

**REVISED LIMITED PHASE II ENVIRONMENTAL SOIL  
RESIDUE ASSESSMENT  
PROPOSED DEVELOPMENT  
SWEETWATER PLACE PROJECT (FORMERLY SWEETWATER  
SPRINGS PROJECT)  
APN 505-231-36 (FORMERLY APN 760-128-54-00)  
2657 SWEETWATER SPRINGS BOULEVARD  
SPRING VALLEY  
SAN DIEGO COUNTY, CALIFORNIA 91978**

**SAM-SWEETWATER, LLC**

**OCTOBER 3, 2014  
(REISSUED JULY 2015)  
J.N. 12-355**



SOLID AS A ROCK

ENGINEERS + GEOLOGISTS + ENVIRONMENTAL SCIENTISTS

October 3, 2014  
(Reissued July 2015)  
J.N. 12-355

Mr. Ray Dorame  
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**Subject: Revised Limited Phase II Environmental Soil Residue Assessment, Proposed Development, Sweetwater Place Project (Formerly Sweetwater Springs Project), APN 505-231-36 (Formerly APN 760-128-54-00), 2657 Sweetwater Springs Boulevard, Spring Valley, San Diego County, California 91978**

Dear Mr. Dorame:

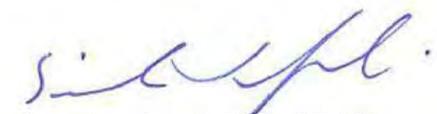
The Environmental Division of Petra Geosciences, Inc. (Petra) is pleased to present this Limited Phase II Soil Testing Assessment for the above-referenced site. This assessment has been conducted in general accordance with our supplemental proposal for Job No. 12-355, dated June 13, 2013 and follow up amendments 1 and 2 dated September 6, 2013 and June 19, 2014 respectively.

The revision consists of project name and Assessor Parcel Number (APN).

The information presented in this report discusses the results of our previous and recent site assessment and includes a summary of our findings and recommendations. This report was prepared at the request of SAM-Sweetwater, LLC, for their exclusive use. Use of this report or reliance thereon by other parties or projects is not authorized. The report may not be suitable for other parties or other purposes. This report has been prepared under the technical direction of the undersigned personnel.

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## EXECUTIVE SUMMARY

Following the completion of our Phase I Environmental Site Assessment (ESA) activities in December 2012 (Petra, 2012), this Limited Phase II Environmental soil testing assessment report has been prepared in general accordance with our supplemental proposal dated June 13, 2013, for the proposed residential and commercial developments at the *Sweetwater Place Project*, APN 505-231-36 (Formerly APN 760-128-54-00) located at 2657 Sweetwater Springs Boulevard in Spring Valley, San Diego County, California 91978. The purpose of this evaluation was to further evaluate the site, based on the findings and conclusions contained within our Phase I ESA (Petra, 2012), the previous Phase I ESA and Phase II testing conducted by Kleinfelder West, Inc. (KWI, 2010a and 2010b), and to determine whether a release of hazardous materials has occurred or is threatening to occur, and whether any such release or potential release threatens the public health or the environment. Since Petra's initial limited soil residue sampling and testing in July and August of 2013, it is our understanding that vegetation management operations have been completed onsite. Additionally, it is our understanding that site development plans have been revised to consist of solely residential land use.

Due to the findings of our Phase I ESA (Petra, 2012), and after further discussions with representatives from SAM-Sweetwater, LLC, it was determined that additional step-out soil sampling would be required to properly evaluate potential pesticide soil residues from the previous onsite storage and nursery use as well as possible petroleum hydrocarbon soil residues from the previous on-site diesel fuel Aboveground Storage Tank (AST), as well as petroleum hydrocarbon and metal soil residues from the adjacent commercial properties.

Based on the laboratory results of the soil samples collected, the following conclusions are made:

- Between July 2013 and June 2014 soil samples were collected within areas representing onsite pesticide storage, mixing, general usage, and/or runoff, as determined during our Phase I ESA for the site (Petra, 2012). Samples collected at a depth of 1.0, 3.0 and 5.0 feet below ground surface (bgs) were analyzed for Organochlorine Pesticides according to Environmental Protection Agency (EPA) Method 8081A. Test results reported concentrations of Organochlorine Pesticides, as non-detect (i.e., not detected above the method detection limit), except 4,4'-DDE (DDE), 4,4'-DDD (DDD), 4,4'-DDT (DDT), and Dieldrin. Concentrations of DDE ranged from non-detect to 8.95 milligrams per kilogram (mg/kg); DDD concentrations ranged from non-detect to 0.019 mg/kg (in three samples); DDT concentrations ranging from non-detect to 2.93 mg/kg (in ten samples); and Dieldrin was detected in one sample at a level of 0.010 mg/kg. Petra compared the detected levels of DDE, DDD, DDT, and Dieldrin with California Human Health Screening Level (CHHSL) criteria for residential soil (CalEPA, 2010): 1.6 mg/kg for DDE; 2.3 mg/kg DDD; 1.6 mg/kg DDT; and 0.035 mg/kg Dieldrin and the EPA Region 9 Regional Screening Level (RSL) of 1.6 mg/kg for DDE; 2.2 mg/kg for DDD; 1.9 mg/kg for DDT; and 0.033 mg/kg Dieldrin. As a result, soil residues exceeding

CHHSL and RSL values for DDE were encountered at sixteen locations within the subject property, and soil residues exceeding CHHSL and RSL values for DDT were encountered at one location within the subject property (HP-9A). Soils within these areas are not considered suitable for re-use as fill within future residential development.

- Soil samples collected within areas of possible impact by total petroleum hydrocarbons were analyzed for total petroleum hydrocarbons (TPH) as gasoline (TPHg) and diesel (TPHd) fuel and motor oil (TPHmo) in general accordance with modified EPA Method 8015. Two discrete samples contained TPHmo (C23-C35 motor oil range) concentrations of 1,060 and 604 mg/kg at a depth of 0.5 foot; however, samples collected from the two borings at a depth of 2 and 5 feet were reported as non-detect. The two detected concentrations of TPHmo were found to exceed the San Francisco Bay Regional Water Quality Control Board (SRBRWQCB) 2013 Tier 1 Environmental Screening Level (ESL) of 100 mg/kg. As a result, soil residues exceeding ESL values for TPHmo were encountered at two locations within the subject property (HP-13 and HP-14). Soils within these areas are not considered suitable for re-use as fill within future residential development. A summary of test results are provided in Table II.
- Soil samples collected in July 2013 within the drainage were analyzed for metals per modified EPA methods 6010B/7471A. Test results reported various metal constituent concentrations which were below the California Human Health Screening Level (CHHSL) and the EPA Region 9 Regional Screening Level (RSL) criteria for residential soil, except total chromium levels ranging from non-detect to 137.0 mg/kg. Based solely upon the elevated levels, results were flagged by the laboratory as requiring additional analysis. Subsequently, a sample with the highest total chromium concentration was also tested for chromium VI, with a result of non-detect. Additionally, test results for arsenic, ranging from non-detect to 3.19 mg/kg, were also compared to the residential CHHSL of 0.07 mg/kg; residential RSL of 0.67 mg/kg and the Department of Toxic Substances Control (DTSC) recommended screening concentration of 12.0 mg/kg for background levels of arsenic. Based upon this comparison, arsenic soil residues exceeded CHHSL levels at six locations; and RSL levels at four locations within the subject site. However, soil residue concentrations did not exceed the DTSC's recommended screening concentration of 12.0 mg/kg for background levels of arsenic (DTSC, 2008). Additionally, the arsenic residues detected in near surface soils were found to be within the background level range of benchmark soil types within San Diego County (Kearney Foundation, 1996) listed as 0.6 to 11.0 mg/kg. Based solely upon the detected arsenic residues well within the background range of soils in San Diego County, it is Petra's opinion that these soils may be re-used as fill materials within the proposed residential development. Sample results are summarized in Table 3

### **Recommendations**

Based upon the laboratory test results reported herein, Petra provides the following recommendations regarding future development of the subject property for residential purposes.

1. Soils with elevated concentrations above the ESL for TPHmo detected in the area of samples HP-13 and HP-14 should be excavated and removed from the subject property by a licensed environmental contractor. Excavations should extend to a width of 3 feet and a depth of 1 foot below the ground surface, and stockpiled onsite for disposal characterization. The stockpile

should be protected from wind and water erosion by visqueen. Once the excavation is completed, sidewall and bottom samples should be collected for TPH testing to verify removal of motor oil soil residues. The excavation should be monitored by a representative from Petra to identify stained soils and noxious odors, and collect stockpile characterization samples for offsite disposal.

2. Soils within the areas of HP-1, HP-1A, HP-1B, HP-2, HP-2A, HP-8A, HP-9A, HP-10, HP-18, HP-18A, HP-18B, HP-20, HP-23, HP-25, and HP-27 were found to contain elevated concentrations of DDE and HP-9A also contained DDT above the CHHSLs and RSL screening levels. These areas should be excavated and removed from the subject property by a licensed environmental contractor. Excavations should extend to a depth of approximately 4 to 6 feet below the ground surface, and stockpiled onsite for disposal characterization. The stockpile should be protected from wind and water erosion by visqueen. Once the excavations are completed, sidewall and bottom samples should be collected for DDE and/or DDT testing to verify removal of pesticide soil residues. The excavation should be monitored by a representative from Petra to identify unanticipated conditions or noxious odors, and collect stockpile characterization samples for offsite disposal.
3. Based on the subject property's historical agricultural use, it is possible that buried/concealed/hidden agricultural by-products, both below and above ground may have existed or exists on the subject property. Any buried trash/debris, or other waste encountered during future subject property development should be evaluated by an experienced environmental consultant prior to removal. If stained or suspicious soil is encountered during future grading operations, the material should be evaluated and if deemed necessary, characterized for proper disposal.

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## LIMITED PHASE II ENVIRONMENTAL SOIL RESIDUE ASSESSMENT

### Proposed Residential Development

*Sweetwater Place Project (Formerly Sweetwater Springs Project)*, APN 505-231-36 (Formerly APN 760-128-54-00), 2657 Sweetwater Springs Boulevard  
Spring Valley, San Diego County, California 91978

### INTRODUCTION

This Limited Phase II Environmental Soil Residue Assessment report for the proposed *Sweetwater Place Project* in Spring Valley, San Diego County, California, has been prepared by the Environmental Division of Petra Geosciences, Inc. (Petra), on behalf of SAM-Sweetwater, LLC. This Limited Phase II Environmental Investigation was conducted in general accordance with our proposal dated June 12, 2013.

### Objectives

Based on past land use of the subject property as a commercial nursery, identified during Petra's (2012) Phase I Environmental Site Assessment (ESA), this Limited Phase II Assessment was performed to determine whether past nursery activities at the site have resulted in the release or threatened release of hazardous agricultural substances which pose a threat to public health or the environment. The overall objectives of this assessment was to evaluate potential impacts from the pesticides from previous onsite storage and nursery use; the possible impact of hydrocarbons from the previous on-site diesel fuel Aboveground Storage Tank (AST) and adjacent commercial properties, and metals from adjacent commercial properties.

### Scope of Work

The scope of work completed for this Limited Phase II Assessment included the following tasks:

- Conducting utility clearance at sample collection points.
- Collection of soil samples.
- Laboratory analyses of soil samples collected.
- Evaluation of data and reporting.

### SITE DESCRIPTION

The subject site is an irregularly shaped parcel of unoccupied land. The site is located at 2657 Sweetwater Springs Boulevard northeast of the intersection of Sweetwater Springs Boulevard and Jamacha Road in Spring Valley, San Diego County, California 91978. The associated Assessor Parcel Number (APN) is 760-128-54-00. The site has a gently ascending gradient from the southwest to the northeast portion of the site. Topographically, elevations within the property range from approximately 489± Mean Sea Level

(MSL) within the northeast portion of the site to 441± MSL in the southwest portion of the site. Therefore, overall relief is on the order of 48± feet. A Chevron gas station and several commercial buildings are located adjacent to the site on the southwest corner of Sweetwater Springs Boulevard and Jamacha Road. At the time of our original Phase I ESA (Petra, 2012) the site was unoccupied land, with a light to heavy growth of vegetation covering the central and northeastern portion of the site, with sporadic and light vegetation in the southwestern portion of the site. All structures previously located on the property have been subsequently demolished and removed from the site. Several concrete driveways and rock pathways traverse the site. The property was enclosed by metal and chain link fencing.

Since Petra's initial limited soil residue sampling and testing in July and August of 2013, it is our understanding that vegetation management operations have been completed onsite. Additionally, it is our understanding that site development plans have been revised to consist of solely residential land use.

**Site Name**

The site is currently known as *Sweetwater Place Project* (formerly *Sweetwater Springs Project*).

**Site Address**

The site address is 2657 Sweetwater Springs Boulevard, Spring Valley, San Diego County, California 91978

**Designated Contact Person**

Mr. Ray Dorame, Vice President - Operations, SAM-Sweetwater, LLC (dba: MasterCraft Homes Group, LLC) and Project Manager of the subject site.

**Mailing Address**

SAM-Sweetwater, LLC  
20201 SW Birch Street, Suite 100  
Newport Beach, CA 92660

Attn: Mr. Ray Dorame

**Telephone Number**

The telephone number for Mr. Ray Dorame is (949) 252-1122



**Assessor's Parcel Number (APN)**

The APN of the project site is: 760-128-54-00

**Township, Range, and Section**

According to the 1994 topographic map of the Jamul Mountain Quadrangle, prepared by the USGS, the site is located within Township 17 South, Range 1 West, San Bernardino Base and Meridian.

**Site and Sample Location Maps**

Maps and plans included in this report are as follows: Site Location Map (Figure 1); Sample Location Map for environmental hydraulic punch soil sample locations (Figures 2, 3 and 4).

**BACKGROUND**

**Historical Site Information**

In December 2010, a Phase I ESA was completed by KWI (2010a) on behalf of CalTrans for the subject site. Based on information obtained during this investigation, the site appears to have been historically utilized for agriculture from at least 1964. From at least 1989 to approximately 2005 the subject site was developed as the former Evergreen Nursery.

The previous Phase I ESA by KWI (2010a) made the following observations which represent a Recognized Environmental Condition (REC) with regards to the subject site.

1. A 1,000-gallon liquid fertilizer AST existed onsite at the former Evergreen Nursery.
2. A 500-gallon diesel AST and dispenser existed at the former Evergreen Nursery site since at least 2005 through 2007, replacing a previous AST.

The following recommendations were made with regards to additional work to be conducted at the subject site due to the potential recognized environmental conditions identified above.

- Because of the sites historical agricultural land use, there is a potential that pesticides and herbicides persistent in the environment were applied and residual concentrations may remain in the soil and on the site. Therefore, KWI (2010a) recommended collection of near-surface soil samples for the evaluation of liquid fertilizers, pesticides, and herbicides.

- Based on the diesel fuel AST that existed at the former Evergreen Nursery, KWI (2010a) recommended collection of near-surface soil samples for the evaluation of petroleum hydrocarbons.

As recommended by KWI (2010a), a Phase II ESA was completed by KWI (2010b) in December 2010 on behalf of CalTrans for the subject site. This report included soil sampling throughout the subject site. Soil samples were analyzed for Organochlorine Herbicides, Organophosphorus Pesticides, and Organochlorine Pesticides. The laboratory test results of soil sampling were discussed in the report and included the following:

- Organochlorine Herbicides and Organophosphorus Pesticides were not detected in the samples analyzed above the method detection limit.
- Organochlorine Pesticides were detected in 23 of the 30 shallow soil samples analyzed. Three soil samples exhibited concentrations of 4, 4'-DDE and/or toxaphene in excess of residential California Human Health Screening Level (CHHSL) and/or the EPA Region 9 Regional Screening Level (RSL).

Kleinfelder recommended that the site not be developed for residential land use. If residential land use is planned, then either source removal or further targeted assessment and preparation of a Human Health Risk Assessment is recommended.

In December 2012, a Phase I ESA was completed by Petra (2012) on behalf of MasterCraft Homes Group, LLC, addressed to O'Conner, Packer, and Dunivan for the subject site. The following recommendations were made with regards to additional work to be conducted at the subject site due to potential recognized environmental conditions:

- A former 500-gallon diesel AST and dispenser existed at the site since at least 2005 through 2007, replacing a previous AST. This tank existed for a short period at the site and, therefore, the potential for developing leaks were minimal. However, the potential for hydrocarbon spills for this tank and dispenser and the one it replaced should be investigated. Petra recommends collecting surface and shallow subsurface soil samples near the former diesel AST and having them analyzed for Total Petroleum Hydrocarbons (TPH).
- A former 1,000-gallon liquid fertilizer AST existed at the site. Residual contamination of the soils from chemical mixing around this tank should be investigated. Petra recommends collecting

surface and shallow subsurface soil samples around the area of the former AST site and having them analyzed for contaminants.

- Stormwater and sheet flow runoff from the upgradient commercial complex may have potentially carried down some contaminants into the cracked concrete and unlined drainage channels. Petra recommends collecting surface and shallow subsurface soil samples near and within the channels and having them analyzed for Total Petroleum Hydrocarbons (TPH) and metals.
- Kleinfelder West, Inc. completed a Phase I ESA (KWI, 2010a) and Limited Phase II ESA (KWI, 2010b) during December 2010. Kleinfelder's Limited Phase II concluded that organochlorine pesticides were detected in 23 of the 30 shallow soil samples analyzed. Three soil samples exhibited concentrations of 4, 4'-DDE and/or toxaphene in excess of residential California Human Health Screening Level (CHHSL) and/or the EPA Region 9 Regional Screening Level (RSL). Petra recommends step-out borings be conducted around the three borings with samples that exceeded the residential California Human Health Screening Level (CHHSL) and/or the EPA Region 9 Regional Screening Level (RSL). Continuous samples should be taken to a minimum of five feet and analyzed for Organichlorine Pesticides (OCP's).

### **Property Ownership**

At the time of Petra's (2012) Phase I ESA, the property was owned by CalTrans. At the time of this Limited Phase II Assessment, SAM-Sweetwater, LLC was the current owner of the property.

### **Previous Facility Ownership/Operators**

As discussed previously, based on documentation reviewed, Evergreen Nursery was the past owner and operator of the property. The property was previously used for storage, cultivation and commercial sales of plants, shrubs, trees, and associated horticultural items since the mid 1980's.

### **Business Type**

At the time of Petra's (2012) Phase I ESA's, and this Limited Phase II Assessment, the site was generally vacant land. Concrete driveways and gravel roads were observed traversing the site.

### **Years of Operation**

Based on aerial photo information obtained (Petra, 2012), the site appears to have been native (raw) land, until sometime during 1963. From 1963 until sometime during 1980 the site and vicinity was developed as agricultural fields. From 1980 until sometime during 1989 the site appeared to be vacant land. From 1989 the subject site appears to be developed as the former Evergreen Nursery.

### **Surrounding Property Land Use**

The site is situated in a residential and commercial land use area. Our specific observations are noted below:

North To the north of the subject site is Rancho San Diego Commercial Center with residential development beyond.

East To the east of the subject site is Storage West Self storage with commercial and residential development beyond.

South To the south of the subject site is Jamacha Boulevard with commercial and residential development beyond.

West To the west of the subject site is Sweetwater Springs Road with vacant (raw) land and residential development beyond.

### **Hazardous Substance/Waste Management Information**

No hazardous substances were observed on the site at the time of Petra's (2012) Phase I Assessment or Phase II testing of the site.

### **Business/Manufacturing Activities**

No manufacturing activities are known to have occurred on the site.

### **Site Regulatory Status**

During Petra's (2012) Phase I ESA, the site was found to have been listed on the San Diego County Hazardous Materials Management Division (HMMD) database. No releases or violations were reported. Therefore, the listing does not appear to represent a recognized environmental condition with regards to the subject site.

### **Site Reconnaissance Results**

As part of our Phase I ESA (Petra 2012), Petra conducted a reconnaissance of the subject site on December 12, 2012. Our site observations at the time are summarized below:

- The subject site is an irregularly shaped parcel of unoccupied land. The site is located at 2657 Sweetwater Springs Boulevard northeast of the intersection of Sweetwater Springs Boulevard and

Jamacha Road in Spring Valley, San Diego County, California. A plan showing the current location of the site is included as Figure 1.

- Access to the subject site is by a concrete driveway with an entrance from Sweetwater Springs Boulevard along the west. The site is enclosed by metal and chain link fencing.
- The southwest portion of the site is lined with concrete driveways, parking stalls and remnants of the old operation center for the former Evergreen Nursery.
- Rectangular, concrete block holding structures were observed within the west-southwest corner of the site. Each holding area had three, approximately six feet high concrete block walls. These holding areas are believed to have been used for mulch.
- Concrete and gravel road were observed within the site extending northeast-southwest direction.
- Concrete lined drainage channels and unlined drainage swales were observed within the site and emptied into stormdrains vaults along Jamacha Boulevard. Cracking was observed within the concrete lined drainage channels.
- At the time of our inspection, a light to heavy growth of vegetation covered the central and northeastern portion of the site with sporadic and light vegetation in the southwestern portion (old operation center area).
- Construction and landscape materials were observed throughout the site. The material consists of block and bricks, road delineators and rubber cones, pvc pipe and plastic water tubing.
- Scattered debris was observed throughout the site. The debris was mostly pieces of wood, cabinets, a microwave, safe, empty plastic containers and one-gallon paint cans, assorted clothing along with other dumped household trash and minor amounts of wind-blown trash.
- No sites were identified in our search of various government agency database records, which appear to have impacted the soils or groundwater beneath the subject site.
- There was no evidence of sumps, pits, pools, or lagoons identified during our site inspection.

The current site configuration is shown on Figure 2.

### **Interviews**

As part of the Phase I ESA, Petra (2012) scheduled an interview with Mr. Joel Kloth from Caltrans, (someone knowledgeable of past usage of the site). Due to the time of year, the only time available for the interview was after the time the final report was prepared (i.e., December 26, 2012). However, the interview was conducted on January 7, 2013. According to Mr. Kloth prior site uses included agriculture

(from the 1960's to 1980's) and a commercial nursery use (from 1988 to 2007). Mr. Kloth also provided the following:

1. To his knowledge, there are no notices or other correspondence from any government agency relating to past or current violations of environmental laws.
2. To his knowledge, there are no pending, threatened, or past litigation or administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the subject site.
3. To his knowledge, there are no notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.

### **Prior Assessments**

As discussed previously, in December 2010, a Phase I ESA was completed by KWI (2010a), in December 2010 a Phase II ESA was also completed by KWI (2010b), in December 2012, a Phase I ESA was completed by Petra (2012).

### **AREA OF CONCERN**

Due to the findings of our Phase I ESA (Petra, 2012) and after further discussions with representatives from SAM-Sweetwater, LLC, it was determined that additional soil sampling would be required to properly evaluate potential impacts of pesticides from previous onsite storage and nursery use; possible impact of hydrocarbons from the previous on-site diesel fuel Aboveground Storage Tank (AST) and adjacent commercial properties, and metals from adjacent commercial properties.

### **ENVIRONMENTAL SETTING**

The following section provides an overview of the regional and local geologic setting and includes information pertaining to groundwater conditions in the vicinity of the subject site. Geotechnical hazard information (faults, landslides, etc.) is not part of this investigation. This section does not constitute a geotechnical investigation of the subject site and should not be taken as such.

## **Geology**

Geologically, the site lies within the Peninsular Ranges Geomorphic Province. The Peninsular Range region is underlain primarily of plutonic rock of the Southern California Batholith. These rocks formed from the cooling of molten magma deep within the earth's crust. Intense heat associated with these plutonic magma metamorphosed the ancient sedimentary rocks into which the plutons intruded. The Peninsular Range Geomorphic Province is generally characterized by alleviated basins, elevated erosion surfaces and northwest trending faults.

More specifically, the subject site lies near the margin of the San Diego Embayment, which is a downdropped structural block, encompassing the western portion of San Diego County from south of Carlsbad, east to Rancho Bernardo and south into the northern portion of the Republic of Mexico. The site is mapped as being underlain by Cretaceous age medium-grained and dark-colored gabbro rock (California Geological Survey, 2002). However, based on our recent subsurface field investigations, the site is underlain by Cretaceous age fine-grained and light-colored granodiorite rock.

## **Surface and Groundwater Conditions**

### **Surface Water**

No indication of surface water was observed on the site at the time of this investigation. However, based on our review, the "Sweetwater Spring" is located down gradient (approximate elevation of 427± MSL) across Sweetwater Springs Boulevard, approximately 470± feet west of the subject site.

### **Groundwater**

The site is located within the Otay Groundwater Basin, (California Department of Water Resources, [CDWR], 2014). Groundwater depth varies within the area and though flow direction beneath the subject site is unknown it is believed to be toward the Sweetwater Reservoir to the southwest. No groundwater wells were listed within the area of the subject site on the CDWR historic groundwater level database (CDWR, 2014). No groundwater was encountered during Petra's subsurface investigations.

## **FIELD SAMPLING PLAN**

The following sections provide descriptions of the sampling approach, assessment methods and procedures, sample analysis program, sample handling, decontamination procedures, and Quality

Assurance and Quality Control (QA/QC) measures. Since Petra's initial limited soil residue sampling and testing in July and August of 2013, vegetation management operations have been completed onsite. Additionally, it is our understanding that site development plans have been revised to consist of solely residential land use.

### **Pre-Field Activities**

#### **Underground Service Alert**

Before any field activities were conducted, Underground Service Alert (USA) was notified. USA contacted local utility companies who marked their utilities or notified Petra of any underground utilities in the immediate area.

#### **Field Sample Locations**

Petra's initial environmental soil sampling (July 2013) was conducted in the locations with the highest likelihood of elevated pesticide and metal soil residues (such as adjacent to previous testing conducted by KWI [2010b], around the previous AST storage areas, and within the onsite drainage course). In addition, soil sampling was completed in the locations with the highest likelihood of elevated petroleum hydrocarbon soil residues (such as around the previous petroleum storage AST, and the onsite drainage course).

Samples were collected and analyzed discreetly from approximately 1, 3, and 5 feet below the ground surface (bgs) for Organochlorine Pesticides (OCP's), and ½, 2, and 5 feet bgs for hydrocarbons and metals. In areas of potential hydrocarbon and metal residues, the deeper samples were placed on hold pending the analytical results of the shallow samples. Subsequent sampling and testing conducted by Petra (September 2013, June 2014, and July 2014) followed the same general criteria. A map showing the soil sample locations is provided as Figures 2 through 4 (Sample Location Maps).

#### **Sample Collection Procedures**

The environmental soil samples were obtained utilizing a direct-push rig with a one-inch diameter hydraulic and percussion drive-point unit, with a closed piston sampler. All sampling equipment was decontaminated prior to the collection of each sample. Each sample was collected, sealed, labeled, and

placed in a cooler with ice for subsequent transport and laboratory analyses under a Chain of Custody (COC) record.

### **Decontamination Procedures**

All equipment that came into contact with potential soil residues was decontaminated consistently as to assure the quality of samples collected. Decontamination occurred prior to and after each use of a piece of equipment. All sampling devices used were decontaminated utilizing the following procedures:

- Liquinox™ and water solution
- Initial deionized/distilled water rinse.
- Final deionized/distilled water rinse.

### **Health and Safety**

Prior to implementing the limited soil sampling, field personnel were required to review and sign a site-specific Health and Safety Plan (HSP) prepared by Petra. The HSP was intended to aid in the safe handling of soils and/or water potentially containing elevated levels of the constituents of concern. It was designed to: (1) identify and describe potentially hazardous substances that may be encountered during field activities; (2) specify protective equipment for onsite activities; (3) specify personnel decontamination procedures; and (4) outline measures to be implemented in the event of an emergency. The HSP provided site-specific scopes of work as well as indicated any unique constituents of concern. A copy of the Health and Safety Plan is included in Appendix A.

### **Investigation-Derived Wastes**

Decontamination water (rinsate) was collected during the course of the subsurface field sampling. The rinsate was then analyzed by the laboratory prior to appropriate disposal. The laboratory test results for the rinsate are included in Appendix B.

## **SAMPLE ANALYSES**

### **Analytical Program**

Soil and rinsate samples collected during this assessment were analyzed by Enviro-Chem, Inc. (ECI) in Pomona, California. ECI is accredited by the California Environmental Protection Agency, Department

of Health Services, Environmental Laboratory Accreditation Program (ELAP). All analyses were requested on a chain-of-custody record.

### **Analytical Methods**

The following analytical methods were utilized for this assessment:

#### **Organochlorine Pesticide Samples**

Step-out soil samples were collected within areas identified by KWI (2010b) representing locations where previous environmental testing indicated soil residues in excess of the California Human Health Screening Level (CHHSL) and/or the USEPA Region 9 Regional Screening Level (RSL), were analyzed for Organochlorine Pesticides according to Environmental Protection Agency (EPA) Test Method 8081A.

#### **Hydrocarbon Samples**

Soil samples, collected within areas of possible residues from total petroleum hydrocarbons (previous AST location and the onsite drainage course), were analyzed for total petroleum hydrocarbons (TPH) in general accordance with EPA Test Method 8015B.

#### **CAM Title 22 Metal Samples**

Soil samples, collected within areas of possible residues by metals (onsite drainage course), were analyzed for CAM Title 22 Metals in general accordance with EPA Test Method 6010B/7471.

### **Sample Packaging and Shipment**

Each sample was sealed in a glass jar, labeled, and immediately placed on ice in a cooler, pending delivery to the state-certified laboratory. Proper chain-of-custody protocols were maintained at all times. The chain-of-custody form was placed in a water-resistant plastic bag and kept within the sample cooler until delivery to the laboratory.

To identify and manage samples obtained in the field, each sample included the following information:

- Project number
- Sample identification number/location
- Depth of sample obtained

- Date and time of collection

### **Laboratory Results**

Below is a discussion of the laboratory test results. A copy of the laboratory reports are provided in Appendix B. The approximate locations of the KWI (2010B) sample locations and step-out samples obtained during this study can be found on Figure 2 (Sample Location Map).

### **Agricultural Land-Use Samples**

#### **Organochlorinated Pesticides**

One hundred and six discreet samples were analyzed for detectable levels of organochlorinated pesticides residues. Test results reported concentrations of Organochlorine Pesticides, Organophosphorus Pesticides, and Chlorinated Herbicides as non-detect (i.e., not detected above the method detection limit), except 4,4'-DDE, 4,4'-DDD, 4,4'-DDT, and Dieldrin. Concentrations of DDE ranged from non-detect to 8.95 milligrams per kilogram (mg/kg); 4,4'-DDD concentrations ranged from non-detect to 0.019 mg/kg (in three samples); 4,4'-DDT concentrations ranging from non-detect to 2.93 mg/kg (in ten samples); and Dieldrin was detected in one sample at a level of 0.010 mg/kg. Test results are provided in Appendix A, and a summary of test results are provided in Table I.

#### **Total Petroleum Hydrocarbon Samples**

Eleven discreet samples were tested for Total Petroleum Hydrocarbons (TPH). No concentrations were detected above the laboratory reporting limit for TPHg (C4-C10 gasoline range) or TPHd (C11-C22 diesel range) in any of the samples analyzed. Two discrete samples contained TPHmo (C23-C35 motor oil range) concentrations of 1,060 and 604 mg/kg at a depth of ½ foot; however, samples collected from the two borings at a depth of 2 and 5 feet were reported as non-detect. The two detected concentrations of TPHmo were found to exceed the San Francisco Bay Regional Water Quality Control Board (SRBRWQCB) 2013 Tier 1 Environmental Screening Level (ESL) of 100 mg/kg. Test results are provided in Appendix A, and a summary of test results are provided in Table II.

#### **CAM Title 22 Metal Samples**

Ten soil samples, collected within areas of possible residues by metals (onsite drainage course), were analyzed for CAM Title 22 Metals. Test results reported various metal constituent concentrations which were below the California Human Health Screening Level (CHHSL) and the EPA Region 9 Regional

Screening Level (RSL) criteria for residential soil, except total chromium levels ranging from non-detect to 137.0 mg/kg. Based solely upon the elevated levels, results were flagged by the laboratory as requiring additional analysis. Subsequently, a sample with the highest total chromium concentration was also tested for chromium VI, with a result of non-detect. Test results are provided in Appendix A, and a summary of test results are provided in Table III.

Additionally, test results for arsenic, ranging from non-detect to 3.19 mg/kg, were also compared to the residential CHHSL of 0.07 mg/kg; residential RSL of 0.67 mg/kg and the Department of Toxic Substances Control (DTSC) recommended screening concentration of 12.0 mg/kg for background levels of arsenic. Based upon this comparison, arsenic soil residues exceeded CHHSL levels at six locations; and RSL levels at four locations within the subject site. However, soil residue concentrations did not exceed the DTSC's recommended screening concentration of 12.0 mg/kg for background levels of arsenic (DTSC, 2008). Additionally, the arsenic residues detected in near surface soils were found to be within the background level range of benchmark soil types within San Diego County (Kearney Foundation, 1996) listed as 0.6 to 11.0 mg/kg. Based solely upon the detected arsenic residues well within the background range of soils in San Diego County, it is Petra's opinion that these soils may be re-used as fill materials within the proposed residential development.

### **QUALITY ASSURANCE AND QUALITY CONTROL MEASURES**

This assessment includes a quality assurance/quality control (QA/QC) program to ensure the reliability and compatibility of all data generated during sampling activities. The laboratory QA/QC conducted by the laboratory is located at the back of each data sequence presented in the Laboratory Report in Appendix B.

#### **Project Quality Objectives**

The necessary QA/QC procedures were performed in accordance with acceptable protocols, so that the data generated meets the overall project objectives for precision and accuracy. Sampling and analytical procedures, personnel requirements, chain-of-custody, documentation requirements, and specific criteria for determining data acceptability were traceable. Procedures stipulated how to address data deficiencies, data reduction and evaluation, and preparation of field investigation reports, which were produced so that outputs are accurate and technically sound.

### **Documentation and Records**

The following information is included in the laboratory data report package.

1. Cover letter with laboratory manager (or designee's) signature.
2. Data reports for each sample submitted which include at a minimum:
  - Results and reporting units for each parameter;
  - Project defined reporting limits;
  - Date of extraction(s) and analyses;
  - List of project specified methodologies for each parameter; and
  - Dates of sample collection and laboratory receipt.
3. Quality control summary forms with method blank results, matrix spike/matrix spike duplicate (MS/MSD) recoveries, and RPD calculations.
4. Copy of the original chain-of-custody forms.
5. A case narrative, as necessary, to discuss quality control limit exceedences, specific sample problems, and analytical methodology problems observed.

Field and laboratory records for this project will be maintained for 10 years after receiving the certification of completion by the oversight agency.

### **VARIANCES**

This section describes any variances experienced during implementation of the soil sampling program at the site. No variances were experienced during implementation of the soil sampling program.

### **CONCLUSIONS AND RECOMMENDATIONS**

Based on the laboratory results of the soil samples collected, the following conclusions are made:

- Between July 2013 and June 2014 soil samples were collected within areas representing onsite pesticide storage, mixing, general usage, and/or runoff, as determined during our Phase I ESA for the site (Petra, 2012). Samples collected at a depth of 1.0, 3.0 and 5.0 feet below ground surface (bgs) were analyzed for Organochlorine Pesticides according to Environmental Protection Agency (EPA) Method 8081A. Test results reported concentrations of Organochlorine Pesticides, as non-detect (i.e.,

not detected above the method detection limit), except 4,4'-DDE (DDE), 4,4'-DDD (DDD), 4,4'-DDT (DDT), and Dieldrin. Concentrations of DDE ranged from non-detect to 8.95 milligrams per kilogram (mg/kg); DDD concentrations ranged from non-detect to 0.019 mg/kg (in three samples); DDT concentrations ranging from non-detect to 2.93 mg/kg (in ten samples); and Dieldrin was detected in one sample at a level of 0.010 mg/kg. Petra compared the detected levels of DDE, DDD, DDT, and Dieldrin with California Human Health Screening Level (CHHSL) criteria for residential soil (CalEPA, 2010): 1.6 mg/kg for DDE; 2.3 mg/kg DDD; 1.6 mg/kg DDT; and 0.035 mg/kg Dieldrin and the EPA Region 9 Regional Screening Level (RSL) of 1.6 mg/kg for DDE; 2.2 mg/kg for DDD; 1.9 mg/kg for DDT; and 0.033 mg/kg Dieldrin. As a result, soil residues exceeding CHHSL and RSL values for DDE were encountered at sixteen locations within the subject property, and soil residues exceeding CHHSL and RSL values for DDT were encountered at one location within the subject property (HP-9A). Soils within these areas are not considered suitable for re-use as fill within future residential development. A summary of test results are provided in Table I.

- Soil samples collected within areas of possible impact by total petroleum hydrocarbons were analyzed for total petroleum hydrocarbons (TPH) as gasoline (TPHg) and diesel (TPHd) fuel and motor oil (TPHmo) in general accordance with modified EPA Method 8015. Two discrete samples contained TPHmo (C23-C35 motor oil range) concentrations of 1,060 and 604 mg/kg at a depth of 0.5 foot; however, samples collected from the two borings at a depth of 2 and 5 feet were reported as non-detect. The two detected concentrations of TPHmo were found to exceed the San Francisco Bay Regional Water Quality Control Board (SRBRWQCB) 2013 Tier 1 Environmental Screening Level (ESL) of 100 mg/kg. As a result, soil residues exceeding ESL values for TPHmo were encountered at two locations within the subject property (HP-13 and HP-14). Soils within these areas are not considered suitable for re-use as fill within future residential development. A summary of test results are provided in Table II.
- Soil samples collected in July 2013 within the drainage were analyzed for metals per modified EPA methods 6010B/7471A. Test results reported various metal constituent concentrations which were below the California Human Health Screening Level (CHHSL) and the EPA Region 9 Regional Screening Level (RSL) criteria for residential soil, except total chromium levels ranging from non-detect to 137.0 mg/kg. Based solely upon the elevated levels, results were flagged by the laboratory as requiring additional analysis. Subsequently, a sample with the highest total chromium concentration was also tested for chromium VI, with a result of non-detect. Additionally, test results for arsenic, ranging from non-detect to 3.19 mg/kg, were also compared to the residential CHHSL of 0.07 mg/kg; residential RSL of 0.67 mg/kg and the Department of Toxic Substances Control (DTSC) recommended screening concentration of 12.0 mg/kg for background levels of arsenic. Based upon this comparison, arsenic soil residues exceeded CHHSL levels at six locations; and RSL levels at four locations within the subject site. However, soil residue concentrations did not exceed the DTSC's recommended screening concentration of 12.0 mg/kg for background levels of arsenic (DTSC, 2008). Additionally, the arsenic residues detected in near surface soils were found to be within the background level range of benchmark soil types within San Diego County (Kearney Foundation, 1996) listed as 0.6 to 11.0 mg/kg. Based solely upon the detected arsenic residues well within the background range of soils in San Diego County, it is Petra' opinion that these soils may be re-used as fill materials within the proposed residential development. A summary of test results are provided in Table III.

- It is our understanding that the gap in field work between 2013 and 2014 was due (in part) to a revision of site development plans from a mix of residential and commercial to solely residential land use. At least two scheduled vegetation management operations were completed onsite during this period.

### **Recommendations**

Based upon the laboratory test results reported herein, Petra provides the following recommendations regarding future development of the subject property for residential purposes.

1. Soils with elevated concentrations above the ESL for TPHmo detected in the area of samples HP-13 and HP-14 should be excavated and removed from the subject property by a licensed environmental contractor. Excavations should extend to a width of 3 feet and a depth of 1 foot below the ground surface, and stockpiled onsite for disposal characterization. The stockpile should be protected from wind and water erosion by visqueen. Once the excavation is completed, sidewall and bottom samples should be collected for TPH testing to verify removal of motor oil soil residues. The excavation should be monitored by a representative from Petra to identify stained soils and noxious odors, and collect stockpile characterization samples for offsite disposal.
2. Soils within the areas of HP-1, HP-1A, HP-1B, HP-2, HP-2A, HP-8A, HP-9A, HP-10, HP-18, HP-18A, HP-18B, HP-20, HP-23, HP-25, and HP-27 were found to contain elevated concentrations of DDE and HP-9A also contained DDT above the CHHSLs and RSL screening levels. These areas should be excavated and removed from the subject property by a licensed environmental contractor. Excavations should extend to a depth of approximately 4 to 6 feet below the ground surface, and stockpiled onsite for disposal characterization. The stockpile should be protected from wind and water erosion by visqueen. Once the excavations are completed, sidewall and bottom samples should be collected for DDE and/or DDT testing to verify removal of pesticide soil residues. The excavation should be monitored by a representative from Petra to identify unanticipated conditions or noxious odors, and collect stockpile characterization samples for offsite disposal.
3. Based on the subject property's historical agricultural use, it is possible that buried/concealed/hidden agricultural by-products, both below and above ground may have existed or exists on the subject property. Any buried trash/debris, or other waste encountered during future subject property development should be evaluated by an experienced environmental consultant prior to removal. If stained or suspicious soil is encountered during future grading operations, the material should be evaluated and if deemed necessary, characterized for proper disposal.

### **LIMITATIONS**

Petra has completed the above scope of work in general accordance with our supplemental proposal for Job No. 12-355, dated June 13, 2013 and follow up amendments 1 and 2 dated September 6, 2013 and June 19,

2014 respectively. The work activities described herein were conducted to address the specific issues as discussed in this report. No other areas of the subject site were assessed as part of this limited assessment. Since no environmental assessment can wholly eliminate uncertainty regarding potential recognized environmental conditions, some uncertainty regarding potential recognized environmental conditions at the site may remain at the conclusion of this evaluation.

This opportunity to be of service to you is sincerely appreciated. Please do not hesitate to call this office if you have questions pertaining to this report.

Respectfully submitted,

Petra Geosciences, Inc.  
*ENVIRONMENTAL DIVISION*



Jonathan Cain  
Associate Geologist



Siamak Jafroudi, PhD  
President, Sr. Principal Engineer  
GE 2024



JC/GW/nbc

Distribution: (3) Addressee

Attachments: References  
Figure 1 – Site Location Map  
Figures 2, 3 and 4 – Sample Location Maps  
Table I – Agricultural Land Use Sample Results  
Appendix A – Laboratory Test Data and Chain-Of-Custody

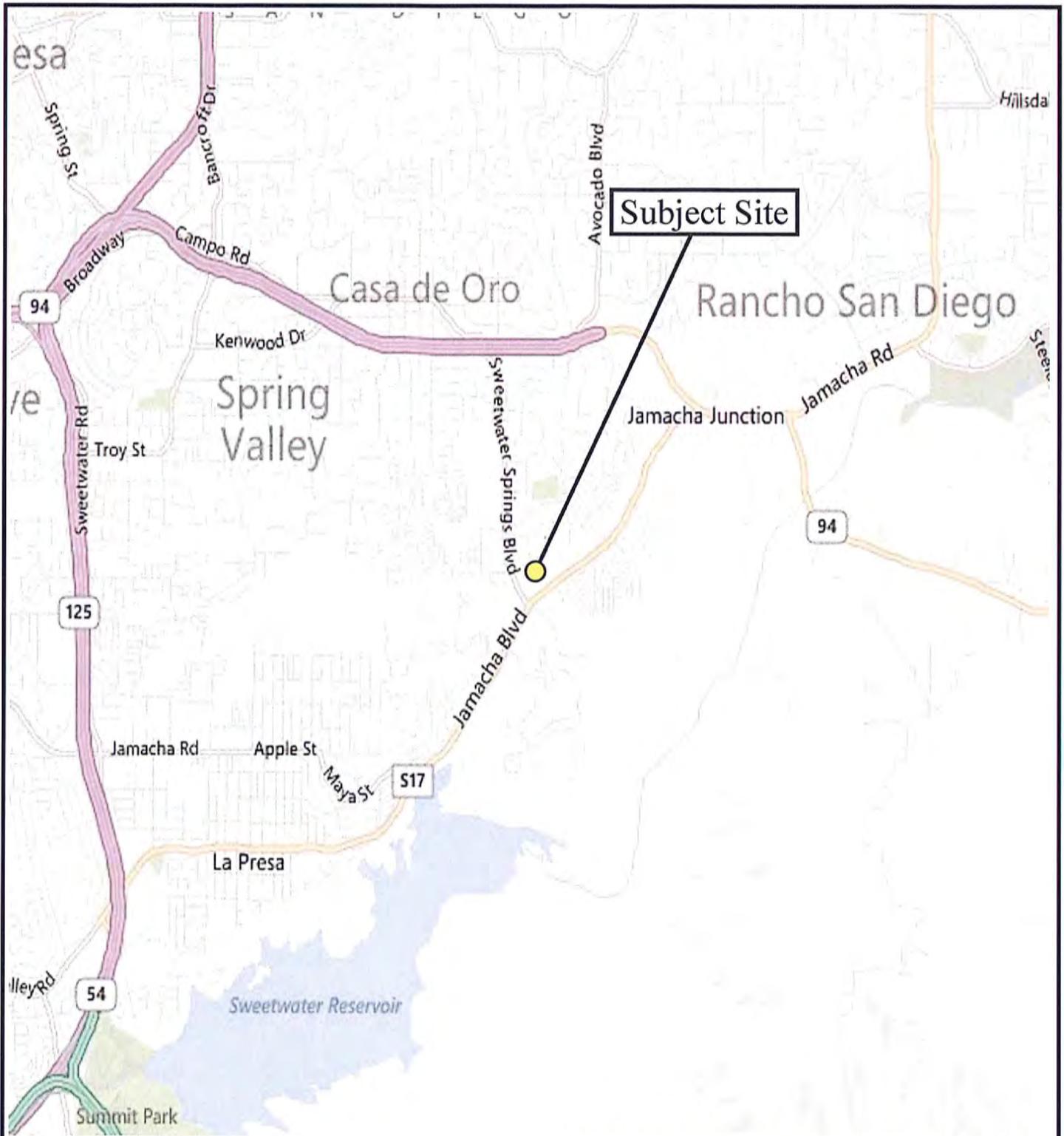
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- United States Environmental Protection Agency, 2014, "EPA Region 9 Regional Screening Levels," dated June.
- United States Geologic Survey, 1994, 7.5-Minute Topographic Map, Jamul Mountain Quadrangle, California, scale 1:24,000.

# FIGURES

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**Subject Site**



Reference: Bing Maps



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COSTA MESA    TEMECULA    PALM DESERT    SAN DIEGO    SANTA CLARITA

**SITE LOCATION MAP**

O'connor, Packer, Dunivan  
 Sweetwater Place Project  
 Spring Valley, CA

(Reissued April 8, 2015)

DATE: August 2013

J.N.: 355-12

DWG BY: JC

SCALE: None

**Figure 1**



**EXPLANATION**

-  Approximate Site Boundary
-  Approximate Location of Kleinfelder (2010b) Hand- Auger exploratory boring
-  Approximate Location of Petra's Hydro Punch exploratory step-out sample location



Reference: Google Earth

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**SAMPLE LOCATION MAP**  
 O'conner, Packer, Dunivan  
 Sweetwater Place Project  
 Spring Valley, California (Reissued April 8, 2015)

DATE: August 2013	J.N.: 12-355
DWG BY: LH	SCALE: NTS

**Figure 2**



● Approx. Loc. of Kleinfelder (2010b) Hand- Auger borings

**HA-18**

● Approx. Loc. of Petra's Hydro Punch step-out sample borings

**HP-3**

Reference: Google Earth



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COSTA MESA TEMECULA PALM DESERT SAN DIEGO SANTA CLARITA

**SAMPLE LOCATION MAP**

O'conner, Packer, Dunivan  
Sweetwater Place Project  
Spring Valley , CA

(Reissued April 8, 2015)

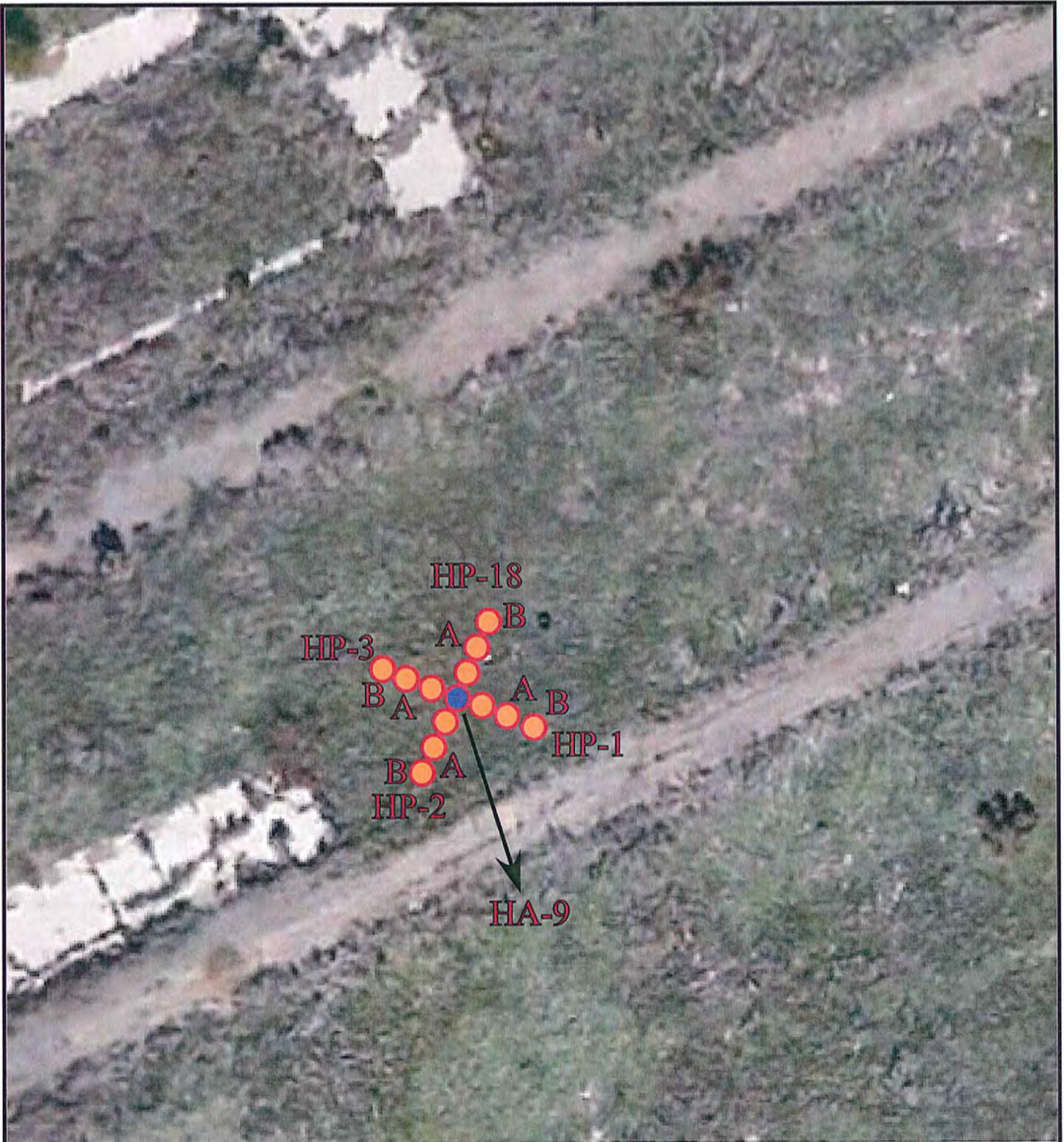
DATE: October 2013

J.N. 12-355

DWG BY : LH

SCALE: NTS

**Figure 3**



● Approx. Loc. of Kleinfelder (2010b) Hand- Auger borings

**HA-9**

● Approx. Loc. of Petra's Hydro Punch step-out sample borings

**HP-18**



Reference: Google Earth



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**SAMPLE LOCATION MAP**

O'conner, Packer, Dunivan  
 Sweetwater Place Project  
 Spring Valley , CA

(Reissued April 8, 2015)

DATE: October 2013

J.N. 12-355

DWG BY : LH

SCALE: NTS

**Figure 4**

# TABLES

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I,II,III

**Table I**  
**Page 1**

Boring ID	Sample ID	Date	Feet Below Ground Surface	Analysis	Screening Levels		Location Rationale*
				Organochlorine Pesticides (mg/kg)	2010 Residential - CHHSL (mg/kg)	2014 Residential - RSL (mg/kg)	
HP-1	HP-1 @1.0	7/30/2013	1	DDE 0.250	DDE 1.6	DDE 1.6	general use area
HP-1	HP-1 @3.0	7/30/2013	3	DDE 1.29	DDE 1.6	DDE 1.6	general use area
HP-1	HP-1 @5.0	7/30/2013	5	DDE 1.55	DDE 1.6	DDE 1.6	general use area
HP-2	HP-2 @1.0	7/30/2013	1	DDE 0.253	DDE 1.6	DDE 1.6	general use area
HP-2	HP-2 @3.0	7/30/2013	3	DDE 3.27	DDE 1.6	DDE 1.6	general use area
HP-2	HP-2 @5.0	7/30/2013	5	DDE 2.88	DDE 1.6	DDE 1.6	general use area
HP-3	HP-3 @1.0	7/30/2013	1	DDE 0.511	DDE 1.6	DDE 1.6	general use area
HP-3	HP-3 @3.0	7/30/2013	3	DDE 1.51	DDE 1.6	DDE 1.6	general use area
HP-3	HP-3 @5.0	7/30/2013	5	DDE 1.36	DDE 1.6	DDE 1.6	general use area
HP-4	HP-4 @1.0	7/30/2013	1	DDE 0.174	DDE 1.6	DDE 1.6	general use area
HP-4	HP-4@3.0	7/30/2013	3	DDE 0.248	DDE 1.6	DDE 1.6	general use area
HP-4	HP-4 @5.0	7/30/2013	5	DDE 0.002	DDE 1.6	DDE 1.6	general use area
HP-5	HP-5 @1.0	7/30/2013	1	DDE 0.355	DDE 1.6	DDE 1.6	general use area
HP-5	HP-5 @3.0	7/30/2013	3	DDE 0.001	DDE 1.6	DDE 1.6	general use area
HP-5	HP-5 @5.0	7/30/2013	5	ND			general use area
HP-6	HP-6 @1.0	7/30/2013	1	DDE 0.256	DDE 1.6	DDE 1.6	general use area
HP-6	HP-6 @3.0	7/30/2013	3	DDE 0.005	DDE 1.6	DDE 1.6	general use area
HP-6	HP-6 @5.0	7/30/2013	5	DDE 0.001	DDE 1.6	DDE 1.6	general use area
HP-7	HP-7 @1.0	7/30/2013	1	DDE 0.381	DDE 1.6	DDE 1.6	general use area
HP-7	HP-7 @3.0	7/30/2013	3	DDE 0.012	DDE 1.6	DDE 1.6	general use area
HP-7	HP-7 @5.0	7/30/2013	5	DDE 0.002	DDE 1.6	DDE 1.6	general use area
HP-8	HP-8 @1.0	7/30/2013	1	DDE 1.28	DDE 1.6	DDE 1.6	general use area
HP-8	HP-8 @3.0	7/30/2013	3	DDE 0.100	DDE 1.6	DDE 1.6	general use area
HP-8	HP-8 @5.0	7/30/2013	5	DDE 0.001	DDE 1.6	DDE 1.6	general use area
HP-9	HP-9 @1.0	7/30/2013	1	DDE 1.32	DDE 1.6	DDE 1.6	general use area
HP-9	HP-9 @3.0	7/30/2013	3	ND			general use area
HP-9	HP-9 @5.0	7/30/2013	5	ND			general use area
HP-10	HP-10 @1.0	7/30/2013	1	DDE 1.70	DDE 1.6	DDE 1.6	general use area

**Petra Geotechnical, Inc.**  
**October 2014**

**Sam-Sweetwater, LLC.**  
**JN 12-355**

**Table I**  
**Page 2**

Boring ID	Sample ID	Date	Feet Below Ground Surface	Analysis	Screening Levels		Location Rationale*
				Organochlorine Pesticides (mg/kg)	2010 Residential - CHHSL (mg/kg)	2014 Residential - RSL (mg/kg)	
HP-10	HP-10 @3.0	7/30/2013	3	DDE 0.121	DDE 1.6	DDE 1.6	general use area
HP-10	HP-10 @5.0	7/30/2013	5	DDE 0.015	DDE 1.6	DDE 1.6	general use area
HP-16	HP-16 @5.0	7/30/2013	5	DDE 0.084	DDE 1.6	DDE 1.6	general use area
HP-17	HP-17 @0.5	7/30/2013	0.5	ND			possible mixing area
HP-17	HP-17 @5.0	7/30/2013	5	ND			possible mixing area

**QUALITY CONTROL SAMPLES mg/kg**

HP-1	HP-1 @1.0	7/30/2013	1	DDE 0.215	DDE 1.6	DDE 1.6	duplicate of HP-1 @1.0
HP-17	HP-17 @0.5	7/30/2013	0.5	ND			duplicate of HP-17 @0.5
Rinsate #1	HP-17 @5.0	7/30/2013		ND			duplicate of HP-1 @1.0

Boring ID	Sample ID	Date	Feet Below Ground Surface	Analysis	Screening Levels		Location Rationale*
				Organochlorine Pesticides (mg/kg)	2010 Residential - CHHSL (mg/kg)	2014 Residential - RSL (mg/kg)	
HP-1A	HP-1A @1.0	08/30/13	1	DDE 0.790	DDE 1.6	DDE 1.6	general use area
HP-1A	HP-1A @3.0	08/30/13	3	DDE 3.42	DDE 1.6	DDE 1.6	general use area
HP-1A	HP-1A @5.0	08/30/13	5	DDE 3.65	DDE 1.6	DDE 1.6	general use area
HP-1B	HP-1B @1.0	08/30/13	1	DDE 0.643	DDE 1.6	DDE 1.6	general use area
HP-1B	HP-1B @3.0	08/30/13	3	DDE 3.83	DDE 1.6	DDE 1.6	general use area
HP-1B	HP-1B @5.0	08/30/13	5	DDE 1.73	DDE 1.6	DDE 1.6	general use area
HP-2A	HP-2A @1.0	08/30/13	1	DDE 0.485	DDE 1.6	DDE 1.6	general use area
HP-2A	HP-2A @3.0	08/30/13	3	DDE 2.51	DDE 1.6	DDE 1.6	general use area
HP-2A	HP-2A @5.0	08/30/13	5	DDE 1.15	DDE 1.6	DDE 1.6	general use area

**Petra Geotechnical, Inc.**  
**October 2014**

**Sam-Sweetwater, LLC.**  
**JN 12-355**

**Table I**  
**Page 3**

Boring ID	Sample ID	Date	Feet Below Ground Surface	Analysis	Screening Levels		Location Rationale*
				Organochlorine Pesticides (mg/kg)	2010 Residential - CHHSL (mg/kg)	2014 Residential - RSL (mg/kg)	
HP-2B	HP-2B @1.0	08/30/13	1	DDE 0.068	DDE 1.6	DDE 1.6	general use area
HP-2B	HP-2B @3.0	08/30/13	3	DDE 1.21	DDE 1.6	DDE 1.6	general use area
HP-2B	HP-2B @5.0	08/30/13	5	DDE 1.09	DDE 1.6	DDE 1.6	general use area
HP-3A	HP-3A @1.0	08/30/13	1	DDE 0.300	DDE 1.6	DDE 1.6	general use area
HP-3A	HP-3A @3.0	08/30/13	3	DDE 1.33	DDE 1.6	DDE 1.6	general use area
HP-3A	HP-3A @5.0	08/30/13	5	DDE 0.815	DDE 1.6	DDE 1.6	general use area
HP-3B	HP-3B @1.0	08/30/13	1	DDE 1.26	DDE 1.6	DDE 1.6	general use area
HP-3B	HP-3B @3.0	08/30/13	3	DDE 0.148	DDE 1.6	DDE 1.6	general use area
HP-3B	HP-3B @5.0	08/30/13	5	DDE 0.905	DDE 1.6	DDE 1.6	general use area
HP-8A	HP-8A @1.0	08/30/13	1	DDE 3.35	DDE 1.6	DDE 1.6	general use area
HP-8A	HP-8A @3.0	08/30/13	3	DDE 0.041	DDE 1.6	DDE 1.6	general use area
HP-8A	HP-8A @5.0	08/30/13	5	DDE 0.103	DDE 1.6	DDE 1.6	general use area
HP-9A	HP-9A @1.0	8/30/2013	1	DDE 8.95; DDT 2.93	DDE 1.6; DDT 1.6	DDE 1.6; DDT 1.9	general use area
HP-9A	HP-9A @3.0	8/30/2013	3	DDE 2.68	DDE 1.6	DDE 1.6	general use area
HP-9A	HP-9A @5.0	8/30/2013	5	DDE 0.021	DDE 1.6	DDE 1.6	general use area
HP-10A	HP-10A @1.0	8/30/2013	1	DDE 1.15	DDE 1.6	DDE 1.6	general use area
HP-10A	HP-10A @3.0	8/30/2013	3	DDE 0.027	DDE 1.6	DDE 1.6	general use area
HP-10A	HP-10A @5.0	8/30/2013	5	DDE 0.002	DDE 1.6	DDE 1.6	general use area
HP-18	HP-18 @1.0	8/30/2013	1	DDE 0.680	DDE 1.6	DDE 1.6	general use area
HP-18	HP-18 @3.0	8/30/2013	3	DDE 3.75	DDE 1.6	DDE 1.6	general use area
HP-18	HP-18 @5.0	8/30/2013	5	DDE 1.64	DDE 1.6	DDE 1.6	general use area
HP-18A	HP-18A @1.0	8/30/2013	1	DDE 0.515	DDE 1.6	DDE 1.6	general use area
HP-18A	HP-18A @3.0	8/30/2013	3	DDE 1.61	DDE 1.6	DDE 1.6	general use area
HP-18A	HP-18A @5.0	8/30/2013	5	DDE 2.53	DDE 1.6	DDE 1.6	general use area
HP-18B	HP-18B @1.0	8/30/2013	1	DDE 0.793	DDE 1.6	DDE 1.6	general use area
HP-18B	HP-18B @3.0	8/30/2013	3	DDE 3.17	DDE 1.6	DDE 1.6	general use area
HP-18B	HP-18B @5.0	8/30/2013	5	DDE 1.33	DDE 1.6	DDE 1.6	general use area

Petra Geotechnical, Inc.  
October 2014

Sam-Sweetwater, LLC.  
JN 12-355

**Table I**  
**Page 4**

Boring ID	Sample ID	Date	Feet Below Ground Surface	Analysis	Screening Levels		Location Rationale*
				Organochlorine Pesticides (mg/kg)	2010 Residential - CHHSL (mg/kg)	2014 Residential - RSL (mg/kg)	

**QUALITY CONTROL SAMPLES mg/kg**

Rinsate1	8/30/2013			ND			
----------	-----------	--	--	----	--	--	--

Boring ID	Sample ID	Date	Feet Below Ground Surface	Analysis	Screening Levels		Location Rationale*
				Organochlorine Pesticides (mg/kg)	2010 Residential CHHSL (mg/kg)	2014 Residential RSL (mg/kg)	
HP-19	HP-1 9@0.5	6/20/2014	0.5	DDE 0.368; DDT 0.026	DDE 1.6; DDT 1.6	DDE 1.6; DDT 1.9	general use area
HP-19	HP-1 9@2.5	6/20/2014	2.5	DDE 0.31	DDE 1.6	DDE 1.6	general use area
HP-19	HP-1 9@5.0	6/20/2014	5	DDE 0.122	DDE 1.6	DDE 1.6	general use area
HP-20	HP-20 @0.5	6/20/2014	0.5	DDE 0.180; DDT 0.011	DDE 1.6; DDT 1.6	DDE 1.6; DDT 1.9	general use area
HP-20	HP-20 @2.5	6/20/2014	2.5	<b>DDE 2.95</b>	DDE 1.6	DDE 1.6	general use area
HP-20	HP-20 @5.0	6/20/2014	5	DDE 0.630	DDE 1.6	DDE 1.6	general use area
HP-21	HP-21 @0.5	6/20/2014	0.5	DDE 0.350; DDT 0.022	DDE 1.6; DDT 1.6	DDE 1.6; DDT 1.9	general use area
HP-21	HP-21 @2.5	6/20/2014	2.5	DDE 0.109	DDE 1.6	DDE 1.6	general use area
HP-21	HP-21 @5.0	6/20/2014	5	DDE 0.39	DDE 1.6	DDE 1.6	general use area
HP-22	HP-22 @0.5	6/20/2014	0.5	DDE 0.478; DDT 0.020	DDE 1.6; DDT 1.6	DDE 1.6; DDT 1.9	general use area
HP-22	HP-22@2.5	6/20/2014	2.5	DDE 0.905	DDE 1.6	DDE 1.6	general use area
HP-22	HP-22 @5.0	6/20/2014	5	DDE 0.001	DDE 1.6	DDE 1.6	general use area
HP-23	HP-23 @0.5	6/20/2014	0.5	<b>DDE 3.36</b> ; DDT 0.500	DDE 1.6; DDT 1.6	DDE 1.6; DDT 1.9	general use area
HP-23	HP-23 @2.5	6/20/2014	2.5	DDE 1.21	DDE 1.6	DDE 1.6	general use area
HP-23	HP-23 @5.0	6/20/2014	5	DDE 1.05	DDE 1.6	DDE 1.6	general use area

**Petra Geotechnical, Inc.**  
**October 2014**

**Sam-Sweetwater, LLC.**  
**JN 12-355**

**Table I**  
**Page 5**

Boring ID	Sample ID	Date	Feet Below Ground Surface	Analysis	Screening Levels		Location Rationale*
				Organochlorine Pesticides (mg/kg)	2010 Residential - CHHSL (mg/kg)	2014 Residential - RSL (mg/kg)	
HP-24	HP-24 @0.5	6/20/2014	0.5	DDE 0.476; DDT 0.142	DDE 1.6; DDT 1.6	DDE 1.6; DDT 1.9	general use area
HP-24	HP-24 @2.5	6/20/2014	2.5	DDE 1.52	DDE 1.6	DDE 1.6	general use area
HP-24	HP-24 @5.0	6/20/2014	5	DDE 1.32	DDE 1.6	DDE 1.6	general use area
HP-25	HP-24 @0.5	6/20/2014	0.5	DDE 0.919; DDT 0.040; DDD 0.018; Dieldrin 0.010	DDE 1.6; DDT 1.6; DDD 2.3; Dieldrin 0.035	DDE 1.6; DDT 1.9; DDD 2.2; Dieldrin 0.033	general use area
HP-25	HP-25 @2.5	6/20/2014	2.5	DDE 1.99	DDE 1.6	DDE 1.6	general use area
HP-25	HP-25 @5.0	6/20/2014	5	DDE 1.00	DDE 1.6	DDE 1.6	general use area
HP-26	HP-26 @0.5	6/20/2014	0.5	DDE 0.479; DDT 0.020; DDD 0.010	DDE 1.6; DDT 1.6; DDD 2.3	DDE 1.6; DDT 1.9; DDD 2.2	general use area
HP-26	HP-26 @2.5	6/20/2014	2.5	DDE 1.30	DDE 1.6	DDE 1.6	general use area
HP-26	HP-26 @5.0	6/20/2014	5	DDE 1.39	DDE 1.6	DDE 1.6	general use area
HP-27	HP-27 @0.5	6/20/2014	0.5	DDE 0.382	DDE 1.6	DDE 1.6	general use area
HP-27	HP-27 @2.5	6/20/2014	2.5	DDE 1.50	DDE 1.6	DDE 1.6	
HP-27	HP-27 @5.0	6/20/2014	5	DDE 1.78	DDE 1.6	DDE 1.6	

**QUALITY CONTROL SAMPLES mg/kg**

HP-24	HP-24 @0.5	6/20/2014	0.5	DDE 0.873; DDT 0.012; DDD 0.019	DDE 1.6	DDE 1.6; DDT 1.9; DDD 2.2	duplicate of HP-24 @ 0.5
Rinsate #1		6/20/2014		ND			

**TABLE 2**  
**Hydrocarbon Sample Results**  
**Sweetwater Springs Project**  
**2657 Sweetwater Springs Blvd., Spring Valley, San Diego County, CA**

Boring ID	Date	Sample ID	Feet Below Ground Surface	TPHg C4-C10 (mg/kg)	TPHd C11-C22 (mg/kg)	Motor Oil Range C23-C35 (mg/kg)
HP-13		HP-13@0.5	0.5	ND	ND	1060.000
HP-13	7/30/2013	HP-13@2.0	2	ND	ND	ND
HP-13	7/30/2013	HP-13@5.0	5	ND	ND	ND
HP-14		HP-14@0.5	0.5	ND	ND	604.000
HP-14	7/30/2013	HP-14@2.0	2	ND	ND	ND
HP-14	7/30/2013	HP-14@5.0	5	ND	ND	ND
HP-15		HP-15@0.5	0.5	ND	ND	ND
HP-17		HP-17@5.0	5	ND	ND	ND
HP-19	8/30/2013	HP-19 @0.5	0.5	ND	ND	ND
HP-20	8/30/2013	HP-20 @0.5	0.5	ND	ND	ND
HP-21	8/30/2013	HP-21 @0.5	0.5	ND	ND	ND
<b>QUALITY CONTROL SAMPLES ug/L</b>						
Rinsate #2		HP-17 @5.0		ND	ND	ND

Notes:

mg/kg = milligrams per kilograms

ug/L = micrograms per liter

**TABLE 3**  
**Metals Sample Results**  
**Sweetwater Springs Project**  
**2657 Sweetwater Spring Blvd., Spring Valley, San Diego County, CA**

Boring ID	Sample ID	Feet Below Ground Surface	Antimony (Sb) (mg/kg)	Arsenic (As) (mg/kg)	Barium (Ba) (mg/kg)	Beryllium (Be) (mg/kg)	Cadmium (Cd) (mg/kg)	Chromium Total (Cr) (mg/kg)	Chromium VI (mg/kg)	Cobalt (Co) (mg/kg)	Copper (Cu) (mg/kg)	Lead (Pb) (mg/kg)	Mercury (Hg) (mg/kg)	Molybdenum (Mo) (mg/kg)	Nickel (Ni) (mg/kg)	Selenium (Se) (mg/kg)	Silver (Ag) (mg/kg)	Thallium (Tl) (mg/kg)	Vanadium (V) (mg/kg)	Zinc (Zn) (mg/kg)
HP-13	HP-13@0.5	0.5	ND	3.19	133	ND	0.694	53.1		7.95	210	20.1	ND	ND	18.9	ND	ND	ND	73.5	384
HP-13	HP-13@2.0	2.0	ND	ND	59.4	ND	ND	137	ND	14.4	13.6	0.998	ND	ND	35	ND	ND	ND	99.6	30.7
HP-13	HP-13@05	5.0	ND	ND	68.1	ND	ND	113		11.6	17.6	0.596	ND	ND	32.1	ND	ND	ND	66.6	36.4
HP-14	HP-14@0.5	0.5	ND	2.63	75.1	ND	ND	37.5		6.43	16.4	4.99	ND	ND	8.97	ND	ND	ND	48.8	53.3
HP-14	HP-14@2.0	2.0	ND	1.48	91.6	ND	ND	113		13.8	14	2.53	ND	ND	28	ND	ND	ND	87.5	33.8
HP-14	HP-14@5.0	5.0	ND	ND	36.1	ND	ND	91.4		7.38	9.73	ND	ND	ND	28.5	ND	ND	ND	81.6	26.8
HP-17	HP-17@5.0	5.0	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.011
HP-19	HP-19 @0.5	0.5	ND	0.928	47.2	ND	ND	110.0		15.3	10.2	0.65	ND	ND	37.4	ND	ND	ND	73	25.3
HP-20	HP-20 @0.5	0.5	ND	0.65	43.4	ND	ND	88.8		10.5	9.68	1.27	ND	ND	28	ND	ND	ND	61.1	25.5
HP-21	HP-21 @0.5	0.5	ND	0.61	42.7	ND	ND	98.9		12.3	9.32	0.762	ND	ND	30.5	ND	ND	ND	65.6	23.1

QUALITY CONTROL SAMPLES mg/L																				
Notes:	HP-17 @5.0	Rinsate #3	ND	ND	ND	ND	ND	ND		ND										

Notes: mg/kg = milligrams per kilograms  
mg/L = milligrams per liter

# APPENDIX A

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## LABORATORY TEST DATA AND CHAIN-OF-CUSTODY

**Enviro - Chem, Inc.**

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

Date: August 6, 2013

Mr. Jon Cain  
Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel(951)600-9271 Fax(951)600-9215

Project: **12-355**  
Lab I.D.: **130730-52 through -99**

Dear Mr. Cain:

The **analytical results** for the soil and water samples, received by our lab on July 30, 2013, are attached. The samples were received chilled, intact and accompanying chain of custody record.

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 Manager



Andy Wang  
Laboratory Manager

Enviro - Chem, Inc.

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

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 08/02/13  
DATE ANALYZED: 08/02/13  
DATE REPORTED: 08/06/13

-----  
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
HP-13@0.5'	130730-82	ND	ND	1060	10
HP-14@0.5'	130730-85	ND	ND	604	10
HP-15@0.5'	130730-88	ND	ND	ND	1
METHOD BLANK		ND	ND	ND	1
	PQL	10	10	50	

COMMENTS

C4-C10 = GASOLINE RANGE  
C11-C22 = DIESEL RANGE  
C23-C35 = MOTOR OIL RANGE  
DF = DILUTION FACTOR  
PQL = PRACTICAL QUANTITATION LIMIT  
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

Enviro Chem, Inc

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

# 8015B QA/QC Report

Date Analyzed: 8/2/2013

Units: mg/Kg (ppm)

Matrix: Soil/Solid/Sludge/Liquid

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

Spiked Sample Lab I.D.: **130730-88 MS/MSD**

Analyte	SR	spk conc	MS	%MS	MSD	%MSD	%RPD	ACP %MS	ACP RPD
C11~C22 Range	0	200	160	80%	161	81%	1%	75-125	0-20%

**LCS STD RECOVERY:**

Analyte	spk conc	LCS	% REC	ACP
C11~C22 Range	200	161	81%	75-125

Analyzed and Reviewed By:     *A*    

Final Reviewer:     *(Signature)*

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: WATER  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/30/13  
DATE ANALYZED: 08/02/13  
DATE REPORTED: 08/06/13

-----  
TOTAL PETROLEUM HYDROCARBONS (TPH) - CARBON CHAIN ANALYSIS

METHOD: EPA 8015B

UNIT: ug/L = MICROGRAM PER LITER = PPB

-----

SAMPLE I.D.	LAB I.D.	C4-C10	C11-C22	C23-C35	DF
HP-17@5.0'	130730-99	ND	ND	ND	1
METHOD BLANK		ND	ND	ND	1
	PQL	500	500	3000	

-----

COMMENTS

C4-C10 = GASOLINE RANGE

C11-C22 = DIESEL RANGE

C23-C35 = MOTOR OIL RANGE

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

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

Enviro Chem, Inc

1214 E. Lexington Avenue, Pomona, CA 91766

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

## 8015B QA/QC Report

Date Analyzed: 8/2/2013

Units: ug/L (PPB)

Matrix: Water/Liquid

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

Spiked Sample Lab I.D.: 130730-99 MS/MSD

Analyte	SR	spk conc	MS	%MS	MSD	%MSD	%RPD	ACP %MS	ACP RPD
C11-C22 RANGE	0	12000	14800	123%	12500	104%	17%	75-125	0-20%

### LCS STD RECOVERY:

Analyte	spk conc	LCS	% REC	ACP
C11-C22 RANGE	12000	12600	105%	75-125

Analyzed and Reviewed by: 

Final Reviewer: 

Enviro - Chem, Inc.

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

LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.
38655 Sky Canyon Drive
Murrieta, CA 92563
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355

MATRIX: SOIL

DATE SAMPLED: 07/30/13

REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13

DATE ANALYZED: 07/31-08/01/13

DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-13@0.5'

LAB I.D.: 130730-82

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS

UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

Table with 7 columns: ELEMENT ANALYZED, SAMPLE RESULT, PQL, DF, TTLC LIMIT, STLC LIMIT, EPA METHOD. Rows include elements like Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, and Zinc.

COMMENTS

- DF = Dilution Factor
PQL = Practical Quantitation Limit
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

**Enviro - Chem, Inc.**

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

## LABORATORY REPORT

CUSTOMER: **Petra Geotechnical Inc.**  
 38655 Sky Canyon Drive  
 Murrieta, CA 92563  
 Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: **12-355**

MATRIX: SOIL

DATE SAMPLED: 07/30/13

REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13

DATE ANALYZED: 07/31-08/01/13

DATE REPORTED: 08/06/13

SAMPLE I.D.: **HP-14@0.5'**

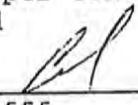
LAB I.D.: **130730-85**

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

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLT LIMIT	STLC LIMIT	EPA METHOD
Antimony (Sb)	ND	1.0	1	500	15	6010B
Arsenic (As)	2.63	0.3	1	500	5.0	6010B
Barium (Ba)	75.1	5.0	1	10,000	100	6010B
Beryllium (Be)	ND	0.5	1	75	0.75	6010B
Cadmium (Cd)	ND	0.5	1	100	1.0	6010B
Chromium Total (Cr)	37.5	0.5	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.1	1	500	5.0	7196A
Cobalt (Co)	6.43	1.0	1	8,000	80	6010B
Copper (Cu)	16.4	1.0	1	2,500	25	6010B
Lead (Pb)	4.99	0.5	1	1,000	5.0	6010B
Mercury (Hg)	ND	0.01	1	20	0.2	7471A
Molybdenum (Mo)	ND	5.0	1	3,500	350	6010B
Nickel (Ni)	8.97	2.5	1	2,000	20	6010B
Selenium (Se)	ND	1.0	1	100	1.0	6010B
Silver (Ag)	ND	1.0	1	500	5.0	6010B
Thallium (Tl)	ND	1.0	1	700	7.0	6010B
Vanadium (V)	48.8	5.0	1	2,400	24	6010B
Zinc (Zn)	53.3	0.5	1	5,000	250	6010B

**COMMENTS**

- DF = Dilution Factor
- PQL = Practical Quantitation Limit
- 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

Enviro - Chem, Inc.

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

# METHOD BLANK REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355

MATRIX: SOIL

DATE SAMPLED: 07/30/13

REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13

DATE ANALYZED: 07/31-08/01/13

DATE REPORTED: 08/06/13

METHOD BLANK FOR LAB I.D.: 130730-82, -85

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

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLT LIMIT	STLC LIMIT	EPA METHOD
Antimony (Sb)	ND	1.0	1	500	15	6010B
Arsenic (As)	ND	0.3	1	500	5.0	6010B
Barium (Ba)	ND	5.0	1	10,000	100	6010B
Beryllium (Be)	ND	0.5	1	75	0.75	6010B
Cadmium (Cd)	ND	0.5	1	100	1.0	6010B
Chromium Total (Cr)	ND	0.5	1	2,500	560/50	6010B
Chromium VI (Cr6)	--	0.1	1	500	5.0	7196A
Cobalt (Co)	ND	1.0	1	8,000	80	6010B
Copper (Cu)	ND	1.0	1	2,500	25	6010B
Lead (Pb)	ND	0.5	1	1,000	5.0	6010B
Mercury (Hg)	ND	0.01	1	20	0.2	7471A
Molybdenum (Mo)	ND	5.0	1	3,500	350	6010B
Nickel (Ni)	ND	2.5	1	2,000	20	6010B
Selenium (Se)	ND	1.0	1	100	1.0	6010B
Silver (Ag)	ND	1.0	1	500	5.0	6010B
Thallium (Tl)	ND	1.0	1	700	7.0	6010B
Vanadium (V)	ND	5.0	1	2,400	24	6010B
Zinc (Zn)	ND	0.5	1	5,000	250	6010B

#### COMMENTS

DF = Dilution Factor

PQL = Practical Quantitation Limit

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

# QA/QC for Metals Analysis --TTLCS--SOLID/SOIL MATRIX

## Matrix Spike/ Matrix Spike Duplicate/ LCS :

ANALYSIS DATE: 8/1/2013

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)	130731-12	50.0	100	PASS	2.36	50.0	50.7	97%	50.9	97%	0%
Chromium(Cr)	130731-12	50.0	99	PASS	3.86	50.0	48.1	88%	49.1	90%	2%
Lead(Pb)	130731-12	50.0	100	PASS	2.22	50.0	40.1	76%	42.4	80%	6%

ANALYSIS DATE. : 7/31/2013

Analysis	Spk.Sample ID	LCS CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Mercury (Hg)	130730-43	0.125	89	PASS	0	0.125	0.105	84%	0.101	80%	4%

## MS/MSD Status:

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

ANALYST: \_\_\_\_\_

FINAL REVIEWER: \_\_\_\_\_




Enviro - Chem, Inc.

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

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355

MATRIX: WATER

DATE SAMPLED: 07/30/13

REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13

DATE ANALYZED: 07/31/13

DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-17@5.0'

LAB I.D.: 130730-99

### TOTAL METALS ANALYSIS

UNIT: mg/L = MILLIGRAM PER LITER = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	EPA METHOD
Antimony (Sb)	ND	0.02	1	200.7
Arsenic (As)	ND	0.01	1	200.7
Barium (Ba)	ND	0.10	1	200.7
Beryllium (Be)	ND	0.01	1	200.7
Cadmium (Cd)	ND	0.01	1	200.7
Chromium (Cr)	ND	0.01	1	200.7
Cobalt (Co)	ND	0.02	1	200.7
Copper (Cu)	ND	0.02	1	200.7
Lead (Pb)	ND	0.01	1	200.7
Mercury (Hg)	ND	0.0005	1	245.1
Molybdenum (Mo)	ND	0.1	1	200.7
Nickel (Ni)	ND	0.05	1	200.7
Selenium (Se)	ND	0.02	1	200.7
Silver (Ag)	ND	0.02	1	200.7
Thallium (Tl)	ND	0.02	1	200.7
Vanadium (V)	ND	0.1	1	200.7
Zinc (Zn)	0.011	0.01	1	200.7

### COMMENTS

DF = Dilution Factor

PQL = Practical Quantitation Limit

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

Enviro - Chem, Inc.

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METHOD BLANK REPORT

CUSTOMER: Petra Geotechnical Inc.
38655 Sky Canyon Drive
Murrieta, CA 92563
Tel(951)600-9271 Fax(951)600-9215

PROJECT: 12-355

MATRIX: WATER

DATE SAMPLED: 07/30/13

REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13

DATE ANALYZED: 07/31/13

DATE REPORTED: 08/06/13

METHOD BLANK FOR LAB I.D.: 130730-99

TOTAL METALS ANALYSIS

UNIT: mg/L = MILLIGRAM PER LITER = PPM

Table with 5 columns: ELEMENT ANALYZED, SAMPLE RESULT, PQL, DF, EPA METHOD. Lists various metals like Antimony, Arsenic, Barium, etc., with their respective PQL, DF, and EPA Method values.

COMMENTS

DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection limit or non-detected

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

# QA/QC for TLLC Metals Analysis --WATER MATRIX

## Matrix Spike/ Matrix Spike Duplicate/ LCS :

ANALYSIS DATE: 7/31/2013

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
Arsenic(As)	130730-99	1.00	104	PASS	0	1.00	1.00	100%	1.03	103%	3%
Chromium(Cr)	130730-99	1.00	96	PASS	0	1.00	0.989	99%	0.991	99%	0%
Molybdenum(Mo)	130730-99	1.00	105	PASS	0	1.00	1.01	101%	1.04	104%	3%

ANALYSIS DATE : 7/31/2013

Analysis	Spk.Sample BATCH ID	LCS CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Mercury (Hg)	130730-100	0.00250	92	PASS	0	0.00250	0.00200	80%	0.00210	84%	5%

## MS/MSD Status:

Analysis	%MS	%MSD	%LCS	%RPD
Arsenic(As)	PASS	PASS	PASS	PASS
Chromium(Cr)	PASS	PASS	PASS	PASS
Molybdenum(Mo)	PASS	PASS	PASS	PASS
Mercury (Hg)	PASS	PASS	PASS	PASS
<b>Accepted Range</b>	75 ~ 125	75 ~ 125	85 ~ 115	0 ~ 20

ANALYST: \_\_\_\_\_



FINAL REVIEWER: \_\_\_\_\_



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# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-1@1.0'

LAB I.D.: 130730-52

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	100
alpha-BHC	ND	0.001	100
beta-BHC	ND	0.001	100
gamma-BHC (Lindane)	ND	0.001	100
delta-BHC	ND	0.001	100
alpha-Chlordane	ND	0.001	100
gamma-Chlordane	ND	0.001	100
Total Chlordane (Technical)	ND	0.005	100
4,4'-DDD	ND	0.001	100
4,4'-DDE	0.250	0.001	100
4,4'-DDT	ND	0.001	100
Dieldrin	ND	0.001	100
Endosulfan I	ND	0.001	100
Endosulfan II	ND	0.001	100
Endosulfan Sulfate	ND	0.001	100
Endrin	ND	0.001	100
Endrin Aldehyde	ND	0.001	100
Endrin Ketone	ND	0.001	100
Heptachlor Epoxide	ND	0.001	100
Heptachlor	ND	0.001	100
Methoxychlor	ND	0.001	100
Toxaphene	ND	0.020	100

#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

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# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-1@3.0'

LAB I.D.: 130730-53

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1000
alpha-BHC	ND	0.001	1000
beta-BHC	ND	0.001	1000
gamma-BHC (Lindane)	ND	0.001	1000
delta-BHC	ND	0.001	1000
alpha-Chlordane	ND	0.001	1000
gamma-Chlordane	ND	0.001	1000
Total Chlordane (Technical)	ND	0.005	1000
4,4'-DDD	ND	0.001	1000
4,4'-DDE	1.29	0.001	1000
4,4'-DDT	ND	0.001	1000
Dieldrin	ND	0.001	1000
Endosulfan I	ND	0.001	1000
Endosulfan II	ND	0.001	1000
Endosulfan Sulfate	ND	0.001	1000
Endrin	ND	0.001	1000
Endrin Aldehyde	ND	0.001	1000
Endrin Ketone	ND	0.001	1000
Heptachlor Epoxide	ND	0.001	1000
Heptachlor	ND	0.001	1000
Methoxychlor	ND	0.001	1000
Toxaphene	ND	0.020	1000

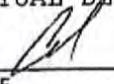
COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY:   
CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
 38655 Sky Canyon Drive  
 Murrieta, CA 92563  
 Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
 MATRIX: SOIL  
 DATE SAMPLED: 07/30/13  
 REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
 DATE EXTRACTED: 07/31/13  
 DATE ANALYZED: 08/01/13  
 DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-1@5.0'

LAB I.D.: 130730-54

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1000
alpha-BHC	ND	0.001	1000
beta-BHC	ND	0.001	1000
gamma-BHC (Lindane)	ND	0.001	1000
delta-BHC	ND	0.001	1000
alpha-Chlordane	ND	0.001	1000
gamma-Chlordane	ND	0.001	1000
Total Chlordane (Technical)	ND	0.005	1000
4,4'-DDD	ND	0.001	1000
4,4'-DDE	1.55	0.001	1000
4,4'-DDT	ND	0.001	1000
Dieldrin	ND	0.001	1000
Endosulfan I	ND	0.001	1000
Endosulfan II	ND	0.001	1000
Endosulfan Sulfate	ND	0.001	1000
Endrin	ND	0.001	1000
Endrin Aldehyde	ND	0.001	1000
Endrin Ketone	ND	0.001	1000
Heptachlor Epoxide	ND	0.001	1000
Heptachlor	ND	0.001	1000
Methoxychlor	ND	0.001	1000
Toxaphene	ND	0.020	1000

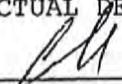
**COMMENTS:**

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

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# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-2@1.0'

LAB I.D.: 130730-55

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	100
alpha-BHC	ND	0.001	100
beta-BHC	ND	0.001	100
gamma-BHC (Lindane)	ND	0.001	100
delta-BHC	ND	0.001	100
alpha-Chlordane	ND	0.001	100
gamma-Chlordane	ND	0.001	100
Total Chlordane (Technical)	ND	0.005	100
4,4'-DDD	ND	0.001	100
4,4'-DDE	0.253	0.001	100
4,4'-DDT	ND	0.001	100
Dieldrin	ND	0.001	100
Endosulfan I	ND	0.001	100
Endosulfan II	ND	0.001	100
Endosulfan Sulfate	ND	0.001	100
Endrin	ND	0.001	100
Endrin Aldehyde	ND	0.001	100
Endrin Ketone	ND	0.001	100
Heptachlor Epoxide	ND	0.001	100
Heptachlor	ND	0.001	100
Methoxychlor	ND	0.001	100
Toxaphene	ND	0.020	100

COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY:   
CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: **Petra Geotechnical Inc.**  
**38655 Sky Canyon Drive**  
**Murrieta, CA 92563**  
**Tel (951) 600-9271 Fax (951) 600-9215**

PROJECT: **12-355**  
 MATRIX: **SOIL**  
 DATE SAMPLED: **07/30/13**  
 REPORT TO: **MR. JON CAIN**

DATE RECEIVED: **07/30/13**  
 DATE EXTRACTED: **07/31/13**  
 DATE ANALYZED: **08/01/13**  
 DATE REPORTED: **08/06/13**

SAMPLE I.D.: **HP-2@3.0'**

LAB I.D.: **130730-56**

### Organochlorine Pesticides Analysis

Method: **EPA 8081A**

Unit: **mg/Kg = Milligram Per Kilogram = PPM**

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1000
alpha-BHC	ND	0.001	1000
beta-BHC	ND	0.001	1000
gamma-BHC (Lindane)	ND	0.001	1000
delta-BHC	ND	0.001	1000
alpha-Chlordane	ND	0.001	1000
gamma-Chlordane	ND	0.001	1000
Total Chlordane (Technical)	ND	0.005	1000
4,4'-DDD	ND	0.001	1000
4,4'-DDE	3.27	0.001	1000
4,4'-DDT	ND	0.001	1000
Dieldrin	ND	0.001	1000
Endosulfan I	ND	0.001	1000
Endosulfan II	ND	0.001	1000
Endosulfan Sulfate	ND	0.001	1000
Endrin	ND	0.001	1000
Endrin Aldehyde	ND	0.001	1000
Endrin Ketone	ND	0.001	1000
Heptachlor Epoxide	ND	0.001	1000
Heptachlor	ND	0.001	1000
Methoxychlor	ND	0.001	1000
Toxaphene	ND	0.020	1000

**COMMENTS:**

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: \_\_\_\_\_  
 CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-2@5.0'

LAB I.D.: 130730-57

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1000
alpha-BHC	ND	0.001	1000
beta-BHC	ND	0.001	1000
gamma-BHC (Lindane)	ND	0.001	1000
delta-BHC	ND	0.001	1000
alpha-Chlordane	ND	0.001	1000
gamma-Chlordane	ND	0.001	1000
Total Chlordane (Technical)	ND	0.005	1000
4,4'-DDD	ND	0.001	1000
4,4'-DDE	2.88	0.001	1000
4,4'-DDT	ND	0.001	1000
Dieldrin	ND	0.001	1000
Endosulfan I	ND	0.001	1000
Endosulfan II	ND	0.001	1000
Endosulfan Sulfate	ND	0.001	1000
Endrin	ND	0.001	1000
Endrin Aldehyde	ND	0.001	1000
Endrin Ketone	ND	0.001	1000
Heptachlor Epoxide	ND	0.001	1000
Heptachlor	ND	0.001	1000
Methoxychlor	ND	0.001	1000
Toxaphene	ND	0.020	1000

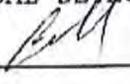
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY:   
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.

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# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-3@1.0'

LAB I.D.: 130730-58

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	100
alpha-BHC	ND	0.001	100
beta-BHC	ND	0.001	100
gamma-BHC (Lindane)	ND	0.001	100
delta-BHC	ND	0.001	100
alpha-Chlordane	ND	0.001	100
gamma-Chlordane	ND	0.001	100
Total Chlordane (Technical)	ND	0.005	100
4,4'-DDD	ND	0.001	100
4,4'-DDE	0.511	0.001	100
4,4'-DDT	ND	0.001	100
Dieldrin	ND	0.001	100
Endosulfan I	ND	0.001	100
Endosulfan II	ND	0.001	100
Endosulfan Sulfate	ND	0.001	100
Endrin	ND	0.001	100
Endrin Aldehyde	ND	0.001	100
Endrin Ketone	ND	0.001	100
Heptachlor Epoxide	ND	0.001	100
Heptachlor	ND	0.001	100
Methoxychlor	ND	0.001	100
Toxaphene	ND	0.020	100

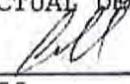
**COMMENTS:**

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-3@3.0'

LAB I.D.: 130730-59

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1000
alpha-BHC	ND	0.001	1000
beta-BHC	ND	0.001	1000
gamma-BHC (Lindane)	ND	0.001	1000
delta-BHC	ND	0.001	1000
alpha-Chlordane	ND	0.001	1000
gamma-Chlordane	ND	0.001	1000
Total Chlordane (Technical)	ND	0.005	1000
4,4'-DDD	ND	0.001	1000
4,4'-DDE	1.54	0.001	1000
4,4'-DDT	ND	0.001	1000
Dieldrin	ND	0.001	1000
Endosulfan I	ND	0.001	1000
Endosulfan II	ND	0.001	1000
Endosulfan Sulfate	ND	0.001	1000
Endrin	ND	0.001	1000
Endrin Aldehyde	ND	0.001	1000
Endrin Ketone	ND	0.001	1000
Heptachlor Epoxide	ND	0.001	1000
Heptachlor	ND	0.001	1000
Methoxychlor	ND	0.001	1000
Toxaphene	ND	0.020	1000

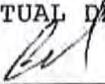
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-3@5.0'

LAB I.D.: 130730-60

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1000
alpha-BHC	ND	0.001	1000
beta-BHC	ND	0.001	1000
gamma-BHC (Lindane)	ND	0.001	1000
delta-BHC	ND	0.001	1000
alpha-Chlordane	ND	0.001	1000
gamma-Chlordane	ND	0.001	1000
Total Chlordane (Technical)	ND	0.005	1000
4,4'-DDD	ND	0.001	1000
4,4'-DDE	1.36	0.001	1000
4,4'-DDT	ND	0.001	1000
Dieldrin	ND	0.001	1000
Endosulfan I	ND	0.001	1000
Endosulfan II	ND	0.001	1000
Endosulfan Sulfate	ND	0.001	1000
Endrin	ND	0.001	1000
Endrin Aldehyde	ND	0.001	1000
Endrin Ketone	ND	0.001	1000
Heptachlor Epoxide	ND	0.001	1000
Heptachlor	ND	0.001	1000
Methoxychlor	ND	0.001	1000
Toxaphene	ND	0.020	1000

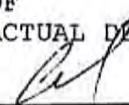
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-4@1.0'

LAB I.D.: 130730-61

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	100
alpha-BHC	ND	0.001	100
beta-BHC	ND	0.001	100
gamma-BHC (Lindane)	ND	0.001	100
delta-BHC	ND	0.001	100
alpha-Chlordane	ND	0.001	100
gamma-Chlordane	ND	0.001	100
Total Chlordane (Technical)	ND	0.005	100
4,4'-DDD	ND	0.001	100
4,4'-DDE	0.174	0.001	100
4,4'-DDT	ND	0.001	100
Dieldrin	ND	0.001	100
Endosulfan I	ND	0.001	100
Endosulfan II	ND	0.001	100
Endosulfan Sulfate	ND	0.001	100
Endrin	ND	0.001	100
Endrin Aldehyde	ND	0.001	100
Endrin Ketone	ND	0.001	100
Heptachlor Epoxide	ND	0.001	100
Heptachlor	ND	0.001	100
Methoxychlor	ND	0.001	100
Toxaphene	ND	0.020	100

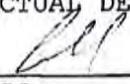
COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-4@3.0'

LAB I.D.: 130730-62

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	100
alpha-BHC	ND	0.001	100
beta-BHC	ND	0.001	100
gamma-BHC (Lindane)	ND	0.001	100
delta-BHC	ND	0.001	100
alpha-Chlordane	ND	0.001	100
gamma-Chlordane	ND	0.001	100
Total Chlordane (Technical)	ND	0.005	100
4,4'-DDD	ND	0.001	100
4,4'-DDE	0.248	0.001	100
4,4'-DDT	ND	0.001	100
Dieldrin	ND	0.001	100
Endosulfan I	ND	0.001	100
Endosulfan II	ND	0.001	100
Endosulfan Sulfate	ND	0.001	100
Endrin	ND	0.001	100
Endrin Aldehyde	ND	0.001	100
Endrin Ketone	ND	0.001	100
Heptachlor Epoxide	ND	0.001	100
Heptachlor	ND	0.001	100
Methoxychlor	ND	0.001	100
Toxaphene	ND	0.020	100

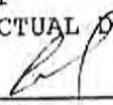
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-4@5.0'

LAB I.D.: 130730-63

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

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

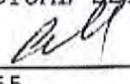
COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY:   
CAL-DHS ELAP CERTIFICATE No.: 1555

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
 38655 Sky Canyon Drive  
 Murrieta, CA 92563  
 Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
 MATRIX: SOIL  
 DATE SAMPLED: 07/30/13  
 REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
 DATE EXTRACTED: 07/31/13  
 DATE ANALYZED: 08/01/13  
 DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-5@1.0'

LAB I.D.: 130730-64

## Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	100
alpha-BHC	ND	0.001	100
beta-BHC	ND	0.001	100
gamma-BHC (Lindane)	ND	0.001	100
delta-BHC	ND	0.001	100
alpha-Chlordane	ND	0.001	100
gamma-Chlordane	ND	0.001	100
Total Chlordane (Technical)	ND	0.005	100
4,4'-DDD	ND	0.001	100
4,4'-DDE	0.355	0.001	100
4,4'-DDT	ND	0.001	100
Dieldrin	ND	0.001	100
Endosulfan I	ND	0.001	100
Endosulfan II	ND	0.001	100
Endosulfan Sulfate	ND	0.001	100
Endrin	ND	0.001	100
Endrin Aldehyde	ND	0.001	100
Endrin Ketone	ND	0.001	100
Heptachlor Epoxide	ND	0.001	100
Heptachlor	ND	0.001	100
Methoxychlor	ND	0.001	100
Toxaphene	ND	0.020	100

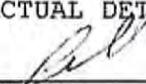
### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

# LABORATORY REPORT

CUSTOMER: **Petra Geotechnical Inc.**  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-5@3.0'

LAB I.D.: 130730-65

## Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

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

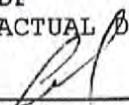
### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

# LABORATORY REPORT

CUSTOMER: **Petra Geotechnical Inc.**  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-5@5.0'

LAB I.D.: 130730-66

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

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

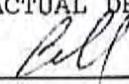
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-6@1.0'

LAB I.D.: 130730-67

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	100
alpha-BHC	ND	0.001	100
beta-BHC	ND	0.001	100
gamma-BHC (Lindane)	ND	0.001	100
delta-BHC	ND	0.001	100
alpha-Chlordane	ND	0.001	100
gamma-Chlordane	ND	0.001	100
Total Chlordane (Technical)	ND	0.005	100
4,4'-DDD	ND	0.001	100
4,4'-DDE	0.256	0.001	100
4,4'-DDT	ND	0.001	100
Dieldrin	ND	0.001	100
Endosulfan I	ND	0.001	100
Endosulfan II	ND	0.001	100
Endosulfan Sulfate	ND	0.001	100
Endrin	ND	0.001	100
Endrin Aldehyde	ND	0.001	100
Endrin Ketone	ND	0.001	100
Heptachlor Epoxide	ND	0.001	100
Heptachlor	ND	0.001	100
Methoxychlor	ND	0.001	100
Toxaphene	ND	0.020	100

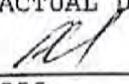
COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-6@3.0'

LAB I.D.: 130730-68

## Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

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

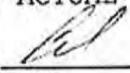
### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

# METHOD BLANK REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 07/31/13  
DATE REPORTED: 08/06/13

METHOD BLANK FOR LAB I.D.: 130730-52 THROUGH -68

## Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

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

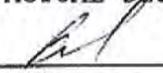
### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY:   
CAL-DHS ELAP CERTIFICATE No.: 1555



## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-6@5.0'

LAB I.D.: 130730-69

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

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

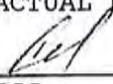
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY:   
CAL-DHS ELAP CERTIFICATE No.: 1555

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
 38655 Sky Canyon Drive  
 Murrieta, CA 92563  
 Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
 MATRIX: SOIL  
 DATE SAMPLED: 07/30/13  
 REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
 DATE EXTRACTED: 07/31/13  
 DATE ANALYZED: 08/01/13  
 DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-7@1.0'

LAB I.D.: 130730-70

## Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	100
alpha-BHC	ND	0.001	100
beta-BHC	ND	0.001	100
gamma-BHC (Lindane)	ND	0.001	100
delta-BHC	ND	0.001	100
alpha-Chlordane	ND	0.001	100
gamma-Chlordane	ND	0.001	100
Total Chlordane (Technical)	ND	0.005	100
4,4'-DDD	ND	0.001	100
4,4'-DDE	0.381	0.001	100
4,4'-DDT	ND	0.001	100
Dieldrin	ND	0.001	100
Endosulfan I	ND	0.001	100
Endosulfan II	ND	0.001	100
Endosulfan Sulfate	ND	0.001	100
Endrin	ND	0.001	100
Endrin Aldehyde	ND	0.001	100
Endrin Ketone	ND	0.001	100
Heptachlor Epoxide	ND	0.001	100
Heptachlor	ND	0.001	100
Methoxychlor	ND	0.001	100
Toxaphene	ND	0.020	100

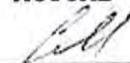
**COMMENTS:**

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
 38655 Sky Canyon Drive  
 Murrieta, CA 92563  
 Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
 MATRIX: SOIL  
 DATE SAMPLED: 07/30/13  
 REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
 DATE EXTRACTED: 07/31/13  
 DATE ANALYZED: 08/01/13  
 DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-7@3.0'

LAB I.D.: 130730-71

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

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

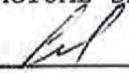
**COMMENTS:**

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-7@5.0'

LAB I.D.: 130730-72

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

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

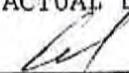
COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: **Petra Geotechnical Inc.**  
 38655 Sky Canyon Drive  
 Murrieta, CA 92563  
 Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: **12-355**  
 MATRIX: **SOIL**  
 DATE SAMPLED: **07/30/13**  
 REPORT TO: **MR. JON CAIN**

DATE RECEIVED: **07/30/13**  
 DATE EXTRACTED: **07/31/13**  
 DATE ANALYZED: **08/01/13**  
 DATE REPORTED: **08/06/13**

SAMPLE I.D.: **HP-8@1.0'**

LAB I.D.: **130730-73**

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1000
alpha-BHC	ND	0.001	1000
beta-BHC	ND	0.001	1000
gamma-BHC (Lindane)	ND	0.001	1000
delta-BHC	ND	0.001	1000
alpha-Chlordane	ND	0.001	1000
gamma-Chlordane	ND	0.001	1000
Total Chlordane (Technical)	ND	0.005	1000
4,4'-DDD	ND	0.001	1000
4,4'-DDE	1.28	0.001	1000
4,4'-DDT	ND	0.001	1000
Dieldrin	ND	0.001	1000
Endosulfan I	ND	0.001	1000
Endosulfan II	ND	0.001	1000
Endosulfan Sulfate	ND	0.001	1000
Endrin	ND	0.001	1000
Endrin Aldehyde	ND	0.001	1000
Endrin Ketone	ND	0.001	1000
Heptachlor Epoxide	ND	0.001	1000
Heptachlor	ND	0.001	1000
Methoxychlor	ND	0.001	1000
Toxaphene	ND	0.020	1000

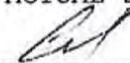
**COMMENTS:**

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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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

# LABORATORY REPORT

CUSTOMER: **Petra Geotechnical Inc.**  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: **12-355**  
MATRIX: **SOIL**  
DATE SAMPLED: **07/30/13**  
REPORT TO: **MR. JON CAIN**

DATE RECEIVED: **07/30/13**  
DATE EXTRACTED: **07/31/13**  
DATE ANALYZED: **08/01/13**  
DATE REPORTED: **08/06/13**

SAMPLE I.D.: **HP-8@3.0'**

LAB I.D.: **130730-74**

## Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	50
alpha-BHC	ND	0.001	50
beta-BHC	ND	0.001	50
gamma-BHC (Lindane)	ND	0.001	50
delta-BHC	ND	0.001	50
alpha-Chlordane	ND	0.001	50
gamma-Chlordane	ND	0.001	50
Total Chlordane (Technical)	ND	0.005	50
4,4'-DDD	ND	0.001	50
4,4'-DDE	0.100	0.001	50
4,4'-DDT	ND	0.001	50
Dieldrin	ND	0.001	50
Endosulfan I	ND	0.001	50
Endosulfan II	ND	0.001	50
Endosulfan Sulfate	ND	0.001	50
Endrin	ND	0.001	50
Endrin Aldehyde	ND	0.001	50
Endrin Ketone	ND	0.001	50
Heptachlor Epoxide	ND	0.001	50
Heptachlor	ND	0.001	50
Methoxychlor	ND	0.001	50
Toxaphene	ND	0.020	50

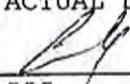
### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-8@5.0'

LAB I.D.: 130730-75

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

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

#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

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# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-9@1.0'

LAB I.D.: 130730-76

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	1.32	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

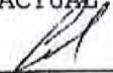
COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

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# LABORATORY REPORT

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Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-9@3.0'

LAB I.D.: 130730-77

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

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

COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

\* = ACTUAL DETECTION LIMIT RAISED DUE TO MATRIX INTERFERENCE

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.

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# LABORATORY REPORT

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Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
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DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-9@5.0'

LAB I.D.: 130730-78

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

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

#### COMMENTS:

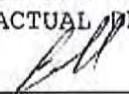
DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

\* = ACTUAL DETECTION LIMIT RAISED DUE TO MATRIX INTERFERENCE

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.

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# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-10@1.0'

LAB I.D.: 130730-79

## Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	1.70	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

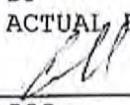
### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY:   
CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-10@3.0'

LAB I.D.: 130730-80

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	100
alpha-BHC	ND	0.001	100
beta-BHC	ND	0.001	100
gamma-BHC (Lindane)	ND	0.001	100
delta-BHC	ND	0.001	100
alpha-Chlordane	ND	0.001	100
gamma-Chlordane	ND	0.001	100
Total Chlordane (Technical)	ND	0.005	100
4,4'-DDD	ND	0.001	100
4,4'-DDE	0.121	0.001	100
4,4'-DDT	ND	0.001	100
Dieldrin	ND	0.001	100
Endosulfan I	ND	0.001	100
Endosulfan II	ND	0.001	100
Endosulfan Sulfate	ND	0.001	100
Endrin	ND	0.001	100
Endrin Aldehyde	ND	0.001	100
Endrin Ketone	ND	0.001	100
Heptachlor Epoxide	ND	0.001	100
Heptachlor	ND	0.001	100
Methoxychlor	ND	0.001	100
Toxaphene	ND	0.020	100

#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-10@5.0'

LAB I.D.: 130730-81

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	10
alpha-BHC	ND	0.001	10
beta-BHC	ND	0.001	10
gamma-BHC (Lindane)	ND	0.001	10
delta-BHC	ND	0.001	10
alpha-Chlordane	ND	0.001	10
gamma-Chlordane	ND	0.001	10
Total Chlordane (Technical)	ND	0.005	10
4,4'-DDD	ND	0.001	10
4,4'-DDE	0.015	0.001	10
4,4'-DDT	ND	0.001	10
Dieldrin	ND	0.001	10
Endosulfan I	ND	0.001	10
Endosulfan II	ND	0.001	10
Endosulfan Sulfate	ND	0.001	10
Endrin	ND	0.001	10
Endrin Aldehyde	ND	0.001	10
Endrin Ketone	ND	0.001	10
Heptachlor Epoxide	ND	0.001	10
Heptachlor	ND	0.001	10
Methoxychlor	ND	0.001	10
Toxaphene	ND	0.020	10

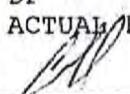
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-17@0.5'

LAB I.D.: 130730-94

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

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

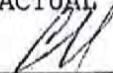
COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-17@0.5' Duplicate

LAB I.D.: 130730-95

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

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

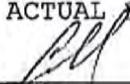
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

# LABORATORY REPORT

CUSTOMER: **Petra Geotechnical Inc.**  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: **12-355**  
MATRIX: **SOIL**  
DATE SAMPLED: **07/30/13**  
REPORT TO: **MR. JON CAIN**

DATE RECEIVED: **07/30/13**  
DATE EXTRACTED: **07/31/13**  
DATE ANALYZED: **08/01/13**  
DATE REPORTED: **08/06/13**

SAMPLE I.D.: **HP-1@1.0'**

LAB I.D.: **130730-98**

### Organochlorine Pesticides Analysis

Method: **EPA 8081A**

Unit: **mg/Kg = Milligram Per Kilogram = PPM**

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	100
alpha-BHC	ND	0.001	100
beta-BHC	ND	0.001	100
gamma-BHC (Lindane)	ND	0.001	100
delta-BHC	ND	0.001	100
alpha-Chlordane	ND	0.001	100
gamma-Chlordane	ND	0.001	100
Total Chlordane (Technical)	ND	0.005	100
4,4'-DDD	ND	0.001	100
4,4'-DDE	0.215	0.001	100
4,4'-DDT	ND	0.001	100
Dieldrin	ND	0.001	100
Endosulfan I	ND	0.001	100
Endosulfan II	ND	0.001	100
Endosulfan Sulfate	ND	0.001	100
Endrin	ND	0.001	100
Endrin Aldehyde	ND	0.001	100
Endrin Ketone	ND	0.001	100
Heptachlor Epoxide	ND	0.001	100
Heptachlor	ND	0.001	100
Methoxychlor	ND	0.001	100
Toxaphene	ND	0.020	100

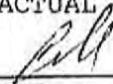
**COMMENTS:**

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

# METHOD BLANK REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/31/13  
DATE ANALYZED: 08/01/13  
DATE REPORTED: 08/06/13

METHOD BLANK FOR LAB I.D.: 130730-69 THROUGH -81, -94, -95, -98

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

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

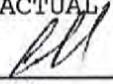
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: WATER  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/30/13  
DATE ANALYZED: 07/31/13  
DATE REPORTED: 08/06/13

SAMPLE I.D.: HP-17@5.0'

LAB I.D.: 130730-99

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: ug/L = Microgram per Liter = PPB

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.100	1
alpha-BHC	ND	0.100	1
beta-BHC	ND	0.100	1
gamma-BHC (Lindane)	ND	0.100	1
delta-BHC	ND	0.100	1
alpha-Chlordane	ND	0.100	1
gamma-Chlordane	ND	0.100	1
Total Chlordane (Technical)	ND	0.500	1
4,4'-DDD	ND	0.100	1
4,4'-DDE	ND	0.100	1
4,4'-DDT	ND	0.100	1
Dieldrin	ND	0.100	1
Endosulfan I	ND	0.100	1
Endosulfan II	ND	0.100	1
Endosulfan Sulfate	ND	0.100	1
Endrin	ND	0.100	1
Endrin Aldehyde	ND	0.100	1
Endrin Ketone	ND	0.100	1
Heptachlor Epoxide	ND	0.100	1
Heptachlor	ND	0.100	1
Methoxychlor	ND	0.100	1
Toxaphene	ND	2.00	1

#### COMMENTS

DF = Dilution Factor

PQL = Practical Quantitation Limit

Actual Detection Limit = PQL X DF

ND = Non detected or below the Actual Detection Limit

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

# METHOD BLANK REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: WATER  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 07/30/13  
DATE ANALYZED: 07/31/13  
DATE REPORTED: 08/06/13

METHOD BLANK FOR LAB I.D.: 130730-99

## Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: ug/L = Microgram per Liter = PPB

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.100	1
alpha-BHC	ND	0.100	1
beta-BHC	ND	0.100	1
gamma-BHC (Lindane)	ND	0.100	1
delta-BHC	ND	0.100	1
alpha-Chlordane	ND	0.100	1
gamma-Chlordane	ND	0.100	1
Total Chlordane (Technical)	ND	0.500	1
4,4'-DDD	ND	0.100	1
4,4'-DDE	ND	0.100	1
4,4'-DDT	ND	0.100	1
Dieldrin	ND	0.100	1
Endosulfan I	ND	0.100	1
Endosulfan II	ND	0.100	1
Endosulfan Sulfate	ND	0.100	1
Endrin	ND	0.100	1
Endrin Aldehyde	ND	0.100	1
Endrin Ketone	ND	0.100	1
Heptachlor Epoxide	ND	0.100	1
Heptachlor	ND	0.100	1
Methoxychlor	ND	0.100	1
Toxaphene	ND	2.00	1

### COMMENTS

DF = Dilution Factor

PQL = Practical Quantitation Limit

Actual Detection Limit = PQL X DF

ND = Non detected or below the Actual Detection Limit

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 8081A QA/QC Report**

Matrix: Water/Liquid  
Unit: ug/L

Date Analyzed: 7/31/2013

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

**Spiked Sample Lab I.D.:** 130731-LCS 1/2

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0	0.250	0.278	111%	0.280	112%	1%	0-20%	70-130
Aldrin	0	0.250	0.285	114%	0.288	115%	1%	0-20%	70-130
4,4-DDE	0	0.250	0.246	98%	0.259	104%	5%	0-20%	70-130

**Lab Control Spike (LCS) Recovery:**

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.500	0.507	101%	75-125
Aldrin	0.500	0.514	103%	75-125
4,4-DDE	0.500	0.495	99%	75-125
Dieldrin	0.500	0.473	95%	75-125

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
<b>Sample I.D.</b>		M-BLK	130730-19	130730-20	130730-21	130730-99			
Tetra-chloro-meta-xylene	50-150	91%	89%	135%	91%	99%			
Decachlorobipneyl	50-150	71%	73%	119%	65%	82%			

Surrogate Recovery	%REC								
<b>Sample I.D.</b>									
Tetra-chloro-meta-xylene									
Decachlorobipneyl									

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC
<b>Sample I.D.</b>						
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:     An    

\* = Surrogate fail due to matrix interference

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

Final Reviewer:     Cb

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

**Turnaround Time**  
 0 Same Day  
 0 24 Hours  
 0 48 Hours  
 0 72 Hours  
 0 1 Week (Standard)  
 Other:

SAMPLE ID	LAB ID	SAMPLING DATE TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required	COMMENTS
HP-1 @ 1.0'	130730-52	07-30-13 08:45	Soil	1	None	X		
HP-1 @ 3.0'	-53	08:46				X		
HP-1 @ 5.0'	-54	8:49				X		
HP-2 @ 1.0'	-55	8:56				X		
HP-2 @ 3.0'	-56	8:55				X		
HP-2 @ 5.0'	-57	8:58				X		
HP-3 @ 1.0'	-58	9:04				X		
HP-3 @ 3.0'	-59	9:04				X		
HP-3 @ 5.0'	-60	9:06				X		
HP-4 @ 1.0'	-61	9:15				X		
HP-4 @ 3.0'	-62	9:14				X		
HP-4 @ 5.0'	-63	9:18				X		
HP-5 @ 1.0'	-64	9:23				X		
HP-5 @ 3.0'	-65	9:23				X		
HP-5 @ 5.0'	-66	9:27				X		

ICP's 8081A  
 TPH Carbon Chain  
 8015B  
 CAM Title 22  
 6010B/7471A

Company Name: **Tetra Geotechnical Inc.**

Project Contact: **Tom Cain**

Sampler Signature: 

Address: **40880 Coenry Center Dr.**

Tel: **951-600-9271**

Project Name/ID: **12-355**

City/State/Zip: **Temecula, CA 92591**

Fax: **951-719-1499**

Instructions for Sample Storage After Analysis:  
 Dispose of  Return to Client  Store (30 Days)  
 Other:

Relinquished by:  07-30-13 2:48

Received by:  7/30/13 2:45 PM

Date & Time:

Relinquished by:

Received by:

Date & Time:

**CHAIN OF CUSTODY RECORD**

**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**  
 0 Same Day  
 0 24 Hours  
 0 48 Hours  
 0 72 Hours  
 0 1 Week (Standard)  
 Other:

SAMPLE ID	LAB ID	SAMPLING DATE	TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required		COMMENTS
HP-6 @ 1.0'	30-130-67	07-30-15	9:35	Soil	1		NONE	X		
HP-6 @ 3.0'	-68		9:35					X		
HP-6 @ 5.0'	-69		9:35					X		
HP-7 @ 1.0'	-70		10:03					X		
HP-7 @ 3.0'	-71		10:03					X		
HP-7 @ 5.0'	-72		10:04					X		
HP-8 @ 1.0'	-73		10:12					X		
HP-8 @ 3.0'	-74		10:12					X		
HP-8 @ 5.0'	-75		10:14					X		
HP-9 @ 1.0'	-76		10:19					X		
HP-9 @ 3.0'	-77		10:19					X		
HP-9 @ 5.0'	-78		10:22					X		
HP-10 @ 1.0'	-79		10:28					X		
HP-10 @ 3.0'	-80		10:27					X		
HP-10 @ 5.0'	-81		10:29					X		

OCPs PCBs

Company Name: **Petra Geotechnical Inc.** Project Contact: **Jon Cain** Sampler's Signature:

Address: **40880 County Center Dr.** Tel: **951-600-9271** Project Name/ID: **12-355**  
 City/State/Zip: **Temecula CA 92591** Fax: **951-719-1499**

Relinquished by: Received by: **Holly Hansen** Date & Time: **7/30/15 2:45pm**  
 Relinquished by: Received by: Date & Time:

Relinquished by: Received by: Date & Time: Instructions for Sample Storage After Analysis:  
 Dispose of  Return to Client  Store (30 Days)  
 Other:

**CHAIN OF CUSTODY RECORD**

**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**  
 0 Same Day  
 0 24 Hours  
 0 48 Hours  
 0 72 Hours  
 0 1 Week (Standard)  
 Other:

SAMPLE ID	LAB ID	SAMPLING DATE	TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required	COMMENTS
HP-13 @ 0.5'	3030-82	07-20-13	9:50	Soil	1		None	XX	
HP-13 @ 2.0'	83		9:49					XX	
HP-13 @ 5.0'	84		9:52						
HP-14 @ 0.5'	85		10:42					XX	
HP-14 @ 2.0'	86		10:42					XX	
HP-14 @ 5.0'	87		10:44						
HP-15 @ 0.5'	88		11:16					XX	
HP-15 @ 2.0'	89		11:16						
HP-15 @ 5.0'	90		11:18						
HP-16 @ 5.0'	91		11:00	Soil	1		None		
HP-16 @ 7.0'	92		10:59						
HP-16 @ 8.0'	93		11:06						Refused @ 8'
HP-17 @ 0.5'	94	07-20-13	11:26					XX	
HP-17 @ 0.5'	95		11:26					XX	Duplicate
HP-17 @ 2.0'	96		11:26						

DGP's 8081A  
 TPH Carbon Chain  
 8015B  
 CAM T.H. 22  
 6010B/7471

Company Name: **Tetra Geotechnical Inc.**

Project Contact: **Jon Cain**

Sampler's Signature: *[Signature]*

Address: **40880 Cooney Center Dr.**

Tel: **951-600-9271**

Project Name/ID: **12-355**

City/State/Zip: **Temecula CA 92591**

Fax: **951-719-1499**

Relinquished by: *[Signature]*

Received by: *[Signature]*

Date & Time: **7/20/13 2:45pm**

Instructions for Sample Storage After Analysis:  
 Dispose of  Return to Client  Store (30 Days)  
 Other:

Relinquished by: *[Signature]*

Received by: *[Signature]*

Date & Time:

**CHAIN OF CUSTODY RECORD**

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

**Turnaround Time**  
 0 Same Day  
 0 24 Hours  
 0 48 Hours  
 0 72 Hours  
 0 1 Week (Standard)  
 Other

SAMPLE ID	LAB ID	SAMPLING DATE TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required	COMMENTS	Misc.
HP-1705.0'	130730-97	07-30-13 11:28	soil	1		None			
HP-1705.0'	-98	07-30-13 8:50	soil	1		None		Duplicate	
HP-1705.0'	-99	07-30-13 11:32	water	1	4A	H2SO4		Pinsette #1	
HP-1705.0'	-100	07-30-13 11:35	↓	↓		↓		Pinsette #2	
								Pinsette #3	

OTPs: 8081A  
 TPH Cartridges  
 0015P  
 AM TIME 22  
 09/07/13 7471

Company Name: **Petra Geotechnical Inc.** Project Contact: **Jon Cain** Sampler's Signature:

Address: **40880 County Center Dr.** Tel: **951-600-9271** Project Name/ID: **12-355**  
 City/State/Zip: **Fernendg, CA 92591** Fax: **951-719-1499**

Relinquished by: 07-30-13 2:54 Received by: 07-30-13 2:45pm  
 Relinquished by: Received by: Date & Time: Instructions for Sample Storage After Analysis:  
 O Dispose of O Return to Client O Store (30 Days)  
 Relinquished by: Received by: Date & Time: O Other:

**CHAIN OF CUSTODY RECORD**

**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**  
 0 Same Day  
 0 24 Hours  
 0 48 Hours  
 0 72 Hours  
 0 1 Week (Standard)  
 Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required	COMMENTS
HP-13 @ 2.0'	3030-82	02-22-13	9:50	Soil	1		None	X	
HP-13 @ 2.0'	83		9:49					X	
HP-13 @ 5.0'	84		9:52					X	
HP-14 @ 0.5'	85		10:42					X	
HP-14 @ 2.0'	86		10:42					X	
HP-14 @ 5.0'	87		10:44					X	
HP-15 @ 0.5'	88		11:16					X	
HP-15 @ 2.0'	89		11:16					X	
HP-15 @ 5.0'	90		11:18	Soil				X	
HP-16 @ 5.0'	91		11:00				None	X	
HP-16 @ 7.0'	92		11:59					X	
HP-16 @ 8.0'	93		11:06					X	Refused @ 8'
HP-17 @ 0.5'	94	02-22-13	11:26					X	
HP-17 @ 0.5'	95		11:26					X	
HP-17 @ 2.0'	96		11:26					X	

20P's 6081A  
 TPH Carbon 4/2/13  
 6015B  
 CAM till 2/22/13  
 1777/130109

Company Name: **Petra Geotechnical Inc.**  
 Project Contact: **Jon Cain**  
 Address: **40880 Coenra Center Dr.**  
 City/State/Zip: **Temecula CA 92591**  
 Tel: **951-688-9271**  
 Fax: **951-719-1499**  
 Project Name/ID: **12-355**

Relinquished by: *[Signature]*  
 Received by: *[Signature]*  
 Date & Time: **1/30/13 2:47pm**  
 Relinquished by: *[Signature]*  
 Received by: *[Signature]*  
 Date & Time: **1/30/13 2:47pm**  
 Relinquished by: *[Signature]*  
 Received by: *[Signature]*  
 Date & Time: **1/30/13 2:47pm**

Instructions for Sample Storage After Analysis:  
 Dispose of  Return to Client  Store (30 Days)  
 Other

**CHAIN OF CUSTODY RECORD**

**Enviro - Chem, Inc.**

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

Date: August 16, 2013

Mr. Jon Cain  
Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel(951)600-9271 Fax(951)600-9215

Project: **12-355**  
Lab I.D.: **130730-52 through -99**

Dear Mr. Cain:

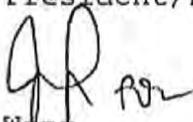
The **additional analytical results** for the soil and water samples, received by our lab on July 30, 2013, are attached. The samples were received chilled, intact, accompanying chain of custody and also stored per the EPA protocols.

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 Manager



Andy Wang  
Laboratory Manager

## LABORATORY REPORT

CUSTOMER: **Petra Geotechnical Inc.**  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 08/13/13  
DATE ANALYZED: 08/13/13  
DATE REPORTED: 08/16/13

-----  
**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
HP-13@2.0'	130730-83	ND	ND	ND	1
HP-13@5.0'	130730-84	ND	ND	ND	1
HP-14@2.0'	130730-86	ND	ND	ND	1
HP-14@5.0'	130730-87	ND	ND	ND	1
METHOD BLANK		ND	ND	ND	1
	PQL	10	10	50	

COMMENTS

C4-C10 = GASOLINE RANGE

C11-C22 = DIESEL RANGE

C23-C35 = MOTOR OIL RANGE

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = DF X PQL

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

Data Reviewed and Approved by: DM  
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: 8/13/2013

Units: mg/Kg (ppm)

Matrix: Soil/Solid/Sludge/Liquid

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

Spiked Sample Lab I.D.: **130809-4 MS/MSD**

Analyte	SR	spk conc	MS	%MS	MSD	%MSD	%RPD	ACP %MS	ACP RPD
C11~C22 Range	0	200	209	105%	207	104%	1%	75-125	0-20%

### LCS STD RECOVERY:

Analyte	spk conc	LCS	% REC	ACP
C11~C22 Range	200	208	104%	75-125

Analyzed and Reviewed By: Aw

Final Reviewer: Ⓟ

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355

MATRIX: SOIL

DATE SAMPLED: 07/30/13

REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13

DATE ANALYZED: 08/13/13

DATE REPORTED: 08/16/13

SAMPLE I.D.: HP-13@2.0'

LAB I.D.: 130730-83

### TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS

UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Antimony (Sb)	ND	1.0	1	500	15	6010B
Arsenic (As)	ND	0.3	1	500	5.0	6010B
Barium (Ba)	59.4	5.0	1	10,000	100	6010B
Beryllium (Be)	ND	0.5	1	75	0.75	6010B
Cadmium (Cd)	ND	0.5	1	100	1.0	6010B
Chromium Total (Cr)	137 **	0.5	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.1	1	500	5.0	7196A
Cobalt (Co)	14.4	1.0	1	8,000	80	6010B
Copper (Cu)	13.6	1.0	1	2,500	25	6010B
Lead (Pb)	0.998	0.5	1	1,000	5.0	6010B
Mercury (Hg)	ND	0.01	1	20	0.2	7471A
Molybdenum (Mo)	ND	5.0	1	3,500	350	6010B
Nickel (Ni)	35.0	2.5	1	2,000	20	6010B
Selenium (Se)	ND	1.0	1	100	1.0	6010B
Silver (Ag)	ND	1.0	1	500	5.0	6010B
Thallium (Tl)	ND	1.0	1	700	7.0	6010B
Vanadium (V)	99.6	5.0	1	2,400	24	6010B
Zinc (Zn)	30.7	0.5	1	5,000	250	6010B

### COMMENTS

DF = Dilution Factor

PQL = Practical Quantitation Limit

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

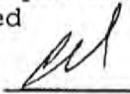
@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5

\* = 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

Enviro - Chem, Inc.

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

# LABORATORY REPORT

CUSTOMER: **Petra Geotechnical Inc.**  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355

MATRIX: SOIL

DATE SAMPLED: 07/30/13

REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13

DATE ANALYZED: 08/13/13

DATE REPORTED: 08/16/13

SAMPLE I.D.: HP-13@5.0'

LAB I.D.: 130730-84

### TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS

UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLT LIMIT	STLC LIMIT	EPA METHOD
Antimony (Sb)	ND	1.0	1	500	15	6010B
Arsenic (As)	ND	0.3	1	500	5.0	6010B
Barium (Ba)	68.1	5.0	1	10,000	100	6010B
Beryllium (Be)	ND	0.5	1	75	0.75	6010B
Cadmium (Cd)	ND	0.5	1	100	1.0	6010B
Chromium Total (Cr)	113 **	0.5	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.1	1	500	5.0	7196A
Cobalt (Co)	11.6	1.0	1	8,000	80	6010B
Copper (Cu)	17.6	1.0	1	2,500	25	6010B
Lead (Pb)	0.596	0.5	1	1,000	5.0	6010B
Mercury (Hg)	ND	0.01	1	20	0.2	7471A
Molybdenum (Mo)	ND	5.0	1	3,500	350	6010B
Nickel (Ni)	32.1	2.5	1	2,000	20	6010B
Selenium (Se)	ND	1.0	1	100	1.0	6010B
Silver (Ag)	ND	1.0	1	500	5.0	6010B
Thallium (Tl)	ND	1.0	1	700	7.0	6010B
Vanadium (V)	66.6	5.0	1	2,400	24	6010B
Zinc (Zn)	36.4	0.5	1	5,000	250	6010B

### COMMENTS

DF = Dilution Factor

PQL = Practical Quantitation Limit

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

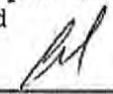
@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5

\* = 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: Petra Geotechnical Inc.  
 38655 Sky Canyon Drive  
 Murrieta, CA 92563  
 Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355

MATRIX: SOIL

DATE SAMPLED: 07/30/13

REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13

DATE ANALYZED: 08/13/13

DATE REPORTED: 08/16/13

SAMPLE I.D.: HP-14@2.0'

LAB I.D.: 130730-86

### TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS

UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLT LIMIT	STLC LIMIT	EPA METHOD
Antimony (Sb)	ND	1.0	1	500	15	6010B
Arsenic (As)	1.48	0.3	1	500	5.0	6010B
Barium (Ba)	91.6	5.0	1	10,000	100	6010B
Beryllium (Be)	ND	0.5	1	75	0.75	6010B
Cadmium (Cd)	ND	0.5	1	100	1.0	6010B
Chromium Total (Cr)	113 **	0.5	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.1	1	500	5.0	7196A
Cobalt (Co)	13.8	1.0	1	8,000	80	6010B
Copper (Cu)	14.0	1.0	1	2,500	25	6010B
Lead (Pb)	2.53	0.5	1	1,000	5.0	6010B
Mercury (Hg)	ND	0.01	1	20	0.2	7471A
Molybdenum (Mo)	ND	5.0	1	3,500	350	6010B
Nickel (Ni)	28.0	2.5	1	2,000	20	6010B
Selenium (Se)	ND	1.0	1	100	1.0	6010B
Silver (Ag)	ND	1.0	1	500	5.0	6010B
Thallium (Tl)	ND	1.0	1	700	7.0	6010B
Vanadium (V)	87.5	5.0	1	2,400	24	6010B
Zinc (Zn)	33.8	0.5	1	5,000	250	6010B

### COMMENTS

DF = Dilution Factor

PQL = Practical Quantitation Limit

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

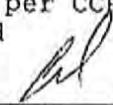
@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5

\* = 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

Enviro - Chem, Inc.

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

# LABORATORY REPORT

CUSTOMER: **Petra Geotechnical Inc.**  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355

MATRIX: SOIL

DATE SAMPLED: 07/30/13

REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13

DATE ANALYZED: 08/13/13

DATE REPORTED: 08/16/13

SAMPLE I.D.: **HP-14@5.0'**

LAB I.D.: 130730-87

### TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS

UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLT LIMIT	STLC LIMIT	EPA METHOD
Antimony (Sb)	ND	1.0	1	500	15	6010B
Arsenic (As)	ND	0.3	1	500	5.0	6010B
Barium (Ba)	36.1	5.0	1	10,000	100	6010B
Beryllium (Be)	ND	0.5	1	75	0.75	6010B
Cadmium (Cd)	ND	0.5	1	100	1.0	6010B
Chromium Total (Cr)	91.4 **	0.5	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.1	1	500	5.0	7196A
Cobalt (Co)	7.38	1.0	1	8,000	80	6010B
Copper (Cu)	9.73	1.0	1	2,500	25	6010B
Lead (Pb)	ND	0.5	1	1,000	5.0	6010B
Mercury (Hg)	ND	0.01	1	20	0.2	7471A
Molybdenum (Mo)	ND	5.0	1	3,500	350	6010B
Nickel (Ni)	28.5	2.5	1	2,000	20	6010B
Selenium (Se)	ND	1.0	1	100	1.0	6010B
Silver (Ag)	ND	1.0	1	500	5.0	6010B
Thallium (Tl)	ND	1.0	1	700	7.0	6010B
Vanadium (V)	81.6	5.0	1	2,400	24	6010B
Zinc (Zn)	26.8	0.5	1	5,000	250	6010B

#### COMMENTS

DF = Dilution Factor

PQL = Practical Quantitation Limit

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

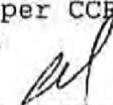
@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5

\* = 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

## METHOD BLANK REPORT

CUSTOMER: Petra Geotechnical Inc.  
 38655 Sky Canyon Drive  
 Murrieta, CA 92563  
 Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355

MATRIX: SOIL

DATE SAMPLED: 07/30/13

REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13

DATE ANALYZED: 08/13/13

DATE REPORTED: 08/16/13

METHOD BLANK FOR LAB I.D.: 130730-83, -84, -86, -87

### TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS

UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Antimony (Sb)	ND	1.0	1	500	15	6010B
Arsenic (As)	ND	0.3	1	500	5.0	6010B
Barium (Ba)	ND	5.0	1	10,000	100	6010B
Beryllium (Be)	ND	0.5	1	75	0.75	6010B
Cadmium (Cd)	ND	0.5	1	100	1.0	6010B
Chromium Total (Cr)	ND	0.5	1	2,500	560/500	6010B
Chromium VI (Cr6)	--	0.1	1	500	5.0	7196A
Cobalt (Co)	ND	1.0	1	8,000	80	6010B
Copper (Cu)	ND	1.0	1	2,500	25	6010B
Lead (Pb)	ND	0.5	1	1,000	5.0	6010B
Mercury (Hg)	ND	0.01	1	20	0.2	7471A
Molybdenum (Mo)	ND	5.0	1	3,500	350	6010B
Nickel (Ni)	ND	2.5	1	2,000	20	6010B
Selenium (Se)	ND	1.0	1	100	1.0	6010B
Silver (Ag)	ND	1.0	1	500	5.0	6010B
Thallium (Tl)	ND	1.0	1	700	7.0	6010B
Vanadium (V)	ND	5.0	1	2,400	24	6010B
Zinc (Zn)	ND	0.5	1	5,000	250	6010B

### COMMENTS

DF = Dilution Factor

PQL = Practical Quantitation Limit

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 :

ANALYSIS DATE: 8/13/2013

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)	130809-4	50.0	95	PASS	6.44	50.0	56.0	99%	55.2	98%	2%
Chromium(Cr)	130809-4	50.0	102	PASS	32.3	50.0	74.5	84%	73.0	81%	4%
Lead(Pb)	130809-4	50.0	114	PASS	3.51	50.0	49.4	92%	48.7	90%	2%

ANALYSIS DATE. : 8/13/2013

Analysis	Spk.Sample ID	LCS CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Mercury (Hg)	130812-2	0.125	95	PASS	0	0.125	0.108	86%	0.112	89%	3%

## MS/MSD Status:

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

ANALYST: \_\_\_\_\_

FINAL REVIEWER: \_\_\_\_\_

Enviro - Chem, Inc.

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

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 07/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
DATE EXTRACTED: 08/13/13  
DATE ANALYZED: 08/13/13  
DATE REPORTED: 08/16/13

SAMPLE I.D.: HP-16@5.0'

LAB I.D.: 130730-91

## Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	10
alpha-BHC	ND	0.001	10
beta-BHC	ND	0.001	10
gamma-BHC (Lindane)	ND	0.001	10
delta-BHC	ND	0.001	10
alpha-Chlordane	ND	0.001	10
gamma-Chlordane	ND	0.001	10
Total Chlordane (Technical)	ND	0.005	10
4,4'-DDD	ND	0.001	10
4,4'-DDE	0.084	0.001	10
4,4'-DDT	ND	0.001	10
Dieldrin	ND	0.001	10
Endosulfan I	ND	0.001	10
Endosulfan II	ND	0.001	10
Endosulfan Sulfate	ND	0.001	10
Endrin	ND	0.001	10
Endrin Aldehyde	ND	0.001	10
Endrin Ketone	ND	0.001	10
Heptachlor Epoxide	ND	0.001	10
Heptachlor	ND	0.001	10
Methoxychlor	ND	0.001	10
Toxaphene	ND	0.020	10

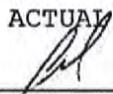
### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY:   
CAL-DHS ELAP CERTIFICATE No.: 1555

## METHOD BLANK REPORT

CUSTOMER: Petra Geotechnical Inc.  
 38655 Sky Canyon Drive  
 Murrieta, CA 92563  
 Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
 MATRIX: SOIL  
 DATE SAMPLED: 07/30/13  
 REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13  
 DATE EXTRACTED: 08/13/13  
 DATE ANALYZED: 08/13/13  
 DATE REPORTED: 08/16/13

METHOD BLANK FOR LAB I.D.: 130730-91

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

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

**COMMENTS:**

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

Date: September 9, 2013

Mr. Jon Cain  
Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel(951)600-9271 Fax(951)600-9215

Project: **12-355**  
Lab I.D.: **130830-43 through -90**

Dear Mr. Cain:

The **analytical results** for the soil and water samples, received by our lab on August 30, 2013, are attached. The samples were received chilled, intact and accompanying chain of custody record.

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 Manager



Andy Wang  
Laboratory Manager

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/05/13  
DATE ANALYZED: 09/05-06/13  
DATE REPORTED: 09/09/13

-----  
**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
HP-19@.5'	130830-76	ND	ND	ND	1
HP-20@.5'	130830-79	ND	ND	ND	10^
HP-21@.5'	130830-82	ND	ND	ND	1
METHOD BLANK		ND	ND	ND	1
	PQL	10	10	50	

**COMMENTS**

C4-C10 = GASOLINE RANGE

C11-C22 = DIESEL RANGE

C23-C35 = MOTOR OIL RANGE

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = DF X PQL

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

^ = ACTUAL DETECTION LIMIT RAISED DUE TO MATRIX INTERFERENCE

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: 9/5-6/2013

Units: mg/Kg (ppm)

Matrix: Soil/Solid/Sludge/Liquid

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

Spiked Sample Lab I.D.: **130905-LCS1/2**

Analyte	SR	spk conc	MS	%MS	MSD	%MSD	%RPD	ACP %MS	ACP RPD
C11~C22 Range	0	200	235	118%	221	111%	6%	75-125	0-20%

### LCS STD RECOVERY:

Analyte	spk conc	LCS	% REC	ACP
C11~C22 Range	200	231	116%	75-125

Analyzed and Reviewed By: \_\_\_\_\_ 

Final Reviewer: \_\_\_\_\_ 

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: WATER  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 08/30/13  
DATE ANALYZED: 09/05/13  
DATE REPORTED: 09/09/13

-----  
**TOTAL PETROLEUM HYDROCARBONS (TPH) - CARBON CHAIN ANALYSIS**

METHOD: EPA 8015B

UNIT: ug/L = MICROGRAM PER LITER = PPB

-----

SAMPLE I.D.	LAB I.D.	C4-C10	C11-C22	C23-C35	DF
<u>Rinsate #2</u>	<u>130830-86</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>
	<b>PQL</b>	<b>500</b>	<b>500</b>	<b>3000</b>	

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### COMMENTS

C4-C10 = GASOLINE RANGE

C11-C22 = DIESEL RANGE

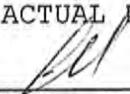
C23-C35 = MOTOR OIL RANGE

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

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

Enviro Chem, Inc

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

## 8015B QA/QC Report

Date Analyzed: 9/5/2013

Units: ug/L (PPB)

Matrix: Water/Liquid

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

Spiked Sample Lab I.D.: 130830-86 MS/MSD

Analyte	SR	spk conc	MS	%MS	MSD	%MSD	%RPD	ACP %MS	ACP RPD
C11-C22 RANGE	0	12000	14000	117%	13100	109%	7%	75-125	0-20%

### LCS STD RECOVERY:

Analyte	spk conc	LCS	% REC	ACP
C11-C22 RANGE	12000	14800	123%	75-125

Analyzed and Reviewed by: \_\_\_\_\_ B

Final Reviewer: \_\_\_\_\_ @

# LABORATORY REPORT

CUSTOMER: **Petra Geotechnical Inc.**  
**38655 Sky Canyon Drive**  
**Murrieta, CA 92563**  
**Tel (951) 600-9271 Fax (951) 600-9215**

PROJECT: 12-355

MATRIX: SOIL

DATE SAMPLED: 08/30/13

REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13

DATE ANALYZED: 09/03/13

DATE REPORTED: 09/09/13

SAMPLE I.D.: **HP-19@.5'**

LAB I.D.: 130830-76

**TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS**

UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLT LIMIT	STLC LIMIT	EPA METHOD
Antimony (Sb)	ND	1.0	1	500	15	6010B
Arsenic (As)	0.928	0.3	1	500	5.0	6010B
Barium (Ba)	47.2	5.0	1	10,000	100	6010B
Beryllium (Be)	ND	0.5	1	75	0.75	6010B
Cadmium (Cd)	ND	0.5	1	100	1.0	6010B
Chromium Total (Cr)	110 **	0.5	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.1	1	500	5.0	7196A
Cobalt (Co)	15.3	1.0	1	8,000	80	6010B
Copper (Cu)	10.2	1.0	1	2,500	25	6010B
Lead (Pb)	0.650	0.5	1	1,000	5.0	6010B
Mercury (Hg)	ND	0.01	1	20	0.2	7471A
Molybdenum (Mo)	ND	5.0	1	3,500	350	6010B
Nickel (Ni)	37.4	2.5	1	2,000	20	6010B
Selenium (Se)	ND	1.0	1	100	1.0	6010B
Silver (Ag)	ND	1.0	1	500	5.0	6010B
Thallium (Tl)	ND	1.0	1	700	7.0	6010B
Vanadium (V)	73.0	5.0	1	2,400	24	6010B
Zinc (Zn)	25.3	0.5	1	5,000	250	6010B

**COMMENTS**

DF = Dilution Factor

PQL = Practical Quantitation Limit

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

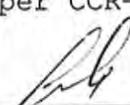
@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5

\* = 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: Petra Geotechnical Inc.  
 38655 Sky Canyon Drive  
 Murrieta, CA 92563  
 Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355

MATRIX: SOIL

DATE SAMPLED: 08/30/13

REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13

DATE ANALYZED: 09/03/13

DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-20@.5'

LAB I.D.: 130830-79

**TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS**

UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLT LIMIT	STLC LIMIT	EPA METHOD
Antimony (Sb)	ND	1.0	1	500	15	6010B
Arsenic (As)	0.650	0.3	1	500	5.0	6010B
Barium (Ba)	43.4	5.0	1	10,000	100	6010B
Beryllium (Be)	ND	0.5	1	75	0.75	6010B
Cadmium (Cd)	ND	0.5	1	100	1.0	6010B
Chromium Total (Cr)	88.8 **	0.5	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.1	1	500	5.0	7196A
Cobalt (Co)	10.5	1.0	1	8,000	80	6010B
Copper (Cu)	9.68	1.0	1	2,500	25	6010B
Lead (Pb)	1.27	0.5	1	1,000	5.0	6010B
Mercury (Hg)	ND	0.01	1	20	0.2	7471A
Molybdenum (Mo)	ND	5.0	1	3,500	350	6010B
Nickel (Ni)	28.0	2.5	1	2,000	20	6010B
Selenium (Se)	ND	1.0	1	100	1.0	6010B
Silver (Ag)	ND	1.0	1	500	5.0	6010B
Thallium (Tl)	ND	1.0	1	700	7.0	6010B
Vanadium (V)	61.1	5.0	1	2,400	24	6010B
Zinc (Zn)	25.5	0.5	1	5,000	250	6010B

**COMMENTS**

DF = Dilution Factor

PQL = Practical Quantitation Limit

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

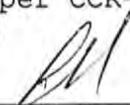
@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5

\* = 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: Petra Geotechnical Inc.  
 38655 Sky Canyon Drive  
 Murrieta, CA 92563  
 Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355

MATRIX: SOIL

DATE SAMPLED: 08/30/13

REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13

DATE ANALYZED: 09/03/13

DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-21@.5'

LAB I.D.: 130830-82

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS

UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLT LIMIT	STLC LIMIT	EPA METHOD
Antimony (Sb)	ND	1.0	1	500	15	6010B
Arsenic (As)	0.610	0.3	1	500	5.0	6010B
Barium (Ba)	42.7	5.0	1	10,000	100	6010B
Beryllium (Be)	ND	0.5	1	75	0.75	6010B
Cadmium (Cd)	ND	0.5	1	100	1.0	6010B
Chromium Total (Cr)	98.9 **	0.5	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.1	1	500	5.0	7196A
Cobalt (Co)	12.3	1.0	1	8,000	80	6010B
Copper (Cu)	9.32	1.0	1	2,500	25	6010B
Lead (Pb)	0.762	0.5	1	1,000	5.0	6010B
Mercury (Hg)	ND	0.01	1	20	0.2	7471A
Molybdenum (Mo)	ND	5.0	1	3,500	350	6010B
Nickel (Ni)	30.5	2.5	1	2,000	20	6010B
Selenium (Se)	ND	1.0	1	100	1.0	6010B
Silver (Ag)	ND	1.0	1	500	5.0	6010B
Thallium (Tl)	ND	1.0	1	700	7.0	6010B
Vanadium (V)	65.6	5.0	1	2,400	24	6010B
Zinc (Zn)	23.1	0.5	1	5,000	250	6010B

COMMENTS

DF = Dilution Factor

PQL = Practical Quantitation Limit

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

## METHOD BLANK REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355

MATRIX: SOIL

DATE SAMPLED: 08/30/13

REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13

DATE ANALYZED: 09/03/13

DATE REPORTED: 09/09/13

METHOD BLANK FOR LAB I.D.: 130830-76, -79, -82

### TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS

UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLIC LIMIT	STLIC LIMIT	EPA METHOD
Antimony (Sb)	ND	1.0	1	500	15	6010B
Arsenic (As)	ND	0.3	1	500	5.0	6010B
Barium (Ba)	ND	5.0	1	10,000	100	6010B
Beryllium (Be)	ND	0.5	1	75	0.75	6010B
Cadmium (Cd)	ND	0.5	1	100	1.0	6010B
Chromium Total (Cr)	ND	0.5	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.1	1	500	5.0	7196A
Cobalt (Co)	ND	1.0	1	8,000	80	6010B
Copper (Cu)	ND	1.0	1	2,500	25	6010B
Lead (Pb)	ND	0.5	1	1,000	5.0	6010B
Mercury (Hg)	ND	0.01	1	20	0.2	7471A
Molybdenum (Mo)	ND	5.0	1	3,500	350	6010B
Nickel (Ni)	ND	2.5	1	2,000	20	6010B
Selenium (Se)	ND	1.0	1	100	1.0	6010B
Silver (Ag)	ND	1.0	1	500	5.0	6010B
Thallium (Tl)	ND	1.0	1	700	7.0	6010B
Vanadium (V)	ND	5.0	1	2,400	24	6010B
Zinc (Zn)	ND	0.5	1	5,000	250	6010B

### COMMENTS

DF = Dilution Factor

PQL = Practical Quantitation Limit

Actual Detection Limit = PQL X DF

ND = Below the Actual Detection Limit or non-detected

TTLIC = Total Threshold Limit Concentration

STLIC = Soluble Threshold Limit Concentration

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

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

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

\*\*\* = The concentration exceeds the TTLIC 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 --TTL--SOLID/SOIL MATRIX

## Matrix Spike/ Matrix Spike Duplicate/ LCS :

ANALYSIS DATE: 9/3/2013

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)	130830-22	50.0	102	PASS	4.07	50.0	53.9	100%	54.0	100%	0%
Copper(Cu)	130830-22	50.0	108	PASS	11.2	50.0	58.7	95%	59.2	96%	1%
Lead(Pb)	130830-22	50.0	107	PASS	15.7	50.0	61.4	91%	61.5	92%	0%

ANALYSIS DATE. : 9/3/2013

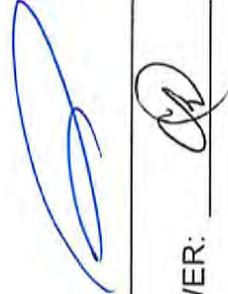
Analysis	Spk.Sample ID	LCS CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Mercury (Hg)	130830-93	0.125	96	PASS	0	0.125	0.113	90%	0.105	84%	7%

## MS/MSD Status:

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

ANALYST: \_\_\_\_\_

FINAL REVIEWER: \_\_\_\_\_



## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355

MATRIX: WATER

DATE SAMPLED: 08/30/13

REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13

DATE ANALYZED: 09/03-04/13

DATE REPORTED: 09/09/13

SAMPLE I.D.: Rinsate #3

LAB I.D.: 130830-87

### TOTAL METALS ANALYSIS

UNIT: mg/L = MILLIGRAM PER LITER = PPM

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

### COMMENTS

DF = Dilution Factor

PQL = Practical Quantitation Limit

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

## METHOD BLANK REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355

MATRIX: WATER

DATE SAMPLED: 08/30/13

REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13

DATE ANALYZED: 09/03-04/13

DATE REPORTED: 09/09/13

METHOD BLANK FOR LAB I.D.: 130830-87

### TOTAL METALS ANALYSIS

UNIT: mg/L = MILLIGRAM PER LITER = PPM

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

### COMMENTS

DF = Dilution Factor

PQL = Practical Quantitation Limit

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: 9/4/2013

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
Arsenic(As)	130830-87	1.00	107	PASS	0	1.00	1.08	108%	1.08	108%	0%
Chromium(Cr)	130830-87	1.00	113	PASS	0	1.00	1.09	109%	1.07	107%	2%
Zinc(Zn)	130830-87	1.00	102	PASS	0	1.00	1.14	114%	1.14	114%	0%

ANALYSIS DATE. : 9/3/2013

Analysis	Spk.Sample BATCH ID	LCS CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Mercury (Hg)	130830-8	0.00250	92	PASS	0	0.00250	0.00210	84%	0.00230	92%	9%

## MS/MSD Status:

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

ANALYST: \_\_\_\_\_

FINAL REVIEWER: \_\_\_\_\_

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/05/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-1A@1.0'

LAB I.D.: 130830-43

## Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	0.790	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

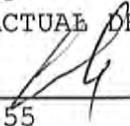
### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/05/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-1A@3.0'

LAB I.D.: 130830-44

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	3.42	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

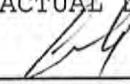
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/05/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-1A@5.0'

LAB I.D.: 130830-45

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

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	3.65	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

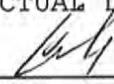
**COMMENTS:**

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/05/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-1B@1.0'

LAB I.D.: 130830-46

## Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	250
alpha-BHC	ND	0.001	250
beta-BHC	ND	0.001	250
gamma-BHC (Lindane)	ND	0.001	250
delta-BHC	ND	0.001	250
alpha-Chlordane	ND	0.001	250
gamma-Chlordane	ND	0.001	250
Total Chlordane (Technical)	ND	0.005	250
4,4'-DDD	ND	0.001	250
4,4'-DDE	0.643	0.001	250
4,4'-DDT	ND	0.001	250
Dieldrin	ND	0.001	250
Endosulfan I	ND	0.001	250
Endosulfan II	ND	0.001	250
Endosulfan Sulfate	ND	0.001	250
Endrin	ND	0.001	250
Endrin Aldehyde	ND	0.001	250
Endrin Ketone	ND	0.001	250
Heptachlor Epoxide	ND	0.001	250
Heptachlor	ND	0.001	250
Methoxychlor	ND	0.001	250
Toxaphene	ND	0.020	250

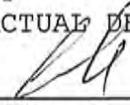
### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/06/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-1B@3.0'

LAB I.D.: 130830-47

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	2500
alpha-BHC	ND	0.001	2500
beta-BHC	ND	0.001	2500
gamma-BHC (Lindane)	ND	0.001	2500
delta-BHC	ND	0.001	2500
alpha-Chlordane	ND	0.001	2500
gamma-Chlordane	ND	0.001	2500
Total Chlordane (Technical)	ND	0.005	2500
4,4'-DDD	ND	0.001	2500
4,4'-DDE	3.83	0.001	2500
4,4'-DDT	ND	0.001	2500
Dieldrin	ND	0.001	2500
Endosulfan I	ND	0.001	2500
Endosulfan II	ND	0.001	2500
Endosulfan Sulfate	ND	0.001	2500
Endrin	ND	0.001	2500
Endrin Aldehyde	ND	0.001	2500
Endrin Ketone	ND	0.001	2500
Heptachlor Epoxide	ND	0.001	2500
Heptachlor	ND	0.001	2500
Methoxychlor	ND	0.001	2500
Toxaphene	ND	0.020	2500

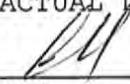
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/05/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-1B@5.0'

LAB I.D.: 130830-48

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	1.73	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

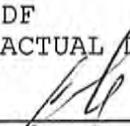
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/05/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-2A@1.0'

LAB I.D.: 130830-49

## Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	250
alpha-BHC	ND	0.001	250
beta-BHC	ND	0.001	250
gamma-BHC (Lindane)	ND	0.001	250
delta-BHC	ND	0.001	250
alpha-Chlordane	ND	0.001	250
gamma-Chlordane	ND	0.001	250
Total Chlordane (Technical)	ND	0.005	250
4,4'-DDD	ND	0.001	250
4,4'-DDE	0.485	0.001	250
4,4'-DDT	ND	0.001	250
Dieldrin	ND	0.001	250
Endosulfan I	ND	0.001	250
Endosulfan II	ND	0.001	250
Endosulfan Sulfate	ND	0.001	250
Endrin	ND	0.001	250
Endrin Aldehyde	ND	0.001	250
Endrin Ketone	ND	0.001	250
Heptachlor Epoxide	ND	0.001	250
Heptachlor	ND	0.001	250
Methoxychlor	ND	0.001	250
Toxaphene	ND	0.020	250

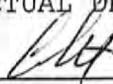
### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY:   
CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/05/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-2A@3.0'

LAB I.D.: 130830-50

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	2.51	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

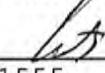
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/04/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-2A@5.0'

LAB I.D.: 130830-51

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	1.15	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/04/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-2B@1.0'

LAB I.D.: 130830-52

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	10
alpha-BHC	ND	0.001	10
beta-BHC	ND	0.001	10
gamma-BHC (Lindane)	ND	0.001	10
delta-BHC	ND	0.001	10
alpha-Chlordane	ND	0.001	10
gamma-Chlordane	ND	0.001	10
Total Chlordane (Technical)	ND	0.005	10
4,4'-DDD	ND	0.001	10
4,4'-DDE	0.068	0.001	10
4,4'-DDT	ND	0.001	10
Dieldrin	ND	0.001	10
Endosulfan I	ND	0.001	10
Endosulfan II	ND	0.001	10
Endosulfan Sulfate	ND	0.001	10
Endrin	ND	0.001	10
Endrin Aldehyde	ND	0.001	10
Endrin Ketone	ND	0.001	10
Heptachlor Epoxide	ND	0.001	10
Heptachlor	ND	0.001	10
Methoxychlor	ND	0.001	10
Toxaphene	ND	0.020	10

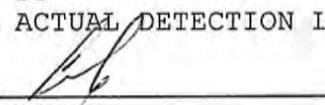
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/04/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-2B@3.0'

LAB I.D.: 130830-53

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	1.21	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

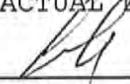
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/04/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-2B@5.0'

LAB I.D.: 130830-54

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	1.09	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

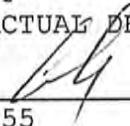
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

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CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/05/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-3A@1.0'

LAB I.D.: 130830-55

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	250
alpha-BHC	ND	0.001	250
beta-BHC	ND	0.001	250
gamma-BHC (Lindane)	ND	0.001	250
delta-BHC	ND	0.001	250
alpha-Chlordane	ND	0.001	250
gamma-Chlordane	ND	0.001	250
Total Chlordane (Technical)	ND	0.005	250
4,4'-DDD	ND	0.001	250
4,4'-DDE	0.300	0.001	250
4,4'-DDT	ND	0.001	250
Dieldrin	ND	0.001	250
Endosulfan I	ND	0.001	250
Endosulfan II	ND	0.001	250
Endosulfan Sulfate	ND	0.001	250
Endrin	ND	0.001	250
Endrin Aldehyde	ND	0.001	250
Endrin Ketone	ND	0.001	250
Heptachlor Epoxide	ND	0.001	250
Heptachlor	ND	0.001	250
Methoxychlor	ND	0.001	250
Toxaphene	ND	0.020	250

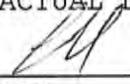
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/04/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-3A@3.0'

LAB I.D.: 130830-56

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	1.33	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

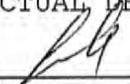
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/04/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-3A@5.0'

LAB I.D.: 130830-57

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**Organochlorine Pesticides Analysis**  
Method: EPA 8081A  
Unit: mg/Kg = Milligram Per Kilogram = PPM  
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PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	0.815	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

**COMMENTS:**

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: \_\_\_\_\_

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/04/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-3B@1.0'

LAB I.D.: 130830-58

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	1.26	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY:   
CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/05/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-3B@3.0'

LAB I.D.: 130830-59

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	25
alpha-BHC	ND	0.001	25
beta-BHC	ND	0.001	25
gamma-BHC (Lindane)	ND	0.001	25
delta-BHC	ND	0.001	25
alpha-Chlordane	ND	0.001	25
gamma-Chlordane	ND	0.001	25
Total Chlordane (Technical)	ND	0.005	25
4,4'-DDD	ND	0.001	25
4,4'-DDE	0.148	0.001	25
4,4'-DDT	ND	0.001	25
Dieldrin	ND	0.001	25
Endosulfan I	ND	0.001	25
Endosulfan II	ND	0.001	25
Endosulfan Sulfate	ND	0.001	25
Endrin	ND	0.001	25
Endrin Aldehyde	ND	0.001	25
Endrin Ketone	ND	0.001	25
Heptachlor Epoxide	ND	0.001	25
Heptachlor	ND	0.001	25
Methoxychlor	ND	0.001	25
Toxaphene	ND	0.020	25

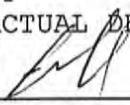
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/04/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-3B@5.0'

LAB I.D.: 130830-60

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	0.905	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

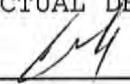
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
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DATE ANALYZED: 09/05/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-8A@1.0'

LAB I.D.: 130830-67

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	3.35	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

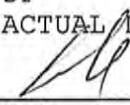
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/05/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-8A@3.0'

LAB I.D.: 130830-68

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	25
alpha-BHC	ND	0.001	25
beta-BHC	ND	0.001	25
gamma-BHC (Lindane)	ND	0.001	25
delta-BHC	ND	0.001	25
alpha-Chlordane	ND	0.001	25
gamma-Chlordane	ND	0.001	25
Total Chlordane (Technical)	ND	0.005	25
4,4'-DDD	ND	0.001	25
4,4'-DDE	0.041	0.001	25
4,4'-DDT	ND	0.001	25
Dieldrin	ND	0.001	25
Endosulfan I	ND	0.001	25
Endosulfan II	ND	0.001	25
Endosulfan Sulfate	ND	0.001	25
Endrin	ND	0.001	25
Endrin Aldehyde	ND	0.001	25
Endrin Ketone	ND	0.001	25
Heptachlor Epoxide	ND	0.001	25
Heptachlor	ND	0.001	25
Methoxychlor	ND	0.001	25
Toxaphene	ND	0.020	25

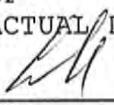
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/05/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-8A@5.0'

LAB I.D.: 130830-69

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	25
alpha-BHC	ND	0.001	25
beta-BHC	ND	0.001	25
gamma-BHC (Lindane)	ND	0.001	25
delta-BHC	ND	0.001	25
alpha-Chlordane	ND	0.001	25
gamma-Chlordane	ND	0.001	25
Total Chlordane (Technical)	ND	0.005	25
4,4'-DDD	ND	0.001	25
4,4'-DDE	0.103	0.001	25
4,4'-DDT	ND	0.001	25
Dieldrin	ND	0.001	25
Endosulfan I	ND	0.001	25
Endosulfan II	ND	0.001	25
Endosulfan Sulfate	ND	0.001	25
Endrin	ND	0.001	25
Endrin Aldehyde	ND	0.001	25
Endrin Ketone	ND	0.001	25
Heptachlor Epoxide	ND	0.001	25
Heptachlor	ND	0.001	25
Methoxychlor	ND	0.001	25
Toxaphene	ND	0.020	25

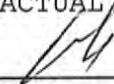
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/06/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-9A@1.0'

LAB I.D.: 130830-70

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	2500
alpha-BHC	ND	0.001	2500
beta-BHC	ND	0.001	2500
gamma-BHC (Lindane)	ND	0.001	2500
delta-BHC	ND	0.001	2500
alpha-Chlordane	ND	0.001	2500
gamma-Chlordane	ND	0.001	2500
Total Chlordane (Technical)	ND	0.005	2500
4,4'-DDD	ND	0.001	2500
4,4'-DDE	8.95	0.001	2500
4,4'-DDT	2.93	0.001	2500
Dieldrin	ND	0.001	2500
Endosulfan I	ND	0.001	2500
Endosulfan II	ND	0.001	2500
Endosulfan Sulfate	ND	0.001	2500
Endrin	ND	0.001	2500
Endrin Aldehyde	ND	0.001	2500
Endrin Ketone	ND	0.001	2500
Heptachlor Epoxide	ND	0.001	2500
Heptachlor	ND	0.001	2500
Methoxychlor	ND	0.001	2500
Toxaphene	ND	0.020	2500

#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: **Petra Geotechnical Inc.**  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: **12-355**  
MATRIX: **SOIL**  
DATE SAMPLED: **08/30/13**  
REPORT TO: **MR. JON CAIN**

DATE RECEIVED: **08/30/13**  
DATE EXTRACTED: **09/03/13**  
DATE ANALYZED: **09/05/13**  
DATE REPORTED: **09/09/13**

SAMPLE I.D.: **HP-9A@3.0'**

LAB I.D.: **130830-71**

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	2.68	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

**COMMENTS:**

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
 38655 Sky Canyon Drive  
 Murrieta, CA 92563  
 Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
 MATRIX: SOIL  
 DATE SAMPLED: 08/30/13  
 REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
 DATE EXTRACTED: 09/03/13  
 DATE ANALYZED: 09/05/13  
 DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-9A@5.0'

LAB I.D.: 130830-72

## Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	5
alpha-BHC	ND	0.001	5
beta-BHC	ND	0.001	5
gamma-BHC (Lindane)	ND	0.001	5
delta-BHC	ND	0.001	5
alpha-Chlordane	ND	0.001	5
gamma-Chlordane	ND	0.001	5
Total Chlordane (Technical)	ND	0.005	5
4,4'-DDD	ND	0.001	5
4,4'-DDE	0.021	0.001	5
4,4'-DDT	ND	0.001	5
Dieldrin	ND	0.001	5
Endosulfan I	ND	0.001	5
Endosulfan II	ND	0.001	5
Endosulfan Sulfate	ND	0.001	5
Endrin	ND	0.001	5
Endrin Aldehyde	ND	0.001	5
Endrin Ketone	ND	0.001	5
Heptachlor Epoxide	ND	0.001	5
Heptachlor	ND	0.001	5
Methoxychlor	ND	0.001	5
Toxaphene	ND	0.020	5

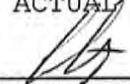
### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/05/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-10A@1.0'

LAB I.D.: 130830-73

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	1.15	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

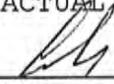
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/05/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-10A@3.0'

LAB I.D.: 130830-74

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	25
alpha-BHC	ND	0.001	25
beta-BHC	ND	0.001	25
gamma-BHC (Lindane)	ND	0.001	25
delta-BHC	ND	0.001	25
alpha-Chlordane	ND	0.001	25
gamma-Chlordane	ND	0.001	25
Total Chlordane (Technical)	ND	0.005	25
4,4'-DDD	ND	0.001	25
4,4'-DDE	0.027	0.001	25
4,4'-DDT	ND	0.001	25
Dieldrin	ND	0.001	25
Endosulfan I	ND	0.001	25
Endosulfan II	ND	0.001	25
Endosulfan Sulfate	ND	0.001	25
Endrin	ND	0.001	25
Endrin Aldehyde	ND	0.001	25
Endrin Ketone	ND	0.001	25
Heptachlor Epoxide	ND	0.001	25
Heptachlor	ND	0.001	25
Methoxychlor	ND	0.001	25
Toxaphene	ND	0.020	25

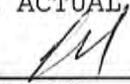
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/04/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-10A@5.0'

LAB I.D.: 130830-75

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

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

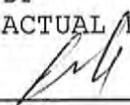
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/05/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-18@1.0'

LAB I.D.: 130830-88

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	0.680	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

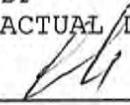
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/05/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-18@3.0'

LAB I.D.: 130830-89

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	3.75	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/05/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-18@5.0'

LAB I.D.: 130830-90

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	1.64	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

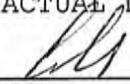
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/04/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-18A@1.0'

LAB I.D.: 130830-61

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	0.515	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

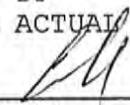
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/04/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-18A@3.0'

LAB I.D.: 130830-62

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	1.61	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

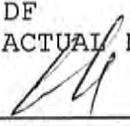
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY:   
CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/05/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-18A@5.0'

LAB I.D.: 130830-63

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	2.53	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

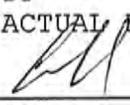
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/06/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-18B@1.0'

LAB I.D.: 130830-64

## Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	250
alpha-BHC	ND	0.001	250
beta-BHC	ND	0.001	250
gamma-BHC (Lindane)	ND	0.001	250
delta-BHC	ND	0.001	250
alpha-Chlordane	ND	0.001	250
gamma-Chlordane	ND	0.001	250
Total Chlordane (Technical)	ND	0.005	250
4,4'-DDD	ND	0.001	250
4,4'-DDE	0.793	0.001	250
4,4'-DDT	ND	0.001	250
Dieldrin	ND	0.001	250
Endosulfan I	ND	0.001	250
Endosulfan II	ND	0.001	250
Endosulfan Sulfate	ND	0.001	250
Endrin	ND	0.001	250
Endrin Aldehyde	ND	0.001	250
Endrin Ketone	ND	0.001	250
Heptachlor Epoxide	ND	0.001	250
Heptachlor	ND	0.001	250
Methoxychlor	ND	0.001	250
Toxaphene	ND	0.020	250

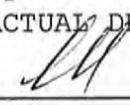
### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/05/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-18B@3.0'

LAB I.D.: 130830-65

## Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	3.17	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: **Petra Geotechnical Inc.**  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355

MATRIX: SOIL

DATE SAMPLED: 08/30/13

REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13

DATE EXTRACTED: 09/03/13

DATE ANALYZED: 09/05/13

DATE REPORTED: 09/09/13

SAMPLE I.D.: HP-18B@5.0'

LAB I.D.: 130830-66

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	1.33	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

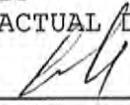
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## METHOD BLANK REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/05/13  
DATE REPORTED: 09/09/13

METHOD BLANK FOR LAB I.D.: 130830-46 THROUGH -50, -55, -64, -70

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

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

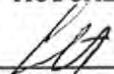
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

## EPA 8081 QA/QC Report

Matrix: **Soil/Solid/Liquid(Oil)**

Date Analyzed: **9/5-6/2013**

Unit: **mg/Kg (ppm)**

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

**Spiked Sample Lab I.D.: 130904-25 MS/MSD**

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0.000	0.00500	0.00727	<b>145%</b>	0.00641	<b>128%</b>	<b>13%</b>	<b>0-20%</b>	<b>70-130</b>
Aldrin	0.000	0.00500	0.00651	<b>130%</b>	0.00619	<b>124%</b>	<b>5%</b>	<b>0-20%</b>	<b>70-130</b>
4,4-DDE	0.000	0.00500	0.00421	<b>84%</b>	0.00408	<b>82%</b>	<b>3%</b>	<b>0-20%</b>	<b>70-130</b>

**Lab Control Spike (LCS) Recovery:**

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.00500	0.00456	<b>91%</b>	<b>75-125</b>
Aldrin	0.00500	0.00565	<b>113%</b>	<b>75-125</b>
4,4-DDE	0.00500	0.00493	<b>99%</b>	<b>75-125</b>
Dieldrin	0.00500	0.00408	<b>82%</b>	<b>75-125</b>

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
<b>Sample I.D.</b>		MB	130830-46	130830-48	130830-49	130830-50	130830-55	130830-47	
Tetra-chloro-meta-xylene	50-150	129%	100%	100%	101%	100%	106%	132%	
Decachlorobiphenyl	50-150	61%	47*%	47*%	48*%	48*%	48*%	58%	

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
<b>Sample I.D.</b>		130830-64	130830-70						
Tetra-chloro-meta-xylene	50-150	102%	107%						
Decachlorobiphenyl	50-150	44*%	50%						

Surrogate Recovery	ACP%	%REC							
<b>Sample I.D.</b>									
Tetra-chloro-meta-xylene	50-150								
Decachlorobiphenyl	50-150								

S.R. = Sample Result

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

spk conc = Spike Concentration

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

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

Analyzed and Reviewed By:                     B                    

Final Reviewer:                     C

## METHOD BLANK REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/04/13  
DATE REPORTED: 09/09/13

METHOD BLANK FOR LAB I.D.:  
130830-51 THROUGH -54, -56, -57, -58, -60, -61, -62, -75

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

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

#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

## EPA 8081 QA/QC Report

Matrix: **Soil/Solid/Liquid(Oil)**

Date Analyzed: **9/4/2013**

Unit: **mg/Kg (ppm)**

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

**Spiked Sample Lab I.D.:** **130904-LCS1/2**

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0.000	0.00500	0.00524	<b>105%</b>	0.00534	<b>107%</b>	<b>2%</b>	<b>0-20%</b>	<b>70-130</b>
Aldrin	0.000	0.00500	0.00542	<b>108%</b>	0.00513	<b>103%</b>	<b>5%</b>	<b>0-20%</b>	<b>70-130</b>
4,4-DDE	0.000	0.00500	0.00435	<b>87%</b>	0.00434	<b>87%</b>	<b>0%</b>	<b>0-20%</b>	<b>70-130</b>

**Lab Control Spike (LCS) Recovery:**

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.00500	0.00552	<b>110%</b>	<b>75-125</b>
Aldrin	0.00500	0.00489	<b>98%</b>	<b>75-125</b>
4,4-DDE	0.00500	0.00405	<b>81%</b>	<b>75-125</b>
Dieldrin	0.00500	0.00398	<b>80%</b>	<b>75-125</b>

Surrogate Recovery	ACP%	%REC						
<b>Sample I.D.</b>		<b>MB</b>	130830-51	130830-52	130830-53	130830-54	130830-56	130830-57
Tetra-chloro-meta-xylene	50-150	134%	106%	99%	103%	111%	117%	119%
Decachlorobiphenyl	50-150	89%	44*%	90%	50%	51%	48*%	49*%

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
<b>Sample I.D.</b>		130830-58	130830-60	130830-61	130830-62	130830-75		
Tetra-chloro-meta-xylene	50-150	121%	111%	109%	102%	104%		
Decachlorobiphenyl	50-150	45*%	44*%	41%	39%	65%		

Surrogate Recovery	ACP%	%REC						
<b>Sample I.D.</b>								
Tetra-chloro-meta-xylene	50-150							
Decachlorobiphenyl	50-150							

S.R. = Sample Result

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

spk conc = Spike Concentration

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

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

Analyzed and Reviewed By:                     B                    

Final Reviewer:                     C

## METHOD BLANK REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 09/03/13  
DATE ANALYZED: 09/05/13  
DATE REPORTED: 09/09/13

METHOD BLANK FOR LAB I.D.: 130830-43, -44, -45,  
-59, -63, -65 THROUGH -69, -71 THROUGH -74, -88, -89, -90

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

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

#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

## EPA 8081 QA/QC Report

Matrix: **Soil/Solid/Liquid(Oil)**

Date Analyzed: **9/5/2013**

Unit: **mg/Kg (ppm)**

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

**Spiked Sample Lab I.D.: 130905-LCS1/2**

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0.000	0.00500	0.00426	85%	0.00427	85%	0%	0-20%	70-130
Aldrin	0.000	0.00500	0.00478	96%	0.00477	95%	0%	0-20%	70-130
4,4-DDE	0.000	0.00500	0.00413	83%	0.00439	88%	6%	0-20%	70-130

**Lab Control Spike (LCS) Recovery:**

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.00500	0.00433	87%	75-125
Aldrin	0.00500	0.00482	96%	75-125
4,4-DDE	0.00500	0.00425	85%	75-125
Dieldrin	0.00500	0.00502	100%	75-125

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
<b>Sample I.D.</b>		MB	130830-59	130830-63	130830-65	130830-66	130830-67	130830-68	
Tetra-chloro-meta-xylene	50-150	141%	110%	124%	107%	106%	93%	99%	
Decachlorobiphenyl	50-150	60%	47*%	54%	51%	51%	47*%	44*%	

Surrogate Recovery	ACP%	%REC	%REC						
<b>Sample I.D.</b>		130830-69	130830-71	130830-72	130830-73	130830-74	130830-88	130830-89	
Tetra-chloro-meta-xylene	50-150	95%	101%	100%	94%	115%	113%	102%	
Decachlorobiphenyl	50-150	45*%	46*%	41*%	41*%	50%	52%	46*%	

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
<b>Sample I.D.</b>		130830-90	130830-43	130830-44	130830-45				
Tetra-chloro-meta-xylene	50-150	95%	99%	95%	95%				
Decachlorobiphenyl	50-150	43*%	45*%	41*%	41*%				

S.R. = Sample Result

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

spk conc = Spike Concentration

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

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

Analyzed and Reviewed By:                     B                    

Final Reviewer:                     C

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: WATER  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 08/30/13  
DATE ANALYZED: 09/03/13  
DATE REPORTED: 09/09/13

SAMPLE I.D.: Rinsate #1

LAB I.D.: 130830-85

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: ug/L = Microgram per Liter = PPB

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.100	1
alpha-BHC	ND	0.100	1
beta-BHC	ND	0.100	1
gamma-BHC (Lindane)	ND	0.100	1
delta-BHC	ND	0.100	1
alpha-Chlordane	ND	0.100	1
gamma-Chlordane	ND	0.100	1
Total Chlordane (Technical)	ND	0.500	1
4,4'-DDD	ND	0.100	1
4,4'-DDE	ND	0.100	1
4,4'-DDT	ND	0.100	1
Dieldrin	ND	0.100	1
Endosulfan I	ND	0.100	1
Endosulfan II	ND	0.100	1
Endosulfan Sulfate	ND	0.100	1
Endrin	ND	0.100	1
Endrin Aldehyde	ND	0.100	1
Endrin Ketone	ND	0.100	1
Heptachlor Epoxide	ND	0.100	1
Heptachlor	ND	0.100	1
Methoxychlor	ND	0.100	1
Toxaphene	ND	2.00	1

#### COMMENTS

DF = Dilution Factor

PQL = Practical Quantitation Limit

Actual Detection Limit = PQL X DF

ND = Non detected or below the Actual Detection Limit

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



## METHOD BLANK REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: WATER  
DATE SAMPLED: 08/30/13  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 08/30/13  
DATE EXTRACTED: 08/30/13  
DATE ANALYZED: 09/03/13  
DATE REPORTED: 09/09/13

METHOD BLANK FOR LAB I.D.: 130830-85

Organochlorine Pesticides Analysis  
Method: EPA 8081A  
Unit: ug/L = Microgram per Liter = PPB

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.100	1
alpha-BHC	ND	0.100	1
beta-BHC	ND	0.100	1
gamma-BHC (Lindane)	ND	0.100	1
delta-BHC	ND	0.100	1
alpha-Chlordane	ND	0.100	1
gamma-Chlordane	ND	0.100	1
Total Chlordane (Technical)	ND	0.500	1
4,4'-DDD	ND	0.100	1
4,4'-DDE	ND	0.100	1
4,4'-DDT	ND	0.100	1
Dieldrin	ND	0.100	1
Endosulfan I	ND	0.100	1
Endosulfan II	ND	0.100	1
Endosulfan Sulfate	ND	0.100	1
Endrin	ND	0.100	1
Endrin Aldehyde	ND	0.100	1
Endrin Ketone	ND	0.100	1
Heptachlor Epoxide	ND	0.100	1
Heptachlor	ND	0.100	1
Methoxychlor	ND	0.100	1
Toxaphene	ND	2.00	1

### COMMENTS

DF = Dilution Factor

PQL = Practical Quantitation Limit

Actual Detection Limit = PQL X DF

ND = Non detected or below the Actual Detection Limit

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 QA/QC Report**

+ 808/1A  


Matrix: Water/Liquid  
 Unit: ug/L

Date Analyzed: 9/3-4/2013

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

**Spiked Sample Lab I.D.: 130830-85 MS/MSD**

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0	0.500	0.539	<b>108%</b>	0.569	<b>114%</b>	<b>5%</b>	<b>0-20%</b>	<b>70-130</b>
Aldrin	0	0.500	0.569	<b>114%</b>	0.538	<b>108%</b>	<b>6%</b>	<b>0-20%</b>	<b>70-130</b>
4,4-DDE	0	0.500	0.439	<b>88%</b>	0.428	<b>86%</b>	<b>3%</b>	<b>0-20%</b>	<b>70-130</b>

**Lab Control Spike (LCS) Recovery:**

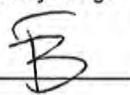
Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.500	0.529	<b>106%</b>	<b>75-125</b>
Aldrin	0.500	0.545	<b>109%</b>	<b>75-125</b>
4,4-DDE	0.500	0.575	<b>115%</b>	<b>75-125</b>
Dieldrin	0.500	0.526	<b>105%</b>	<b>75-125</b>

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
<b>Sample I.D.</b>		M-BLK	130829-06F	130829-21	<b>130830-85</b>				
Tetra-chloro-meta-xylene	50-150	91%	88%	78%	86%				
Decachlorobipneyl	50-150	56%	57%	44*%	60%				

Surrogate Recovery	%REC								
<b>Sample I.D.</b>									
Tetra-chloro-meta-xylene									
Decachlorobipneyl									

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC
<b>Sample I.D.</b>						
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)  
 Other:

BC81A  
 DCF's  
 TPA Car Vapor Chain  
 8015B  
 09/11/11  
 60/05/14/7/1A

Misc.

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required		COMMENTS
HP-1A@1.0'	170830-43	08-30-13	10:01	Soil	1	21	ICE	X		
HP-1A@3.0'	-44	08-30-13	10:01					X		
HP-1A@5.0'	-45	10:04	9:56							
HP-1B@1.0'	-46	9:56	9:52							
HP-1B@3.0'	-47		9:52							
HP-1B@5.0'	-48		9:56							
HP-2A@1.0'	-49		10:40							
HP-2A@3.0'	-50		10:40							
HP-2A@5.0'	-51		10:43							
HP-2B@1.0'	-52		10:50							
HP-2B@3.0'	-53		10:50							
HP-2B@5.0'	-54		10:53							
HP-3A@1.0'	-55		10:28							
HP-3A@3.0'	-56		10:28							
HP-3A@5.0'	-57		10:30							

Company Name: **Petra Geotechnical Inc.**  
 Address: **40880 Temecula County Center Dr.**  
 City/State/Zip: **Temecula, CA 92591**  
 Tel: **951-600-9271**  
 Fax: **951-719-1499**  
 Project Contact: **Jon Cain**  
 Project Name/ID: **12-355**  
 Sampler's Signature: *[Signature]*

Relinquished by: *[Signature]* 2:15 08-30-13 Received by:  
 Relinquished by: Received by:  
 Relinquished by: Received by:

Date & Time: 8/30/13 1415  
 Date & Time:  
 Date & Time:

Instructions for Sample Storage After Analysis:  
 Dispose of  Return to Client  Store (30 Days)  
 Other:

**CHAIN OF CUSTODY RECORD**

WHITE WITH SAMPLE • YELLOW TO CLIENT

**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:

Misc.  
 8081A  
 774 Carbon Char'n  
 805B  
 CRM T.H. 22  
 6010B/4471A

SAMPLE ID	LAB ID	SAMPLING DATE	TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required	COMMENTS
HP-3A@1.0'	130830-58	08-30-13	10:33	Soil	1		ICE		
HP-3B@3.0'	- 59		10:33						
HP-3B@5.0'	- 60		10:35						
HP-1B A@1.0'	- 61		10:14						
HP-1B A@3.0'	- 62		10:14						
HP-1B A@5.0'	- 63		10:16						
HP-1B B@1.0'	- 64		10:20						
HP-1B B@3.0'	- 65		10:20						
HP-1B B@5.0'	- 66		10:22						
HP-8A@1.0'	- 67		11:18						
HP-8A@3.0'	- 68		11:18						
HP-8A@5.0'	- 69		11:20						
HP-9A@1.0'	- 70		11:25						
HP-9A@3.0'	- 71		11:25						
HP-9A@5.0'	- 72		11:27						

Company Name: **Tetra Geotechnical Inc.**  
 Address: **40880 County Center Dr.**  
 City/State/Zip: **Temecula, CA 92591**  
 Relinquished by: *[Signature]* 2:16 08-30-13 Received by:  
 Relinquished by: Received by:  
 Relinquished by: Received by:

Project Contact: **Jon Cain**  
 Tel: **951-600-9271**  
 Fax: **951-719-1499**

Sampler's Signature: *[Signature]*  
 Project Name/ID: **12-355**

Date & Time: **8/29/13 1415**  
 Date & Time:  
 Date & Time:

Instructions for Sample Storage After Analysis:  
 Dispose of  Return to Client  Store (30 Days)  
 Other:

**CHAIN OF CUSTODY RECORD**

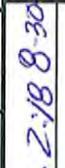
WHITE WITH SAMPLE • YELLOW TO CLIENT

**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:

BC81A  
 BCPS  
 TPI Carboy Chain  
 8015B  
 CAM THe 22  
 6010B/7471A  
 7/96  
 Chromium III (mg)

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required	COMMENTS
HP-10A@1.0	130830-73	08-30-13	11:12	soil	1		ICE	X	
HP-10A@3.0'	- 74		11:12					X	
HP-10A@5.0'	- 75		11:13					X	
HP-19@.5'	- 76		11:02					X	
HP-19@ 2.0'	- 77		11:02					X	
HP-19@ 5.0'	- 78		11:05					X	
HP-20@ .5'	- 79		11:33					X	
HP-20@ 2.0'	- 80		11:33					X	
HP-20@ 5.0'	- 81		11:35					X	
HP-21@ .5'	- 82		11:43					X	
HP-21@ 2.0'	- 83		11:43					X	
HP-21@ 5.0'	- 84		11:45					X	
Rinsate #1	- 85	08-30-13	11:49	Water	1		ICE	X	
Rinsate #2	- 86		11:50					X	
Rinsate #3	- 87		11:51					X	

Company Name: **Petra Geotechnical Inc.**  
 Address: **40880 County Center Dr.**  
 City/State/Zip: **Temecula, CA 92591**  
 Project Contact: **Jen Cain**  
 Project Name/ID: **12-355**  
 Tel: **951-600-9271**  
 Fax: **951-719-1499**  
 Sampler's Signature:   
 Date & Time: **8/30/13 11:15**  
 Date & Time: **8/30/13 11:15**  
 Date & Time: **8/30/13 11:15**  
 Relinquished by:   
 Relinquished by:   
 Relinquished by:   
 Instructions for Sample Storage After Analysis:  
 Dispose of  Return to Client  Store (30 Days)  
 Other:

**CHAIN OF CUSTODY RECORD**

WHITE WITH SAMPLE • YELLOW TO CLIENT



Date: September 26, 2013

Mr. Jon Cain  
Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel(951)600-9271 Fax(951)600-9215

Project: **12-355**  
Lab I.D.: **130730-52 through -99**

Dear Mr. Cain:

The **additional Cr VI results** for the soil and water samples, received by our lab on July 30, 2013, are attached. The samples were received chilled, intact, accompanying chain of custody and also stored per the EPA protocols.

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 Manager

  
Andy Wang  
Laboratory Manager

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355

MATRIX: SOIL

DATE SAMPLED: 07/30/13

REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13

DATE ANALYZED: 09/18/13

DATE REPORTED: 09/26/13

SAMPLE I.D.: HP-13@2.0'

LAB I.D.: 130730-83

### TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS

UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLT LIMIT	STLT LIMIT	EPA METHOD
Chromium VI (Cr6)	ND	0.1	1	500	5.0	7196A

### COMMENTS

DF = Dilution Factor

PQL = Practical Quantitation Limit

Actual Detection Limit = PQL X DF

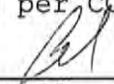
ND = Below the Actual Detection Limit or non-detected

TTLT = Total Threshold Limit Concentration

STLT = Soluble Threshold Limit Concentration

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

\*\*\* = The concentration exceeds the TTLT Limit, and 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

## METHOD BLANK REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355

MATRIX: SOIL

DATE SAMPLED: 07/30/13

REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/30/13

DATE ANALYZED: 09/18/13

DATE REPORTED: 09/26/13

METHOD BLANK FOR LAB I.D.: 130730-83

### TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS

UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Chromium VI (Cr6)	ND	0.1	1	500	5.0	7196A

### COMMENTS

DF = Dilution Factor

PQL = Practical Quantitation Limit

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 analysis for the metal is recommended (if marked)

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

Data Reviewed and Approved by: \_\_\_\_\_

CAL-DHS ELAP CERTIFICATE No.: 1555

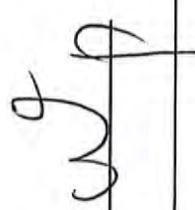
QA/QC Report

Analysis	Units	Date Analyzed	Sample I.D.	S.R.	Duplicate	% RPD	ACP %RPD
Alkalinity	mg/Kg	5/31/2013	130530-16	137	133	3.0%	0-20
Residual Chlorine	mg/Kg					0.0%	0-20
Density	g/mL					0.00%	0-20
EC	umhos/cm	9/16/2013	130916-25	12.6	12.7	0.79%	0-20
pH	pH units	9/11/2013	130911-77	7.36	7.38	0.3%	0-20
TDS	mg/L	6/5/2013	130530-59	551	555	0.7%	0-20
TSS	mg/Kg					0.0%	0-20
Resistivity	ohms	9/11/2013	130911-77	4082	4016	1.6%	0-20
% MOISTURE	%	9/16/2013	130916-15	9.1	9.3	1.4%	0-20
BTU	BTU/lb	9/17/2013	130916-16	7806	7862	0.7%	0-20
Salinity	S					0.00%	0-20

%RPD = Relative Percent Difference ACP %RPD = Acceptable Relative Percent Difference

Analysis	Units	Date Analyzed	Sample I.D.	Spk Conc	S.R.	ACP %RPD	MS	MS %RC	MSD	MSD %RC	% RPD
Acidity	mg/Kg					0					
Ammonia as N	mg/Kg	9/6/2013	130906-3	50.0	0.000	0-20	46.2	92%	47.8	96%	3.2%
MBAS	mg/Kg	2/15/2013	LCS1/2	6.00	0.0	0-20	5.07	85%	5.17	86%	1.7%
Chloride	mg/Kg	9/11/2013	LCS1/2	200	0.0	0-20	180	90%	170	85%	5.0%
COD	mg/Kg	6/20/2011	LCS1/2	500	0.0	0-20	488	98%	486	97%	0.4%
Cr VI	mg/Kg	9/18/2013	130830-82	4.0	0.000	0-20	3.56	89%	3.49	87%	1.8%
Cyanide	mg/Kg	9/13/2013	LCS1/2	10.0	0.000	0-20	8.78	88%	8.45	85%	3.3%
Fluoride	mg/Kg	8/9/2013	LCS1/2	10.0	0.000	0-20	10.6	106%	11.8	118%	12.0%
Nitrate as N	mg/Kg	8/9/2013	LCS1/2	4.0	0.00	0-20	3.44	86%	3.35	84%	2.3%
Nitrite as N	mg/Kg	8/9/2013	LCS1/2	4.0	0.00	0-20	3.66	92%	3.74	94%	2.0%
Oil and Grease	mg/Kg	7/29/2013	LCS1/2	667	0.0	0-20	560	84%	560	84%	0.0%
Phenolics	mg/Kg					0-20					
Sulfate	mg/Kg	9/11/2013	LCS1/2	200	0.0	0-20	174	87%	170	85%	2.0%
Sulfide	mg/Kg	6/28/2013	LCS1/2	3.00	0.0	0-20	2.49	83%	2.53	84%	1.3%
TRPH	mg/Kg	9/10/2013	1309005-49	667	4.7	0-20	707	105%	707	105%	0.0%
Sulfide, Reactive	mg/Kg	6/7/2013	LCS1/2	3.00	0.0	0-20	2.61	87%	2.70	90%	3.0%
EPA 1664A	mg/Kg	8/8/2013	LCS1/2	500	0.0	0-20	415	83%	425	85%	2.0%

S.R. = Sample Results %RC = Percent Recovery ACP %RC = Accepted Percent Recovery

Analyst Signature: 

Final Reviewer: 

**Enviro-Chem, Inc. Laboratories**  
 1214 E. Lexington Avenue,  
 Pomona, CA 91766  
 Tel: (909) 990-5905 Fax: (909) 590-5907  
 CA-DHS ELAP CERTIFICATE # 1565

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

*(909) 719-7196*  
 Chromium VI (Cr6)

SAMPLE ID	TAG ID	SAMPLING DATE & TIME	DEPTH	NO. OF CONTAINERS	TEMPERATURE	PRESERVATION	Misc.	Analysis Required	
								COMMENTS	REMARKS
HP-13 @ 0.5'	13070-82	9/26/03 9:52 AM	0.5'	1		NONE		X	
HP-13 @ 2.0'	13070-83	9/26/03 9:54 AM	2.0'	1				X	
HP-13 @ 5.0'	13070-84	9/26/03 9:52 AM	5.0'	1				X	
HP-14 @ 0.5'	14070-85	10/4/03 10:42 AM	0.5'	1				X	
HP-14 @ 2.0'	14070-86	10/4/03 10:42 AM	2.0'	1				X	
HP-14 @ 5.0'	14070-87	10/4/03 10:44 AM	5.0'	1				X	
HP-15 @ 0.5'	15070-88	11/16/03 11:16 AM	0.5'	1				X	
HP-15 @ 2.0'	15070-89	11/16/03 11:16 AM	2.0'	1				X	
HP-15 @ 5.0'	15070-90	11/16/03 11:18 AM	5.0'	1				X	
HP-16 @ 5.0'	16070-91	11/26/03 11:06 AM	5.0'	1		NONE		X	
HP-16 @ 7.0'	16070-92	11/26/03 11:06 AM	7.0'	1				X	
HP-16 @ 8.0'	16070-93	11/26/03 11:06 AM	8.0'	1				X	
HP-17 @ 0.5'	17070-94	11/26/03 11:26 AM	0.5'	1				X	
HP-17 @ 2.0'	17070-95	11/26/03 11:26 AM	2.0'	1				X	

Company Name: Petra Geotechnical Tene. Project Contact: Jon Cain  
 Address: 40880 County Center Dr. Tel: 951-600-9237 Project Memo ID: 12-355  
 City/State/Zip: Temecula CA 92591 Fax: 951-719-1499  
 Relinquished by: [Signature] Received by: [Signature]  
 Relinquished by: [Signature] Received by: [Signature]  
 Relinquished by: [Signature] Received by: [Signature]

Instructions for Sample Storage After Analysis:  
 Dispose of  Return to Client  Store (30 Days)  
 Other

**CHAIN OF CUSTODY RECORD**  
 WHITE WITH SAMPLE, YELLOW TO CLIENT

Order # \_\_\_\_\_ Page 3 of 4

**Enviro - Chem, Inc.**

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

Date: June 27, 2014

Mr. Jon Cain  
Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

Project: 12-355  
Lab I.D.: 140620-7 through -35

Dear Mr. Cain:

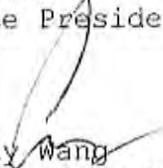
The **analytical results** for the soil and water samples, received by our lab on June 20, 2014, are attached. The samples were received chilled, intact and accompanying chain of custody record.

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 Manager



Andy Wang  
Laboratory Manager

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355

MATRIX: SOIL

DATE SAMPLED: 06/20/14

REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14

DATE EXTRACTED: 06/24/14

DATE ANALYZED: 06/25/14

DATE REPORTED: 06/27/14

SAMPLE I.D.: HP-19 @ .5'

LAB I.D.: 140620-20

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	10
alpha-BHC	ND	0.001	10
beta-BHC	ND	0.001	10
gamma-BHC (Lindane)	ND	0.001	10
delta-BHC	ND	0.001	10
alpha-Chlordane	ND	0.001	10
gamma-Chlordane	ND	0.001	10
Total Chlordane (Technical)	ND	0.005	10
4,4'-DDD	ND	0.001	10
4,4'-DDE	0.368	0.001	100
4,4'-DDT	0.026	0.001	10
Dieldrin	ND	0.001	10
Endosulfan I	ND	0.001	10
Endosulfan II	ND	0.001	10
Endosulfan Sulfate	ND	0.001	10
Endrin	ND	0.001	10
Endrin Aldehyde	ND	0.001	10
Endrin Ketone	ND	0.001	10
Heptachlor Epoxide	ND	0.001	10
Heptachlor	ND	0.001	10
Methoxychlor	ND	0.001	10
Toxaphene	ND	0.020	10

#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.
38655 Sky Canyon Drive
Murrieta, CA 92563
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355 DATE RECEIVED: 06/20/14
MATRIX: SOIL DATE EXTRACTED: 06/24/14
DATE SAMPLED: 06/20/14 DATE ANALYZED: 06/24/14
REPORT TO: MR. JON CAIN DATE REPORTED: 06/27/14

SAMPLE I.D.: HP-20 @ 2.5' 0.5 LAB I.D.: 140620-23

Organochlorine Pesticides Analysis
Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

Table with 4 columns: PARAMETER, SAMPLE RESULT, PQL, DF. Lists various pesticides like Aldrin, alpha-BHC, beta-BHC, gamma-BHC (Lindane), delta-BHC, alpha-Chlordane, gamma-Chlordane, Total Chlordane (Technical), 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan Sulfate, Endrin, Endrin Aldehyde, Endrin Ketone, Heptachlor Epoxide, Heptachlor, Methoxychlor, and Toxaphene.

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: [Signature]
CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 06/20/14  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14  
DATE EXTRACTED: 06/24/14  
DATE ANALYZED: 06/24/14  
DATE REPORTED: 06/27/14

SAMPLE I.D.: HP-21 @ .5'

LAB I.D.: 140620-26

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	10
alpha-BHC	ND	0.001	10
beta-BHC	ND	0.001	10
gamma-BHC (Lindane)	ND	0.001	10
delta-BHC	ND	0.001	10
alpha-Chlordane	ND	0.001	10
gamma-Chlordane	ND	0.001	10
Total Chlordane (Technical)	ND	0.005	10
4,4'-DDD	ND	0.001	10
4,4'-DDE	0.350	0.001	100
4,4'-DDT	0.022	0.001	10
Dieldrin	ND	0.001	10
Endosulfan I	ND	0.001	10
Endosulfan II	ND	0.001	10
Endosulfan Sulfate	ND	0.001	10
Endrin	ND	0.001	10
Endrin Aldehyde	ND	0.001	10
Endrin Ketone	ND	0.001	10
Heptachlor Epoxide	ND	0.001	10
Heptachlor	ND	0.001	10
Methoxychlor	ND	0.001	10
Toxaphene	ND	0.020	10

#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: \_\_\_\_\_  
CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 06/20/14  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14  
DATE EXTRACTED: 06/24/14  
DATE ANALYZED: 06/24/14  
DATE REPORTED: 06/27/14

SAMPLE I.D.: HP-22 @ .5'

LAB I.D.: 140620-29

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	10
alpha-BHC	ND	0.001	10
beta-BHC	ND	0.001	10
gamma-BHC (Lindane)	ND	0.001	10
delta-BHC	ND	0.001	10
alpha-Chlordane	ND	0.001	10
gamma-Chlordane	ND	0.001	10
Total Chlordane (Technical)	ND	0.005	10
4,4'-DDD	ND	0.001	10
4,4'-DDE	0.478	0.001	100
4,4'-DDT	0.020	0.001	10
Dieldrin	ND	0.001	10
Endosulfan I	ND	0.001	10
Endosulfan II	ND	0.001	10
Endosulfan Sulfate	ND	0.001	10
Endrin	ND	0.001	10
Endrin Aldehyde	ND	0.001	10
Endrin Ketone	ND	0.001	10
Heptachlor Epoxide	ND	0.001	10
Heptachlor	ND	0.001	10
Methoxychlor	ND	0.001	10
Toxaphene	ND	0.020	10

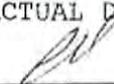
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 06/20/14  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14  
DATE EXTRACTED: 06/24/14  
DATE ANALYZED: 06/26/14  
DATE REPORTED: 06/27/14

SAMPLE I.D.: HP-23 @ .5'

LAB I.D.: 140620-32

## Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	3.36	0.001	500
4,4'-DDT	0.500	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 06/20/14  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14  
DATE EXTRACTED: 06/24/14  
DATE ANALYZED: 06/25/14  
DATE REPORTED: 06/27/14

SAMPLE I.D.: HP-24 @ .5'

LAB I.D.: 140620-7

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	100
alpha-BHC	ND	0.001	100
beta-BHC	ND	0.001	100
gamma-BHC (Lindane)	ND	0.001	100
delta-BHC	ND	0.001	100
alpha-Chlordane	ND	0.001	100
gamma-Chlordane	ND	0.001	100
Total Chlordane (Technical)	ND	0.005	100
4,4'-DDD	ND	0.001	100
4,4'-DDE	0.476	0.001	100
4,4'-DDT	0.142	0.001	100
Dieldrin	ND	0.001	100
Endosulfan I	ND	0.001	100
Endosulfan II	ND	0.001	100
Endosulfan Sulfate	ND	0.001	100
Endrin	ND	0.001	100
Endrin Aldehyde	ND	0.001	100
Endrin Ketone	ND	0.001	100
Heptachlor Epoxide	ND	0.001	100
Heptachlor	ND	0.001	100
Methoxychlor	ND	0.001	100
Toxaphene	ND	0.020	100

COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555



## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 06/20/14  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14  
DATE EXTRACTED: 06/24/14  
DATE ANALYZED: 06/24/14  
DATE REPORTED: 06/27/14

SAMPLE I.D.: HP-25 @ .5'

LAB I.D.: 140620-11

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	10
alpha-BHC	ND	0.001	10
beta-BHC	ND	0.001	10
gamma-BHC (Lindane)	ND	0.001	10
delta-BHC	ND	0.001	10
alpha-Chlordane	ND	0.001	10
gamma-Chlordane	ND	0.001	10
Total Chlordane (Technical)	ND	0.005	10
4,4'-DDD	0.018	0.001	10
4,4'-DDE	0.919	0.001	100
4,4'-DDT	0.040	0.001	10
Dieldrin	0.010	0.001	10
Endosulfan I	ND	0.001	10
Endosulfan II	ND	0.001	10
Endosulfan Sulfate	ND	0.001	10
Endrin	ND	0.001	10
Endrin Aldehyde	ND	0.001	10
Endrin Ketone	ND	0.001	10
Heptachlor Epoxide	ND	0.001	10
Heptachlor	ND	0.001	10
Methoxychlor	ND	0.001	10
Toxaphene	ND	0.020	10

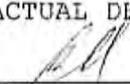
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355

MATRIX: SOIL

DATE SAMPLED: 06/20/14

REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14

DATE EXTRACTED: 06/24/14

DATE ANALYZED: 06/24/14

DATE REPORTED: 06/27/14

SAMPLE I.D.: HP-26 @ .5'

LAB I.D.: 140620-14

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	10
alpha-BHC	ND	0.001	10
beta-BHC	ND	0.001	10
gamma-BHC (Lindane)	ND	0.001	10
delta-BHC	ND	0.001	10
alpha-Chlordane	ND	0.001	10
gamma-Chlordane	ND	0.001	10
Total Chlordane (Technical)	ND	0.005	10
4,4'-DDD	0.010	0.001	10
4,4'-DDE	0.479	0.001	100
4,4'-DDT	0.020	0.001	10
Dieldrin	ND	0.001	10
Endosulfan I	ND	0.001	10
Endosulfan II	ND	0.001	10
Endosulfan Sulfate	ND	0.001	10
Endrin	ND	0.001	10
Endrin Aldehyde	ND	0.001	10
Endrin Ketone	ND	0.001	10
Heptachlor Epoxide	ND	0.001	10
Heptachlor	ND	0.001	10
Methoxychlor	ND	0.001	10
Toxaphene	ND	0.020	10

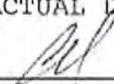
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY:   
CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 06/20/14  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14  
DATE EXTRACTED: 06/24/14  
DATE ANALYZED: 06/25/14  
DATE REPORTED: 06/27/14

SAMPLE I.D.: HP-27 @ .5'

LAB I.D.: 140620-17

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	100
alpha-BHC	ND	0.001	100
beta-BHC	ND	0.001	100
gamma-BHC (Lindane)	ND	0.001	100
delta-BHC	ND	0.001	100
alpha-Chlordane	ND	0.001	100
gamma-Chlordane	ND	0.001	100
Total Chlordane (Technical)	ND	0.005	100
4,4'-DDD	ND	0.001	100
4,4'-DDE	0.382	0.001	100
4,4'-DDT	ND	0.001	100
Dieldrin	ND	0.001	100
Endosulfan I	ND	0.001	100
Endosulfan II	ND	0.001	100
Endosulfan Sulfate	ND	0.001	100
Endrin	ND	0.001	100
Endrin Aldehyde	ND	0.001	100
Endrin Ketone	ND	0.001	100
Heptachlor Epoxide	ND	0.001	100
Heptachlor	ND	0.001	100
Methoxychlor	ND	0.001	100
Toxaphene	ND	0.020	100

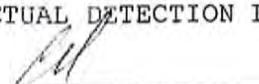
#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY:   
CAL-DHS ELAP CERTIFICATE No.: 1555

## METHOD BLANK REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 06/20/14  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14  
DATE EXTRACTED: 06/24/14  
DATE ANALYZED: 06/24/14  
DATE REPORTED: 06/27/14

METHOD BLANK FOR LAB I.D.:  
140620-7, -8, -11, -14, -17, -20, -23, -26, -29

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

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

**COMMENTS:**

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

## EPA 8081 QA/QC Report

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

Date Analyzed: **6/24-25/2014**

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

**Spiked Sample Lab I.D.: 140624-LCS1/2**

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0.000	0.00500	0.00575	<b>115%</b>	0.00548	<b>110%</b>	<b>5%</b>	<b>0-20%</b>	<b>70-130</b>
Aldrin	0.000	0.00500	0.00547	<b>109%</b>	0.00540	<b>108%</b>	<b>1%</b>	<b>0-20%</b>	<b>70-130</b>
4,4-DDE	0.000	0.00500	0.00439	<b>88%</b>	0.00468	<b>94%</b>	<b>6%</b>	<b>0-20%</b>	<b>70-130</b>

**Lab Control Spike (LCS) Recovery:**

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.00500	0.00583	<b>117%</b>	<b>75-125</b>
Aldrin	0.00500	0.00521	<b>104%</b>	<b>75-125</b>
4,4-DDE	0.00500	0.00520	<b>104%</b>	<b>75-125</b>
Dieldrin	0.00500	0.00444	<b>89%</b>	<b>75-125</b>

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
<b>Sample I.D.</b>		MB	140620-07	140620-08	140620-11	140620-14	140620-17	140620-20	
Tetra-chloro-meta-xylene	50-150	117%	119%	119%	120%	120%	119%	120%	
Decachlorobiphenyl	50-150	73%	59%	61%	61%	63%	59%	61%	

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
<b>Sample I.D.</b>		140620-23	140620-26	140620-29		140624-05	140624-06	140624-07	
Tetra-chloro-meta-xylene	50-150	118%	110%	115%		101%	86%	114%	
Decachlorobiphenyl	50-150	60%	57%	55%		124%	58%	67%	

Surrogate Recovery	ACP%	%REC							
<b>Sample I.D.</b>									
Tetra-chloro-meta-xylene	50-150								
Decachlorobiphenyl	50-150								

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:                     FL                    

Final Reviewer:                     O

## METHOD BLANK REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 06/20/14  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14  
DATE EXTRACTED: 06/24/14  
DATE ANALYZED: 06/26/14  
DATE REPORTED: 06/27/14

METHOD BLANK FOR LAB I.D.: 140620-32

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

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

#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

## EPA 8081 QA/QC Report

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

Date Analyzed: **6/26/2014**

**Matrix Spike (MS)/Matrix Spike Duplicate (MSD)**  
**Spiked Sample Lab I.D.: 140626-LCS1/2**

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0.000	0.00500	0.00526	<b>105%</b>	0.00525	<b>105%</b>	<b>0%</b>	<b>0-20%</b>	<b>70-130</b>
Aldrin	0.000	0.00500	0.00621	<b>124%</b>	0.00620	<b>124%</b>	<b>0%</b>	<b>0-20%</b>	<b>70-130</b>
4,4-DDE	0.000	0.00500	0.00554	<b>111%</b>	0.00546	<b>109%</b>	<b>1%</b>	<b>0-20%</b>	<b>70-130</b>

**Lab Control Spike (LCS) Recovery:**

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.00500	0.00529	<b>106%</b>	<b>75-125</b>
Aldrin	0.00500	0.00609	<b>122%</b>	<b>75-125</b>
4,4-DDE	0.00500	0.00542	<b>108%</b>	<b>75-125</b>
Dieldrin	0.00500	0.00487	<b>97%</b>	<b>75-125</b>

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
<b>Sample I.D.</b>		MB	140620-32						
Tetra-chloro-meta-xylene	50-150	117%	120%						
Decachlorobiphenyl	50-150	79%	71%						
Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
<b>Sample I.D.</b>									
Tetra-chloro-meta-xylene	50-150								
Decachlorobiphenyl	50-150								
Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
<b>Sample I.D.</b>									
Tetra-chloro-meta-xylene	50-150								
Decachlorobiphenyl	50-150								

S.R. = Sample Result

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

spk conc = Spike Concentration

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

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

Analyzed and Reviewed By:                     FL                    

Final Reviewer:                     ⊖

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355

MATRIX: WATER

DATE SAMPLED: 06/20/14

REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14

DATE EXTRACTED: 06/20/14

DATE ANALYZED: 06/24/14

DATE REPORTED: 06/27/14

SAMPLE I.D.: Rinsate #1

LAB I.D.: 140620-35

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: ug/L = Microgram per Liter = PPB

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.100	1
alpha-BHC	ND	0.100	1
beta-BHC	ND	0.100	1
gamma-BHC (Lindane)	ND	0.100	1
delta-BHC	ND	0.100	1
alpha-Chlordane	ND	0.100	1
gamma-Chlordane	ND	0.100	1
Total Chlordane (Technical)	ND	0.500	1
4,4'-DDD	ND	0.100	1
4,4'-DDE	ND	0.100	1
4,4'-DDT	ND	0.100	1
Dieldrin	ND	0.100	1
Endosulfan I	ND	0.100	1
Endosulfan II	ND	0.100	1
Endosulfan Sulfate	ND	0.100	1
Endrin	ND	0.100	1
Endrin Aldehyde	ND	0.100	1
Endrin Ketone	ND	0.100	1
Heptachlor Epoxide	ND	0.100	1
Heptachlor	ND	0.100	1
Methoxychlor	ND	0.100	1
Toxaphene	ND	2.00	1

#### COMMENTS

DF = Dilution Factor

PQL = Practical Quantitation Limit

Actual Detection Limit = PQL X DF

ND = Non detected or below the Actual Detection Limit

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



## METHOD BLANK REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355

MATRIX: WATER

DATE SAMPLED: 06/20/14

REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14

DATE EXTRACTED: 06/20/14

DATE ANALYZED: 06/24/14

DATE REPORTED: 06/27/14

METHOD BLANK FOR LAB I.D.: 140620-35

Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: ug/L = Microgram per Liter = PPB

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.100	1
alpha-BHC	ND	0.100	1
beta-BHC	ND	0.100	1
gamma-BHC (Lindane)	ND	0.100	1
delta-BHC	ND	0.100	1
alpha-Chlordane	ND	0.100	1
gamma-Chlordane	ND	0.100	1
Total Chlordane (Technical)	ND	0.500	1
4,4'-DDD	ND	0.100	1
4,4'-DDE	ND	0.100	1
4,4'-DDT	ND	0.100	1
Dieldrin	ND	0.100	1
Endosulfan I	ND	0.100	1
Endosulfan II	ND	0.100	1
Endosulfan Sulfate	ND	0.100	1
Endrin	ND	0.100	1
Endrin Aldehyde	ND	0.100	1
Endrin Ketone	ND	0.100	1
Heptachlor Epoxide	ND	0.100	1
Heptachlor	ND	0.100	1
Methoxychlor	ND	0.100	1
Toxaphene	ND	2.00	1

### COMMENTS

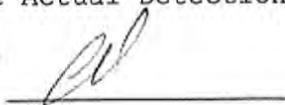
DF = Dilution Factor

PQL = Practical Quantitation Limit

Actual Detection Limit = PQL X DF

ND = Non detected or below the Actual Detection Limit

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 QA/QC Report

Matrix: Water/Liquid

Date Analyzed: 6/24/2014

Unit: ug/L

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

**Spiked Sample Lab I.D.: 140620-35 MS/MSD**

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0	0.500	0.557	111%	0.624	125%	11%	0-20%	70-130
Aldrin	0	0.500	0.523	105%	0.578	116%	10%	0-20%	70-130
4,4-DDE	0	0.500	0.480	96%	0.523	105%	9%	0-20%	70-130

**Lab Control Spike (LCS) Recovery:**

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.500	0.482	96%	75-125
Aldrin	0.500	0.459	92%	75-125
4,4-DDE	0.500	0.489	98%	75-125
Dieldrin	0.500	0.436	87%	75-125

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
<b>Sample I.D.</b>		M-BLK	140620-35						
Tetra-chloro-meta-xylene	50-150	116%	129%						
Decachlorobipneyl	50-150	57%	61%						

Surrogate Recovery	%REC								
<b>Sample I.D.</b>									
Tetra-chloro-meta-xylene									
Decachlorobipneyl									

Surrogate Recovery	%REC						
<b>Sample I.D.</b>							
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:     *FL*    

\* = Surrogate fail due to matrix interference

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

Final Reviewer:     *(C)*

**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#
HP-24@.5'	140620-7	06/20/14	8:00	soil	1		ICE	X					
HP-24@.5'	- 8		8:00	soil				X				Dupe	
HP-24@2.5'	- 9		8:02	soil									
HP-24@5.0'	- 10		8:02	soil									
HP-25@.5'	- 11	06/20/14	8:22	soil				X					
HP-25@2.5'	- 12		8:24	soil									
HP-25@5.0'	- 13		8:24	soil									
HP-26@.5'	- 14		8:36					X					
HP-26@2.5'	- 15		8:38										
HP-26@5.0'	- 16		8:38										
HP-27@.5'	- 17		8:10	soil				X					
HP-27@2.5'	- 18		8:11										
HP-27@5.0'	- 19		8:11										
HP-19@.5'	- 20		9:50	soil				X					
HP-19@2.5'	- 21		9:52										

8081A  
 Defs

Company Name: Petra Geotechnical Inc. Project Contact: Jon Cain Sampler's Signature: 

Address: 40880 County Center Dr. Tel: (951) 600-9271 Project Name/ID: 12-355

City/State/Zip: Temecula CA 92591 Fax/Email: jcain@petra-inc.com

Relinquished by: [Signature] Date & Time: 06/20/14 12:49 Date & Time: 6/20/14 12:50

Relinquished by: \_\_\_\_\_ Date & Time: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date & Time: \_\_\_\_\_

Instructions for Sample Storage After Analysis:  
 Dispose of  Return to Client  Store (30 Days)  
 Other: \_\_\_\_\_

**CHAIN OF CUSTODY RECORD**

WHITE WITH SAMPLE - YELLOW TO CLIENT

**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#
HP-19 @ 5.0'	140620-22	06/20/14	9:52	Soil	1		ICE						
HP-20 @ 5.1'	- 23		9:30					X					
HP-20 @ 2.5'	- 24		9:32										
HP-20 @ 5.0'	- 25		9:32										
HP-21 @ 5.1'	- 26	06/20/14	8:52	Soil				X					
HP-21 @ 2.5'	- 27		8:54	Soil									
HP-21 @ 5.0'	- 28		8:54										
HP-22 @ 5.1'	- 29		9:05					X					
HP-22 @ 2.5'	- 30		9:09										
HP-22 @ 5.0'	- 31		9:09										
HP-23 @ 5.1'	- 32		9:20					X					
HP-23 @ 2.5'	- 33		9:22										
HP-23 @ 5.0'	- 34		9:22										
Rinsate #1	- 35	06/20/14	9:57	Water			HE-504	X					

DCP's  
 8081A

Company Name: **Petra Geotechnical Inc.**  
 Address: **40880 County Center Dr**  
 City/State/Zip: **Temecula, CA 92591**  
 Relinquished by: *[Signature]* 06/20/14 12:49 received by:  
 Relinquished by: \_\_\_\_\_ Received by: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Received by: \_\_\_\_\_

Project Contact: **Jon Cain**  
 Tel: **(951) 600-9271**  
 Fax/Email: **jcain@petra-inc.com**  
 Date & Time: **06/20/14 12:50**  
 Date & Time: \_\_\_\_\_  
 Date & Time: \_\_\_\_\_

Sampler's Signature: *[Signature]*  
 Project Name/ID: **12-355**  
 Instructions for Sample Storage After Analysis:  
 Dispose of  Return to Client  Store (30 Days)  
 Other:

**CHAIN OF CUSTODY RECORD**

WHITE WITH SAMPLE - YELLOW TO CLIENT

**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  
 0 Same Day  
 0 24 Hours  
 0 48 Hours  
 0 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#
HP-24 @ 2.5'	140620-7	04/20/14	8:00	soil	1		ICE	X			
HP-24 @ 5'	- 8		8:00	soil				X		Dupe	
HP-24 @ 2.5'	- 9		8:02	soil				X			
HP-24 @ 5.0'	- 10		8:02	soil				X			
HP-25 @ 0.5'	- 11	04/20/14	8:22	soil				X			
HP-25 @ 2.5'	- 12		8:24	soil				X			
HP-25 @ 5.0'	- 13		8:24	soil				X			
HP-26 @ 0.5'	- 14		8:36	soil				X			
HP-26 @ 2.5'	- 15		8:38	soil				X			
HP-26 @ 5.0'	- 16		8:38	soil				X			
HP-27 @ 0.5'	- 17		8:10	soil				X			
HP-27 @ 2.5'	- 18		8:11	soil				X			
HP-27 @ 5.0'	- 19		8:11	soil				X			
HP-19 @ 0.5'	- 20		9:50	soil				X			
HP-19 @ 2.5'	- 21		9:52	soil				X			

Depn  
8081A

Company Name: Petra Geotechnical Inc  
 Address: 40880 County Center Dr.  
 City/State/Zip: Terrace CA 92591  
 Relinquished by: [Signature] 04/20/14  
 Relinquished by: [Signature] 12:49  
 Relinquished by: \_\_\_\_\_  
 Project Contact: Jon Cain  
 Project Name/ID: 12-355  
 Sampler's Signature: [Signature]  
 Date & Time: 04/20/14 12:50  
 Date & Time: \_\_\_\_\_  
 Instructions for Sample Storage After Analysis:  
 Dispose of  Return to Client  Store (30 Days)  
 Other:

**CHAIN OF CUSTODY RECORD**

WHITE WITH SAMPLE - YELLOW TO CLIENT



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

Date: July 3, 2014

Mr. Jon Cain  
Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel(951)600-9271 Fax(951)600-9215

Project: 12-355  
Lab I.D.: 140620-7 through -35

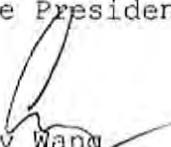
Dear Mr. Cain:

The **additional analytical results** for the soil and water samples, received by our lab on June 20, 2014, are attached. The samples were received chilled, intact, accompanying chain of custody record and also stored per the EPA protocols.

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 Manager

  
Andy Wang  
Laboratory Manager

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 06/20/14  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14  
DATE EXTRACTED: 06/30/14  
DATE ANALYZED: 07/01/14  
DATE REPORTED: 07/03/14

SAMPLE I.D.: HP-19 @ 2.5'

LAB I.D.: 140620-21

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	10
alpha-BHC	ND	0.001	10
beta-BHC	ND	0.001	10
gamma-BHC (Lindane)	ND	0.001	10
delta-BHC	ND	0.001	10
alpha-Chlordane	ND	0.001	10
gamma-Chlordane	ND	0.001	10
Total Chlordane (Technical)	ND	0.005	10
4,4'-DDD	ND	0.001	10
4,4'-DDE	0.031	0.001	10
4,4'-DDT	ND	0.001	10
Dieldrin	ND	0.001	10
Endosulfan I	ND	0.001	10
Endosulfan II	ND	0.001	10
Endosulfan Sulfate	ND	0.001	10
Endrin	ND	0.001	10
Endrin Aldehyde	ND	0.001	10
Endrin Ketone	ND	0.001	10
Heptachlor Epoxide	ND	0.001	10
Heptachlor	ND	0.001	10
Methoxychlor	ND	0.001	10
Toxaphene	ND	0.020	10

#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 06/20/14  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14  
DATE EXTRACTED: 06/30/14  
DATE ANALYZED: 07/03/14  
DATE REPORTED: 07/03/14

SAMPLE I.D.: HP-19 @ 5.0'

LAB I.D.: 140620-22

## Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	100
alpha-BHC	ND	0.001	100
beta-BHC	ND	0.001	100
gamma-BHC (Lindane)	ND	0.001	100
delta-BHC	ND	0.001	100
alpha-Chlordane	ND	0.001	100
gamma-Chlordane	ND	0.001	100
Total Chlordane (Technical)	ND	0.005	100
4,4'-DDD	ND	0.001	100
4,4'-DDE	0.122	0.001	100
4,4'-DDT	ND	0.001	100
Dieldrin	ND	0.001	100
Endosulfan I	ND	0.001	100
Endosulfan II	ND	0.001	100
Endosulfan Sulfate	ND	0.001	100
Endrin	ND	0.001	100
Endrin Aldehyde	ND	0.001	100
Endrin Ketone	ND	0.001	100
Heptachlor Epoxide	ND	0.001	100
Heptachlor	ND	0.001	100
Methoxychlor	ND	0.001	100
Toxaphene	ND	0.020	100

### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 06/20/14  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14  
DATE EXTRACTED: 06/30/14  
DATE ANALYZED: 07/01/14  
DATE REPORTED: 07/03/14

SAMPLE I.D.: HP-20 @ 2.5'

LAB I.D.: 140620-24

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	2.95	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
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Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 06/20/14  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14  
DATE EXTRACTED: 06/30/14  
DATE ANALYZED: 07/01/14  
DATE REPORTED: 07/03/14

SAMPLE I.D.: HP-20 @ 5.0'

LAB I.D.: 140620-25

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	0.630	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555



Enviro - Chem, Inc.

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# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 06/20/14  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14  
DATE EXTRACTED: 06/30/14  
DATE ANALYZED: 07/03/14  
DATE REPORTED: 07/03/14

SAMPLE I.D.: HP-21 @ 5.0'

LAB I.D.: 140620-28

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	10
alpha-BHC	ND	0.001	10
beta-BHC	ND	0.001	10
gamma-BHC (Lindane)	ND	0.001	10
delta-BHC	ND	0.001	10
alpha-Chlordane	ND	0.001	10
gamma-Chlordane	ND	0.001	10
Total Chlordane (Technical)	ND	0.005	10
4,4'-DDD	ND	0.001	10
4,4'-DDE	0.039	0.001	10
4,4'-DDT	ND	0.001	10
Dieldrin	ND	0.001	10
Endosulfan I	ND	0.001	10
Endosulfan II	ND	0.001	10
Endosulfan Sulfate	ND	0.001	10
Endrin	ND	0.001	10
Endrin Aldehyde	ND	0.001	10
Endrin Ketone	ND	0.001	10
Heptachlor Epoxide	ND	0.001	10
Heptachlor	ND	0.001	10
Methoxychlor	ND	0.001	10
Toxaphene	ND	0.020	10

#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY:   
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.

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# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 06/20/14  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14  
DATE EXTRACTED: 06/30/14  
DATE ANALYZED: 07/01/14  
DATE REPORTED: 07/03/14

SAMPLE I.D.: HP-22@ 2.5'

LAB I.D.: 140620-30

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	0.905	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555



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# LABORATORY REPORT

CUSTOMER: **Petra Geotechnical Inc.**  
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Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: **12-355**  
MATRIX: **SOIL**  
DATE SAMPLED: **06/20/14**  
REPORT TO: **MR. JON CAIN**

DATE RECEIVED: **06/20/14**  
DATE EXTRACTED: **06/30/14**  
DATE ANALYZED: **07/01/14**  
DATE REPORTED: **07/03/14**

SAMPLE I.D.: **HP-23@ 2.5'**

LAB I.D.: **140620-33**

## Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	1.21	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: \_\_\_\_\_

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 06/20/14  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14  
DATE EXTRACTED: 06/30/14  
DATE ANALYZED: 07/01/14  
DATE REPORTED: 07/03/14

SAMPLE I.D.: HP-23@ 5.0'

LAB I.D.: 140620-34

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	1.05	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.

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# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 06/20/14  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14  
DATE EXTRACTED: 06/30/14  
DATE ANALYZED: 07/01/14  
DATE REPORTED: 07/03/14

SAMPLE I.D.: HP-24 @ 2.5'

LAB I.D.: 140620-9

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	1.52	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

**COMMENTS:**

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355

MATRIX: SOIL

DATE SAMPLED: 06/20/14

REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14

DATE EXTRACTED: 06/30/14

DATE ANALYZED: 07/01/14

DATE REPORTED: 07/03/14

SAMPLE I.D.: HP-24 @ 5.0'

LAB I.D.: 140620-10

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	1.32	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355

MATRIX: SOIL

DATE SAMPLED: 06/20/14

REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14

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DATE ANALYZED: 07/01/14

DATE REPORTED: 07/03/14

SAMPLE I.D.: HP-25 @ 2.5'

LAB I.D.: 140620-12

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	1.99	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 06/20/14  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14  
DATE EXTRACTED: 06/30/14  
DATE ANALYZED: 07/01/14  
DATE REPORTED: 07/03/14

SAMPLE I.D.: HP-25 @ 5.0'

LAB I.D.: 140620-13

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	1.00	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY:   
CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 06/20/14  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14  
DATE EXTRACTED: 06/30/14  
DATE ANALYZED: 07/01/14  
DATE REPORTED: 07/03/14

SAMPLE I.D.: HP-26 @ 2.5'

LAB I.D.: 140620-15

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	1.30	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 06/20/14  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14  
DATE EXTRACTED: 06/30/14  
DATE ANALYZED: 07/01/14  
DATE REPORTED: 07/03/14

SAMPLE I.D.: HP-26 @ 5.0'

LAB I.D.: 140620-16

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	1.39	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

#### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 06/20/14  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14  
DATE EXTRACTED: 06/30/14  
DATE ANALYZED: 07/01/14  
DATE REPORTED: 07/03/14

SAMPLE I.D.: HP-27 @ 2.5'

LAB I.D.: 140620-18

## Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	1.50	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

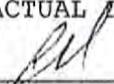
### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

# LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 06/20/14  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14  
DATE EXTRACTED: 06/30/14  
DATE ANALYZED: 07/01/14  
DATE REPORTED: 07/03/14

SAMPLE I.D.: HP-27 @ 5.0'

LAB I.D.: 140620-19

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	500
alpha-BHC	ND	0.001	500
beta-BHC	ND	0.001	500
gamma-BHC (Lindane)	ND	0.001	500
delta-BHC	ND	0.001	500
alpha-Chlordane	ND	0.001	500
gamma-Chlordane	ND	0.001	500
Total Chlordane (Technical)	ND	0.005	500
4,4'-DDD	ND	0.001	500
4,4'-DDE	1.78	0.001	500
4,4'-DDT	ND	0.001	500
Dieldrin	ND	0.001	500
Endosulfan I	ND	0.001	500
Endosulfan II	ND	0.001	500
Endosulfan Sulfate	ND	0.001	500
Endrin	ND	0.001	500
Endrin Aldehyde	ND	0.001	500
Endrin Ketone	ND	0.001	500
Heptachlor Epoxide	ND	0.001	500
Heptachlor	ND	0.001	500
Methoxychlor	ND	0.001	500
Toxaphene	ND	0.020	500

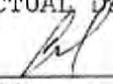
COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

## METHOD BLANK REPORT

CUSTOMER: Petra Geotechnical Inc.  
 38655 Sky Canyon Drive  
 Murrieta, CA 92563  
 Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
 MATRIX: SOIL  
 DATE SAMPLED: 06/20/14  
 REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14  
 DATE EXTRACTED: 06/30/14  
 DATE ANALYZED: 06/30/14  
 DATE REPORTED: 07/03/14

METHOD BLANK FOR LAB I.D.: 140620-9, -10, -12,  
 -13, -15, -16, -18, -19, -21, -24, -25, -30, -31, -33, -34

### Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

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

**COMMENTS:**

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

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

# METHOD BLANK REPORT

CUSTOMER: **Petra Geotechnical Inc.**  
38655 Sky Canyon Drive  
Murrieta, CA 92563  
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-355  
MATRIX: SOIL  
DATE SAMPLED: 06/20/14  
REPORT TO: MR. JON CAIN

DATE RECEIVED: 06/20/14  
DATE EXTRACTED: 06/30/14  
DATE ANALYZED: 07/03/14  
DATE REPORTED: 07/03/14

METHOD BLANK FOR LAB I.D.: 140620-22, -27, -28

## Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

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

### COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555





**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)

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required		COMMENTS	Misc. PO#
HP-19 @ 5.0'	140620-22	06/20/14	9:52	Soil	1		Ice				
HP-20 @ 5.1'	- 23		9:30								
HP-20 @ 2.5'	- 24		9:32								
HP-20 @ 5.0'	- 25		9:32								
HP-21 @ 5.1'	- 26	06/20/14	9:52								
HP-21 @ 2.5'	- 27		8:54	Soil							
HP-21 @ 5.0'	- 28		8:54								
HP-22 @ 5.1'	- 29		9:05								
HP-22 @ 2.5'	- 30		9:09								
HP-22 @ 5.0'	- 31		9:09								
HP-23 @ 5.1'	- 32		9:20								
HP-23 @ 2.5'	- 33		9:22								
HP-23 @ 5.0'	- 34		9:22								
Rinsate #1	- 35	06/20/14	9:57	Water			Ice				

Company Name: **Petra Geotechnical Inc.**  
 Address: **4550 County Center Dr.**  
 City/State/Zip: **Temecula, CA 92591**  
 Relinquished by: *[Signature]* Date: **06/20/14** Received by: *[Signature]*  
 Relinquished by: \_\_\_\_\_ Received by: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Received by: \_\_\_\_\_

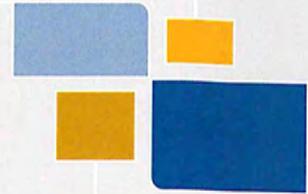
Project Contact: **Jon Cain**  
 Tel: **(951) 600-9271**  
 Fax/Email: **jon@petra-inc.com**  
 Project Name/ID: **12-355**

Sampler's Signature: *[Signature]*  
 Date & Time: **06/20/14 12:50**

Instructions for Sample Storage After Analysis:  
 Dispose of  Return to Client  Store (30 Days)  
 Other

**CHAIN OF CUSTODY RECORD**

ENVIRO-CHEM, INC. 1214 E. LEXINGTON AVENUE, POMONA, CA 91766



**Orange County /  
Environmental / Corporate**

3190 Airport Loop Drive, Suite J1  
Costa Mesa, California 92626  
T: 714-549-8921 F: 714-549-1438

**Riverside County**

40880 County Center Drive, Suite R  
Temecula, California 92591  
T: 951-600-9271 F: 951-600-9215

**Los Angeles County**

25050 Avenue Kearney, Suite 110A  
Valencia, California 91355  
T: 661-255-5790 F: 661-255-5242

**Desert Region**

42-240 Green Way, Suite E  
Palm Desert, California 92211  
T: 760-340-5303 F: 760-340-5096