

SR-60/World Logistics Center Parkway



Preliminary Site Investigation

Riverside County, California

City of Moreno Valley

08-RIV-60-PM 20.0/22.0

EA 0M590

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**Subject: Preliminary Site Investigation
Proposed SR-60/WLC Parkway Interchange Improvements
PM 20-22, Bridge No. 56-0488 (N 33.93928, W 117.13927)
EA 0M590, PN 0813000109**

This *Preliminary Site Investigation (PSI)* is presented in support of the *Project Approval and Environmental Document (PA&ED) Phase* of the project. The purpose of the PSI is to develop information on the concentrations of organochlorine pesticides and arsenical herbicides in former agricultural areas within the project boundaries, and the concentrations of total petroleum hydrocarbons and metals in the soil stockpile located on the Metropolitan Water District property. The PSI was conducted in accordance with the California Department of Transportation (Caltrans) Preliminary Site Assessment Guidance (Caltrans, 2007), and establish cost effective management practices of impacted soils during construction that are protective of human health and the environment, complies with federal, state and local regulations, and minimizes long-term liabilities.

This report has been prepared by Leighton Consulting Inc. (Leighton) under the direction of the following registered professional.



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ACRONYM LIST

PSI	-	Preliminary Site Assessment
bgs	-	Below Ground Surface
Caltrans	-	California Department of Transportation
CEQA	-	California Environmental Quality Act
CFR	-	Code of Federal Regulations
CHHSL	-	California Human Health Screening Level
DI	-	Deionized Water
DQO	-	Data Quality Objective
DTSC	-	Department of Toxic Substances Control
EPA	-	Environmental Protection Agency
FHWA	-	Federal Highway Administration
FONSI	-	Finding Of No Significant Impact
ft	-	Foot/Feet
GPS	-	Global Positioning System
HSP	-	Health and Safety Plan
LCS	-	Laboratory Control Sample
LCSD	-	Laboratory Control Sample Duplicate
LOS	-	Level of Service
MDL	-	Method Detection Limit
mg/kg	-	Milligrams per Kilogram
mg/L	-	Milligrams per Liter
mi	-	Mile
MND	-	Mitigated Negative Declaration
MS	-	Matrix Spike
MSD	-	Matrix Spike Duplicate
NAD 83	-	North American Datum of 1983
NEPA	-	National Environmental Policy Act
OSHA	-	Occupational Safety and Health Administration
PARCC	-	Precision, Accuracy, Representativeness, comparability, and Completeness
pH	-	Negative logarithm of the hydrogen ion concentration of a substance in moles per liter.
PM	-	Post Mile
PPE	-	Personal Protective Equipment
PQL	-	Practical Quantitation Limit
QA/QC	-	Quality Assurance/Quality Control
RTP	-	Regional Transportation Plan
RPD	-	Relative Percent Difference
SCAG	-	Southern California Area Governments
SCS	-	Sustainable Communities Strategy
SDG	-	Sample Delivery Group
SI	-	Site Investigation
SR-60	-	State Route 60
STLC	-	Soluble Threshold Limit Concentration
TCLP	-	Toxicity Characteristic Leaching Procedure
TTLC	-	Total Threshold Limit Concentration

UCL - Upper Confidence Level
USA - Underground Service Alert
USC - United States Code
USCS - Unified Soil Classification System
WET-CA - California Waste Extraction Test Citric Acid
WET-DI - California Waste Extraction Test Deionized Water

EXECUTIVE SUMMARY

Leighton Consulting, Inc. (Leighton) performed a Preliminary Site Assessment (PSI) for the State Route 60 (SR-60) Freeway World Logistics Center Parkway (WLC Pkwy) Interchange Improvement Project within the City of Moreno Valley in Riverside County, California (Figure 1). The work has been conducted to assess areas of potential impacted soil within the California Department of Transportation (Caltrans) right-of-way located within the project area.

The subject alignment currently consists of Post Miles (PM) 20-22 and Bridge No. 56-0488 (collectively referred to as the “project”) (see Figure 1 – Site Location Map). SR-60 is predominately a four lane divided urban freeway with two 12-foot wide lanes in each direction. The inside and outside shoulders vary in width due to the steep sloping topography in the area. The structural section of the existing mainline is asphalt concrete pavement.

Historically portions of the current project area were occupied by agricultural row crops, SR-60, and the Theodore Street bridge (Leighton, 2018). The Initial Site Assessment completed by Leighton in 2018, stated that impacted soil from residual organochlorine pesticides (OCPs) and arsenical herbicides may be present in the current project area (Leighton, 2018). An unverified soil stockpile was reported southeast of the intersection of SR-60 and WLC Parkway within the current boundaries of the project area, and sampling of the stockpile for total petroleum hydrocarbons (TPH), OCPs, and Title 22 metals was recommended (Leighton, 2018).

On October 25, and November 10, 2018, total of 28 primary borings and 4 duplicate borings were advanced within the right-of-way of the former agricultural portions of the project area. Discrete soil samples were collected from each boring at 0.5 and 2.5 feet bgs using either a direct push drill rig or a hand auger, depending on boring location conditions (Figure 2).

On November 10, 2018, sampling was performed to assess the potential for impacted soil from the unverified soil stockpile located on APN 422-040-009, owned by the Metropolitan Water District (MWD). Four primary soil borings, and two duplicate soil borings, were advanced to a depth of 10 feet bgs using a direct push drill rig or hand auger (Figure 2). Soil samples were collected at 0.5, 5.0, and 10.0 feet bgs from each boring and analyzed for TPH, OCPs, and Title 22 metals.

The soil samples collected for the Preliminary Site Investigation reported arsenic concentrations ranging from 1.68 mg/kg to 5.72 milligrams per kilogram (mg/kg). The reported concentrations of arsenic were above the US Environmental Protection Agency's (US EPA) Regional Screening Levels (RSLs) and the DTSC HERO Note 3 screening value, for human health risk (residential) scenarios for unrestricted land use. The reported arsenic concentrations were below the DTSC established Southern California ambient background concentration of 12 mg/kg (DTSC, 2008; DTSC, 2016; EPA; 2018). Therefore, arsenic concentrations do not present a health hazard and are below the California and Federal hazardous waste criteria. The reported concentrations of Title 22 metals and OCPs were below the US EPA's RSLs and the DTSC HERO Note 3 screening value, for human health risk (residential) scenarios for unrestricted land use. TPH was not reported above the laboratory reporting limits in the soil samples analyzed during this investigation.

Two previous ADL Surveys were completed by Leighton in 2008 and in 2016 (Leighton 2008, Leighton, 2016). Based on the ADL Surveys data and statistical analysis, tested soil does not represent significant environmental or health hazards and, according to the DTSC draft soil management agreement, the soil located along SR-60 does not meet the definition of ADL-contaminated soil, and can be reused on site. Per the draft soil management agreement, the DTSC must be notified of the project, and a Lead Compliance Plan is required for worker safety.

A hazardous material (HAZMAT) survey was completed for the WLC Pkwy bridge by Vista Environmental for Leighton, and presented in a separate report (Leighton, 2019). The HAZMAT report stated that the lead-based paint materials sampled on the bridge contained lead at a maximum concentration of 220 mg/kg and chromium at a maximum concentration of 3.9 mg/kg (Leighton, 2019). The HAZMAT survey also stated that asbestos containing materials (ACM) were not present in the bridge structure (Leighton, 2019).

Based on the results of the soil samples collected during the Preliminary Site Investigation, the ADL Survey, and the sampled materials collected during the HAZMAT survey, a soil management plan is not recommended.

1.0 INTRODUCTION

1.1 Existing Facilities and Proposed Improvements

The City of Moreno Valley (City), in cooperation with the California Department of Transportation (Caltrans), District 8, proposes to reconstruct and improve the State Route 60 (SR-60)/WLC Pkwy interchange. The majority of the project site is located in the City of Moreno Valley; however, the northeast quadrant of the site is located within unincorporated Riverside County (County) but within the City's Sphere of Influence. The purpose of the project is to alleviate existing and future traffic congestion at the SR-60/WLC Pkwy interchange ramps during peak hours, to improve traffic flow along the freeway and through the interchange, to improve safety by upgrading the geometry at the current interchange, and to provide standard vertical clearance for the WLC Pkwy overcrossing.

The project will be funded with a variety of funding sources including federal sources and local funds and, as such, will be required to comply with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). Caltrans will be the Lead Agency for CEQA, the City is a Responsible Agency under CEQA, and the Federal Highway Administration (FHWA) is the federal Lead Agency for NEPA. The environmental review, consultation, and any other action required in accordance with the applicable federal laws for this project will be carried out by Caltrans under its assumption of responsibility pursuant to 23 United States Code (USC) 327. Therefore, preparation of the NEPA compliance documents, including the technical studies and the environmental document, will have oversight by Caltrans District 8. An Initial Study/Environmental Assessment (IS/EA) (joint CEQA/NEPA document) is being prepared and is anticipated to result in a Mitigated Negative Declaration/Finding of No Significant Impact (MND/FONSI).

Although the City's General Plan Circulation Element designates WLC Pkwy as a Minor Arterial (two lanes in each direction), existing WLC Pkwy through the project limits is one travel lane in each direction, including on the overcrossing over SR-60. Existing SR-60 between Redlands Boulevard and Gilman Springs Road is two mixed-flow travel lanes in each direction. The proposed project would construct modifications to the existing SR-60/WLC Pkwy interchange from Post Mile 20.0 to Post Mile 22.0 on SR-60, a distance of approximately 2 miles (mi). Major improvements to the interchange will include: (1) reconstruction of the westbound and eastbound on- and off-ramps to SR-60, and (2) replacement of

the existing WLC Pkwy overcrossing with an expanded four-lane overcrossing (two through lanes in each direction) with a minimum 16.5-foot (ft) vertical clearance between the eastbound and westbound SR-60 ramps and a six-lane cross-section on WLC Pkwy between the southern limits of the project and the eastbound SR-60 ramps. The proposed improvements to the on- and off-ramps would extend approximately 4,500 ft west and 2,900 ft east of the proposed overcrossing on SR-60 for proposed auxiliary lanes in each direction. The proposed improvements to Theodore Street/WLC Pkwy would extend approximately 2,300 ft north of SR-60 to Ironwood Avenue and approximately 3,200 ft south of SR-60. Project construction is anticipated to begin in early 2022 and be completed in winter 2023.

An existing Caltrans paved material transfer area located in the southwest quadrant of the existing SR-60/WLC Pkwy interchange, within the existing eastbound loop on-ramp, is currently used as a temporary site for the transfer of street sweeping materials. The existing paved material transfer area will be relocated as part of the proposed project.

Three alternatives and two design variations will be evaluated in the environmental document for the proposed project: Alternative 1 (No Build Alternative [no project]), Alternative 2 (Modified Partial Cloverleaf), Alternative 6 (Modified Partial Cloverleaf with Roundabout Intersections), Alternative 2 with Design Variation (Alternative 2a) and Alternative 6 with Design Variation (Alternative 6a). The Design Variations for each Build Alternative are similar and would realign the Eucalyptus Avenue to join WLC Pkwy approximately 900' south of the existing Eucalyptus Avenue/WLC Pkwy intersection. Both Build Alternatives would require six full right of way acquisitions, and there will be partial right-of-way acquisitions within all four quadrants of the interchange. One full acquisition would result in a residential displacement under both Build Alternatives.

During the construction phase of the proposed project, removal of the existing overcrossing and construction of the new overcrossing and ramps would interfere with access to the SR-60 at WLC Pkwy. The WLC Pkwy overcrossing is being evaluated for closure during construction of the proposed project. Therefore, if not done prior to this project, Eucalyptus Avenue would be extended and improved approximately 5,100 ft between WLC Pkwy and Redlands Boulevard to provide a detour route to SR-60. The improvements to Eucalyptus Avenue will be constructed early in the construction schedule, prior to the closure of the WLC

Pkwy overcrossing. North of the freeway, access to SR-60 during construction would be provided via Ironwood Avenue and Redlands Boulevard. South of the freeway, access to SR-60 would be provided via Alessandro Boulevard and Gilman Springs Road and via Eucalyptus Avenue and Redlands Boulevard. Additional intersection improvements are proposed along the detour routes to facilitate vehicle movement. As a result, widening is proposed at the Redlands Boulevard/Ironwood Avenue, WLC Pkwy/Alessandro Boulevard, and Alessandro Boulevard/Gilman Springs Road intersections. Consequently, signal modifications are proposed at the Redlands Boulevard/Ironwood Avenue and Redlands Boulevard/Eucalyptus Avenue intersections. A new signal would be installed at the Gilman Springs Road/Alessandro Boulevard intersection due to the high through movements on Gilman Springs Road conflicting with left turns to and from Alessandro Boulevard. The improvements required for the detour routes also include utility adjustments and/or relocations at Redlands Boulevard/Ironwood Avenue, WLC Pkwy/Alessandro Boulevard, and Alessandro Boulevard/Gilman Springs Road.

Project construction would also involve the import of soils to the project site from a borrow site. One borrow site, the City Stockpile, is located at the northwest corner of the intersection of Alessandro Boulevard and Nason Street, approximately 2.3 mi from the western boundary of the project site. Approximately 50,000 cubic yards of import material will be imported to the project from the City Stockpile borrow site. This project will exhaust the material available at the City Stockpile, and grade out the area after removal. The City Stockpile will be environmentally cleared with this project. Additional fill material beyond the 50,000 cubic yards available from the City Stockpile will be necessary for the project and may come from another environmentally cleared borrow site to be determined during future phases of the project.

1.2 Need and Purpose

The purpose of the proposed project is to:

1. Provide increased interchange capacity, reduce congestion, and improve traffic operations to support the forecast travel demand for the 2045 design year;
2. Improve existing and projected interchange geometric deficiencies; and
3. Accommodate a multimodal facility that has harmony with the community and preserves the values of the area.

The proposed project is needed for the following reasons:

- According to the demographics and growth forecast prepared for the 2016 Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), between 2012 and 2040, Riverside County's population is expected to increase by 41 percent, job growth is anticipated to increase by 90 percent, and households are anticipated to increase by 51 percent. For Moreno Valley specifically, between 2012-2040, population is anticipated to increase by 30 percent, household jobs are anticipated to increase by 165 percent, and households are anticipated to increase by 41 percent. Without improvements, in the year 2045, the eastbound and westbound on-and off- ramps are anticipated to operate at unacceptable levels of service (LOS) (LOS E in the a.m. peak hour and F in the p.m. peak hour, respectively) and the ramp intersections with WLC Pkwy are anticipated to operate at LOS F for both the a.m. and p.m. peak hours. The westbound mainline segment on SR-60 between WLC Pkwy and Redlands Boulevard is anticipated to operate at LOS E during the a.m. peak hour. The Theodore Street intersections with Ironwood Avenue, the SR-60 westbound and eastbound ramps, and Eucalyptus Avenue are forecast to operate at LOS F in the p.m. peak hour.
- The overpass bridge at the interchange was hit in January 2015 and a costly emergency repair project was required, so there is a need to bring vertical clearance up to current standards. In addition, the WLC Pkwy overcrossing is geometrically deficient and needs additional capacity to accommodate projected future travel volumes.
- This project will fulfill the need to accommodate the movement of people using multiple modes of transportation by community-based design taking into consideration the natural environment, social environment, transportation behavior, cultural characteristics and economic environment.

2.0 SAMPLING STRATEGY AND RATIONALE

The SR-60 and WLC Parkway Interchange Improvement project Preliminary Site Investigation was performed to investigate the recognized environmental conditions identified during the Initial Site Assessment (Leighton Consulting, 2018):

- Based on the historical use of some potential right-of-way properties for agricultural purposes, residual organochlorine pesticides (OCPs) and arsenical herbicides may exist in the subsurface soil.
- A soil stockpile from an unverified source is located southeast of the intersection of SR-60 and WLC Pkwy and is a partial right-of-way acquisition and slope easement parcel.

Based on the findings of the ISA, Leighton Consulting recommended:

- Soil sampling should be performed in proposed right-of-way acquisitions in areas of current and historical agriculture use to evaluate for OCPs and arsenical herbicides.
- Soil sampling should be performed in the proposed right-of-way and slope easement parcel in the area of the soil stockpile to evaluate for TPH, OCPs, and Title 22 metals.

3.0 PRE-FIELD ACTIVITIES

3.1 Health and Safety Plan

In accordance with standard environmental procedures, we prepared a Health and Safety Plan (HSP) describing safety aspects of the work to be performed at the Site. The HSP was prepared in compliance with the Occupational Safety and Health Administration (OSHA) regulation 29 CFR 1910.120 and reviewed by a certified industrial hygienist in accordance with Caltrans Guidelines (Caltrans, 2007c). The HSP contains information on chemical and physical hazards, emergency response plans, and information on routes to hospitals and emergency contacts. The site-specific HSP was on site during field activities and reviewed and signed by each of the site personnel.

3.2 Utilities

We contacted Underground Service Alert (USA) a minimum of 48 hours prior to the commencement of subsurface field activities as required by law. Our field personnel met with representatives of the utility services in the field to locate existing utility lines. Utility maps provided by the project engineer were loaded into global positioning system (GPS) software and utilized by field personnel during the investigation to evaluate potential utility conflicts. No utilities were encountered during field operations.

3.3 Encroachment Permit

An encroachment permit was issued for the fieldwork conducted within the existing Caltrans right-of-way. The encroachment permit number is referenced as 08-18-A-DP-0834 and is dated August 15, 2018, and expires on August 27, 2019. Due to the proposed sampling activities within APN 422-040-009, an entry permit was granted by Metropolitan Water District (MWD), owner of the property. The Entry Permit number is referenced as RL3343. We notified the inspector 10 days prior to field sampling activities per the permit requirements.

3.4 Traffic Control

Traffic control was not needed during the sampling activities for the PSI.

4.0 FIELD INVESTIGATION

4.1 Preliminary Site Investigation

On October 25, and November 10, 2018, field personnel observed and directed the advancement of 28 agricultural soil borings to a maximum depth of 2.5 feet below ground surface (bgs), and four soil stockpile borings to a maximum depth of 10.0 feet bgs within the unverified soil stockpile located in the eastern portion of the project area. The agricultural soil samples were collected from each soil boring at depths of 0.5, and 2.5 feet bgs, using a direct push drill rig or hand auger. The unverified soil stockpile soil samples were collected from each soil boring at depths of 0.5, 5.0 and 10.0 feet bgs using a direct push drill rig or hand auger.

4.2 Sample Collection

Level D Personal Protective Equipment (PPE) was worn during field activities. This equipment included work clothes, steel-toed boots, hard hats, and traffic vests. A new pair of latex or nitrile gloves was worn when collecting each sample. The soils were described and classified using the Unified Soil Classification System (USCS) and description of visible evidence of soil contamination (e.g., odor, staining) was recorded on the boring log by the field geologist during sampling activities. Soil sample logs have been provided in Appendix A. Boreholes were backfilled with bentonite chips and hydrated with tap water.

The location of each borehole was measured by GPS equipment. Horizontal coordinates were calculated within an accuracy of 3 feet and reported in decimal degree units in accordance with the North American Datum of 1983 (NAD 83). Boring locations are depicted on Figure 2. Coordinates of each borehole have been provided in Appendix B.

4.3 Equipment Decontamination

Non-dedicated sampling equipment (i.e., hand auger, direct push sampler) was decontaminated before and after each sample was collected using the following procedures:

- Detergent wash scrub in first 5-gallon bucket
- Potable water rinse in second 5-gallon bucket
- Distilled water rinse in third 5-gallon bucket
- Final distilled water rinse pumped or poured directly from distilled water container into the third 5-gallon bucket

The equipment decontamination station, consisting of three 5-gallon buckets, was located on the opposite side of the direct push drill rig away from the sample preparation area. Sampling equipment was placed on clean Visqueen to dry. Each 5-gallon bucket was contained on top of plastic sheeting.

4.4 Sampling Containers, Preservation, and Holding Times

A summary of the Sampling and Analysis Program is presented in Table 1. The direct push soil samples were collected in new acetate sleeves, which were cut at the appropriate sampling depth in the field with a decontaminated hacksaw and sealed with Teflon sheets and tight-fitting plastic end caps and labeled with sample point identification. Each sample was placed in an ice chest cooled to approximately 4 degrees Celsius for storage and transportation under chain-of-custody procedures to Enviro-Chem, Inc. (Enviro-Chem) in Pomona, California, a State of California Certified laboratory.

4.5 Sampling Handling and Storage

In the field, each sample container was marked prior to sample collection with the sampling location number, depth, date and time of sample collection, sampler's name, type of analysis, and preservative used. Each of the sample containers was wiped with clean paper towels, sealed in Ziploc bags, and securely packed in a cooler on ice in preparation for delivery to the laboratory.

4.6 Sample Custody

For each sample that was submitted to the laboratory for analysis, an entry was made on the chain-of-custody form supplied by the laboratory. The information recorded included the sampling date and time, sample identification number, matrix type, requested analyses and methods, preservatives, and the sampler's name. Sampling team members maintained custody of the samples until they were relinquished to laboratory personnel. The chain-of-custody form accompanied the samples from the time of collection until received by the laboratory. Each party taking possession of the samples signed the chain-of-custody form signifying receipt. A copy of the original completed forms was provided by the laboratory along with the report of results. Copies of the chain-of-custody forms have been provided with the laboratory reports in Appendix C.

5.0 LABORATORY ANALYSIS

5.1 Analytical Methods Requirements

Analytical procedures applicable to samples obtained from the site are presented below. The reporting limits (practical quantitation limit) for each analyte tested are provided in the laboratory reports provided in Appendix C. Enviro-Chem, Inc., is certified by the Department of Public Health, Environmental Laboratory Accreditation Program (ELAP), certificate number 1555, for each analytical method performed for this investigation.

5.2 Preliminary Site Investigation

5.2.1 Agricultural Investigation

On October 25, 2018, a total of 23 primary borings and 3 duplicate borings for a total of 26 borings were advanced at the previously selected locations within the right-of-way of the former agricultural portions of the project area. Borings were advanced to a depth of 2.5 feet and discrete soil samples were collected from each boring at the depths of 0.5 and 2.5 feet bgs using either a direct push drill rig or a hand auger, depending on boring location conditions.

On November 10, 2018, the remaining borings for sample locations P020 and P025 through P028 were advanced at the previously selected locations within the right-of-way of the former agricultural portions of the project area to a maximum depth of 2.5 feet bgs. Discrete soil samples were collected from each boring at the depths of 0.5 and 2.5 feet bgs using either a direct push drill rig or a hand auger, depending on boring location conditions.

The 0.5 foot samples were analyzed for OCPs by EPA Method 8081A, and arsenic by EPA Method 6010B. The deeper 2.5 foot samples were held pending the results of the surface samples.

5.2.2 Soil Stockpile Investigation

On November 10 2018, a total of 4 primary borings and 2 duplicate borings for a total of 6 borings were advanced in the unverified soil stockpile located in the southeast quadrant of the project site. Discrete soil samples were collected from each soil boring at depths of 0.5, 5.0, and 10.0 feet bgs using either a direct push drill rig or a hand auger, depending on boring location conditions.

The 0.5 foot samples were analyzed for OCPs by EPA Method 8081A, TPH by EPA Method 8015B, and Title 22 metals by EPA Methods 6010B/7471A. The deeper 2.5 foot samples were held pending the results of the surface samples.

6.0 QUALITY ASSURANCE PROJECT PLAN (QAPP)

We recognize that data quality comes from several different procedures, including field procedures, documentation procedures, and quality assurance/quality control (QA/QC) procedures. The necessary QA/QC procedures were performed in accordance with acceptable protocols. Sampling and analysis procedures, personnel requirements, chain-of-custody and documentation requirements, and specific criteria for evaluating data acceptability can be traceable.

We collected two types of QC samples: field duplicate samples and field equipment blank samples.

6.1 Field Duplicate Samples

Field duplicate samples were collected at a rate of 10% of the primary samples. Sets of samples (primary and duplicate) from a single source from adjacent borings were prepared, labeled with unique sample numbers, and submitted to the laboratory without cross-referencing data and without identification as duplicates on the parameter request sheet. Field duplicates were designated by adding 500-series numbers to the primary sample location numbers (e.g., A504-0.5).

6.2 Field Equipment Blanks

Field equipment blanks were prepared in the field to evaluate whether a sampling device (e.g., direct push sampler) had been effectively cleaned. The sampling device was decontaminated in accordance with the procedures described above. Metal-free, deionized water was then poured through the device, transferred to the appropriate sample bottles, preserved, and returned to the laboratory for analysis. One equipment blank was collected per sampling tool used at the site each day. The equipment blank was analyzed for constituents of concern. Equipment blanks were designated with E-series numbers and results are summarized on Table 2. Title 22 metals, OCPs, arsenic, and TPH were not reported above the practical quantitation limits (PQLs) in the equipment blanks analyzed.

6.3 Quality Control Soil Analysis Results

The analytical results of the field duplicates are summarized in Table 2. As a measure of sample precision, the analytical results of the field duplicates were compared to those of the co-located primary samples (Table 3).

Precision is expressed as the relative percent difference (RPD):

$$\text{RPD} = [(D1-D2)/\{1/2(D1+D2)\}] \times 100$$

Where D1 and D2 are the reported concentrations for the primary sample and duplicate analyses, respectively.

Sample results reported below the method detection limit are considered identical, and no RPD is calculated. Only sample results above the practical quantitation limit (PQL) are used in the RPD comparison.

6.3.1 RPD

The RPDs for the OCPs and Title 22 metals duplicate pairs reported above the PQL ranged from 1.41% to 52.2% (Table 5). A relative percent difference of less than 100% indicates good agreement between the reported concentrations of the primary soil samples and the duplicate soil samples.

7.0 RESULTS OF INVESTIGATION

This investigation includes the collection of 73 soil samples (including duplicate samples) from 32 soil borings in accordance with the approved workplan (Leighton, 2015b) during this investigation.

7.1 Agricultural Soil Samples

The 0.5 foot soil samples, collected from this investigation were analyzed for OCPs and arsenic, summarized in Tables 2 and 3. The samples collected at 2.5 feet bgs were held pending the analysis of the surficial soil samples.

7.1.1 OCPs

The OCP 4,4'-DDE was detected in 21 of the twenty soil samples analyzed at concentrations ranging from 0.001 milligrams per kilogram (mg/kg) to 0.108 mg/kg. The concentrations of 4,4'-DDE were each below their US EPA residential RSLs of 2.0 mg/kg.

7.1.2 Arsenic

Arsenic was detected in the soil samples at concentrations ranging from 1.68 mg/kg to 5.72 mg/kg. The reported concentrations of arsenic were above the US EPA's Regional Screening Level of 0.68 mg/kg and the DTSC HERO Note 3 screening value of 0.11 mg/kg, for human health risk scenarios for unrestricted land use (residential). The reported arsenic concentrations were below the DTSC established Southern California ambient background concentration of 12 mg/kg (DTSC, 2008; DTSC, 2016; EPA; 2018). Therefore, arsenic concentrations do not present a health hazard and are below the California and Federal hazardous waste criteria.

7.2 Unverified Soil Stockpile Soil Samples

Four soil borings were advanced using a direct push drill rig and/or hand auger to a depth of 10 feet bgs to assess the presence of impacts due to the unknown source of the stockpile (Figure 2). Soil samples were collected at 0.5, 5, and 10 feet bgs from each boring and analyzed for TPH, OCPs, and Title 22 metals.

7.2.1 OCPs

Organochlorine pesticides were not reported in concentrations above the laboratory reporting limit in the soil stockpile samples analyzed during our investigation (Table 2).

7.2.2 Title 22 Metals

Title 22 metals were not reported in concentrations above their respective US EPA residential RSLs with the exception of arsenic (Table 3). Arsenic was detected in the soil samples at concentrations ranging from 0.242J mg/kg to 2.59 mg/kg. The reported concentrations of arsenic were above the US EPA's RSL of 0.68 mg/kg and the DTSC HERO Note 3 screening value of 0.11 mg/kg, for unrestricted land use. The reported arsenic concentrations were below the DTSC established Southern California ambient background arsenic concentration of 12 mg/kg (DTSC, 2008; DTSC, 2016; EPA; 2018). Therefore, arsenic concentrations do not present a health hazard and are below the California and Federal hazardous waste criteria.

7.2.3 TPH

Total petroleum hydrocarbons were not reported in concentrations above the laboratory reporting limit in the soil stockpile samples analyzed during our investigation (Table 4).

8.0 CONCLUSIONS AND RECOMMENDATIONS

The soil samples for the Preliminary Site Investigation reported arsenic concentrations ranging from 1.68 mg/kg to 5.72 mg/kg. The reported concentrations of arsenic were above the US EPA's RSLs and the DTSC HERO Note 3 screening value for unrestricted land use. The reported arsenic concentrations were below the DTSC established Southern California ambient background arsenic concentration of 12 mg/kg (DTSC, 2008; DTSC, 2016; EPA; 2018). Therefore, arsenic concentrations do not present a health hazard and are below the California and Federal hazardous waste criteria. The reported concentrations of Title 22 metals and OCPs were below the US EPA's RSLs and the DTSC HERO Note 3 screening value, for unrestricted land use. Total petroleum hydrocarbons were not reported above the laboratory reporting limits in the soil samples analyzed during this investigation.

The most recent ADL Survey was completed by Leighton in 2016 (Leighton, 2018b). A previous ADL survey was completed by Leighton in 2008 (Leighton, 2008). Based on the ADL Surveys data and statistical analyses, tested soil does not represent significant environmental or health hazards and, according to the DTSC draft soil management agreement, the soil located along SR-60 does not meet the definition of ADL-contaminated soil, and can be reused on site. Per the draft soil management agreement, the DTSC must be notified of the project, and a Lead Compliance Plan is required for worker safety.

In addition a hazardous material survey has been completed and presented in a separate report completed by Vista Environmental including (Leighton, 2019):

- An asbestos survey on the WLC Pkwy bridge structure which is proposed to be modified as a result of this project. The HAZMAT report stated that asbestos-containing material was not present in the bridge structure (Leighton, 2019).
- A lead-based paint survey on the WLC Pkwy bridge structure which is proposed to be modified as a result of this project. The HAZMAT report stated that lead-based paint materials containing lead above 600 mg/kg were not detected in the paint sampled within the project area (Leighton, 2019).
- Sampling and analysis of yellow striping performed in accordance with Construction Program Procedure Bulletin 99-2 (Caltrans, 2006). The HAZMAT report stated that yellow pavement striping observed in the median of the World Logistics Center Parkway (formally Theodore Street) contained lead at a maximum concentration of 220 mg/kg and chromium at a maximum concentration of 3.9 mg/kg (Leighton,

2017b). Recommendations and requirements for the yellow-striping paint were explained in the HAZMAT report (Leighton, 2019).

Based on the results of the soil samples collected during the Preliminary Site Investigation, the ADL survey and the samples collected during the HAZMAT survey, a soil management plan is not recommended.

9.0 REFERENCES

- California Department of Transportation, 2007a, Caltrans environmental reporting guidance, June 2007.
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- California Department of Transportation, 2007c, Caltrans remediation guidance, June 2007.
- California Department of Transportation, 2007d, Caltrans site investigation guidance, June 2007.
- California Department of Transportation, 2006, Project development procedures manual, Chapter 18, February 28, 2006.
- California Environmental Protection Agency, Department of Toxic Substances Control (DTSC), 2016a, Soil Management Agreement for Preliminary Site Assessment-Contaminated Soils, Department of Toxic Substances Control, May 2016.
- Leighton and Associates, Inc., 2008, Aerially Deposited Lead (ADL) Survey Report, SR-60 East Bound Widening Between Theodore Street and Redlands Boulevard, Moreno Valley, Riverside County, California, Project Number 111061-115, dated August 22, 2008. (included as Appendix D)
- Leighton Consulting, Inc., 2015a, Health and Safety Plan, SR-60/Theodore Street Interchange Project, Aerially Deposited Lead Survey and Preliminary Site Investigation, Project Number 10326.001, dated July 15, 2015.
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- Leighton Consulting, Inc., 2015c, Initial Site Assessment, SR-60/Theodore Street Interchange Project, Riverside County California, 08-RIV-60-PM 20.0/22.0, EA 0M5900, dated December 2015.
- Leighton Consulting, Inc., 2018a, Initial Site Assessment, SR-60/World Logistics Center Parkway Interchange Project, Riverside County California, 08-RIV-60-PM 20.0/22.0, EA 0M5900, dated December 2018. Update.
- Leighton Consulting, Inc., 2018b, Aerially Deposited Lead Survey, SR-60/World Logistics Center Parkway Interchange Project, Riverside County California, 08-RIV-60-PM 20.0/22.0, EA 0M5900, dated December 2018. Update.

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State of California, Environmental Protection Agency, California Department of Toxic Substances Control, 2015. Extension of Statewide Variance NO. VO9HQSCD006 for Caltrans November 30, 2015.

United States Environmental Protection Agency (EPA), 2007, Test methods for evaluating solid waste, physical/chemical methods (SW-846).

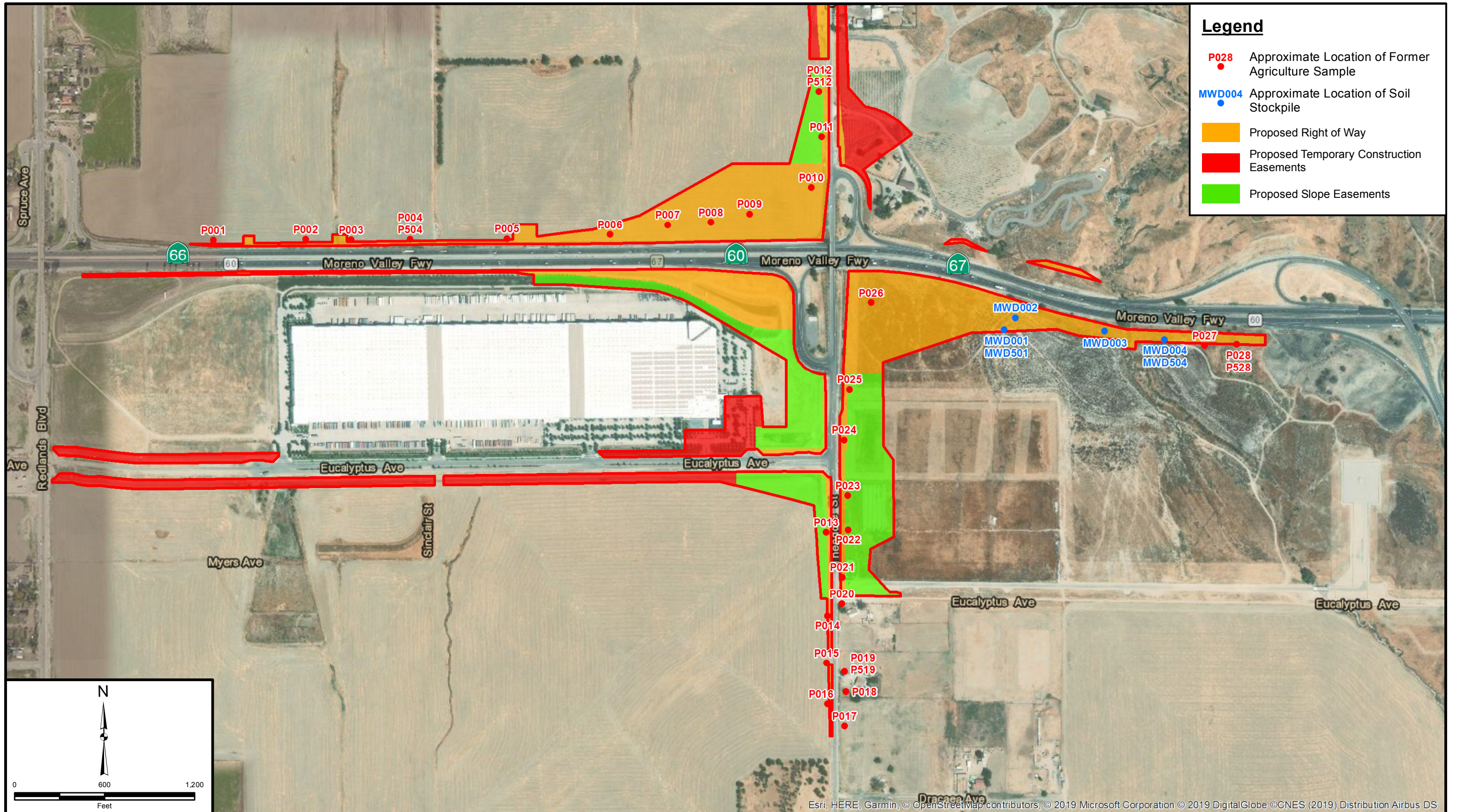


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Scale: 1" = 4,000'	Date: March 2018
Base Map: ESRI ArcGIS Online 2018 Thematic Information: Leighton Author: Leighton Geomatics (mmurphy)	

SITE LOCATION MAP
 SR/60 WLC Parkway Interchange Improvements Project
 Moreno Valley, California

Figure 1

Leighton



Legend

- P028 Approximate Location of Former Agriculture Sample
- MWD004 Approximate Location of Soil Stockpile
- Proposed Right of Way
- Proposed Temporary Construction Easements
- Proposed Slope Easements

N

0 600 1,200

Feet

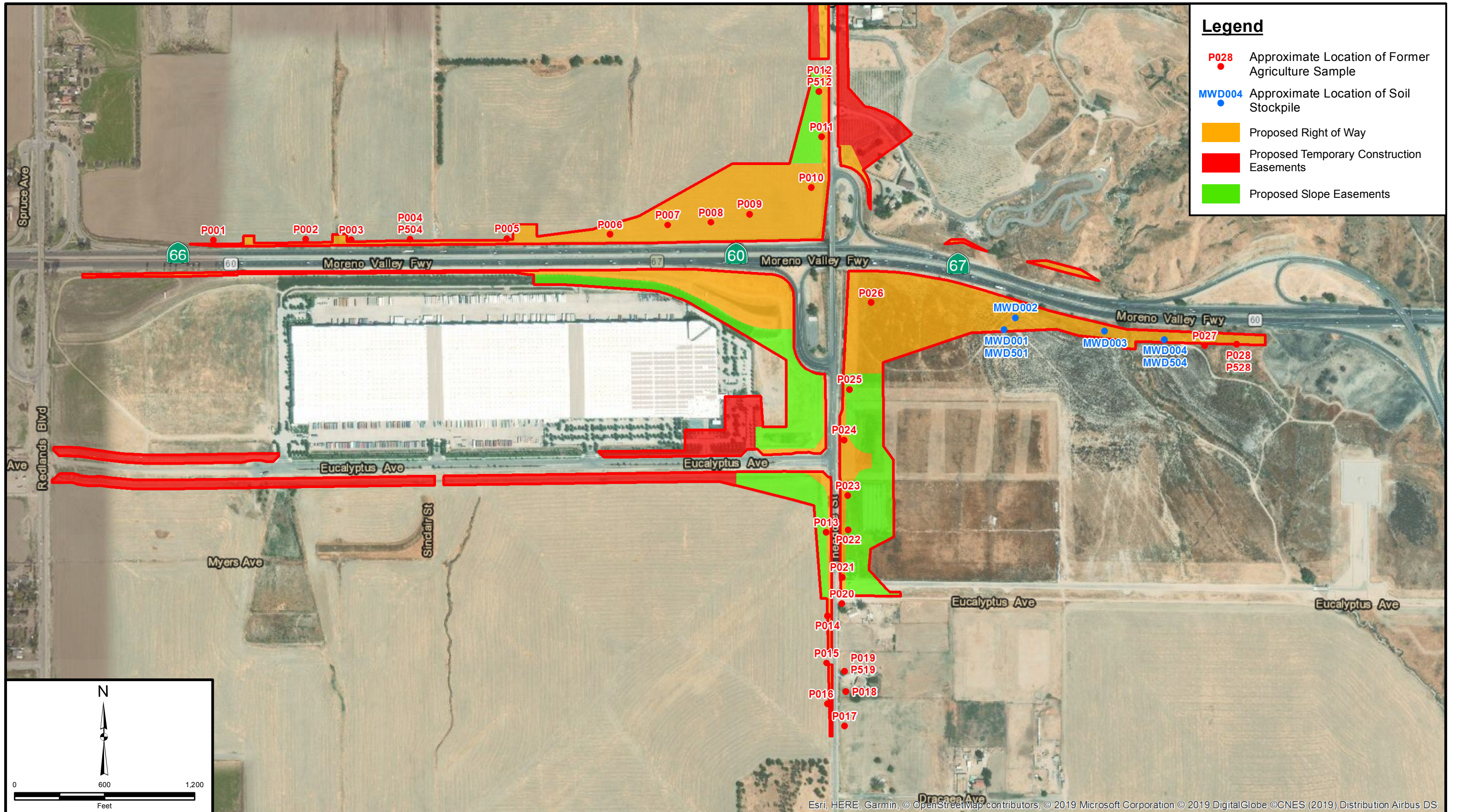
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Scale: 1" = 600'	Date: March 2019
Base Map: Bing Maps, 2016 2019 Thematic Information: Leighton Author: Leighton Geomatics (mmurphy)	

SAMPLE LOCATION MAP - ALTERNATIVE 2
 SR 60/WLC Parkway Interchange Improvements Project
 Moreno Valley, California

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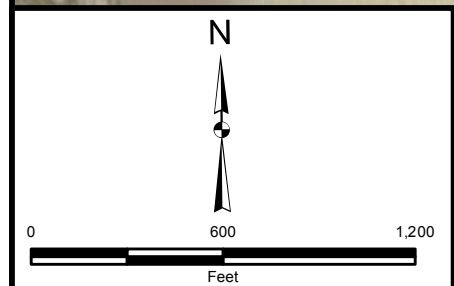
Figure 2

Leighton



Legend

- P028 Approximate Location of Former Agriculture Sample
- MWD004 Approximate Location of Soil Stockpile
- Proposed Right of Way
- Proposed Temporary Construction Easements
- Proposed Slope Easements



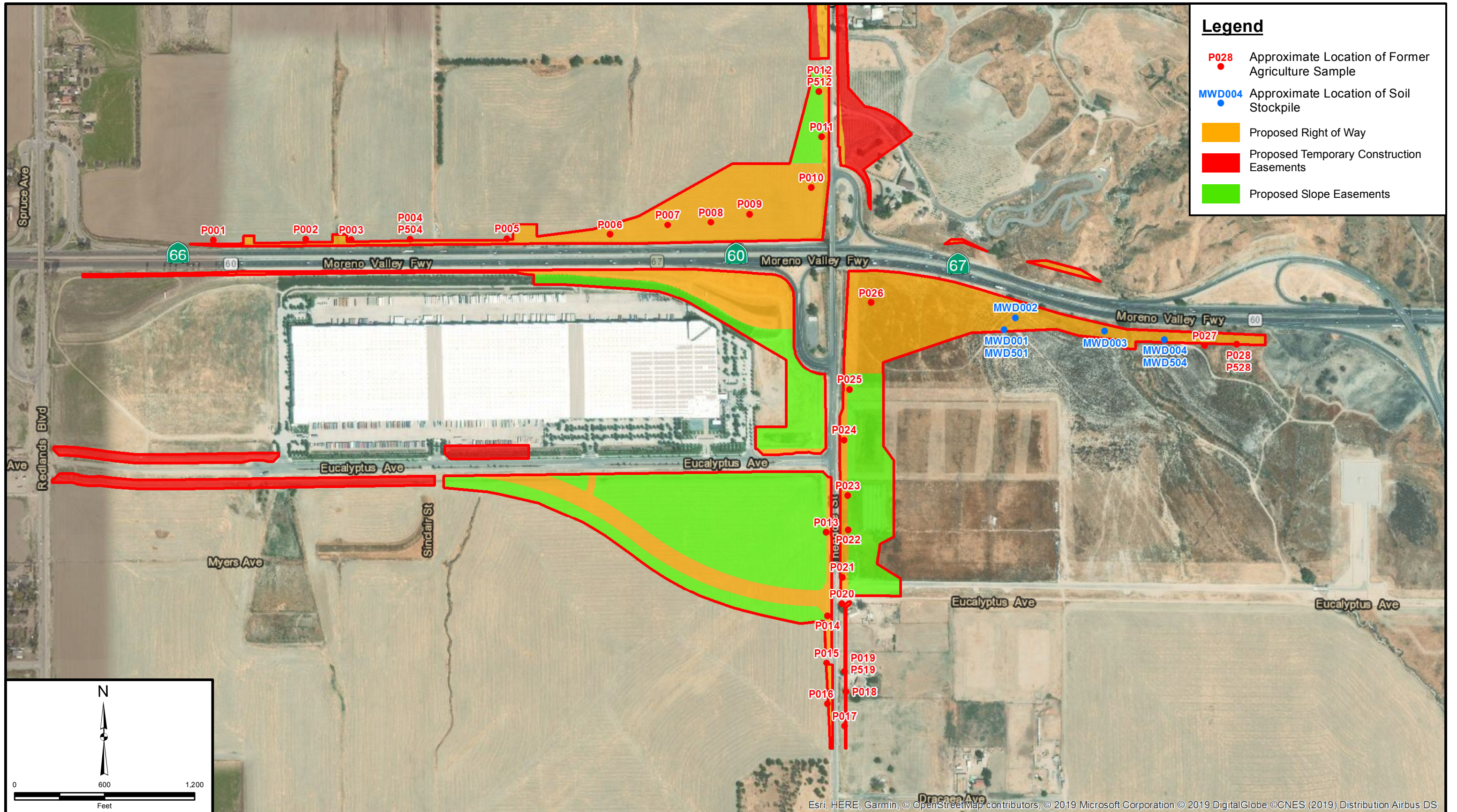
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Project: 10326.001	Eng/Geol: ZAF
Scale: 1" = 600'	Date: March 2019
Base Map: Bing Maps, 2016 2019 Thematic Information: Leighton Author: Leighton Geomatics (mmurphy)	

SAMPLE LOCATION MAP - ALTERNATIVE 6
 SR 60/WLC Parkway Interchange Improvements Project
 Moreno Valley, California

Figure 2b

Leighton



Legend

- P028 Approximate Location of Former Agriculture Sample
- MWD004 Approximate Location of Soil Stockpile
- Proposed Right of Way
- Proposed Temporary Construction Easements
- Proposed Slope Easements

North arrow pointing up with 'N' above it.

Scale bar: 0, 600, 1,200 Feet.

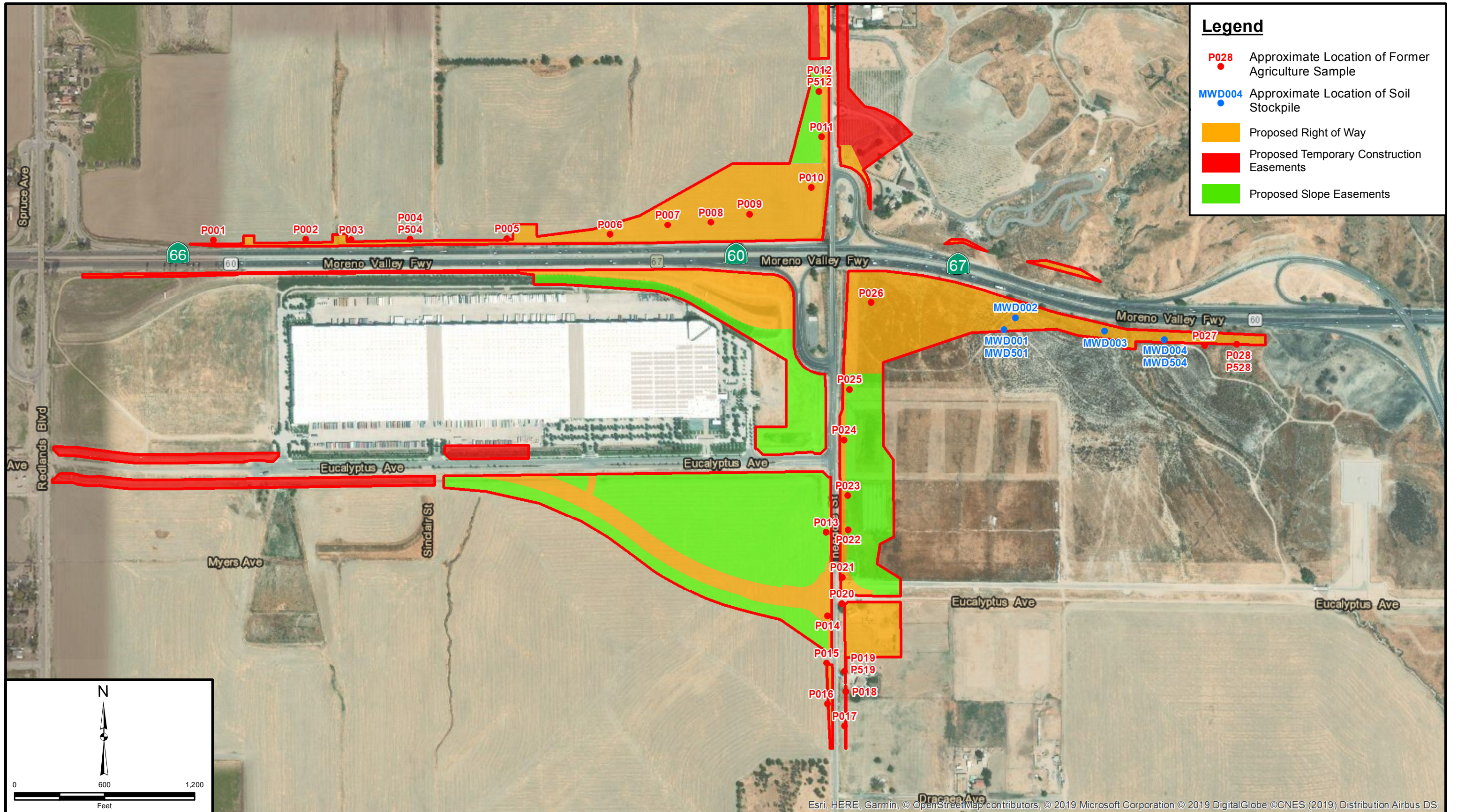
Project: 10326.001	Eng/Geol: ZAF
Scale: 1" = 600'	Date: March 2019
Base Map: Bing Maps, 2016-2019 Thematic Information: Leighton Author: Leighton Geomatics (mmurphy)	

SAMPLE LOCATION MAP - DESIGN VARIATION 2A
 SR 60/WLC Parkway Interchange Improvements Project
 Moreno Valley, California

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Figure 2c

Leighton



Legend

- P028 Approximate Location of Former Agriculture Sample
- MWD004 Approximate Location of Soil Stockpile
- Proposed Right of Way
- Proposed Temporary Construction Easements
- Proposed Slope Easements

North Arrow

0 600 1,200
Feet

Project: 10326.001	Eng/Geol: ZAF
Scale: 1" = 600'	Date: March 2019
Base Map: Bing Maps, 2016 2019 Thematic Information: Leighton Author: Leighton Geomatics (mmurphy)	

SAMPLE LOCATION MAP - DESIGN VARIATION 6A
 SR 60/WLC Parkway Interchange Improvements Project
 Moreno Valley, California

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Figure 2d

Leighton

TABLE 1
SUMMARY OF SAMPLING AND ANALYSES PROGRAM
SR-60/WLC Interchange Improvement Project
Moreno Valley
Riverside County, California

Sample Location/ Number	General Parameters	Test Method of Analyses	Container	Preservative	Holding Time
Historical Agricultural Areas Fifty six (56) soil samples were collected at the depths of 0.5 and 2.5 feet bgs (P001 through P028) The soil samples were collected in the historical agricultural areas located within the proposed right-of-way, temporary construction, and slope easement parcels. The soil samples were analyzed for organochlorine pesticides (OCPs) by EPA Method 8081A and arsenic by EPA Method 6010B. The twenty eight 2.5-foot bgs soil samples were held pending the initial laboratory analysis.	OCPs	EPA 8081A	Acetate Sleeve	4 °C	14 days to extraction, 40 days to analysis
	Arsenic	EPA 6010B	Acetate Sleeve	4 °C	180 days
Soil Stockpile Twelve soil samples were collected from four locations (SS001 through SS004). Soil samples were collected from depths of 0.5 feet, 5.0 feet and 10.0 feet bgs. The soil samples were analyzed for total petroleum hydrocarbons (TPH) carbon chain (C6 through C40), OCPs, and metals.	OCPs	EPA 8081A	Acetate sleeve	4 °C	14 days to extraction, 40 days to analysis
	CAM-17 Metals	EPA 6010B/7471A	Acetate sleeve	4 °C	180 days (28 days mercury)
	TPH (C6 through C40)	EPA 8015B	Acetate sleeve	4 °C	14 days to extraction, 40 days to analysis

TABLE 1
SUMMARY OF SAMPLING AND ANALYSES PROGRAM
SR-60/WLC Interchange Improvement Project
Moreno Valley
Riverside County, California

QA/QC SAMPLES					
Sample Description	General Parameters	Test Method of Analyses	Container	Preservative	Holding Time
<p>Duplicate Samples were collected at a minimum 10% rate of the primary samples. Twelve duplicate samples were collected from the former agricultural borings. Samples were analyzed for OCPs and arsenic.</p> <p>Three duplicate samples were collected from the historical agricultural area borings. Samples were analyzed for OPCs and arsenic.</p> <p>Two duplicate soil samples were collected from the soil stockpile area. Samples were analyzed for TPH, OCPs, and metals.</p> <p>Field duplicate samples were designated with 500-series numbers (e.g., P504-0.5).</p>	OCPs	EPA 8081A	Acetate sleeve/4 oz. glass jar	4 °C	14 days to extraction, 40 days to analysis
	Arsenic	EPA 6010B	Acetate sleeve/4 oz. glass jar	4 °C	180 days
	CAM-17 Metals	EPA 6010B/7471A	Acetate sleeve/4 oz. glass jar	4 °C	180 days (28 days mercury)
	TPH (C6 through C40)	EPA 8015B	Acetate sleeve/4 oz. glass jar	4 °C	14 days to extraction, 40 days to analysis
<p>Equipment Blanks were collected at the end of each sampling day by pouring distilled water through each decontaminated sampling device and collecting the water in an appropriate sample container. Equipment blank samples were designated as E-series (e.g., E046, E047).</p>	OCPs	EPA 8081A	1 L amber glass	NA ₂ S ₂ O ₃	14 days to extraction, 40 days to analysis
	Arsenic	EPA 6010B	250 ml HDPE	HNO ₃	180 days
	CAM-17 Metals	EPA 6010B/7471A	250 ml HDPE	HNO ₃	180 days (28 days mercury)
	TPH (C6 through C40)	EPA 8015B	500 ml amber glass	HCl	14 days to extraction, 40 days to analysis

Table 2
Summary of OCPs in Soil
 SR-60/WLC Interchange Improvement Project
 Moreno Valley
 Riverside County, California

Sample Number (Depth in Feet)	Sample Date	Aldrin	alpha-BHC	beta-BHC	Lindane	delta-BHC	alpha-Chlordane	gamma-Chlordane	Technical Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Endrin Keytone	Heptachlor Epoxide	Heptachlor	Methoxychlor	Toxaphene	DF
		(mg/kg)																						
Duplicate Soil Samples																								
P504-0.5	10/25/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.001	0.0006J	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.020	1
P512-0.5	10/25/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.020	1
P519-0.5	10/25/2018	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.250	< 0.050	0.108	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 1.000	50
P528-0.5	10/25/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.020	1
MWD501-5.0	11/10/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.020	1
MWD504-5.0	11/10/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.020	1
Equipment Blank																								
E001	10/25/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.020	1
E001	11/10/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.020	1
Maximum Site Concentration																								
											0.108													
Residential RSLs		0.039	0.086	0.3	0.57	NE	NE	NE	1.7	2.3	2.0	1.9	0.034	470	NE	NE	19	NE	NE	0.070	0.13	320	0.49	-
Commercial/Industrial RSLs		0.18	0.36	1.3	2.5	NE	NE	NE	7.7	9.6	9.3	8.5	0.14	7,000	NE	NE	250	NE	NE	0.33	0.63	4100	2.1	-

NOTES:

Bolded analytical results are above the method detection limit

RSL = US EPA Region IX Regional Screening Levels November 2017

J = Indicates a trace concentration between method detection limit and practical quantitation limit

mg/kg = milligrams per kilogram

<0.001 = analyte not detected above practical quantitation limit

Blue highlighted cells indicate concentrations above RSLs

NE = None Established

BHC = Benzene hexachloride

Table 3
Summary of Metals in Soil
 SR-60/WLC Interchange Improvement Project
 Moreno Valley
 Riverside County, California

Sample Number (Depth in Feet)	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium Total	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	DF
		(mg/kg)																	
Agricultural Investigation																			
P001-0.5	10/25/2018	-	1.78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P002-0.5	10/25/2018	-	2.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P003-0.5	10/25/2018	-	1.68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P004-0.5	10/25/2018	-	1.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P005-0.5	10/25/2018	-	3.38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P006-0.5	10/25/2018	-	1.84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P007-0.5	10/25/2018	-	2.14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P008-0.5	10/25/2018	-	5.72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P009-0.5	10/25/2018	-	2.34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P010-0.5	10/25/2018	-	2.51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P011-0.5	10/25/2018	-	1.69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P012-0.5	10/25/2018	-	2.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P013-0.5	10/25/2018	-	2.33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P014-0.5	10/25/2018	-	2.66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P015-0.5	10/25/2018	-	2.76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P016-0.5	10/25/2018	-	2.83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P017-0.5	10/25/2018	-	3.32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P018-0.5	10/25/2018	-	3.09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P019-0.5	10/25/2018	-	3.18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P020-0.5	11/10/2018	-	2.32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P021-0.5	10/25/2018	-	2.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P022-0.5	10/25/2018	-	2.71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P023-0.5	10/25/2018	-	2.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P024-0.5	10/25/2018	-	2.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P025-0.5	11/10/2018	-	2.29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P026-0.5	11/10/2018	-	2.68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P027-0.5	11/10/2018	-	3.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P028-0.5	11/10/2018	-	4.44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Soil Stockpile Investigation																			
MWD1-0.5	11/10/2018	< 1.00	0.242J	58.7	< 0.50	< 0.50	32.8	10.6	15.9	2.51	< 0.01	< 5.00	11.7	< 1.00	< 1.00	< 1.00	60.7	46.7	1
MWD1-5.0	11/10/2018	< 1.00	2.06	38.3	< 0.50	< 0.50	14.2	6.33	11.8	5.22	< 0.01	< 5.00	7.14	< 1.00	< 1.00	< 1.00	28.5	35.4	1
MWD1-10.0	11/10/2018	< 1.00	2.59	68.1	< 0.50	< 0.50	33.3	8.95	16.6	3.53	< 0.01	< 5.00	17.6	< 1.00	< 1.00	< 1.00	37.0	45.0	1
MWD2-0.5	11/10/2018	< 1.00	0.64	57.3	< 0.50	< 0.50	35.9	10.6	16.0	3.16	< 0.01	< 5.00	14.9	< 1.00	< 1.00	< 1.00	50.1	49.2	1
MWD2-5.0	11/10/2018	< 1.00	0.728	41.6	< 0.50	< 0.50	25.9	9.25	17.9	2.54	< 0.01	< 5.00	10.7	< 1.00	< 1.00	< 1.00	48.6	42.3	1
MWD2-10.0	11/10/2018	< 1.00	2.22	30.8	< 0.50	< 0.50	10.5	4.61	8.37	2.34	< 0.01	< 5.00	5.44	< 1.00	< 1.00	< 1.00	20.7	24.2	1
MWD3-0.5	11/10/2018	< 1.00	2.37	46.6	< 0.50	< 0.50	16.7	6.89	12.8	5.85	< 0.01	< 5.00	8.21	< 1.00	< 1.00	< 1.00	31.7	37.5	1
MWD3-5.0	11/10/2018	< 1.00	2.57	47.3	< 0.50	< 0.50	15.9	6.84	12.1	2.86	< 0.01	< 5.00	8.43	< 1.00	< 1.00	< 1.00	32.1	32.8	1
MWD3-10.0	11/10/2018	< 1.00	2.25	34.8	< 0.50	< 0.50	13.1	5.49	9.26	2.42	< 0.01	< 5.00	6.51	< 1.00	< 1.00	< 1.00	24.2	27.5	1
MWD4-0.5	11/10/2018	< 1.00	2.38	67.4	< 0.50	< 0.50	21.6	9.10	18.2	7.41	< 0.01	< 5.00	11.4	< 1.00	< 1.00	< 1.00	39.1	50.2	1
MWD4-5.0	11/10/2018	< 1.00	1.47	23.4	< 0.50	< 0.50	9.62	3.99	6.47	1.70	< 0.01	< 5.00	4.79	< 1.00	< 1.00	< 1.00	17.0	22.8	1
MWD4-10.0	11/10/2018	< 1.00	2.19	24.3	< 0.50	< 0.50	9.67	4.09	7.08	1.76	< 0.01	< 5.00	4.58	< 1.00	< 1.00	< 1.00	18.0	21.3	1

Table 3
Summary of Metals in Soil
 SR-60/WLC Interchange Improvement Project
 Moreno Valley
 Riverside County, California

Sample Number (Depth in Feet)	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium Total	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	DF
		(mg/kg)																	
Duplicate Soil Samples																			
P504-0.5	10/25/2018	-	1.84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P512-0.5	10/25/2018	-	2.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P519-0.5	10/25/2018	-	3.72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
P528-0.5	10/25/2018	-	5.24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
MWD501-5.0	11/10/2018	< 1.00	1.71	42.7	< 0.50	< 0.50	16.1	6.52	10.9	3.88	< 0.010	< 5.00	7.57	< 1.00	< 1.00	< 1.00	28.1	36.2	1
MWD504-5.0	11/10/2018	< 1.00	2.26	35.2	< 0.50	< 0.50	13.4	5.48	11.6	2.90	< 0.010	< 5.00	6.33	< 1.00	< 1.00	< 1.00	24.6	28.8	1
Equipment Blank																			
E001	10/25/2018	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	1
E001	11/10/2018	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	1
Maximum Site Concentration		-	5.72	68.1	-	-	35.9	10.6	18.2	5.85	-	-	17.6	-	-	-	60.7	49.2	-
DTSC Background Concentration*		-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Residential RSLs		31	0.068	15,000	1,600	2,100	NE	420	3,100	82	11	390	15,000	390	390	0.78	390	2,300	-
Commercial/Industrial RSLs		470	3.0	220,000	6,900	9,300	NE	1,900	47,000	800	46	5,800	64,000	5,800	5,800	12	5800	350,000	-

NOTES:

Bolded analytical results are above the method detection limit

RSL = US EPA Region IX Regional Screening Levels May 2018

J = Indicates a trace concentration between method detection limit and practical quantitation limit

mg/kg = milligrams per kilogram

Blue highlighted cells indicate concentrations above RSLs

NE = None Established

<0.50 = analyte not detected above practical quantitation limit

* = Department of Toxic Control Ambient Southern California Background Arsenic Concentration

Table 4
Summary of TPH in Soil
 SR-60/WLC Interchange Improvement Project
 Moreno Valley
 Riverside County, California

Sample ID	Depth (feet)	Date	C4 - C10 (mg/kg)	C11 - C22 (mg/kg)	C23-C35 (mg/kg)	DF
Soil Stockpile Investigation						
MWS1-0.5	0.5	11/10/2018	<10.0	<10.0	<50.0	1
MWD1-5.0	5.0	11/10/2018	<10.0	<10.0	<50.0	1
MWD1-10.0	10.0	11/10/2018	<10.0	<10.0	<50.0	1
MWD2-0.5	0.5	11/10/2018	<10.0	<10.0	<50.0	1
MWD2-5.0	5.0	11/10/2018	<10.0	<10.0	<50.0	1
MWD2-10.0	10.0	11/10/2018	<10.0	<10.0	<50.0	1
MWD3-0.5	0.5	11/10/2018	<10.0	<10.0	<50.0	1
MWD3-5.0	5.0	11/10/2018	<10.0	<10.0	<50.0	1
MWD3-10.0	10.0	11/10/2018	<10.0	<10.0	<50.0	1
MWD4-0.5	0.5	11/10/2018	<10.0	<10.0	<50.0	1
MWD4-5.0	5.0	11/10/2018	<10.0	<10.0	<50.0	1
MWD4-10.0	10.0	11/10/2018	<10.0	<10.0	<50.0	1
QA/QC Field Duplicates						
MWD501-5.0	5.0	11/10/2018	<10.0	<10.0	<50.0	1
MWD504-5.0	5.0	11/10/2018	<10.0	<10.0	<50.0	1
Equipment Blank						
100-1	-	11/10/2018	--	--	--	-
Maximum Site Concentration			<10.0	<10.0	<50.0	-
US EPA RSL (aromatic commercial)			420	600	33,000	-
US EPA RSL (aliphatic commercial)			2,200	440	3,500,000	-

US EPA RSL (residential) = US Environmental Protection Agency Regional Screening Levels for residential land use

mg/kg = milligrams per kilogram

<5.0 = analyte not detected above designated method detection limit

-- = Not analyzed

C4 - C10 = Gasoline Range Organic Compounds

C11 - C22 = Diesel Range Organic Compounds

C23 - C35 = Oil Range Organic Compounds

Table 5
Relative Percent Difference
 SR-60/WLC Interchange Improvement Project
 Moreno Valley
 Riverside County, California

<i>Boring ID</i>	<i>Analyte</i>	<i>Primary Sample (mg/kg)</i>	<i>Duplicate Sample (mg/kg)</i>	<i>Relative Percent Difference</i>
Agricultural Investigation				
P004-0.5/P504-0.5	Arsenic	1.80	1.84	2.20
P012-0.5/P512-0.5	Arsenic	2.10	2.05	2.41
P019-0.5/P519-0.5	Arsenic	3.18	3.72	15.7
P028-0.5/P528-0.5	Arsenic	4.44	5.24	16.5
P004-0.5/P504-0.5	4,4'DDE	0.0010	0.0006	50.0
P019-0.5/P519-0.5	4,4'DDE	0.082	0.108	27.4
Unverified Soil Stockpile Investigation				
MWD1-5.0/MWD501-5.0	Arsenic	2.06	1.71	18.6
MWD1-5.0/MWD501-5.0	Barium	38.3	42.7	10.9
MWD1-5.0/MWD501-5.0	Chromium Total	14.2	16.1	12.5
MWD1-5.0/MWD501-5.0	Cobalt	6.33	6.52	2.96
MWD1-5.0/MWD501-5.0	Copper	11.8	10.9	7.93
MWD1-5.0/MWD501-5.0	Lead	5.22	3.88	29.5
MWD1-5.0/MWD501-5.0	Nickel	7.14	7.57	5.85
MWD1-5.0/MWD501-5.0	Vanadium	28.5	28.1	1.41
MWD1-5.0/MWD501-5.0	Zinc	22.8	28.8	23.3
MWD4-5.0/MWD504-5.0	Arsenic	1.47	2.26	42.4
MWD4-5.0/MWD504-5.0	Barium	23.4	35.2	40.3
MWD4-5.0/MWD504-5.0	Chromium Total	9.62	13.4	32.8
MWD4-5.0/MWD504-5.0	Cobalt	3.99	5.48	31.5
MWD4-5.0/MWD504-5.0	Copper	6.47	11.6	56.8
MWD4-5.0/MWD504-5.0	Lead	2.90	1.70	52.2
MWD4-5.0/MWD504-5.0	Nickel	4.79	6.33	27.7
MWD4-5.0/MWD504-5.0	Vanadium	17.0	24.6	36.5
MWD4-5.0/MWD504-5.0	Zinc	35.4	36.2	2.23

Notes:

RPD = Relative Percent Difference

J = Result is between the laboratory method detection limit (MDL) and the practical quantitation limit (PQL)

mg/kg = milligrams/kilogram

 = denotes RPD above 100 indicating poor precision

Samples with one or more non-detect result, the RPD could not be calculated

APPENDIX A

**Appendix A
Soil Sample Log**

10326.001

SR-60/WLC Interchange Improvement Project
Moreno Valley
Riverside County, California

Sample No.	USCS¹ Symbol	Soil Type	Angularity²	Color	Moisture³	Grain Size⁴	Plasticity⁵	Comments⁶
Agricultural Investigation								
P001-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	None
P001-2.5	ML	Sandy Silt	Sub-rounded	light brown	slightly moist	fine to medium	non-plastic	None
P002-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	None
P002-2.5	ML	Sandy Silt	Sub-rounded	light brown	slightly moist	fine to medium	non-plastic	None
P003-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	None
P003-2.5	ML	Sandy Silt	Sub-rounded	light brown	slightly moist	fine to medium	non-plastic	None
P004-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	None
P004-2.5	ML	Sandy Silt	Sub-rounded	light brown	slightly moist	fine to medium	non-plastic	None
P005-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	None
P005-2.5	ML	Sandy Silt	Sub-rounded	light brown	slightly moist	fine to medium	non-plastic	None
P006-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	None
P006-2.5	ML	Sandy Silt	Sub-rounded	light brown	slightly moist	fine to medium	non-plastic	None
P007-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	None
P007-2.5	ML	Sandy Silt	Sub-rounded	light brown	slightly moist	fine to medium	non-plastic	None
P008-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	None
P008-2.5	ML	Sandy Silt	Sub-rounded	light brown	slightly moist	fine to medium	non-plastic	None
P009-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	None
P009-2.5	ML	Sandy Silt	Sub-rounded	light brown	slightly moist	fine to medium	non-plastic	None
P010-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	None
P010-2.5	SM	Silty Sand	Sub-angular to sub-rounded	light brown	slightly moist	fine to coarse	non-plastic	with some trace fine gravel
P011-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	None
P011-2.5	SM	Silty Sand	Sub-angular to sub-rounded	light brown	slightly moist	fine to coarse	non-plastic	with some trace fine gravel
P012-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	None
P012-2.5	SM	Silty Sand	Sub-angular to sub-rounded	light brown	slightly moist	fine to coarse	non-plastic	with some trace fine gravel
P013-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	with some vegetation
P013-2.5	SM	Silty Sand	Sub-angular to sub-rounded	brown	slightly moist	fine to coarse	non-plastic	None
P014-0.5	SM	Silty Sand	Sub-angular to sub-rounded	light brown	dry	fine to coarse	non-plastic	with some vegetation
P014-2.5	SM	Silty Sand	Sub-angular to sub-rounded	brown	slightly moist	fine to coarse	non-plastic	None
P015-0.5	SM	Silty Sand	Sub-angular to sub-rounded	light brown	dry	fine to coarse	non-plastic	with some vegetation
P015-2.5	SM	Silty Sand	Sub-angular to sub-rounded	brown	slightly moist	fine to coarse	non-plastic	None
P016-0.5	SM	Silty Sand	Sub-angular to sub-rounded	light brown	dry	fine to coarse	non-plastic	with some vegetation
P016-2.5	SM	Silty Sand	Sub-angular to sub-rounded	brown	slightly moist	fine to coarse	non-plastic	None
P017-0.5	SM	Silty Sand	Sub-angular to sub-rounded	light brown	dry	fine to coarse	non-plastic	with some vegetation
P017-2.5	SM	Silty Sand	Sub-angular to sub-rounded	brown	slightly moist	fine to coarse	non-plastic	None
P018-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	with some vegetation
P018-2.5	SM	Silty Sand	Sub-angular to sub-rounded	light brown	slightly moist	fine to coarse	non-plastic	with some trace fine gravel
P019-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	with some vegetation
P019-2.5	SM	Silty Sand	Sub-angular to sub-rounded	light brown	slightly moist	fine to coarse	non-plastic	with some trace fine gravel
P020-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	with some vegetation
P020-2.5	SM	Silty Sand	Sub-angular to sub-rounded	light brown	slightly moist	fine to coarse	non-plastic	with some trace fine gravel
P021-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	with some vegetation

**Appendix A
Soil Sample Log**

10326.001

SR-60/WLC Interchange Improvement Project
Moreno Valley
Riverside County, California

Sample No.	USCS¹ Symbol	Soil Type	Angularity²	Color	Moisture³	Grain Size⁴	Plasticity⁵	Comments⁶
P021-2.5	SM	Silty Sand	Sub-angular to sub-rounded	light brown	slightly moist	fine to coarse	non-plastic	with some trace fine gravel
P022-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	with some vegetation
P022-2.5	SM	Silty Sand	Sub-angular to sub-rounded	light brown	slightly moist	fine to coarse	non-plastic	with some trace fine gravel
P023-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	with some vegetation
P023-2.5	SM	Silty Sand	Sub-angular to sub-rounded	light brown	slightly moist	fine to coarse	non-plastic	with some trace fine gravel
P024-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	with some vegetation
P024-2.5	SM	Silty Sand	Sub-angular to sub-rounded	light brown	slightly moist	fine to coarse	non-plastic	with some trace fine gravel
P025-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	with some vegetation
P025-2.5	SM	Silty Sand	Sub-angular to sub-rounded	light brown	slightly moist	fine to coarse	non-plastic	with some trace fine gravel
P026-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	with some vegetation
P026-2.5	SM	Silty Sand	Sub-angular to sub-rounded	light brown	slightly moist	fine to coarse	non-plastic	with some trace fine gravel
P027-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	with some vegetation
P027-2.5	SM	Silty Sand	Sub-angular to sub-rounded	light brown	slightly moist	fine to coarse	non-plastic	with some trace fine gravel
P028-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	with some vegetation
P028-2.5	SM	Silty Sand	Sub-angular to sub-rounded	light brown	slightly moist	fine to coarse	non-plastic	with some trace fine gravel
Soil Stockpile Investigation								
MWD1-0.5	SM/SP	Silty Sand	Sub-angular to sub-rounded	light brown-grayish brown	dry	fine to coarse	non-plastic	with some vegetation
MWD1-5.0	SM/SP	Silty Sand	Sub-angular to sub-rounded	light brown	slightly moist	fine to coarse	non-plastic	with some trace fine gravel
MWD1-10.0	SM/SP	Silty Sand	Sub-angular to sub-rounded	brown	slightly moist	fine to coarse	non-plastic	with some trace fine gravel
MWD2-0.5	SM/SP	Silty Sand	Sub-angular to sub-rounded	light brown-grayish brown	dry	fine to coarse	non-plastic	with some vegetation
MWD2-5.0	SM/SP	Silty Sand	Sub-angular to sub-rounded	light brown	slightly moist	fine to coarse	non-plastic	with some trace fine gravel
MWD2-10.0	SM/SP	Silty Sand	Sub-angular to sub-rounded	brown	slightly moist	fine to coarse	non-plastic	with some trace fine gravel
MWD3-0.5	SM/SP	Silty Sand	Sub-angular to sub-rounded	light brown-grayish brown	dry	fine to coarse	non-plastic	with some vegetation
MWD3-5.0	SM/SP	Silty Sand	Sub-angular to sub-rounded	light brown	slightly moist	fine to coarse	non-plastic	with some trace fine gravel
MWD3-10.0	SM/SP	Silty Sand	Sub-angular to sub-rounded	brown	slightly moist	fine to coarse	non-plastic	with some trace fine gravel
MWD4-0.5	SM/SP	Silty Sand	Sub-angular to sub-rounded	light brown-grayish brown	dry	fine to coarse	non-plastic	with some vegetation
MWD4-5.0	SM/SP	Silty Sand	Sub-angular to sub-rounded	light brown	slightly moist	fine to coarse	non-plastic	with some trace fine gravel
MWD4-10.0	SM/SP	Silty Sand	Sub-angular to sub-rounded	brown	slightly moist	fine to coarse	non-plastic	with some trace fine gravel
Duplicate Soil Samples								
P504-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	None
P512-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	None
P519-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	with some vegetation
P528-0.5	ML	Sandy Silt	Sub-rounded	light brown	dry	fine to medium	non-plastic	with some vegetation
MWD501-5.0	SM/SP	Silty Sand	Sub-angular	light brown-grayish brown	dry	fine to coarse	non-plastic	with some vegetation
MWD504-5.0	SM/SP	Silty Sand	Sub-angular to sub-rounded	light brown-grayish brown	dry	fine to coarse	non-plastic	with some vegetation

Notes:

1 SP = Poorly graded sand, SW = Well Graded Sand, SM = Silty Sand, SC, Clayey Sand, ML = silt/sandy silt, CL = lean clay/sandy clay, CH = fat clay/sandy fat clay, OL = organic soil/with sand/with gravel

2 Angular, Sub-angular, Sub-rounded, Rounded

3 Dry = no moisture, dusty to the touch; Moist = Damp but no visible water; Wet = Visible free water

4 Range of particle sizes for sand (coarse, medium, fine) or gravel (coarse or fine)

5 Non-plastic, Low, Medium, High

6 Other descriptive features about the soil including dilatancy, toughness, or odor

APPENDIX B

Appendix B
Boring Location Coordinates
SR-60/WLC Interchange Improvement Project
Moreno Valley
Riverside County, California

Boring ID	Northing	Easting	Latitude	Longitude
P001	2286720.3153	6287793.4068	33.9396	-117.1529
P002	2286716.1287	6288405.6413	33.9396	-117.1509
P003	2286709.1295	6288708.7185	33.9396	-117.1499
P004/P504	2286708.7302	6289103.0688	33.9396	-117.1486
P005	2286703.7892	6289747.6531	33.9396	-117.1465
P006	2286723.7682	6290434.7732	33.9397	-117.1442
P007	2286781.8396	6290820.4320	33.9399	-117.1430
P008	2286795.1749	6291107.0417	33.9399	-117.1420
P009	2286846.2673	6291368.5163	33.9401	-117.1412
P009	2286846.0230	6291368.3240	33.9401	-117.1412
P010	2287017.2514	6291780.0242	33.9405	-117.1398
P011	2287354.0027	6291853.6818	33.9415	-117.1396
P012/P512	2287655.8264	6291841.1683	33.9423	-117.1396
P013	2284716.9871	6291847.9996	33.9342	-117.1395
P014	2284158.8890	6291848.5375	33.9327	-117.1395
P015	2283847.1368	6291840.4595	33.9318	-117.1395
P016	2283575.2041	6291840.5936	33.9311	-117.1395
P017	2283426.3191	6291954.6299	33.9307	-117.1391
P018	2283653.8914	6291965.9862	33.9313	-117.1391
P019/P519	2283789.8518	6291959.1875	33.9317	-117.1391
P020	2284239.6725	6291947.4265	33.9329	-117.1392
P021	2284417.8494	6291951.6180	33.9334	-117.1392
P023	2284960.7999	6291994.6276	33.9349	-117.1390
P024	2285332.0194	6291975.5004	33.9359	-117.1391
P025	2285667.6741	6292017.1901	33.9368	-117.1390
P026	2286242.3652	6292168.0775	33.9384	-117.1385
P027	2285927.8323	6294388.4217	33.9376	-117.1312
P028/P528	2285935.0177	6294601.5563	33.9376	-117.1305
MWD001	2286052.7431	6293051.4428	33.9379	-117.1356
MWD002	2286129.4498	6293127.7389	33.9381	-117.1353
MWD003	2286033.9934	6293721.2972	33.9379	-117.1334
MWD004	2285972.3515	6294119.1194	33.9377	-117.1321

Notes:

Highlighted cell indicates the location of sample containing lead concentration in excess of the 2016 Caltrans ADL Guidance

APPENDIX C

Enviro - Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

Date: November 2, 2018

Mr. Zach Freeman
Leighton Consulting
10532 Acacia, Suite B-6
Rancho Cucamonga, CA 91730
Tel(909)743-2642 E-Mail: ZFreeman@Leightongroup.com

Project: **MBI - SR 60 & Theodore Street, Moreno Valley, CA 92552**
Project No.: **10326.001**
Lab I.D.: **181026-8 through -60**

Dear Mr. Freeman:

The **analytical results** for the soil and water samples, received by our lab on October 26, 2018, are attached. The samples were received chilled, intact and with chain of custody record.

Trace concentrations between the MDL and the PQL have been reported with a "J" flag indicator.

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call us if you have any questions.

Sincerely,



Curtis Desilets
Vice President/Program Manger



Andy Wang
Laboratory Manager

LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
 10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
 Tel (909) 743-2642 E-Mail: ZFreeman@Leightongroup.com

PROJECT: **MBI - SR 60 & Theodore Street, Moreno Valley, CA 92552**

PROJECT No.: **10326.001**

MATRIX: **SOIL** DATE RECEIVED: 10/26/18

SAMPLING DATE: 10/25/18 DATE ANALYZED: 10/29/18

REPORT TO: MR. ZACH FREEMAN DATE REPORTED: 11/02/18

EPA 6010B FOR TTLC-ARSENIC; PAGE 1 OF 2
 UNITS: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	ARSENIC RESULT	DF
P022-0.5	181026-8	2.71	1
P023-0.5	181026-10	2.13	1
P021-0.5	181026-12	2.93	1
P024-0.5	181026-14	2.20	1
P013-0.5	181026-16	2.33	1
P014-0.5	181026-18	2.66	1
P015-0.5	181026-20	2.76	1
P016-0.5	181026-22	2.83	1
P017-0.5	181026-24	3.32	1
P001-0.5	181026-26	1.78	1
P002-0.5	181026-28	2.15	1
P003-0.5	181026-30	1.68	1
P004-0.5	181026-32	1.80	1
P504-0.5	181026-34	1.84	1
P005-0.5	181026-36	3.38	1
P006-0.5	181026-38	1.84	1
P007-0.5	181026-40	2.14	1
P008-0.5	181026-42	5.72	1
P009-0.5	181026-44	2.34	1
P010-0.5	181026-46	2.51	1
Method Blank	---	ND	1

MDL **0.248**
PQL **0.30**

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 J = Trace Concentration between MDL and PQL
 Actual Detection Limit = PQL X DF
 ND = Below the Actual Detection Limit or non-detected
 TTLC = Total Threshold Limit Concentration
 STLC = Soluble Threshold Limit Concentration
 STLC Limit for Arsenic = 5 PPM
 * = STLC analysis is recommended (if marked)
 *** = The concentration exceeds the TTLC Limit @ 500 PPM, therefore the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)

Data Reviewed and Approved by: 
 CAL-DHS ELAP CERTIFICATE No.: 1555

QA/QC for Metals Analysis --TTL--SOLID/SOIL MATRIX

Matrix Spike/ Matrix Spike Duplicate/ LCS :

ANALYSIS DATE: 10/29/2018

Unit : mg/Kg(ppm)

Analysis	Spk. Sample ID	CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Arsenic(As)	181026-8	50.0	104	PASS	2.71	50.0	50.4	95%	51.7	98%	3%
Lead(Pb)	181026-8	50.0	108	PASS	5.67	50.0	58.5	106%	60.0	109%	3%
Nickel(Ni)	181026-8	50.0	104	PASS	14.0	50.0	70.7	113%	71.3	115%	1%

ANALYSIS DATE. : 10/29/2018

Analysis	Spk. Sample ID	LCS CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Mercury (Hg)	181026-65	0.125	94	PASS	0	0.125	0.110	88%	0.114	91%	4%

MS/MSD Status:

Analysis	%MS	%MSD	%LCS	%RPD
Arsenic(As)	PASS	PASS	PASS	PASS
Lead(Pb)	PASS	PASS	PASS	PASS
Nickel(Ni)	PASS	PASS	PASS	PASS
Mercury (Hg)	PASS	PASS	PASS	PASS
Accepted Range	75 ~ 125	75 ~ 125	85 ~ 115	0 ~ 20

ANALYST: 

FINAL REVIEWER: 

*=Fail due to matrix interference

Note:LCS is in control therefore results are in control

QA/QC for Metals Analysis --TTLC--SOLID/SOIL MATRIX

Matrix Spike/ Matrix Spike Duplicate/ LCS :

ANALYSIS DATE: 10/29/2018

Unit : mg/Kg(ppm)

Analysis	Spk.Sample ID	CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Arsenic(As)	181026-65	50.0	100	PASS	0.207	50.0	55.0	110%	58.9	117%	7%
Lead(Pb)	181026-65	50.0	103	PASS	0	50.0	38.8	78%	41.8	84%	7%
Nickel(Ni)	181026-65	50.0	103	PASS	13.0	50.0	68.3	111%	72.6	119%	7%

ANALYSIS DATE. : 10/29/2018

Analysis	Spk.Sample ID	LCS CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Mercury (Hg)	181026-65	0.125	94	PASS	0	0.125	0.110	88%	0.114	91%	4%

MS/MSD Status:

Analysis	%MS	%MSD	%LCS	%RPD
Arsenic(As)	PASS	PASS	PASS	PASS
Lead(Pb)	PASS	PASS	PASS	PASS
Nickel(Ni)	PASS	PASS	PASS	PASS
Mercury (Hg)	PASS	PASS	PASS	PASS
Accepted Range	75 ~ 125	75 ~ 125	85 ~ 115	0 ~ 20

ANALYST: 

FINAL REVIEWER: 

*=Fail due to matrix interference

Note:LCS is in control therefore results are in control

LABORATORY REPORT


CUSTOMER: Leighton Consulting
 10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
 Tel (909) 743-2642 E-Mail: ZFreeman@Leightongroup.com
 PROJECT: MBI - SR 60 & Theodore Street, Moreno Valley, CA 92552
 PROJECT No.: 10326.001
 MATRIX: WATER DATE RECEIVED: 10/26/18
 SAMPLING DATE: 10/25/18 DATE ANALYZED: 10/30/18
 REPORT TO: MR. ZACH FREEMAN DATE REPORTED: 11/02/18

EPA 6010B FOR TOTAL ARSENIC
 UNITS: mg/L = MILLIGRAM PER LITER = PPM

SAMPLE I.D.	LAB I.D.	ARSENIC RESULT	DF
E001	181026-60	ND	1
Method Blank	---	ND	1
	MDL	0.005	
	PQL	0.01	

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 J = Trace Concentration between MDL and PQL
 Actual Detection Limit = PQL X DF
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by: 
 CAL-DHS ELAP CERTIFICATE No.: 1555

QA/QC for TLLC Metals Analysis --WATER MATRIX

Matrix Spike/ Matrix Spike Duplicate/ LCS :

ANALYSIS DATE: 10/30/2018

Unit : mg/L(ppm)

Analysis	Spk. Sample BATCH ID	LCS CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
<u>Arsenic(As)</u>	181026-60	1.00	102	PASS	0	1.00	1.17	117%	1.17	117%	0%
Lead(Pb)	181026-60	1.00	107	PASS	0	1.00	1.24	124%	1.23	123%	1%
Zinc(Zn)	181026-60	1.00	110	PASS	0.042	1.00	1.29	125%	1.29	125%	0%

ANALYSIS DATE. : 10/26/2018

Analysis	Spk. Sample BATCH ID	LCS CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Mercury (Hg)	181025-56	0.00250	96	PASS	0	0.00250	0.00220	88%	0.00230	92%	4%

MS/MSD Status:

Analysis	%MS	%MSD	%LCS	%RPD
<u>Arsenic(As)</u>	PASS	PASS	PASS	PASS
Lead(Pb)	PASS	PASS	PASS	PASS
Zinc(Zn)	PASS	PASS	PASS	PASS
Mercury (Hg)	PASS	PASS	PASS	PASS
Accepted Range	75 ~ 125	75 ~ 125	85 ~ 115	0 ~ 20

ANALYST: _____

FINAL REVIEWER: _____

*=Fail due to matrix interference

Note:LCS is in control therefore results are in control

LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
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 Tel (909) 743-2642 E-Mail: ZFreeman@Leightongroup.com
 PROJECT: **MBI - SR 60 & Theodore Street, Moreno Valley, CA 92552**
 PROJECT No.: **10326.001**

MATRIX: SOIL
 SAMPLING DATE: 10/25/18
 REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 10/26/18
 DATE EXTRACTED: 10/29/18
 DATE ANALYZED: 10/29/18
 DATE REPORTED: 11/02/18

SAMPLE I.D.: **P022-0.5**

LAB I.D.: 181026-8

Organochlorine Pesticides Analysis

method: EPA 8081A

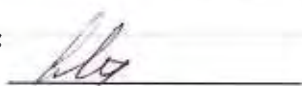
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	10
alpha-BHC	ND	0.001	0.0001	10
beta-BHC	ND	0.001	0.0001	10
gamma-BHC (Lindane)	ND	0.001	0.0001	10
delta-BHC	ND	0.001	0.0001	10
alpha-Chlordane	ND	0.001	0.0001	10
gamma-Chlordane	ND	0.001	0.0001	10
Total Chlordane	ND	0.005	0.0005	10
4,4'-DDD	ND	0.001	0.0002	10
4,4'-DDE	0.012	0.001	0.0001	10
4,4'-DDT	ND	0.001	0.0001	10
Dieldrin	ND	0.001	0.0002	10
Endosulfan I	ND	0.001	0.0002	10
Endosulfan II	ND	0.001	0.0002	10
Endosulfan Sulfate	ND	0.001	0.0001	10
Endrin	ND	0.001	0.0001	10
Endrin Aldehyde	ND	0.001	0.0001	10
Endrin Ketone	ND	0.001	0.0001	10
Heptachlor Epoxide	ND	0.001	0.0001	10
Heptachlor	ND	0.001	0.0001	10
Methoxyclor	ND	0.001	0.0001	10
Toxaphene	ND	0.020	0.0100	10

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
 CAL-DHS CERTIFICATE # 1555



LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
 10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
 Tel (909) 743-2642 E-Mail: ZFreeman@Leightongroup.com
 PROJECT: **MBI - SR 60 & Theodore Street, Moreno Valley, CA 92552**
 PROJECT No.: 10326.001

MATRIX: SOIL
 SAMPLING DATE: 10/25/18
 REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 10/26/18
 DATE EXTRACTED: 10/29/18
 DATE ANALYZED: 10/29/18
 DATE REPORTED: 11/02/18

SAMPLE I.D.: **P023-0.5**

LAB I.D.: 181026-10

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	0.002	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
 CAL-DHS CERTIFICATE # 1555



LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
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Tel (909) 743-2642 E-Mail: ZFreeman@Leightongroup.com

PROJECT: **MBI - SR 60 & Theodore Street, Moreno Valley, CA 92552**

PROJECT No.: 10326.001

MATRIX: SOIL
SAMPLING DATE: 10/25/18
REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 10/26/18
DATE EXTRACTED: 10/29/18
DATE ANALYZED: 10/29/18
DATE REPORTED: 11/02/18

SAMPLE I.D.: P021-0.5

LAB I.D.: 181026-12

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	0.0006J	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor

MDL = Method Detection Limit


PQL = Practical Quantitation Limit

Actual Detection Limit = PQL X DF

J = Trace Concentration between MDL and PQL

ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555



LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
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 PROJECT: **MBI - SR 60 & Theodore Street, Moreno Valley, CA 92552**
 PROJECT No.: 10326.001

MATRIX: SOIL
 SAMPLING DATE: 10/25/18
 REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 10/26/18
 DATE EXTRACTED: 10/29/18
 DATE ANALYZED: 10/29/18
 DATE REPORTED: 11/02/18

SAMPLE I.D.: **P024-0.5**

LAB I.D.: 181026-14

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	2
alpha-BHC	ND	0.001	0.0001	2
beta-BHC	ND	0.001	0.0001	2
gamma-BHC (Lindane)	ND	0.001	0.0001	2
delta-BHC	ND	0.001	0.0001	2
alpha-Chlordane	ND	0.001	0.0001	2
gamma-Chlordane	ND	0.001	0.0001	2
Total Chlordane	ND	0.005	0.0005	2
4,4'-DDD	ND	0.001	0.0002	2
4,4'-DDE	0.006	0.001	0.0001	2
4,4'-DDT	ND	0.001	0.0001	2
Dieldrin	ND	0.001	0.0002	2
Endosulfan I	ND	0.001	0.0002	2
Endosulfan II	ND	0.001	0.0002	2
Endosulfan Sulfate	ND	0.001	0.0001	2
Endrin	ND	0.001	0.0001	2
Endrin Aldehyde	ND	0.001	0.0001	2
Endrin Ketone	ND	0.001	0.0001	2
Heptachlor Epoxide	ND	0.001	0.0001	2
Heptachlor	ND	0.001	0.0001	2
Methoxychlor	ND	0.001	0.0001	2
Toxaphene	ND	0.020	0.0100	2

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
 CAL-DHS CERTIFICATE # 1555



LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel (909) 743-2642 E-Mail: ZFreeman@Leightongroup.com

PROJECT: **MBI - SR 60 & Theodore Street, Moreno Valley, CA 92552**

PROJECT No.: **10326.001**

MATRIX: SOIL
SAMPLING DATE: 10/25/18
REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 10/26/18
DATE EXTRACTED: 10/29/18
DATE ANALYZED: 10/30/18
DATE REPORTED: 11/02/18

SAMPLE I.D.: **P013-0.5**

LAB I.D.: 181026-16

Organochlorine Pesticides Analysis

method: EPA 8081A


Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	0.00099J	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555



LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
 10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
 Tel (909) 743-2642 E-Mail: ZFreeman@Leightongroup.com

PROJECT: **MBI - SR 60 & Theodore Street, Moreno Valley, CA 92552**

PROJECT No.: **10326.001**

MATRIX: SOIL

SAMPLING DATE: 10/25/18

REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 10/26/18
 DATE EXTRACTED: 10/29/18
 DATE ANALYZED: 10/30/18
 DATE REPORTED: 11/02/18

SAMPLE I.D.: **P014-0.5**

LAB I.D.: 181026-18

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	0.002	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
 CAL-DHS CERTIFICATE # 1555



LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel (909) 743-2642 E-Mail: ZFreeman@Leightongroup.com

PROJECT: **MBI - SR 60 & Theodore Street, Moreno Valley, CA 92552**

PROJECT No.: **10326.001**

MATRIX: SOIL

SAMPLING DATE: 10/25/18

REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 10/26/18

DATE EXTRACTED: 10/29/18

DATE ANALYZED: 10/29/18

DATE REPORTED: 11/02/18

SAMPLE I.D.: **P015-0.5**

LAB I.D.: 181026-20

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	0.0006J	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

Actual Detection Limit = PQL X DF

J = Trace Concentration between MDL and PQL

ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:

CAL-DHS CERTIFICATE # 1555



LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
 10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
 Tel(909)743-2642 E-Mail: ZFreeman@Leightongroup.com
 PROJECT: **MBI - SR 60 & Theodore Street, Moreno Valley, CA 92552**
 PROJECT No.: 10326.001

MATRIX: SOIL DATE RECEIVED: 10/26/18
 SAMPLING DATE: 10/25/18 DATE EXTRACTED: 10/29/18
 REPORT TO: MR. ZACH FREEMAN DATE ANALYZED: 10/29/18
 DATE REPORTED: 11/02/18

SAMPLE I.D.: P016-0.5

LAB I.D.: 181026-22

Organochlorine Pesticides Analysis

method: EPA 8081A

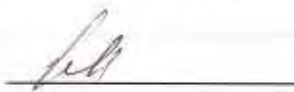
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	0.003	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
 CAL-DHS CERTIFICATE # 1555



LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel (909) 743-2642 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **MBI - SR 60 & Theodore Street, Moreno Valley, CA 92552**
PROJECT No.: 10326.001

MATRIX: SOIL
SAMPLING DATE: 10/25/18
REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 10/26/18
DATE EXTRACTED: 10/29/18
DATE ANALYZED: 10/30/18
DATE REPORTED: 11/02/18

SAMPLE I.D.: **P017-0.5**

LAB I.D.: 181026-24

Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	20
alpha-BHC	ND	0.001	0.0001	20
beta-BHC	ND	0.001	0.0001	20
gamma-BHC (Lindane)	ND	0.001	0.0001	20
delta-BHC	ND	0.001	0.0001	20
alpha-Chlordane	ND	0.001	0.0001	20
gamma-Chlordane	ND	0.001	0.0001	20
Total Chlordane	ND	0.005	0.0005	20
4,4'-DDD	ND	0.001	0.0002	20
4,4'-DDE	0.108	0.001	0.0001	20
4,4'-DDT	ND	0.001	0.0001	20
Dieldrin	ND	0.001	0.0002	20
Endosulfan I	ND	0.001	0.0002	20
Endosulfan II	ND	0.001	0.0002	20
Endosulfan Sulfate	ND	0.001	0.0001	20
Endrin	ND	0.001	0.0001	20
Endrin Aldehyde	ND	0.001	0.0001	20
Endrin Ketone	ND	0.001	0.0001	20
Heptachlor Epoxide	ND	0.001	0.0001	20
Heptachlor	ND	0.001	0.0001	20
Methoxychlor	ND	0.001	0.0001	20
Toxaphene	ND	0.020	0.0100	20

COMMENTS:

DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555



LABORATORY REPORT

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PROJECT: **MBI - SR 60 & Theodore Street, Moreno Valley, CA 92552**

PROJECT No.: **10326.001**

MATRIX: **SOIL**
 SAMPLING DATE: 10/25/18
 REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 10/26/18
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 DATE REPORTED: 11/02/18

SAMPLE I.D.: **P001-0.5**

LAB I.D.: 181026-26

Organochlorine Pesticides Analysis

method: EPA 8081A

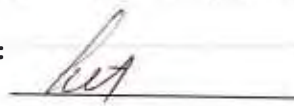
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	2
alpha-BHC	ND	0.001	0.0001	2
beta-BHC	ND	0.001	0.0001	2
gamma-BHC (Lindane)	ND	0.001	0.0001	2
delta-BHC	ND	0.001	0.0001	2
alpha-Chlordane	ND	0.001	0.0001	2
gamma-Chlordane	ND	0.001	0.0001	2
Total Chlordane	ND	0.005	0.0005	2
4,4'-DDD	ND	0.001	0.0002	2
4,4'-DDE	0.010	0.001	0.0001	2
4,4'-DDT	ND	0.001	0.0001	2
Dieldrin	ND	0.001	0.0002	2
Endosulfan I	ND	0.001	0.0002	2
Endosulfan II	ND	0.001	0.0002	2
Endosulfan Sulfate	ND	0.001	0.0001	2
Endrin	ND	0.001	0.0001	2
Endrin Aldehyde	ND	0.001	0.0001	2
Endrin Ketone	ND	0.001	0.0001	2
Heptachlor Epoxide	ND	0.001	0.0001	2
Heptachlor	ND	0.001	0.0001	2
Methoxychlor	ND	0.001	0.0001	2
Toxaphene	ND	0.020	0.0100	2

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

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 PROJECT: **MBI - SR 60 & Theodore Street, Moreno Valley, CA 92552**
 PROJECT No.: **10326.001**

MATRIX: SOIL
 SAMPLING DATE: 10/25/18
 REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 10/26/18
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 DATE REPORTED: 11/02/18

SAMPLE I.D.: **P002-0.5**

LAB I.D.: 181026-28

Organochlorine Pesticides Analysis

method: EPA 8081A

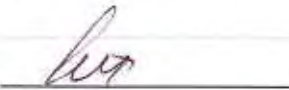
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	4
alpha-BHC	ND	0.001	0.0001	4
beta-BHC	ND	0.001	0.0001	4
gamma-BHC (Lindane)	ND	0.001	0.0001	4
delta-BHC	ND	0.001	0.0001	4
alpha-Chlordane	ND	0.001	0.0001	4
gamma-Chlordane	ND	0.001	0.0001	4
Total Chlordane	ND	0.005	0.0005	4
4,4'-DDD	ND	0.001	0.0002	4
4,4'-DDE	0.012	0.001	0.0001	4
4,4'-DDT	ND	0.001	0.0001	4
Dieldrin	ND	0.001	0.0002	4
Endosulfan I	ND	0.001	0.0002	4
Endosulfan II	ND	0.001	0.0002	4
Endosulfan Sulfate	ND	0.001	0.0001	4
Endrin	ND	0.001	0.0001	4
Endrin Aldehyde	ND	0.001	0.0001	4
Endrin Ketone	ND	0.001	0.0001	4
Heptachlor Epoxide	ND	0.001	0.0001	4
Heptachlor	ND	0.001	0.0001	4
Methoxychlor	ND	0.001	0.0001	4
Toxaphene	ND	0.020	0.0100	4

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

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 PROJECT: **MBI - SR 60 & Theodore Street, Moreno Valley, CA 92552**
 PROJECT No.: **10326.001**

MATRIX: SOIL
 SAMPLING DATE: 10/25/18
 REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 10/26/18
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SAMPLE I.D.: **P003-0.5**

LAB I.D.: 181026-30

Organochlorine Pesticides Analysis

method: EPA 8081A

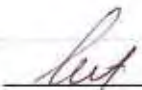
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	0.001	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

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 PROJECT: **MBI - SR 60 & Theodore Street, Moreno Valley, CA 92552**
 PROJECT No.: **10326.001**

MATRIX: SOIL
 SAMPLING DATE: 10/25/18
 REPORT TO: MR. ZACH FREEMAN

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SAMPLE I.D.: **P004-0.5**

LAB I.D.: 181026-32

Organochlorine Pesticides Analysis

method: EPA 8081A


Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	0.001	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
 CAL-DHS CERTIFICATE # 1555



LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
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 Tel (909) 743-2642 E-Mail: ZFreeman@Leightongroup.com
 PROJECT: **MBI - SR 60 & Theodore Street, Moreno Valley, CA 92552**
 PROJECT No.: **10326.001**


MATRIX: SOIL DATE RECEIVED: 10/26/18
 SAMPLING DATE: 10/25/18 DATE EXTRACTED: 10/29/18
 REPORT TO: MR. ZACH FREEMAN DATE ANALYZED: 10/29/18
 DATE REPORTED: 11/02/18

SAMPLE I.D.: **P504-0.5** LAB I.D.: 181026-34

Organochlorine Pesticides Analysis
 method: EPA 8081A
 Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	0.0006J	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:
 DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by: 
 CAL-DHS CERTIFICATE # 1555

LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
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 Tel(909)743-2642 E-Mail: ZFreeman@Leightongroup.com
 PROJECT: **MBI - SR 60 & Theodore Street, Moreno Valley, CA 92552**
 PROJECT No.: **10326.001**

MATRIX: SOIL
 SAMPLING DATE: 10/25/18
 REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 10/26/18
 DATE EXTRACTED: 10/29/18
 DATE ANALYZED: 10/29/18
 DATE REPORTED: 11/02/18

SAMPLE I.D.: **P005-0.5**

LAB I.D.: 181026-36

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	0.0009J	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
 CAL-DHS CERTIFICATE # 1555



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 PROJECT No.: 10326.001

MATRIX: SOIL
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DATE RECEIVED: 10/26/18
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SAMPLE I.D.: P006-0.5

LAB I.D.: 181026-38

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	ND	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
 CAL-DHS CERTIFICATE # 1555



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 PROJECT No.: **10326.001**

MATRIX: SOIL DATE RECEIVED: 10/26/18
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 REPORT TO: MR. ZACH FREEMAN DATE ANALYZED: 10/29/18
 DATE REPORTED: 11/02/18

SAMPLE I.D.: **P007-0.5**

LAB I.D.: 181026-40

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	ND	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
 CAL-DHS CERTIFICATE # 1555



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 PROJECT: **MBI - SR 60 & Theodore Street, Moreno Valley, CA 92552**
 PROJECT No.: 10326.001

MATRIX: SOIL DATE RECEIVED: 10/26/18
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 REPORT TO: MR. ZACH FREEMAN DATE ANALYZED: 10/29/18
 DATE REPORTED: 11/02/18

SAMPLE I.D.: **P008-0.5** LAB I.D.: 181026-42

Organochlorine Pesticides Analysis
 method: EPA 8081A
 Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	ND	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
 CAL-DHS CERTIFICATE # 1555



LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)743-2642 E-Mail: ZFreeman@Leightongroup.com

PROJECT: **MBI - SR 60 & Theodore Street, Moreno Valley, CA 92552**

PROJECT No.: **10326.001**

MATRIX: SOIL
SAMPLING DATE: 10/25/18
REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 10/26/18
DATE EXTRACTED: 10/29/18
DATE ANALYZED: 10/30/18
DATE REPORTED: 11/02/18

SAMPLE I.D.: **P009-0.5**

LAB I.D.: 181026-44


Organochlorine Pesticides Analysis
method: EPA 8081A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	10
alpha-BHC	ND	0.001	0.0001	10
beta-BHC	ND	0.001	0.0001	10
gamma-BHC (Lindane)	ND	0.001	0.0001	10
delta-BHC	ND	0.001	0.0001	10
alpha-Chlordane	ND	0.001	0.0001	10
gamma-Chlordane	ND	0.001	0.0001	10
Total Chlordane	ND	0.005	0.0005	10
4,4'-DDD	ND	0.001	0.0002	10
4,4'-DDE	0.051	0.001	0.0001	10
4,4'-DDT	ND	0.001	0.0001	10
Dieldrin	ND	0.001	0.0002	10
Endosulfan I	ND	0.001	0.0002	10
Endosulfan II	ND	0.001	0.0002	10
Endosulfan Sulfate	ND	0.001	0.0001	10
Endrin	ND	0.001	0.0001	10
Endrin Aldehyde	ND	0.001	0.0001	10
Endrin Ketone	ND	0.001	0.0001	10
Heptachlor Epoxide	ND	0.001	0.0001	10
Heptachlor	ND	0.001	0.0001	10
Methoxychlor	ND	0.001	0.0001	10
Toxaphene	ND	0.020	0.0100	10

COMMENTS:

DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555



LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
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MATRIX: SOIL
 SAMPLING DATE: 10/25/18
 REPORT TO: MR. ZACH FREEMAN

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SAMPLE I.D.: **P010-0.5**

LAB I.D.: 181026-46

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	50
alpha-BHC	ND	0.001	0.0001	50
beta-BHC	ND	0.001	0.0001	50
gamma-BHC (Lindane)	ND	0.001	0.0001	50
delta-BHC	ND	0.001	0.0001	50
alpha-Chlordane	ND	0.001	0.0001	50
gamma-Chlordane	ND	0.001	0.0001	50
Total Chlordane	ND	0.005	0.0005	50
4,4'-DDD	ND	0.001	0.0002	50
4,4'-DDE	0.092	0.001	0.0001	50
4,4'-DDT	ND	0.001	0.0001	50
Dieldrin	ND	0.001	0.0002	50
Endosulfan I	ND	0.001	0.0002	50
Endosulfan II	ND	0.001	0.0002	50
Endosulfan Sulfate	ND	0.001	0.0001	50
Endrin	ND	0.001	0.0001	50
Endrin Aldehyde	ND	0.001	0.0001	50
Endrin Ketone	ND	0.001	0.0001	50
Heptachlor Epoxide	ND	0.001	0.0001	50
Heptachlor	ND	0.001	0.0001	50
Methoxychlor	ND	0.001	0.0001	50
Toxaphene	ND	0.020	0.0100	50

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
 CAL-DHS CERTIFICATE # 1555



METHOD BLANK REPORT

CUSTOMER: **Leighton Consulting**
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 PROJECT No.: **10326.001**

MATRIX: SOIL
 SAMPLING DATE: 10/25/18
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METHOD BLANK REPORT FOR LAB I.D.: 181026-8, -10, -12, -14, -16, -18, -20, -22, -24, -26, -28, -30, -32, -34, -36, -38, -40, -42, -44, -46

Organochlorine Pesticides Analysis

method: EPA 8081A


Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	ND	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
 CAL-DHS CERTIFICATE # 1555



Enviro-Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

EPA 8081 QA/QC Report

Matrix: **Soil/Solid/Liquid(Oil)**
Unit: **mg/Kg (ppm)**

Date Analyzed: 10/29-30/2018

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 181029-LCS1/2

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0.000	0.00500	0.00608	122%	0.00595	119%	2%	0-20%	70-130
Aldrin	0.000	0.00500	0.00568	114%	0.00568	114%	0%	0-20%	70-130
4,4-DDE	0.000	0.00500	0.00459	92%	0.00498	100%	8%	0-20%	70-130

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.00500	0.00579	116%	75-125
Aldrin	0.00500	0.00579	116%	75-125
4,4-DDE	0.00500	0.00596	119%	75-125
Dieldrin	0.00500	0.00528	106%	75-125

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		MB	181026-8	181026-10	181026-12	181026-14	181026-16	181026-18	
Tetra-chloro-meta-xylene	50-150	98%	99%	116%	134%	98%	96%	94%	
Decachlorobiphenyl	50-150	53%	65%	59%	52%	54%	91%	146%	

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		181026-20	181026-22	181026-24	181026-26	181026-28	181026-30	181026-32	
Tetra-chloro-meta-xylene	50-150	100%	107%	101%	98%	97%	149%	113%	
Decachlorobiphenyl	50-150	54%	53%	122%	129%	96%	45%*	56%	

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		181026-34	181026-36	181026-38	181026-40	181026-42	181026-44	181026-46	
Tetra-chloro-meta-xylene	50-150	90%	132%	96%	104%	119%	100%	96%	
Decachlorobiphenyl	50-150	68%	64%	56%	82%	88%	118%	114%	

S.R. = Sample Result

spk conc = Spike Concentration


%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

* = Surrogate fail due to matrix interference (If Marked)

Note: LCS, MS, MSD are in control therefore results are in control.

Analyzed and Reviewed By: 

Final Reviewer: 

LABORATORY REPORT

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 PROJECT No.: **10326.001**

MATRIX: SOIL
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SAMPLE I.D.: **P011-0.5**

LAB I.D.: 181026-48

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	ND	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
 CAL-DHS CERTIFICATE # 1555



LABORATORY REPORT

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 Tel (909) 743-2642 E-Mail: ZFreeman@Leightongroup.com
 PROJECT: **MBI - SR 60 & Theodore Street, Moreno Valley, CA 92552**
 PROJECT No.: **10326.001**

MATRIX: SOIL DATE RECEIVED: 10/26/18
 SAMPLING DATE: 10/25/18 DATE EXTRACTED: 10/29/18
 REPORT TO: MR. ZACH FREEMAN DATE ANALYZED: 10/30/18
 DATE REPORTED: 11/02/18


SAMPLE I.D.: **P012-0.5** LAB I.D.: 181026-50

Organochlorine Pesticides Analysis
 method: EPA 8081A
 Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	ND	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by: 
 CAL-DHS CERTIFICATE # 1555

LABORATORY REPORT

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 Tel (909) 743-2642 E-Mail: ZFreeman@Leightongroup.com
 PROJECT: **MBI - SR 60 & Theodore Street, Moreno Valley, CA 92552**
 PROJECT No.: **10326.001**

MATRIX: SOIL
 SAMPLING DATE: 10/25/18
 REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 10/26/18
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 DATE REPORTED: 11/02/18

SAMPLE I.D.: **P512-0.5**

LAB I.D.: 181026-52

Organochlorine Pesticides Analysis

method: EPA 8081A


Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	ND	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

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SAMPLE I.D.: **P018-0.5**

LAB I.D.: 181026-54

Organochlorine Pesticides Analysis

method: EPA 8081A

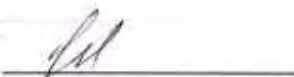
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	0.003	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
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LABORATORY REPORT

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SAMPLE I.D.: P019-0.5

LAB I.D.: 181026-56

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	50
alpha-BHC	ND	0.001	0.0001	50
beta-BHC	ND	0.001	0.0001	50
gamma-BHC (Lindane)	ND	0.001	0.0001	50
delta-BHC	ND	0.001	0.0001	50
alpha-Chlordane	ND	0.001	0.0001	50
gamma-Chlordane	ND	0.001	0.0001	50
Total Chlordane	ND	0.005	0.0005	50
4,4'-DDD	ND	0.001	0.0002	50
4,4'-DDE	0.082	0.001	0.0001	50
4,4'-DDT	ND	0.001	0.0001	50
Dieldrin	ND	0.001	0.0002	50
Endosulfan I	ND	0.001	0.0002	50
Endosulfan II	ND	0.001	0.0002	50
Endosulfan Sulfate	ND	0.001	0.0001	50
Endrin	ND	0.001	0.0001	50
Endrin Aldehyde	ND	0.001	0.0001	50
Endrin Ketone	ND	0.001	0.0001	50
Heptachlor Epoxide	ND	0.001	0.0001	50
Heptachlor	ND	0.001	0.0001	50
Methoxychlor	ND	0.001	0.0001	50
Toxaphene	ND	0.020	0.0100	50

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
 CAL-DHS CERTIFICATE # 1555



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MATRIX: SOIL
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SAMPLE I.D.: **P519-0.5**

LAB I.D.: 181026-58

Organochlorine Pesticides Analysis

method: EPA 8081A


Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	50
alpha-BHC	ND	0.001	0.0001	50
beta-BHC	ND	0.001	0.0001	50
gamma-BHC (Lindane)	ND	0.001	0.0001	50
delta-BHC	ND	0.001	0.0001	50
alpha-Chlordane	ND	0.001	0.0001	50
gamma-Chlordane	ND	0.001	0.0001	50
Total Chlordane	ND	0.005	0.0005	50
4,4'-DDD	ND	0.001	0.0002	50
4,4'-DDE	0.108	0.001	0.0001	50
4,4'-DDT	ND	0.001	0.0001	50
Dieldrin	ND	0.001	0.0002	50
Endosulfan I	ND	0.001	0.0002	50
Endosulfan II	ND	0.001	0.0002	50
Endosulfan Sulfate	ND	0.001	0.0001	50
Endrin	ND	0.001	0.0001	50
Endrin Aldehyde	ND	0.001	0.0001	50
Endrin Ketone	ND	0.001	0.0001	50
Heptachlor Epoxide	ND	0.001	0.0001	50
Heptachlor	ND	0.001	0.0001	50
Methoxychlor	ND	0.001	0.0001	50
Toxaphene	ND	0.020	0.0100	50

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
 CAL-DHS CERTIFICATE # 1555



METHOD BLANK REPORT

CUSTOMER: **Leighton Consulting**
 10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
 Tel(909)743-2642 E-Mail: ZFreeman@Leightongroup.com
 PROJECT: **MBI - SR 60 & Theodore Street, Moreno Valley, CA 92552**
 PROJECT No.: 10326.001

MATRIX: SOIL
 SAMPLING DATE: 10/25/18
 REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 10/26/18
 DATE EXTRACTED: 10/29/18
 DATE ANALYZED: 10/30/18
 DATE REPORTED: 11/02/18

METHOD BLANK REPORT FOR LAB I.D.: 181026-48, -50, -52, -54, -56, -58

Organochlorine Pesticides Analysis

method: EPA 8081A


Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0002	1
alpha-BHC	ND	0.001	0.0001	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0001	1
alpha-Chlordane	ND	0.001	0.0001	1
gamma-Chlordane	ND	0.001	0.0001	1
Total Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0002	1
4,4'-DDE	ND	0.001	0.0001	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0002	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0002	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0001	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0001	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
 CAL-DHS CERTIFICATE # 1555



LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
 10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
 Tel (909) 743-2642 E-Mail: ZFreeman@Leightongroup.com
 PROJECT: **MBI - SR 60 & Theodore Street, Moreno Valley, CA 92552**
 PROJECT No.: 10326.001

MATRIX: WATER
 SAMPLING DATE: 10/25/18
 REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 10/26/18
 DATE EXTRACTED: 10/26/18
 DATE ANALYZED: 10/29/18
 DATE REPORTED: 11/02/18

SAMPLE I.D.: **E001**

LAB I.D.: 181026-60

Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: ug/L = Microgram per Liter = PPB

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.100	0.004	1
alpha-BHC	ND	0.100	0.004	1
beta-BHC	ND	0.100	0.006	1
gamma-BHC (Lindane)	ND	0.100	0.004	1
delta-BHC	ND	0.100	0.003	1
alpha-Chlordane	ND	0.100	0.003	1
gamma-Chlordane	ND	0.100	0.004	1
Total Chlordane	ND	0.500	0.050	1
4,4'-DDD	ND	0.100	0.002	1
4,4'-DDE	ND	0.100	0.006	1
4,4'-DDT	ND	0.100	0.004	1
Dieldrin	ND	0.100	0.004	1
Endosulfan I	ND	0.100	0.005	1
Endosulfan II	ND	0.100	0.006	1
Endosulfan Sulfate	ND	0.100	0.005	1
Endrin	ND	0.100	0.004	1
Endrin Aldehyde	ND	0.100	0.040	1
Endrin Ketone	ND	0.100	0.004	1
Heptachlor Epoxide	ND	0.100	0.008	1
Heptachlor	ND	0.100	0.004	1
Methoxychlor	ND	0.100	0.004	1
Toxaphene	ND	2.00	1.00	1

COMMENTS

DF = Dilution Factor
 MDL = Method Detection Limit
 Actual Detection Limit = PQL X DF
 PQL = Practical Quantitation Limit
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
 CAL-DHS CERTIFICATE # 1555



METHOD BLANK REPORT

CUSTOMER: **Leighton Consulting**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel (909) 743-2642 E-Mail: ZFreeman@Leightongroup.com
PROJECT: **MBI - SR 60 & Theodore Street, Moreno Valley, CA 92552**
PROJECT No.: 10326.001

MATRIX: WATER
SAMPLING DATE: 10/25/18
REPORT TO: MR. ZACH FREEMAN

DATE RECEIVED: 10/26/18
DATE EXTRACTED: 10/26/18
DATE ANALYZED: 10/29/18
DATE REPORTED: 11/02/18

METHOD BLANK REPORT FOR LAB I.D.: 181026-60

Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: ug/L = Microgram per Liter = PPB

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.100	0.004	1
alpha-BHC	ND	0.100	0.004	1
beta-BHC	ND	0.100	0.006	1
gamma-BHC (Lindane)	ND	0.100	0.004	1
delta-BHC	ND	0.100	0.003	1
alpha-Chlordane	ND	0.100	0.003	1
gamma-Chlordane	ND	0.100	0.004	1
Total Chlordane	ND	0.500	0.050	1
4,4'-DDD	ND	0.100	0.002	1
4,4'-DDE	ND	0.100	0.006	1
4,4'-DDT	ND	0.100	0.004	1
Dieldrin	ND	0.100	0.004	1
Endosulfan I	ND	0.100	0.005	1
Endosulfan II	ND	0.100	0.006	1
Endosulfan Sulfate	ND	0.100	0.005	1
Endrin	ND	0.100	0.004	1
Endrin Aldehyde	ND	0.100	0.040	1
Endrin Ketone	ND	0.100	0.004	1
Heptachlor Epoxide	ND	0.100	0.008	1
Heptachlor	ND	0.100	0.004	1
Methoxychlor	ND	0.100	0.004	1
Toxaphene	ND	2.00	1.00	1

COMMENTS

DF = Dilution Factor
MDL = Method Detection Limit
Actual Detection Limit = PQL X DF
PQL = Practical Quantitation Limit
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555



Enviro-Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766

Tel (909)590-5905 Fax (909)590-5907

EPA 608 (8081) QA/QC Report

Matrix: Water/Liquid
 Unit: ug/L

Date Analyzed: 10/29/18

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 181026-60 MS/MSD

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0	0.500	0.560	112%	0.516	103%	8%	0-20%	70-130
Aldrin	0	0.500	0.525	105%	0.502	100%	4%	0-20%	70-130
4,4-DDE	0	0.500	0.399	80%	0.415	83%	4%	0-20%	70-130

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.500	0.605	121%	75-125
Aldrin	0.500	0.613	123%	75-125
4,4-DDE	0.500	0.557	111%	75-125
Dieldrin	0.500	0.537	107%	75-125

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		M-BLK	181026-60						
Tetra-chloro-meta-xylene		50-150	100%	115%					
Decachlorobipneyl		50-150	84%	56%					

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.									
Tetra-chloro-meta-xylene									
Decachlorobipneyl									

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.						
Tetra-chloro-meta-xylene						
Decachlorobipneyl						

S.R. = Sample Result

spk conc = Spike Concentration

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

Analyzed and Reviewed By: 

* = Surrogate fail due to matrix interference

Note: LCS, MS, MSD are in control therefore results are in control.

Final Reviewer: 

Enviro-Chem, Inc. Laboratories
 1214 E. Lexington Avenue,
 Pomona, CA 91766
 Tel: (909) 590-5905 Fax: (909) 590-5907
 CA-DHS ELAP CERTIFICATE #1555

Turnaround Time
 Same Day
 24 Hours
 48 Hours
 72 Hours
 1 Week (Standard)
 Filter

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required		COMMENTS	Misc./PO#
P022-0.5	18026-8	10/25/16	0735	Soil	1	FL ice		X	X	Hold	
P022-2.5	-9		0739					X	X	Hold	
P023-0.5	-10		0755					X	X		
P023-2.5	-11		0757					X	X		
P021-0.5	-12		0813					X	X	Hold	
P021-2.5	-13		0815					X	X	Hold	
P024-0.5	-14		0828					X	X	Hold	
P024-2.5	-15		0831					X	X	Hold	
P013-0.5	-16		0845					X	X	Hold	
P013-2.5	-17		0847					X	X	Hold	
P014-0.5	-18		0906					X	X	Hold	
P014-2.5	-19		0908					X	X	Hold	
P015-0.5	-20		0920					X	X	Hold	
P015-2.5	-21		0921					X	X	Hold	
P016-0.5	-22	10/25/18	0931	Soil	1	ice		X	X	Hold	

URS 8081A
 ASMC 600B

Company Name: *Leighton Consulting Inc*
 Address: 10532 Acacia St Suite B6
 City/State/Zip: Hancho Cucamonga CA 91730
 Relinquished by: *Burana Copeland*
 Relinquished by: *ATK*
 Relinquished by:

Project Contact: *Fachan Freeman*
 Tel: 909-527-8785
 Fax/Email: *Burana@leighonconsulting.com*
 Date & Time: *10/26/18 0900*
 Date & Time: *10/24/18 0905*
 Date & Time:

Sampler's Signature: *Burana Copeland*
 Project Name/ID: *10326.001*
 Instructions for Sample Storage After Analysis:
 Dispose of Return to Client Store (30 Days)
 Other:

CHAIN OF CUSTODY RECORD
 10-15-2018
 1 - 4

Enviro-Chem, Inc. Laboratories

1214 E. Lexington Avenue,
Pomona, CA 91766

Tel: (909) 590-5905 Fax: (909) 590-5907

CA-DHS ELAP CERTIFICATE #1555

Turnaround Time

- Same Day
- 24 Hours
- 48 Hours
- 72 Hours
- 1 Week (Standard)
- Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required		COMMENTS	Misc./PO#
P006-0.5	8106-38	10/25/18	1130	Soil	1		ice	X	X	Hold	
P006-2.5	-3P		1131					X	X	Hold	
P007-0.5	-40		1146					X	X	Hold	
P007-2.5	-41		1147					X	X	Hold	
P008-0.5	-42		1202					X	X	Hold	
P008-2.5	-43		1204					X	X	Hold	
P009-0.5	-44		1217					X	X	Hold	
P009-2.5	-45		1219					X	X	Hold	
P010-0.5	-46		1229					X	X	Hold	
P010-2.5	-47		1232					X	X	Hold	
P011-0.5	-48		1243					X	X	Hold	
P011-2.5	-49		1245					X	X	Hold	
P012-0.5	-50		1252					X	X	Hold	
P012-2.5	-51		1253					X	X	Hold	
P012-0.5	-52	10/25/18	1254	Soil	1		ice	X	X	Hold	

DGS 8/1/14
Aspire Lab

Company Name: Wegington Consulting Inc
 Address: 10532 Acacia St Suite B6
 City/State/Zip: Shandoo Cucamonga CA 91730
 Project Contact: Zachary Freeman
 Tel: 909-527-8785
 Fax/Email: Z.freeman@wegington.com
 Sampler's Signature: Brianne Cephal
 Project Name/ID: 10326.001
 Date & Time: 10/26/18
 Date & Time: 10/26/18
 Date & Time: 10/26/18
 Instructions for Sample Storage After Analysis: MBI - SR-604 Theobromest
 Dispose of Return to Client Store (30 Days)
 Other:

Relinquished by: Brianne Cephal
 Relinquished by: Zachary Freeman
 Relinquished by: Zachary Freeman

10-25-2018 3-4

Enviro-Chem, Inc. Laboratories
 1214 E. Lexington Avenue,
 Pomona, CA 91766
 Tel: (909) 590-5905 Fax: (909) 590-5907
 CA-DHS ELAP CERTIFICATE #1555

Turnaround Time
 Same Day
 24 Hours
 48 Hours
 72 Hours
 1 Week (Standard)
 Other

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required				COMMENTS	Misc./PO#
P512-2.5	1810-2-53	19/25/18	1255	Soil	1		ice	XX				Hold	
P018-0.5	-50		1335					XX				Hold	
P018-2.5	-57		1337					XX				Hold	
P019-0.5	-56		1350					XX				Hold	
P019-2.5	-57		1359					XX				Hold	
P519-0.5	-58		1405					XX				Hold	
P519-2.5	-59		1409	soil	1		ice	XX				Hold	
E001	-60	10/25/18	1422	fluid	2		ice	XX				Hold	

CRs 8081A
 Ascent Lab

Company Name: Leighton Consulting Inc
 Address: 10532 Arava St Suite 66
 City/State/Zip: hanford Cucamonga CA 91730
 Project Contact: Deborah Freeman
 Tel: 909-527-8785
 Fax/Email: z.freeman@leightoncorp.com SR-00-MBI + Theodore St.
 Sampler's Signature: Buonoma Copeland
 Project Name/ID: 10320-001
 Date & Time: 10/14/18
 Date & Time: 10/14/18
 Date & Time: 10/14/18
 Relinquished by: [Signature]
 Relinquished by: [Signature]
 Relinquished by: [Signature]
 Instructions for Sample Storage After Analysis:
 Dispose of Return to Client Store (30 Days)
 Other:

CHAIN OF CUSTODY RECORD

10-25-2018

4-4

Date: November 19, 2018

Mr. Zachary Freeman
Leighton Consulting, Inc.
10532 Acacia, Suite B-6
Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com

Project: **SR-60 & Theodore St Interchange**
Project No.: **10326.001**
Lab I.D.: **181112-10 through -37**

Dear Mr. Freeman:

The **analytical results** for the soil and water samples, received by our lab on November 12, 2018, are attached. The samples were received chilled, intact and with chain of custody record.

Trace concentrations between the MDL and the PQL have been reported with a "J" flag indicator.

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call us if you have any questions.

Sincerely,



Curtis Desilets
Vice President/Program Manger



Andy Wang
Laboratory Manager

LABORATORY REPORT

CUSTOMER: **Leighton Consulting, Inc.**
 10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
 Tel (909) 527-8785 E-Mail: ZFreeman@Leightongroup.com

PROJECT: **SR-60 & Theodore St Interchange**

PROJECT No.: **10326.001**

DATE RECEIVED: 11/12/18

MATRIX: SOIL

DATE EXTRACTED: 11/14/18

SAMPLING DATE: 11/10/18

DATE ANALYZED: 11/14-15/18

REPORT TO: MR. ZACHARY FREEMAN

DATE REPORTED: 11/19/18

TOTAL PETROLEUM HYDROCARBONS (TPH) - CARBON CHAIN ANALYSIS

METHOD: EPA 8015B

UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	C4-C10	C11-C22	C23-C35	DF
<u>MWD1-0.5</u>	<u>181112-14</u>	ND	ND	ND	1
<u>MWD1-5.0</u>	<u>181112-15</u>	ND	ND	ND	1
<u>MWD1-10.0</u>	<u>181112-16</u>	ND	ND	ND	1
<u>MWD501-5.0</u>	<u>181112-18</u>	ND	ND	ND	1
<u>MWD002-0.5</u>	<u>181112-19</u>	ND	ND	ND	1
<u>MWD002-5.0</u>	<u>181112-20</u>	ND	ND	ND	1
<u>MWD002-10.0</u>	<u>181112-21</u>	ND	ND	ND	1
<u>MWD003-0.5</u>	<u>181112-22</u>	ND	ND	ND	1
<u>MWD003-5.0</u>	<u>181112-23</u>	ND	ND	ND	1
<u>MWD003-10.0</u>	<u>181112-24</u>	ND	ND	ND	1
<u>MWD004-0.5</u>	<u>181112-25</u>	ND	ND	ND	1
<u>MWD004-5.0</u>	<u>181112-26</u>	ND	ND	ND	1
<u>MWD004-10.0</u>	<u>181112-27</u>	ND	ND	ND	1
<u>MWD504-5.0</u>	<u>181112-28</u>	ND	ND	ND	1
<u>METHOD BLANK</u>		ND	ND	ND	1
	MDL	5	5	25	
	PQL	10	10	50	

COMMENTS

C4-C10 = GASOLINE RANGE

C11-C22 = DIESEL RANGE

C23-C35 = MOTOR OIL RANGE

DF = DILUTION FACTOR

MDL = METHOD DETECTION LIMIT

PQL = PRACTICAL QUANTITATION LIMIT

J = TRACE CONCENTRATION BETWEEN MDL AND PQL

ACTUAL DETECTION LIMIT = DF X PQL

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

Data Reviewed and Approved by: _____

CAL-DHS ELAP CERTIFICATE No.: 1555

8015B QA/QC Report

Date Analyzed: 11/14-15/2018

Units: mg/Kg (ppm)

Matrix: **Soil/Solid/Sludge/Liquid**

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: **181112-14 MS/MSD**

Analyte	SR	spk conc	MS	%MS	MSD	%MSD	%RPD	ACP %MS	ACP RPD
C10~C28 Range	0	200	191	96%	198	99%	4%	75-125	0-20%

LCS STD RECOVERY:

Analyte	spk conc	LCS	% REC	ACP
C10~C28 Range	200	190	95%	75-125

Analyzed and Reviewed By: 

Final Reviewer: 

LABORATORY REPORT

CUSTOMER: Leighton Consulting, Inc.
 10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
 Tel (909) 527-8785 E-Mail: ZFreeman@Leightongroup.com

PROJECT: SR-60 & Theodore St Interchange
 PROJECT No.: 10326.001


MATRIX: SOIL DATE RECEIVED: 11/12/18
 SAMPLING DATE: 11/10/18 DATE ANALYZED: 11/14/18
 REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

EPA 6010B FOR TTLC-ARSENIC
 UNITS: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	ARSENIC RESULT	DF
P025-0.5	181112-10	2.29	1
P026-0.5	181112-12	2.68	1
P027-0.5	181112-29	3.22	1
P028-0.5	181112-31	4.44	1
P528-0.5	181112-33	5.24	1
P020-0.5	181112-35	2.32	1
Method Blank	---	ND	1
	MDL	0.248	
	PQL	0.30	

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 J = Trace Concentration between MDL and PQL
 Actual Detection Limit = PQL X DF
 ND = Below the Actual Detection Limit or non-detected
 TTLC = Total Threshold Limit Concentration
 STLC = Soluble Threshold Limit Concentration
 STLC Limit for Arsenic = 5 PPM
 * = STLC analysis is recommended (if marked)
 *** = The concentration exceeds the TTLC Limit @ 500 PPM, therefore the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)

Data Reviewed and Approved by: 
 CAL-DHS ELAP CERTIFICATE No.: 1555

LABORATORY REPORT

CUSTOMER: **Leighton Consulting, Inc.**
 10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
 Tel (909) 527-8785 E-Mail: ZFreeman@Leightongroup.com

PROJECT: **SR-60 & Theodore St Interchange**

PROJECT No.: **10326.001**

MATRIX: SOIL

DATE RECEIVED: 11/12/18

SAMPLING DATE: 11/10/18

DATE ANALYZED: 11/13&14/18

REPORT TO: MR. ZACHARY FREEMAN

DATE REPORTED: 11/19/18

SAMPLE I.D.: **MWD1-10.0**

LAB I.D.: 181112-16

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS

UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	MDL	DF	TTLT LIMIT	STLC LIMIT	EPA METHOD
Antimony (Sb)	ND	1.0	0.250	1	500	15	6010B
Arsenic (As)	2.59	0.3	0.248	1	500	5.0	6010B
Barium (Ba)	68.1	5.0	0.143	1	10,000	100	6010B
Beryllium (Be)	ND	0.5	0.180	1	75	0.75	6010B
Cadmium (Cd)	ND	0.5	0.119	1	100	1.0	6010B
Chromium Total (Cr)	33.3	0.5	0.138	1	2,500	560/50	6010B
Chromium VI (Cr6)	--	0.2	0.0156	1	500	5.0	7196A
Cobalt (Co)	8.95	1.0	0.156	1	8,000	80	6010B
Copper (Cu)	16.6	1.0	0.203	1	2,500	25	6010B
Lead (Pb)	3.53	0.5	0.192	1	1,000	5.0	6010B
Mercury (Hg)	ND	0.01	0.0062	1	20	0.2	7471A
Molybdenum (Mo)	ND	5.0	0.274	1	3,500	350	6010B
Nickel (Ni)	17.6	2.5	0.165	1	2,000	20	6010B
Selenium (Se)	ND	1.0	0.234	1	100	1.0	6010B
Silver (Ag)	ND	1.0	0.414	1	500	5.0	6010B
Thallium (Tl)	ND	1.0	0.432	1	700	7.0	6010B
Vanadium (V)	37.0	5.0	0.171	1	2,400	24	6010B
Zinc (Zn)	45.0	0.5	0.131	1	5,000	250	6010B

COMMENTS

DF = Dilution Factor

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

J = Trace Concentration between MDL and PQL

Actual Detection Limit = PQL X DF

ND = Below the Actual Detection Limit or non-detected

TTLT = Total Threshold Limit Concentration

STLC = Soluble Threshold Limit Concentration


@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5

* = STLC analysis for the metal is recommended (if marked)

** = Additional Analysis required, please call to discuss (if marked)

*** = The concentration exceeds the TTLT Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)

-- = Not analyzed/not requested

Data Reviewed and Approved by: 

CAL-DHS ELAP CERTIFICATE No.: 1555

LABORATORY REPORT

CUSTOMER: **Leighton Consulting, Inc.**
 10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
 Tel (909) 527-8785 E-Mail: ZFreeman@Leightongroup.com

PROJECT: **SR-60 & Theodore St Interchange**
 PROJECT No.: **10326.001**

MATRIX: SOIL DATE RECEIVED: 11/12/18
 SAMPLING DATE: 11/10/18 DATE ANALYZED: 11/13&14/18
 REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

SAMPLE I.D.: **MWD501-5.0** LAB I.D.: 181112-18

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
 UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	MDL	DF	TTLT LIMIT	STLC LIMIT	EPA METHOD
Antimony (Sb)	ND	1.0	0.250	1	500	15	6010B
Arsenic (As)	1.71	0.3	0.248	1	500	5.0	6010B
Barium (Ba)	42.7	5.0	0.143	1	10,000	100	6010B
Beryllium (Be)	ND	0.5	0.180	1	75	0.75	6010B
Cadmium (Cd)	ND	0.5	0.119	1	100	1.0	6010B
Chromium Total (Cr)	16.1	0.5	0.138	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.2	0.0156	1	500	5.0	7196A
Cobalt (Co)	6.52	1.0	0.156	1	8,000	80	6010B
Copper (Cu)	10.9	1.0	0.203	1	2,500	25	6010B
Lead (Pb)	3.88	0.5	0.192	1	1,000	5.0	6010B
Mercury (Hg)	ND	0.01	0.0062	1	20	0.2	7471A
Molybdenum (Mo)	ND	5.0	0.274	1	3,500	350	6010B
Nickel (Ni)	7.57	2.5	0.165	1	2,000	20	6010B
Selenium (Se)	ND	1.0	0.234	1	100	1.0	6010B
Silver (Ag)	ND	1.0	0.414	1	500	5.0	6010B
Thallium (Tl)	ND	1.0	0.432	1	700	7.0	6010B
Vanadium (V)	28.1	5.0	0.171	1	2,400	24	6010B
Zinc (Zn)	36.2	0.5	0.131	1	5,000	250	6010B

COMMENTS

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 J = Trace Concentration between MDL and PQL
 Actual Detection Limit = PQL X DF
 ND = Below the Actual Detection Limit or non-detected
 TTLT = Total Threshold Limit Concentration
 STLC = Soluble Threshold Limit Concentration
 @ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5
 * = STLC analysis for the metal is recommended (if marked)
 ** = Additional Analysis required, please call to discuss (if marked)
 *** = The concentration exceeds the TTLT Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)
 -- = Not analyzed/not requested

Data Reviewed and Approved by: 
 CAL-DHS ELAP CERTIFICATE No.: 1555

LABORATORY REPORT

CUSTOMER: **Leighton Consulting, Inc.**
 10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
 Tel (909) 527-8785 E-Mail: ZFreeman@Leightongroup.com

PROJECT: **SR-60 & Theodore St Interchange**

PROJECT No.: **10326.001**

MATRIX: SOIL

DATE RECEIVED: 11/12/18

SAMPLING DATE: 11/10/18

DATE ANALYZED: 11/13&14/18

REPORT TO: MR. ZACHARY FREEMAN

DATE REPORTED: 11/19/18

SAMPLE I.D.: **MWD002-10.0**

LAB I.D.: 181112-21

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS

UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	MDL	DF	TTLT LIMIT	STLC LIMIT	EPA METHOD
Antimony (Sb)	ND	1.0	0.250	1	500	15	6010B
Arsenic (As)	2.22	0.3	0.248	1	500	5.0	6010B
Barium (Ba)	30.8	5.0	0.143	1	10,000	100	6010B
Beryllium (Be)	ND	0.5	0.180	1	75	0.75	6010B
Cadmium (Cd)	ND	0.5	0.119	1	100	1.0	6010B
Chromium Total (Cr)	10.5	0.5	0.138	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.2	0.0156	1	500	5.0	7196A
Cobalt (Co)	4.61	1.0	0.156	1	8,000	80	6010B
Copper (Cu)	8.37	1.0	0.203	1	2,500	25	6010B
Lead (Pb)	2.34	0.5	0.192	1	1,000	5.0	6010B
Mercury (Hg)	ND	0.01	0.0062	1	20	0.2	7471A
Molybdenum (Mo)	ND	5.0	0.274	1	3,500	350	6010B
Nickel (Ni)	5.44	2.5	0.165	1	2,000	20	6010B
Selenium (Se)	ND	1.0	0.234	1	100	1.0	6010B
Silver (Ag)	ND	1.0	0.414	1	500	5.0	6010B
Thallium (Tl)	ND	1.0	0.432	1	700	7.0	6010B
Vanadium (V)	20.7	5.0	0.171	1	2,400	24	6010B
Zinc (Zn)	24.2	0.5	0.131	1	5,000	250	6010B

COMMENTS

DF = Dilution Factor

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

J = Trace Concentration between MDL and PQL

Actual Detection Limit = PQL X DF

ND = Below the Actual Detection Limit or non-detected

TTLT = Total Threshold Limit Concentration

STLC = Soluble Threshold Limit Concentration


@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5

* = STLC analysis for the metal is recommended (if marked)

** = Additional Analysis required, please call to discuss (if marked)

*** = The concentration exceeds the TTLT Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)

-- = Not analyzed/not requested

Data Reviewed and Approved by: 

CAL-DHS ELAP CERTIFICATE No.: 1555

LABORATORY REPORT

CUSTOMER: **Leighton Consulting, Inc.**
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com

PROJECT: **SR-60 & Theodore St Interchange**
PROJECT No.: **10326.001**

MATRIX: SOIL DATE RECEIVED: 11/12/18
SAMPLING DATE: 11/10/18 DATE ANALYZED: 11/13&14/18
REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

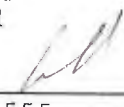
SAMPLE I.D.: **MWD003-0.5** LAB I.D.: **181112-22**

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	MDL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Antimony (Sb)	ND	1.0	0.250	1	500	15	6010B
Arsenic (As)	2.37	0.3	0.248	1	500	5.0	6010B
Barium (Ba)	46.6	5.0	0.143	1	10,000	100	6010B
Beryllium (Be)	ND	0.5	0.180	1	75	0.75	6010B
Cadmium (Cd)	ND	0.5	0.119	1	100	1.0	6010B
Chromium Total (Cr)	16.7	0.5	0.138	1	2,500	560/50	6010B
Chromium VI (Cr6)	--	0.2	0.0156	1	500	5.0	7196A
Cobalt (Co)	6.89	1.0	0.156	1	8,000	80	6010B
Copper (Cu)	12.8	1.0	0.203	1	2,500	25	6010B
Lead (Pb)	5.85	0.5	0.192	1	1,000	5.0	6010B
Mercury (Hg)	ND	0.01	0.0062	1	20	0.2	7471A
Molybdenum (Mo)	ND	5.0	0.274	1	3,500	350	6010B
Nickel (Ni)	8.21	2.5	0.165	1	2,000	20	6010B
Selenium (Se)	ND	1.0	0.234	1	100	1.0	6010B
Silver (Ag)	ND	1.0	0.414	1	500	5.0	6010B
Thallium (Tl)	ND	1.0	0.432	1	700	7.0	6010B
Vanadium (V)	31.7	5.0	0.171	1	2,400	24	6010B
Zinc (Zn)	37.5	0.5	0.131	1	5,000	250	6010B

COMMENTS

DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
J = Trace Concentration between MDL and PQL
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5
* = STLC analysis for the metal is recommended (if marked)
** = Additional Analysis required, please call to discuss (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)
-- = Not analyzed/not requested

Data Reviewed and Approved by: 
CAL-DHS ELAP CERTIFICATE No.: 1555

LABORATORY REPORT

CUSTOMER: **Leighton Consulting, Inc.**
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 Tel(909)527-8785 E-Mail: ZFreeman@Leightongroup.com

PROJECT: **SR-60 & Theodore St Interchange**

PROJECT No.: **10326.001**

MATRIX: SOIL

DATE RECEIVED: 11/12/18

SAMPLING DATE: 11/10/18

DATE ANALYZED: 11/13&14/18

REPORT TO: MR. ZACHARY FREEMAN

DATE REPORTED: 11/19/18

SAMPLE I.D.: **MWD003-10.0**

LAB I.D.: 181112-24

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS

UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	MDL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Antimony(Sb)	ND	1.0	0.250	1	500	15	6010B
Arsenic(As)	2.25	0.3	0.248	1	500	5.0	6010B
Barium(Ba)	34.8	5.0	0.143	1	10,000	100	6010B
Beryllium(Be)	ND	0.5	0.180	1	75	0.75	6010B
Cadmium(Cd)	ND	0.5	0.119	1	100	1.0	6010B
Chromium Total(Cr)	13.1	0.5	0.138	1	2,500	560/50	6010B
Chromium VI (Cr6)	--	0.2	0.0156	1	500	5.0	7196A
Cobalt(Co)	5.49	1.0	0.156	1	8,000	80	6010B
Copper(Cu)	9.26	1.0	0.203	1	2,500	25	6010B
Lead(Pb)	2.42	0.5	0.192	1	1,000	5.0	6010B
Mercury(Hg)	ND	0.01	0.0062	1	20	0.2	7471A
Molybdenum(Mo)	ND	5.0	0.274	1	3,500	350	6010B
Nickel(Ni)	6.51	2.5	0.165	1	2,000	20	6010B
Selenium(Se)	ND	1.0	0.234	1	100	1.0	6010B
Silver(Ag)	ND	1.0	0.414	1	500	5.0	6010B
Thallium(Tl)	ND	1.0	0.432	1	700	7.0	6010B
Vanadium(V)	24.2	5.0	0.171	1	2,400	24	6010B
Zinc(Zn)	27.5	0.5	0.131	1	5,000	250	6010B

COMMENTS

DF = Dilution Factor

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

J = Trace Concentration between MDL and PQL

Actual Detection Limit = PQL X DF

ND = Below the Actual Detection Limit or non-detected

TTLC = Total Threshold Limit Concentration

STLC = Soluble Threshold Limit Concentration


@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5

* = STLC analysis for the metal is recommended (if marked)

** = Additional Analysis required, please call to discuss (if marked)

*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)

-- = Not analyzed/not requested

Data Reviewed and Approved by: 

CAL-DHS ELAP CERTIFICATE No.: 1555

LABORATORY REPORT

CUSTOMER: **Leighton Consulting, Inc.**
 10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
 Tel (909) 527-8785 E-Mail: ZFreeman@Leightongroup.com

PROJECT: **SR-60 & Theodore St Interchange**

PROJECT No.: **10326.001**

MATRIX: SOIL

DATE RECEIVED: 11/12/18

SAMPLING DATE: 11/10/18

DATE ANALYZED: 11/13&14/18

REPORT TO: MR. ZACHARY FREEMAN

DATE REPORTED: 11/19/18

SAMPLE I.D.: **MWD004-0.5**

LAB I.D.: 181112-25

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS

UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	MDL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Antimony (Sb)	ND	1.0	0.250	1	500	15	6010B
Arsenic (As)	2.38	0.3	0.248	1	500	5.0	6010B
Barium (Ba)	67.4	5.0	0.143	1	10,000	100	6010B
Beryllium (Be)	ND	0.5	0.180	1	75	0.75	6010B
Cadmium (Cd)	ND	0.5	0.119	1	100	1.0	6010B
Chromium Total (Cr)	21.6	0.5	0.138	1	2,500	560/50	6010B
Chromium VI (Cr6)	--	0.2	0.0156	1	500	5.0	7196A
Cobalt (Co)	9.10	1.0	0.156	1	8,000	80	6010B
Copper (Cu)	18.2	1.0	0.203	1	2,500	25	6010B
Lead (Pb)	7.41	0.5	0.192	1	1,000	5.0	6010B
Mercury (Hg)	ND	0.01	0.0062	1	20	0.2	7471A
Molybdenum (Mo)	ND	5.0	0.274	1	3,500	350	6010B
Nickel (Ni)	11.4	2.5	0.165	1	2,000	20	6010B
Selenium (Se)	ND	1.0	0.234	1	100	1.0	6010B
Silver (Ag)	ND	1.0	0.414	1	500	5.0	6010B
Thallium (Tl)	ND	1.0	0.432	1	700	7.0	6010B
Vanadium (V)	39.1	5.0	0.171	1	2,400	24	6010B
Zinc (Zn)	50.2	0.5	0.131	1	5,000	250	6010B

COMMENTS

DF = Dilution Factor

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

J = Trace Concentration between MDL and PQL

Actual Detection Limit = PQL X DF

ND = Below the Actual Detection Limit or non-detected

TTLC = Total Threshold Limit Concentration

STLC = Soluble Threshold Limit Concentration

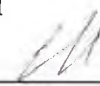
@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5

* = STLC analysis for the metal is recommended (if marked)

** = Additional Analysis required, please call to discuss (if marked)

*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)

-- = Not analyzed/not requested

Data Reviewed and Approved by: 

CAL-DHS ELAP CERTIFICATE No.: 1555

LABORATORY REPORT

CUSTOMER: **Leighton Consulting, Inc.**
 10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
 Tel (909) 527-8785 E-Mail: ZFreeman@Leightongroup.com

PROJECT: **SR-60 & Theodore St Interchange**
 PROJECT No.: **10326.001**

MATRIX: SOIL DATE RECEIVED: 11/12/18
 SAMPLING DATE: 11/10/18 DATE ANALYZED: 11/13&14/18
 REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

SAMPLE I.D.: **MWD004-10.0** LAB I.D.: 181112-27

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
 UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	MDL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Antimony (Sb)	ND	1.0	0.250	1	500	15	6010B
Arsenic (As)	2.19	0.3	0.248	1	500	5.0	6010B
Barium (Ba)	24.3	5.0	0.143	1	10,000	100	6010B
Beryllium (Be)	ND	0.5	0.180	1	75	0.75	6010B
Cadmium (Cd)	ND	0.5	0.119	1	100	1.0	6010B
Chromium Total (Cr)	9.67	0.5	0.138	1	2,500	560/50	6010B
Chromium VI (Cr6)	--	0.2	0.0156	1	500	5.0	7196A
Cobalt (Co)	4.09	1.0	0.156	1	8,000	80	6010B
Copper (Cu)	7.08	1.0	0.203	1	2,500	25	6010B
Lead (Pb)	1.76	0.5	0.192	1	1,000	5.0	6010B
Mercury (Hg)	ND	0.01	0.0062	1	20	0.2	7471A
Molybdenum (Mo)	ND	5.0	0.274	1	3,500	350	6010B
Nickel (Ni)	4.58	2.5	0.165	1	2,000	20	6010B
Selenium (Se)	ND	1.0	0.234	1	100	1.0	6010B
Silver (Ag)	ND	1.0	0.414	1	500	5.0	6010B
Thallium (Tl)	ND	1.0	0.432	1	700	7.0	6010B
Vanadium (V)	18.0	5.0	0.171	1	2,400	24	6010B
Zinc (Zn)	21.3	0.5	0.131	1	5,000	250	6010B

COMMENTS

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 J = Trace Concentration between MDL and PQL
 Actual Detection Limit = PQL X DF
 ND = Below the Actual Detection Limit or non-detected
 TTLC = Total Threshold Limit Concentration
 STLC = Soluble Threshold Limit Concentration
 @ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5
 * = STLC analysis for the metal is recommended (if marked)
 ** = Additional Analysis required, please call to discuss (if marked)
 *** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)
 -- = Not analyzed/not requested

Data Reviewed and Approved by: [Signature]
 CAL-DHS ELAP CERTIFICATE No.: 1555

LABORATORY REPORT

CUSTOMER: **Leighton Consulting, Inc.**
 10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
 Tel (909) 527-8785 E-Mail: ZFreeman@Leightongroup.com

PROJECT: **SR-60 & Theodore St Interchange**

PROJECT No.: **10326.001**

MATRIX: **SOIL**

DATE RECEIVED: **11/12/18**

SAMPLING DATE: **11/10/18**

DATE ANALYZED: **11/13&14/18**

REPORT TO: **MR. ZACHARY FREEMAN**

DATE REPORTED: **11/19/18**

SAMPLE I.D.: **MWD504-5.0**

LAB I.D.: **181112-28**

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS

UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	MDL	DF	TTLT LIMIT	STLT LIMIT	EPA METHOD
Antimony (Sb)	ND	1.0	0.250	1	500	15	6010B
Arsenic (As)	2.26	0.3	0.248	1	500	5.0	6010B
Barium (Ba)	35.2	5.0	0.143	1	10,000	100	6010B
Beryllium (Be)	ND	0.5	0.180	1	75	0.75	6010B
Cadmium (Cd)	ND	0.5	0.119	1	100	1.0	6010B
Chromium Total (Cr)	13.4	0.5	0.138	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.2	0.0156	1	500	5.0	7196A
Cobalt (Co)	5.48	1.0	0.156	1	8,000	80	6010B
Copper (Cu)	11.6	1.0	0.203	1	2,500	25	6010B
Lead (Pb)	2.90	0.5	0.192	1	1,000	5.0	6010B
Mercury (Hg)	ND	0.01	0.0062	1	20	0.2	7471A
Molybdenum (Mo)	ND	5.0	0.274	1	3,500	350	6010B
Nickel (Ni)	6.33	2.5	0.165	1	2,000	20	6010B
Selenium (Se)	ND	1.0	0.234	1	100	1.0	6010B
Silver (Ag)	ND	1.0	0.414	1	500	5.0	6010B
Thallium (Tl)	ND	1.0	0.432	1	700	7.0	6010B
Vanadium (V)	24.6	5.0	0.171	1	2,400	24	6010B
Zinc (Zn)	28.8	0.5	0.131	1	5,000	250	6010B

COMMENTS

DF = Dilution Factor

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

J = Trace Concentration between MDL and PQL

Actual Detection Limit = PQL X DF

ND = Below the Actual Detection Limit or non-detected

TTLT = Total Threshold Limit Concentration

STLT = Soluble Threshold Limit Concentration

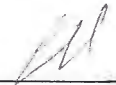
@ = Must meet both the STLT Limit at 560 and EPA-TCLP Limit at 5

* = STLT analysis for the metal is recommended (if marked)

** = Additional Analysis required, please call to discuss (if marked)

*** = The concentration exceeds the TTLT Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)

-- = Not analyzed/not requested

Data Reviewed and Approved by: 

CAL-DHS ELAP CERTIFICATE No.: 1555

METHOD BLANK REPORT

CUSTOMER: **Leighton Consulting, Inc.**
 10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
 Tel (909) 527-8785 E-Mail: ZFreeman@Leightongroup.com

PROJECT: **SR-60 & Theodore St Interchange**

PROJECT No.: **10326.001**

MATRIX: SOIL

DATE RECEIVED: 11/12/18

SAMPLING DATE: 11/10/18

DATE ANALYZED: 11/13&14/18

REPORT TO: MR. ZACHARY FREEMAN

DATE REPORTED: 11/19/18

METHOD BLANK FOR LAB I.D.: 181112-14, -15, -16, -18 THROUGH -28

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS

UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	MDL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Antimony (Sb)	ND	1.0	0.250	1	500	15	6010B
Arsenic (As)	ND	0.3	0.248	1	500	5.0	6010B
Barium (Ba)	ND	5.0	0.143	1	10,000	100	6010B
Beryllium (Be)	ND	0.5	0.180	1	75	0.75	6010B
Cadmium (Cd)	ND	0.5	0.119	1	100	1.0	6010B
Chromium Total (Cr)	ND	0.5	0.138	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.2	0.0156	1	500	5.0	7196A
Cobalt (Co)	ND	1.0	0.156	1	8,000	80	6010B
Copper (Cu)	ND	1.0	0.203	1	2,500	25	6010B
Lead (Pb)	ND	0.5	0.192	1	1,000	5.0	6010B
Mercury (Hg)	ND	0.01	0.0062	1	20	0.2	7471A
Molybdenum (Mo)	ND	5.0	0.274	1	3,500	350	6010B
Nickel (Ni)	ND	2.5	0.165	1	2,000	20	6010B
Selenium (Se)	ND	1.0	0.234	1	100	1.0	6010B
Silver (Ag)	ND	1.0	0.414	1	500	5.0	6010B
Thallium (Tl)	ND	1.0	0.432	1	700	7.0	6010B
Vanadium (V)	ND	5.0	0.171	1	2,400	24	6010B
Zinc (Zn)	ND	0.5	0.131	1	5,000	250	6010B

COMMENTS

DF = Dilution Factor

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

J = Trace Concentration between MDL and PQL

Actual Detection Limit = PQL X DF

ND = Below the Actual Detection Limit or non-detected

TTLC = Total Threshold Limit Concentration

STLC = Soluble Threshold Limit Concentration

@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5

* = STLC analysis for the metal is recommended (if marked)

** = Additional Analysis required, please call to discuss (if marked)

*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)

-- = Not analyzed/not requested

Data Reviewed and Approved by: _____

CAL-DHS ELAP CERTIFICATE No.: 1555

QA/QC for Metals Analysis --TTLC--SOLID/SOIL MATRIX

Matrix Spike/ Matrix Spike Duplicate/ LCS :

Metals Analysis Date : 11/14/2018

Mercury Analysis Date : 11/13/2018

Unit : mg/Kg(ppm)

Analysis	Spk.Sample ID	LCS CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Antimony (Sb)	181112-21	50.0	109	PASS	0	50	50.4	101%	51.5	103%	2%
Arsenic (As)	181112-21	50.0	112	PASS	2.22	50	53.2	102%	54.4	104%	2%
Barium (Ba)	181112-21	50.0	104	PASS	30.8	50	77.8	94%	76.7	-92%	2%
Beryllium (Be)	181112-21	50.0	99	PASS	0	50	47.4	95%	48.5	97%	2%
Cadmium (Cd)	181112-21	50.0	115	PASS	0	50	51.8	104%	52.7	105%	2%
Chromium (Cr)	181112-21	50.0	103	PASS	10.5	50	58.2	95%	58.7	96%	1%
Cobalt (Co)	181112-21	50.0	110	PASS	4.61	50	53.5	98%	54.4	100%	2%
Copper (Cu)	181112-21	50.0	100	PASS	8.37	50	55.7	95%	55.1	93%	1%
Lead (Pb)	181112-21	50.0	110	PASS	2.34	50	47.8	91%	47.4	90%	1%
Mercury (Hg)	181113-14	0.125	98	PASS	0	0.125	0.114	91%	0.109	87%	4%
Molybdenum(Mo)	181112-21	50.0	108	PASS	0	50	50.3	101%	51.4	103%	2%
Nickel (Ni)	181112-21	50.0	98	PASS	5.44	50	53.2	96%	52.6	94%	1%
Selenium (Se)	181112-21	50.0	110	PASS	0	50	49.4	99%	50.6	101%	2%
Silver (Ag)	181112-21	5.0	102	PASS	0	5.0	4.00	80%	4.17	83%	4%
Thallium (Tl)	181112-21	50.0	105	PASS	0	50	44.7	89%	45.6	91%	2%
Vanadium (V)	181112-21	50.0	102	PASS	20.7	50	69.1	97%	70.3	99%	2%
Zinc (Zn)	181112-21	50.0	114	PASS	24.2	50	74.4	100%	75.4	102%	2%

ANALYST: _____

FINAL REVIEWER: _____

*=Fail due to matrix interference

Note:LCS is in control therefore results are in control

LABORATORY REPORT

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 10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
 Tel (909) 527-8785 E-Mail: ZFreeman@Leightongroup.com

PROJECT: **SR-60 & Theodore St Interchange**
 PROJECT No.: **10326.001** DATE RECEIVED: 11/12/18
 MATRIX: SOIL DATE EXTRACTED: 11/13/18
 SAMPLING DATE: 11/10/18 DATE ANALYZED: 11/13/18
 REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

SAMPLE I.D.: **P025-0.5** LAB I.D.: 181112-10

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
 CAL-DHS CERTIFICATE # 1555



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 REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

SAMPLE I.D.: **P026-0.5** LAB I.D.: 181112-12

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by: 
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 REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

SAMPLE I.D.: **MWD1-0.5**

LAB I.D.: 181112-14

Organochlorine Pesticides Analysis


method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by: 
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 REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

SAMPLE I.D.: **MWD1-5.0** LAB I.D.: 181112-15

Organochlorine Pesticides Analysis


method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

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PROJECT No.: **10326.001** DATE RECEIVED: 11/12/18
MATRIX: SOIL DATE EXTRACTED: 11/13/18
SAMPLING DATE: 11/10/18 DATE ANALYZED: 11/13/18
REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

SAMPLE I.D.: **MWD1-10.0**

LAB I.D.: 181112-16

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor

MDL = Method Detection Limit

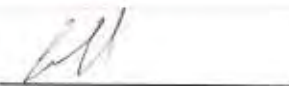
PQL = Practical Quantitation Limit

Actual Detection Limit = PQL X DF

J = Trace Concentration between MDL and PQL

ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555



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REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

SAMPLE I.D.: **MWD501-5.0**

LAB I.D.: 181112-18

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

Actual Detection Limit = PQL X DF

J = Trace Concentration between MDL and PQL

ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555



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PROJECT: SR-60 & Theodore St Interchange
PROJECT No.: 10326.001 DATE RECEIVED: 11/12/18
MATRIX: SOIL DATE EXTRACTED: 11/13/18
SAMPLING DATE: 11/10/18 DATE ANALYZED: 11/13/18
REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

SAMPLE I.D.: MWD002-0.5

LAB I.D.: 181112-19

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

Actual Detection Limit = PQL X DF

J = Trace Concentration between MDL and PQL

ND = Below the Actual Detection Limit or non-detected

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REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

SAMPLE I.D.: MWD002-5.0

LAB I.D.: 181112-20

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

Actual Detection Limit = PQL X DF

J = Trace Concentration between MDL and PQL

ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555



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 REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

SAMPLE I.D.: **MWD002-10.0**

LAB I.D.: 181112-21

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
 CAL-DHS CERTIFICATE # 1555



LABORATORY REPORT

CUSTOMER: **Leighton Consulting, Inc.**
 10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
 Tel (909) 527-8785 E-Mail: ZFreeman@Leightongroup.com

PROJECT: **SR-60 & Theodore St Interchange**
 PROJECT No.: 10326.001 DATE RECEIVED: 11/12/18
 MATRIX: SOIL DATE EXTRACTED: 11/13/18
 SAMPLING DATE: 11/10/18 DATE ANALYZED: 11/13/18
 REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

SAMPLE I.D.: **MWD003-0.5** LAB I.D.: 181112-22

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

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 REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

SAMPLE I.D.: **MWD003-5.0** LAB I.D.: 181112-23

Organochlorine Pesticides Analysis


method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

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 REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

SAMPLE I.D.: **MWD003-10.0** LAB I.D.: 181112-24

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

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REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

SAMPLE I.D.: **MWD004-0.5** LAB I.D.: 181112-25

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

Actual Detection Limit = PQL X DF

J = Trace Concentration between MDL and PQL

ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
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REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

SAMPLE I.D.: MWD004-5.0 LAB I.D.: 181112-26

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
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PROJECT: SR-60 & Theodore St Interchange
PROJECT No.: 10326.001 DATE RECEIVED: 11/12/18
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REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

SAMPLE I.D.: MWD004-10.0 LAB I.D.: 181112-27

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
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PROJECT: **SR-60 & Theodore St Interchange**
 PROJECT No.: **10326.001** DATE RECEIVED: 11/12/18
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 REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

SAMPLE I.D.: **MWD504-5.0** LAB I.D.: 181112-28

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
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 REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

SAMPLE I.D.: **P027-0.5** LAB I.D.: 181112-29

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
 CAL-DHS CERTIFICATE # 1555



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 PROJECT No.: **10326.001** DATE RECEIVED: 11/12/18
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 REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

SAMPLE I.D.: **P028-0.5** LAB I.D.: 181112-31

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
 CAL-DHS CERTIFICATE # 1555



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PROJECT No.: **10326.001** DATE RECEIVED: 11/12/18
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SAMPLING DATE: 11/10/18 DATE ANALYZED: 11/13/18
REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

SAMPLE I.D.: **P528-0.5** LAB I.D.: 181112-33

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555



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PROJECT: **SR-60 & Theodore St Interchange**
 PROJECT No.: **10326.001** DATE RECEIVED: 11/12/18
 MATRIX: SOIL DATE EXTRACTED: 11/13/18
 SAMPLING DATE: 11/10/18 DATE ANALYZED: 11/14/18
 REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

SAMPLE I.D.: **P020-0.5** LAB I.D.: 181112-35

Organochlorine Pesticides Analysis

method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	0.005	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
 CAL-DHS CERTIFICATE # 1555



METHOD BLANK REPORT

CUSTOMER: **Leighton Consulting, Inc.**
 10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
 Tel (909) 527-8785 E-Mail: ZFreeman@Leightongroup.com

PROJECT: **SR-60 & Theodore St Interchange**
 PROJECT No.: **10326.001** DATE RECEIVED: 11/12/18
 MATRIX: SOIL DATE EXTRACTED: 11/13/18
 SAMPLING DATE: 11/10/18 DATE ANALYZED: 11/13/18
 REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

METHOD BLANK FOR LAB I.D.:
 181112-10, -12, -14, -15, -16, -18 THROUGH -29, -31, -33, -35

Organochlorine Pesticides Analysis
 method: EPA 8081A
 Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxychlor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1

COMMENTS:

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 Actual Detection Limit = PQL X DF
 J = Trace Concentration between MDL and PQL
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
 CAL-DHS CERTIFICATE # 1555



Enviro-Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

EPA 8081 QA/QC Report

Matrix: **Soil/Solid/Liquid(Oil)**
 Unit: **mg/Kg (ppm)**

Date Analyzed: 11/13-14/2018

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: **181112-14 MS/MSD**

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0.000	0.00500	0.00546	109%	0.00603	121%	10%	0-20%	70-130
Aldrin	0.000	0.00500	0.00618	124%	0.00601	120%	3%	0-20%	70-130
4,4-DDE	0.000	0.00500	0.00552	110%	0.00527	105%	5%	0-20%	70-130

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.00500	0.00598	120%	75-125
Aldrin	0.00500	0.00572	114%	75-125
4,4-DDE	0.00500	0.00597	119%	75-125
Dieldrin	0.00500	0.00621	124%	75-125

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		MB	181112-10	181112-12	181112-14	181112-15	181112-16	181112-18	
Tetra-chloro-meta-xylene	50-150	80%	76%	78%	69%	79%	74%	79%	
Decachlorobiphenyl	50-150	96%	85%	87%	84%	92%	100%	98%	

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		181112-19	181112-20	181112-21	181112-22	181112-23	181112-24	181112-25	
Tetra-chloro-meta-xylene	50-150	79%	79%	82%	79%	85%	80%	78%	
Decachlorobiphenyl	50-150	92%	92%	95%	88%	90%	92%	92%	

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		181112-26	181112-27	181112-28	181112-29	181112-31	181112-33	181112-35	
Tetra-chloro-meta-xylene	50-150	86%	77%	77%	77%	83%	82%	79%	
Decachlorobiphenyl	50-150	89%	87%	88%	88%	90%	77%	51%	

S.R. = Sample Result

spk conc = Spike Concentration

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

* = Surrogate fail due to matrix interference (If Marked)

Note: LCS, MS, MSD are in control therefore results are in control.

Analyzed and Reviewed By: 

Final Reviewer: _____

LABORATORY REPORT

CUSTOMER: Leighton Consulting, Inc.
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel (909) 527-8785 E-Mail: ZFreeman@Leightongroup.com

PROJECT: SR-60 & Theodore St Interchange

PROJECT No.: 10326.001

DATE RECEIVED: 11/12/18

MATRIX: WATER

DATE EXTRACTED: 11/12/18

SAMPLING DATE: 11/10/18

DATE ANALYZED: 11/15/18

REPORT TO: MR. ZACHARY FREEMAN

DATE REPORTED: 11/19/18

TOTAL PETROLEUM HYDROCARBONS (TPH) - CARBON CHAIN ANALYSIS

METHOD: EPA 8015B

UNIT: $\mu\text{G/L}$ = MICROGRAM PER LITER = PPB

SAMPLE I.D.	LAB I.D.	C4-C10	C11-C22	C23-C35	DF
<u>E001</u>	<u>181112-37</u>	<u>ND</u>	<u>ND</u>	<u>ND</u>	<u>1</u>
<u>METHOD BLANK</u>		<u>ND</u>	<u>ND</u>	<u>ND</u>	<u>1</u>
	MDL	250	250	2500	
	PQL	500	500	5000	

COMMENTS

C4-C10 = GASOLINE RANGE

C11-C22 = DIESEL RANGE

C23-C35 = MOTOR OIL RANGE

DF = DILUTION FACTOR

MDL = METHOD DETECTION LIMIT

PQL = PRACTICAL QUANTITATION LIMIT

J = TRACE CONCENTRATION BETWEEN MDL AND PQL

ACTUAL DETECTION LIMIT = $DF \times PQL$

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

Data Reviewed and Approved by: 

CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro Chem, Inc

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

8015B QA/QC Report

Date Analyzed: 11/15/2018

Units: ug/L (PPB)

Matrix: **Water/Liquid**

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: **181113-3 MS/MSD**

Analyte	SR	spk conc	MS	%MS	MSD	%MSD	%RPD	ACP %MS	ACP RPD
C10-C28 RANGE	0	12000	9010	75%	9860	82%	9%	75-125	0-20%

LCS STD RECOVERY:

Analyte	spk conc	LCS	% REC	ACP
C10-C28 RANGE	12000	10300	86%	75-125

Analyzed and Reviewed by: 

Final Reviewer: 

LABORATORY REPORT

CUSTOMER: **Leighton Consulting, Inc.**
 10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
 Tel (909) 527-8785 E-Mail: ZFreeman@Leightongroup.com

PROJECT: **SR-60 & Theodore St Interchange**
 PROJECT No.: **10326.001**

MATRIX: WATER

DATE RECEIVED: 11/12/18

SAMPLING DATE: 11/10/18

DATE ANALYZED: 11/13/18

REPORT TO: MR. ZACHARY FREEMAN

DATE REPORTED: 11/19/18

SAMPLE I.D.: **E001**

LAB I.D.: 181112-37

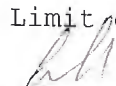
TOTAL METALS ANALYSIS

UNIT: mg/L = MILLIGRAM PER LITER = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	MDL	DF	EPA METHOD
Antimony (Sb)	ND	0.02	0.005	1	200.7
Arsenic (As)	ND	0.01	0.005	1	200.7
Barium (Ba)	ND	0.10	0.003	1	200.7
Beryllium (Be)	ND	0.01	0.004	1	200.7
Cadmium (Cd)	ND	0.01	0.002	1	200.7
Chromium (Cr)	ND	0.01	0.003	1	200.7
Cobalt (Co)	ND	0.02	0.003	1	200.7
Copper (Cu)	ND	0.02	0.004	1	200.7
Lead (Pb)	ND	0.01	0.004	1	200.7
Mercury (Hg)	ND	0.0005	0.0002	1	245.1
Molybdenum (Mo)	ND	0.1	0.005	1	200.7
Nickel (Ni)	ND	0.05	0.003	1	200.7
Selenium (Se)	ND	0.02	0.005	1	200.7
Silver (Ag)	ND	0.02	0.008	1	200.7
Thallium (Tl)	ND	0.02	0.009	1	200.7
Vanadium (V)	ND	0.1	0.003	1	200.7
Zinc (Zn)	ND	0.01	0.003	1	200.7

COMMENTS

DF = Dilution Factor
 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 J = Trace Concentration between MDL and PQL
 Actual Detection Limit = PQL X DF
 ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by: 
 CAL-DHS ELAP CERTIFICATE No.: 1555

QA/QC for Metals Analysis --TTLC--WATER

Matrix Spike/ Matrix Spike Duplicate/ LCS :

Metals Analysis Date : 11/13/2018

Mercury Analysis Date : 11/13/2018

Unit : mg/L(ppm)

Analysis	Spk.Sample ID	LCS CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec		% RPD
								MSD	MSD	
Antimony (Sb)	181112-37	1.00	107	PASS	0	1.00	1.25	125%	1.25	0%
Arsenic (As)	181112-37	1.00	108	PASS	0	1.00	1.23	123%	1.23	0%
Barium (Ba)	181112-37	1.00	105	PASS	0	1.00	1.17	117%	1.18	1%
Beryllium (Be)	181112-37	1.00	106	PASS	0	1.00	1.20	120%	1.20	0%
Cadmium (Cd)	181112-37	1.00	111	PASS	0	1.00	1.28	128%	1.28	0%
Chromium (Cr)	181112-37	1.00	104	PASS	0	1.00	1.14	114%	1.15	1%
Cobalt (Co)	181112-37	1.00	109	PASS	0	1.00	1.23	123%	1.23	0%
Copper (Cu)	181112-37	1.00	104	PASS	0	1.00	1.16	116%	1.17	1%
Lead (Pb)	181112-37	1.00	113	PASS	0	1.00	1.29	129%	1.29	0%
Mercury (Hg)	181112-37	0.0025	100.0	PASS	0	0.0025	0.0022	88%	0.0023	4%
Molybdenum(Mo)	181112-37	1.00	110	PASS	0	1.00	1.11	111%	1.12	1%
Nickel (Ni)	181112-37	1.00	106	PASS	0	1.00	1.17	117%	1.18	1%
Selenium (Se)	181112-37	1.00	109	PASS	0	1.00	1.40	140%	1.41	1%
Silver (Ag)	181112-37	0.10	104	PASS	0	0.100	0.067	67%	0.058	14%
Thallium (Tl)	181112-37	1.00	104	PASS	0	1.00	1.13	113%	1.14	1%
Vanadium (V)	181112-37	1.00	99	PASS	0	1.00	1.07	107%	1.07	0%
Zinc (Zn)	181112-37	1.00	114	PASS	0	1.00	1.34	134%	1.34	0%

ANALYST: 

FINAL REVIEWER: 

*=Fail due to matrix interference

Note:LCS is in control therefore results are in control

LABORATORY REPORT

CUSTOMER: Leighton Consulting, Inc.
10532 Acacia, Suite B-6, Rancho Cucamonga, CA 91730
Tel (909) 527-8785 E-Mail: ZFreeman@Leightongroup.com

PROJECT: SR-60 & Theodore St Interchange
PROJECT No.: 10326.001 DATE RECEIVED: 11/12/18
MATRIX: WATER DATE EXTRACTED: 11/12/18
SAMPLING DATE: 11/10/18 DATE ANALYZED: 11/15/18
REPORT TO: MR. ZACHARY FREEMAN DATE REPORTED: 11/19/18

SAMPLE I.D.: E001

LAB I.D.: 181112-37

Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: ug/L = Microgram per Liter = PPB

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.100	0.004	1
alpha-BHC	ND	0.100	0.004	1
beta-BHC	ND	0.100	0.006	1
gamma-BHC (Lindane)	ND	0.100	0.004	1
delta-BHC	ND	0.100	0.003	1
alpha-Chlordane	ND	0.100	0.003	1
gamma-Chlordane	ND	0.100	0.004	1
Total Chlordane	ND	0.500	0.050	1
4,4'-DDD	ND	0.100	0.002	1
4,4'-DDE	ND	0.100	0.006	1
4,4'-DDT	ND	0.100	0.004	1
Dieldrin	ND	0.100	0.004	1
Endosulfan I	ND	0.100	0.005	1
Endosulfan II	ND	0.100	0.006	1
Endosulfan Sulfate	ND	0.100	0.005	1
Endrin	ND	0.100	0.004	1
Endrin Aldehyde	ND	0.100	0.040	1
Endrin Ketone	ND	0.100	0.004	1
Heptachlor Epoxide	ND	0.100	0.008	1
Heptachlor	ND	0.100	0.004	1
Methoxychlor	ND	0.100	0.004	1
Toxaphene	ND	2.00	1.00	1

COMMENTS

DF = Dilution Factor

MDL = Method Detection Limit

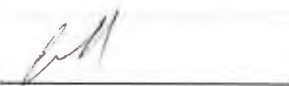
Actual Detection Limit = PQL X DF

PQL = Practical Quantitation Limit

J = Trace Concentration between MDL and PQL

ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555



Enviro-Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

EPA 608 (8081) QA/QC Report

Matrix: Water/Liquid
 Unit: ug/L

Date Analyzed: 11/15/18

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 181115-LCS1/2

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0	0.500	0.521	104%	0.546	109%	5%	0-20%	70-130
Aldrin	0	0.500	0.514	103%	0.568	114%	10%	0-20%	70-130
4,4-DDE	0	0.500	0.474	95%	0.456	91%	4%	0-20%	70-130

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.500	0.548	110%	75-125
Aldrin	0.500	0.539	108%	75-125
4,4-DDE	0.500	0.502	100%	75-125
Dieldrin	0.500	0.485	97%	75-125

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		M-BLK	181112-37	181114-12	181115-9	181115-19			
Tetra-chloro-meta-xylene	50-150	89%	117%	109%	109%	137%			
Decachlorobipneyl	50-150	85%	97%	97%	128%	97%			

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.									
Tetra-chloro-meta-xylene									
Decachlorobipneyl									

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.						
Tetra-chloro-meta-xylene						
Decachlorobipneyl						

S.R. = Sample Result
 spk conc = Spike Concentration
 %REC = Percent Recovery
 ACP %RPD = Acceptable Percent RPD Range
 ACP %REC = Acceptable Percent Recovery Range

Analyzed and Reviewed By: 

* = Surrogate fail due to matrix interference

Note: LCS, MS, MSD are in control therefore results are in control.

Final Reviewer: 

Enviro-Chem, Inc. Laboratories
 1214 E. Lexington Avenue,
 Pomona, CA 91766
 Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE #1555

Turnaround Time
 Same Day
 24 Hours
 48 Hours
 7-10 Business Days
 1 Week (Standard)
 Other

SAMPLE ID	LAB ID	DATE	SAMPLING TIME	MATRIX	NO. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required				COMMENTS	Misc./PO#	
								CRS 80814	TPH-C 80158	T-Hc 22 metals	Arsenic levels			
P025-0.5	181112-10	11-10-18	0724	soil	1 pt	ice		X	X					
P025-2.5	- 11		0726					X						Hold
P026-0.5	- 12		0741					X						Hold
P026-2.5	- 13		0743					X	X					
MWD1-0.5	- 14		0917					X	X					
MWD1-5.0	- 15		0823					X	X					
MWD1-10.0	- 16		0833					X	X					
MWD501-0.5	- 17		0839					X	X					Hold
MWD501-5.0	- 18		0849					X	X					
MWD501-10.0-ARC								X	X					
MWD002-0.5	- 19		0910					X	X					
MWD002-5.0	- 20		0922					X	X					
MWD002-10.0	- 21		0930					X	X					
MWD003-0.5	- 22		0935					X	X					
MWD003-5.0	- 23	11-10-18	0952	soil	12	ice		X	X					

Company Name: **Leighton Consulting Inc**
 Address: 10532 Aracia St Suite B6
 City/State/Zip: **Sanche Cucamonga CA 91730**
 Relinquished by: **[Signature]**
 Relinquished by: **[Signature]**
 Relinquished by: **[Signature]**

Project Contact: **Zachary Freeman**
 Tel: 909-527-8785
 Fax/Email: zfreeman@leightongroup.com
 Date & Time: 11/10/18
 Date & Time: 11/10/18
 Date & Time: 11/10/18

Sampler's Signature: **[Signature]**
 Project Name/ID: **10326-001**
 Instructions for Sample Storage After Analysis:
 Dispose of Return to Client Store (30 Days)
 Other

Enviro-Chem, Inc. Laboratories
 1214 E. Lexington Avenue,
 Pomona, CA 91766
 Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE #1555

Turnaround Time
 Same Day
 24 Hours
 48 Hours
 72 Hours
 1 Week (Standard)
 Other:

SAMPLE ID	LAB ID	DATE	SAMPLING TIME	MATRIX	NO. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required				COMMENTS	
								Asmet 6/0/08	T-HH 22 weeks	TPH-cc 8/05/8	NRs 8/08/1A		
MWD003-10.0	181112-24	10-18	1015	Soil	1	207	ice	X	X	X	X		
MWD004-0.5	- 25		1058	}	}	}	}	X	X	X	X		
MWD004-5.0	- 26		1103					X	X	X	X		
MWD004-10.0	- 27		1110					X	X	X	X		
MWS04-5.0	- 28		1122					X	X	X	X		
R027-0.5	- 29		1144	}	}	}	}	X	X	X	X		
R027-2.5	- 30		1146					X	X	X	X		
R028-0.5	- 31		1206					X	X	X	X		
R028-2.5	- 32		1211					X	X	X	X		
P528-0.5	- 33		1207	}	}	}	}	X	X	X	X		
P528-2.5	- 34		1213					X	X	X	X		
P020-0.5	- 35		1237					X	X	X	X		
P020-2.5	- 36		1240					X	X	X	X		
E001-	- 37	11-10-08	1245	fluid	3		ice	X	X	X			

Company Name: *Leighton Consulting Inc*
 Address: *10532 Alacia St Suite B6*
 City/State/Zip: *San Bruno California CA 94130*
 Project Contact: *Zachary Freeman*
 Tel: *909-527-8785*
 Fax/Email: *Zfreeman@leightongroup.com*
 Sampler's Signature: *Breanna Copeland*
 Project Name/ID: *1032G.001*
 Instructions for Sample Storage After Analysis:
 Dispose of Return to Client Store (30 Days)
 Other:

Received by: *Zachary Freeman*
 Received by: *Zachary Freeman*
 Received by: *Zachary Freeman*

Date & Time: *11/01/08 1055*
 Date & Time: *11/12/08 1445*
 Date & Time:

11-10-2008 2 of 2