PETRA

LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT, SHADOW RUN RANCH, SAN DIEGO TRACT NO. TM 5223 RPL-2, APN'S 111-080-7, 8, 9, 10, 18, 19, AND 111-070-12, 13, AND PORTIONS OF 111-080-14, 15, AND 16, PAUMA VALLEY, SAN DIEGO COUNTY, CALIFORNIA.

SHERRILL SCHOEPE
C/O TRS CONSULTANTS
ATTN: MR. MARK THOMPSON

MARCH 18, 2013
J.N. 12-174

Riverside County / Environmental

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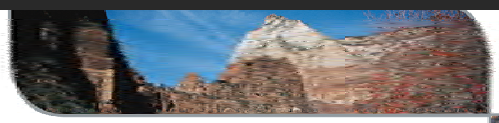

March 18, 2013
J.N. 12-174

Sherrill Schoepe
c/o TRS CONSULTANTS
438 Camino de Rio South, #223
San Diego, California 92108

Attn: Mr. Mark Thompson:

Subject: **Limited Phase II Environmental Site Assessment, Shadow Run Ranch, San Diego Tract No. TM 5223 RPL-2, APN's 111-080-7, 8, 9, 10, 18, 19, and 111-070-12, 13, and portions of 111-080-14, 15, and 16, Pauma Valley, San Diego County, California.**

Dear Ms. Schoepe:

The Environmental Division of Petra Geotechnical, Inc. (Petra) is pleased to present this Limited Phase II Investigation for the above-referenced site. This investigation has been conducted in accordance with our Proposal for Job No. 12-174, dated January 17, 2013.

The information presented in this report discusses the results of our recent investigation and includes a summary of our findings and recommendations. This report was prepared at the request of Shadow Run Ranch, 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.

PETRA GEOTECHNICAL, INC.
ENVIRONMENTAL DIVISION

Jonathan Cain
Senior Project Geologist
March 18, 2013

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March 18, 2013

REGISTERED PROFESSIONAL ENGINEER
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EXECUTIVE SUMMARY

Following the completion of our Phase I Environmental Site Assessment (ESA) activities in April 2012, this Limited Phase II Investigation report has been prepared in accordance with our proposal dated January 17, 2013, for Shadow Run Ranch, located at 14504 Highway 76, Pauma Valley, San Diego County, California. The purpose of this investigation was 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.

Due to the findings of the Phase I ESA and after further discussions with representative from Shadow Run Ranch and TRS Consultants, it was determined that soil sampling would be required to evaluate potential impacts from the pesticides from onsite agricultural use; potential burn ash in soil; possible impact of hydrocarbons from on-site fuel storage areas, smudge pots, and diesel-powered wind machines; and Polychlorinated Biphenyls (PCBs) from pole mounted transformers.

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

- Soil samples collected within areas representing pesticide storage, mixing, general usage, or runoff, as determined during our previous Phase I ESA for the site, were analyzed for Organochlorine Pesticides according to Environmental Protection Agency (EPA) Method 8081A. Ten percent of these samples were also analyzed for Organophosphorus Pesticides using EPA Method 8141A and Chlorinated Herbicides using EPA Method 8151A. All samples tested for Organochlorine Pesticides, Organophosphorus Pesticides, and Chlorinated Herbicides were found to be non-detect.

- Soil samples collected within areas of possible impact by total petroleum hydrocarbons as diesel fuel (wind machines and/or smudge pots) were analyzed for total petroleum hydrocarbons as diesel fuel (TPHd) in general accordance with modified EPA Method 8015. Soil samples collected within other areas of possible impact by hydrocarbon release (tanks, dispensers, storage, maintenance areas) were analyzed for total petroleum hydrocarbons as gasoline and as diesel fuel (TPHg and TPHd) in general accordance with modified EPA Method 8015, and for benzene, toluene, ethylbenzene, xylenes (BTEX), methyl tertiary butyl ether (MTBE), and oxygenates in general accordance with EPA Method 8260B. Four discrete and one composite sample contained various amounts of total petroleum hydrocarbons (TPHg and TPHd) which ranged from 0.113 milligrams per kilograms (mg/kg) to 22.5 mg/kg, respectively. However, the concentrations of total petroleum hydrocarbons (TPHg and TPHd) were only locally encountered and are at very low concentrations. All samples analyzed for BETX compounds found various concentrations of benzene, toluene, ethylbenzene, xylenes; however, all compounds were found to be below both the EPA Region 9 Regional Screening Level (RSL) and the California Human Health Screening Level (CHHSL) for BETX compounds. All samples tested for Oxygenates (including MTBE) were found to be non-detect.

- Two soil samples were collected within an area of possible impact by Polychlorinated Biphenyls (PCBs) from pole mounted transformers. These samples (B-71 and B-72 - 0.5) were analyzed for PCBs using EPA Method 8082 and were found to be non-detect.

- Soil samples collected within the area of possible impact by burn ash residue were analyzed for dioxins, Polynuclear Aromatic Hydrocarbons (PAHs), and metals in general accordance with modified EPA methods 8290, 8310, and 6010B/7471A respectively. Two composite samples contained various amounts of dioxins (2, 3, 7, 8-TCDD) which ranged from 1.59 picograms per gram (pg/g [parts per trillion]) to 8.58 pg/g. The concentrations found in the composite samples (B-10/11-0.5 and B12/13-0.5) were below both the EPA Region 9 Regional Screening Level (RSL) for dioxins of 0.0000045 mg/kg and the California Human Health Screening Level (CHHSL) for dioxins of 0.0000046 mg/kg. The composite sample (B12/13-0.5) analyzed for PAHs contained concentrations of Naphthalene of 0.052 mg/kg which is below both the EPA Region 9 Regional Screening Level (RSL) for Naphthalene of 3.6 mg/kg and California Regional Water Quality Control Board Screening Levels of 1.3 mg/kg. The California Human Health Screening Level (CHHSL) does not give screening levels of soil for Naphthalene. All samples analyzed per modified EPA methods 6010B/7471A contained various concentrations of metals which were below both the EPA Region 9 Regional Screening Level (RSL) and the California Human Health Screening Level (CHHSL) criteria; however, one composite sample, B13/12-3.0 contained concentrations of Total Chromium, which was 504.0 mg/kg.

The location of the identified burn ash residue area is within a proposed biological open space easement which is outside the area of proposed grading and development. Based on the laboratory results shown above and the depth of the one sample with a high chromium result which is outside the proposed area of development there should be no adverse effect to the proposed residential improvements. However, if at a later date the burn ash residue area is to be utilized for human activities then remediation measures may be necessary.

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Shadow Run Ranch,
14504 Highway 76, Pauma Valley,
San Diego County, California

INTRODUCTION

This Limited Phase II Investigation report for Shadow Run Ranch in Pauma Valley, San Diego County, California, has been prepared by the Environmental Division of Petra Geotechnical, Inc. (Petra), on behalf of Shadow Run Ranch, LLC. The Limited Phase II Investigation was conducted in accordance with our proposal dated January 17, 2013.

Objectives

Based on past land use identified at the site during Petra's Phase I Environmental Site Assessment (ESA) completed in April 2012, this Limited Phase II Investigation was performed to determine whether past activities at the site have resulted in the release or threatened release of hazardous substances which pose a threat to public health or the environment. The overall objectives of this investigation was to evaluate potential impacts from the pesticides from onsite agricultural use; potential burn ash in soil; possible impact of hydrocarbons from on-site fuel storage areas, smudge pots, and diesel-powered wind machines; and Polychlorinated Biphenyls (PCBs) from pole mounted transformers.

Scope of Work

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

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

Report Format

This report presents the results of our Limited Phase II Investigation and is organized as follows:

- A summary of the report organization.
- Information regarding the physical setting of the site.
- Site background, status, surrounding properties, and hazardous substance information.
- A brief discussion of the apparent problem at the site.
- The environmental setting and characteristics of the site.

- A summary of the sampling activities that were performed at the site.
- Discussions of the sample analysis and laboratory results for the samples collected from the site.
- Discussions of documentation completed for the sampling activities.
- Discussions of implementation of Quality Assurance and Quality Control Measures completed for this investigation.
- Discussions of the variances that occurred during this investigation.
- Conclusions of the investigation and recommendations for further action, if any.
- References used for the preparation of this report.
- Copies of relevant references and background documentation.

SITE DESCRIPTION

The subject site is comprised of approximately 248± acres and is located approximately 350 feet northwest of the intersection of State Highway 76 and Adams Drive, in Pauma Valley, San Diego County, California. The associated APN's are as follows: 111-080-7, 8, 9, 10, 18, 19, and 111-070-12, 13, and portions of 111-080-14, 15, and 16. The site has a moderate to steep gradient ascending from the southwest to the northeast portion of the site. The highest elevations within the property form a ridge within the northeast portion of the site that traverses from the northwest to the southeast. Several buildings are located within the southwest portion of the site which is the operation center of the ranch. The operation center includes houses, mobile homes, a workshop, fuel tanks and dispensers, a chemical storage building, storage sheds, and covered storage areas. Several branches of Frey Creek are along the western-northwestern boundary of the site. At the time of our original investigation (Phase I ESA) the northeastern portion of the site was vacant and undeveloped land, while the remainder of the site was used for the cultivation of avocado and citrus trees.

Site Name

The site is currently known as Shadow Run Ranch.

Site Address

The site address is 14504 Highway 76, Pauma Valley, San Diego County, California.

Designated Contact Person

Mr. Ron Deutschendorf, Chief Financial Officer, West Pauma Valley Ranch, Inc. and Ranch Manager of the subject site.

Mailing Address

14504 Highway 76,
Pauma Valley, San Diego County, California

Attn: Mr. Ron Deutschendorf

Telephone Number

The telephone number for Mr. Ron Deutschendorf is 760-742-3097

Assessor's Parcel Numbers (APN)

The following APN's are assigned to the site: 111-080-7, 8, 9, 10, 18, 19, and 111-070-12, 13, and portions of 111-080-14, 15, and 16.

Township, Range, and Section

According to the 1997 topographic map of the Pala Quadrangle, prepared by the USGS, the site is located in portions of Sections 5 and 6, Township 10 South and portions of Sections 31 and 32, Township 9 South, Range 1 West, San Bernardino Base and Meridian.

Site Maps

The maps included in this report are as follows: site vicinity map, Figure 1; plan showing the current configuration of the site, Figure 2; boring and hand-auger location map for potential pesticides from onsite agricultural use; potential burn ash in soil; possible impact of hydrocarbons from on-site fuel storage areas, smudge pots, and diesel-powered wind machines; and Polychlorinated Biphenyls (PCBs) from pole mounted transformers, Plates 1 and 2.

BACKGROUND

Historical Site Information

In November 2010 and again in April 2012, Phase I ESA's were completed by Petra on behalf of Shadow Run Ranch for the subject site. Based on information obtained during these investigations, the southwest portion of the site appears to have been used for agriculture from at least the 1930's. From approximately 1946 through the 1970's different portions of the land were brought into cultivation and planted with groves.

The previous Phase I ESA's by Petra (2010 and 2012) made the following observations which represent potential recognized environmental conditions with regards to the subject site.

1. Workshop: staining of the concrete and the contents within and surrounding the area.
2. Fuel tank building and pump station: For hydrocarbon spills.
3. Two smudge-pot storage areas: For hydrocarbon spills.
4. Chemical storage building and washout area: For pesticides.
5. Covered storage area: For pesticides and oil spills.
6. Area with four diesel tanks (red diesel) and pump station: For hydrocarbon spills.
7. All well pump locations: For pesticides, due to potential mixing area.
8. Burn site area along Frey creek: For metals and pesticides.
9. Diesel windmill sites: For hydrocarbons due to soil staining.
10. Grove areas and drainage channels: For pesticides.

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.

- Based on the use of the site for agriculture from at least 1939 until present, the presence of a chemical storage area, washout areas, water well pumps and a burn site, Petra recommended collection of near-surface soil samples for the evaluation of pesticide/herbicide and metal residues.

- Based on the observed staining of concrete, fuel tanks and dispensers, pole mounted transformers, smudge pot storage areas, and soil staining around diesel windmill areas. Petra recommended collection of near-surface soil samples to evaluate the site for hydrocarbons and Polychlorinated Biphenyls (PCBs).

Due to the findings of the Phase I ESA's, and after further discussions with representative from Shadow Run Ranch and TRS Consultants, it was determined that soil sampling would be required to evaluate potential impacts from the pesticides/herbicides from onsite agricultural use; potential burn ash metal residue in soil; possible impact of hydrocarbons from on-site fuel storage areas, smudge pots, and diesel-powered wind machines; and Polychlorinated Biphenyls (PCBs) from pole mounted transformers.

Property Ownership

At the time of Petra's Phase I ESA and this Limited Phase II Investigation, Shadow Run Ranch, LLC, was the current owner of the site.

Facility Ownership/Operators

No other information on past owner/operators was obtained during Petra's investigation.

Business Type

At the time of Petra's Phase I ESA's, and this Limited Phase II Investigation, the north-northeast portion of the site was generally vacant and undeveloped land, while the remainder of the site was used for the cultivation of avocado and citrus groves. A proposed biological open space easement extends along the west-northwestern boundary of the site which includes several branches of Frey Creek. An existing open water reservoir is located within the northeastern portion of the site and is used for irrigation of the groves.

Years of Operation

Based on our review the site appears to have been predominantly vacant undeveloped land, but having some groves in the southwest portion of the site since at least 1939. From approximately 1946 through the 1970's, different portions of the land were brought into cultivation and planted with groves. However, visible structures were not present prior to the late 1970s.

Surrounding Property Land Use

The site is situated in an area of mixed land use. Our specific observations are noted below:

North — To the north of the subject site is natural open land of the Pauma Indian Reservation and Cleveland National Forrest.

East — To the east of the subject site is Adams Drive with residential and ranch land use beyond.

South — To the south of the subject site is State Highway 76 with an adjacent vacant parcel of land with the San Luis Rey River beyond.

West — To the west of the subject site are natural open land and the Agua Tibia Creek with residential and ranch land use beyond.

Site vicinity is depicted in Figure 1.

Hazardous Substance/Waste Management Information

Hazardous substances were observed on the site at the time of Petra's Phase I investigation.

Business/Manufacturing Activities

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

Site Regulatory Status

During Petra's Phase I ESA investigation, the site was found to have been listed on the Aboveground Petroleum Storage Tank Facilities (AST), San Diego Co. HMMD and (HAZNET) databases for above ground storage tanks (AST) and fertilizers. No releases or violations were reported. Based on the lack of recorded releases or violations, these listings did not currently appear to represent a recognized environmental condition with regards to the subject site.

Site Reconnaissance Results

As part of the Phase I ESA, Petra conducted a reconnaissance of the subject site on April 20, 2012. Our site observations are summarized below

1. Access to the site is from State Highway 76 along a gated, asphalt road.

2. The subject site has a moderate to steep gradient ascending from the southwest to the northeast portion of the site. The highest elevations within the property form a ridge within the northeast portion of the site that traverses from the northwest to the southeast.

3. Several buildings are located within the southwest portion of the site, which is the operation center of the ranch. These include the following:

   - One house and two mobile homes which are believed to be occupied. It is unknown if there are any septic tanks or leach fields associated with these residences.

   - One workshop containing miscellaneous pieces of equipment and tools, four 55-gallon and six 5-gallon motor oil drums, one 55-gallon and three 5-gallon transmission fluid drums, two 5-gallon solvent containers, eight 5-gallon plastic gas containers, three batteries, approximately four 5-gallon paint buckets, approximately twenty 1-gallon paint cans and approximately forty-five spray cans of paint, lubricants, cleaners and sealers. The shop contains fluorescent lighting and there are numerous areas of staining on the concrete floor.

   - Adjacent to the workshop is a metal storage container which contains eight tires, assorted tools, generators and six 5-gallon paint cans.

- Attached to the west side of the workshop is a small shed containing eight 5-gallon containers of various motor oils, hydraulic oils and drive train oil and one large compressor.

- A change station for the ranch tractors and trucks is fairly well contained and there was minor staining of the concrete in this area. One pole-mounted transformer is located adjacent the change station.

- A fuel tank building that is constructed with a concrete floor, concrete block walls approximately four feet high then wood walls and roofing. Two large fuel tanks are contained within the structure; one is an empty, approximately 20,000±-gallon gas tank and the other is an approximately 8,000±-gallon diesel tank. A dispenser for the fuel is located directly down slope of the structure.

- Next to the fuel dispenser is a small, open storage shed containing three 55-gallon steel waste oil drums, one 55-gallon plastic empty drum, one 35-gallon steel drum and one 5-gallon plastic oil container.

- Directly behind the fuel tank building is a storage shed containing five 5-gallon and approximately 28, 1-gallon cans of stain and paint.

- An area of pallets containing smudge pots, measuring approximately 30 feet by 70 feet was observed north of the fuel tank building and shed.

- One chemical storage building containing approximately 20 to 30 bags of snail pellets; 15 sulfur bags; approximately 35 to 45 tires; eight to ten 5-gallon containers of Ramik (rat poison); a "Round-Up" station, chemical dispensers and assorted tools and PVC supplies. At the western side of the chemical building is a washout area with a sink and outlet drain which drains directly on to the surrounding soils.

- Covered storage area with one pickup truck; one diesel tanker truck, one bob-cat; trailers, 3pallets of 46-0-0 fertilizer, eight tires, three 55-gallon oil drums, one approximately 1500- to 2000-gallon mixing tank, four 55-gallon hydraulic fuel drums, one pallets of quikrete and one pallet of red-e-crete. Staining of the soils was observed around the 55-gallon oil drums and the diesel truck.

- Northeast of the covered storage is an open above-ground tank storage area containing five, large, diesel tanks (red diesel). The two largest tanks are empty, two smaller tanks contain an unknown amount of diesel fuel and one tank contains an unknown amount of waste diesel. One fuel dispenser for diesel and one for waste diesel were located down slope of the tanks by the road.

4. An existing open water reservoir is located within the northeastern portion of the site and is used for irrigation of the groves. Due to the nature of use, i.e., irrigation, this reservoir is not considered to be a recognized environmental condition. Two pump stations with electrical boxes and two poles with three pole-mounted transformers on each are adjacent to the reservoir. A picnic area adjacent the reservoir has an empty stone storage building.

5. Northwest of the reservoir is a concrete structure (unknown use) with a date of 1947 etched in the concrete, a fountain, and what appears to be a possible septic system.

6. An upper pump station located in the northern portion of the property above the reservoir contains two concrete block structures. One concrete structure, with electrical meters on the outside, houses the water storage tank. The second concrete structure is for the well pump. Three pole-mounted transformers are located close to the upper pump station.

7. A proposed biological open space easement extends along the western-northwestern boundary of the site and includes several branches of Frey Creek. Two water well stations and a burn site were observed along the western side of the main branch of the creek. The northern well station includes a storage area with metal well pipe and rusted corrugated pipe. Electrical meters and three pole-mounted transformers are located within each of the well sites. The burn site is located adjacent to the lower (southern) well station and is approximately 110 feet by 125 feet in size. Petra was informed by a member of Shadow Run Ranch that the site was strictly used for burning vegetation from the groves. South of the lower (southern) well station is an area where smudge pots are stored. The smudge pots are directly placed on the soil.

8. A third well station located within the proposed biological open space easement is along the eastern side of the creek at the edge of the groves. An above ground, plastic water tank, electrical meter panel, a shed, one trailer mounted generator and three pole-mounted transformers were located within this area.

9. The remainder of the site within the central and southeastern portions consists of avocado and citrus groves. Within the groves are several water wells and windmills. Windmill areas had concrete pad foundations. Five windmills were diesel powered and the remainders are electric powered. Dark staining of the soils were noted around the diesel powered windmills. Several pole-mounted transformers, each containing three transformers, are also located within the groves by the electric windmills and wells.

   Current site configuration is shown on Figure 2.

Interviews

As part of the Phase I ESA, Petra contacted Mr. Ron Deutschendorf, Chief Financial Officer, West Pauma Valley Ranch, Inc. and Ranch Manager of the subject site for approximately eight years. According to Mr. Deutschendorf, the site has been agriculture ranch with avocado and citrus groves. Mr. Deutschendorf reports that he is aware of two gas tanks, four red diesel tanks, and a water storage tank. Mr. Deutschendorf stated that to his knowledge, there are no notices or other correspondence from any government agency relating to past or current violations of environmental laws. 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. 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 and that pesticides are used in conformance with county agriculture, weights and measures requirements.

A copy of the interview questionnaire was provided in the Phase I report.

Prior Assessments

No environmental site assessments are known to have been conducted at the site, prior to Petra's April 2012 and November 2010 Phase I ESA's.

AREA OF CONCERN

Based on the findings of the Phase I ESA and after further discussions with representatives from Shadow Run Ranch and TRS Consultants, it was recommended that soil sampling would be required to evaluate potential impacts from the pesticides from onsite agricultural use; potential burn ash in soil; possible impact of hydrocarbons from on-site fuel storage areas, smudge pots, and diesel-powered wind machines; and Polychlorinated Biphenyls (PCBs) from pole mounted transformers.

ENVIRONMENTAL SETTING

The following sections provide an overview of the regional and local geologic setting and include 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 extends from the tip of Baja California to the Transverse Ranges and the Los Angeles Basin and is characterized by northwest trending mountain ranges separated by subparallel fault zones. In general, the province 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 and elevated erosion surfaces.

More specifically, the subject site is situated along the southwest facing side of Agua Tibia Mountain and descends down to the San Luis Ray River Valley. The site appears to be underlain by Young alluvial fan

deposits of Holocene and late Pliocene age and older fan deposits of Pleistocene non-marine material as mapped on the 7.5' Pala Quadrangle from the California Division of Mines and Geology (CDMG, 2000).

Elsinore Fault

The Elsinore Fault has been mapped within the northeast portion of the site (CDMG, 1980). An Alquist Priolo Special Studies Zone has been established on the fault which requires a geologic investigation to locate the fault for proposed development within the special studies zone.

Surface and Groundwater Conditions

Surface Water

Surface water on the site observed during our reconnaissance was confined to the water reservoir within the northeastern portion of the site and the northeastern portion of Frey Creek where a dam has been placed near the upper pump station.

Groundwater

The site is located between the Agua Tibia Mountain and the San Luis Rey River Valley. Within the sub-basin, groundwater is generally unconfined within the fan deposits. Groundwater depth varies within the area due to water being pumped from nearby wells. Flow direction beneath the subject site is unknown but is believed to be toward the southwest and the San Luis Rey River. The groundwater flow in the sub-basin is to the south-southeast following the course of the San Luis Rey River, California Division of Water Resources (CDWR, 2000). Multiple groundwater wells were listed within the same section as the subject site on the CDWR historic groundwater level database (CDWR, 2010).

No groundwater was encountered during Petra's investigation.

FIELD SAMPLING PLAN

The following sections provide descriptions of the sampling approach, investigative methods and procedures, sample analysis program, sample handling, decontamination procedures, and quality assurance and quality control measures.

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.

Geophysical Investigation

Petra contracted Southwest Geophysics, Inc. to provide a geophysical utility survey of the planned boring locations prior to drilling. The survey included using ground penetrating radar and metal detecting equipment to determine whether any underground obstructions (utility lines, water lines, concrete, metal, etc.) were present in the vicinity of a planned boring.

Field Boring Locations

Former Agricultural Land Use Boring Locations

Soil testing was completed in the locations with the highest likelihood of pesticide, herbicide, PAHs, and metals/Dioxin contamination (such as around pesticide storage, mixing, general use areas, and drainage courses) and one identified burn site observed on the property. In addition, soil testing was completed in the locations with the highest likelihood of hydrocarbon and PCB contamination (such as around petroleum storage, dispensing areas, and pole-mounted transformers).

Samples were collected from approximately 0.5, 1.5, and 3.0 feet bgs. Where appropriate, samples collected from 0.5 feet and 0.5 and 1.5 feet bgs were composited by the laboratory into groups of two. Selected samples were also analyzed discreetly. In agricultural areas and potential areas of hydrocarbon and PCB contamination, the deeper samples were placed on hold pending the analytical results of the shallow samples. In the identified burn site area, all sample depths (i.e., 0.5, 1.5, and 3.0 feet bgs) were composited by the laboratory and analyzed for metals and Dioxins. A map showing boring and hand-auger locations, is provided in Plates 1 and 2.

Drilling Procedures

The borings were sampled utilizing a direct-push rig using a one-inch diameter hydraulic and percussion drive-point unit with a closed piston sampler or hand-auger tool. 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 laboratory analysis.

Decontamination Procedures

All equipment that came into contact with potentially contaminated soil 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 drilling and sampling devices used were decontaminated using the following procedures:

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

Health and Safety

Prior to implementing the field investigation, 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 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 investigation. 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 investigation 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). Soil samples collected for

Polynuclear Aromatic Hydrocarbons (PAHs) were analyzed by American Environmental Testing Laboratory, Inc. (AETL) in Burbank, California. Soil samples collected for Dioxins were analyzed by Ceres Analytical Laboratory (CAL) in El Dorado Hills, California. All analyses were requested on a chain-of-custody record.

Analytical Methods

The following analytical methods were utilized for this investigation:

Agricultural Land Use Samples

Soil samples collected within areas representing pesticide storage, mixing, general usage, or runoff, as determined during our previous Phase I ESA for the site, were analyzed for Organochlorine Pesticides according to Environmental Protection Agency (EPA) Method 8081A. Ten percent of these samples were also analyzed for Organophosphorus Pesticides using EPA Method 8141A and Chlorinated Herbicides using EPA Method 8151A.

Hydrocarbon Samples

Soil samples collected within areas of possible impact by total petroleum hydrocarbons as diesel fuel (wind machines and/or smudge pots) were analyzed for total petroleum hydrocarbons as diesel fuel (TPHd) in general accordance with modified EPA Method 8015. Soil samples collected within other areas of possible impact by hydrocarbon release (tanks, dispensers, storage, maintenance areas) were analyzed for total petroleum hydrocarbons as gasoline and as diesel fuel (TPHg and TPHd) in general accordance with modified EPA Method 8015, and for benzene, toluene, ethylbenzene, xylenes (BTEX), methyl tertiary butyl ether (MTBE), and oxygenates in general accordance with EPA Method 8260B.

Polychlorinated Biphenyls (PCBs) Sample

Two soil samples were collected within an area of possible impact by Polychlorinated Biphenyls (PCBs) from pole mounted transformers. These samples (B-71 and B-72 - 0.5) were analyzed for PCBs using EPA Method 8082.

Burn Site Samples

Soil samples collected within the area of possible impact by burn ash residue were analyzed for dioxins, Polynuclear Aromatic Hydrocarbons (PAHs), and metals in general accordance with modified EPA methods 8290, 8310, and 6010B/7471A respectively.

Sample Packaging and Shipment

Each sample was labeled, sealed in a sealable plastic bag 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. Samples kept overnight were placed in a cooler with ice and then sealed with custody tape and kept in a locked location.

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

- Project number
- Sample identification number
- Date and time of collection

Laboratory Results

Below is a discussion of the laboratory results. A copy of the laboratory reports are provided in Appendix C. The results are presented in Tables 1 through 4 and the locations of the sample borings can be found on Plates 1 and 2

Agricultural Land-Use Samples

Organochlorinated Pesticides

Twenty-one discreet samples and nine composite samples were analyzed for detectable levels of organochlorinated pesticides residues. All samples analyzed contained no detectable levels of organochlorinated pesticides.

Organophosphorus Pesticides

Ten percent of the samples analyzed for organochlorinated pesticides were also analyzed for Organophosphorus pesticides. No detectable levels of Organophosphorus pesticides were present in the samples analyzed.

Chlorinated Herbicides

Ten percent of the samples analyzed for organochlorinated pesticides were also analyzed for Chlorinated Herbicides. No detectable levels of Chlorinated Herbicides were present in the samples analyzed.

Hydrocarbon Samples

Thirteen discreet samples and six composite samples were tested for either TPHg, TPHd and/or oxygenates. No concentrations were detected above the laboratory reporting limit for C4-C10 Gasoline Range or C11-C22 Diesel Range in any of the samples analyzed. Four discrete and one composite sample contained various amounts of TPHg or TPHd hydrocarbons which ranged from 0.113 milligrams per kilograms (mg/kg) to 22.5 mg/kg, respectively. However, the concentrations of total petroleum hydrocarbons (TPHg and TPHd) were only locally encountered and are at very low concentrations. All samples analyzed for BETX compounds found various concentrations of benzene, toluene, ethylbenzene, xylenes; however, all compounds were found to be below both the EPA Region 9 Regional Screening Level (RSL) and the California Human Health Screening Level (CHHSL) for BETX compounds. All samples tested for Oxygenates (including MTBE) were found to be non-detect.

Polychlorinated Biphenyls (PCBs) Sample

Two soil samples were collected within an area of possible impact by Polychlorinated Biphenyls (PCBs) from pole mounted transformers. These samples (B-71 and B-72 - 0.5) were analyzed for PCBs using EPA Method 8082 and were found to be non-detect.

Burn Site Samples

Soil samples collected within the area of possible impact by burn ash residue were analyzed for dioxins, Polynuclear Aromatic Hydrocarbons (PAHs), and metals in general accordance with modified EPA methods 8290, 8310, and 6010B/7471A respectively. Two composite samples contained various amounts of dioxins (2, 3, 7, 8-TCDD) which ranged from 1.59 picograms per gram (pg/g [parts per trillion]) to 8.58 pg/g. The concentrations found in the composite samples (B-10/11-0.5 and B12/13-0.5) were below both the EPA Region 9 Regional Screening Level (RSL) for dioxins of 0.0000045 mg/kg and the California Human Health Screening Level (CHHSL) for dioxins of 0.0000046 mg/kg. The composite sample (B12/13-0.5) analyzed for PAHs contained concentrations of Naphthalene of 0.052 mg/kg which is below both the EPA Region 9 Regional Screening Level (RSL) for Naphthalene of 3.6 mg/kg and California Regional Water Quality Control Board Screening Levels of 1.3 mg/kg. The California Human Health Screening Level (CHHSL) does not give screening levels of soil for Naphthalene. All samples analyzed per modified EPA methods 6010B/7471A contained various concentrations of metals which were below both the EPA Region 9 Regional Screening Level (RSL) and the California Human Health

Screening Level (CHHSL) criteria; however, one composite sample, B13/12-3.0 contained concentrations of Total Chromium, which was 504.0 mg/kg.

QUALITY ASSURANCE AND QUALITY CONTROL MEASURES

This investigation 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 C.

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 and 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, matric 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 soil sampling at the site.

Due to the uncertainty/limited accessibility of the Geoprobe rig, the numbering sequence for the Geoprobe borings (B-1, B-2 etc.) and Hand-auger borings (HA-3, HA-4 etc.) altered between Direct-push borings (B-) and Hand-auger boring (HA-) numbers. Numbers 16, 28, 50, 54, 55, 68 and 69 were not used in the numbering sequence.

CONCLUSIONS AND RECOMMENDATIONS

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

- Soil samples collected within areas representing pesticide storage, mixing, general usage, or runoff, as determined during our previous Phase I ESA for the site, were analyzed for Organochlorine Pesticides according to Environmental Protection Agency (EPA) Method 8081A. Ten percent of these samples were also analyzed for Organophosphorus Pesticides using EPA Method 8141A and Chlorinated Herbicides using EPA Method 8151A. All samples tested for Organochlorine Pesticides, Organophosphorus Pesticides, and Chlorinated Herbicides were found to be non-detect.

- Soil samples collected within areas of possible impact by total petroleum hydrocarbons as diesel fuel (wind machines and/or smudge pots) were analyzed for total petroleum hydrocarbons as diesel fuel (TPHd) in general accordance with modified EPA Method 8015. Soil samples collected within other areas of possible impact by hydrocarbon release (tanks, dispensers, storage, maintenance areas) were analyzed for total petroleum hydrocarbons as gasoline and as diesel fuel (TPHg and TPHd) in general accordance with modified EPA Method 8015, and for benzene, toluene, ethylbenzene, xylenes (BTEX), methyl tertiary butyl ether (MTBE), and oxygenates in general accordance with EPA Method 8260B. Four discrete and one composite sample contained various amounts of total petroleum hydrocarbons (TPHg and TPHd) which ranged from 0.113 milligrams per kilograms (mg/kg) to 22.5 mg/kg, respectively. However, the concentrations of total petroleum hydrocarbons (TPHg and TPHd) were only locally encountered and are at very low concentrations. All samples analyzed for BETX compounds found various concentrations of benzene, toluene, ethylbenzene, xylenes; however, all compounds were found to be below both the EPA Region 9 Regional Screening Level (RSL) and the California Human Health Screening Level (CHHSL) for BETX compounds. All samples tested for Oxygenates (including MTBE) were found to be non-detect.

- Two soil samples were collected within an area of possible impact by Polychlorinated Biphenyls (PCBs) from pole mounted transformers. These samples (B-71 and B-72 - 0.5) were analyzed for PCBs using EPA Method 8082 and were found to be non-detect.

- Soil samples collected within the area of possible impact by burn ash residue were analyzed for dioxins, Polynuclear Aromatic Hydrocarbons (PAHs), and metals in general accordance with modified EPA methods 8290, 8310, and 6010B/7471A respectively. Two composite samples contained various amounts of dioxins (2, 3, 7, 8-TCDD) which ranged from 1.59 picograms per gram (pg/g [parts per trillion]) to 8.58 pg/g. The concentrations found in the composite samples (B-10/11-0.5 and B12/13-0.5) were below both the EPA Region 9 Regional Screening Level (RSL) for dioxins of 0.0000045 mg/kg and the California Human Health Screening Level (CHHSL) for dioxins of 0.0000046 mg/kg. The composite sample (B12/13-0.5) analyzed for PAHs contained concentrations of Naphthalene of 0.052 mg/kg which is below both the EPA Region 9 Regional Screening Level (RSL) for Naphthalene of 3.6 mg/kg and California Regional Water Quality Control Board Screening Levels of 1.3 mg/kg. The California Human Health Screening Level (CHHSL) does not give screening levels of soil for Naphthalene. All samples analyzed per modified EPA methods 6010B/7471A contained various concentrations of metals which were below both the EPA Region 9 Regional Screening Level (RSL) and the California Human Health Screening Level (CHHSL) criteria; however, one composite sample, B13/12-3.0 contained concentrations of Total Chromium, which was 504.0 mg/kg.

The location of the identified burn ash residue area is within a proposed biological open space easement which is outside the area of proposed grading and development. Based on the laboratory results shown above and the depth of the one sample with a high chromium result which is outside the proposed area of development there should be no adverse effect to the proposed residential improvements. However, if at a later date the burn ash residue area is to be utilized for human activities then remediation measures may be necessary

LIMITATIONS

Petra has completed the above scope of work in accordance with our Proposal No. 1130-10, dated January 17, 2013. 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 investigation.

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UNITED STATES GEOLOGIC SURVEY, 1997, 7.5-Minute Topographic Map, Pala Quadrangle, California, scale 1:24,000

TABLES

PETRA

TABLE 1
Agricultural Land Use Sample Results
Shadow Run Ranch
14504 Highway 76, Pauma Valley, San Diego County, CA

Boring ID	Sample ID	Feet Below Ground Surface	Analysis			Location Rationale*
			Organochlorine Pesticides (mg/kg)	Organophosphorus Pesticides (mg/kg)	Chlorinated Herbicides (mg/kg)	
B-1	B-1-0.5A	0.5	ND			potential storage/mixing area
B-2	B-2-0.5	0.5	ND			drainage channel
HA-3/HA-4 Composite	HA-3/HA-4-0.5	0.5	ND	ND		general use area
HA-5/HA-6 Composite	HA-5/HA-6-0.5	0.5	ND		ND	general use area
HA-7/HA-8 Composite	HA-7/HA-8-0.5	0.5	ND			general use area
HA-9	HA-9-0.5	0.5	ND			general use area
B-14	B-14-0.5	0.5	ND			potential storage/mixing area
HA-15/HA-19 Composite	HA-15/HA-19-0.5	0.5	ND			drainage channel
HA-17	HA-17-0.5	0.5	ND			potential storage/mixing area
HA-18	HA-18-0.5	0.5	ND			general use area
HA-20/HA-31 Composite	HA-20/HA-31-0.5	0.5	ND			general use area
B-21	B-21-0.5	0.5	ND			drainage channel
B-26	B-26-0.5	0.5	ND			potential storage/mixing area
B-27	B-27-0.5	0.5	ND			potential storage/mixing area
B-29	B-29-0.5	0.5	ND			general use area
HA-30	HA-30-0.5	0.5	ND			general use area
B-32	B-32-0.5	0.5	ND			drainage channel
B-33	B-33-0.5	0.5	ND			general use area
HA-40/HA-43 Composite	HA-40/HA-43-0.5	0.5	ND			general use area
HA-41/HA-42 Composite	HA-41/HA-42-0.5	0.5	ND			general use area
HA-44	HA-44-0.5	0.5	ND			general use area
HA-45	HA-45-0.5	0.5	ND			general use area
B-46	B-46-0.5	0.5	ND			drainage channel
HA-61	HA-61-0.5	0.5	ND			potential storage/mixing area
B-62	B-62-0.5	0.5	ND			drainage channel
B-63B-64 Composite	B-63/B-64-0.5	0.5	ND			general use area
B-65	B-65-0.5	0.5	ND			drainage channel
B-66/B-67 Composite	B-66/B-67-0.5	0.5	ND			general use area

Notes: mg/kg = milligrams per kilograms

TABLE 2
Hydrocarbon Sample Results
Shadow Run Ranch
14504 Highway 76, Pauma Valley, San Diego County, CA

Boring ID	Sample ID	Feet Below Ground Surface	TPHg (mg/kg)	TPHd (mg/kg)	Benzene (mg/kg)	Ethylbenzene (mg/kg)	Toluene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	DIPE (mg/kg)	TAME (mg/kg)	ETBE (mg/kg)	TBA (mg/kg)
B-10/B-11 Composite	B-10/B-11-0.5A	0.5			ND	0.006	0.027	0.027	ND	ND	ND	ND	ND
B-12/B-13 Composite	B-12/B-13-0.5	0.5			ND	0.010	0.039	0.050	ND	ND	ND	ND	ND
B-22/B-24 Composite	B-22/B-24-0.5	0.5		ND									
B-23/B-25 Composite	B-23/B-25-0.5	0.5		22.500									
B-33	B-33-0.5	0.5		ND									
B-34/B-35 Composite	B-34/B-35-0.5	0.5		ND									
B-36/B-37 Composite	B-36/B-37-0.5	0.5		ND									
HA-38	HA-38-0.5	0.5		ND									
B-47	B-47-0.5	0.5	ND	ND	ND	ND	0.009	ND	ND	ND	ND	ND	ND
B-48	B-48-0.5	0.5	0.158	ND	ND	0.018	0.010	0.109	ND	ND	ND	ND	ND
B-49	B-49-0.5	0.5	0.113	ND	ND	0.008	ND	0.054	ND	ND	ND	ND	ND
B-51	B-51-0.5	0.5	ND	ND	ND	0.008	ND	0.051	ND	ND	ND	ND	ND
B-52	B-52-0.5	0.5		ND									
B-53	B-53-0.5	0.5		ND									
B-56	B-56-0.5	0.5	0.272	ND	ND	0.018	0.015	0.138	ND	ND	ND	ND	ND
B-57	B-57-0.5	0.5	ND	ND	ND	0.006	ND	0.033	ND	ND	ND	ND	ND
B-58	B-58-0.5	0.5	ND	ND	ND	0.008	ND	0.049	ND	ND	ND	ND	ND
B-59	B-59-0.5	0.5	ND	ND	ND	0.006	0.006	0.032	ND	ND	ND	ND	ND
B-60	B-60-0.5	0.5	0.207	ND	ND	0.037	0.006	0.201	ND	ND	ND	ND	ND

Notes: mg/kg = milligrams per kilograms

TABLE 3
Metals and PCB Sample Results
Shadow Run Ranch
14504 Highway 76, Pauma 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)	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)
B-10/B-11 Composite	B-10/B-11-0.5	0.5	ND	ND	110	ND	ND	10.4	4.88	18.1	5.3	ND	ND	ND	ND	ND	ND	43	44.3
	B-10/B-11-1.5	1.5	ND	ND	112	ND	ND	12.2	4.9	17.4	2.9	ND	ND	ND	ND	ND	ND	42.7	45.2
	B-10/B-11-3.0	3.0	ND	ND	86.6	ND	ND	7.77	3.81	12.1	0.0739	ND	ND	ND	ND	ND	ND	42.9	26
B-12/B-13 Composite	B-12/B-13-0.5	0.5	ND	ND	156	ND	ND	9.59	2.4	28.2	2.09	ND	ND	ND	ND	ND	ND	24.1	78.9
	B-12/B-13-1.5	1.5	ND	ND	131	ND	ND	7.09	4.08	9.71	1.75	ND	ND	ND	ND	ND	ND	35.4	32.6
	B-12/B-13-3.0	3.0	ND	ND	130	ND	ND	504	15.9	20.3	10.3	ND	ND	420	ND	ND	ND	42.4	72

Boring ID	Sample ID	PCB-1016 (mg/kg)	PCB-1221 (mg/kg)	PCB-1232 (mg/kg)	PCB-1242 (mg/kg)	PCB-1248 (mg/kg)	PCB-1254 (mg/kg)	PCB- 1260 (mg/kg)	TOTAL PCBs (mg/kg)
HA-71	HA-71-O.5	ND	ND	ND	ND	ND	ND	ND	ND
HA-72	HA-72-0.5	ND	ND	ND	ND	ND	ND	ND	ND

Notes: mg/kg = milligrams per kilograms

TABLE 4
Dioxin Sample Results
Shadow Run Ranch
14504 Highway 76, Pauma Valley, San Diego County, CA

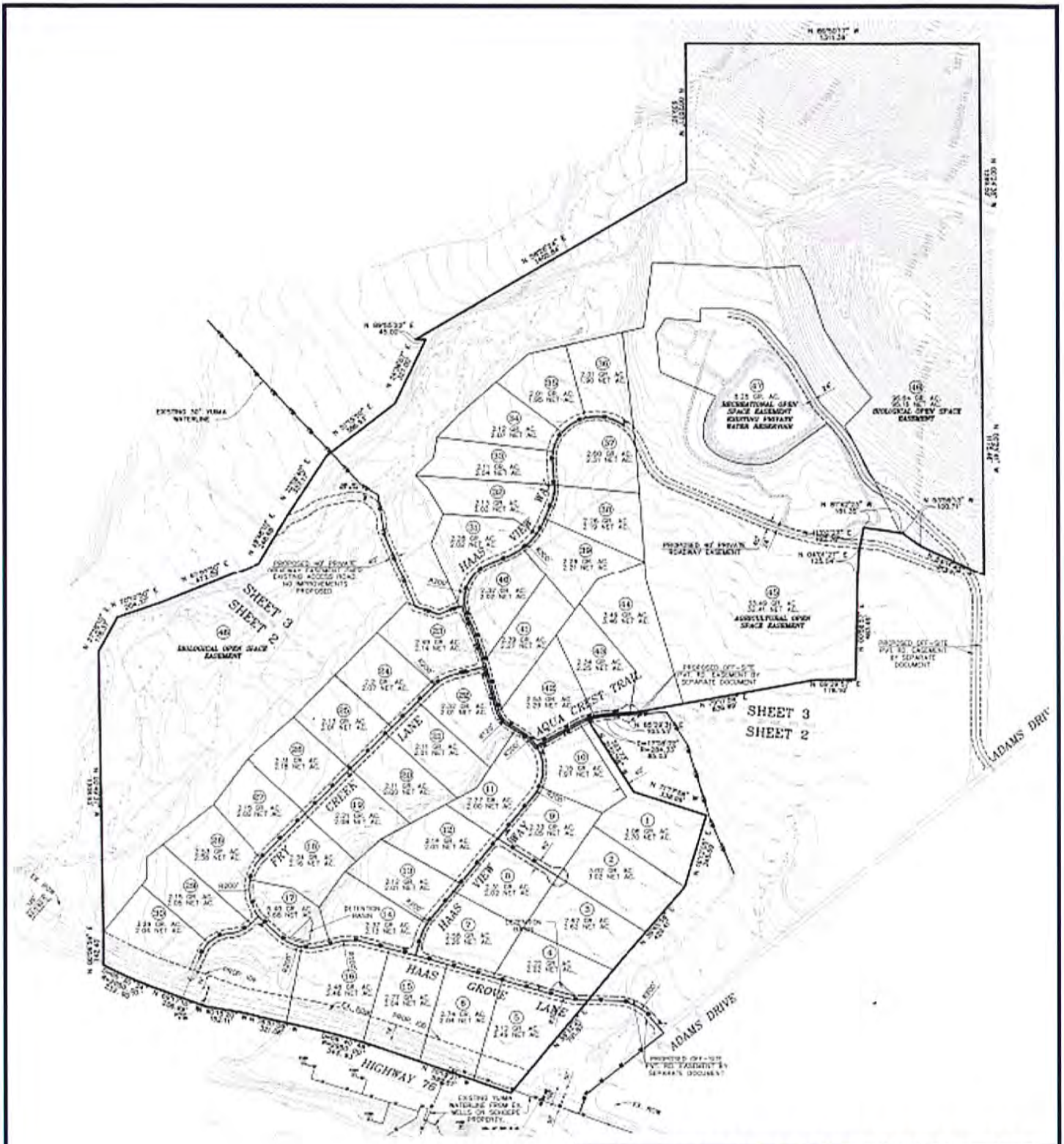
Boring ID	Sample ID	2, 3, 7, 8 TCD (pg/g)	1, 2, 3, 7, 8 PeCDD (pg/g)	1, 2, 3, 4, 7, 8 HxCDD (pg/g)	1, 2, 3, 6, 7, 8 HxCDD (pg/g)	1, 2, 3, 7, 8, 9 HxCDD (pg/g)	1, 2, 3, 4, 6, 7, 8 HpCDD (pg/g)	OCDD (pg/g)	2, 3, 7, 8 TCDF (pg/g)	1, 2, 3, 7, 8 PeCDF (pg/g)
B-10/B-11 Composite	317245 #001	ND	ND	ND	ND	ND	2.500	19.500	0.563	0.410
B-12/B-13 Composite	317245 #002	0.506	1.120	0.862	2.360	1.890	35.100	181.000	4.510	2.060

Boring ID	Sample ID	2, 3, 4, 7, 8 PeCDF (pg/g)	1, 2, 3, 4, 7, 8, HxCDF (pg/g)	1, 2, 3, 6, 7, 8 HxCDF (pg/g)	2, 3, 4, 6, 7, 8, HxCDF (pg/g)	1, 2, 3, 7, 8, 9 HxCDF (pg/g)	1, 2, 3, 4, 6, 7, 8 HpCDF (pg/g)	1, 2, 3, 4, 7, 8, 9 HpCDF (pg/g)	OCDF (pg/g)
B-10/B-11 Composite	317245 #001	0.371	0.310	0.262	0.221	ND	0.589	ND	0.852
B-12/B-13 Composite	317245 #002	1.810	0.815	0.883	0.816	ND	2.420	ND	5.150

Notes: pg/g = picograms per gram

FIGURES

PETRA



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Reference: Base map by Masson & Associates, Inc.

PETRA GEOTECHNICAL, INC.
38655 SKY CANYON DRIVE, SUITE A
MURRIETA, CALIFORNIA 92563
PHONE: (951) 600-9271
COSTA MESA MURRIETA PALM DESERT SAN DIEGO SANTA CLARITA

SITE CONFIGURATION MAP

Shadow Run Ranch Project
Tract No. TM 5223 RPL-2 (44 Lots)
Pauma Valley, California

DATE: March 2013	J.N.: 12-174	Figure 2
DWG BY: JC	SCALE: N/A	

N

W E

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Reference: Bing Maps

PETRA GEOTECHNICAL, INC.
38655 SKY CANYON DRIVE, SUITE A
MURRIETA, CALIFORNIA 92563
PHONE: (951) 600-9271
COSTA MESA MURRIETA PALM DESERT SAN DIEGO SANTA CLARITA

SITE LOCATION MAP

Shadow Run Ranch Project
Tract No. TM 5223 RPL-2 (44 Lots)
Pauma Valley, California

DATE: March 2013	J.N.: 12-174	**Figure 1**
DWG BY: JC	SCALE: N/A	

APPENDIX A

HEALTH AND SAFETY COMPLIANCE LOG

PETRA

PREPARED FOR: SHADOW RUN RANCH

SITE LOCATION: 14504 HIGHWAY 76, PAUMA VALLEY, SAN DIEGO COUNTY, CALIFORNIA

SITE HEALTH & SAFETY PLAN
DRILLING AND SOIL SAMPLE ACTIVITIES

J.N. 12-174
JANUARY 22, 2013

PREPARED BY: PETRA GEOTECHNICAL, INC.
ENVIRONMENTAL DIVISION
TEMECULA, CA 92591

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SITE HEALTH AND SAFETY PLAN

Site Assessment
Shadow Run Ranch
14504 Highway 76, Pauma Valley, San Diego County California

1.0 PLAN SUMMARY

This Site Health and Safety Plan (SHSP) establishes responsibilities, requirements, and procedures for the protection of personnel while performing activities at the above-referenced site. This site-specific plan conforms with the Petra Geotechnical, Inc. Health and Safety Plan, Hazard Communication Program, and Injury and Illness Prevention Program (IIPP).

During site work, the use of proper health and safety procedures, in accordance with applicable Cal/OSHA regulations shall be required. Site-specific conditions may necessitate modification of the SHSP; however, except in emergency situations no deviations from the plan may be implemented without the prior notification and approval of the Site Safety Officer (SSO).

2.0 SITE INFORMATION

This SHSP considers the physical, chemical, and environmental hazards that may be encountered during work activities at the site. Operations associated with this SHSP will be conducted in accordance with an approved workplan. Any changes required or made to the planned activities will be immediately communicated to site personnel by the SSO. Summary information for this project is provided in the following table.

Principal Activities	Site Assessment
Site Description (See Attachment A for Site Map)	Shadow Run Ranch
Approximate Depth to Groundwater	55 feet below ground surface
Contaminants of Concern (See Attachment B)	Pesticides and Hydrocarbons

3.0 SITE SAFETY AUTHORITY

Contact information and names of authorized personnel are listed below. A description of responsibilities follows.

Role	Name	Company	Telephone
Site Safety Officer	Levon Holmes	Petra Geotechnical	(760) 855-8704
Project Manager	Jon Cain	Petra Geotechnical	(951) 830-9455
Supervisor/Offsite Coordinator	Siamak Jafroudi	Petra Geotechnical	(714) 920-9266
Local IIPP Coordinator	Linda Becker	Petra Geotechnical	(714) 549-8921
Client Contact	Mark Thompson	TRS Consultants	(619) 299-2525

Site Safety Officer: The SSO is responsible for briefing site personnel on potential physical and chemical hazards prior to work start-up, during operations, and whenever other health and safety matters need to be addressed. The SSO will be in charge of conducting the daily Tailgate Safety Meetings. The SSO will see that this SHSP is available on-site and is understood and signed by personnel entering the site. The SSO is also responsible for implementing emergency response procedures when necessary.

Project Manager: The Project Manager (PM), in coordination with the SSO, is responsible for implementing health and safety requirements, including seeing that the SHSP is prepared and available on-site. The PM is the central point of contact for the SSO, Client, and Field Personnel, and has overall responsibility for site operations.

Field Personnel: Field Personnel are responsible for understanding and complying with this SHSP. Field Personnel include both Petra Geotechnical, Inc. employees and Subcontractors hired by Petra Geotechnical, Inc. Field Personnel are required to participate in briefings prior to commencement of site work; attend daily Tailgate Safety Meetings; and acknowledge receipt and understanding of the SHSP by signing the Compliance Log at the end of this plan.

Supervisor/Offsite Coordinator: The Supervisor/Offsite Coordinator, typically the Petra branch manager, should be contacted when mobilization of support from a Petra office is needed, and in case of an emergency requiring offsite assistance.

4.0 SITE CONTROL

Site control requires the establishment of a regulated area with designated work zones, evacuation protocol, location of medical assistance, site security, and communication guidelines that include a "Buddy System."

4.1 Regulated Area(s)

Each site will have an established Exclusion Zone with controlled access, and a Support Zone. Supervision and strict control of access to regulated areas is necessary to protect site personnel as well as the public.

Exclusion Zone: (*a.k.a. "Hot Zone"*). This is the area where personnel may be subject to chemical or physical hazards. It is the zone of known or suspected contamination, where equipment operation and/or environmental sampling will take place. The Exclusion Zone is to be clearly identified and isolated with cones, barricades, or high visibility caution tape. Personnel working in the Exclusion Zone will, at a minimum, use Level D personal protective equipment as described in **Section 7.0**.

The outer boundary of the Exclusion Zone (*"Hot Line"*) will be established by the SSO, so that sufficient area is available to conduct operations while providing a protective buffer for persons and property outside the zone.

Support Zone: (*a.k.a. "Safe Zone"*) This is the area outside the Exclusion Zone where administrative and other support functions are located. Adverse exposure to contaminants and physical hazards are unlikely in the Support Zone.

4.2 Evacuation Protocol

Evacuation protocol and routes from the site will be established by the SSO, and communicated to Field Personnel during the Tailgate Safety Meeting(s) prior to initiating work. Evacuation protocol will be implemented as needed in emergency situations. In the event of an evacuation, personnel will meet at a pre-established location and the SSO will do a "head count" to see that everyone has left the hazard area.

Emergency Response procedures are outlines in **Section 12.0**. Directions to the nearest medical facilities are provided in **ATTACHMENT C**.

4.3 Site Security

Appropriate security measures will be established in coordination with the site owner/operator and communicated to site personnel. The objective of these measures is to (1) protect the public from potential exposure to physical/chemical hazards; (2) avoid public interference with personnel and safe work practices; and (3) prevent theft or vandalism of equipment at the site.

4.4 Communication

Communication is an important aspect of the site control program as well as the entire SHSP. Personnel should keep in mind that hazard assessment is a continuous process, and any potentially unsafe condition must be reported immediately to the SSO.

On-site personnel will use the "Buddy System" and maintain communication or visual contact between team members during site operations. The Buddy System is used to provide assistance, monitor for chemical exposure and heat stress, and obtain emergency assistance for coworkers when necessary.

Site personnel will be familiar with the following emergency hand signals:

Hand Gripping Throat:	Can't Breath. Respirator Problems.
Grip Team Member's Wrist or Both Hands on Team Member's Waist:	Leave Site Immediately, No Debate!
Thumbs Up:	Yes, I'm All right. I Understand.
Thumbs Down:	No. Negative.

5.0 HAZARD ASSESSMENT

Hazard assessment is essential for establishing hazard reduction measures. Hazard assessment will consist primarily of site inspections and monitoring. Known operational hazards (heavy equipment, overhead lines, etc.) and site characterization data (contaminant location, concentration, etc.) Are also considered in the assessment. The following is a list of potential hazards associated with the activities planned for this site:

Physical Hazards	Heavy Equipment Overhead Lines and Underground Utilities Exploration and Fire Traffic - Vehicular and Pedestrian Tripping, Slipping, and Falling Head, Foot, Eye, and Back Injuries Falling Objects Sharp Objects Electrical Equipment Welding Hazards Excavation and Trenching
Chemical Hazards	Gasoline/Benzene, Toluene, Ethylbenzene, Xylenes (BTEX) Environmental Samples, Soil Cuttings, Decontamination Water, Dust *Nuisance, Silica)
Environmental Hazards	Noise Exposure Weather - Heat, Cold, Rain, Fog Biological - Plants, Animals/Insects, Pathogens
Confined Spaces	Hazardous Atmospheres (Oxygen Content; Flammable, Explosive, or Toxic Gases) Engulfment Potential Restricted Movement; Limited Space for Entry/Exit

Walk-through safety inspections will be conducted by the SSO daily and as conditions change. Inspection results will be communicated to the work crews during the morning Tailgate Safety Meetings and as needed.

6.0 HAZARD REDUCTION

Personnel are required to exercise reasonable caution at all times during work activities. Failure to follow safety protocols and/or continued negligence of health and safety policies will result in expulsion of a crew member from the site and may result in termination of employment. In general, the potential for hazardous situations will be reduced by the following activities:

- ***Implementing Engineering Controls***
- ***Using Personal Protective Equipment***
- ***Performing Air Monitoring***

Engineering Controls, corresponding to the hazard assessment for work at this site, are outlined below in **Sections 6.1 through 6.4**. Personal protective equipment (PPE) and air monitoring guidelines are outlines in **Sections 7.0** and **8.0**, respectively.

6.1 Physical Hazards and Controls

Heavy Equipment

The operation and use of heavy equipment presents the greatest potential for injury to personnel. To minimize these hazards, designated routes and specific traffic patterns will be established. Trucks will use spotters for backing. If personnel need to approach heavy equipment during operation, they will observe the following protocols: make eye contact with the operator, signal the operator to cease heavy equipment activity, and then approach the equipment to inform operator of intentions.

Only equipment that is in safe working order will be used. Only qualified personnel will be allowed to operate heavy equipment. Subcontractors will supply proof of qualifications to operate the equipment.

Those crew members directly involved in spotting for the operator will be the only personnel allowed within the operating radius of the heavy equipment. Other personnel will remain at a safe distance from these operations.

Overhead Lines and Underground Utilities

When operating heavy equipment (such as cranes or drill rigs) near overhead power lines, care will be taken to ensure that the crane boom and rigging maintain a distance of ***at least 10 feet*** from the power lines. A USA utility mark-out is required and will be performed prior to drilling, construction, or excavation to mark/clear underground utilities. In addition, the first 5 feet of soil borings will be excavated using an air-knife or hand auger.

Explosion and Fire

Liquid petroleum products readily vaporize from standing pools or saturated soil. Ignition sources pose an explosion and fire hazard (e.g., engines, impact sparking, and heat or arc from inappropriate equipment or instrumentation). A direct-reading combustible gas indicator (CGI) will be used to evaluate the possible formation of flammable atmospheres in and around the work area. See **Section 8.0: Air Monitoring**.

Emergency services (911) are to be called immediately in case of fire or explosion. A portable fire extinguisher will be kept on-site for use on small fires only. Only personnel trained in the proper use of fire extinguishers are authorized to use the on-site fire extinguisher.

Traffic - Vehicular and Pedestrian

Work to be conducted in the public right-of-way requires an approved traffic control plan and traffic control setup and operation. Project personnel are required to follow state and local traffic laws. Vehicles driven by company personnel will yield to bikes and pedestrians, and at railroad crossings.

Access to work areas will be limited by the SSO to essential personnel. Delineators, barriers, and/or taping will be used to cordon off the work areas, and prevent pedestrian and vehicular traffic from entering the work zones.

Tripping, Slipping, and Falling

Personnel will be reminded daily to maintain sure footing on all surfaces. Use of safety harnesses is required for personnel working ***6 feet or more*** above any surface that does not have handrails (includes riding on manlifts). Work surfaces of unknown or suspect integrity will be strengthened or overlaid with a work platform capable of supporting personnel and equipment working in the area. To minimize tripping hazards caused by construction and other debris, materials will be removed daily from the work areas and stockpiled in appropriate designated storage areas. This "housekeeping" effort will be enforced by the SSO at the end of each day.

Head, Foot, Eye, and Back Injuries

Hard hats, steel toe boots, and safety glasses will be worn during site operations. To avoid back injuries, personnel will be trained in and required to use proper equipment and lifting techniques for manual material handling.

Falling Objects

Equipment and material will be lowered to the ground "slowly" using a grapple and/or skip bucket. Personnel shall not work under this equipment; nor shall personnel other than the operator ride in the equipment.

Sharp Objects

Nails, wires, saws, and cutting equipment pose potential hazards such as cuts and punctures during site work. *Only appropriate work tools are to be used.* Personnel are required to exercise caution, and should wear leather work gloves when handling or operating cutting tools, saws, and other sharp objects. A consistent housekeeping effort at the site will also help to reduce hazards from sharp objects.

Electrical Equipment

In order to prevent accidents caused by electric shock, electrical connections will be inspected on a daily basis. Equipment found to have frayed wiring or loose connections will be shut down and locked-out until a qualified electrician has affected repairs. Electrical equipment will be de-energized and tested before any electrical work is started. Equipment will be properly grounded prior to and during work.

In addition, ground fault circuit interrupters (GFCIs) will be installed whenever possible in each circuit between the power source and tool, unless the presence of a potentially explosive atmosphere precludes this procedure. In the event that generators are used to supply power, they will be equipped with GFCIs.

Welding Hazards

Personnel who perform or observe welding operations are required to use approved welding shields or glasses. This protective equipment will be inspected prior to each use for scratches and pits that could inhibit the ability to shield harmful ultraviolet light. Personnel are required to wear protective clothing to shield their skin from the harmful ultraviolet light produced by welding operations. Personnel working near welding operations that could ignite chemical protective clothing must wear flame-retardant outer apparel (Nomex or equivalent).

Excavation and Trenching

Excavations and/or trenching ***5 feet or more*** in depth will incorporate a system of shoring, sloping of the ground, benching, or other means, as provided in CCR Title 8 Construction Orders, to prevent caving. Excavations/trenching will be inspected daily by a qualified person, and after every rainstorm or other hazard-increasing occurrence. Excavations less than 5 feet deep shall also be inspected for indications of potentially hazardous ground movement.

When employees are working in trenches ***4 feet or more*** in depth, a safe means of access/egress shall be provided and located so that no more than 25 feet of lateral travel is necessary to reach the access/egress point.

No equipment will be allowed and no materials will be piled within ***2 feet*** of the edge of any trench or excavation. Adequate barrier protection shall be provided to keep mobile equipment and personnel from inadvertently falling into a trench or an excavation.

No excavation work shall take place below the level of the base of an adjacent foundation, retaining wall, or other structure until (1) a qualified person has characterized the situation as one that will not create a hazard to workers; or (2) adequate safety measures have been taken for the protection of workers.

Workers shall not be permitted underneath loads handled by excavation or loading equipment. Soil excavation, handling, stockpiling, and backfilling will not be conducted under high-wind conditions. Under these conditions, the work area, excavated material, and unpaved roadways will be watered down until the surface is moist, and maintained in a moist condition to minimize dust.

6.2 Chemical Hazards and Controls

Chemical Characteristics

Hazardous chemicals that may be encountered at this site include diesel and gasoline hydrocarbons. These chemicals are volatile, flammable, and moderately to extremely toxic when inhaled, ingested, or absorbed above certain concentrations. See **ATTACHMENT B** for specific exposure limits and basic toxicology information.

Personnel will use engineering controls and PPE (based on hazard assessment) to prevent chemical exposure.

Sample Collection

Workers who must come in direct contact with known or suspected contaminated soil or groundwater to collect samples are required to wear protective gloves and other PPE, as needed, to reduce the potential for exposure. Safety glasses will be worn to avoid potential splashing of chemicals into the eyes.

Soil Cuttings, Decontamination Water, and Dust

As with sample collection, precautions are to be followed for handling materials such as soil cuttings and cleaning/decontamination water. Exposure and potential inhalation of dust (nuisance, silica) will be minimized by wearing dust masks or other appropriate PPE/respiratory protection.

Disposition of Materials

Excavated soil will be stockpiled and covered, or stored in closed drums or roll-off bins. Purged water will be stored in closed drums or tanks. Drums, tanks, and/or roll-off bins containing soil or water will be labeled in accordance with the hazard communication standard and removed from the site in accordance with client-approved protocol.

Hygiene

Eating, smoking, and drinking is NOT ALLOWED in the work area. Site personnel will wash their hands, arms, and faces thoroughly prior to eating or drinking, and at the end of their shift. Food should never be stored where it may come into contact with, or be contaminated by, petroleum products or other toxic materials.

6.3 Environmental Hazards and Controls

Noise Exposure

Hearing protection (ear plugs or ear muffs) will be worn when project personnel enter high-noise areas. The SSO should see that extra ear plugs are available on-site.

Heat Stress

Heat stress may be caused by the combination of ambient factors such as high air temperature, high relative humidity, and low air movement. This condition can result in heat rash, heat cramps, heat exhaustion, and/or heat stroke. It can impair worker coordination and judgment and directly impact health and safety. Heat stress is more likely when PPE is worn. Personnel are to drink plenty of water and take breaks (in shaded rest areas) as needed to help prevent heat stress. As part of the Buddy System, personnel should watch for signs and symptoms of heat stress in coworkers as well as themselves.

Cold Exposure

To guard against cold injury (frostbite and hypothermia), which is a danger when the temperature and wind-chill factor are low, employees will wear appropriate clothing, have warm shelter readily available, and maintain carefully scheduled work and rest periods.

Biological Hazards

Personnel will assess their surroundings for potential biological hazards, which may be posed by poisonous plants, insects, animals, and indigenous pathogens. Protective clothing and respiratory equipment can help reduce the changes of exposure. Thorough washing of any exposed body parts and equipment will help protect against infection from biological hazards. ***"Universal Precautions"*** (e.g., wearing latex gloves) must be taken any time there is potential for exposure to human blood, such as when an employee renders first aid to a coworker.

6.4 Confined Space Hazards

Confined space entry is NOT ANTICIPATED during the course of these operations. However, if such a situation is encountered, workers are prohibited from entering confined spaces until the company plan dealing with confined spaces has been implemented.

7.0 PERSONAL PROTECTIVE EQUIPMENT

7.1 Level of Protection

Personnel are required to war PPE appropriate for the task and anticipated exposure to known contaminants. Selection of PPE will be based on hazard assessment, task performance, and air monitoring. Based on the history of this site, the initial level of protection will be Level D. At a minimum, Level D PPE will consist of the following:

- Hardhat

To Be Worn At All Times in Work Area

- Boots: Chemical-Resistant, Steel Toe and Shank
  To Be Worn At All Times in Work Area

- Safety Glasses, Splash Goggles, or Hardhat with Face Shield
  When There is Risk of Hazardous Substances (Sampling) or flying Particles (drilling, excavation, etc.) Getting into Eyes

- Ear Plugs/Hearing Protection
  When High-Noise Equipment/Drill Rig is in Operation

- Gloves: Chemical-Resistant
  When Handling Soil Cuttings or Soil/Water Samples

Site personnel also are required to *be prepared* with the followings items:

- Respirators: Half-face, Air-Purifying with Appropriate Cartridges
- Dust Masks
- Tyvek Coveralls and Other Suitable Protective Clothing
- Traffic Safety Vest
- Leather Work Gloves and Back Brace/Lifting Belt

Air monitoring information will dictate when and if a site will be upgraded to Modified Level D (Level D plus respirator).

7.2 Respirator Selection

For operations that require the use of a respirator, the SSO must verify that Field Personnel are medically approved to use respiratory equipment, fit tested, and trained in the proper use of air-purifying respirators. Site personnel are required have their respirator available and ready to use on-site. Only respirators that are NIOSH/MSHA approved are to be used.

Air monitoring will be performed to assess airborne contaminant levels on-site, and to evaluate suitable respiratory protection. Workers will be required to wear half-face, air-purifying respirators with organic vapor cartridges under the following circumstances, as indicated by on-site air monitoring:

- If volatile organic compound (VOC) vapors in the work area continuously exceed the threshold limit value- time-weighted average (TLV-TWA) for gasoline (300 parts per million [ppm]).

- If, at any time, VOC vapors in the work area exceed the threshold limit value-short-term exposure limit (TLV-STEL) for gasoline (500 ppm).

TLV values for gasoline are derived from American Conference of Governmental Industrial Hygienists (ACGIH) standards. Similar precautions will be taken with regard to other toxic chemicals, such as BTEX components. See **ATTACHMENT B** for additional information and regulatory exposure limits.

7.3 Reassessment of PPE

The levels of protection listed above will be upgraded (or downgraded) based on changes in activities, changes in site conditions, measurements of direct-reading instruments (compared to action levels for contaminants), or other findings. Changes in the level of protection require the approval of the SSO.

8.0 AIR MONITORING

Monitoring will be conducted as needed to characterize airborne contaminant levels. The potential hazards associated with the presence of hydrocarbons include (1) personnel exposure to chemicals, and (2) possible formation of flammable atmospheres in and around the work area.

Air sampling will be conducted in accordance with NIOSH, OSHA, or EPA methods. The SSO will check to see that air monitoring equipment brought on-site is properly calibrated prior to operation and recalibrated during the course of the day, as necessary.

8.1 Photoionization Detector

A photoionization detector (PID) will be used for the monitoring to VOC's in the work area in accordance with the requirements outlined in Title 8 CCR 5192. Air monitoring will be conducted in the breathing zone of workers, and the data collected will be used to evaluate suitable respiratory protection against chemicals encountered. Refer to the Respirator Selection guidelines in **Section 7.2** for personal protection measures. Measurements will also be obtained periodically at the top of boreholes or excavation cavities, and during any construction activities in which hydrocarbon-affected soil is encountered; however, only breathing zone measurements will be used to determine whether PPE should be used or discounted.

8.2 Combustible Gas Indicator

A direct-reading, portable CGI that measures VOC concentrations in ppm, or as a percentage of the lower explosive limit (LEL), may be used to monitor airborne concentrations of VOC's and evaluate the possible formation of flammable atmospheres in and around the work area. Data will be used to monitor and evaluate vapor concentrations within or emanating from well bores, excavations, and contaminated soil that is stockpiled, moved, or loaded on or about the site. Measurements will be obtained periodically at the top of boreholes or excavation cavities throughout drilling or excavation operations, and during any construction activities in which hydrocarbon-affected soil is encountered. Periodic measurements also will be taken in areas that may contain an accumulation of combustible vapors.

In the event that CGI readings on the site exceed 10 percent of the LEL, work will be suspended, monitoring will be continued as needed to isolate the area of concern, and the following applicable environmental controls will be implemented:

Vapors from pool petroleum product will be suppressed (if necessary by spraying with foam, appropriate chemical suppressant, or carbon dioxide in gas form or dry ice.

Air movers will be used to ventilate the areas of concentration to below 10 percent LEL.

Contaminated soil will be covered with clean soil and/or sprayed with water or deodorizing chemicals in order to reduce vaporization of VOC's.

9.0 DECONTAMINATION

Due to the expected low levels and types of contaminants at the site, it is anticipated that personnel will not perform routing decontamination procedures when leaving the Exclusion Zone. Project activities will be initially conducted in Level D PPE. When decontamination is necessary, it will consist of the following:

- Removal of contaminated garments in an "inside out" manner at a designated decontamination station located at the step-off location where personnel routinely enter/exit the Exclusion Zone.

- Placement of contaminated garments in designated plastic bags or drums prior to disposal or transfer off-site. Labels in compliance with the hazard communication standard will be affixed to containers of contaminated debris and clothing.

10.0 PERSONNEL TRAINING

Personnel who will perform field activities shall meet the training requirements specified in the OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER) Standard [29 CFR 1910.120 (e)]. Prior to commencement of work, the SSO will discuss the potential physical and chemical hazards associated with site operations, and review safe work practices with personnel. Personnel are required to acknowledge their understanding and willingness to comply with this SHSP before admission to the site by signing the Compliance Log at the end of the SHSP.

Other job-specific training required to perform tasks within this operation will be verified by the SSO. This training may include, but is not limited to, respirator fit testing, safe lifting techniques, confined spaces, hearing conservation, and proper fire fighting procedures.

11.0 MEDICAL PROGRAM

The site medical program has two main components: a baseline medical surveillance program, and emergency medical assistance procedures.

11.1 Baseline Medical Surveillance

Petra Geotechnical, Inc. has established a medical surveillance program to assess, monitor, and help protect the health of employees, in particular, employees who may be exposed to potentially hazardous substances during site work. Personnel will undergo medical examinations as follows:

Initial: Pre-employment/prior to any assignment involving work in a hazardous or potentially hazardous environment. The initial examination is used to establish a baseline picture of health against which future changes can be measured, and to identify any underlying illnesses or conditions that might be aggravated by chemical exposures or job activities.

Periodic: At least once every 12 months to measure changes in health status.

Upon Notification: As soon as possible upon notification by an employee that they have developed signs or symptoms indicating possible overexposure to hazardous substances, or in response to an injury or exposure during an emergency situation.

Exit: At termination of employment.

11.2 Emergency Medical Assistance

An emergency medical assistance network will be established prior to work start-up. The nearest fire department, police, ambulance service, and hospital with an *emergency room* will be identified. See **ATTACHMENT C** for Emergency Services contact information. A vehicle shall be available on-site during work activities to transport injured personnel to the identified emergency medical facilities, if necessary. Company vehicles are to be equipped with a fire extinguisher and first aid kit.

12.0 EMERGENCY RESPONSE PLAN

The SSO will have controlling authority during an emergency. In the SSO's absence, the Alternative SSO will be in charge. See **ATTACHMENT C** for the name, location, and telephone number of emergency response organizations in the vicinity of the project site, and a map to the nearest hospital(s).

12.1 Emergency Procedures

In the event of an accident, injury, or other emergency, remember to:

Stop work and REMAIN CALM.

Move personnel to a safe location (evacuation plan).

Call 911 or notify other emergency facilities.

Address medical emergencies and apply first aid, if necessary.

Contain physical hazards.

(NOTE: Act only if hazard is minimal and you are trained to deal with the situation. Otherwise evacuate and wait for emergency services to arrive.)

Notify off-site supervisor and client, and initiate accident reporting procedures.

12.2 Accident Reporting

In case of an accident, the SSO (or Alternate) will immediately notify the Supervisor/Off-site Coordinator at the nearest Petra office and later provide a report to the PM describing the following:

- A description of the event (including date and time) that required notification of off-site personnel (i.e., medical facilities, fire department, police department) and the basis for that decision.
- Date, time, and names of persons/agencies notified, and their response.
- Details regarding personal injury and property damage, if any.
- Resolution of incident and the corrective action involved.

All incidents and near misses are to be investigated in accordance with Petra's IIPP. The Supervisor's Report of Accident is to be completed and submitted to the Human Resources department within 24 hours following any accident or injury.

SITE HEALTH AND SAFETY PLAN
COMPLIANCE LOG

I have reviewed this Site Health and Safety Plan and understand the contents of the plan. I hereby agree to comply with all safety requirements outlined herein.

Signature: _____ Date: 01/23/2013
Site Safety Officer, Petra Geotechnical, Inc.

Signature: _____ Date: 1/23/2013
Site Safety Officer, Petra Geotechnical, Inc.

Signature: _____ Date: 01/23/2013
Print Name: WALTER CASTILLO Company: SEFS

Signature: _____ Date: 01/23/2013
Print Name: JOSE VASQUEZ Company: SEFS

Signature: _____ Date: 1/23/13
Print Name: Hans Van de Vegt Company: S.W. Geophysics

Signature: _____ Date: 1/23/13
Print Name: Ed Verdugo Company: SW Geophysics

Signature: _____ Date: 1-24-13
Print Name: JOSE VASQUEZ Company: SEFS

Signature: _____ Date: 1-24-13
Print Name: WALTER CASTILLO Company: SEFS

Signature: _____ Date:
Print Name: _____ Company:

Signature: _____ Date:
Print Name: _____ Company:

Signature: _____ Date:
Print Name: _____ Company:

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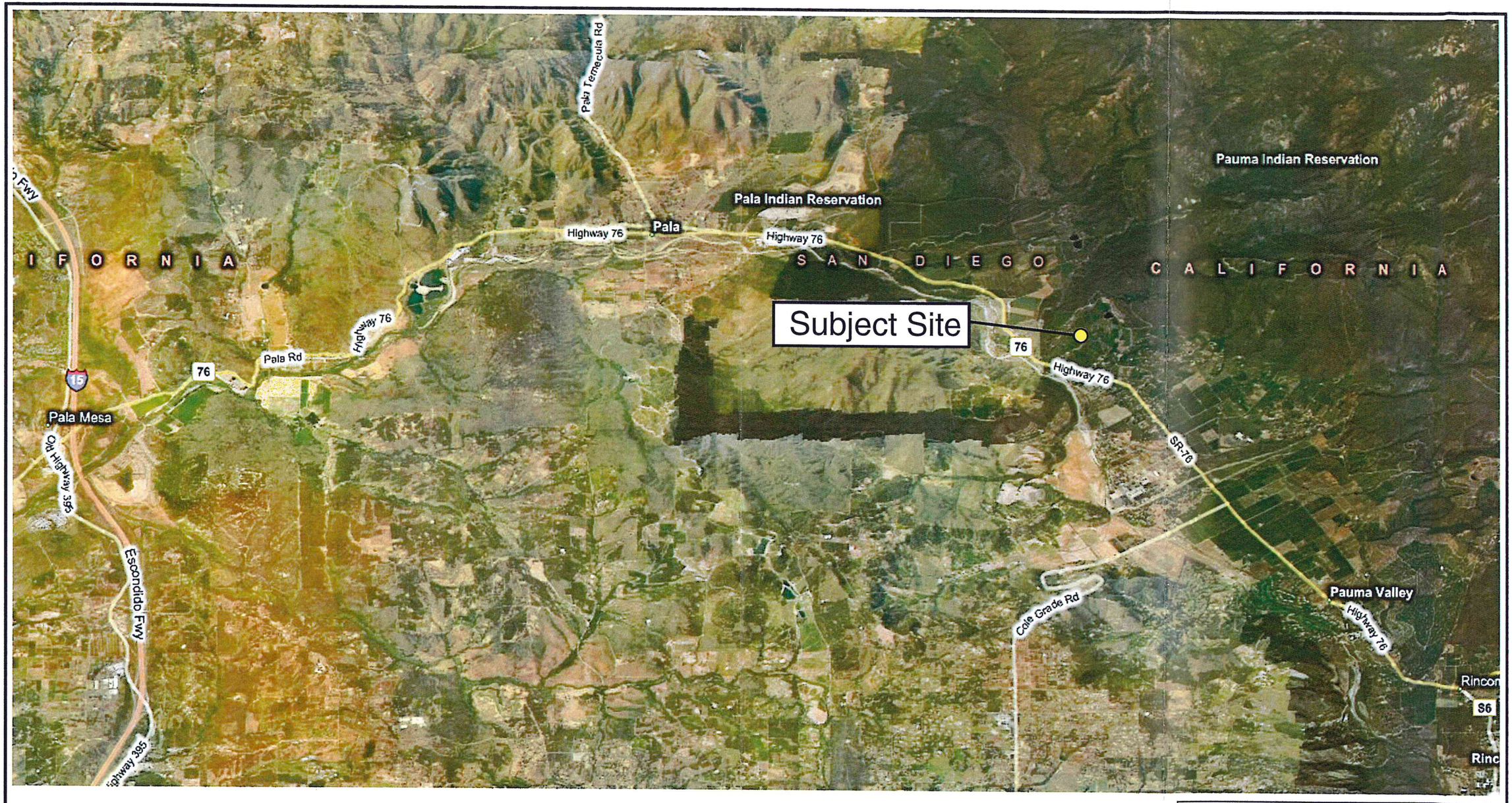
Print Name: _____ Company:

Signature: _____ Date:
Print Name: _____ Company:

ATTACHMENT A

SITE PLAN



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Reference: Bing Maps

PETRA GEOTECHNICAL, INC.
38655 SKY CANYON DRIVE, SUITE A
MURRIETA, CALIFORNIA 92563
PHONE: (951) 600-9271
COSTA MESA MURRIETA PALM DESERT SAN DIEGO SANTA CLARITA

SITE LOCATION MAP

Shadow Run Ranch Project
Tract No. TM 5223 RPL-2 (44 Lots)
Pauma Valley, California

DATE: January 2013	J.N.: 174-12	**Figure 1**
DWG BY: JC	SCALE: N/A	

ATTACHMENT B

OCCUPATIONAL HEALTH GUIDELINES AND TOXICOLOGICAL INFORMATION

Table B-1
OCCUPATIONAL HEALTH GUIDELINES AND TOXICOLOGICAL INFORMATION

Contaminant	ACGIH TLV-TWA (ppm)	NIOSH REL (ppm)	STEL (PPM)	OSHA PEL (ppm)	IDLH (PPM)	Routes of Exposure	Known or Suspected Carcinogen	Symptoms
Gasoline	300	n/a	500	n/a	n/a	Inhalation, Absorption, Ingestion, contact	Yes	Irritation to eyes, skin, mucous membrane; dermatitis, headache, fatigue, blurred vision, dizziness, slurred speech, confusion, convulsions, aspiration
Benzene	10	0.1	1	1	500	Inhalation, Absorption, Ingestion, contact	Yes	Irritation to eyes, skin, nose, resp system, giddiness, headache, nausea, staggered gait, fatigue, anorexia, weakness/exhaustion, dermatitis
Toluene	50	100	150	200	500	Inhalation, Absorption, Ingestion, contact	No	irritation to eyes, nose; fatigue, weakness, confusion, euphoria, dizziness, headache, dilated pupils, tears nervousness, muscle fatigue, insomnia, dermatitis
Ethylbenzene	100	100	125	100	800	Inhalation, Ingestion, contact	No	Irritation to eyes, skin, mucous membranes; headache, dermatitis, narcosis, coma
Xylenes (o,m,p)	100	100	150	100	900	Inhalation, Ingestion, contact	No	Irritation to eyes, skin nose, throat; dizziness, excitement, drowsiness, uncoordination, staggering gait, nausea, vomiting, abdominal pain, dermatitis

Site Health and Safety Plan

TABLE KEY

ACGIH TLV-TWA	American Conference of Governmental Industrial Hygienists, Threshold Limit Value-Time Weighted Average
NIOSH REL	National Institute of Occupational Safety & Health, Recommended Exposure Limit
STEL	Short Term Exposure Limit (Gasoline STEL is by ACGIH; BTEX STEL's are by NIOSH)
OSHA PEL	Occupational Safety and Health Administration, Permissible Exposure Limit
IDLH	Immediately Dangerous to Life and Health
ppm	Parts Per Million
CNS	Central Nervous System
n/a	Not Available (i.e., no value has been established)

DEFINITIONS

Threshold Limit Value: Threshold limit values (TLV's) refer to airborne concentrations of substances and represent conditions under which it is believed nearly all workers may be repeatedly exposed, day after day, without adverse health effects.

Threshold Limit Value - Time Weighted Average: The time weighted average (TWA) is a concentration for a normal 8-hour workday and a 40-hour workweek, to which nearly all workers may be repeatedly exposed, day after day, without adverse effect. TLV-TWA's are established by the ACGIH.

Recommended Exposure Limit: Unless otherwise noted, the recommended exposure limit (REL) is a TWA concentration for up to a 10-hour workday during a 40-hour workweek. REL's are established by NIOSH to reduce or eliminate adverse occupational health effects.

Short Term Exposure Limit: A short term exposure limit (STEL) is defined as a 15-minute TWA exposure that should not be exceeded at any time during a workday. When compared to the REL (or TLV-TWA for ACGIH standards), the STEL allows the worker to be exposed to a higher concentration, BUT for a shorter period of time. Exposures above the REL up to the STEL should not be longer than 15 minutes and should not occur more than four times per day.

Permissible Exposure Limit: permissible exposure limits (PEL's) are TWA concentrations that must not be exceeded during any 8-hour work shift of a 40-hour workweek. PEL's are established by OSHA (29 CFR 1910.1000).

Immediately Dangerous to Life and Health: Immediately dangerous to life and health (IDLH) values are established as concentrations from which a worker can escape within 30 minutes without suffering loss of life, irreversible health effects, or other deleterious effects that could prevent him/her from escaping the hazardous environment. The purpose of establishing an IDLH exposure concentration is to ensure that workers can escape from a given contaminated environment in the event of failure of respiratory protection equipment.

EMERGENCY SERVICES

FACILITY/LOCATION	TELEPHONE
Emergency Situation	**911**
Medical Facility Inland Urgent Care Temecula 31565 Rancho Pueblo Road, Suite 102 Temecula, CA 92592	(951) 297-9537
Start out going West on Highway 76 Turn right onto Pala Temecula Road/CR-S16 Pala Temecula Road becomes Pala Road Pala Road becomes Pechanga Parkway Turn right onto CA-79 S/Temecula Parkway Turn left onto Rancho Puebla Road Turn right to stay on Rancho Puebla Road End at 31565 Rancho Pueblo Road, Temecula, CA	
Poison Control Center California Poison Control System	(800) 876-4766
Office of Emergency Services	(800) 852-7550
USA Dig Alert of Southern California	(800) 227-2600

mapquest

Sorry! When printing directly from the browser your directions or map may not print correctly. For best results, try the **Print** button above the map.

Driving Directions

Save

14504 Ca-76
Pauma Valley, CA 92061

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1.	Start out going **northwest** on **CA-76** toward **Magee Rd.**	3.5 mi
2.	Turn **right** onto **Pala Mission Rd.** *Pala Mission Rd is 0.2 miles past Lilac Rd* *If you reach Joyce Ct you've gone about 0.3 miles too far*	0.5 mi
3.	Turn **right** onto **Pala Temecula Rd/CR-S16**. Continue to follow **Pala Temecula Rd.** *Pala Temecula Rd is just past 2nd St* *If you reach 5th St you've gone a little too far*	5.0 mi
4.	**Pala Temecula Rd** becomes **Pala Rd.**	1.4 mi
5.	**Pala Rd** becomes **Pechanga Pky.**	2.7 mi
6.	Turn **right** onto **CA-79 S/Temecula Pky.** *CA-79 S is just past Cupeno Ln* *If you are on CA-79 N and reach Wabash Ln you've gone about 0.2 miles too far*	1.0 mi
7.	Turn **left** onto **Rancho Puebla Rd.** *Rancho Puebla Rd is 0.2 miles past Kevin Pl* *Redbox is on the corner* *If you reach Country Glen Way you've gone about 0.3 miles too far*	0.09 mi
8.	Turn **right** to stay on **Rancho Puebla Rd.**	0.1 mi
9.	**31565 RANCHO PUEBLO RD.** *If you reach CA-79 N you've gone about 0.1 miles too far*	

I know the area, hide the last few steps

31565 Rancho Pueblo Rd
Temecula, CA 92592-4838

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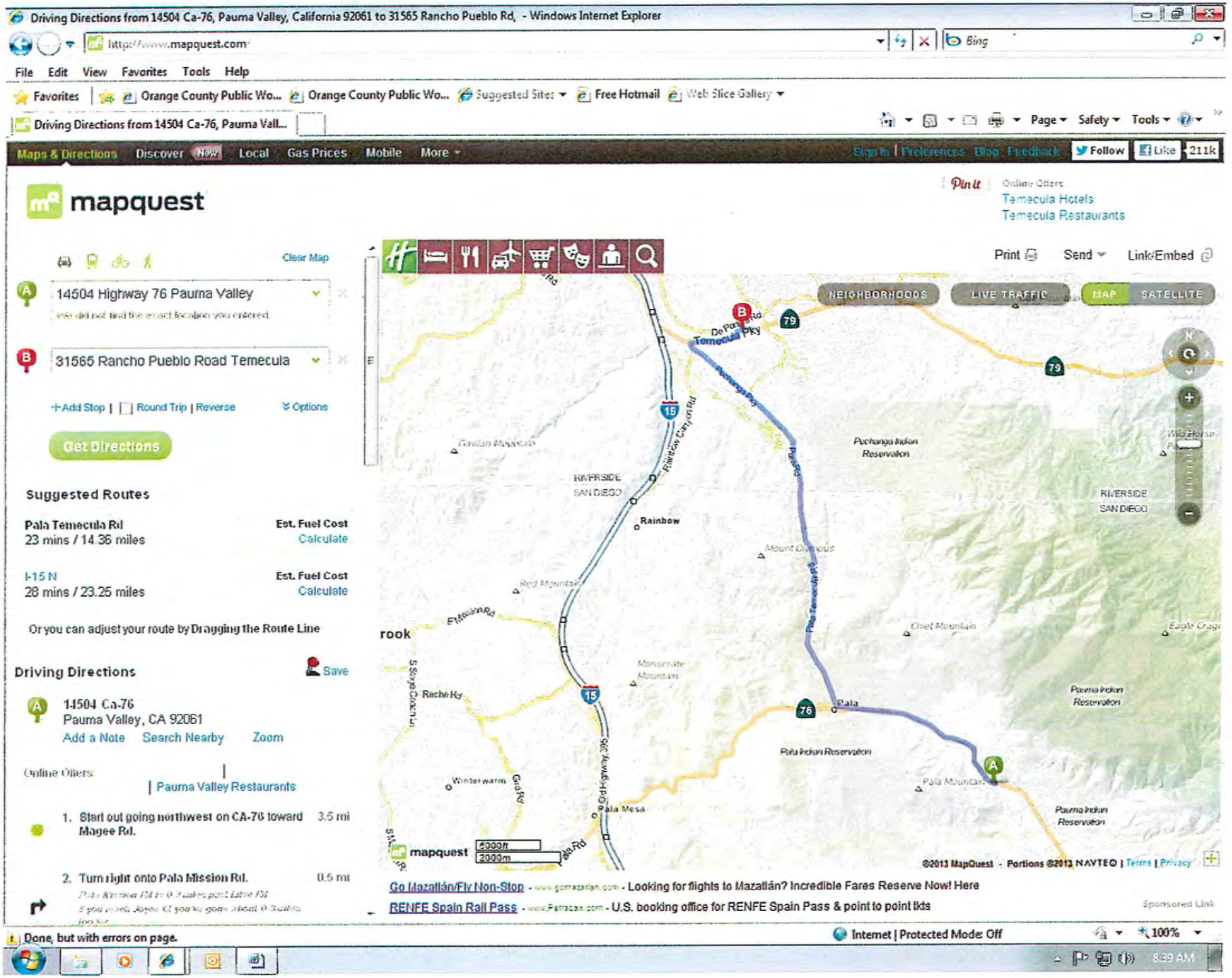
mapquest local

View Guide


Driving Directions from 14504 Ca-76, Pauma Valley, California 92061 to 31565 Rancho Pueblo Rd, - Windows Internet Explorer
http://www.mapquest.com/
File Edit View Favorites Tools Help
Maps & Directions Discover New Local Gas Prices Mobile More
Sign In | Preferences Blog Feedback Follow Like 211k
mapquest
Pin it
Online Offers
Temecula Hotels
Temecula Restaurants
Print Send Link/Embed
Clear Map
14504 Highway 76 Pauma Valley
31565 Rancho Pueblo Road Temecula
+Add Stop | Round Trip | Reverse
Options
Get Directions
Suggested Routes
Pala Temecula Rd
23 mins / 14.36 miles
Est. Fuel Cost
Calculate
I-15 N
28 mins / 23.25 miles
Est. Fuel Cost
Calculate
Or you can adjust your route by Dragging the Route Line
Driving Directions
Save
14504 Ca-76
Pauma Valley, CA 92061
Add a Note Search Nearby Zoom
Online Offers
Pauma Valley Restaurants
1. Start out going northwest on CA-76 toward Magee Rd. 3.5 mi
2. Turn right onto Pala Mission Rd. 0.5 mi
NEIGHBORHOODS LIVE TRAFFIC MAP SATELLITE
Pechanga Indian Reservation
RIVERSIDE
SAN DIEGO
Rainbow
Mount Olympus
Red Mountain
Chief Mountain
Monserate Mountain
Pala
Pala Indian Reservation
Pauma Indian Reservation
Pala Mesa
Winterwarm
Rancho Rd
mapquest
5000ft
2000m
©2013 MapQuest - Portions ©2012 NAVTEQ | Terms | Privacy
Go Mazatlán/Fly Non-Stop - Looking for flights to Mazatlán? Incredible Fares Reserve Now! Here
RENFE Spain Rail Pass - U.S. booking office for RENFE Spain Pass & point to point tkts
Sponsored Link
Done, but with errors on page.
Internet | Protected Mode: Off
100%
8:59 AM

TAILGATE SAFETY MEETING CHECKLIST

Topics Covered
(Check off as discussed)

___ **Personnel Training/Qualifications:** Check cards for OSHA HAZWOPER 40-hour certification/8-hour-refresher training (other if appropriate).

___ **Supplies:** Indicate location of first aid kit, fire extinguisher, clean water supply (drinking, eye wash), and Site Health and Safety Plan (SHSP).

___ **Emergency Services:** Discuss location of nearest telephone and directions to hospital. Map, directions, phone numbers provided at end of SHSP (Attachment C).

___ **Site Background:** Discuss types, locations, and concentrations of chemicals found on-site, presence of free product, depth to groundwater, etc.

___ **Work Activities:** Discuss scope of work for the day and activities to be performed.

___ **Potential Hazards:** Discuss physical hazards (lifting, pinch points, traffic, working around machinery, etc.); chemical hazards (exposure limits, symptoms, air monitoring); and environmental hazards (heat stress, etc.).

___ **Air Monitoring:** Necessary equipment is on-site and calibrated. Circle: CGI PID

___ **Personal Protective Equipment (PPE):** Discuss required level of protection. See that workers have appropriate PPE on-site; includes, but is not limited to, hardhat, steel-toe boots, safety glasses, ear plugs/hearing protection, respirator (with cartridges), gloves, traffic safety vest (other _____).

___ **Utilities:** Utilities have been cleared/marked by appropriate divisions.

___ **Traffic Control** (Vehicular and Pedestrian): Work area is properly delineated and cordoned off from traffic.

___ **Compliance Log:** SHSP has been reviewed and signed by site personnel.

APPENDIX B

LABORATORY REPORTS

PETRA

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

Date: January 31, 2013

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

Project: **Shadow Run Ranch 174-12**
Lab I.D.: **130124-23 through -50**

Dear Mr. Cain:

The **analytical results** for the soil samples, received by our lab on January 24, 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: **Shadow Run Ranch 174-12**
MATRIX: SOIL
DATE SAMPLED: 01/23/13
REPORT TO: MR. JON CAIN

DATE RECEIVED: 01/24/13
DATE EXTRACTED: 01/25/13
DATE ANALYZED: 01/28/13
DATE REPORTED: 01/31/13

C11-C22 HYDROCARBONS
METHOD: EPA 8015B
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	C11-C22 RESULT	DF
HA-38@0.5'	130124-48	ND	1
Method Blank		ND	1
	PQL	10	

COMMENTS
C11-C22 = DIESEL RANGE
PQL = PRACTICAL QUANTITATION LIMIT
DF = DILUTION FACTOR
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

8015B QA/QC Report

Date Analyzed: 1/28/2013 **Units:** mg/Kg (ppm)

Matrix: **Soil/Solid/Sludge**

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

Spiked Sample Lab I.D.: **130124-175 MS/MSD**

Analyte	SR	spk conc	MS	%MS	MSD	%MSD	%RPD	ACP %MS	ACP RPD
C11~C22 Range	0	2000	2150	**108%**	2090	**105%**	**3%**	**75-125**	**0-20%**

LCS STD RECOVERY:

Analyte	spk conc	LCS	% REC	ACP
C11~C22 Range	200	204	**102%**	**75-125**

Analyzed and Reviewed By: B

Final Reviewer: a

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: **Shadow Run Ranch 174-12**
MATRIX: SOIL
DATE SAMPLED: 01/23/13
REPORT TO: MR. JON CAIN

DATE RECEIVED: 01/24/13
DATE EXTRACTED: 01/25/13
DATE ANALYZED: 01/25/13
DATE REPORTED: 01/31/13

PCBs ANALYSIS
METHOD: EPA 8082
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260	TOTAL PCBs*	DF
HA-71@0.5'	130124-24	ND	ND	ND	ND	ND	ND	ND	ND	1
HA-72@0.5'	130124-43	ND	ND	ND	ND	ND	ND	ND	ND	1
Method Blank		ND	ND	ND	ND	ND	ND	ND	ND	1
	PQL	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = DF X PQL
ND = Non-Detected Or Below the Actual Detection Limit
* = Sum of the PCB 1016, 1221, 1232, 1242, 1248, 1254 and 1260
*** = The concentration exceeds the TTLC Limit of 50, 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

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

QA/QC Report

Analysis: EPA 8082 (PCB)

Matrix: **Soil/Solid/Liquid/Sludge** Date Analyzed: **1/25/2013**

Unit: mg/Kg (PPM)

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

Spiked Sample Lab I.D.: 130124-24 MS/MSD

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP % RPD	ACP %REC
PCB (1016+1260)	0.00	1.00	1.25	**125%**	1.19	**119%**	**5%**	**0-20%**	**70-130**

LCS STD RECOVERY:

Analyte	spk conc	LCS	% REC	ACP %REC
PCB (1016+1260)	0.100	0.111	**111%**	**75-125**

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: _____

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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/24/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/25/13
DATE REPORTED:01/31/13

SAMPLE I.D.: **HA-4/3@0.5'(COMPOSITE)**
LAB I.D.: 130124-27/-30(COMPOSITE)

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
Methoxyclor	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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/24/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/25/13
DATE REPORTED:01/31/13

SAMPLE I.D.: **HA-6/5@0.5'(COMPOSITE)**
LAB I.D.: 130124-33/-36(COMPOSITE)

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
Methoxyclor	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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/24/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/25/13
DATE REPORTED:01/31/13

SAMPLE I.D.: **HA-7/8@0.5'(COMPOSITE)**
LAB I.D.: 130124-39/-40(COMPOSITE)

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
Methoxyclor	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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/24/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/25/13
DATE REPORTED:01/31/13

SAMPLE I.D.: **HA-17@0.5'**
LAB I.D.: 130124-44

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
Methoxyclor	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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/24/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/25/13
DATE REPORTED:01/31/13

METHOD BLANK FOR LAB I.D.:
130124-27,-30(COMPOSITE), 130124-33,-36(COMPOSITE),
130124-39,-40(COMPOSITE), 130124-44

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
Methoxyclor	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** Date Analyzed: **1/25/2013**

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

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

Spiked Sample Lab I.D.: 130124-44 MS/MSD

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0.000	0.0500	0.0513	**103%**	0.0514	**103%**	**0%**	**0-20%**	**70-130**
Aldrin	0.000	0.0500	0.0577	**115%**	0.0569	**114%**	**1%**	**0-20%**	**70-130**
4,4-DDE	0.000	0.0500	0.0582	**116%**	0.0567	**113%**	**3%**	**0-20%**	**70-130**

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.00500	0.00521	**104%**	**75-125**
Aldrin	0.00500	0.00585	**117%**	**75-125**
4,4-DDE	0.00500	0.00548	**110%**	**75-125**
Dieldrin	0.00500	0.00577	**115%**	**75-125**

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		MB	130124-27/30	130124-33/36	130124-39/40	130124-44	130124-51~59	130124-53~56
Tetra-chloro-meta-xylene	50-150	111%	105%	106%	104%	103%	104%	102%
Decachlorobiphenyl	50-150	141%	132%	150%	150%	137%	138%	148%

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		130124-66	130124-102	130124-120	130124-134	130124-138	130124-141	130124-144
Tetra-chloro-meta-xylene	50-150	103%	100%	102%	104%	93%	105%	106%
Decachlorobiphenyl	50-150	138%	148%	141%	143%	937*%	148%	128%

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		130124-159	130124-166~168					
Tetra-chloro-meta-xylene	50-150	102%	109%					
Decachlorobiphenyl	50-150	145%	149%					

S.R. = Sample Result

spk conc = Spike Concentration

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

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

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

Analyzed and Reviewed By: _____

Final Reviewer: _____

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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/24/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/28/13
DATE REPORTED:01/31/13

SAMPLE I.D.: **HA-4/3@0.5'(COMPOSITE)**
LAB I.D.: 130124-27/-30(COMPOSITE)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Azinphos Methyl	ND	0.05	1
Bolstar (Sulprofos)	ND	0.05	1
Chlorpyrifos	ND	0.05	1
Coumaphos	ND	0.05	1
Demeton-O	ND	0.05	1
Demeton-S	ND	0.05	1
Diazinon	ND	0.05	1
Dichlorvos	ND	0.05	1
Disulfoton	ND	0.05	1
Ethoprop	ND	0.05	1
Fensulfothion	ND	0.05	1
Fenthion	ND	0.05	1
Merphos	ND	0.05	1
Methyl Parathion	ND	0.05	1
Mevinphos	ND	0.10	1
Naled	ND	0.10	1
Phorate	ND	0.05	1
Ronnel	ND	0.05	1
Tetrachlorvinphos (Stirophos)	ND	0.05	1
Tokuthion (Prothiofos)	ND	0.05	1
Trichloronate	ND	0.05	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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/24/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/28/13
DATE REPORTED:01/31/13

METHOD BLANK FOR LAB I.D.: 130124-27,-30(COMPOSITE)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Azinphos Methyl	ND	0.05	1
Bolstar (Sulprofos)	ND	0.05	1
Chlorpyrifos	ND	0.05	1
Coumaphos	ND	0.05	1
Demeton-O	ND	0.05	1
Demeton-S	ND	0.05	1
Diazinon	ND	0.05	1
Dichlorvos	ND	0.05	1
Disulfoton	ND	0.05	1
Ethoprop	ND	0.05	1
Fensulfothion	ND	0.05	1
Fenthion	ND	0.05	1
Merphos	ND	0.05	1
Methyl Parathion	ND	0.05	1
Mevinphos	ND	0.10	1
Naled	ND	0.10	1
Phorate	ND	0.05	1
Ronnel	ND	0.05	1
Tetrachlorvinphos (Stirophos)	ND	0.05	1
Tokuthion (Prothiofos)	ND	0.05	1
Trichloronate	ND	0.05	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 8141A QA/QC Report

Matrix: **Solid/Soil/Sludge** Date Analyzed: **1/28/2013**

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

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

Spiked Sample Lab I.D.: **130124-27/30 MS/MSD**

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Bolstar	0.00	2.50	3.13	**125%**	2.99	**120%**	**5%**	**0-30%**	**40-140**
Ethoprop	0.00	2.50	3.10	**124%**	3.37	**135%**	**8%**	**0-30%**	**40-140**
Ronnel	0.00	2.50	3.10	**124%**	2.74	**110%**	**12%**	**0-30%**	**40-140**
Phorate	0.00	2.50	2.67	**107%**	2.57	**103%**	**4%**	**0-30%**	**40-140**

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Bolstar	0.250	0.292	**117%**	**40-140**
Ethoprop	0.250	0.334	**134%**	**40-140**
Ronnel	0.250	0.330	**132%**	**40-140**
Phorate	0.250	0.287	**115%**	**40-140**

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		M-BLK	130124-27/30	130124-166~168				
Tributyl Phosphate	40-140	126%	135%	136%				
Triphenyl Phosphate	40-140	132%	137%	127%				

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.								
Tributyl Phosphate								
Triphenyl Phosphate								

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.						
Tributyl Phosphate						
Triphenyl Phosphate						

S.R. = Sample Result

spk conc = Spike Concentration

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

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

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

Analyzed and Reviewed By: _____

Final Reviewer: _____

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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN
DATE RECEIVED:01/24/13
DATE EXTRACTED:01/29-30/13
DATE ANALYZED:01/30/13
DATE REPORTED:01/31/13

SAMPLE I.D.: **HA-6/5@0.5'(COMPOSITE)**
LAB I.D.: 130124-33/-36(COMPOSITE)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
2,4,5-T	ND	0.020	1
2,4,5-TP (Silvex)	ND	0.020	1
2,4-D	ND	0.200	1
2,4-DB	ND	0.200	1
Dalapon (Dichloroacetic Acid)	ND	0.500	1
Dicamba	ND	0.020	1
Dichloroprop	ND	0.200	1
Dinoseb (DNBP)	ND	0.100	1
MCPA	ND	20.0	1
MCPP	ND	20.0	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

QA/QC Report
Analysis: EPA 8151A

Matrix: **Soil/Solid/Liquid** Date Analyzed: **1/30/2013**

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

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

Spiked Sample Lab I.D.: 130124-33/36 MS/MSD

Analyte	S.R.	spk conc	MS	% REC	MSD	% REC	%RPD	ACP %RPD	ACP %REC
2,4,5-T	0	0.500	0.504	**101%**	0.516	**103%**	**2%**	**0-20%**	**50-150**

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
2,4,5-T	0.0500	0.0438	88%	**70-130**
2,4,5-TP	0.0500	0.0418	84%	**70-130**
DINOSEB	0.250	0.209	84%	**70-130**

Surrogate Recovery:

Analyte	ACP %	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample ID:		M-BLK	130124-33/36	130124-169~171	130124-172~174				
DCAA	50-150	134%	88%	140%	106%				

Analyte	ACP %	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample ID:									
DCAA	50-150								

Analyte	ACP %	%REC	%REC	%REC	%REC	%REC			
Sample ID:									
DCAA	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

Analyzed and Reviewed By: _____

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

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	OCP 8081A	OPP 8141A	Chlorinated Herb 8151A	Dioxins 8290	Metals 6010B/7471A	STLC/TTLC	BTEX/MTBE 8260B	PCBs 8082	PAHs 8310	COMMENTS
HA-70 @.5'	13014-23	01/23/13	8:45	Soil	1		NONE										Hold
~~HA-70@1.5'~~	~~do~~																Rock No sample
~~HA-70@3.0~~	~~do~~																Rock No sample
HA-71@.5'	-24	01/23/13	8:58												X		Pole Mounted Trans
HA-71@1.5'	-25		9:00												Hold		Hold " "
HA-71@3.0'	-26		9:04												Hold		Hold Pole Mounted Trans
HA-4@.5'	-27	01/23/13	9:12	Soil				X	X								Composite HA-4@.5' w/ HA-3@.5'
HA-4@1.5'	-28		9:13														Hold
HA-4@3.0'	-29		9:16														Hold
HA-3@.5'	-30		9:21					X	X								Composite HA-3@.5' w/ HA-4@.5'
HA-3@1.5'	-31		9:23														Hold
HA-3@3.0'	-32		9:27														Hold
HA-6@.5'	-33		9:34					X		X							Composite HA-6@.5' w/ HA-5@.5'
HA-6@1.5'	-34		9:43														Hold
HA-6@3.0'	-35		9:49														Hold

Company Name: Petra Geotechnical Inc.
Address: 40880 County Center Dr.
City/State/Zip: Temecula, CA 92591

Project Contact: Jon Cain
Tel: 1-951-600 9271
Fax: 1-951-719-1499

Sampler's Signature:
Project Name/ID: 12-174

Relinquished by:	01-23-13 2:13	Received by:	Date & Time:
Relinquished by:		Received by:	Date & Time: 1/24/13 1230
Relinquished by:		Received by:	Date & Time:

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

CHAIN OF CUSTODY RECORD

Date: _____

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
X 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required: OCP 8081A	OPP 8141A	chlorinated Herb 8151A	Dioxins 8290	Metals 6010B/7471A	TPHd 8015	BTEX/MTBE 8260B	PCBs 8082	PAHs 8310	COMMENTS
HA-5@.5'	130174-36	01/23/13	9:58	Soil	1		NONE	X		X							Composite HA-5@.5' HA-6@.5'
HA-5@1.5'	-37		10:02		1												Hold
HA-5@3.0'	-38		10:04		1												Hold
HA-7@.5'	-39		10:12		1			X									Composite HA-7@.5' HA-8@.5'
~~HA-7@1.5'~~																	Rock No Sample
~~HA-7@3.0'~~																	Rock No Sample
HA-8@.5'	-40	01/23/13	10:42	~~Soil~~	1		NONE	X									Composite HA-8@.5' HA-7@.5'
HA-8@1.5'	-41		10:47	Soil	1												Hold
HA-8@3.0'	-42		11:00		1												Hold
HA-7@.5	-43	01/23/13	11:32		1										X		PCB's
HA-1~~7~~@.5	-44		11:39		1			X									
HA-1~~7~~@1.5	-45		11:42		1												Hold
HA-1~~7~~@3.0	-46		11:47		1												Hold
HA-7@.5	-47		12:44		1											Hold	55gal barrel smug pot bottom

Company Name: Petra Geotechnical Inc.
Address: 40880 County Center Dr.
City/State/Zip: Temecula, CA 92591

Project Contact: Jon Cain
Tel: 1-951-600-9271
Fax: 1-951-719-1499

Sampler's Signature:
Project Name/ID: 12-174

Relinquished by:	01-23-13 2:13	Received by: 01-23-13 2:14
Relinquished by:		Received by:
Relinquished by:		Received by:

Date & Time:
Date & Time: 1/24/13 1230
Date & Time:

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

CHAIN OF CUSTODY RECORD

Date: _____

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
X 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	CAM 8081A	CAM 8141A	Chlorinated Herb 8151A	Dioxins 8290	Metals 6010B/7471A	VOCs 8260B	BTEX/MTBE 8260B	PCBs 8082	PAHs 8310	COMMENTS
HA-38@.5	13014-48	01-23-13	1:09	Soil	1		NONE					X					Windrill #5
HA-38@1.5	-49	"	1:11	"	"		"										Hold
HA-38@3.0	-50	"	1:13	"	"		"										Hold

Company Name: Petra Geotechnical Inc.
Address: 40880 County Center Dr.
City/State/Zip: Temecula CA 92591

Project Contact: Jon Cain
Tel: 1-951-600-9271
Fax: 1-951-719-1499

Sampler's Signature:
Project Name/ID: 12-174

Relinquished by:	01-23-13 2:13	Received by:	01-23-13 2:14
Relinquished by:		Received by:	Date & Time: 1/24/13 1230
Relinquished by:		Received by:	Date & Time:

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

CHAIN OF CUSTODY RECORD

Date: _____

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: January 31, 2013

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

Project: **Shadow Run Ranch 174-12**
Lab I.D.: **130124-51 through -65**

Dear Mr. Cain:

The **analytical results** for the soil and water samples, received by our lab on January 24, 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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/24/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/25/13
DATE REPORTED:01/31/13

SAMPLE I.D.: **HA-20/31@0.5'(COMPOSITE)**
LAB I.D.: 130124-51,-59(COMPOSITE)

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
Methoxyclor	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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/24/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/25/13
DATE REPORTED:01/31/13

SAMPLE I.D.: **HA-19/15@0.5'(COMPOSITE)**
LAB I.D.: 130124-53,-56(COMPOSITE)

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
Methoxyclor	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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/24/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/25/13
DATE REPORTED:01/31/13

METHOD BLANK FOR LAB I.D.:
130124-51,-59(COMPOSITE), -130124-53,-56(COMPOSITE)

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
Methoxyclor	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** Date Analyzed: **1/25/2013**

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

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

Spiked Sample Lab I.D.: 130124-44 MS/MSD

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0.000	0.0500	0.0513	**103%**	0.0514	**103%**	**0%**	**0-20%**	**70-130**
Aldrin	0.000	0.0500	0.0577	**115%**	0.0569	**114%**	**1%**	**0-20%**	**70-130**
4,4-DDE	0.000	0.0500	0.0582	**116%**	0.0567	**113%**	**3%**	**0-20%**	**70-130**

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.00500	0.00521	**104%**	**75-125**
Aldrin	0.00500	0.00585	**117%**	**75-125**
4,4-DDE	0.00500	0.00548	**110%**	**75-125**
Dieldrin	0.00500	0.00577	**115%**	**75-125**

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		MB	130124-27/30	130124-33/36	130124-39/40	130124-44	130124-51/59	130124-53/56
Tetra-chloro-meta-xylene	50-150	111%	105%	106%	104%	103%	104%	102%
Decachlorobiphenyl	50-150	141%	132%	150%	150%	137%	138%	148%

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		130124-66	130124-102	130124-120	130124-134	130124-138	130124-141	130124-144
Tetra-chloro-meta-xylene	50-150	103%	100%	102%	104%	93%	105%	106%
Decachlorobiphenyl	50-150	138%	148%	141%	143%	937*%	148%	128%

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		130124-159	130124-166~168					
Tetra-chloro-meta-xylene	50-150	102%	109%					
Decachlorobiphenyl	50-150	145%	149%					

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: B

Final Reviewer: e

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: **Shadow Run Ranch 174-12**
MATRIX:WATER
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/24/13
DATE EXTRACTED:01/24/13
DATE ANALYZED:01/30/13
DATE REPORTED:01/31/13

SAMPLE I.D.: **Rinsate**
LAB I.D.: 130124-65

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
Methoxyclor	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: **Shadow Run Ranch 174-12**
MATRIX:WATER
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/24/13
DATE EXTRACTED:01/24/13
DATE ANALYZED:01/30/13
DATE REPORTED:01/31/13

METHOD BLANK FOR LAB I.D.: 130124-65

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
Methoxyclor	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: 1/30/2013
Unit: ug/L

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)
Spiked Sample Lab I.D.: 130130-LCS1/LCS2

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0	5.00	5.03	**101%**	5.07	**101%**	**1%**	**0-20%**	**70-130**
Aldrin	0	5.00	6.00	**120%**	5.76	**115%**	**4%**	**0-20%**	**70-130**
4,4-DDE	0	5.00	5.71	**114%**	5.59	**112%**	**2%**	**0-20%**	**70-130**

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.500	0.503	**101%**	**75-125**
Aldrin	0.500	0.575	**115%**	**75-125**
4,4-DDE	0.500	0.589	**118%**	**75-125**
Dieldrin	0.500	0.572	**114%**	**75-125**

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		M-BLK	130124-21	130124-203	130125-63	130124-65	130129-11	130129-12
Tetra-chloro-meta-xylene	50-150	106%	66%	104%	116%	119%	106%	125%
Decachlorobipneyl	50-150	123%	116%	143%	148%	137%	131%	141%

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

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

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

Analyzed and Reviewed By: EB

Final Reviewer: C

* = Surrogate fail due to matrix interference

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

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: OCP 8081A	OPP	Pesticides	COMMENTS
HA-20@.5'	13014-51	01-23-13	2:54	soil	1		NONE	X			composite HA-20@.5' HA-31@.5'
HA-20@1.5'	-52		2:56								Hold
~~HA-20@3.0'~~											Rock NO Sample
HA-19@.5'	-53	01-23-13	3:13	soil				X			composite HA19@.5' w/ HA-15@.5'
HA-19@1.5'	-54	01-23-13	3:16								Hold
HA-19@3.0'	-55	01-23-13	3:18								Hold
HA-15@.5'	-56		3:36					X			composite HA-19@.5' w/ HA-15@.5'
HA-15@1.5'	-57		3:45								Hold
HA-15@3.0'	-58		3:47								Hold
HA-31@.5'	-59	01-23-13	4:00	soil			NONE	X			composite HA-20@.5' w/ HA-31@.5'
HA-31@1.5'	-60	01-23-13	4:03								Hold
HA-31@3.0'	-61		4:06								Hold
HA-39@.5'	-62	01-23-13	4:36								
HA-39@1.5'	-63										NO Sample
HA-39@3.0'	-64										NO Sample

Company Name: Petra Geotechnical Inc.
Address: 40880 County Center Dr.
City/State/Zip: Temecula, CA 92591

Project Contact: Jon Cain
Tel: 1-951-600-9271
Fax:

Sampler's Signature:
Project Name/ID: 12-174

Relinquished by: 01-23-13 5:10
Relinquished by:
Relinquished by:

Received by:
Received by: 1-24-13 8:20
Received by:

1-23-13 Date & Time: 5:10
Date & Time:
1/24/13 Date & Time: 1230

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

CHAIN OF CUSTODY RECORD

Date:

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
X 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required: OCP EPA 8081A	Misc.	COMMENTS
RINSATE	130124-65	01-23-13	14:59	water	1		NONE	X		

Company Name: Petra Geotech
Address: 40880 County Center Dr.
City/State/Zip: Temecula, CA 92591

Project Contact: Jon Cain
Tel: 951-600-9271
Fax:

Sampler's Signature:
Project Name/ID: 12-174

Relinquished by:	01-23-13 5:10	Received by: Jonathan Cain
Relinquished by: Jonathan Cain		Received by: 1-24-13 8:20
Relinquished by:		Received by:

Date & Time: 1-23-13 5:10
Date & Time:
Date & Time: 1/24/13 1230

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

CHAIN OF CUSTODY RECORD

Date:

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: January 30, 2013

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

Project: **Shadow Run Ranch 174-12**
Lab I.D.: **130124-66 through -101**

Dear Mr. Cain:

The **analytical results** for the soil samples, received by our lab on January 24, 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

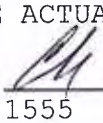
CUSTOMER: Petra Geotechnical Inc.
38655 Sky Canyon Drive
Murrieta, CA 92563
Tel(951)600-9271 Fax(951)600-9215

PROJECT: Shadow Run Ranch 174-12
MATRIX: SOIL
DATE SAMPLED: 01/23/13
REPORT TO: MR. JON CAIN
DATE RECEIVED: 01/24/13
DATE ANALYZED: 01/25/13
DATE REPORTED: 01/30/13

C4-C10 HYDROCARBONS
METHOD: EPA 5030B/8015B
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	C4-C10 RESULT	DF
B-47@0.5'	130124-69	ND	1
B-56@0.5'	130124-72	0.272	1
B-59@0.5'	130124-75	ND	1
B-60@0.5'	130124-78	0.207	1
B-58@0.5'	130124-81	ND	1
B-57@0.5'	130124-84	ND	1
B-51@0.5'	130124-87	ND	1
B-49@0.5'	130124-90	0.113	1
B-48@0.5'	130124-93	0.158	1
Method Blank	---	ND	1
	PQL	0.1	

COMMENTS
C4-C10 = GASOLINE RANGE
PQL = PRACTICAL QUANTITATION LIMIT
DF = DILUTION FACTOR
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

Gas(8015B) QC

Date Analyzed: 1/25/2013 **Units:** mg/Kg (PPM)

Matrix: Solid/Soil

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

Spiked Sample Lab I.D.: **130124-170 MS/MSD**

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %REC	ACP %RPD
Gasoline Range	0.00	0.500	0.549	110%	0.561	112%	2%	**75-125**	**<20%**

LCS STD RECOVERY:

Analyte	spk conc	LCS	% REC	ACP
Gasoline Range	0.500	0.533	107%	**75-125**

Surrogate Recovery	ACP %REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		MB	130124-69	130124-72	130124-75	130124-78	130124-81	130124-84	130124-87
BFB	70-130	95%	93%	84%	97%	80%	88%	88%	88%

Surrogate Recovery	ACP %REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		130124-90	130124-93	130124-170	130124-171	130124-173			
BFB	70-130	85%	84%	100%	153*%	116%			

Surrogate Recovery	ACP %REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.						
BFB	70-130					

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

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

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: _____

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: Shadow Run Ranch 174-12
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/24/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/28/13
DATE REPORTED:01/30/13

C11-C22 HYDROCARBONS; PAGE 1 OF 2
METHOD: EPA 8015B
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	C11-C22 RESULT	DF
B-47@0.5'	130124-69	ND	1
B-56@0.5'	130124-72	ND	10^
B-59@0.5'	130124-75	ND	10^
B-60@0.5'	130124-78	ND	10^
B-58@0.5'	130124-81	ND	10^
B-57@0.5'	130124-84	ND	10^
B-51@0.5'	130124-87	ND	1
B-49@0.5'	130124-90	ND	1
B-48@0.5'	130124-93	ND	1
Method Blank		ND	1
	PQL	10	

COMMENTS
C11-C22 = DIESEL RANGE
PQL = PRACTICAL QUANTITATION LIMIT
DF = DILUTION FACTOR
ACTUAL DETECTION LIMIT = PQL X DF
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

LABORATORY REPORT

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

PROJECT: Shadow Run Ranch 174-12
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/24/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/28/13
DATE REPORTED:01/30/13

C11-C22 HYDROCARBONS; PAGE 2 OF 2
METHOD: EPA 8015B
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	C11-C22 RESULT	DF
B-52@0.5'	130124-96	ND	1
B-53@0.5'	130124-99	ND	1
Method Blank		ND	1
	PQL	10	

COMMENTS
C11-C22 = DIESEL RANGE
PQL = PRACTICAL QUANTITATION LIMIT
DF = DILUTION FACTOR
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

8015B QA/QC Report

Date Analyzed: 1/28/2013 **Units:** mg/Kg (ppm)

Matrix: **Soil/Solid/Sludge**

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

Spiked Sample Lab I.D.: **130124-96 MS/MSD**

Analyte	SR	spk conc	MS	%MS	MSD	%MSD	%RPD	ACP %MS	ACP RPD
C11~C22 Range	0	2000	2200	**110%**	2180	**109%**	**1%**	**75-125**	**0-20%**

LCS STD RECOVERY:

Analyte	spk conc	LCS	% REC	ACP
C11~C22 Range	200	192	**96%**	**75-125**

Analyzed and Reviewed By: B

Final Reviewer: e

Enviro Chem, Inc

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

8015B QA/QC Report

Date Analyzed: 1/28/2013 **Units:** mg/Kg (ppm)

Matrix: **Soil/Solid/Sludge**

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

Spiked Sample Lab I.D.: **130124-175 MS/MSD**

Analyte	SR	spk conc	MS	%MS	MSD	%MSD	%RPD	ACP %MS	ACP RPD
C11~C22 Range	0	2000	2150	**108%**	2090	**105%**	**3%**	**75-125**	**0-20%**

LCS STD RECOVERY:

Analyte	spk conc	LCS	% REC	ACP
C11~C22 Range	200	204	**102%**	**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: Shadow Run Ranch 174-12
MATRIX: SOIL
DATE SAMPLED: 01/23/13
REPORT TO: MR. JON CAIN
DATE RECEIVED: 01/24/13
DATE ANALYZED: 01/24-25/13
DATE REPORTED: 01/30/13

EPA 5030B/8260B FOR BTEX
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	DF
B-47@0.5	130124-69	ND	0.009	ND	ND	1
B-56@0.5	130124-72	ND	0.015	0.018	0.138	1
B-59@0.5	130124-75	ND	0.006	0.006	0.032	1
B-60@0.5	130124-78	ND	0.006	0.037	0.201	1
B-58@0.5	130124-81	ND	ND	0.008	0.049	1
B-57@0.5	130124-84	ND	ND	0.006	0.033	1
B-51@0.5	130124-87	ND	ND	0.008	0.051	1
B-49@0.5	130124-90	ND	ND	0.008	0.054	1
B-48@0.5	130124-93	ND	0.010	0.018	0.109	1
Method Blank		ND	ND	ND	ND	1
	PQL	0.005	0.005	0.005	0.010	

COMMENTS:
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

LABORATORY REPORT

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

PROJECT: Shadow Run Ranch 174-12
MATRIX: SOIL
DATE SAMPLED: 01/23/13
REPORT TO: MR. JON CAIN
DATE RECEIVED: 01/24/13
DATE ANALYZED: 01/24-25/13
DATE REPORTED: 01/30/13

EPA 5030B/8260B FOR FUEL OXYGENATES
UNITS: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	ETBE	DIPE	MTBE	TAME	TBA	DF
B-47@0.5	130124-69	ND	ND	ND	ND	ND	1
B-56@0.5	130124-72	ND	ND	ND	ND	ND	1
B-59@0.5	130124-75	ND	ND	ND	ND	ND	1
B-60@0.5	130124-78	ND	ND	ND	ND	ND	1
B-58@0.5	130124-81	ND	ND	ND	ND	ND	1
B-57@0.5	130124-84	ND	ND	ND	ND	ND	1
B-51@0.5	130124-87	ND	ND	ND	ND	ND	1
B-49@0.5	130124-90	ND	ND	ND	ND	ND	1
B-48@0.5	130124-93	ND	ND	ND	ND	ND	1
Method Blank		ND	ND	ND	ND	ND	1
	PQL	0.01	0.01	0.005	0.01	0.05	

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = DF X PQL
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
ETBE = ETHYL tert-BUTYL ETHER DIPE = ISOPROPYL ETHER
MTBE = METHYL tert-BUTYL ETHER TAME = TERT-AMYL METHYL ETHER
TBA = TERTIARY BUTYL ALCOHOL

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

8260B QA/QC Report

Date Analyzed: 1/24-25/2013
Machine: C
Matrix: Solid/Soil/Liquid
Unit: mg/Kg (PPM)

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)
Spiked Sample Lab I.D.: 130125-LCS1/2

Analyte	S.R.	spk conc	MS	%RC	MSD	%RC	%RPD	ACP %RC	ACP RPD
Benzene	0	0.050	0.050	99%	0.048	96%	4%	75-125	0-20
Chlorobenzene	0	0.050	0.060	121%	0.060	119%	1%	75-125	0-20
1,1-Dichloroethene	0	0.050	0.041	83%	0.044	87%	4%	75-125	0-20
Toluene	0	0.050	0.056	112%	0.053	107%	5%	75-125	0-20
Trichloroethene (TCE)	0	0.050	0.061	122%	0.058	117%	5%	75-125	0-20

Lab Control Spike (LCS):

Analyte	spk conc	LCS	%RC	ACP %RC
Benzene	0.050	0.045	90%	75-125
Chlorobenzene	0.050	0.053	107%	75-125
Chloroform	0.050	0.051	101%	75-125
1,1-Dichlorothene	0.050	0.049	98%	75-125
Ethylbenzene	0.050	0.056	111%	75-125
o-Xylene	0.050	0.061	121%	75-125
m,p-Xylene	0.100	0.121	121%	75-125
Toluene	0.050	0.049	99%	75-125
1,1,1-Trichloroethane	0.050	0.048	95%	75-125
Trichloroethene (TCE)	0.050	0.055	111%	75-125

Surrogate Recovery	spk conc	ACP %RC	MB %RC	%RC	%RC	%RC	%RC	%RC	%RC
Sample I.D.			M-BLK	130121-202	130124-170	130124-171	130124-173	130121-191	130121-192
Dibromofluoromethane	50.0	70-130	91%	103%	90%	90%	92%	94%	93%
Toluene-d8	50.0	70-130	88%	91%	85%	95%	86%	90%	77%
4-Bromofluorobenzene	50.0	70-130	109%	105%	93%	92%	92%	94%	115%

Surrogate Recovery	spk conc	ACP %RC	%RC	%RC	%RC	%RC	%RC	%RC	%RC
Sample I.D.			130124-193	130124-69	130124-72	130124-75	130124-78	130124-81	130124-84
Dibromofluoromethane	50.0	70-130	89%	97%	101%	101%	96%	94%	102%
Toluene-d8	50.0	70-130	84%	91%	74%	81%	77%	74%	83%
4-Bromofluorobenzene	50.0	70-130	92%	101%	99%	88%	78%	105%	89%

Surrogate Recovery	spk conc	ACP %RC	%RC	%RC	%RC	%RC	%RC	%RC	%RC
Sample I.D.			130124-87	130124-90	130124-93	130124-108+111	130124-114+117		
Dibromofluoromethane	50.0	70-130	92%	96%	97%	89%	86%		
Toluene-d8	50.0	70-130	84%	78%	79%	87%	85%		
4-Bromofluorobenzene	50.0	70-130	90%	93%	86%	74%	57*%		

** = Surrogate fail due to matrix interference; LCS, MS, MSD are in control therefore the analysis is in control.*
S.R. = Sample Results *%RC = Percent Recovery*
spk conc = Spike Concentration *ACP %RC = Accepted Percent Recovery*
MS = Matrix Spike *MSD = Matrix Spike Duplicate*

Analyzed/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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN
DATE RECEIVED:01/24/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/25/13
DATE REPORTED:01/30/13

SAMPLE I.D.: **B-46@0.5**
LAB I.D.: 130124-66

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
Methoxyclor	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: Shadow Run Ranch 174-12
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/24/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/25/13
DATE REPORTED:01/30/13

METHOD BLANK FOR LAB I.D.: 130124-66

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
Methoxyclor	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** Date Analyzed: **1/25/2013**

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

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

Spiked Sample Lab I.D.: 130124-44 MS/MSD

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0.000	0.0500	0.0513	**103%**	0.0514	**103%**	**0%**	**0-20%**	**70-130**
Aldrin	0.000	0.0500	0.0577	**115%**	0.0569	**114%**	**1%**	**0-20%**	**70-130**
4,4-DDE	0.000	0.0500	0.0582	**116%**	0.0567	**113%**	**3%**	**0-20%**	**70-130**

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.00500	0.00521	**104%**	**75-125**
Aldrin	0.00500	0.00585	**117%**	**75-125**
4,4-DDE	0.00500	0.00548	**110%**	**75-125**
Dieldrin	0.00500	0.00577	**115%**	**75-125**

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		MB	130124-27~30	130124-33~36	130124-39~40	130124-44	130124-51~59	130124-53~56
Tetra-chloro-meta-xylene	50-150	111%	105%	106%	104%	103%	104%	102%
Decachlorobiphenyl	50-150	141%	132%	150%	150%	137%	138%	148%

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		130124-66	130124-102	130124-120	130124-135	130124-138	130124-141	130124-144
Tetra-chloro-meta-xylene	50-150	103%	100%	102%	104%	93%	105%	106%
Decachlorobiphenyl	50-150	138%	148%	141%	143%	937*%	148%	128%

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		130124-159	130124-166~168					
Tetra-chloro-meta-xylene	50-150	102%	109%					
Decachlorobiphenyl	50-150	145%	149%					

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: B

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
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
B-46 @ 0.5	130/14-66	1-23-13	2:57	Soil	1		Ice		
B-46 @ 1.5	-67		2:57						HOLD
B-46 @ 3	-68		2:57						HOLD
B-47 @ 0.5	-69		3:07					TPHg / TPHd 8015	TPHg & TPHd 8015
B-47 @ 1.5	-70		3:07						HOLD
B-47 @ 3'	-71		3:07						HOLD
B-56 @ 0.5' DISPOSE	-72		3:21						
B-56 @ 1.5'	-73		3:21						HOLD
B-56 @ 3'	-74		3:21						HOLD
B-59 @ 0.5	-75		3:29						
B-59 @ 1.5	-76		3:29						HOLD
B-59 @ 3'	-77		3:29						HOLD
B-60 @ 0.5	-78		3:41						
B-60 @ 1.5	-79		3:41						HOLD
B-60 @ 3'	-80	1-23-13	3:41	Soil			Ice		HOLD

Misc.

Analysis Required: LUFT 6010A; OPP 8141A (Organophosphorus Herbicides 8151A); Diquat 8290; PAHs 8310; Metals 6010B/7471A; TPHg/TPHd 8015; BTEX/MTBE 8260B; PCBs 8082

Company Name: PETRA GEOTECHNICAL INC
Address: 40880 COUNTY CENTER DR
City/State/Zip: TEMECULA, CA 92591

Project Contact: JON CHIN
Tel: (951) 600-9271
Fax:

Sampler's Signature: Jonathan Cai
Project Name/ID: SHADOW RUN RANCH 174-12

Relinquished by:	Jonathan Cai	Received by:	1-24-13 8:20
Relinquished by:		Received by:	
Relinquished by:		Received by:	

Date & Time: 1-24-13 1230
Date & Time:
Date & Time:

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

CHAIN OF CUSTODY RECORD

Date: _____

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
0 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required	COMMENTS
B-58 @ 0.5'	1309174-81	1-23-13	3:51	Soil			Ice		
B-58 @ 1.5	-82		3:51						HOLD
B-58 @ 3	-83		3:51						HOLD
B-57 @ 0.5	-84		4:00						
B-57 @ 1.5	-85		4:00						HOLD
B-57 @ 3	-86		4:00						HOLD
B-51 @ 0.5	-87		4:15						
B-51 @ 1.5	-88		4:15						HOLD
B-51 @ 3	-89		4:15						HOLD
B-49 @ 0.5	-90		4:22						
B-49 @ 1.5	-91		4:22						HOLD
B-49 @ 3	-92		4:22						HOLD
B-48 @ 0.5	-93		4:29						
B-48 @ 1.5	-94		4:29						HOLD
B-48 @ 3'	-95	1-23-13	4:29	Soil			Ice		HOLD

Analysis Required: CAM 17 Metals 6010B/7471A; TPH/TPH-d 8015; BTEX/MTBE Oxygenates 8260B; PCBs 8082; PAHs 8310; Dioxins 8290; Chlorinated Herb 8151A; OPP 8141A; CAM 17 Metals 6010B/7471A

Misc.

Company Name: PETRA GEOTECHNICAL INC.
Address: 40880 COUNTY CENTER DR.
City/State/Zip: TEMECULA, CA 92591

Project Contact: JON CAIN
Tel: (951) 600-9271
Fax:

Sampler's Signature: Jonathan Cain
Project Name/ID: SHADOW RUN RANCH 174-12

Relinquished by: Jonathan Cain
Relinquished by: Scott
Relinquished by:

Received by: 1-24-13 8:20
Received by:
Received by:

Date & Time:
Date & Time: 1/24/13 1230
Date & Time:

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

CHAIN OF CUSTODY RECORD

Date:

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
X 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	TPH 8015	Misc.	COMMENTS
B-52 @ 0.5 SHALLOW PIT	13096-96	1-23-13	4:43	Soil			ICE	✓		
B-52 @ 1.5	-97		4:43							HOLD
B-52 @ 3'	-98		4:43							HOLD
B-53 @ 0.5	-99		4:50					✓		
B-53 @ 1.5	-100		4:50							HOLD
B-53 @ 3'	-101	1-23-13	4:50	Soil			ICE			HOLD

Analysis Required

Company Name: PETRA GEOTECHNICAL, INC.	**Project Contact:** JON CAIN	**Sampler's Signature:**
Address: 40880 COUNTY CENTER DR	**Tel:** (951) 600-9271	**Project Name/ID:** SHADOW RUN RANCH 174-12
City/State/Zip: TEMECULA, CA. 92591	**Fax:**	

Relinquished by:	Received by:	Date & Time: 1-24-13 8:20	Instructions for Sample Storage After Analysis:
Relinquished by:	Received by:	Date & Time: 1/24/13 1230	O Dispose of O Return to Client O Store (30 Days)
Relinquished by:	Received by:	Date & Time:	O Other:

CHAIN OF CUSTODY RECORD

Date: _____

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: January 31, 2013

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

Project: **Shadow Run Ranch 174-12**
Lab I.D.: **130124-102 through -164**

Dear Mr. Cain:

The **analytical results** for the soil samples, received by our lab on January 24, 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: Shadow Run Ranch 174-12
MATRIX: SOIL
DATE SAMPLED: 01/23/13
REPORT TO: MR. JON CAIN

DATE RECEIVED: 01/24/13
DATE EXTRACTED: 01/25/13
DATE ANALYZED: 01/28/13
DATE REPORTED: 01/31/13

C11-C22 HYDROCARBONS
METHOD: EPA 8015B
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

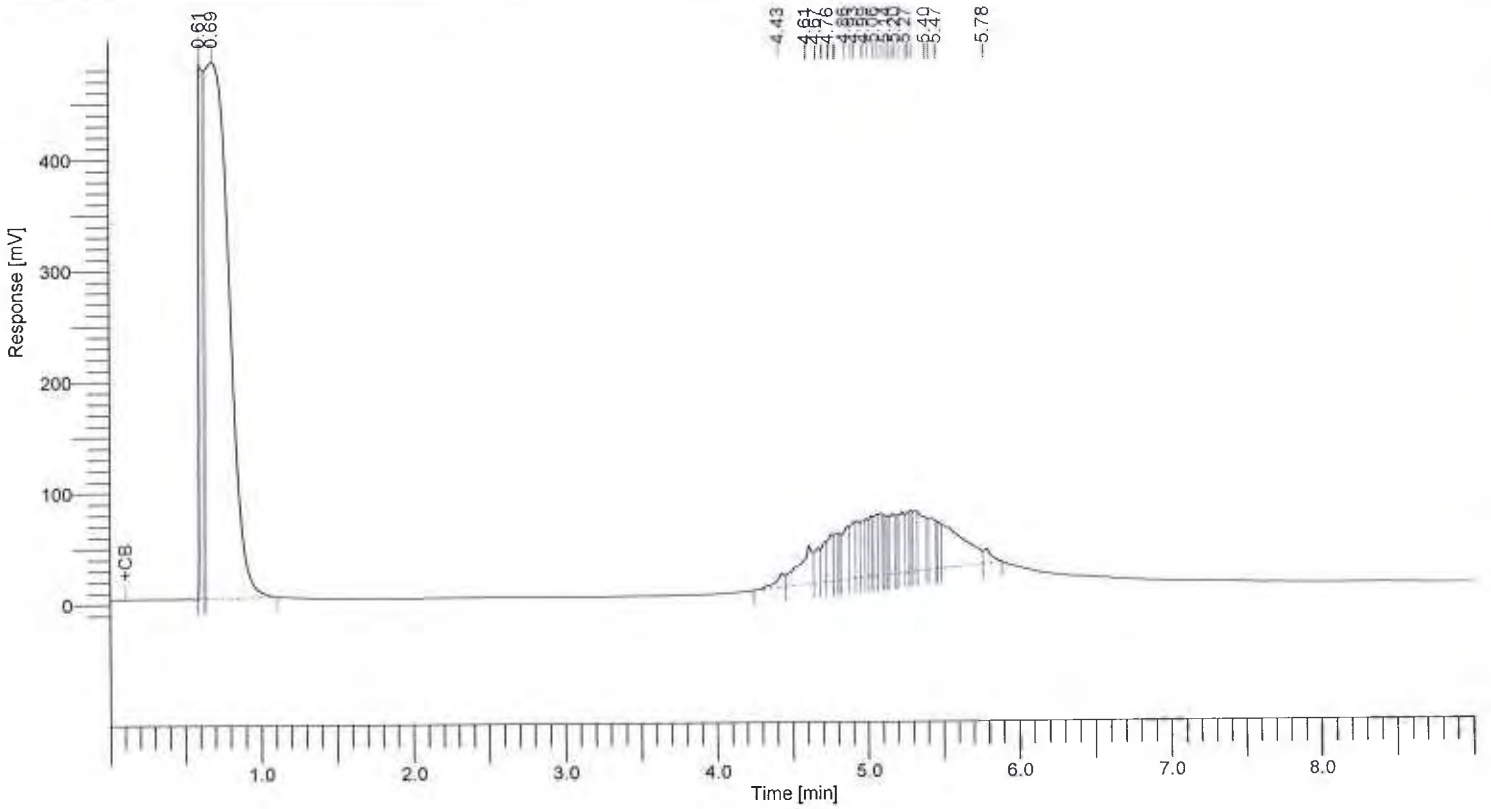
SAMPLE I.D.	LAB I.D.	C11-C22 RESULT	DF
B-24/22@0.5'(COMPOSITE)	130124-123,-126(COMPOSITE)	ND	1
B-25/23@0.5'(COMPOSITE)	130124-129,-132(COMPOSITE)	22.5*	1
B-37/36@0.5'(COMPOSITE)	130124-147,-150(COMPOSITE)	ND	1
B-35/34@0.5'(COMPOSITE)	130124-153,-156(COMPOSITE)	ND	1
B-33@0.5'	130124-162	ND	1
Method Blank		ND	1
	PQL	10	

COMMENTS
C11-C22 = DIESEL RANGE
PQL = PRACTICAL QUANTITATION LIMIT
DF = DILUTION FACTOR
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
* = PEAKS IN DIESEL RANGE BUT CHROMATOGRAM DOES NOT MATCH THAT OF DIESEL STANDARD

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

Software Version	: 6.3.2.0646	Date	: 1/29/2013 8:52:55 AM
Sample Name	: 130124-129~132 20/2 D	Data Acquisition Time	: 1/28/2013 4:19:03 PM
Instrument Name	: GC-I	Channel	: A
Rack/Vial	: 0/31	Operator	: Manager
Sample Amount	: 1.000000	Dilution Factor	: 1.000000
Cycle	: 39		

Result File : D:\GC DATA\GC-I\I02013\I1301\I130128\A039.rst
Sequence File : D:\GC DATA\GC-I\I02013\I1301\I130128\I130128.seq



8015 Results

Component Name	Area [uV*sec]	Adjusted Amount
C11-C22	2021169	224.6
C23-C35	286506	257.7
	2307675	482.3

Enviro Chem, Inc

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

8015B QA/QC Report

Date Analyzed: 1/28/2013 **Units:** mg/Kg (ppm)

Matrix: **Soil/Solid/Sludge**

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

Spiked Sample Lab I.D.: **130124-96 MS/MSD**

Analyte	SR	spk conc	MS	%MS	MSD	%MSD	%RPD	ACP %MS	ACP RPD
C11~C22 Range	0	2000	2200	**110%**	2180	**109%**	**1%**	**75-125**	**0-20%**

LCS STD RECOVERY:

Analyte	spk conc	LCS	% REC	ACP
C11~C22 Range	200	192	**96%**	**75-125**

Analyzed and Reviewed By: B

Final Reviewer: Q

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: Shadow Run Ranch 174-12
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/24/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/28/13
DATE REPORTED:01/31/13

PCBs ANALYSIS
METHOD: EPA 8082
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260	TOTAL PCBs*	DF
B-71@0.5'	130124-103	ND	ND	ND	ND	ND	ND	ND	ND	1
Method Blank		ND	ND	ND	ND	ND	ND	ND	ND	1
	PQL	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = DF X PQL
ND = Non-Detected Or Below the Actual Detection Limit
* = Sum of the PCB 1016, 1221, 1232, 1242, 1248, 1254 and 1260
*** = The concentration exceeds the TTLC Limit of 50, 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

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

QA/QC Report

Analysis: EPA 8082 (PCB)

Matrix: **Soil/Solid/Liquid/Sludge** Date Analyzed: **1/28/2013**

Unit: mg/Kg (PPM)

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

Spiked Sample Lab I.D.: 130128-LCS1/LCS2

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP % RPD	ACP %REC
PCB (1016+1260)	0.00	1.00	1.00	**100%**	0.891	**89%**	**11%**	**0-20%**	**70-130**

LCS STD RECOVERY:

Analyte	spk conc	LCS	% REC	ACP %REC
PCB (1016+1260)	0.100	0.090	**90%**	**75-125**

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: _____

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: Shadow Run Ranch 174-12
MATRIX: SOIL
DATE SAMPLED: 01/23/13
REPORT TO: MR. JON CAIN
DATE RECEIVED: 01/24/13
DATE ANALYZED: 01/25/13
DATE REPORTED: 01/31/13

EPA 5030B/8260B FOR BTEX
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	DF
B-10@0.5'/1.5' (COMPOSITE)	130124-108,-111 (COMPOSITE)	ND	0.027	0.006	0.027	1
B-13/12@0.5' (COMPOSITE)	130124-114,-117 (COMPOSITE)	ND	0.039	0.010	0.050	2
Method Blank		ND	ND	ND	ND	1
	PQL	0.005	0.005	0.005	0.010	

COMMENTS:
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

LABORATORY REPORT

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

PROJECT: Shadow Run Ranch 174-12
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN
DATE RECEIVED:01/24/13
DATE ANALYZED:01/25/13
DATE REPORTED:01/31/13

EPA 5030B/8260B FOR FUEL OXYGENATES
UNITS: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	ETBE	DIPE	MTBE	TAME	TBA	DF
B-10@0.5'/1.5' (COMPOSITE)	130124-108,-111 (COMPOSITE)	ND	ND	ND	ND	ND	1
B-13/12@0.5' (COMPOSITE)	130124-114,-117 (COMPOSITE)	ND	ND	ND	ND	ND	2
Method Blank		ND	ND	ND	ND	ND	1
	PQL	0.01	0.01	0.005	0.01	0.05	

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = DF X PQL
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
ETBE = ETHYL tert-BUTYL ETHER
DIPE = ISOPROPYL ETHER
MTBE = METHYL tert-BUTYL ETHER
TAME = TERT-AMYL METHYL ETHER
TBA = TERTIARY BUTYL ALCOHOL

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

8260B QA/QC Report

Date Analyzed: 1/24-25/2013 **Matrix:** Solid/Soil/Liquid
Machine: C **Unit:** mg/Kg (PPM)

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)
Spiked Sample Lab I.D.: 130125-LCS1/2

Analyte	S.R.	spk conc	MS	%RC	MSD	%RC	%RPD	ACP %RC	ACP RPD
Benzene	0	0.050	0.050	99%	0.048	96%	4%	75-125	0-20
Chlorobenzene	0	0.050	0.060	121%	0.060	119%	1%	75-125	0-20
1,1-Dichloroethene	0	0.050	0.041	83%	0.044	87%	4%	75-125	0-20
Toluene	0	0.050	0.056	112%	0.053	107%	5%	75-125	0-20
Trichloroethene (TCE)	0	0.050	0.061	122%	0.058	117%	5%	75-125	0-20

Lab Control Spike (LCS):

Analyte	spk conc	LCS	%RC	ACP %RC
Benzene	0.050	0.045	90%	75-125
Chlorobenzene	0.050	0.053	107%	75-125
Chloroform	0.050	0.051	101%	75-125
1,1-Dichlorothene	0.050	0.049	98%	75-125
Ethylbenzene	0.050	0.056	111%	75-125
o-Xylene	0.050	0.061	121%	75-125
m,p-Xylene	0.100	0.121	121%	75-125
Toluene	0.050	0.049	99%	75-125
1,1,1-Trichloroethane	0.050	0.048	95%	75-125
Trichloroethene (TCE)	0.050	0.055	111%	75-125

Surrogate Recovery	spk conc	ACP %RC	MB %RC	%RC	%RC	%RC	%RC	%RC	%RC
Sample I.D.			**M-BLK**	**130121-202**	**130124-170**	**130124-171**	**130124-173**	**130121-191**	**130121-192**
Dibromofluoromethane	50.0	70-130	91%	103%	90%	90%	92%	94%	93%
Toluene-d8	50.0	70-130	88%	91%	85%	95%	86%	90%	77%
4-Bromofluorobenzene	50.0	70-130	109%	105%	93%	92%	92%	94%	115%

Surrogate Recovery	spk conc	ACP %RC	%RC	%RC	%RC	%RC	%RC	%RC	%RC
Sample I.D.			**130124-193**	**130124-69**	**130124-72**	**130124-75**	**130124-78**	**130124-81**	**130124-84**
Dibromofluoromethane	50.0	70-130	89%	97%	101%	101%	96%	94%	102%
Toluene-d8	50.0	70-130	84%	91%	74%	81%	77%	74%	83%
4-Bromofluorobenzene	50.0	70-130	92%	101%	99%	88%	78%	105%	89%

Surrogate Recovery	spk conc	ACP %RC	%RC	%RC	%RC	%RC	%RC	%RC	%RC
Sample I.D.			**130124-87**	**130124-90**	**130124-93**	130124-108+111	130124-114+117		
Dibromofluoromethane	50.0	70-130	92%	96%	97%	89%	86%		
Toluene-d8	50.0	70-130	84%	78%	79%	87%	85%		
4-Bromofluorobenzene	50.0	70-130	90%	93%	86%	74%	57*%		

** = Surrogate fail due to matrix interference; LCS, MS, MSD are in control therefore the analysis is in control.*
S.R. = Sample Results *%RC = Percent Recovery*
spk conc = Spike Concentration *ACP %RC = Accepted Percent Recovery*
MS = Matrix Spike *MSD = Matrix Spike Duplicate*

Analyzed/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: Shadow Run Ranch 174-12
MATRIX: SOIL
DATE SAMPLED: 01/23/13
REPORT TO: MR. JON CAIN
DATE RECEIVED: 01/24/13
DATE ANALYZED: 01/25-28/13
DATE REPORTED: 01/31/13

SAMPLE I.D.: B-13/12@0.5'(COMPOSITE)
LAB I.D.: 130124-114,-117(COMPOSITE)

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)	156	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)	9.59	0.5	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.1	1	500	5.0	7196A
Cobalt(Co)	2.40	1.0	1	8,000	80	6010B
Copper(Cu)	28.2	1.0	1	2,500	25	6010B
Lead(Pb)	2.09	0.5	1	1,000	5.0	6010B
Mercury(Hg)	ND	0.1	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)	24.1	5.0	1	2,400	24	6010B
Zinc(Zn)	78.9	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

METHOD BLANK REPORT

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

PROJECT: Shadow Run Ranch 174-12
MATRIX: SOIL
DATE SAMPLED: 01/23/13
REPORT TO: MR. JON CAIN

DATE RECEIVED: 01/24/13
DATE ANALYZED: 01/25-28/13
DATE REPORTED: 01/31/13

METHOD BLANK FOR LAB I.D.: 130124-114,-117(COMPOSITE)

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	560/5@	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	0.1	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: 1/28/2013 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)	130124-166~168	1.00	101	PASS	0	50.0	48.2	96%	47.7	95%	1%
Cadmium(Cd)	130124-166~168	1.00	101	PASS	0	50.0	49.9	100%	49.3	99%	1%
Lead(Pb)	130124-166~168	1.00	114	PASS	8.89	50.0	50.6	83%	50.1	82%	1%

ANALYSIS DATE. : 1/25/2013

Analysis	Spk.Sample ID	LCS CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Mercury (Hg)	130125-7	0.125	93	PASS	0	0.125	0.112	90%	0.114	91%	2%

MS/MSD Status:

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

ANALYST: _____

FINAL REVIEWER: _____

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: Shadow Run Ranch 174-12
MATRIX: SOIL
DATE SAMPLED: 01/23/13
REPORT TO: MR. JON CAIN

DATE RECEIVED: 01/24/13
DATE EXTRACTED: 01/25/13
DATE ANALYZED: 01/25/13
DATE REPORTED: 01/31/13

SAMPLE I.D.: B-1@0.5'

LAB I.D.: 130124-102

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
Methoxyclor	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.
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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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/24/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/25/13
DATE REPORTED:01/31/13

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

LAB I.D.: 130124-120

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
Methoxyclor	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.
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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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/24/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/25/13
DATE REPORTED:01/31/13

SAMPLE I.D.: **B-21@0.5'**
LAB I.D.: 130124-135

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
Methoxyclor	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.
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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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/24/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/25/13
DATE REPORTED:01/31/13

SAMPLE I.D.: **B-26@0.5'**

LAB I.D.: 130124-138

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
Methoxyclor	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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/24/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/25/13
DATE REPORTED:01/31/13

SAMPLE I.D.: **B-27@0.5'**
LAB I.D.: 130124-141

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
Methoxyclor	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.
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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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/24/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/25/13
DATE REPORTED:01/31/13

SAMPLE I.D.: **B-29@0.5'**
LAB I.D.: 130124-144

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
Methoxyclor	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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/24/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/25/13
DATE REPORTED:01/31/13

SAMPLE I.D.: **B-32@0.5'**

LAB I.D.: 130124-159

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
Methoxyclor	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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/24/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/25/13
DATE REPORTED:01/31/13

METHOD BLANK FOR LAB I.D.:
130124-102, -120, -135, -138, -141, -144, -159

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
Methoxyclor	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** Date Analyzed: **1/25/2013**

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

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

Spiked Sample Lab I.D.: 130124-44 MS/MSD

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0.000	0.0500	0.0513	**103%**	0.0514	**103%**	**0%**	**0-20%**	**70-130**
Aldrin	0.000	0.0500	0.0577	**115%**	0.0569	**114%**	**1%**	**0-20%**	**70-130**
4,4-DDE	0.000	0.0500	0.0582	**116%**	0.0567	**113%**	**3%**	**0-20%**	**70-130**

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.00500	0.00521	**104%**	**75-125**
Aldrin	0.00500	0.00585	**117%**	**75-125**
4,4-DDE	0.00500	0.00548	**110%**	**75-125**
Dieldrin	0.00500	0.00577	**115%**	**75-125**

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		MB	130124-27/30	130124-33/36	130124-39/40	130124-44	130124-51/59	130124-53/56
Tetra-chloro-meta-xylene	50-150	111%	105%	106%	104%	103%	104%	102%
Decachlorobiphenyl	50-150	141%	132%	150%	150%	137%	138%	148%

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		130124-66	130124-102	130124-120	130124-135	130124-138	130124-141	130124-144
Tetra-chloro-meta-xylene	50-150	103%	100%	102%	104%	93%	105%	106%
Decachlorobiphenyl	50-150	138%	148%	141%	143%	937*%	148%	128%

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		130124-159	130124-166~168					
Tetra-chloro-meta-xylene	50-150	102%	109%					
Decachlorobiphenyl	50-150	145%	149%					

S.R. = Sample Result

spk conc = Spike Concentration

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

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

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

Analyzed and Reviewed By: _____

Final Reviewer: _____

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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/24/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/28/13
DATE REPORTED:01/31/13

SAMPLE I.D.: **B-2@0.5'**
LAB I.D.: 130124-106

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
Methoxyclor	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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/24/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/28/13
DATE REPORTED:01/31/13

METHOD BLANK FOR LAB I.D.: 130124-106

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
Methoxyclor	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** Date Analyzed: **1/28/2013**

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

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

Spiked Sample Lab I.D.: 130124-106 MS/MSD

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0.000	0.0500	0.0592	**118%**	0.0599	**120%**	**1%**	**0-20%**	**70-130**
Aldrin	0.000	0.0500	0.0585	**117%**	0.0576	**115%**	**2%**	**0-20%**	**70-130**
4,4-DDE	0.000	0.0500	0.0504	**101%**	0.0514	**103%**	**2%**	**0-20%**	**70-130**

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.00500	0.00575	**115%**	**75-125**
Aldrin	0.00500	0.00568	**114%**	**75-125**
4,4-DDE	0.00500	0.00478	**96%**	**75-125**
Dieldrin	0.00500	0.00612	**122%**	**75-125**

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		MB	130124-106	130124-169~171	130124-172~174			
Tetra-chloro-meta-xylene	50-150	103%	108%	102%	95%			
Decachlorobiphenyl	50-150	121%	142%	119%	105%			

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

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.								
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: B

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
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
B-1 @ 0.5	1309NL-102	1-23-13	9:37	Soil	1		Ice		
B-7 @ 0.5	-103		8:45						
B-7 @ 1.5	-104		8:50						Hold
B-1 @ 1.5	-105		8:55						Hold
B-2 @ 0.5	-106		9:04						
B-2 @ 1.5	-107		9:07						Hold
B-10 @ 0.5' Burn Site	-108		9:17						Composite with B-11 @ 0.5
B-10 @ 1.5'	-109		9:17						Hold
B-10 @ 3' B.S.	-110		9:17						Hold
B-11 @ 0.5' Burn Site	-111		9:27						Composite with B-10 @ 0.5
B-11 @ 1.5'	-112		9:27						Hold
B-11 @ 3' B.S.	-113		9:27						Hold
B-13 @ 0.5' Burn Site	-114		9:43						Composite with B-12 @ 0.5
B-13 @ 1.5	-115		9:43						Hold
B-13 @ 3 B.S.	-116	1-23-13	9:43	Soil			Ice		Hold

Misc.

OCP EC608A | OPP EC141A | Chlorinated Herb 8151A | Pesticides 8290 | Metals 6010B/7000A | BTEX/MTBE Oxygenates 8260B | TPHg/TPHd 8015 | PCBs 8082 | PAHs 8310

Company Name: Petra Geotechnical Inc
Address: 40880 Lovatt Center Dr. 92591
City/State/Zip: Temecula CA.

Project Contact: Jon Cain
Tel: (951) 600-9271
Fax:

Sampler's Signature:
Project Name/ID: Shadow Run Ranch 174-12

Relinquished by: Jon Cain	Received by:	Date & Time: 1-23-13 2:24
Relinquished by:	Received by:	Date & Time: 1/24/13 1230
Relinquished by:	Received by:	Date & Time:

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

CHAIN OF CUSTODY RECORD

Date:

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
B-12 @ 0.5 (Below Site)	117	1-23-13	9:53	Soil	1		Ice		Composite with B-13 @ 0.5'
B-12 @ 1.5'	118		9:53						HOLD
B-12 @ 3' B.S	119		9:53						HOLD
B-14 @ 0.5'	120		10:09						
B-14 @ 1.5'	121		10:09						HOLD
B-14 @ 3'	122		10:09						HOLD
B-24 @ 0.5'	123		10:23						Composite with B-22 @ 0.5'
B-24 @ 1.5'	124		10:23						HOLD
B-24 @ 3'	125		10:23						HOLD
B-22 @ 0.5'	126		10:44						Composite with B-24 @ 0.5
B-22 @ 1.5'	127		10:44						HOLD
B-22 @ 3'	128		10:44						HOLD
B-25 @ 0.5'	129		10:53						Composite with B-23 @ 0.5
B-25 @ 1.5'	130		10:53						HOLD
B-25 @ 3'	131	1-23-13	10:53	Soil			Ice		HOLD

Misc.

Company Name: PETRA GEOTECHNICAL INC
Address: 40880 County Center Dr.
City/State/Zip: Temecula, CA 92591

Project Contact: Jon Cain
Tel: (951) 600-9271
Fax:

Sampler's Signature: Jonathan Cain
Project Name/ID: Shadow Run Ranch 174-12

Relinquished by: Jonathan Cain
Relinquished by:
Relinquished by:

Received by: 1-23-13 2:24
Received by:
Received by:

Date & Time: 2:23
Date & Time: 1/24/13 1230
Date & Time:

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

CHAIN OF CUSTODY RECORD

Date:

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
0 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required	COMMENTS
B-23 @ 0.5'	1301N-132	1-23-13	11:03	Soil	1		Ice		COMPOSITE WITH B-25 @ 0.5
B-23 @ 1.5'	-133		11:03						HOLD
B-23 @ 3'	-134		11:03						HOLD
B-21 @ 0.5'	-135		11:17					/	
B-21 @ 1.5'	-136		11:17						HOLD
B-21 @ 3'	-137		11:17						HOLD
B-26 @ 0.5'	-138		11:45					/	
B-26 @ 1.5'	-139		11:45						HOLD
B-26 @ 3'	-140		11:45						HOLD
B-27 @ 0.5'	-141		12:04					/	
B-27 @ 1.5'	-142		12:04						HOLD
B-27 @ 3'	-143		12:04						HOLD
B-29 @ 0.5'	-144		12:22					/	
B-29 @ 1.5'	-145		12:22						HOLD
B-29 @ 3'	-146	1-23-13	12:22	Soil			Ice		HOLD

OCP EPA 8081A
OPP EPA 8141A
Chlorinated Herb EPA 8151A
Dioxins EPA 8290
Metals (6010B/7471A)
Total BOD
Total Petroleum Hydrocarbons EPA 8015M
PCB EPA 8082
PAH EPA 8310
Misc.

Company Name: PETRA GEOTECHNICAL INC.
Address: 40880 COUNTY CENTER DR
City/State/Zip: TEMECULA, CA 92591

Project Contact: JON CAIN
Tel: (951) 600-9271
Fax:

Sampler's Signature: Jonathan Cain
Project Name/ID: SHADOW RUN RANCH 174-12

Relinquished by: Jonathan Cain
Relinquished by:
Relinquished by:

Received by: 01-23-13 2:24
Received by:
Received by:

Date & Time: 2:23
Date & Time: 1-24-13 1230
Date & Time:

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

CHAIN OF CUSTODY RECORD

Date:

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
(8) Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required	COMMENTS
B-37 @ 0.5'	130/NL -147	1-23-13	1:05	Soil	1		ICE		COMPOSITE WITH B-36 @ 0.5'
B-37 @ 1.5'	-148		1:05						HOLD
B-37 @ 3'	-149		1:05						HOLD
B-36 @ 0.5'	-150		1:15						COMPOSITE WITH B-37 @ 0.5
B-36 @ 1.5'	-151		1:15						HOLD
B-36 @ 3'	-152		1:15						HOLD
B-35 @ 0.5'	-153		1:23						COMPOSITE WITH B-34 @ 0.5'
B-35 @ 1.5'	-154		1:23						HOLD
B-35 @ 3'	-155		1:23						HOLD
B-34 @ 0.5'	-156		1:35						COMPOSITE WITH B35 @ 0.5'
B-34 @ 1.5'	-157		1:35						HOLD
B-34 @ 3'	-158		1:35						HOLD
B-32 @ 0.5	-159		1:50						DISCREET
B-32 @ 1.5	-160		1:50						HOLD
B-32 @ 3'	-161	1-23-13	1:50	Soil			ICE		HOLD

Misc.

OCP 8081A | OPP 8141A | Chlorinated Herb 8151A | Dioxins 8290 | PAHs 8310 | Metals 6010B | TPH/D 8015 | BTEX/MTBE 8260B | Oxygenates 8260B | PCB's 8082

Company Name: PETRA GEOTECHNICAL INC.
Address: 40880 COUNTY CENTER DR.
City/State/Zip: TEMECULA, CA. 92591

Project Contact: JON CAIN
Tel: (951) 600-9271
Fax:

Sampler's Signature: Jonathan Cain
Project Name/ID: SYCAMORE RUN RANCH 174-12

Relinquished by: Jonathan Cain
Relinquished by:
Relinquished by:

Received by: 01-23-13 2:24
Received by:
Received by:

Date & Time:
Date & Time: 1/24/13 1230
Date & Time:

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

CHAIN OF CUSTODY RECORD

Date: _____

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	8015 TPHd	Misc.	COMMENTS
B-33 @ 0.5'	1301X-162	1-23-13		SOIL	1		None	✓		DISCREET
B-33 @ 1.5'	-163	↓		↓	↓		↓			HOLD
B-33 @ 3'	-164	↓		↓	↓		↓			HOLD

Analysis Required

Company Name: PETRA GEOTECHNICAL INC.
Address: 40880 COUNTY CENTER DR.
City/State/Zip: TEMECULA, CA 92591

Project Contact: JON CAIN
Tel: (951) 600-9271
Fax:

Sampler's Signature: Jonathan Cain
Project Name/ID: SHADOW RUN RANCH

Relinquished by: Jonathan Cain
Relinquished by: Brent Sutton
Relinquished by:

Received by: Brent Sutton 01-23-13 2:24
Received by: Jessica Pon
Received by:

Date & Time:
Date & Time: 1/24/13 1230
Date & Time:

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

CHAIN OF CUSTODY RECORD

Date: _____

WHITE WITH SAMPLE • YELLOW TO CLIENT

Page _____ of _____

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

Date: February 1, 2013

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

Project: **Shadow Run Ranch 174-12**
Lab I.D.: **130124-102 through -164**

Dear Mr. Cain:

The **additional analytical results** for the soil samples, received by our lab on January 24, 2013, 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

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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/23/13
REPORT TO:MR. JON CAIN
DATE RECEIVED:01/24/13
DATE ANALYZED:01/31/13
DATE REPORTED:02/01/13

SAMPLE I.D.: **B-13/12@0.5'(COMPOSITE)**
LAB I.D.: 130124-114,-117(COMPOSITE)

Polynuclear Aromatic Hydrocarbons Analysis
Method: EPA 8310
Unit: mg/Kg = Milligram per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL (X1)
ACENAPHTHENE	ND	0.02
ACENAPHTHYLENE	ND	0.02
ANTHRACENE	ND	0.02
BENZO(a)ANTHRACENE	ND	0.02
BENZO(a)PYRENE	ND	0.02
BENZO(b)FLUORANTHENE	ND	0.02
BENZO(k)FLUORANTHENE	ND	0.02
BENZO(g,h,i)PERYLENE	ND	0.02
CHRYSENE	ND	0.02
DIBENZ(a,h)ANTHRACENE	ND	0.02
FLUORANTHENE	ND	0.02
FLUORENE	ND	0.02
INDENO(1,2,3-cd)PYRENE	ND	0.02
NAPHTHALENE	0.052	0.02
PHENANTHRENE	ND	0.02
PYRENE	ND	0.02

COMMENTS
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL
ANALYSIS CONDUCTED BY AETL LABS, BURBANK, CA

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: **Shadow Run Ranch 174-12**
MATRIX: SOIL
DATE SAMPLED: 01/23/13
REPORT TO: MR. JON CAIN
DATE RECEIVED: 01/24/13
DATE ANALYZED: 01/31/13
DATE REPORTED: 02/01/13

METHOD BLANK FOR LAB I.D.: 130124-114,-117(COMPOSITE)

Polynuclear Aromatic Hydrocarbons Analysis
Method: EPA 8310
Unit: mg/Kg = Milligram per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL (X1)
ACENAPHTHENE	ND	0.02
ACENAPHTHYLENE	ND	0.02
ANTHRACENE	ND	0.02
BENZO(a)ANTHRACENE	ND	0.02
BENZO(a)PYRENE	ND	0.02
BENZO(b)FLUORANTHENE	ND	0.02
BENZO(k)FLUORANTHENE	ND	0.02
BENZO(g,h,i)PERYLENE	ND	0.02
CHRYSENE	ND	0.02
DIBENZ(a,h)ANTHRACENE	ND	0.02
FLUORANTHENE	ND	0.02
FLUORENE	ND	0.02
INDENO(1,2,3-cd)PYRENE	ND	0.02
NAPHTHALENE	ND	0.02
PHENANTHRENE	ND	0.02
PYRENE	ND	0.02

COMMENTS
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL
ANALYSIS CONDUCTED BY AETL LABS, BURBANK, CA

DATA REVIEWED AND APPROVED BY:
CAL-DHS CERTIFICATE # 1555

American Environmental Testing Laboratory Inc.
2834 & 2908 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

ANALYTICAL RESULTS

Ordered By

Enviro-Chem Laboratories
1214 E. Lexington Avenue
Pomona, CA 91766-5519

Telephone: (909)590-5905
Attn: Curtis Desilets
Page: 2
Project ID: 130124

AETL Job Number	Submitted	Client
68283	01/25/2013	ENVIRO

Method: (8310), Polynuclear Aromatic Hydrocarbons (SW-846)

QC Batch No: 013113IB1

Our Lab I.D.			Method Blank	**68283.01**			
Client Sample I.D.				B-12/13 @ 0.5 130124-114,-117			
Date Sampled				01/23/2013			
Date Prepared			01/31/2013	01/31/2013			
Preparation Method			3550B	3550B			
Date Analyzed			01/31/2013	01/31/2013			
Matrix			Soil	Soil			
Units			mg/Kg	mg/Kg			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Benzo(a)anthracene	0.010	0.020	ND	ND			
Benzo(a)pyrene	0.010	0.020	ND	ND			
Benzo(b)fluoranthene	0.010	0.020	ND	ND			
Benzo(k)fluoranthene	0.010	0.020	ND	ND			
Chrysene	0.010	0.020	ND	ND			
Dibenzo(a,h)anthracene	0.010	0.020	ND	ND			
Indeno(1,2,3-cd)pyrene	0.010	0.020	ND	ND			
Acenaphthene	0.010	0.020	ND	ND			
Acenaphthylene	0.010	0.020	ND	ND			
Anthracene	0.010	0.020	ND	ND			
Benzo(g,h,i)perylene	0.010	0.020	ND	ND			
Fluoranthene	0.010	0.020	ND	ND			
Fluorene	0.010	0.020	ND	ND			
Naphthalene	0.010	0.020	ND	0.0524			
Phenanthrene	0.010	0.020	ND	0.0108J			
Pyrene	0.010	0.020	ND	ND			
Our Lab I.D.			Method Blank	**68283.01**			
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**			
p-Terphenyl-D14	75-125		113	111			

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QUALITY CONTROL RESULTS

Ordered By

Enviro-Chem Laboratories
1214 E. Lexington Avenue
Pomona, CA 91766-5519

Telephone: (909)590-5905
Attn: Curtis Desilets
Page: 3
Project ID: 130124

AETL Job Number	Submitted	Client
68283	01/25/2013	ENVIRO

Method: (8310), Polynuclear Aromatic Hydrocarbons (SW-846)

QC Batch No: 013113IB1; Dup or Spiked Sample: 68335.01; LCS: Clean Sand; QC Prepared: 01/31/2013; QC Analyzed: 01/31/2013; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Benzo(a)anthracene	0.00	0.0500	0.0600	116	0.0500	0.0600	119	2.55	75-125	<20
Benzo(a)pyrene	0.00	0.0500	0.0400	84.4	0.0500	0.0500	91.6	8.18	75-125	<20
Naphthalene	0.00	0.500	0.520	103	0.500	0.530	106	2.87	75-125	<20
Surrogates										
p-Terphenyl-D14	0.00	0.400	0.414	104	0.400	0.426	107	2.88	75-125	<20

QC Batch No: 013113IB1; Dup or Spiked Sample: 68335.01; LCS: Clean Sand; QC Prepared: 01/31/2013; QC Analyzed: 01/31/2013; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS/LCSD % Limit						
Benzo(a)anthracene	0.0500	0.0600	111	75-125						
Benzo(a)pyrene	0.0500	0.0500	103	75-125						
Naphthalene	0.500	0.520	105	75-125						
LCS										
Acenaphthene	0.500	0.540	107	75-125						
Acenaphthylene	1.00	1.03	103	75-125						
Anthracene	0.0500	0.0600	115	75-125						
Benzo(b)fluoranthene	0.100	0.100	103	75-125						
Benzo(g,h,i)perylene	0.100	0.110	114	75-125						
Benzo(k)fluoranthene	0.0500	0.0500	103	75-125						
Chrysene	0.0500	0.0500	109	75-125						
Dibenzo(a,h)anthracene	0.100	0.110	110	75-125						
Fluoranthene	0.100	0.110	106	75-125						
Fluorene	0.100	0.0900	94.6	75-125						
Indeno(1,2,3-cd)pyrene	0.0500	0.0600	111	75-125						
Phenanthrene	0.0500	0.0500	107	75-125						
Pyrene	0.0500	0.0600	112	75-125						
Surrogates										
p-Terphenyl-D14	0.400	0.415	104	75-125						

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Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

Data Qualifiers and Descriptors

Data Qualifier:

#:	Recovery is not within acceptable control limits.
*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.

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Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

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Ordered By

Enviro-Chem Laboratories
1214 E. Lexington Avenue
Pomona, CA 91766-5519

Telephone: (909)590-5905
Attention: Curtis Desilets

Number of Pages	**3**
Date Received	**01/25/2013**
Date Reported	**01/31/2013**

Job Number	Order Date	Client
68283	01/25/2013	ENVIRO

Project ID: 130124

Enclosed please find results of analyses of 1 soil sample which was analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766 Job#68283
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE #1555

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

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required: PAH 8310	COMMENTS
B-12/13 @ 0.5 (Composite)	130124-114, -117	1/23/13		Soil	1		None	X	68283.01

Misc./PO#

Company Name:	Enviro-Chem, Inc	Project Contact: Curtis Desilets	Sampler's Signature:
Address:	1214 E. Lexington Avenue	Tel: 909-590-5905	Project Name/ID:
City/State/Zip:	Pomona, CA 91766	Fax/Email: 909-590-5907	

Relinquished by:	Received by:	Date & Time: 1-25-13 1200	Instructions for Sample Storage After Analysis:
Relinquished by:	Received by:	Date & Time: 1-25-13 13.25	O Dispose of O Return to Client O Store (30 Days)
Relinquished by:	Received by:	Date & Time:	O Other:

CHAIN OF CUSTODY RECORD

Date: _____

WHITE WITH SAMPLE • YELLOW TO CLIENT

Page _____ of _____

American Environmental Testing Laboratory Inc.
2834 & 2908 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

Ordered By

Enviro-Chem Laboratories
1214 E. Lexington Avenue
Pomona, CA 91766-5519

Telephone: (909)590-5905
Attention: Curtis Desilets

Project ID: 130124
Date Received 01/25/2013
Date Reported 01/31/2013

Job Number	Order Date	Client
68283	01/25/2013	ENVIRO

CERTIFICATE OF ANALYSIS
CASE NARRATIVE

AETL received 1 samples with the following specification on 01/25/2013.

Lab ID	Sample ID	Sample Date	Matrix	QTY of Containers
68283.01	B-12/13 @ 0.5 13012	01/23/2013	Soil	1

The samples were analyzed as specified on the enclosed chain of custody.
No analytical non-conformances were encountered.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

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

Date: February 1, 2013

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

Project: **Shadow Run Ranch 174-12**
Lab I.D.: **130125-37 through -79**

Dear Mr. Cain:

The **analytical results** for the soil and water samples, received by our lab on January 25, 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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/24/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/25/13
DATE EXTRACTED:01/29/13
DATE ANALYZED:01/29/13
DATE REPORTED:02/01/13

SAMPLE I.D.: **HA-41/42@0.5'(COMPOSITE)**
LAB I.D.: 130125-37/-38(COMPOSITE)

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
Methoxyclor	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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/24/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/25/13
DATE EXTRACTED:01/29/13
DATE ANALYZED:01/29/13
DATE REPORTED:02/01/13

SAMPLE I.D.: **HA-43/40@0.5'(COMPOSITE)**
LAB I.D.: 130125-41/-57(COMPOSITE)

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
Methoxyclor	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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/24/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/25/13
DATE EXTRACTED:01/29/13
DATE ANALYZED:01/29/13
DATE REPORTED:02/01/13

SAMPLE I.D.: **HA-44@0.5'**
LAB I.D.: 130125-42

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
Methoxyclor	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: **Shadow Run Ranch 174-12**
MATRIX: SOIL
DATE SAMPLED: 01/24/13
REPORT TO: MR. JON CAIN

DATE RECEIVED: 01/25/13
DATE EXTRACTED: 01/29/13
DATE ANALYZED: 01/29/13
DATE REPORTED: 02/01/13

SAMPLE I.D.: **Boring 45@0.5'**
LAB I.D.: 130125-44

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
Methoxyclor	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: Shadow Run Ranch 174-12
MATRIX:SOIL
DATE SAMPLED:01/24/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/25/13
DATE EXTRACTED:01/29/13
DATE ANALYZED:01/29/13
DATE REPORTED:02/01/13

SAMPLE I.D.: HA-18@0.5'
LAB I.D.: 130125-47

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
Methoxyclor	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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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: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/24/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/25/13
DATE EXTRACTED:01/29/13
DATE ANALYZED:01/29/13
DATE REPORTED:02/01/13

SAMPLE I.D.: **HA-18@0.5' Duplicate**
LAB I.D.: 130125-48

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
Methoxyclor	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: Shadow Run Ranch 174-12
MATRIX:SOIL
DATE SAMPLED:01/24/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/25/13
DATE EXTRACTED:01/29/13
DATE ANALYZED:01/29/13
DATE REPORTED:02/01/13

SAMPLE I.D.: HA-9@0.5'
LAB I.D.: 130125-49

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
Methoxyclor	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.
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Tel(951)600-9271 Fax(951)600-9215

PROJECT: Shadow Run Ranch 174-12
MATRIX:SOIL
DATE SAMPLED:01/24/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/25/13
DATE EXTRACTED:01/29/13
DATE ANALYZED:01/29/13
DATE REPORTED:02/01/13

SAMPLE I.D.: HA-9@0.5' Duplicate
LAB I.D.: 130125-50

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

PROJECT: Shadow Run Ranch 174-12
MATRIX: SOIL
DATE SAMPLED: 01/24/13
REPORT TO: MR. JON CAIN

DATE RECEIVED: 01/25/13
DATE EXTRACTED: 01/29/13
DATE ANALYZED: 01/29/13
DATE REPORTED: 02/01/13

SAMPLE I.D.: HA-30@0.5'
LAB I.D.: 130125-53

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
Methoxyclor	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.**
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PROJECT: **Shadow Run Ranch 174-12**
MATRIX: SOIL
DATE SAMPLED: 01/24/13
REPORT TO: MR. JON CAIN

DATE RECEIVED: 01/25/13
DATE EXTRACTED: 01/29/13
DATE ANALYZED: 01/29/13
DATE REPORTED: 02/01/13

SAMPLE I.D.: **HA-30@0.5' Duplicate**
LAB I.D.: 130125-54

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
Methoxyclor	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: Shadow Run Ranch 174-12
MATRIX: SOIL
DATE SAMPLED: 01/24/13
REPORT TO: MR. JON CAIN

DATE RECEIVED: 01/25/13
DATE EXTRACTED: 01/29/13
DATE ANALYZED: 01/29/13
DATE REPORTED: 02/01/13

SAMPLE I.D.: HA-40@0.5' Duplicate
LAB I.D.: 130125-58

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

PROJECT: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/24/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/25/13
DATE EXTRACTED:01/29/13
DATE ANALYZED:01/29/13
DATE REPORTED:02/01/13

SAMPLE I.D.: **HA-61@0.5'**
LAB I.D.: 130125-61

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
Methoxyclor	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.**
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Tel(951)600-9271 Fax(951)600-9215

PROJECT: **Shadow Run Ranch 174-12**
MATRIX:SOIL
DATE SAMPLED:01/24/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/25/13
DATE EXTRACTED:01/29/13
DATE ANALYZED:01/29/13
DATE REPORTED:02/01/13

SAMPLE I.D.: **HA-61@0.5' Duplicate**
LAB I.D.: 130125-62

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
Methoxyclor	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: Shadow Run Ranch 174-12
MATRIX:SOIL
DATE SAMPLED:01/24/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/25/13
DATE EXTRACTED:01/29/13
DATE ANALYZED:01/29/13
DATE REPORTED:02/01/13

SAMPLE I.D.: Boring 66/67@0.5'(COMPOSITE)
LAB I.D.: 130125-64/-67(COMPOSITE)

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
Methoxyclor	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

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PROJECT: Shadow Run Ranch 174-12
MATRIX:SOIL
DATE SAMPLED:01/24/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/25/13
DATE EXTRACTED:01/29/13
DATE ANALYZED:01/29/13
DATE REPORTED:02/01/13

SAMPLE I.D.: Boring 62@0.5'
LAB I.D.: 130125-70

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
Methoxyclor	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.
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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: **Shadow Run Ranch 174-12**
MATRIX: SOIL
DATE SAMPLED: 01/24/13
REPORT TO: MR. JON CAIN

DATE RECEIVED: 01/25/13
DATE EXTRACTED: 01/29/13
DATE ANALYZED: 01/29/13
DATE REPORTED: 02/01/13

SAMPLE I.D.: **Boring 63/64@0.5'(COMPOSITE)**
LAB I.D.: 130125-73/-76(COMPOSITE)

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
Methoxyclor	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: Shadow Run Ranch 174-12
MATRIX:SOIL
DATE SAMPLED:01/24/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/25/13
DATE EXTRACTED:01/29/13
DATE ANALYZED:01/29/13
DATE REPORTED:02/01/13

SAMPLE I.D.: Boring 65@0.5'
LAB I.D.: 130125-79

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
Methoxyclor	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: Shadow Run Ranch 174-12
MATRIX:SOIL
DATE SAMPLED:01/24/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/25/13
DATE EXTRACTED:01/29/13
DATE ANALYZED:01/29/13
DATE REPORTED:02/01/13

METHOD BLANK FOR LAB I.D.: 130125-37,-38(COMPOSITE), 130125-41,-57(COMPOSITE), 130125-42, 130125-44, 130125-47 THROUGH -50

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
Methoxyclor	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** Date Analyzed: **1/29/2013**

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

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

Spiked Sample Lab I.D.: 130125-42 MS/MSD

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0.000	0.0500	0.0505	**101%**	0.0505	**101%**	**0%**	**0-20%**	**70-130**
Aldrin	0.000	0.0500	0.0551	**110%**	0.0527	**105%**	**4%**	**0-20%**	**70-130**
4,4-DDE	0.000	0.0500	0.0551	**110%**	0.0552	**110%**	**0%**	**0-20%**	**70-130**

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.00500	0.00516	**103%**	**75-125**
Aldrin	0.00500	0.00584	**117%**	**75-125**
4,4-DDE	0.00500	0.00498	**100%**	**75-125**
Dieldrin	0.00500	0.00521	**104%**	**75-125**

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		MB	130128-17	130128-18	130128-19	130128-20	130128-21	130128-22
Tetra-chloro-meta-xylene	50-150	100%	96%	97%	98%	102%	100%	108%
Decachlorobiphenyl	50-150	132%	128%	125%	123%	134%	129%	127%

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		130128-23	130128-24	130128-25	130128-26	130125-37/38	130125-41/57	130125-42
Tetra-chloro-meta-xylene	50-150	100%	103%	99%	104%	101%	100%	99%
Decachlorobiphenyl	50-150	124%	130%	121%	125%	127%	121%	135%

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		130125-44	130125-47	130125-48	130125-49	130125-50		
Tetra-chloro-meta-xylene	50-150	102%	103%	103%	102%	107%		
Decachlorobiphenyl	50-150	121%	127%	123%	142%	137%		

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: B

Final Reviewer: D

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: Shadow Run Ranch 174-12
MATRIX:SOIL
DATE SAMPLED:01/24/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/25/13
DATE EXTRACTED:01/29/13
DATE ANALYZED:01/29/13
DATE REPORTED:02/01/13

METHOD BLANK FOR LAB I.D.: 130125-53, 130125-54, 130125-58, 130125-61, 130125-62, 130125-64,-67(COMPOSITE), 130125-70, 130125-73,-76(COMPOSITE), 130125-79

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
Methoxyclor	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** Date Analyzed: **1/29/2013**

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

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

Spiked Sample Lab I.D.: 130125-53 MS/MSD

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0.000	0.0500	0.0496	**99%**	0.0523	**105%**	**5%**	**0-20%**	**70-130**
Aldrin	0.000	0.0500	0.0544	**109%**	0.0589	**118%**	**8%**	**0-20%**	**70-130**
4,4-DDE	0.000	0.0500	0.0573	**115%**	0.0617	**123%**	**7%**	**0-20%**	**70-130**

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.00500	0.00513	**103%**	**75-125**
Aldrin	0.00500	0.00607	**121%**	**75-125**
4,4-DDE	0.00500	0.00588	**118%**	**75-125**
Dieldrin	0.00500	0.00570	**114%**	**75-125**

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		MB	130125-53	130125-54	130125-58	130125-61	130125-62	130125-64/67
Tetra-chloro-meta-xylene	50-150	102%	109%	102%	99%	103%	107%	104%
Decachlorobiphenyl	50-150	141%	140%	142%	136%	146%	122%	143%

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		130125-70	130125-73/76	130125-79				
Tetra-chloro-meta-xylene	50-150	113%	109%	106%				
Decachlorobiphenyl	50-150	150%	148%	148%				

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.								
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: B

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: Shadow Run Ranch 174-12
MATRIX:WATER
DATE SAMPLED:01/24/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/25/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/30/13
DATE REPORTED:02/01/13

SAMPLE I.D.: Rinsate Equipment
LAB I.D.: 130125-63

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
Methoxyclor	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: Shadow Run Ranch 174-12
MATRIX:WATER
DATE SAMPLED:01/24/13
REPORT TO:MR. JON CAIN

DATE RECEIVED:01/25/13
DATE EXTRACTED:01/25/13
DATE ANALYZED:01/30/13
DATE REPORTED:02/01/13

METHOD BLANK FOR LAB I.D.: 130125-63

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
Methoxyclor	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

+ 8081A

Matrix: **Water/Liquid** Date Analyzed: 1/30/2013
Unit: ug/L

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)
Spiked Sample Lab I.D.: 130130-LCS1/LCS2

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0	5.00	5.03	**101%**	5.07	**101%**	**1%**	**0-20%**	**70-130**
Aldrin	0	5.00	6.00	**120%**	5.76	**115%**	**4%**	**0-20%**	**70-130**
4,4-DDE	0	5.00	5.71	**114%**	5.59	**112%**	**2%**	**0-20%**	**70-130**

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.500	0.503	**101%**	**75-125**
Aldrin	0.500	0.575	**115%**	**75-125**
4,4-DDE	0.500	0.589	**118%**	**75-125**
Dieldrin	0.500	0.572	**114%**	**75-125**

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		M-BLK	130124-21	130124-203	130125-63	130124-65	130129-11	130129-12
Tetra-chloro-meta-xylene	50-150	106%	66%	104%	116%	119%	106%	125%
Decachlorobipneyl	50-150	123%	116%	143%	148%	137%	131%	141%

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

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

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

Analyzed and Reviewed By: _____

Final Reviewer: _____

* = Surrogate fail due to matrix interference

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

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
HA-41@.5'	13015-37	01-24-13	8:27	Soil	1		NONE	X	Composite HA-41@.5' w/ HA-42@.5'
HA-41@1.5'		No Sample							
HA-41@3.0'		No Sample							
HA-42@.5'	-38	01-24-13	8:52	Soil	1		NONE	X	Composite HA-42@.5' w/ HA-41@.5'
HA-42@1.5	-39	↓	8:54				↓		Hold
HA-42@3.0	-40	↓	8:57				↓		Hold
HA-43@.5'	-41	01-24-13	9:43	Soil	1		NONE	X	Composite HA-43@.5' w/ HA-40@.5'
HA-43@1.5'		No Sample							
HA-43@3.0'		No Sample							
HA-44@.5'	-42	01-24-13	9:09	Soil	1		NONE	X	
HA-44@1.5'	-43	↓	9:16	Soil	1		↓		Hold
HA-44@3.0'		No Sample							
Boring 45@.5'	-44	01-24-13	8:22	Soil	1		NONE	X	
Boring 45@1.5'	-45	↓	8:22	↓	↓		↓		Hold
Boring 45@3.0'	-46	↓	8:22	↓	↓		↓		Hold

Company Name: Petra Geotechnical Inc.
Address: 40880 County Center Dr.
City/State/Zip: Temecula, CA 92591

Project Contact: Jon Cain
Tel: 1-951-600-9271
Fax:

Sampler's Signature:
Project Name/ID: 12-174

Relinquished by: 01-25-13 9:16
Relinquished by:
Relinquished by:

Received by: 1-25-13 9:17
Received by:
Received by:

Date & Time:
Date & Time: 1/25/13 1215
Date & Time:

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

CHAIN OF CUSTODY RECORD

Date:

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	OCP 8081A	Misc.	COMMENTS
HA-18 @ .5'	130175-47	01-24-13	10:07	soil	1		NONE	X		
HA-18 @ .5'	-48	〃	〃	soil	1		NONE	X		Duplicate
HA-18 @ 1.5'		No Sample								
HA-18 @ 3.0'		No Sample								
HA-9 @ .5'	-49	01-24-13	10:33	soil			NONE	X		
HA-9 @ .5'	-50	〃	10:33	soil			NONE	X		Duplicate
HA-9 @ 1.5'	-51	〃	10:46	〃	〃	〃	〃			Hold
HA-9 @ 3.0'	-52	〃	10:50	〃	〃	〃	〃			Hold
HA-30 @ .5'	-53	01-24-13	11:13	soil			NONE	X		
HA-30 @ .5'	-54	〃	11:13	〃	〃	〃	〃	X		Duplicate
HA-30 @ 1.5'	-55	〃	11:18	〃	〃	〃	〃			Hold
HA-30 @ 3.0'	-56	〃	11:21	〃	〃	〃	〃			Hold
HA-40 @ .5'	-57	01-24-13	11:37	soil			NONE	X		Composite HA-40@.5 w/ HA-45@.5
HA-40 @ .5'	-58	〃	11:37	〃	〃	〃	〃	X		Duplicate
HA-40 @ 1.5'	-59	〃	11:44	〃	〃	〃	〃			Hold

Analysis Required

Company Name: Petra Geotechnical Inc.
Address: 41080 County Center Dr.
City/State/Zip: Temecula CA 92591

Project Contact: Jon Cain
Tel: 1-951-600-9271
Fax:

Sampler's Signature:
Project Name/ID: 12-174

Relinquished by: 01-25-13 9:16
Relinquished by:
Relinquished by:

Received by: 1-25-13 9:17
Received by:
Received by:

Date & Time:
Date & Time: 1/25/13 12:05
Date & Time:

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

CHAIN OF CUSTODY RECORD

Date:

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
0 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	OCP 8081A	Misc.	COMMENTS
HA-40 @ 2.5'	130175-60	01-24-13	11:46	soil	1		NONE			Hold
HA-61 @ .5'	-61	〃	12:08	〃	〃		〃	X		
HA-61 @ .5'	-62	〃	12:08	〃	〃		〃	X		Duplicate
HA-61 @ 1.5'		No Sample								
HA-61 @ 3.0'		No Sample								
Rinsate Equipment	-63	01-24-13	12:14	Water	1		NONE	X		
Boring 66 @ .5'	-64	01-24-13	8:05	soil	1		NONE	X		Composite HA-66@.5' w/ HA-67@.5'
Boring 66 @ 1.5'	-65	〃	8:05	〃	〃		〃			Hold
〃 66 @ 3.0'	-66	〃	8:05	〃	〃		〃			Hold
Boring 67 @ .5'	-67	01-24-13	7:43	〃	〃		〃	X		Composite HA-67@.5' w/ HA-66@.5'
Boring 67 @ 1.5'	-68	〃	7:43	〃	〃		〃			Hold
〃 67 @ 3.0	-69	〃	7:43	〃	〃		〃			Hold

Analysis Required

Company Name: Petra Geotechnical Inc.	**Project Contact:** Jon Cain	**Sampler's Signature:**	
Address: 40880 County Center Dr.	**Tel:** 1-951-600-9271	**Project Name/ID:** 12-174	
City/State/Zip: Temecula, CA 92591	**Fax:**		

Relinquished by: 01-25-13 9:16	Received by: 1-25-13 9:17	Date & Time:	Instructions for Sample Storage After Analysis:
Relinquished by:	Received by:	Date & Time: 1/25/13 1245	O Dispose of O Return to Client O Store (30 Days)
Relinquished by:	Received by:	Date & Time:	O Other:

CHAIN OF CUSTODY RECORD

Date: _____

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
~~0~~ 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	OCP 8081A	Misc.	COMMENTS
Boring 62@.5'	130175-70	01-24-13	9:00	Soil	1		NONE	X		
Boring 62@1.5'	-71	↓	9:00	↓	↓		↓			Hold
" 62@3.0'	-72	↓	9:00	↓	↓		↓			Hold
Boring 63@.5'	-73	01-24-13	9:55	Soil	1		NONE	X		Composite HA-63@.5 w/ HA-64@.5
Boring 63@1.5'	-74	↓	9:55	↓	↓		↓			Hold
Boring 63@3.0'	-75	↓	9:55	↓	↓		↓			Hold
Boring 64@.5'	-76	01-24-13	9:22	Soil	1		NONE	X		Composite HA-64@.5 w/ HA-63@.5
Boring 64@1.5'	-77	↓	9:22	↓	↓		↓			Hold
" 64@3.0'	-78	↓	9:22	↓	↓		↓			Hold
Boring 65@.5'	-79	01-24-13	10:31	Soil	1		NONE	X		
Boring 65@1.5'		No Sample								
Boring 65@3.0'										

Analysis Required

Company Name: Petra Geotechnical Inc.
Address: 40880 County Center Dr.
City/State/Zip: Temecula, CA 92591

Project Contact: Jon Cain
Tel: 1-951-600-9271
Fax:

Sampler's Signature:
Project Name/ID: 12-174

Relinquished by: 01-25-13 9:16
Relinquished by:
Relinquished by:

Received by: 1-25-13 9:17
Received by:
Received by:

Date & Time:
Date & Time: 1/25/13 1215
Date & Time:

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

CHAIN OF CUSTODY RECORD

Date: _____

WHITE WITH SAMPLE • YELLOW TO CLIENT

Associated Laboratories
806 N. Batavia - Orange, CA 92868
Tel (714)771-6900 Fax (714)538-1209
www.associatedlabs.com
Info@associatedlabs.com

ACCREDITED IN ACCORDANCE WITH nelac
04232CA

Client: Enviro-Chem Laboratories, Inc.
Address: 1214 E. Lexington Avenue
Pomona, CA 91766

Attn: Curtis Desilets
Comments: 130124-108+111, 130124-114+117

Lab Request: 317245
Report Date: 02/01/2013
Date Received: 01/24/2013
Client ID: 7420

Dioxins and Furans EPA 8290 were performed by Ceres Analytical Laboratory, Inc. See attached.

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

Sample #	Client Sample ID
317245-001	B-10/11@0.5 Composite
317245-002	B-12/13@0.5 Composite

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

ASSOCIATED LABORATORIES by,

Nina Prasad
President

NOTE: Unless notified in writing , all samples will be discarded by appropriate disposal protocol 45 days from date reported.

TESTING & CONSULTING
Chemical
Microbiological
Environmental

Ceres Analytical Laboratory, Inc.
4919 Windplay Dr., Suite 1
El Dorado Hills, CA 95762

January 31, 2013 Ceres ID: 10044

Associated Laboratories
Ms. Kristen Walker
806 North Batavia
Orange, CA 92868

Dear Ms. Walker,

Enclosed please find the results for the two soil samples received on January 29, 2012. These samples were analyzed for tetra through octa chlorinated dioxins and furans by EPA 8290.

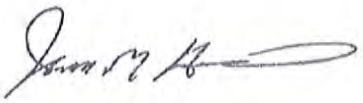
This work was authorized under Associated Laboratories' Purchase Order # 708383.

Due to email size limitations, this report consists of a Cover Letter, Sample Inventory (Section I), Data Summary (Section II), Sample Tracking (Section VI), and Qualifiers/Abbreviations (Section VII). A full report which will include the Raw Data (Section III), Continuing Calibration (Section IV), and Initial Calibration (Section V), will be sent on CD.

The Sample Tracking Section includes all external and internal chain of custodies, laboratory bench sheets, and any special instructions received.

If you have any questions regarding this report, please feel free to contact me at (888)932-5011.

Sincerely,



James M. Hedin
Director of Operations/CEO
jhedin@ceres-lab.com

Section I: Sample Inventory

Ceres Sample ID:	Sample ID	Date Received	Collection Date	&Time
10044-001	317245 #001	1/29/2013	1/23/2013	
10044-002	317245 #002	1/29/2013	1/23/2013	

Section II: Data Summary

Sample ID: Method Blank

Client Data		Sample Data		Laboratory Data			
Name:	Associated Laboratories	Matrix:	Soil	Lab Sample ID:	10044-MB001	Date Received:	NA
Project:	317245	Sample Size:	10.00 g	QC Batch #:	1031	Date Extracted:	29-Jan-13
Date Collected:	NA			ZB-5 MS Analysis Date:	30-Jan-13		
Time Collected:	NA						

Analyte	Conc. (pg/g)	DL [a]	EMPC [b]	Qualifiers
2,3,7,8-TCDD	ND	0.132		
1,2,3,7,8-PeCDD	ND	0.211		
1,2,3,4,7,8-HxCDD	ND	0.187		
1,2,3,6,7,8-HxCDD	ND	0.2		
1,2,3,7,8,9-HxCDD	ND	0.181		
1,2,3,4,6,7,8-HpCDD	0.238			J
OCDD	1.01			J
2,3,7,8-TCDF	ND	0.116		
1,2,3,7,8-PeCDF	ND	0.143		
2,3,4,7,8-PeCDF	ND	0.155		
1,2,3,4,7,8-HxCDF	ND	0.0973		
1,2,3,6,7,8-HxCDF	ND	0.102		
2,3,4,6,7,8-HxCDF	ND	0.112		
1,2,3,7,8,9-HxCDF	ND	0.139		
1,2,3,4,6,7,8-HpCDF	ND	0.0768		
1,2,3,4,7,8,9-HpCDF	ND	0.108		
OCDF	ND	0.447		

	Labeled Standards	% R	LCL-UCL [c]	Qualifiers
IS	^{13}C-2,3,7,8-TCDD	85.6	40 - 135	
	^{13}C-1,2,3,7,8-PeCDD	103	40 - 135	
	^{13}C-1,2,3,4,7,8-HxCDD	85.9	40 - 135	
	^{13}C-1,2,3,6,7,8-HxCDD	83.5	40 - 135	
	^{13}C-1,2,3,4,6,7,8-HpCDD	80.7	40 - 135	
	^{13}C-OCDD	58.7	40 - 135	
	^{13}C-2,3,7,8-TCDF	108	40 - 135	
	^{13}C-1,2,3,7,8-PeCDF	108	40 - 135	
	^{13}C-2,3,4,7,8-PeCDF	110	40 - 135	
	^{13}C-1,2,3,4,7,8-HxCDF	79.5	40 - 135	
	^{13}C-1,2,3,6,7,8-HxCDF	82.1	40 - 135	
	^{13}C-2,3,4,6,7,8-HxCDF	83.4	40 - 135	
	^{13}C-1,2,3,7,8,9-HxCDF	82.9	40 - 135	
	^{13}C-1,2,3,4,6,7,8-HpCDF	78.5	40 - 135	
	^{13}C-1,2,3,4,7,8,9-HpCDF	76.6	40 - 135	
CRS	$^{37}Cl_4$-2,3,7,8-TCDD	99.5	40 - 135	

Totals		
Total TCDD	ND	0.132
Total PeCDD	ND	0.211
Total HxCDD	ND	0.200
Total HpCDD	0.480	
Total TCDF	ND	0.116
Total PeCDF	ND	0.155
Total HxCDF	ND	0.139
Total Hp CDF	ND	0.108

Toxic Equivalent Quotient (TEQ) Data [d]

TEQ (Min): 0.00268

a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Lower control limit - upper control limit.
d. TEQ based on (2005) World Health Organization(WHO) Toxic Equivalent Factors.

Analyst: JMH Reviewed by: BS

Sample ID: 317245 #001

Client Data		Sample Data		Laboratory Data			
Name:	Associated Laboratories	Matrix:	Soil	Lab Sample ID:	10044-001	Date Received:	29-Jan-13
Project:	317245	Sample Size:	11.82 g	QC Batch #:	1031	Date Extracted:	29-Jan-13
Date Collected:	23-Jan-13	% Solids:	90.2	ZB-5 MS Analysis Date:	30-Jan-13	Q-225 Analysis Date:	NA
Time Collected:	NA						

Analyte	Conc. (pg/g)	DL [a]	EMPC [b]	Qualifiers
2,3,7,8-TCDD	ND	0.243		
1,2,3,7,8-PeCDD	ND	0.120		
1,2,3,4,7,8-HxCDD	ND	0.300		
1,2,3,6,7,8-HxCDD	ND	0.314		
1,2,3,7,8,9-HxCDD	ND	0.284		
1,2,3,4,6,7,8-HpCDD	2.50			J,B
OCDD	19.5			B
2,3,7,8-TCDF	0.563			J
1,2,3,7,8-PeCDF	0.410			J
2,3,4,7,8-PeCDF	0.371			J
1,2,3,4,7,8-HxCDF	0.310			J
1,2,3,6,7,8-HxCDF	0.262			J
2,3,4,6,7,8-HxCDF	0.221			J
1,2,3,7,8,9-HxCDF	ND	0.120		
1,2,3,4,6,7,8-HpCDF	0.589			J
1,2,3,4,7,8,9-HpCDF	ND	0.173		
OCDF	0.852			J

	Labeled Standards	% R	LCL-UCL [c]	Qualifiers
IS	^{13}C-2,3,7,8-TCDD	83.1	40 - 135	
	^{13}C-1,2,3,7,8-PeCDD	98.1	40 - 135	
	^{13}C-1,2,3,4,7,8-HxCDD	80.2	40 - 135	
	^{13}C-1,2,3,6,7,8-HxCDD	80.2	40 - 135	
	^{13}C-1,2,3,4,6,7,8-HpCDD	76.0	40 - 135	
	^{13}C-OCDD	56.0	40 - 135	
	^{13}C-2,3,7,8-TCDF	103	40 - 135	
	^{13}C-1,2,3,7,8-PeCDF	106	40 - 135	
	^{13}C-2,3,4,7,8-PeCDF	105	40 - 135	
	^{13}C-1,2,3,4,7,8-HxCDF	76.5	40 - 135	
	^{13}C-1,2,3,6,7,8-HxCDF	79.1	40 - 135	
	^{13}C-2,3,4,6,7,8-HxCDF	78.3	40 - 135	
	^{13}C-1,2,3,7,8,9-HxCDF	78.8	40 - 135	
	^{13}C-1,2,3,4,6,7,8-HpCDF	76.0	40 - 135	
	^{13}C-1,2,3,4,7,8,9-HpCDF	72.4	40 - 135	
CRS	$^{37}Cl_4$-2,3,7,8-TCDD	98.3	40 - 135	

Total TCDD	1.59			
Total PeCDD	0.498	1.22		
Total HxCDD	0.533			
Total HpCDD	2.50	5.60	B	
Total TCDF	8.18	9.19		
Total PeCDF	3.63			
Total HxCDF	2.02			
Total HpCDF	0.589	1.14		

Toxic Equivalent Quotient (TEQ) Data [d]

TEQ (Min): 0.296

a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Lower control limit - upper control limit.
d. TEQ based on (2005) World Health Organization(WHO) Toxic Equivalent Factors.

Results are reported in dry weight. Sample size is reported in wet weight.

Analyst: JMH Reviewed by: BS

Sample ID: 317245 #002

Client Data		Sample Data		Laboratory Data			
Name:	Associated Laboratories	Matrix:	Soil	Lab Sample ID:	10044-002	Date Received:	29-Jan-13
Project:	317245	Sample Size:	17.70 g	QC Batch #:	1031	Date Extracted:	29-Jan-13
Date Collected:	23-Jan-13	% Solids:	51.2	ZB-5 MS Analysis Date:	30-Jan-13	Q-225 Analysis Date:	31-Jan-13
Time Collected:	NA						

Analyte	Conc. (pg/g)	DL [a]	EMPC [b]	Qualifiers
2,3,7,8-TCDD	0.506			J
1,2,3,7,8-PeCDD	1.12			J
1,2,3,4,7,8-HxCDD	0.862			J
1,2,3,6,7,8-HxCDD	2.36			J
1,2,3,7,8,9-HxCDD	1.89			J
1,2,3,4,6,7,8-HpCDD	35.1			B
OCDD	181			B
2,3,7,8-TCDF	4.51			
1,2,3,7,8-PeCDF	2.06			J
2,3,4,7,8-PeCDF	1.81			J
1,2,3,4,7,8-HxCDF	0.815			J
1,2,3,6,7,8-HxCDF	0.883			J
2,3,4,6,7,8-HxCDF	0.816			J
1,2,3,7,8,9-HxCDF	ND	0.172		
1,2,3,4,6,7,8-HpCDF	2.42			J
1,2,3,4,7,8,9-HpCDF	ND	0.220		
OCDF	5.15			J
Total TCDD	8.58			
Total PeCDD	8.80		12.2	
Total HxCDD	24.6			
Total HpCDD	63.8			B
Total TCDF	55.7		56.6	
Total PeCDF	19.5			
Total HxCDF	7.50			
Total HpCDF	5.82			

	Labeled Standards	% R	LCL-UCL [c]	Qualifiers
IS	^{13}C-2,3,7,8-TCDD	85.7	40 - 135	
	^{13}C-1,2,3,7,8-PeCDD	101	40 - 135	
	^{13}C-1,2,3,4,7,8-HxCDD	81.9	40 - 135	
	^{13}C-1,2,3,6,7,8-HxCDD	79.3	40 - 135	
	^{13}C-1,2,3,4,6,7,8-HpCDD	75.6	40 - 135	
	^{13}C-OCDD	54.6	40 - 135	
	^{13}C-2,3,7,8-TCDF	104	40 - 135	
	^{13}C-1,2,3,7,8-PeCDF	107	40 - 135	
	^{13}C-2,3,4,7,8-PeCDF	107	40 - 135	
	^{13}C-1,2,3,4,7,8-HxCDF	77.5	40 - 135	
	^{13}C-1,2,3,6,7,8-HxCDF	77.0	40 - 135	
	^{13}C-2,3,4,6,7,8-HxCDF	78.1	40 - 135	
	^{13}C-1,2,3,7,8,9-HxCDF	79.1	40 - 135	
	^{13}C-1,2,3,4,6,7,8-HpCDF	74.8	40 - 135	
	^{13}C-1,2,3,4,7,8,9-HpCDF	69.8	40 - 135	
CRS	$^{37}Cl_4$-2,3,7,8-TCDD	98.1	40 - 135	

Toxic Equivalent Quotient (TEQ) Data [d]

TEQ (Min): 3.88

a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Lower control limit - upper control limit.
d. TEQ based on (2005) World Health Organization(WHO) Toxic Equivalent Factors.

Results are reported in dry weight. Sample size is reported in wet weight.

Analyst: JMH

Reviewed by: BS

ASSOCIATED LABORATORIES
806 North Batavia – Orange, California 92868 – 714-771-6900 *FAX 714-538-1209*

SAMPLE ACCEPTANCE CHECKLIST

Section 1
Client: Enviro-Chem Project: _____
Date Received: 1-24-13 Sampler's Name: Yes (No)
Sample(s) received in cooler: (Yes) No (Skip Section 2)
Shipping Information: _____

Section 2
Was the cooler packed with: ✓ Ice ___ Ice Packs ___ Bubble Wrap ___ Styrofoam
___ Paper ___ None ___ Other _____
Cooler or box temperature: 3.0

(Acceptance range is 0 to 6 Deg. C.)

Section 3	YES	NO	N/A
Was a COC received?	✓		
Is it properly completed? (IDs, sampling date and time, signature, test)	✓		
Were custody seals present?		✓	
If Yes – were they intact?			✓
Were all samples sealed in plastic bags?	✓		
Did all samples arrive intact? If no, indicate below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were correct containers used for the tests required?	✓		
Was a sufficient amount of sample sent for tests indicated?	✓		
Was there headspace in VOA vials?			✓
Were the containers labeled with correct preservatives?	✓		
Was total residual chlorine measured (Fish Bioassay samples only)? *			✓

*: If the answer is no, please inform Fish Bioassay Dept. immediately.

Section 4
Explanations/Comments

Section 5
Was Project Manager notified of discrepancies: Y / N N/A

Completed By: _____ Date: 1-24-13

Created on 7/6/2012 1:29:00 PM

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

Misc./PO# 37245

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required: Dioxins 8290	COMMENTS
x B-10/11@0.5 composite	130124-108+111	1/23/13		SOIL	1		NONE	X	
x B-12/13@0.5 composite	130124-114+117	1/23/13		SOIL	1		NONE	X	

Company Name:	Enviro-Chem, Inc	Project Contact: Curtis Desilets	Sampler's Signature:
Address:	1214 E. Lexington Avenue	Tel: 909-590-5905	Project Name/ID:
City/State/Zip:	Pomona, CA 91766	Fax/Email: 909-590-5907	

Relinquished by:	Received by:	Date & Time: 1/24/13 1515	Instructions for Sample Storage After Analysis:
Relinquished by: 1/24/13 1610	Received by:	Date & Time: 1-24-13	O Dispose of O Return to Client O Store (30 Days)
Relinquished by:	Received by:	Date & Time: 16:43	O Other:

CHAIN OF CUSTODY RECORD

Date: _____

WHITE WITH SAMPLE • YELLOW TO CLIENT

Page _____ of _____