities in May 2014, a Notice of Intent (NOI) was submitted to the State Water Resources Control Board for storm water discharge to the Santa Ana River.

3.7.3.3. DTSC

Roux submitted a Public Records Request via email on August 2, 2019. On August 9, 2019, a response was received, stating that records associated with the Site have been uploaded to the DTSC EnviroStor database (see below).

3.7.3.4. DTSC EnviroStor

Roux queried the online DTSC EnviroStor database on August 2, 2019. No listings were identified within the Site. One listing, summarized below, was identified within 1,000 feet of the Site.

• West Lincoln Assemblage, 1631 and 1699 West Lincoln Avenue, is an active voluntary clean-up site with detections of PCE in soil vapor samples. DTSC considers the West Lincoln Assemblage
subsurface investigation to be complete and suspects that the source of soil vapor contamination is off-Site (1681/1683 West Lincoln Avenue).

The West Lincoln Assemblage is addressed in Section 5.5.6 and Section 7.1.1 of this report.

3.7.3.5. DTSC HWTS

Roux queried the online DTSC HWTS database on August 2, 2019. No listings associated with the Site were identified.

3.7.3.6. CARB

Roux submitted a Public Records Request via email on August 2, 2019. At the time of writing no response had been received.

3.7.3.7. California OEHHA

Roux submitted a Public Records Request via email on August 2, 2019. On August 9, 2019, a response was received, stating that no records associated with the Site were identified.

3.7.3.8. CalEPA: CalRecycle

Roux submitted a Public Records Request via email on August 2, 2019. On August 12, 2019, a response was received, stating that no records associated with the Site were identified.

3.7.3.9. CalRecycle: SWIS

Roux queried the online SWIS Facility and Site database on August 2, 2019. The nearest SWIS facility is the Crescent Street Sweeper Transfer Station, located approximately 1.2 miles northwest of the Site. The active facility accepts inert, mixed municipal waste.

3.7.3.10. State of California Department of Conservation: DOGGR

Roux queried the online DOGGR database on August 2, 2019. No wells were identified within the Site. The nearest well, API # 0405901130, is located approximately 1,500 feet north-northeast and is a plugged and abandoned oil and gas well.

3.7.4 County/Regional Agencies

3.7.4.1. SA RWQCB

Roux submitted a Public Records Request via email on August 2, 2019. On August 6, 2019, a response was received, stating that storm water information is available on the SWRCB SMARTS database. Relevant information is included, as appropriate throughout this report.

3.7.4.2. SC-AQMD

Roux queried the online SC-AQMD database on August 2, 2019. No listings associated with the Site were identified.

Roux also submitted a Public Records Request via email on August 2, 2019. On August 9, 2019, a response was received, stating that no records associated with the Site were identified.

3.7.4.3. OCSD

Roux submitted a Public Records Request online on August 2, 2019. On August 5, 2019, a response was received, stating that no records associated with the Site were identified.

3.7.4.4. OCPW

Roux submitted a Public Records Request online on August 2, 2019. On August 6, 2019, a response was received, stating that no records associated with the Site were identified.

3.7.4.5. Orange County Environmental Health

Roux submitted a Public Records Request online on August 2, 2019. On August 6, 2019, a response was received, stating that no records associated with the Site were identified.

3.7.4.6. Orange County Waste and Recycling

Roux submitted a Public Records Request online on August 2, 2019. On August 6, 2019, a response was received, stating that no records associated with the Site were identified.

3.7.5 City/Local Agencies

3.7.5.1. City of Anaheim – City Clerk

Roux submitted a Public Records Request on August 2, 2019. As of the date of this report, no response had been received.

3.8 User Provided Information

ASTM E1527-13 provides that the User perform certain tasks. The purpose of this section is to present select User-provided information that can assist in identifying possible RECs in connection with the Site. According to ASTM E1527-13, these tasks do not require the technical expertise of an environmental professional and the environmental professional generally does not perform these tasks.

Roux administered a questionnaire to the User at the beginning of this Phase I ESA to assist them with these tasks. Mr. Brian Rupp of SLF provided feedback on August 1, 2019. Mr. Rupp was not aware of any environmental liens, activity and land-use limitations, engineering or institutional controls, chemical releases or contamination on the Site, or environmental cleanups in connection with the Site not otherwise addressed in this report.

3.8.1 Environmental Liens or Activity and Use Limitations

The User indicated that they have no knowledge regarding environmental liens or activity and use limitations (engineering/institutional controls) with respect to the Site.

3.8.2 Specialized Knowledge

The User did not report any specialized knowledge related to the Site.

3.8.3 Valuation Reduction for Environmental Issues

The User indicated that they have no knowledge regarding valuation reduction for environmental issues.

3.8.4 Commonly Known or Reasonably Ascertainable Information

The User did not have any knowledge regarding commonly known or reasonable ascertainable information about the Site not otherwise addressed.

3.8.5 Obvious Indicators of the Presence or Likely Presence of Contamination of the Site

The User did not have any knowledge regarding obvious indicators of the presence or likely presence of contamination of the Site not otherwise addressed. Mr. Rupp noted the historical presence of the freeway off-ramp located on the property.

4. Site History and Condition

This section documents the history of the Site and describes current conditions and existing or former environmental features. Pursuant to ASTM, Roux requested the following standard historical sources as described in Section 3.0

- Historical aerial photographs;
- Historical fire insurance maps;
- Historical topographic maps;
- Local street directories.

Historical sources from the EDR reports have been supplemented by information obtained from the records requests as described in Section 3.7.

4.1 Site History

The table below provides a historical summary of the Site in 10-year increments using information compiled from historical aerial photographs, historical USGS topographic maps, and the EDR City Directory Search. The table includes a discussion of pertinent findings, but it is not exhaustive of all historical information that may be available for the Site.

Summary of Historical Sources				
Date Range	Site Description	Historical Sources		
Pre-1930	The earliest historic source referencing the Site is a topographic map dating from 1896. According to the map the Site was undeveloped at that time. The SPRR line can be seen on the 1896 map, immediately to the northeast of the Site following its present-day alignment. A network of surface streets is also shown on the map associated with the early settlement of Anaheim, centered approximately 1.5 miles east of the subject Site, and a smaller developed area immediately east of the Site later identified as West Anaheim. Land use in the vicinity of the Site appears to have been used for agricultural/ homestead purposes or remained undeveloped. The map depicts a north- south trending road (identified as Nichols Avenue in 1949 and Euclid Avenue in 1965) adjacent to the West City Parcel and an east-west trending road (identified as Lincoln Avenue in 2012) adjacent to the south of the Site.	 1896, 1898, 1901 USGS Anaheim Topographic Map (15-minute) 1902 USGS Anaheim Topographic Map (30-minute) 		
1930-1939	The 1935 topographic map shows a single structure development within the East City Parcel. The map also shows increased urban development at the City of Anaheim. The 1938 aerial photograph shows development of the Site and vicinity with orange groves. What appears to be a single-family residential dwelling is depicted within the East City Parcel. Several single-family residential parcels have also been developed on the opposite side of South Euclid Street, directly west of the West City Parcel. A northeast-southwest trending road (pre-cursor to the I-5) is depicted on the north side of the SPRR line running roughly parallel to it.	- 1935 USGS Anaheim Topographic Map (7.5-minute) - 1938 Aerial Photograph		

1940-1949	The 1942 topographic map indicates that land use at the Site and in the immediate vicinity is dominated by orange groves. The 1947 aerial photograph has poor resolution and does not appear to reflect any significant changes at the Site. The 1949 topographic map is presented in an updated format but does not reflect any significant changes to the Site or vicinity.	 1942 USGS Anaheim Topographic Map (15-minhute) 1947 Aerial Photograph 1949 USGS Anaheim Topographic Map (7.5-minute)
1950-1959	The 1950 topographic map does not reflect any significant changes to the Site or vicinity. The 1953 aerial photograph shows an additional structure on the East City Parcel, located roughly central to the parcel. It also shows that the parcel immediately west of the East City Parcel had been mostly cleared of orange trees and redeveloped by that time. A single industrial type building had been constructed towards the northern edge of the cleared adjoining parcel (1631 West Lincoln). Additionally, a single dwelling property appears to have been developed on the northern portion of the West City Parcel. The orange groves in the intervening space appear to be thinning out by this time. The I-5 has been improved and appears to feature two lanes in either direction, with ongoing construction at the time of the photograph. The 1955 city directory lists the 1631 West Lincoln Avenue address as occupied by La Habra Stucco, a subdivision of La Habra Products. It is suspected that the property was used for the manufacture of stucco materials from that time until about 1995.	 1950 USGS Anaheim Topographic Map (7.5-minute) 1953 Aerial Photograph 1955 Pacific Telephone & Telegraph City Directory
1960-1969	The 1963 aerial photograph depicts significant redevelopment of the Site and surrounding area. The majority of orange groves had been removed by this time and the I-5 Freeway has been widened and redirected further north. The freeway also features a new overpass and on-ramp, partly constructed within the West City Parcel. The East City Parcel appears to be in use for storage or some type of industrial operation. Several other parcels fronting on to West Lincoln Avenue have been developed with what appear to be industrial-type operations. In particular, the large building associated with the cement/stucco manufacturing facility at 1631 West Lincoln had been constructed by that time. The 1965 topographic map reflects the features observed in the 1963 photograph including the industrial development and the freeway on-ramp (with associated grading).	 1963 Aerial Photograph 1965 USGS Anaheim Topographic Map (7.5-minute) 1966 Pacific Telephone City Directory
1970-1979	The East City Parcel (1621/1619 West Lincoln Avenue) was identified as "Clem Schmitt-Adv and Designs" and "Yellow Cab Co of Garden Grove Stanton and Los Alomitos" in the 1970 city directory and as "Rajas Cycle Painting" and "Cycle Painting" in the 1975 city directory. It is understood that the 1975 listing refers to the use of the property as a motorcycle painting and brake repair shop (EMS, 2019). The 1972 topographic map does not reflect any significant changes to the Site or vicinity. The 1972 and 1977 aerial photographs do not show any significant change in on-Site land use and depict continued commercial development of surrounding areas.	 1970, 1975 City Directories 1972, 1977 Aerial Photograph 1972 USGS Anaheim Topographic Map (7.5-minute)

1980-1989	The 1981 topographic map and the 1987 aerial photograph do not document any significant changes to the Site. The few remaining orange groves in the surrounding area have been replaced with urban development.	 1981 USGS Anaheim Topographic Map (7.5-minute) 1987 Aerial Photograph
1990-1999	The 1990 and 1994 aerial photographs do not document any significant changes to the Site. The 1994 aerial photograph shows the redevelopment of a large shopping center on the opposite side of the I-5 Freeway.	- 1990, 1994 Aerial Photograph
2000-2009	By the time of the 2005 photograph, the former section of South Euclid Avenue within the West City Parcel had been removed and replaced with a re-aligned, widened section of South Euclid Street now located immediately to the west of the West City Parcel. The section of the freeway on-ramp passing through the adjoining (1699 West Lincoln) parcel had also been removed by this time. The southern (original) building on the East City Parcel appears to have been demolished by this time. Redevelopment of the shopping center north of the I-5 appears to have been completed by the time of the 2005 photograph.	- 2005, 2009 Aerial Photograph
2010-Present	The available information sources documented no significant change to the Site or vicinity.	 2012 USGS Anaheim Topographic Map (7.5-minute) 2012, 2016 Aerial Photograph

The Site was undeveloped until at least 1901. The Site appears to have been used as an orchard from at least 1938 to 1953. A freeway on-ramp that transected part of the West City Parcel was constructed sometime between 1953 and 1963. The area located between the East City Parcel and the West City Parcel began to be developed commercially between 1953 and 1963. The freeway on-ramp was removed sometime between 1994 and 2005. The Site has remained largely unchanged since then.

The SPRR line has been located adjacent to the north side of the Site since at least 1896. The area surrounding the Site was either undeveloped or used for light agricultural/ homestead purposes until the late 1950s/early 1960s. Agricultural use primarily appears to have included planting of orchards. The Site vicinity was gradually developed commercially between the early 1960s and the early 2000s. The 5 Freeway was built adjacent to the north side of the Site sometime between 1953 and 1963. The last remaining agricultural land in the vicinity of the Site was gone by the 1980s.

4.2 Site Reconnaissance

Roux representative Mr. Thomas Warfel conducted a reconnaissance of the Site and surrounding areas on August 16, 2019. During the Site reconnaissance, the weather was warm and clear. Site access was unobstructed, and the reconnaissance was conducted on foot. Photographs taken to document conditions encountered at the time of the Site Reconnaissance are included in Appendix G – Photographic Documentation. Roux also visually and/or physically observed adjoining properties from reasonably accessible locations on the Site and public thoroughfares.

4.2.1 East City Parcel

The East City Parcel at 1619 – 1621 West Lincoln Avenue is accessed from a gate at the southwestern corner of the property fronting onto West Lincoln Avenue. The parcel is secured around its perimeter by an

approximately eight-foot chain-link fence with privacy screen. The Site appears to be in use as a storage yard for construction equipment and materials. A single building with a footprint of approximately 20 feet by 35 feet is located centrally to the parcel. A 20-foot by 8-foot steel transportation storage container was located directly to the north of the building. Roux was unable to gain access to the storage container during the reconnaissance. The Site was mostly paved in weathered asphalt with a concrete slab beneath and adjacent to the on-Site building. Soil and gravel stockpiles were observed to the south of the building. Equipment noted on Site included a backhoe tractor, a track-mounted crane, and trailer-mounted traffic management devices. Materials stored on the ground or on a series of racks included tires, hoses, spools of various subsurface cables, traffic management signs, tools, ladders, pre-cast concrete slab sections. In addition to the stored materials the Site also featured refuse and construction debris.

4.2.2 West City Parcel

The West City Parcel is situated between a large vacant lot and the South Euclid Street right-of-way. The majority of the West City Parcel consists of an earthen embankment that provides grade for South Euclid to reach the elevation for overpass of the I-5 Freeway. The embankment is fairly consistently sloped downwards from the edge of South Euclid Street at 2:1 (horizontal to vertical) to the east. At the northern edge of the parcel, the maximum elevation is approximately 25 feet higher than West Lincoln Avenue and the adjoining properties. The sloped embankment is vegetated with shrubs and decorative trees. A chain-link fence has been installed at the base of the sloped embankment and bisects the West City Parcel. Roughly the northern half of the parcel includes a level section of vacant, undeveloped land. Roux did not observe any improvements within this portion of the Site which was covered with dried grass and featured trash typical of vacant suburban land.

4.2.3 Interior and Exterior Observations

The following sections summarize Roux's Site reconnaissance observations.

4.2.3.1. Solid Waste

Roux observed evidence of general refuse and waste at both the East City Parcel and the West City Parcel. Trash from consumer products was observed in various locations throughout the Site. The East City Parcel also featured unused construction materials and demolition debris at the time of the reconnaissance. Liquid chemical waste is discussed in Sections 4.2.2.2 and 4.2.2.3 below.

4.2.3.2. Hazardous Substances and Petroleum Products

Small quantities of paint and other maintenance supplies were observed in the storage room of the singlestory structure located on the East City Parcel. There also appeared to be a small parts-washing sink staged over a single 55-gallon drum. Old containers of automotive fluids such as engine oil, power steering fluid, and tire cleaner were also observed. Various five-gallon buckets of unidentified substances were also observed in the building (and throughout the East City Parcel). Roux observed areas of floor staining inside the building consistent with spills or leaks of the chemicals stored within. Considering the generally poor standards of housekeeping, the observed hazardous and petroleum-based chemicals within the building, the floor staining, and the documented historical use of the building as a motorcycle paint and brake shop (see Section 4.1), use of the building for automotive operations is considered a REC for this Phase I ESA.

4.2.3.3. Drums

Roux identified approximately fourteen 55-gallon drums within and adjacent to a drum storage area towards the northeast corner of the East City Parcel. The majority of the drums were placed on pallets and an attempt had been made to cover the drums with plastic sheeting. Legible labels were not identified for any of the drums, but it appeared that at least some of them were used to store new and used engine lubricant oil. Two of the drums had been left open and appeared to contain a dark, viscous liquid consistent with heavy motor oil. Staining was observed in the vicinity of the drum storage area. One damaged drum was located approximately 15 feet south of the drum storage area. The damaged drum had a crack at its base and was mostly empty. Dark colored staining was observed in the vicinity of the drum release to the subsurface, the drum storage area is considered a REC in the context of this Phase I ESA.

4.2.3.4. Stained Soil or Pavement

Roux observed oil-stained concrete underneath some of the heavy construction machinery on the East City Parcel, despite drip pans being in use. The concrete was cracked but generally in good condition. It did not appear that the stained concrete was indicative of a substantial release to the subsurface below. The presence of the staining is considered de minimis in the context of this Phase I ESA

4.2.3.5. Unidentified substances containers assumed to contain or once contain automobile-related chemicals

Unlabeled drums observed in the drum storage area and containers inside the building on the East City Parcel likely contain or once contained automobile-related chemicals. These features are discussed above.

4.2.3.6. Soil Stockpiles

Stockpiles of soil were observed on the south side of the East City Parcel. The stockpiles appeared to contain relatively clean soil, sand, or gravel for use in construction work. It is not suspected that these stockpiles are significantly impacted by hazardous chemicals or petroleum products.

4.2.3.7. Other Features

The following features were not observed by Roux during the June 19, 2019 Site inspection:

- Areas which receive flood or storm water from potentially contaminated areas
- Air compressor vent discharges
- Drainage swales and culverts
- Discharge areas
- Equipment suspected to contain polychlorinated biphenyls
- Incinerators
- Landfills or landfarms
- Loading and unloading areas
- Non-contact cooling water discharge
- Open areas away from production areas
- Pools of liquid
- Unusual odors
- USTs or other storage tanks
- Wastewater, wells, septic systems
- Wetland areas, pits, ponds, or lagoons

5. Adjoining and Nearby Properties

The Site consists of two discontinuous parcels (West City Parcel and East City Parcel) located in Anaheim, California. The Site is bounded by an SPRR rail line and the I-5 Freeway to the north, West Lincoln Avenue to the south, a commercial/industrial facility to the east, and South Euclid Street to the west. The area between the two parcels is occupied by various commercial/industrial properties and a vacant lot. Adjoining and nearby properties are shown in Figure 2 and are described below.

5.1 Railroad, Freeway, and Shopping Center to the North

Both Site parcels are bordered to the north by the SPRR right-of-way. The SPRR features a single line in the vicinity of the Site. Based on the review of historical sources, the railroad has been present since at least 1896. It is suspected that the line was used for passenger carriages and freight units. Based on the length of time the railroad has been present and the potential for impacts from freight transportation, the railroad was identified as an other environmental feature (OEF, Section 8.5). Beyond the SPRR line is the I-5 Freeway and a small, triangular, industrial city block accessed by a cul-de-sac, North Manchester Avenue. It is not uncommon for near-surface soils at properties in close proximity to freeways that operated in the era of leaded gasoline to be impacted by aerially deposited lead. However, there is no documented lead impact to soils at the Site attributable to the adjacent freeway. Considering the proximity of the freeway, the potential for aerially deposited lead to impact Site soils is considered an OEF in the context of this Phase I ESA (Section 8.5). Roux observed the industrial properties fronting onto North Manchester Avenue, notably the Anaheim House of prayer in closest proximity to the East City Parcel. Roux did not observe any monitoring locations, patched borings, or other indications of subsurface investigation on or around these adjoining properties.

5.2 Various Commercial/Industrial Facilities to the South

South of Lincoln Avenue are various commercial/industrial facilities including Tim's Auto Repair, Fast and Easy Body and Paint, Body Shop in Anaheim Orange Ford, Hertz Car Sales Anaheim and Vertical Hydrogarden, Towne Park Brewery and Taproom. Roux did not observe any monitoring locations, patched borings, or other indications of subsurface investigation on or around these adjoining properties.

5.3 Automotive Facilities to the East

East of the East City Parcel are several automotive facilities including Regio's used car dealer, Revolution Auto Accessories, and ARCE Mufflers, and Lincoln Smog Check. Roux did not observe any monitoring locations, patched borings, or other indications of subsurface investigation on or around these adjoining properties.

5.4 Industrial Operations to the West

The Euclid Way Industrial Park (EWIP) is a 4.47-acre property located at the northwest corner of North Euclid Way and West Lincoln Avenue. EWIP is approximately 150 feet to the west of the West City Parcel at its closest point. The site is developed with six, one-story concrete tilt-up buildings and associated asphalt parking lots. The site buildings have been grouped into three addresses; 231, 237 and 307 North Euclid Way. EWIP is known to have featured businesses with operations including metal parts cleaning, capacitor and

dielectrics manufacturing, and dry-cleaning operations, all of which are known to have used PCE at some point (CENTEC, 2011)

Previous subsurface investigations have confirmed the release of chlorinated solvents into soil and soil gas beneath the site. The primary contaminants of concern are tetrachloroethene (PCE), trichloroethene (TCE) and 1,1-dichloroethene (1,1-DCE). In December 2001, Donlan Investments Inc. (then owner of the property) and DTSC entered into a Consent Agreement. The Consent Agreement required Donlan to conduct further investigation of the site to determine the extent of hazardous constituents in the subsurface (CENTEC, 2017).

The Tower Park Industrial (TPI) facility is an approximately 11-acre property located immediately to the north of the EWIP. At this position it is also approximately 150 feet to the west of the West City Parcel at its closest point. The TPI facility is developed with four commercial buildings, a water tower, and asphalt parking. The TPI facility is known to have operated as a laboratory as well as for several other industrial purposes.

Previous subsurface investigation has demonstrated volatile organic compounds (VOC) impacts to soil and groundwater beneath the TPI facility, notably PCE, TCE, and 1,1,1-trichloroethane (1,1,1-TCA). As of February 2018, the facility is registered in the DTSCs voluntary cleanup program to address the VOC impacts in the subsurface.

Based on the most recent monitoring reports available to Roux for review it appears that VOC impacts to groundwater associated with the EWIP and TPI operations have likely comingled. Regardless the source, the lateral extent of VOCs has not been fully delineated, particularly to the east, South Euclid Street, and the West City Parcel beyond. Given the known presence of VOCs in the subsurface, the proximity and hydraulically upgradient location, and the inadequate delineation in the direction of the Site, the operations at these properties are considered a REC in the context of the subject Phase I ESA.

5.5 Intervening Properties

Located between the East City Parcel and West City Parcel are a vacant lot and several commercial/industrial facilities including CTS Cement Manufacturing, JR's Wheels and Tires and ABC Liquidators. The following section describes activities at each of the parcels, followed by a summary of recent investigations targeted at the 1631 and 1699 parcels (the West Lincoln Assemblage).

5.5.1 1631 West Lincoln Avenue

A cement / stucco manufacturing facility at 1631 West Lincoln Avenue borders the East City Parcel to the west. The facility was initially developed at some point prior to 1953, by which time a small, single-story industrial-style building had been constructed. A city directory entry from 1955 lists the address as occupied by La Habra Stucco, a subdivision of La Habra Products. It is suspected that the property was used for the manufacture of stucco materials from that time until about 1995. Based on city directory entries, the 1631 West Lincoln Avenue property was operated by CTS Cement Manufacturing from approximately 2004 onwards.

In 2005, the City of Anaheim Public Utilities Department (APUD) requested that an investigation be performed in connection with a previously removed 10,000-gallon diesel UST at 1631 West Lincoln Avenue. FREY Environmental, Inc. (FREY) of Newport Beach, California completed soil sampling in the vicinity of the former UST, which was subsequently documented in their *Subsurface Soil Investigation* report (FREY, July 7, 2005). By way of background, it was reported that the 10,000-gallon diesel UST, along with the associated fuel dispenser and piping were previously removed from the Site. Following removal of this equipment, on December 21, 2004, a soil sample collected within the footprint of the former fuel dispenser was found to contain 670 milligrams per kilogram (mg/kg) of total petroleum hydrocarbons (TPH) in the diesel range (TPH-d). On this basis the APUD requested investigation of the Site to determine the extent and significance of diesel impacts associated with the former UST.

On May 2, 2005 FREY personnel advanced four soil borings (FB1 through FB4) in the vicinity of the former fuel dispenser, associated UST, and piping. Specifically, boring FB1 was advanced within the footprint of the former fuel dispenser and borings FB2, FB3, and FB4 were advanced a short distance to the east, west, and south, respectively. Each of the borings was advanced to a total depth of 40 feet bgs, with soil samples collected at five-foot intervals. None of the samples retrieved from the borings featured any visual or olfactory indications of a hydrocarbon impact. Each of the samples was analyzed for the presence of TPH in the gasoline range (TPH-g) and TPH-d using EPA Method 8015M as well as benzene, toluene, ethylbenzene, and xylenes (BTEX), fuel oxygenates, and ethanol using EPA Method 8260B.

None of the above compounds were detected in any of the samples above the laboratory reporting limits. Based on the results of the soil sampling, FREY concluded that "petroleum hydrocarbons previously detected beneath the former fuel dispenser island appear to have been very limited in lateral and vertical extent. As such, FREY recommends that no further action be required at the Site."

On August 31, 2005 the APUD provided case closure for the former diesel UST citing the investigation activities described above. The SA RWQCB concurred with the determination for case closure (SA RWQCB, 2005). Based on the results of investigation demonstrating the limited extent of the impact in all directions, and that closure was granted by the APUD, the former LUST case is not considered a REC or hREC in the context of the subject Phase I ESA.

5.5.2 1659 West Lincoln Avenue

This property appeared to be in use since at least 1963 but no substantial aboveground improvements were ever observed. The 1659 street address was associated with the business/entity names Quality Concrete Products (1966 - 1970); Anaheim Family Motors (2010); trucks and recreational vehicles (1975); Coastline Auto Brokers (1980); Alexander Motors (1986); and Rollit Motors (1991).

5.5.3 1681/1683 West Lincoln Avenue

The property was first developed prior to 1963 with a single-story commercial/retail building. The 1681/1683 street addresses were associated with the business names Abbey Rents Hosp Equipment & Supplies (1970); Krupnicks, Inc (1970); Award Bridal (1995); After Five Tux Shops (1995 - 2010); and APT Enterprises, Inc. (2005-2014). The property is currently operated as a discount furniture retail store.

5.5.4 1687 and 1695 West Lincoln Avenue

These properties were first developed prior to 1963 with connected single-story buildings. The 1687 and 1695 street addresses were associated with the business names Blue Chip Credit Corp; Furniture Discounts (1980 - 1995); Freeway Tire and Auto Center (1986); Airport Transportation (1991); Rayco Auto Service Store (1970 - 1995); and Calis Wheels and Tires (2005 - 2014). The 1687 West Lincoln Avenue property is currently operated by ABC Liquidator who apparently use the building as general office space.

5.5.5 1699 West Lincoln Avenue

Following agricultural use the parcel at 1699 West Lincoln Avenue featured an off-ramp for the I-5 freeway but was otherwise undeveloped and vacant. Following removal of the off-ramp and associated earthen berm between 1994 and 2005, the parcel has been cleared and vacant.

5.5.6 West Lincoln Assemblage

The parcels that make up the West Lincoln Assemblage has varied over time. The West Lincoln Assemblage currently consists of 1631 and 1699 West Lincoln Avenue parcels. The West Lincoln Assemblage has been the subject of several recent environmental investigations. These investigations are considered relevant in the context of the subject Phase I ESA, and on that basis have been summarized in the sections below.

5.5.6.1. Phase I Environmental Site Assessment (EMS, 2019)

In July 2018, Environmental Management Strategies, Inc. (EMS) prepared a Phase I ESA for 1621, 1631, 1659, 1681, 1687, 1695, and 1699 (vacant lot). In February 2018 EMS updated the Phase I ESA to only include 1631 and 1699 West Lincoln (EMS, 2019a). The EMS Updated Phase I ESA text, tables, figures and photographs are included in Appendix H. Based on the findings of the Updated Phase I ESA, EMS identified several RECs for the West Lincoln Assemblage. Roux has summarized the *RECs identified by EMS* in the context of the subject Site parcels.

- The East City Parcel was occupied by Lincoln Construction Corporation at the time of the EMS Phase I ESA and appeared to be used for the storage of equipment and large amounts of soil. In the northeastern corner of the property EMS observed 55-gallon drums stored on pallets without secondary containment. EMS did not indicate how, if at all, these drums were labeled. Approximately seven of the drums did not have lids and were only covered using tarps. Spills were noted on the ground in the immediate vicinity of the drums. An uncovered 5-gallon bucket with used oil was also noted in the drum storage area. An additional 55-gallon drum was also noted near the drum storage area that had been partially crushed by a large piece of concrete and had spilled some of its contents onto the soil. Inside the facility building, EMS observed a 30-gallon drum with an attached parts washer. EMS also reviewed the Phase I ESA prepared for the East City Parcel by Advanced GeoEnvironmental, Inc. on March 9, 2005. Conclusions from that report included the past use of the property as a motorcycle paint and brake shop. The operation of the brake shop and painting operations were listed as "potential environmental conditions". EMS considered that the lack of secondary containment for the drums, observed spills, former use of the property as a motorcycle paint and brake shop, and proximity to 1631 and 1699 parcels represented a REC.
- The After Five Tux Shop at 1683 West Lincoln Avenue was identified in several database listings reviewed in the course of the Phase I ESA. A listing in the SC-AQMD FINDS database indicated that the After Five Tux Shop received a permit to operate PCE dry cleaning equipment on April 23, 1992. EMS considered the permit for dry cleaning equipment constituted a REC for the West Lincoln Assemblage.
- Pacific Edge Engineering (Pacific) prepared a *Subsurface Investigation Report*, for the property at 1687 West Lincoln Avenue (February 26, 2003). The report was prepared in response to environmental concerns identified in a 2002 Phase I ESA prepared by Gilray Enterprises, Inc. for the

same property. According to the conclusions in the Pacific report, PCE was detected in two soil samples and methyl tertiary-butyl ether (MTBE) was detected in six soil samples. PCE and MTBE detections were localized to the concrete drainage swale and nearby service bays. No further action was recommended by Pacific at the time, but the report did note that if the site were demolished in the future, qualified oversight should be conducted during soil disturbance. Based on the lack of a soil vapor survey performed at the property and its proximity to the West Lincoln Assemblage, EMS considered that the VOC results in soil represent a REC.

- The property at 1695 West Lincoln Avenue was occupied by a tire shop (JR's Wheels) at time of the EMS Phase I ESA. During an inspection of the property, housekeeping throughout the building was noted to be very poor with metal shavings on the ground and a number of cans of Johnson's Non-Chlorinated Brake Parts Cleaner stored and disposed of improperly. Based on the safety data sheet for the brake cleaner it appeared to contain methanol, acetone, toluene, benzene and xylene. Staining was observed underneath vehicles and in the rear of the property. An aboveground storage tank (AST) and buckets of used oil were also observed outdoors and in the warehouse area. Chemicals throughout the property did not appear to be properly stored in appropriate (flammable) cabinets. Based on the improper storage and disposal of oils and chemicals, the staining observed on the asphalt and proximity to the West Lincoln Assemblage, EMS considered the property to be a REC in the context of their Phase I ESA.
- The EWIP and TPI facilities described in Section 5.4 were considered by EMS to be a REC for the West Lincoln Assemblage.
- A review of the city directory abstract by EMS also identified three additional properties adjacent, northeast and cross-gradient/downgradient (with regards to groundwater flow) of the West Lincoln Assemblage that appear to be an environmental concern. The street addresses for these properties are 303 Manchester Avenue, 329 Manchester Avenue, and 225 North Loara Street. All three properties are located between the SPRR easement and the I-5 Freeway. The facility located at 303 Manchester appears to have been a pesticide production facility operated by Niagara Chemical and related businesses. Given the likely chemical use at these properties and their proximity to the West Lincoln Assemblage, EMS considered that they represent a REC in the context of their Phase I ESA.

EMS also identified historical RECs (hRECs) associated with the leaking underground storage tank (LUST) case discussed in section 5.5.1 and additional closed LUST cases in the Site vicinity discussed in Section 7.0.

5.5.6.2 Phase II Environmental Site Assessment (EMS, 2019)

In order to address the RECs/hRECs discussed above, and the potential for vapor encroachment, EMS recommended a Phase II ESA be performed at the West Lincoln Assemblage (EMS, 2019a). The recommended Phase II ESA would include "soil testing and soil vapor testing at a minimum in order to evaluate any impacts to the property that could jeopardize human health and/or increase development costs through environmental remediation efforts." Not all of the intended parcels were investigated due to access denial on two parcels owned by the City of Anaheim (1619/1621 West Lincoln Avenue and 1683 West Lincoln Avenue).

Metals were detected at relatively low concentrations in soil such that they do not appear to present a significant direct or indirect soil contact health risk to current or future receptors.

Motor-oil and diesel range TPH were detected at relatively low concentrations. The isolated occurrences of TPH were most likely from fill debris containing small amounts of asphalt. The concentrations of TPH in soil do not appear to present a significant direct or indirect soil contact health risk to current or potential future human receptors. VOCs and organo-chlorine pesticides were not detected in soil and do not appear to present a significant direct soil contact health risk to current or potential future human receptors.

PCE was detected in soil vapor above the screening level for future commercial buildings at several sampling locations close to the former After Five Tux Shop (1583 West Lincoln). PCE was detected in soil vapor above the screening level for residential buildings in three of the four probes located closest to the West City Parcel. PCE was detected below the screening level for residential buildings in both the two probes located closest to the East City Parcel. The distribution and concentrations of PCE detected in soil vapor suggests that a vapor encroachment condition exists at the former location of the After Five Tuxedo Shop. The distribution and concentration of pCE detected in soil vapor encroachment condition exists from the Euclid Way Industrial Park to the west.

5.5.6.3 Preliminary Endangerment Assessment Equivalent Report (Roux, 2019)

Roux performed additional soil and soil vapor investigation activities on 1631 and 1699 parcels in January 2019 to fill in data gaps. Soil and soil vapor samples were collected from three locations. Discrete soil samples were collected from each location at nominal depths of 0.5 and 1.5 bgs. Nested soil vapor probes were installed at each location with sample depths of 5, 15, and 30 feet bgs. A total of six soil samples were analyzed for lead, arsenic, and organochlorine pesticides (OCPs) and a total of nine soil vapor samples were analyzed for VOCs.

Based on the results of the sampling, Roux confirmed that

- 1) VOCs were not detected in soil samples collected at the Site.
- 2) Soil vapor analytical results indicate that concentrations of PCE exceed residential screening levels when using an attenuation factor of 0.001 to estimate future indoor air concentrations.

To further evaluate the Site, a human health screening evaluation (HHSE) was performed using data from the Preliminary Endangerment Assessment Equivalent (PEA-E) investigation (January 2019) and the previous June and July 2018 EMS investigation. The soil sample analytical results and the results of the HHSE indicated that concentrations of contaminants of potential concern in soil are acceptable for a residential scenario. Although the high end cumulative non-cancer risk slightly exceeds the health index (HI) of 1.0, the drivers for that exceedance are concentrations of metals in soil that are within the expected background ranges in California. Prior to submittal of the PEA-E, SLF entered into a Voluntary Cleanup Agreement (VCA) with DTSC which was fully exceuted on May 15, 2019.

5.5.6.4 Additional Investigation Report (Roux, 2019)

Based on DTSC comments on the PEA-E report, additional investigation was required. Roux Associates performed an additional soil vapor sampling investigation at the West Lincoln Assemblage in June and July 2019 to assess concentrations of VOCs (including PCE) in the vicinity of previous soil vapor probe SLF-1

and in the vicinity of previous investigations. The analytical results of the additional investigation and the associated HHSE update indicated that the conclusion for indoor air risk to future residential occupants is the same as in the PEA-E.

5.5.7 Intervening Properties Investigations Summary

The environmental assessments performed by EMS and Roux demonstrate that PCE is widespread in soil vapor beneath the West Lincoln Assemblage. It appears that PCE concentrations typically increase with depth, with the exception being samples collected in the vicinity of the 1681/1683 West Lincoln Avenue building. It appears that multiple sources (with 1681/1683 being the primary source) have produced a PCE impact to soil vapor at the West Lincoln Assemblage and likely at both Site parcels also. The presence of PCE in soil vapor, the vapor encroachment and intrusion conditions that it represents, are considered a REC in the context of the subject Phase I ESA. The DTSC reviewed the PEA-E and the Additional Investigation Report and concurred with the findings that the investigation is complete and with the recommendation to prepare a Remedial Action Workplan (RAW).

6. Previous Investigations

6.1 Phase I Environmental Assessment (Advanced GeoEnvironmental, Inc., 2005)

Roux understands that Advanced GeoEnvironmental, Inc. (AGI) performed a Phase I ESA for the East City Parcel issued in March 2005. A copy of the report was not made available for review during the preparation of the subject Phase I ESA. However, EMS were able to summarize the findings of the earlier report in their 2019 Phase I ESA report. It was reported that AGI listed the former operation of the East City Parcel as a motorcycle paint shop and brake shop as "potential environmental conditions". The report also listed the possibility of asbestos containing building material and lead based paint could be present due to the age of the buildings on the property. Recommendations for the property included a limited soil vapor survey and an asbestos and lead based paint survey. An asbestos survey was completed for the property and asbestos-containing material was identified. Roux is unaware of any soil vapor survey or lead based paint survey at the property. The documented presence of ACMs is not considered a REC under ASTM guidance.

7. Records Review

According to ASTM Standard E1527-13, the purpose of reviewing regulatory records is to obtain and review records that will help identify RECs in connection with the Site. In addition, some records to be reviewed pertain not only to the Site, but also to properties within an additional "approximate minimum search distance" in order to help assess the likelihood of problems from migrating hazardous substances or petroleum products. The basis of the "approximate minimum search distance" is the Site boundary.

Roux retained EDR of Shelton, Connecticut to provide an ASTM Radius Map Report for this Site. This report is a computerized search of select state and federal environmental databases that identify various properties with a record of environmental activity. Roux reviewed the report and summarized the relevant findings in the following sections. A copy of the compiled EDR Report has been included as Appendix F. The EDR report includes a detailed description of each of the databases searched, providing a summary of the type of information provided by each.

Roux has compiled the results of the state and federal environmental database searches performed by EDR (Table 1). Distances stated in Table 1 should be considered a guide only and not used to accurately determine the relative position of properties described therein. The summary table identifies sites that require further discussion in the context of the subject Phase I ESA. Roux has used professional judgement in determining which EDR-listed sites to include in the narrative of this report. Facilities adjoining the Site are typically included due to their proximity to the Site and the potential for surface water discharges (e.g., storm water runoff, surface water effluent discharges) to enter the Subject Site or through the migration of groundwater. Sites with listings indicative of a release (e.g. SHWS, LUST, RELEASE) with a reasonable likelihood of affecting subsurface conditions at the Site are likewise discussed below. Nonadjacent sites with database listings not necessarily indicative of a release (e.g. hazardous waste generator, FINDS, ECHO, NPDES, HAZNET, AST, or UST), or sites sufficiently distant from the subject Site, will not be discussed unless considered potentially relevant in context of the Phase I ESA.

7.1.1 Site (Target Property)

None of the Site addresses used for the East City Parcel were identified in the Radius Map Report. The report did identify the West Lincoln Assemblage, listed in the ENVIROSTOR and VCP databases. The listings relate to the ongoing site assessment described in greater detail in Section 5.5.6.

7.1.2 Adjoining Properties

Adjoining properties were identified on several databases searched by EDR, as summarized below.

 The Vacant Anaheim Lot is located at 1701 West Lincoln Avenue, approximately 120 feet west of the West City Parcel across South Euclid Street. At this location the lot would be considered hydraulically upgradient of the Site. The facility is listed on the ENVIROSTOR and VCP databases. These listings relate to cleanup oversight of the vacant site located at the corner of 1701 West Lincoln Avenue and 203 North Euclid Way, referred to DTSC by the Orange County Health Care Agency (OCHCA). Historical Investigation of the lot has indicated the presence of PCE, TCE, and 1,1-DCE in soil vapor. It appears that the chlorinated solvents found in the subsurface at the vacant may be attributable to on-Site and off-Site (EWIP and TPI) sources. The potential for vapor migration of chlorinated solvents from the Vacant Anaheim Lot, combined with the possible migration of similar impacts from the EWIP and TPI facilities, is considered a REC in the context of the subject Phase I ESA.

- The Former Mobil Gasoline Service Station facility was located at 101 South Euclid Street, approximately 180 feet southwest of the West City Parcel. At this location the facility would be considered hydraulically cross-gradient to the Site. The facility is listed on the LUST, HIST UST, CERS, CERS HAZ WASTE, SWEEPS UST, and CA FID UST databases. The LUST database listing identified gasoline as the potential contaminant of concern and soil as the potentially affected media. The lead and secondary oversight agencies were the City of Anaheim and the SA RWQCB, respectively. The spill was reported in 1997 and a closure letter was issued in 2013 confirming case closure and that no further action was required. Petroleum-related impacts to the subsurface included low-level detections of BTEX chemicals and MTBE. The other database listings were not indicative of a release. Considering the low-level detections, the presence of a closure letter, and the hydraulically cross-gradient position of the facility, the former service station was not identified as a significant environmental concern.
- The Robertshaw Controls facility was located at 333 North Euclid Way, approximately 225 feet west of the West City Parcel, across South Euclid Street (and North Euclid Way). At this location the facility would be considered hydraulically upgradient of the Site. The facility is listed on the LUST, and CERS databases. The LUST database listing identified "other solvent or non-petroleum hydrocarbon" as the potential contaminant of concern. The lead and secondary oversight agencies were OCHCA and the SA RWQCB, respectively. The case was reported as closed as of 1985. The CERS listing was not indicative of a release. Considering case closure was granted, and absent any additional information, the LUST case was not identified as a significant environmental concern. The Robertshaw Controls facility is considered a part of the EWIP described in Section 5.4.
- The Former Texaco Gasoline Service Station facility was located at 1680 West Lincoln Avenue, approximately 130 feet south of the West City Parcel. At this location the facility would be considered hydraulically cross-gradient to the Site. The facility is listed on the LUST, HIST UST, and CERS databases. The LUST database listing identified gasoline as the potential contaminant of concern and a drinking supply aquifer as the potentially affected media. The lead and secondary oversight agencies were the City of Anaheim and the SA RWQCB, respectively. The spill was reported in 1989 and a closure letter was issued in 1996 confirming case closure and that no further action was required. Petroleum-related impacts to the subsurface included gasoline range TPH and low-level detections of BTEX (MTBE was tested for but not found). The other database listings were not indicative of a release. Considering the low-level detections, the presence of a closure letter, and the hydraulically cross-gradient position of the facility, the former service station was not identified as a significant environmental concern.

No orphan sites were identified in the EDR Radius Map Report.

8. Findings

Roux has performed this Phase I ESA in general compliance with the scope and limitations of ASTM Standard Practice E1527-13. Roux separated the findings of this assessment into the following four categories: recognized environmental conditions (RECs), controlled recognized environmental conditions (cRECs), historical recognized environmental conditions (hRECs) and other environmental features (OEFs).

8.1 Data Gaps

During conduct of this ESA, the following data gaps, as defined in ASTM Standard E1527-13 were identified:

- Previous Site owners/operators were not available for an interview. This data gap is not considered significant due to sufficient information regarding Site history available from current Site operators, EDR historical documents and FOIA requests.
- Roux was unable to access the interior of the transportation storage container on the East City Parcel.

8.2 Recognized Environmental Conditions

Roux identified the following RECs in connection with the current and historical operations at the Site or nearby properties:

- REC 1 On-Site Drum Storage Area and Stained Soil. Roux observed approximately fourteen 55gallon towards the northeast corner of the East City Parcel. The majority of the drums were placed on pallets and an attempt had been made to cover the drums with plastic sheeting. Legible labels were not identified for any of the drums, but it appeared that at least some of them were used to store new and used engine lubricant oil. Two of the drums had been left open and appeared to contain a dark, viscous liquid consistent with heavy motor oil. Staining was observed in the vicinity of the drum storage area. Dark colored staining was observed in the vicinity of a damaged drum. Considering the storage conditions and the likelihood of a petroleum release to the subsurface, the drum storage area (and associated areas of stained soil) are considered a REC in the context of this Phase I ESA.
- REC 2 Automotive Maintenance and Repair Operations. The on-Site building appears to have been used for automotive servicing operations, possibly dating as far back as the 1970s. Based on historical sources it is suspected that a motorcycle paint and brake repair shop was operated at the Site, specifically within the building. Paints, oils, lubricants, parts cleaners, and other automotive chemicals are known to have been stored and used in and around the building. At the time of Site reconnaissance, housekeeping was observed to be poor and no or insufficient secondary containment was in place around areas of chemical storage or use. Considering the storage and use of petroleum-based chemicals and other potentially hazardous substances over a substantial time period under the conditions described above, the automotive operations within the on-Site building are considered a REC in the context of this Phase I ESA.

- REC 3 Off-Site VOC Impacts to Soil Vapor and Groundwater. Based on a review of documents reviewed during this Phase I ESA, it appears that multiple off-Site properties have released chlorinated VOCs (notably PCE) to soil and groundwater. The EWIP, TPI, and Vacant Anaheim Lot properties to the west of the West City Parcel are the subject of ongoing investigations to determine the lateral and vertical extent of VOCs. Furthermore, investigation of soil vapor at 1681/1683 and 1687 West Lincoln Avenue suggest that an additional PCE release occurred at one or both of these properties located between the two Site parcels. Regardless the source of the VOC impacts, there is a high likelihood that they have migrated beneath the Site and could present a vapor intrusion condition in the context of future redevelopment.
- REC 4 Historical Agricultural Use. According to historical sources, it appears that both Site Parcels were operated as orange groves prior to 1938 to as late as the early 1960s. There is a potential that agricultural chemicals, such as pesticides, herbicides and fertilizers, were used on-Site, and that the Site has been impacted by the use of such agricultural chemicals. The potential for impacts from agricultural chemicals and lack of on-Site soil data represents a REC.

8.3 Controlled Recognized Environmental Conditions

Roux did not identify evidence of cRECs in connection with the current and historical operations at the Site or nearby properties.

8.4 Historical Recognized Environmental Conditions

Roux did not identify evidence of hRECs in connection with the current and historical operations at the Site or nearby properties.

8.5 Other Environmental Features

Roux identified the following OEFs in connection with the current and historical operations at the Site or nearby properties.

- **OEF 5 Adjacent Interstate Freeway.** The Site is bordered to the north by the I-5 (Santa Ana) Freeway, the on-ramp of which passes within 160 feet of the West City Parcel at its closest approach. It is not uncommon for near-surface soils at properties in close proximity to freeways that operated in the era of leaded gasoline to be impacted by aerially deposited lead. However, there is no documented lead impact to soils at the Site.
- OEF 6 Adjoining Off-Site Railroad Tracks. According to historical topographic maps, the northeastern adjoining SPRR had been constructed by 1896. Roux understands the rail line has been used since that time for both passenger and freight services. The materials transported along the railroad historically are unknown. Both the presence of these railroad lines and the materials transported along the railroad lines may have potentially impacted the subsurface at the Site. Railroad ties have historically been treated with copper arsenate, creosote (which contains polyaromatic hydrocarbons [PAHs]), polychlorinated biphenyls (PCBs), pentachlorophenol (which also contains dioxins), and copper naphthalene. In addition to these chemicals, railway transportation is associated with heavy metals, herbicides, pesticides, VOCs, and petroleum product impacts. No evidence of a likely release associated with the rail lines was identified during the course of the Phase I ESA.

9. References

American Society for Testing Materials (ASTM) *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E1527-13)

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- Geologic Map of California (2010), by California Geological Survey, copyright 2015
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- Regional Water Quality Control Board, Santa Ana Region (SARWQCB), Water Quality Control Plan, Santa Ana River Basin. 1995.
- Regional Water Quality Control Board, Santa Ana Region (SARWQCB), Underground Storage tank Case Closure Summary / Closure Rationale. August 31, 2005.
- Roux, 2019, Preliminary Endangerment Assessment Equivalent Report, prepared for SLF.

Roux, 2019, Additional Investigation Report, prepared for SLF.

10. Signature of Environmental Professional

Roux completed a Phase I ESA of two discontinuous parcels located in Anaheim, California in general compliance with the scope and limitations of ASTM E1527-13. "We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental professional as defined in §312.10 of 40 CFR 312" and,

"We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312."

Roux performed this Phase I ESA by, or under direct supervision of, the undersigned environmental professionals. Resumes are available upon request.

Respectfully Submitted,

ROUX ASSOCIATES

Christopher Rose, PE Senior Engineer

Have John

David DeVries, P.G., C.Hg. Senior Hydrogeologist

Mauricio E. Escobar, PG Principal Geologist



09/25/2019

1619 West Lincoln Avenue, Anaheim, California, Zip

Site Name	Address	Database Listings	Distance (Miles)	Direction	Discussed in Text (Section)
Exxon Service Station #7727	260 Euclid St	RGA LUST	0	S	No
Carwash Of America	216 Euclid St	RGA LUST	0	S	No
Exxon Service Station #7727	260 Euclid St	LUST	0	S	No
Exxon Service Station #7727	260 Euclid Street, South	RGA LUST	0	S	No
Picofarad Inc.	237-D N Euclid	RCRA-SQG	10	W	No
West Lincoln Assemblage	1631 And 1699 West Lincoln Avenue	ENVIROSTOR,VCP	21	W	5.5.6 / 7.1.1
Powdercoat Services	307 N. Euclid Way Unit E 1&2	RCRA NONGEN / NLR	67	WNW	No
Vacant Anaheim Lot	1701 West Lincoln Boulevard	ENVIROSTOR,VCP	71	W	7.1.2
Mobil #18-Gy7	101 Euclid St	LUST	84	W	7.1.2
Euclid Way Industrial Park	231 Euclid St	FINDS,RCRA-SQG,HAZNET,ECHO	87	WNW	5.4
Daisy Cleaners	277 Euclid	FINDS,RCRA-SQG,HAZNET,ECHO	91	WNW	No
Arco #1795	301 Euclid St	LUST	93	WNW	No
La Habra Stucco	1631 Lincoln Ave. W.	LUST,CERS	97	WNW	5.5.1
Robertshaw Controls Co	333 N Euclid St	LUST	105	NW	7.1.2
Robertshaw Controls Co	333 Euclid	LUST,CERS	105	NW	7.1.2
CVS Pharmacy #17478	101 S Euclid St Ste B	FINDS,RCRA-CESQG,ECHO	108	WSW	No
CVS Pharmacy #17478	101 S Euclid St Ste B	CERS HAZ WASTE	108	WSW	No
Mobil Station (18-Gy7)	101 S Euclid St	SWEEPS UST,CA FID UST	108	WSW	No
Target Store T2421	101 S Euclid St	RCRA-SQG	108	WSW	No
Jeffs Mobile	101 S Euclid St	EDR HIST AUTO	108	WSW	No
Target #2421	101 S Euclid St	RCRA-LQG	108	WSW	No
Mobil #18-Gy7	101 S Euclid St	LUST,HIST UST,CERS,CERS HAZ WASTE	108	WSW	7.1.2
La Habra Stucco	1631 W Lincoln Ave.	UST,SEMS-ARCHIVE	119	WSW	5.5.1
Lahabra Products Inc	1631 W Lincoln Ave	HIST UST	119	WSW	5.5.1
La Habra Products Inc	1631 W Lincoln Ave	CA FID UST,EMI,CERS	119	WSW	5.5.1
La Habra Stucco	1631 W Lincoln Ave	SWEEPS UST	119	WSW	5.5.1
Burlington Engineering Inc	307 N Euclud Wat Unit F2	FINDS,RCRA-SQG,HAZNET,ECHO	122	WNW	5.4
Texaco Gas Station	1680 W Lincoln Ave	LUST,HIST UST,CERS	134	WSW	7.1.2
Armour Oil Company	1680 W Lincoln Blvd	HIST UST	134	WSW	No
Lincoln-Euclid Shell	1680 W Lincoln	EDR HIST AUTO	134	WSW	No
Tower Park Industrial	313-353 Euclid Way	ENVIROSTOR,VCP	173	WNW	5.4
Nylock Fastener Corp	313 N Euclid Way	HAZNET, CERS, CERS HAZ WASTE	173	WNW	5.4
Nylok Fastener Corp	313 N Euclid Way	RCRA NONGEN / NLR	173	WNW	5.4
Nylok	313 N Euclid Way	RCRA-SQG	173	WNW	5.4
Coast Color	313 B N Euclid Wy	FINDS,RCRA-SQG,ECHO	182	WNW	No

1619 West Lincoln Avenue, Anaheim, California, Zip

Rayco Auto Centers	1687 W Lincoln	FINDS,HAZNET,RCRA NONGEN / NLR,ECHO	185	W	5.5.4
Burlington Engineering, Inc.	307 N. Euclid Way, F-2	ENVIROSTOR	186	WNW	No
J & R Metal Finishing Co	307 N Euclid Way Ste H1	RCRA NONGEN / NLR	186	WNW	No
L C Pringle Sale Inc	307 Euclid Way	RCRA-SQG,HAZNET	186	WNW	5.4
J&H Deburring, Inc.	307 N. Euclid Way #H	ENVIROSTOR	186	WNW	No
J And H Deburring Inc	307 N Euclid Wy Bldg H2	EMI,ORANGE CO. INDUSTRIAL SITE,RCRA 186 WNW NONGEN / NLR,CERS,CERS HAZ WASTE 186 WNW			No
Pringle Draperies	307 N Euclid Way Unit G-4	DRYCLEANERS	186	WNW	5.4
Diana Auto Repair Llc	1640 W Lincoln Ave	RCRA NONGEN / NLR	192	SSW	No
Nino Auto Service	1640 W Lincoln Ave	HAZNET, CERS, CERS HAZ WASTE	192	SSW	No
Design Line Mgg	353 N Euclid Way Suite B	FINDS,RCRA-SQG,ECHO	211	WNW	No
Rust Lick Incorporated	303 Manchester	HIST CORTESE, ENVIROSTOR	215	NE	No
Rust Lick Inc	303 N Manchester Ave	SEMS-ARCHIVE	215	NE	No
Picofarad, Inc.	237-D N. Euclid	ENVIROSTOR	282	WNW	No
Euclid Way Industrial Park	231-307 North Euclid Way	ENVIROSTOR	292	W	5.4
After Five Tux Shop Inc	1683 W Lincoln	DRYCLEANERS		WSW	5.5.3
After 5 Tux Shops	1683 W Lincoln	FINDS,RCRA-SQG,HAZNET,ECHO		WSW	5.5.3
Anaheim Toc "Anh"	205 N Loara St	HIST UST		ESE	No
Anaheim Toc Anh	205 North Loara Ave	HIST UST	325	ESE	No
Jem Unlimited Iron Inc	219 N Euclid Way	HAZNET, CERS, CERS HAZ WASTE	331	W	No
Jem Unlimited Iron Inc	219 N Euclid Way	RCRA NONGEN / NLR	331	W	No
J&G Radiator	1648 W Lincoln	FINDS,RCRA-SQG,ECHO	339	SW	No
Aamco Transmissions	1644 W Lincoln Ave	HIST UST,UST	339	SW	No
Arc Auto Repair Ltd Com Llc	1648 W Lincoln Ave	HAZNET, CERS, CERS HAZ WASTE	339	SW	No
Pontius Corporation	1644 W Lincoln Avenue	EDR HIST AUTO	339	SW	No
A 1 Auto Rpr Service	1613 W Lincoln	FINDS,RCRA-SQG,ECHO	348	ESE	No
Orange Co Service Station	225 N Loara St	UST	349	ENE	No
Orange Co Svc Sta Equip	225 N Loara	FINDS,HIST UST,SWEEPS UST,CA FID UST,RAATS,RCRA NONGEN / NLR,ECHO	349	ENE	No
Jv Auto Repair Inc	1609 W Lincoln Ave	RCRA NONGEN / NLR	355	ESE	No
J&V Auto Repair	1609 W Lincoln Ave	HAZNET, CERS, CERS HAZ WASTE	355	ESE	No
1-Day Paint And Body Centers Inc	205 N Euclid Way	FINDS,RCRA-SQG,ECHO	369	W	No
Garcia Site	275 N Manchester Ave	LUST	400	ENE	No
Garcia Site	275 Manchester	LUST,HIST CORTESE,CERS	400	ENE	No
Jesse Garcia	275 N Manchester Ave	UST	400	ENE	No
Rv Service Solutions	1600 W Lincoln	RCRA NONGEN / NLR	441	SSE	No
Mills Ford	1600 W Lincoln Ave	HIST UST,CERS	441	SSE	No
Rv Service Solutions	1600 W Lincoln Ave	RCRA NONGEN / NLR	441	SSE	No

1619 West Lincoln Avenue, Anaheim, California, Zip

Mills Collision Center	1600 W Lincoln Ave	FINDS,LUST,HIST UST,RCRA-SQG,EMI,HIST CORTESE,AST,ECHO,CERS,CERS HAZ WASTE	. 441	SSE	No
Mills Ford Company	1600 W Lincoln Ave	UST	441	SSE	No
Geared For Speed	118 S Loara St	RCRA NONGEN / NLR	478	SE	No
Ron Browns Auto Center	1557 W Lincoln Ave	UST,SWEEPS UST	516	ESE	No
Ron Browns Auto Center	1557 W Lincoln Ave	CA FID UST	516	ESE	No
Beacon Bay Auto Wash	216 S Euclid St	UST	577	SW	No
Anaheim Auto Wash	216 S Euclid St	SWEEPS UST,CA FID UST	577	SW	No
Carwash Of America	216 S Euclid St	LUST,HIST UST,CERS	577	SW	No
Anaheim Auto Wash	216 South Euclid Avenue	HIST UST	577	SW	No
Woody Chevrolet Inc	215 S Euclid	HIST UST	623	SW	No
Woody Chevrolet	215 S Euclid St	HAZNET, SWEEPS UST, CA FID UST, EMI	623	SW	No
Anaheim Chevrolet Geo	215 S Euclid	FINDS,RCRA-SQG,ECHO	623	SW	No
Carwash Of America	216 S Euclid St	LUST,HIST CORTESE	654	SW	No
Varigraphic Printing Co	1743 W Lincoln Ave	FINDS,RCRA- SQG,HAZNET,ECHO,CERS,CERS HAZ 682 WASTE 682		w	No
Phillips Co	255 N Manchester Ave	UST	711	E	No
B K F Industries Inc	1559 W Embassy St	FINDS,RCRA-SQG,ECHO	716	SE	No
Harringtons Automotive	1745 W Lincoln	FINDS,RCRA-SQG,HAZNET,ECHO	734	W	No
First Class Auto Center Inc	1745 W Lincoln Ave	HAZNET, CERS, CERS HAZ WASTE	734	W	No
Phillips Co.	246 N Manchester Ave	HIST UST	748	E	No
Party City #506 Anaheim	410 N Euclid St	CERS,CERS HAZ WASTE	751	NNW	No
Party City Corporation Store #506	410 N Euclid St	RCRA NONGEN / NLR	751	NNW	No
Jack-X-Change	1556 W Embassy	FINDS,RCRA-SQG,ECHO	754	SE	No
Cryogenic Components Inc	1549 W Embassy Street	FINDS,RCRA-SQG,ECHO	793	SE	No
Petco Store #579	430 N Euclid St	RCRA NONGEN / NLR	816	NNW	No
Petco #579	430 N Euclid St	HAZNET, CERS HAZ WASTE	816	NNW	No
Facility 8232-1	1747 Lincoln Bldg. L	HIST CORTESE	835	W	No
Powdercoat Services Llc	1747 W Lincoln Ave Unit K	RCRA NONGEN / NLR	835	W	No
RFP Industries Inc	1747 W Lincoln Ave	FINDS, HIST UST, RCRA-SQG, ECHO	835	W	No
RFP Industries Inc	1747 W Lincoln L-3	HIST UST,NPDES	835	W	No
	440 N Euclid St	AST	857	NNW	No
Walmart Supercenter No 2242	440 N Euclid St	FINDS,RCRA-SQG,CERS,CERS TANKS,CERS HAZ WASTE	857	NNW	No
Walmart #2242	440 N Euclid St	AST	857	NNW	No
Pacific Westline Inc	1544 W Embassy St	CERS,CERS HAZ WASTE	898	SE	No

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Pacific Westline, Inc.	1536 W Embassy St	RCRA NONGEN / NLR	956	SE	No
Pacific Westline	1536 W Embassy St	HAZNET,EMI,CERS HAZ WASTE	956	SE	No
Economy Rentals Inc	1771 W Lincoln Ave	RCRA NONGEN / NLR	989	W	No
Economy Rentals	1771 W Lincoln Ave	LUST,HIST UST,CERS	989	W	No
Economy Rentals Inc	1771 W Lincoln Ave	SWEEPS UST,CA FID UST,CERS,CERS HAZ WASTE	989	W	No
Quick Start	235 S Loara St	SWEEPS UST,CA FID UST	994	SSE	No
U S Sprint	1750 Penhall Way	LUST,CA FID UST,HIST CORTESE	1,020	WNW	No
U.S. Sprint	1750 W Penhall Way	LUST,CERS	1,020	WNW	No
Sprint, Inc.	1750 W Penhall Way	UST	1,020	WNW	No
Anaheim	1750 W Penhall Way	SWEEPS UST,EMI	1,020	WNW	No
Sprint Anaheim Switch	1750 W Penhall Way	AST	1,020	WNW	No
La Habra Products	240 S Loara St	UST	1,022	SSE	No
Kemmer Corp	1526 W Embassy	FINDS,RCRA-SQG,ECHO	1,049	SE	No
First State Bank Prop.	1771	LUST,HIST CORTESE	1,058	W	No
Aldi Inc Dba Aldi #28	275 S Euclid St	RCRA NONGEN / NLR	1,098	SW	No
Aldi #28	275 S Euclid St	CERS,CERS HAZ WASTE	1,098	SW	No
Daisy Cleaners, L. C. Pringle Sales Inc	277 S Euclid St	DRYCLEANERS	1,101	SW	No
Harbor Pallet Co	1516 Embassy	LUST,HIST CORTESE	1,106	ESE	No
Harbor Pallet Company	1516 W Embassy St	UST	1,106	ESE	No
Harbor Pallet Co	1516 W Embassy St	LUST, ORANGE CO. INDUSTRIAL SITE, CERS	1,106	ESE	No
General Van And Storage	1565 West Mable	HIST UST	1,177	SE	No
General Van & Storage Co	1565 W Mable St	CA FID UST	1,177	SE	No
General Van & Storage Co	1565 W Mable St	UST,SWEEPS UST	1,177	SE	No
General Van & Storage	1565 W Mable St	HIST UST	1,177	SE	No
Linda Kendal	1460 W Birchmont Dr	RCRA NONGEN / NLR	1,204	ENE	No
Duran Company	1773 West Lincoln Avenue #1	ENVIROSTOR	1,208	W	No
Thermech Corporation	1773 W Lincoln Ave Bldg J	CERS,CERS HAZ WASTE	1,208	W	No
Hallock Coin Jewelry Inc	1773 W Lincoln Bldg E	FINDS,RCRA-SQG,ECHO	1,208	W	No
Duran Co	1773 W Lincoln Ave #1	SEMS-ARCHIVE	1,208	W	No
Precision Anodizing & Chrome	1773 W Lincoln	FINDS,RCRA NONGEN / NLR,ECHO	1,208	W	No
Thermech Engineering Corp.	1773 W Lincoln Bldg K	RCRA-SQG,EMI,CHMIRS,CERS	1,208	W	No
German Technicians	1773 W Lincoln Unit N	FINDS,RCRA-SQG,ECHO	1,208	W	No
Station #4184	500 N Euclid St	HIST UST	1,232	NNW	No
Union Oil Service Station 418	500 N Euclid	HIST UST	1,232	NNW	No
Forever 21 Inc	500 N Euclid St	HIST UST,HAZNET,CERS	1,232	NNW	No
Exxon Service Station #7727	260 S Euclid St	LUST,HIST UST,CERS	1,235	SSW	No

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TMB Oil Co Inc #1	260 S Euclid St	UST	1,235	SSW	No
Exxon #7-7727	260 S Euclid St	SWEEPS UST,CA FID UST	1,235	SSW	No
TMB Oil Co Inc #1	260 S Euclid St	HAZNET,CERS,CERS TANKS,CERS HAZ WASTE	1,235	SSW	No
Komyo America Co Inc	1765 W Penhall Way	RCRA NONGEN / NLR	1,251	WNW	No
Jones Auto Body & Paint Co	1520 W Lincoln Ave	FINDS,RCRA-SQG,ECHO	1,283	ESE	No
California Japanese Auto Service	1516 W Lincoln Ave	RCRA NONGEN / NLR	1,284	ESE	No
California Japanese Auto Service	1516 W Lincoln Ave	HAZNET, CERS, CERS HAZ WASTE	1,284	ESE	No
Econo Lube N Tune #45	1512 W Lincoln Ave # 45	UST	1,284	ESE	No
Econo Lube N Tune #45	1512 W Lincoln Ave	SWEEPS UST,CA FID UST	1,284	ESE	No
Hidalgo Auto Service	1518 W Lincoln Ave	RCRA NONGEN / NLR	1,284	ESE	No
Arco #1795	301 S Euclid St	LUST,HIST UST,SWEEPS UST,CA FID UST,CERS	1,365	SSW	No
Mobil #18-G06	1680 W Broadway	LUST,HIST CORTESE	1,473	SSW	No
Mobil #18-G06	1680 W Broadway	LUST,HIST UST,CERS	1,473	SSW	No
Mobil Oil #18-G06	1680 W Broadway	LUST	1,473	SSW	No
Import Auto Supply	101 N Manchester Ave	LUST,HIST CORTESE,NPDES,CIWQS,CERS,CERS HAZ WASTE	1,671	ESE	No
Anaheim Plaza	556 Euclid N.	LUST,CERS	1,674	NNW	No
Import Auto Supply	110 Manchester Ave	LUST,HIST CORTESE	1,676	ESE	No
Import Auto Supply	110 N Manchester Ave	LUST,CERS	1,719	ESE	No
International Trade & Investments	1831 Lincoln	LUST,HIST CORTESE,CERS	1,758	W	No
Hawkins Paint Co	1831 W Lincoln A	LUST,HIST UST	1,758	W	No
Penhall Co	1801 Penhall Wy	LUST,EMI,HIST CORTESE	1,792	WNW	No
Penhall Company	1801 W Penhall Way	LUST,HIST UST,CERS,CERS TANKS,CERS HAZ WASTE	1,792	WNW	No
KCA Electronics	223 N Crescent Way	NPDES,ENVIROSTOR,ORANGE CO. INDUSTRIAL SITE,CIWQS,CPS- SLIC,CERS,CERS HAZ WASTE		WNW	No
AUHSD	501 Crescent Way	LUST,SWEEPS UST,CA FID UST,HIST CORTESE,ENVIROSTOR,WDS,SCH 2,124 WNW		WNW	No
Anaheim School District	501 Crescent	LUST,CERS	2,124	WNW	No
Target T-191	1881 Lincoln Avenue, W.	LUST,CERS	2,334	W	No
Home Oil Co Of Anaheim	1422 W Broadway	FINDS,LUST,HIST UST,RCRA- SQG,HAZNET,ENVIROSTOR,SSTS,ECHO,SE MS-ARCHIVE,CERS	2,404	SE	No
Home Oil Company	1422 W. Broadway	LUST,CHMIRS	2,404	SE	No
Galaxy Oil	1406 Broadway	LUST, SWEEPS UST, HIST CORTESE	2,433	SE	No

1619 West Lincoln Avenue, Anaheim, California, Zip

Galaxy Oil Co	1406 W Broadway	LUST,HIST UST,EMI,CERS	2,433	SE	No
Pronto Station #317	1899 W Lincoln Ave	LUST, SWEEPS UST, CA FID UST, CERS	2,507	W	No
Fast Fuel Service Station	1899 W Lincoln Ave	LUST,HIST CORTESE		W	No
Anaheim Union H S	501 N Cresent Wy	FINDS,RCRA-SQG,HIST CORTESE,ECHO	S,RCRA-SQG,HIST CORTESE,ECHO 2,550		No
Anaheim Junior High School	Carl Karcher Way/Lemon Street	ENVIROSTOR,SCH	2,551	WNW	No
Al Rohrs And Son, Inc.	1436 W. Santa Ana Street	LUST	2,603	SE	No
Al Rohrs Son	1436 W Santa Ana St	LUST,EMI,NPDES,CIWQS,CPS-SLIC,CERS	II,NPDES,CIWQS,CPS-SLIC,CERS 2,603 SE		No
Ross Park Expansion	318 Hessel Street	US BROWNFIELDS	2,622	SE	No
Jostens Inc	305 N Muller St	ENVIROSTOR, VCP, ORANGE CO. INDUSTRIAL SITE, CERS	2,800	WNW	No
Linco Industries, Inc.	528 S. Central Park West	NPDES,ENVIROSTOR,CIWQS,CERS,CERS HAZ WASTE	2,942	SE	No
Taormina Family / City Of Anaheim Properties	903-925 W. Lincoln Ave. & 109 N. Ohio St.	ENVIROSTOR,SCH	4,278	E	No
Anaheim High School	811 West Lincoln Avenue	ENVIROSTOR, SCH, CERS	4,338	E	No
California Towel & Linen Supply Co.	1126 Euclid Ave.	ENVIROSTOR	4,931	N	No

- 1. Site Location Map
- 2. Site and Vicinity Plan



\\SKVLACAFP1\LA Shared\Clients\3224.0003L Shopoff Anaheim MHE\L003\05\Vorkables\Phase I\Figures\G\S\Figure 1 - Site Location Map.mxd





Prepared for:

SLF-WEST LINCOLN, LLC

	Compiled by:	CTR	Date: 2019-08-23	FIGURE
POUV	Prepared by:	CTR	Scale: AS SHOWN	
	Project Mgr:	DDV	Project: 3224.0003L	2
	File: 001_3	224.000	3L000.DWG	

Compilation Environmental Report 1619, 1631, 1699 West Lincoln Avenue, and West City Parcel, Anaheim, California APPENDIX G

City Parcels Subsurface Investigation Report and Human Health Screening Evaluation Update – no appendices (Roux Associates, 2019d)



November 11, 2019

John Santry Vice President - Development Shopoff Advisors, L.P. 2 Park Plaza, Suite 700 Irvine, California 92614

City Parcels Subsurface Investigation Report and Human Health Screening Evaluation Update Re: 1619 West Lincoln Avenue and "West City Parcel", West Lincoln Avenue Anaheim, California

Dear Mr. Santry:

Roux Associates, Inc. (Roux) is pleased to submit this Subsurface Investigation Report (Report) to Shopoff Advisors, L.P. (Shopoff) to summarize the findings of the shallow soil and soil vapor sampling conducted at two parcels located at 1619 West Lincoln Avenue (East City Parcel) and west of 1699 West Lincoln Avenue (West City Parcel), together known as "the City Parcels," in the city of Anaheim, California (Site; Figures 1 and 2). Shopoff is considering acquisition of the Site by for potential future residential development. The investigation was performed on behalf of Shopoff to address recognized environmental conditions (RECs) and other environmental features (OEFs) as summarized in the Phase I Environmental Site Assessment (Phase I ESA) prepared by Roux, dated September 6, 2019¹. Both parcels are currently owned by the City of Anaheim. This Report summarizes the scope of work that was implemented at the Site, describes the data that were generated, and provides conclusions and recommendations relative to the findings.

INTRODUCTION

The Site consists of two discontinuous parcels located in the City of Anaheim, in Orange County, California. The East City Parcel has the physical street address of 1619 West Lincoln Avenue, and was formerly identified as 1621 West Lincoln Avenue. According to the Orange County Tax Assessor's Office, the Assessor's Parcel Number (APN) associated with 1619 West Lincoln Avenue is 072-110-19. The West City Parcel does not have an associated street address or APN. It is bounded by the Southern Pacific Railroad (SPRR) and the Santa Ana Interstate 5 Freeway (I-5) to the north, West Lincoln Avenue to the south, 1699 West Lincoln Avenue (a vacant lot) to the east, and South Euclid Street to the west (Figures 1 and 2). The area of the East City Parcel is approximately 0.69 acres and the area of the West City Parcel is approximately 1.25 acres. The East City Parcel is currently occupied by a construction equipment storage facility and the West City Parcel is a vacant lot featuring an earthen berm supporting South Euclid Street.

As mentioned above, this Subsurface Investigation was implemented to address the RECs and OEFs identified in the Phase I ESA prepared by Roux and dated September 25, 2019. A secondary objective of this investigation was to assess the potential presence of subsurface contaminants, so that addition of the City Parcels to the DTSC Voluntary Clean-up Agreement (VCA) for SLF-West Lincoln Assemblage, Docket Number HAS-FY18/18-014, could be evaluated.

¹ Roux Associates, Inc., September 25, 2019, Phase I Environmental Site Assessment, 1619 West Lincoln Avenue and "West City Parcel", Anaheim, California

Mr. John Santry November 11, 2019 Page 2

The Phase I ESA identified four RECs (Nos. 1 through 4 below) and two OEFs (Nos. 5 and 6 below), as follows:

- 1) uncovered and leaking drums without secondary containment and associated soil staining at the East City Parcel,
- 2) former use of the East City Parcel for motorcycle maintenance and repair operations,
- 3) off-Site volatile organic compound (VOC) impacts to soil vapor and groundwater,
- 4) historical on-Site agricultural use,
- 5) the adjacent I-5 freeway and former use of the site as a freeway off-ramp, and
- 6) the adjoining railroad tracks.

In order to address the RECs and OEFs described above and to assess subsurface impacts, Roux Associates collected soil and/or soil vapor samples from a total of nine on-Site borings or temporary soil vapor probes. The borings were located near the drum storage area at the East City Parcel, in the vicinity of the on-Site structure at the East City Parcel, next to Site boundaries with the SPRR and the I-5, and in the vicinity of the former I-5 off-ramp (Figure 2). Soil samples were analyzed for total petroleum hydrocarbons as carbon chain (TPH-cc), VOCs, organochlorine pesticides (OCPs), lead, and arsenic. Soil vapor samples were analyzed for VOCs. See the Sampling and Analysis Plan on Table 1 for additional details.

SOIL AND SOIL VAPOR SAMPLING

The soil and soil vapor sampling investigations were implemented in September and October 2019, as detailed in the sections that follow.

September 2019 Field Activities

Pre-Field Activities

Prior to the start of field activities, Roux Associates prepared a Site-specific Health and Safety Plan (HASP) to ensure worker safety. In addition to containing information regarding Roux Associates' standard safety practices, the HASP describes potential hazards relating to Site activities and provides the locations and contact information of nearby emergency services.

At least 48 hours prior to fieldwork, the areas of the Site targeted for the investigation were marked in white paint and Underground Service Alert (USA) was notified of the intended intrusive work. Additionally, to assess the locations of buried utilities (i.e. natural gas, electric, water, sewer, telephone, fiber optic, etc.) or obstructions, a private geophysical services and utility locating firm, Subsurface Surveys of Carlsbad, California, was contracted to perform a geophysical survey and to clear the proposed boring locations prior to drilling.

Boring Advancement

On September 23, 2019, under the direction of Roux, Strongarm Environmental Field Services, Inc. (Strongarm) of Norwalk, California advanced five combined soil and soil vapor borings (SVR-9 through SVR-13). Borings SVR-9, SVR-12, and SVR-13 were advanced to a terminal depth of 5 feet bgs and Borings SVR-10 and SVR-11 were advanced to a terminal depth of 15 feet bgs. All borings were initially advanced to a depth of five feet bgs using a mechanical hand-auger for clearance of potential subsurface utilities. A direct push drilling rig was then used to advance past 5 feet bgs to the terminal depth of 15 feet bgs at SVR-11. Due to access issues, SVR-10 was advanced to the terminal depth of 15 feet bgs using a hand auger with extensions. In the City of Anaheim, boring permits are only necessary at depths of 20 feet bgs or greater, therefore permits were not required for advancement of these five borings.

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Soil Sampling

On September 23, 2019, soil samples were collected for laboratory analysis from Borings SVR-9 trough SVR-13 at 0.5 and 1.5 feet bgs directly from the hand auger bucket . After sample collection, soil samples were labeled, placed on ice, and transported under chain-of-custody to Eurofins Calscience (Calscience) of Garden Grove, California, a California-certified laboratory. Soil samples were analyzed for OCPs by United States Environmental Protection Agency (USEPA) Method 8081A, arsenic and lead by USEPA Method 6010B, Total TPH-cc by USEPA method 8015B, and VOCs by USEPA Method 8260B. In order to prevent cross-contamination, sample equipment was decontaminated between sample borings and nitrile gloves were changed between before and after collecting samples.

Soil Vapor Probe Installation and Sampling

Temporary soil vapor probes were installed in each of the five soil borings (SVR-9 through SVR-13) on September 23, 2019. Dual nested probes were installed at Borings SVR-10 and SVR-11 at 5 and 15 feet bgs; single probes were installed at Borings SVR-9, SVR-12, and SVR-13 at 5 feet bgs.

The soil vapor probes consisted of an expendable vapor tip and screen affixed to Nylaflo® tubing. The probes were constructed by first placing a minimum of two-inches of coarse sand into the bottom of the borehole. The tip and tubing were then lowered into the borehole through a tremie pipe for support. Additional sand was then placed in the borehole via tremie to create an approximately 1-foot sand pack interval around the tip. Approximately one-foot of dry granular bentonite was placed on top of the sand pack followed by hydrated bentonite grout to the bottom depth of the upper-sand pack hosting the shallow soil vapor sampling probe. After the installation of each soil vapor probe, a minimum 48-hour equilibrium period was observed prior to sampling five-foot probes and a minimum two-hour equilibrium period was observed prior to sampling 10-foot and 15-foot probes, as stipulated by the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC), Los Angeles Regional Water Quality Control Board (LARWQCB), and San Francisco Regional Water Quality Control Board (LARWQCB), and San Francisco Regional Water Quality Control soil vapor probes were abandoned by pulling the tubing from the ground and filling any void space at the surface of the borehole with hydrated bentonite.

Soil vapor samples were collected by Roux on September 26, 2019 in one-liter Summa cannisters and submitted to Eurofins Calscience (Calscience) laboratory of Garden Grove, California for VOC analysis using USEPA Method TO-15.

October 2019 Field Activities

The laboratory analytical results for the samples collected in September 2019 were reviewed, and the results were shared with DTSC. Based on soil vapor benzene concentrations in the 5-foot sample from SVR-9 and the PCE concentration in the 5-foot soil vapor sample from SVR-12, DTSC recommended (and Shopoff agreed) to install four multi-depth 30 feet bgs probes (2 at each of the City Parcels).

Pre-Field Activities

Roux updated the HASP prepared for the September 2019 Field activities as the on-Site hazards had not significantly changed.

At least 48 hours prior to fieldwork, the areas of the Site targeted for the investigation were marked in white paint and Underground Service Alert (USA) was notified of the intended intrusive work. Additionally, to assess the locations of buried utilities (i.e. natural gas, electric, water, sewer, telephone, fiber optic, etc.) or obstructions, a private geophysical services and utility locating firm, Spectrum Geophysics of Chatsworth, California, was contracted to perform a geophysical survey and to clear the proposed boring locations prior to drilling. Permit number UWP-0001663 was acquired from Anaheim Public Utilities for the four borings advanced on October 16 (SVR-14 through SVR-17).

ROUX | Limited Phase II Subsurface Investigation Report
Boring Advancement

On October 16, 2019, under the direction of Roux, Strongarm advanced four soil vapor borings (SVR-14 through SVR-17) to a terminal depth of 30 feet bgs. The soil vapor borings were initially advanced to a depth of five feet bgs using a mechanical hand-auger for clearance of potential subsurface utilities. A direct push drilling rig was then used to advance past 5 feet bgs to the terminal depth of 30 feet bgs.

Soil Vapor Probe Installation and Sampling

Temporary soil vapor probes were installed in the soil vapor borings (SVR-14 through SVR-17) at 5, 15, and 30 feet bgs on October 16, 2019. Soil vapor probes were installed and abandoned in the same manner as those installed on September 26, 2019 (see above).

Soil vapor samples were collected by H&P on October 21, 2019, under the direction of Roux, and analyzed in a mobile lab on-Site using USEPA Method TO-15.

SOIL AND SOIL VAPOR SAMPLING RESULTS

Analytical results for detected analytes in soil are presented in Tables 2 and 3, and soil vapor results are presented in Table 4. The complete analytical laboratory reports are included in Attachment A.

Soil Results

The sections that follow provide a summary of the soil sample analytical results. The complete laboratory report is included in Attachment A and the results are summarized in Tables 2 and 3.

Metals

A total of eleven samples (10 primary and one duplicate) were collected from five soil borings and analyzed for lead and arsenic.

- Arsenic: Arsenic was detected above RDLs in all 11 soil samples at concentrations ranging from 0.92 mg/kg in sample SVR-11-1.5 to 5.22 mg/kg in sample SVR-11-0.5. Each of the arsenic concentrations exceed USEPA regional screening levels (USEPA RSLs) and DTSC Human and Ecological Risk Office (HERO) Human Health Risk Assessment Note Number 3 screening levels (DTSC HERO Note 3 SLs) for residential soils. However, arsenic concentrations were below the upper bound background concentration² for soils in southern California in all samples analyzed.
- Lead: Lead was detected in all 11 soil samples at concentrations ranging from 1.08 mg/kg in sample SVR-11-1.5 to 76.6 mg/kg in sample SVR-11-0.5. The lead concentrations were below both the USEPA RSL and the DTSC Hero Note 3 SL for residential soil.

OCPs

A total of eleven samples (10 primary and one duplicate) were collected from five soil borings and analyzed for OCPs. Four OCPs, dichlorodiphenyldichloroethylene (4,4'-DDE), 4,4'-dichlorodiphenyltrichloroethane (4,4'-DDT), and Dieldrin were detected above RDLs but none were detected above applicable UESPA RSLs or DTSC SLs for residential soil.

²DTSC, 2008. Determination of a Southern California Regional Background Arsenic Concentration in Soil.

TPH

A total of seven soil samples (six primary and one duplicate) were collected from three soil borings and analyzed for TPH-cc as part of this investigation. TPH concentrations were compared to the LARWQCB Remediation Guidance for Petroleum and VOC Impacted Sites (May 1996) Maximum Soil Screening Levels (SSLs) for TPH above Drinking Water Aquifers (20 to 150 feet above groundwater). TPH-d and TPH-o were both detected above RDLs in at least one sample, but neither was detected above applicable LARWQCB SSLs.

Soil Vapor Results

A total of 21 soil vapor samples (19 primary and two duplicate) were collected from nine soil vapor probes and analyzed for VOCs as part of this investigation. Twenty VOCs were detected above RDLs and three VOCs were detected above USEPA RSLs and/or DTSC SLs when an attenuation factor is applied. The complete laboratory report is included in Attachment A and the results are summarized in Table 4. A summary of the detected analytes in soil vapor is presented below:

- Benzene: Benzene was detected above the applicable DTSC SL in three samples (SVR-9-5, SVR-10-15, and SVR-11-5) when an attenuation factor of 0.03 is applied. The maximum detected benzene concentration (110 µg/m³, detected at SVR-9-5) is additionally above the applicable USEPA RSL when an attenuation factor of 0.03 is applied and the DTSC SL when an attenuation factor of 0.001 is applied. SVR-9 is located in the northwest corner of the West City Parcel, close to the SPRR and the I-5, SVR-10 is located near the center of the West City Parcel, and SVR-11 is located in the northeast portion of East City Parcel, next to the drums and the parcel boundary with the SPRR.
- Ethylbenzene: Ethylbenzene was detected above USEPA RSLs when an attenuation factor of 0.03 is applied in two soil vapor samples, SVR-9-5 and SVR-16-30, at concentrations of 49 μg/m³ and 46 μg/m³ respectively. SVR-16 is located in the vicinity of the on-Site building at the East City Parcel.
- Tetrachloroethene (PCE): PCE was detected above applicable DTSC SLs in 14 samples when an attenuation factor of 0.03 is applied. The maximum PCE detection of 500 µg/m³ was detected at SVR-12-5. The PCE detection at SVR-12-5 also exceeds the applicable DTSC residential SL of 460 µg/m³ when an attenuation factor of 0.001 is applied and the applicable USEPA RSL of 367 µg/m³ when an attenuation factor of 0.03 is applied. Concentrations, locations, and depths of the PCE detections for this investigation and historical investigations are shown on Figures 3, 4, and 5.

The leak check compound, 1,1-Difluoroethane (1,1-DFA), was detected above the RDL of 5.7 μ g/m³ at a concentration of 8.7 μ g/m³ in SVR-11-5. This detection is less than an order of magnitude over the RDL, indicating that any potential pathway to atmospheric air that may have existed during sampling is likely insignificant.

HHSE UPDATE

A Human Health Screening Evaluation (HSSE) was originally included as Appendix B of the Preliminary Environmental Assessment – Equivalent (PEA-E)³ report and an update was prepared and included as

³ Roux Associates, Inc., April 4, 2019, Preliminary Endangerment Assessment Equivalent Report, 1631 and 1699 West Lincoln Avenue, Anaheim, California

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Attachment B of the Additional Investigation Report⁴. The HHSE was originally prepared to provide a conservative evaluation of the potential risk due to chemicals of potential concern (COPCs) detected in the subsurface at the Site. The previously prepared HHSE and update both concluded that although the calculated risk for soil vapor intrusion exceeded the most conservative risk threshold of 1E-06, it was within the range of acceptability established in the National Contingency Plan (NCP, 1E-06 to 1E-04).

The HHSE Update attached to this report includes the results of this Subsurface Investigation Report (September and October 2019) in addition to data previously evaluated in the HHSE, which was collected during investigations on adjacent parcels (January 2019 PEA-E investigation; July 2019 Additional Investigation Report; and June and July 2018 Environmental Management Strategies, Inc., Phase II investigation⁵). The HHSE Update is included as Attachment B.

Methodology

Both residential and commercial exposure to soil and to indoor air were evaluated in the HHSE Update. Following the same methodology used for the HHSE of the PEA-E report and the Additional investigation Report, chemicals detected in each evaluated media were considered COPCs in the HHSE Update. The HHSE Update calculated the estimated risks associated with the presence of COPCs in each medium where exposure pathways (ingestion, dermal contact, inhalation of particles, or inhalation of volatile compounds) are considered complete using the established DTSC screening levels or USEPA RSLs, as applicable. Either 95% upper confidence limits (UCLs) of the mean, or maximum detections were selected as EPCs, consistent with the PEA Guidance Manual, and as approved by DTSC HERO staff. DTSC recommended attenuation factors were applied, as appropriate, when evaluating soil vapor concentrations in the context of indoor air risks (as requested by HERO staff, calculations employing USEPA's default attenuation factor were also presented). Additionally, the indoor air evaluation of soil vapor data examined data collected at three intervals (5-feet, 15-feet, and 30-feet), to develop a range in risk estimates. The toxicity values used in the HHSE Update are embedded within USEPA's carcinogenic and non-carcinogenic RSLs. Lead was evaluated by modeling blood lead levels, using DTSC's LeadSpread 8 and Modified Adult Lead Model (ALM) workbook.

Risk Characterization Summary

The risk characterization process integrates the results of the data evaluation, exposure assessment, and toxicity assessment to provide a quantitative estimation of non-carcinogenic and carcinogenic risks. As summarized in the bullets and table below:

- The low end and the high end cancer risk estimate for residential scenarios both remain within the cancer target threshold range;
- The low end and the high end non-cancer risk estimate for residential scenarios remain below the non-cancer target risk threshold;
- The low end cancer risk estimate for the commercial scenario is below the most conservative range of cancer target thresholds, while the high end estimate remains within the cancer target threshold range;

⁴ Roux Associates, Inc., August 1, 2019, Additional Investigation Report, West Lincoln Assemblage, 1631 and 1699 Lincoln Avenue, Anaheim, California

⁵ Environmental Management Strategies, Inc., (EMS) Phase II Environmental Site Assessment, 1631 and 1699 West Lincoln Avenue, Anaheim, California 9280, July 16, 2018 (Revised 10/31/19)

• The low end and high end non-cancer risk estimates for commercial scenarios are both below the non-cancer target risk threshold.

	Future Exposure te	Residential o Soil and Indoor Air	Future Commercial Exposure to Soil and Indoor Air					
Risk	Target	Estimated Risk	Target	Estimated Risk				
	Threshold	(Low to High)	Threshold	(Low to High)				
Cancer Risk	1E-06 to	5.1E-06 to	1E-06 to	6.0E-07 to				
	1E-04	1.8E-05	1E-04	2.1E-06				
Non-Cancer Risk	1.0	7.6E-01 to 9.0E-01	1.0	7.2E-02 to 8.7E-02				

HHSE Update - Cumulative Cancer and Non-Cancer Risks⁶

The estimated cancer risks in the above table are similar to those in the previous update. The estimated non-cancer risks have decreased when compared to the previous update to now be below the target Hazard Index threshold of 1.0.

CONCLUSIONS & RECOMMENDATIONS

Soil and soil vapor sampling conducted at the City Parcels as part of this Subsurface Investigation did not show evidence of contaminant sources. The HHSE Update was consistent with the previous HHSE; although the calculated risk exceeded the most conservative risk threshold of 1E-06, it was within the range of acceptability established in the National Contingency Plan (NCP, 1E-06 to 1E-04).

The results presented in this report are generally consistent with those described in the Roux Additional Investigation Report and the Roux Preliminary Endangerment Assessment Equivalent Report and the subsequent Additional Assessment. Therefore, Roux believes that with appropriate mitigation, the City Parcels can be developed for residential use and recommends that the Site be added to the DTSC VCA for SLF-West Lincoln Assemblage.

LIMITATIONS

This Investigative Report presents a summary of work conducted by Roux Associates based on the Proposal between Roux Associates and Shopoff. This report is limited in scope: the primary purpose of this investigation was to identify and preliminarily delineate potential impacts in the subsurface. No investigation is thorough enough to describe all conditions of interest at a given site. If conditions are not identified during an investigative report, such a finding should not be construed as a guarantee of the absence of such conditions at the Site, but rather as the result of the services performed within the scope, limitations, and cost of the work performed. We are not able to report on, or accurately predict events that may change the Site conditions after the described services are performed.

⁶ The risk estimates presented herein assume the DTSC-recommended attenuation factor of 0.001 for residential scenarios and 0.005 for commercial scenarios. As requested in DTSC HERO's Comments on Additional Investigation Report (dated August 15, 2019), risk estimates have also been calculated using USEPA's attenuation factor of 0.03, and are presented in Attachment B.

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CLOSING

Roux Associates is available to answer any questions regarding this Limited Phase II Subsurface Investigation Report. Please do not hesitate to contact David DeVries by telephone at 562-446-8625 or by e-mail at <u>ddevries@rouxinc.com</u> or Mauricio Escobar by telephone at 310-879-4920 or by e-mail at <u>mescobar@rouxinc.com</u>.

Sincerely,

ROUX ASSOCIATES, INC.

Ku Have 4

David DeVries, P.G., C.Hg. Senior Geologist

Mauricio Escobar, P.G. Principal Geologist

Enclosures:

Table 1	Sampling and Analysis Plan
Table 2	Arsenic and Lead and Organochlorine Pesticides in Soil
Table 3	Volatile Organic Compounds and Total Petroleum Hydrocarbons in Soil
Table 4	Volatile Organic Compounds in Soil Vapor
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Attachment A	Laboratory Analytical Reports
Attachment B	Human Health Screening Evaluation Update

- 1. Sampling and Analysis Plan
- 2. Arsenic and Lead and Organochlorine Pesticides in Soil
- Volatile Organic Compounds and Total Petroleum Hydrocarbons in Soil
- 4. Volatile Organic Compounds in Soil Vapor

Table 1 Sampling and Analysis Plan East City Parcel (1619 West Lincoln Avenue) West City Parcel, Anaheim, California

					US	EPA Soil Ar	nalysis Meth	nods	USEPA Soil Vapor Analysis Method	
Boring/ Probe ID	Parcel	Media	Date Collected	Depth (feet bgs)	Arsenic and Lead by 6010B	OCPs by 8081A	VOCs by 8260B	TPH-g by 5035B, TPH-d & TPH-o by 8015B	VOCs by Modified 8260B - Ultra Low Level	Objective
SV/R-9	West City Parcel	Soil	9/23/2019	0.5, 1.5	2	2				Assess potential impacts from past freeway and orchard use and past/current adjacent railroad use
0010-3	West Oily Farter	Soil Vapor	9/26/2019	5					1	Assess potential impacts from off-Site VOC sources west of North Euclid Street
0)/5 40		Soil	9/23/2019	0.5, 1.5	2	2				Assess potential impacts from past freeway and orchard use
SVR-10	West City Parcel	Soil Vapor	9/26/2019	5, 15					2	Assess potential impacts from off-Site VOC sources west of North Euclid Street
		Soil	9/23/2019	0.5	1	1		1		Assess potential impacts from past orchard use, past/current
S\/R_11	1619 West Lincoln	Soil	9/23/2019	1.5	1	1	1	1		adjacent railroad use, and past/current drum storage area
owen		Soil	9/23/2019	5			1			Assess potential impacts from past/current drum storage area and past use as a motorcycle paint and brake repair shop
		Soil Vapor	9/26/2019	5, 15					2	Assess potential impacts from past/current drum storage area and past use as a motorcycle paint and brake repair shop
		Soil	9/23/2019	0.5	1	1		1		Assess potential impacts from past orchard use and past use as a
SV/P 12	1610 West Lincoln	Soil	9/23/2019	1.5	1	1	1	1		motorcycle paint and brake repair shop
3VR-12	1019 West Elifcoli	Soil	9/23/2019	5			1			Assess potential impacts from past/current drum storage area and past use as a motorcycle paint and brake repair shop
		Soil Vapor	9/26/2019	5					1	Assess potential impacts from past use as a motorcycle paint and brake repair shop
		Soil	9/23/2019	0.5	1	1		1		Assess potential impacts from past orchard use and past use as a
SVR-13	1619 West Lincoln	Soil	9/23/2019	1.5	1	1	1	1		motorcycle paint and brake repair shop
ovir io		Soil	9/23/2019	5			1			Assess potential impacts from past/current drum storage area and past use as a motorcycle paint and brake repair shop
		Soil Vapor	9/26/2019	5					1	Assess potential impacts from past use as a motorcycle paint and brake repair shop
SVR-14	West City Parcel	Soil Vapor	10/21/2019	5, 15, 30					3	Assess anomalous benzene results in SVR-9-5
SVR-15	West City Parcel	Soil Vapor	10/21/2019	5, 15, 30					3	Assess anomalous benzene results in SVR-9-5
SVR-16	East City Parcel	Soil Vapor	10/21/2019	5, 15, 30					3	Assess anomalous PCE results in SVR-12-5
SVR-17	East City Parcel	Soil Vapor	10/21/2019	5, 15, 30					3	Assess anomalous PCE results in SVR-12-5

Notes: TPH-g = C4-C12 TPH-d = C13-C22 TPH-o = C23-C32 VOC = Volatile organic compound OCP = Organochlorine pesticides USEPA = United States Environmental Protection Agency bgs = Below ground surface

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	Table 2		
Arsenic and Lead	and Organochlorine	Pesticides in Soi	I
:	Shopoff - Anaheim, CA		

Sample ID	Depth (feet bgs)	Sample Date	Arsenic	Lead	4,4'-DDE	4,4'-DDT	Dieldrin				
Analytical Methe	od		USEP	A 6010B	USEPA 8081A						
Unit			m	g/kg	µg/kg						
USEPA Residen	tial Soil RSL		0.68	400	2000	1900	34				
DTSC Residenti	al Soil SL		0.11	80	2000	1900	34				
Typical Range c Concentrations	or Upper Bacl	kground	12*	12.4-97.1 mean = 23.9**	NS	NS	NS				
SVR-9-0.5	0.5	9/23/2019	4.34	38.0	35	31	<1				
SVR-9-1.5	1.5	9/23/2019	2.72	11.0	<5	<5	<1				
SVR-10-0.5	0.5	9/23/2019	3.67	.67 15.8		<4.9	<0.99				
SVR-10-1.5	1.5	9/23/2019	2.60	2.60 17.5		<5	<1				
SVR-11-0.5	0.5	9/23/2019	5.22	76.6	<5	<5	2.0				
SVR-11-1.5	1.5	9/23/2019	0.920	1.08	<5	<5	<0.99				
SVR-12-0.5	0.5	9/23/2019	1.62	7.58	<5	<5	<0.99				
SVR-12-1.5	1.5	9/23/2019	1.05	1.59	<5	<5	<0.99				
SVR-13-0.5	0.5	9/23/2019	2.04	31.6	<5	10	<0.99				
SVR-13-1.5	1.5	9/23/2019	1.28	2.21	<4.9	<4.9	<0.99				
SVR-13-1.5-D	1.5	9/23/2019	2.49	1.59	<5	<5	<1				

Note:

bgs = Below ground surface

NS = No Standard

Bold indicates concentration detected above laboratory reporting limits (RDL)

Italics indicates duplicate sample

µg/kg = microgram per kilogram

mg/kg = milligrams per kilogram

<X = analyte not detected above RDL

USEPA RSL = United States Environmental Protection Agency Regional Screening Level for residential soil (updated April 2019)

DTSC SL = California Department of Toxic Substances Control (DTSC) Human and Ecological Risk Office (HERO) Human Health Risk Assessment (HHRA) Note 3 Screening Level (SL) for residential soil (updated April 2019)

Cancer endpoint screening levels were used where available. Where not available, non-cancer endpoint screening levels are presented.

Blue shading indicates a concentration which exceeds the industrial USEPA RSL. Gold shading indicates a concentration which exceeds the industrial DTSC SL.

* Upper-bound background concentrations from Chernoff, G., Bosan, W., and Outiz, D., DTSC, 2008. Determination of a Southern California Regional Background Arsenic Concentration in Soil.

**Bradford, G.R., Chang, A.C., Page, A.L., Bakhtar, D., Frampton, J.A., and Wright, H., 1996, Background Concentrations of Trace and Major Elements in California Soils, Kearney Foundation of Soil Sciences Special Report, Division of Agriculture and Natural Resources, University of California. Only detected analytes are included in the table

Sample ID	Depth (feet bgs)	Sample Date	Acetone	Benzene	TPH - Gasoline Range Organics (C4- C12)	TPH - Diesel Range Organics (C13-C22)	TPH - Oil Range Organics (C23-C32)					
Analytical Metho	d		USEPA	A 8260B	USEPA 8015B							
Unit			μg	/kg		mg/kg						
USEPA Resident	tial Soil R	SL	61,000,000	1,200	NS	NS	NS					
DTSC Residentia	alSoil SL		NS	1,900	NS	NS	NS					
LARWQCB Soil S	SSL		NS	94	500	1,000	10,000					
SVR-9-0.5	0.5	9/23/2019	NA	NA	NA	NA	NA					
SVR-9-1.5	1.5	9/23/2019	NA	NA	NA	NA	NA					
SVR-10-0.5	0.5	9/23/2019	NA	NA	NA	NA	NA					
SVR-10-1.5	1.5	9/23/2019	NA	NA	NA	NA	NA					
SVR-11-0.5	0.5	9/23/2019	NA	NA	<0.13	<0.13 130						
SVR-11-1.5	1.5	9/23/2019	<46 <0.9		<0.10	<0.10 <5.0						
SVR-11-5	5.0	9/23/2019	<44	1.1	NA	NA	NA					
SVR-12-0.5	0.5	9/23/2019	NA	NA	<0.11	<5.0	<5.0					
SVR-12-1.5	1.5	9/23/2019	<49	<0.98	<0.090	<5.0	<5.0					
SVR-12-5	5.0	9/23/2019	<41	<0.83	NA	NA	NA					
SVR-13-0.5	0.5	9/23/2019	NA	NA	<0.11	<5.0	27					
SVR-13-1.5	1.5	9/23/2019	73	<1.4	< 0.095	<5.0	<5.0					
SVR-13-1.5-D	1.5	9/23/2019	<45.0	<0.91	<0.11	<5.0	<5.0					
SVR-13-5	5.0	9/23/2019	<44	<0.87	NA	NA	NA					

 Table 3

 Volatile Organic Compounds and Total Petroleum Hydrocarbons in Soil

 Shopoff - Anaheim, CA

Note:

bgs = Below ground surface

NS = No Standard

Bold indicates concentration detected above laboratory reporting limits (RDL)

Italics indicates duplicate sample

µg/kg = microgram per kilogram

mg/kg = milligrams per kilogram

<X = analyte not detected above laboratory reporting detection limit (RDL)

USEPA RSL = United States Environmental Protection Agency Regional Screening Level for residential soil (updated April 2019)

DTSC SL = California Department of Toxic Substances Control (DTSC) Human and Ecological Risk Office (HERO) Human Health Risk Assessment

(HHRA) Note 3 Screening Level (SL) for residential soil (updated April 2019)

Cancer endpoint screening levels were used where available. Where not available, non-cancer endpoint screening levels are presented.

LARWQCB SSL = Maximum Soil SLs above Drinking Water Aquifers, 20-150 feet above groundwater, California Regional Water Quality Control Board

Remediation Guidance for Petroleum and VOC Impacted Sites (updated May 1996)

Blue shading indicates a concentration which exceeds the residential USEPA RSL.

Gold shading indicates a concentration which exceeds the residential DTSC SL.

Orange shading indicates a concentration exceeding LARWQCB Soil SSL.

Only detected analytes are included in the table

Table 4 Volatile Organic Compounds in Soil Vapor Shopoff - Anaheim, CA

Sample ID	Date Sampled	Sample Location	Depth (feet bgs)	1,1,1-Trichloroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Butanone	4-Ethyltoluene	Acetone	Benzene	Carbon Disulfide	Chlorobenzene	Chloromethane	cis-1,2-Dichloroethene	Dichlorodifluoromethane	Ethylbenzene	m,p-Xylene	o-Xylene	Total Xylenes	Tetrachloroethene (PCE)	Toluene	Trichlorofluoromethane
Analytical Met	hod												U	SEPA TO-1	5									
UIIIL	ntial Air RSI ¹			5 200 000	63 000	63 000	210 000	260	5 200 000	NS	32 000 000	360	730.000	μ g/III3 52.000	94 000	NS	100 000	1 100	100 000	100 000	100 000	11 000	5 200 000	NS
USEPA Reside	ontial Air RSI ²			173 333	2 100	2 100	7 000	8.67	173 333	NS	1 066 667	12	24,333	1 733	3 133	NS	3 333	36.67	3 333	3 333	3 333	367	173 333	NS
DTSC HERO N	ote 3 Resident	tial Air ¹		1 000 000	NS	2,100 NS	NS	NS	NS	NS	NS	97	24,000 NS	NS	NS	8 300	NS	NS	NS	0,000 NS	NS	460	310,000	NS
DTSC HERO N	ote 3 Resident	tial Air ²		33 333	NS	NS	NS	NS	NS	NS	NS	3 23	NS	NS	NS	277	NS	NS	NS	NS	NS	15.33	10.333	NS
SVR-9-5	9/26/2019	WCP	5	<2.9	<7.7	<2.6	35	<3.1	5.6	<2.6	110	110	<6.5	<2.4	21	<2.1	<2.6	49	<9.1	<2.3	<11	19	37	7.8
SVR-10-5	9/26/2019	WCP	5	<2.7	<7.4	<2.5	16	<3.0	<4.4	<2.5	49	<1.6	8.8	<2.3	<1.0	<2.0	<2.5	4.8	15	7.5	<11	<3.4	23	<5.6
SVR-10-15	9/26/2019	WCP	15	<2.8	15	5.3	13	4.0	7.7	<2.5	72	11	8.8	3.9	<1.1	4.6	3.5	33	38	21	<11	28	58	<5.8
SVR-11-5	9/26/2019	ECP	5	3.8	15	5.1	3.2	<3.1	<4.6	3.7	28	6.8	8.0	<2.4	<1.1	<2.1	7.6	6.9	28	13	41	34	26	6.0
SVR-11-15	9/26/2019	ECP	15	21	<8.5	<2.8	7.6	<3.5	<5.1	<2.8	32	<1.8	<7.2	<2.6	<1.2	<2.3	20	<2.5	<10.0	2.6	<12	46	9.5	13
SVR-12-5	9/26/2019	ECP	5	<2.9	15	4.3	16	<3.2	8.6	2.6	67	<1.7	<6.7	<2.5	<1.1	<2.1	5.7	2.7	20	8.8	29	500	7.4	<6.0
SVR-13-5	9/26/2019	ECP	5	<2.7	<7.4	<2.5	9.0	<3.0	<4.4	<2.5	31	<1.6	<6.2	<2.3	<1.0	<2.0	<2.5	<2.2	<8.7	2.3	<11	30	6.5	<5.6
SVR-13-5-D	9/26/2019	ECP	5	<2.7	<7.4	<2.5	12	<3.0	<4.4	<2.5	28	<1.6	<6.2	<2.3	<1.0	<2.0	<2.5	<2.2	<8.7	2.7	<11	25	7.0	<5.6
SVR-14-5	10/16/2019	WCP	5	<28	<50	<50	<61	<61	<60	<50	NA	<16.0	<32	<23	<21	<40	<50	<22	<44	<22	NA	<34	<38	<56
SVR-14-15	10/16/2019	WCP	15	<28	<50	<50	<61	<61	<60	<50	NA	<16.0	55	<23	<21	<40	<50	<22	<44	<22	NA	<34	120	<56
SVR-14-30	10/16/2019	WCP	30	<28	<50	<50	<61	<61	<60	<50	NA	<16.0	<32	<23	<21	<40	<50	<22	<44	<22	NA	<34	70	<56
SVR-15-5	10/16/2019	WCP	5	<28	<50	<50	<61	<61	<60	<50	NA	<16.0	<32	<23	<21	<40	<50	<22	<44	<22	NA	<34	<38	<56
SVR-15-15	10/16/2019	WCP	15	<28	<50	<50	<61	<61	<60	<50	NA	<16.0	140	<23	<21	<40	<50	<22	<44	<22	NA	<34	47	<56
SVR-15-30	10/16/2019	WCP	30	<28	<50	<50	<61	<61	<60	<50	NA	<16.0	<32	<23	<21	<40	<50	<22	<44	<22	NA	<34	<38	<56
SVR-16-5	10/16/2019	ECP	5	<28	<50	<50	<61	<61	<60	<50	NA	<16.0	<32	<23	<21	<40	<50	<22	<44	<22	NA	300	<38	<56
SVR-16-5-D	10/16/2019	ECP	5	<28	<50	<50	<61	<61	<60	<50	NA	<16.0	<32	<23	<21	<40	<50	<22	<44	<22	NA	250	<38	<56
SVR-16-15	10/16/2019	ECP	15	<28	<50	<50	<61	<61	<60	<50	NA	<16.0	<32	<23	<21	<40	<50	<22	<44	<22	NA	190	<38	<56
SVR-16-30	10/16/2019	ECP	30	<28	<50	<50	<61	<61	<60	<50	NA	<16.0	80	<23	<21	<40	54	46	210	87	NA	140	<38	87
SVR-17-5	10/16/2019	ECP	5	<28	<50	<50	<61	<61	<60	<50	NA	<16.0	<32	<23	<21	<40	<50	<22	<44	<22	NA	340	<38	<56
SVR-17-15	10/16/2019	ECP	15	<28	<50	<50	<61	<61	<60	<50	NA	<16.0	<32	<23	<21	<40	<50	<22	<44	<22	NA	270	<38	<56
SVR-17-30	10/16/2019	ECP	30	<28	<50	<50	<61	<61	<60	<50	NA	<16.0	78	<23	<21	<40	<50	<22	<44	<22	NA	210	<38	<56

Note:

USEPA RSL = United States Environmental Protection Agency Regional Screening Level for industrial soil (updated April 2019)

DTSC SL = California Department of Toxic Substances Control (DTSC) Human and Ecological Risk Office (HERO) Human Health Risk Assessment (HHRA) Note 3 Screening Level for residential soil (updated April 2019) Bold indicates that value exceeds laboratory screening level

Italics indicates duplicate sample

Dark blue shaded indicates a concentration which exceeds the industrial USEPA RSL when an attenuation factor of 0.001 is applied.

Light blue shaded indicates a concentration which exceeds the industrial USEPA RSL when an attenuation factor of 0.03 is applied.

Dark gold shaded indicates a concentration which exceeds the industrial DTSC SL when an attenuation factor of 0.001 is applied.

Light gold shaded indicates a concentration which exceeds the industrial DTSC SL when an attenuation factor of 0.03 is applied.

Bgs - Below ground surface

NA = Not analyzed

NS = No standard established

Only detected analytes are included in the table

AF = Attenuation factor

¹ denotes that an attenuation factor of 0.001 one was used to derive the RSL/SL. The industrial air RSL/SL was divided by the attenuation factor.

² denotes that an attenuation factor of 0.03 one was used to derive the RSL/SL. The industrial air RSL/SL was divided by the attenuation factor.

ECP = East City Parcel

WCP = West City Parcel

- 1. Site Location Map
- 2. Soil and Soil Vapor Sampling Locations
- 3. Soil Vapor Sampling Locations and PCE Concentrations
- 4. Soil Vapor PCE Isoconcentration (5 feet bgs)
- 5. Soil Vapor PCE Isoconcentration (15 feet bgs)



\\SRVLACAFP1\LA Shared\Clients\3224.0003L Shopoff Anaheim MHE\L000 & L002\05Workables\Report\Figures\GIS\Figure 1 - Site Location Map.mxd



- 3. ALL CONCENTRATIONS IN MICROGRAMS PER CUBIC METER (µg/m³) EMS SOIL VAPOR PROBE LOCATION AND DESIGNATION
 - 4. EMS SAMPLE DATES: 07/02/2018 AND 07/03/2018
 - 5. PREVIOUS ROUX SAMPLE DATES: 01/11/2019 AND 07/03/2019
 - 6. ROUX ADDITIONAL INVESTIGATION SAMPLE DATE: 09/26/2019

81F-1 (-)

SVR=1

1619

SVR=90

DESIGNATION

PREVIOUS ROUX SOIL VAPOR PROBE LOCATION AND DESIGNATION

ROUX ADDITIONAL INVESTIGATION SOIL VAPOR PROBE LOCATION AND

ADDRESS(ES) ASSOCIATED WITH PARCELS

1619 WEST LINCOLN AVENUE AND WEST CITY PARCEL ANAHEIM, CALIFORNIA

Prepared for

SHOPOFF REALTY INVESTMENTS, LP







