

**RECEIVED**

By Alameda County Environmental Health 3:34 pm, Nov 29, 2016

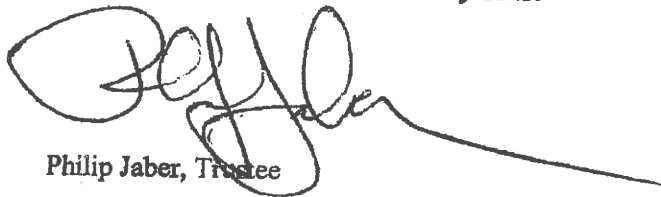
Mr. Mark Detterman  
Alameda County Environmental Health Care Services  
Department of Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502

Re: Former Olympic Service Station  
1436 Grant Avenue  
San Lorenzo, California  
ACEHD Case No. RO0000373, GeoTacker No. T0600102256

Dear Mr. Detterman:

I declare, under penalty of perjury, that the information and or recommendations contained in the attached document are true and correct to the best of my knowledge.

Sincerely,  
George and Frida Jaber 1989 Family Trust

A handwritten signature in black ink, appearing to read "Philip Jaber", with a long horizontal line extending to the right.

Philip Jaber, Trustee



3330 Cameron Park Drive, Ste 550  
Cameron Park, California 95682  
(530) 676-6004 ~ Fax: (530) 676-6005

November 28, 2016  
Project No. 2115-1436-01

Mr. Mark Detterman, P.G.  
Alameda County Environmental Health Department  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502

Re: **Additional Site Investigation Report**  
Former Olympic Service Station  
1436 Grant Avenue, San Lorenzo, California  
LOP Case #RO0000373

Dear Mr. Detterman:

Stratus Environmental, Inc. (Stratus), on behalf of Mr. Philip Jaber and the George and Frida Jaber 1989 Family Trust, has prepared this *Additional Site Investigation Report (Report)* for the Former Olympic Service Station located at 1436 Grant Avenue in San Lorenzo, California (the site, see Figures 1 through 3). Alameda County Environmental Health Department (ACEHD) currently regulates an environmental case on the subject property relating to a historical release of motor vehicle fuel to the subsurface. On May 5, 2016, ACEHD distributed a letter requesting that a scope of work be developed to address issues of concern to the agency. In response to this request, and subsequent discussions with agency personnel, Stratus prepared a *Work Plan for Additional Site Assessment (Work Plan)*, dated July 28, 2016, and *Addendum to Work Plan for Additional Site Assessment (Addendum)*, dated September 6, 2016, and submitted the documents to ACEHD. After reviewing the content of these documents, ACEHD personnel issued a letter, dated September 21, 2016, approving, with comments, the proposed work activities.

Stratus recently directed the advancement of five onsite soil borings to enable assessment of post dual phase extraction (DPE) concentrations of fuel contaminants in soil. In addition, a second group of post-DPE soil vapor samples were collected from the site. Stratus also conducted an expanded field reconnaissance to the northwest, west, and southwest of the subject property in order to attempt to locate any additional undocumented water supply wells located in relative close proximity to the site. This report documents the work activities completed, and provides findings associated with these work tasks. This report also includes information regarding additional field reconnaissance work for water supply wells located near the site.

## **SITE DESCRIPTION**

The subject site is located on the southern corner of the intersection of Grant Avenue and Channel Street in San Lorenzo, California. The site previously operated as the Olympic Service Station; it is currently operated as San Lorenzo Auto Repair. The current configuration of the property is depicted on Figure 2.

The adjoining property to the southwest and south is developed as the Arroyo Center strip mall. Properties to the north and northwest (across Grant Avenue) are developed as single family detached residences, and the property to the east and northeast (across Channel Street) has been developed as multi-family housing units (apartments or condominiums). A parking lot and athletic fields for Arroyo High School are situated on property north of Grant Avenue, across the intersection.

## **SITE BACKGROUND SUMMARY**

The following information has been summarized based on information presented in reports prepared by Reese Construction, Aqua Science Engineers, Inc. (ASE), and Conestoga-Rovers & Associates (CRA), and work performed by Stratus.

The former underground storage tanks (USTs) and associated product dispensers were removed in 1998. Ten groundwater monitoring wells (MW-1 through MW-4, MW-5A/B, MW-6A/B, MW-7A/B, and MW-8A/B), seven soil vapor sampling points (SV-1 through SV-7), seven extraction wells (EX-1 through EX-7), two ozone injection wells (IW-1 and IW-2), and nineteen exploratory soil borings (BH-A through BH-C, B-1 through B-13, and B-13A through B-13C) were installed between 1999 and 2015. Locations of the wells, vapor sampling points, and soil borings are shown on Figure 2. Drilling and well construction details are summarized in Table 1.

Chemicals of concern (COCs) at this site include gasoline-range organics (GRO)/total petroleum hydrocarbons as gasoline (TPHG), benzene, toluene, ethylbenzene, and xylenes (BTEX), and the gasoline additive methyl tertiary butyl ether (MTBE). Between 1999 and 2015, groundwater levels beneath the property have ranged between approximately 5.2 and 11.2 feet below ground surface (bgs). The site is currently under a semi-annual groundwater monitoring and sampling program; although ACEHD requested in the May 5, 2016 letter that all wells be sampled quarterly until further notice. A review of Table 1 indicates that five site wells (MW-4, MW-5A, MW-6A, MW-7A, and MW-8A) have been installed to approximately 10 to 12 feet bgs, while the other monitoring / extraction wells have been installed to depths ranging from approximately 20 to 26 feet bgs. In general, fuel contaminant concentrations in the MW-4, MW-5A, and MW-6A samples are higher than contaminant levels in the other wells.

Groundwater samples have historically been analyzed for diesel-range organics (DRO) and the fuel additives di-isopropyl ether (DIPE), tertiary amyl butyl ether (TAME), ethyl tertiary butyl ether (ETBE), tertiary butyl alcohol (TBA), 1,2-dichlorethane (1,2-DCA), 1,2-dibromoethane (EDB), and ethanol. These analytes are not currently included in the groundwater analytical suite.

In general, most soils situated in the upper 15 to 18 feet of the subsurface appear to be predominately fine grained (mixtures of silt/clay, exclusive of fill material). Below this depth, to approximately 25 feet bgs, soil strata have been described as silty sand, clayey sand, and sand.

Soil vapor sampling was performed at the site in 2010; in general, relatively high concentrations of GRO and BTEX were detected in these samples. GRO and benzene were reported at maximum levels of 52,000,000 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) and 160,000  $\mu\text{g}/\text{m}^3$ , respectively, at that time.

Most of the petroleum hydrocarbon impact to the subsurface appears to have been situated above approximately 20 feet bgs, and in relatively close proximity to the former USTs and fuel dispenser islands (soil sample analytical data collected prior to DPE remediation is discussed below). In a September 2012 Corrective Action Plan (CAP), Stratus estimated that a mass of 955 pounds of TPHG/GRO were present in soil at the site above 20 feet bgs.

Based on our general understanding of the distribution of contaminants beneath the property, site geologic conditions, and depth to groundwater levels, DPE was selected as a possible remedial alternative for the site. In June 2011, a DPE pilot test was performed at the site, using wells EX-1 through EX-3 for extraction. Based on the findings of this test, DPE was deemed by Stratus to be a viable remedial alternative for the site. Stratus subsequently prepared a CAP for the property, recommending use of DPE at the site, and after receiving approval of this document, installed four additional extraction wells (EX-4 through EX-7).

In July 2014, Stratus initiated full scale DPE at the subject site. As of December 2, 2015, an estimated mass of 983 pounds of GRO have been removed from the subsurface in the vapor phase. Since initiation of DPE, a total of approximately 1,491,520 gallons of groundwater have been extracted from the subsurface, treated onsite using granular activated carbon (GAC), and discharged to the local sewer system. Influent vapor phase concentrations of fuel contaminants have declined appreciably over time, and since the summer of 2015, relatively low concentrations of fuel contaminants were being removed from the subsurface. DPE has been discontinued and the DPE thermal oxidizer has been removed from the site.



In December 2015, Stratus directed the installation of two groundwater monitoring wells (MW-7A and MW-8A), and two additional soil vapor probes (SV-6 and SV-7). After shut down of the DPE system, and allowing approximately one month for equilibration of subsurface conditions, Stratus performed a soil vapor survey on January 28, 2016, (five of the seven wells could be sampled; two of the wells contained moisture and could not be sampled). GRO was detected in one sample (SV-6, 6,900  $\mu\text{g}/\text{m}^3$ ); benzene, ethylbenzene, and naphthalene were not detected in any of the samples. Given the findings of the 2016 soil vapor sampling event, DPE appears to have significantly reduced contaminant concentrations in shallow soil vapor.

CRA performed a water well survey using Department of Water Resources (DWR) well completion records obtained in 2008. At this time, no water wells were identified within a 1,000-foot radius of the site. At the request of ACEHD, Stratus conducted a door-to-door field reconnaissance (in December 2015) in order to attempt to locate water wells not documented in the DWR records. At this time, 67 residences were visited, and contact was made with 44 of these owners/tenants. Stratus identified three residences that utilize water wells (at 1408 Via Barrett, 1587 Via Rancho, and 15857 Via Seco; see Figure 3 for location). At each of these three residences, Stratus was verbally informed by the owner/tenant the wells were used exclusively for irrigation (lawn watering and landscaping); it is likely that the wells are used seasonally. With permission from the property owners, Stratus has collected samples from the wells at 1587 Via Rancho (July 26, 2016) and 15857 Via Seco (September 6, 2016); MTBE was detected in both well samples, at concentrations of 57 micrograms per liter ( $\mu\text{g}/\text{L}$ ) and 0.68  $\mu\text{g}/\text{L}$ , respectively. Construction details of these two wells are unknown; however, the well at 15857 Via Seco has a measured total depth of approximately 23.7 feet bgs. The property owner at 1408 Via Barrett refused access for sampling of the well. The wells located at 15857 Via Seco and 1587 Via Rancho were near the perimeter of the area canvassed in December 2015; since these wells were impacted, Stratus expanded the canvassing area in order to attempt to identify additional wells that may be impacted, and revisited properties where contact was not made with the owner/tenant in December 2015 (discussed later in this report).

## **SCOPE OF WORK**

The objectives of the implemented work scope were to:

- Evaluate current concentrations of petroleum hydrocarbons in soil, focused on areas of the site where elevated levels of fuel contaminants were detected during historical investigations.
- Assess current concentrations of petroleum hydrocarbons in shallow soil vapor.

- Attempt to identify additional undocumented water supply wells, if any, in the neighborhood west, northwest, and southwest of the site.
- Evaluate the possibility of other sources of subsurface fuel contamination that could potentially have impacted the water wells at 15857 Via Seco or 1587 Via Rancho, or other areas near the site.
- Verify that all properties in the vicinity of the site are served by a municipal water supply.

To accomplish these objectives, Stratus implemented the following work activities:

- Advanced five (5) soil borings (GP-1 through GP-5) to approximately 24 feet bgs using direct push methods.
- Collected soil samples from borings GP-1 through GP-5 for lithologic comparison and chemical analysis.
- Collected soil vapor samples from SV-1, SV-2, and SV-4 through SV-7 (SV-3 could not be sampled due to water in the sampling tubing).
- Conducted an expanded door-to-door field reconnaissance.
- Obtained property use records of the area near the site from Environmental Data Resources (EDR).
- Attempted to contact East Bay Municipal Utility District (EBMUD) to verify municipal water supply availability to all properties near the site.

## **EXPANDED WATER SUPPLY WELL FIELD RECONNAISSANCE AND MUNICIPAL WATER SOURCE VERIFICATION**

CRA performed a water well survey using DWR well completion records obtained in 2008. At this time, no wells were identified within a 1,000-foot radius of the site.

At the request of ACEHD, Stratus conducted a door-to-door field reconnaissance north, south, west, southwest, and northwest (downgradient to cross gradient) of the site in order to attempt to locate any wells that were undocumented with DWR. The field reconnaissance focused on residential areas located within approximately 500 to 700 feet to the south, north, and west of the site. Stratus visited the area between 2:00 and 6:00 p.m. on December 16, 2015. On this date, 67 residences were visited, and contact was made with 44 of these owners/tenants. Each property was initially visited, and then a return visit was made between 5:00 and 6:00 p.m. at residences where no one was home earlier in the day.

As discussed above, after collecting samples from two water wells (at 1587 Via Rancho and 15857 Via Seco), and reporting detections of MTBE in both samples, the water supply well reconnaissance area was expanded. Stratus conducted additional neighborhood well canvassing on September 24 and October 1, 2016, at times between approximately 10:00 a.m. and 4:00 p.m., in order to attempt to locate additional undocumented water wells. This work was performed on a Saturday, during daytime hours, with the intention of reaching as many residents as possible. Table 2 presents a summary of the findings of the water well survey activities performed in December 2015, and September and October 2016. The locations of properties where water wells were identified, or are suspected to be present (but not confirmed), are illustrated on Figure 3.

Stratus attempted to contact EBMUD in order to verify that all residences near the site were serviced with municipal water; however, inquiries to the agency were unsuccessful.

At some locations, we suspect that water wells are present on the property due to the presence of two EBMUD vault boxes in front of the residence, instead of one. The second vault box reportedly contains an 'anti-siphoning device' installed by EBMUD at select residences. Not all residences in the neighborhood have participated in the anti-siphoning device installation program, however, and thus the absence of a second EBMUD vault box does not eliminate the possibility of an irrigation well on the property. At each of the properties with wells in use, Stratus was verbally informed by the owner/tenant the wells were used exclusively for outdoor use (such as lawn watering and landscaping). Given the use of these wells, we expect that the wells are used intermittently and seasonally, with most groundwater pumping occurring during the late spring, summer, and fall months when precipitation is limited.

Very little or no information regarding the construction specifications of any of the wells is known. Two of the residents (15772 Via Teresa, 15868 Corte Ulisse) reported hand digging their wells to approximately 17 to 20 feet bgs, and terminating the borings at this depth due to the difficulty of removing wet, liquefied, non-cohesive sand using an augering device. As stated earlier, the well at 15857 Via Seco was measured to a total depth of approximately 23.7 feet bgs. Based on this information, we believe that it is likely that many of the water wells identified during the field reconnaissance extract groundwater from the same water bearing sand strata that is present onsite, and monitored by the 20 to 26-foot depth monitoring wells.

The following summarizes the findings of the water supply well reconnaissance and sampling activities completed to date:

- A total of 177 residences were visited by Stratus personnel between December 2015 and October 2016, and contact was made with approximately 119 property owners/tenants. These properties are situated within approximately 1,100 feet northwest and 1,400 feet west and southwest of the site. Thirteen wells were

located and eight of these wells were confirmed to be in use. At least seven additional properties may have wells, however additional information would be needed to confirm the presence of a well (see Table 2 for summarized information).

- Groundwater samples were collected from six properties where water wells were identified (1632 Via Barrett, 1587 Via Rancho, 15857 Via Seco, 1617 Via Lacqua, 15868 Corte Ulisse, and 15772 Via Teresa) with consent of the property owner or tenant. Laboratory results for these samples were transmitted to ACEHD and the property owners in separate reports issued for each specific property. MTBE was detected in three of the samples; 57 µg/L at 1587 Via Rancho, 0.68 µg/L at 15857 Via Seco, and 1.0 µg/L at 1617 Via Lacqua. GRO and BTEX concentrations were below laboratory detection limits in all water well samples.
- Two property owners (1408 Via Barrett and 1742 Via Rancho) actively use their water wells but refused to allow sampling of the extracted groundwater.
- At five additional residences (15765 Via Teresa, 15779 Via Seco, 1769 Via Rancho, 1571 Via Chorro, and 15866 Corte Angelo), the owner/tenants indicated that wells were present, but were not in use. At one of these residences (15866 Corte Angelo), the owner indicated that they intended to begin using the well in the future to begin watering trees for a small orchard in their yard (but the well pump is currently non-operational).
- At one residence (1540 Via Chorro), Stratus believes that a water well is present and in use, however we were unable to communicate with the owner / tenant due to a language barrier (owner/tenant only speaks an Asian language).
- At three residences (15778 Via Seco, 1794 Via Rancho, and 15854 Corte Geraldo), Stratus was informed by a neighbor or family member of the likely presence of a well, but we were unable to confirm the presence of a well.
- At three residences (1587 Via Chorro, 15753 Via Teresa, and 15850 Corte Yolanda), conflicting information regarding the possible presence of a well was observed or received.

## **ADDITIONAL POTENTIAL SOURCES OF IMPACT**

In September 2016, Stratus obtained a report from EDR in order to research whether any other historical land use activities in the area near the site were likely to contribute to groundwater impact near the site. Based on our review of the report, Stratus did not identify any other properties located in close enough proximity to the site where fuel

contaminant impact could reasonably be attributed to another party. It should be noted, however, that all sources of potential impact to groundwater cannot be discerned from the EDR report (for example, there would be no official record of a resident dumping of few gallons of gasoline into their yard, if the dumping was never reported or disclosed in any way).

## **FIELD ACTIVITIES**

Prior to initiating site assessment activities, a drilling permit was obtained from Alameda County Public Works Agency (ACPWA). Underground Service Alert, the Jaber's, the property tenant, ACPWA, and ACEHD were notified 48 hours prior to beginning work activities. All work was conducted under the direct supervision of a State of California Registered Professional Geologist. A generalized description of the field practices and procedures utilized during the drilling work performed during this phase of investigation are described in Appendix A. A copy of the drilling permit is provided in Appendix B.

### **Soil Borings**

A Stratus geologist was onsite to oversee Penecore Drilling, Inc. (C-57 license no. 906899) complete the drilling activities on October 18, 2016. The soil borings were advanced using a direct push drilling rig. Soil cores were retained continuously through the length of the boring within acetate liners installed within a direct push coring device. Soil samples were collected at select intervals by cutting the acetate liners into 6-inch length segments. The ends of each sample were lined with Teflon™ sheets, capped, and sealed. Each sample was labeled, placed in a resealable plastic bag, and stored in an ice-chilled cooler. Strict chain-of-custody procedures were followed from the time the samples were collected until the time the samples were relinquished to the laboratory.

Soils were classified onsite using the Unified Soil Classification System. Boring logs detailing soil and lithologies encountered during this investigation are included in Appendix B. The boring logs were also uploaded to Geotracker (GeoBore); confirmation sheets documenting uploading of these boring logs are provided in Appendix E. Soil from each sampled interval was also field screened using a photo-ionization detector (PID); the PID readings obtained in the field are included on the soil boring logs.

### **Soil Vapor Sampling**

Stratus visited the site on September 6, 2016, to collect soil vapor samples from SV-1 through SV-7. Prior to sampling, expendable SUMMA™ canisters were used to purge ambient air situated inside of the sand filter pack and the Teflon tubing connected to the soil vapor wells. Following purging of this ambient air, a separate 1-liter SUMMA™ canister was used to collect each soil vapor sample. Per ACEHD's request, a shroud

provided by the laboratory that supplied the SUMMA™ canisters was used while collecting soil vapor samples. In order to maintain a contained ‘atmosphere’ within the shroud while sampling, Stratus utilized paper towels saturated with iso-propyl alcohol for leak detection instead of spraying 1,1-difluoroethane on the sampling train (which would require lifting the shroud to apply the leak detection gas). The SUMMA™ canisters were filled at a regulated maximum flow rate of 200 milliliters per minute (ml/min). Following collection of the samples, the SUMMA™ canisters were stored at ambient air temperature, using proper chain-of-custody procedures, until delivered to the analytical laboratory for chemical analysis. A field data sheet documenting measurements collected during soil vapor sampling is included in Appendix C. Soil vapor probe SV-3 could not be sampled on September 6, 2016, due to the presence of water within the sampling tubing; water in the tubing also prevented soil vapor sampling of SV-3 by Stratus personnel on January 28, 2016.

### **Analytical Methods**

Soil samples were forwarded to Alpha Analytical, Inc., a California state-certified laboratory (ELAP #2019), for chemical analysis under strict chain-of-custody procedures. The samples were analyzed for GRO using United States Environmental Protection Agency (USEPA) Method SW8015B/SW8260B, and for BTEX and MTBE using USEPA Method SW8260B. Samples collected from above 10 feet bgs were additionally analyzed for naphthalene and 15 other polynuclear aromatic hydrocarbons (PAHs, see laboratory report for full list) using USEPA Method SW8270C. Table 3 presents a summary of soil analytical data. Certified analytical reports and chain-of-custody documentation are provided in Appendix D. The certified analytical reports prepared by Alpha Analytical have been uploaded to the State of California’s GeoTracker database; upload confirmation documentation for these lab results are included in Appendix E.

Soil vapor samples were forwarded to BC Laboratories, Inc., a California state-certified laboratory (ELAP #1186), for chemical analysis under strict chain-of-custody procedures. The samples were analyzed for GRO, BTEX, MTBE, naphthalene, and isopropyl alcohol (leak detector) using EPA Method TO-15, and for carbon dioxide, methane, and oxygen using American Society of Testing and Materials (ASTM) Method D1946. Soil vapor analytical results are summarized on Table 4. Certified analytical reports and chain-of-custody documentation are provided in Appendix D. The certified analytical reports prepared by BC Laboratories have been uploaded to the State of California’s GeoTracker database; upload confirmation documentation for these lab results are included in Appendix E. It should be noted that in the September 21, 2016 letter issued by ACEHD, the agency requested naphthalene analysis be performed using EPA Method TO-17. However, Stratus had already collected the samples two weeks prior to receiving this letter and submitted the samples to the laboratory for analysis (requested by ACEHD in

May 2016), and the selected laboratory did not have the capability to perform the TO-17 method analysis, and thus the naphthalene analysis was performed using the TO-15 method instead. In the future, if vapor analysis for naphthalene is necessary, Stratus will utilize a laboratory capable of performing the analysis using method TO-17.

## FINDINGS

### Soil Analytical Results

Based on the available soil analytical results, most of the remaining fuel contaminant impact to soil is situated between approximately 7 and 12 feet bgs, with the highest concentrations of contaminants detected at approximately 9 to 10 feet bgs. At borings GP-1, GP-3, GP-4, and GP-5, maximum GRO and benzene concentrations were reported at 100 and 0.26 mg/Kg, respectively (GP-1 at 9.5 feet bgs), 9.9 and 0.21 mg/Kg, respectively (GP-3 at 9.5 feet bgs), 43 and 0.37 mg/Kg, respectively (GP-4 at 9 feet bgs), and 210 and 0.45 mg/Kg, respectively (GP-5 at 9.5 feet bgs). Naphthalene was detected in four of the samples (collected above 10 feet bgs), at concentrations ranging from 0.69 mg/Kg (GP-4 at 9 feet bgs) to 2.4 mg/Kg (GP-1 at 9.5 feet bgs). No fuel contaminants were detected in any of the samples collected above 5 feet bgs. PAH concentrations (15 different chemicals) were reported below laboratory instrument detection limits in all of the samples tested for these constituents (above 10 feet bgs).

### Pre and Post-Remediation Soil Analytical Data Comparison

Historical soil analytical data for samples collected prior to completion of DPE remediation at the site is attached in Appendix F. The table below also presents a summary of soil analytical data for borings advanced in close proximity to one another before, and following, DPE remediation.

South of Building, Near Former Waste Oil UST	GRO (mg/Kg)	Benzene (mg/Kg)
EX-7-9 (2/2014)	38	0.094
GP-3-9.5 (10/2016)	9.9	0.21
SW (Downgradient) of Site	GRO (mg/Kg)	Benzene (mg/Kg)
BH-B (11.5', 4/2002)	290	2.2

GP-4-10.5 (10/2016)	26	0.26
<b>Former Fuel Dispenser Area</b>	<b>GRO (mg/Kg)</b>	<b>Benzene (mg/Kg)</b>
MW-4-5 (2/2010)	360	<0.1
GP-4-4.5 (10/2016)	<1.0	<0.005
B-1 (7', 2/2008)	290	0.25
GP-4-7 (10/2016)	26	0.064
B-1 (10.5', 2/2008)	140	0.31
GP-4-10.5 (10/2016)	26	0.26
B-1 (19.5', 2/2008)	85	0.42
GP-4-19.5 (10/2016)	<1.0	<0.005
<b>Adjacent to Site Building, SW side</b>	<b>GRO (mg/Kg)</b>	<b>Benzene (mg/Kg)</b>
EX-3-6 (5/2011)	41	0.023
GP-2-7 (10/2016)	<1.0	<0.005
EX-3-11 (5/2011)	340	<0.1
GP-2-11.5 (10/2016)	11	<0.005



North Side of Former Gas USTs, But Outside of Excavation Cavity	GRO (mg/Kg)	Benzene (mg/Kg)
T-3E-7.0 (7/1998)	3,800	30
GP-5-9.5 (10/2016)	210	0.45

As illustrated above, fuel contaminant concentrations in soil appear to have declined significantly across the site, when comparing data collected from before completion of DPE and the post-DPE data collected during the October 2016 site investigation.

A review of data in Table 3 indicates that soil analytical concentrations beneath the site meet the criteria for eventual environmental case closure established by the State Water Resources Control Board's 'Low Threat Closure Policy' (LTCP) for both residential and commercial property. Above 5 feet bgs, benzene, ethylbenzene, and naphthalene concentrations are below 1.9 mg/Kg, 21 mg/Kg, and 9.7 mg/Kg, respectively, and between 5 and 10 feet bgs, benzene, ethylbenzene, and naphthalene concentrations are below 2.8 mg/Kg, 32 mg/Kg, and 9.7 mg/Kg, respectively.

### Soil Vapor Analytical Results

Fuel contaminants were not detected in the samples collected from onsite soil vapor probes SV-1, SV-2, and SV-4, and only toluene ( $300 \mu\text{g}/\text{m}^3$ ) was detected in SV-5. GRO ( $15,000 \mu\text{g}/\text{m}^3$ ) and BTEX (benzene at  $92 \mu\text{g}/\text{m}^3$ ) were detected in soil vapor sample SV-6. GRO ( $77,000 \mu\text{g}/\text{m}^3$ ) and toluene were also detected in the SV-7 sample. Isopropyl alcohol was not detected in any of the samples, and thus no leakage in the sampling equipment is suspected. Figure 4 summarizes GRO, benzene, and MTBE concentrations in shallow soil vapor.

In SV-1 through SV-5 (closest to the former service station) oxygen concentrations in soil vapor ranged from 1.7 to 6.3 percent. In samples SV-6 and SV-7 (adjacent to the adjoining retail building), oxygen concentrations were 14 and 11 percent, respectively. Three of six samples collected had oxygen levels above 4-percent, and three of the six samples had oxygen levels below 4-percent (the threshold for a site with a 'Bioattenuation Zone, as defined by the LTCP).

## SUMMARY

The following summarizes the findings of recent work performed at the site:

- Soil sampling performed in January and September 2016 indicates that DPE resulted in significant reductions in soil vapor concentrations beneath the site. Most remaining impact to soil is situated between approximately 7 and 12 feet bgs.
- The highest concentrations of fuel contaminants in soil vapor are now detected at soil vapor probes SV-6 and SV-7 (likely outside of the radius of influence of the former DPE system), with maximum levels of GRO and benzene at 77,000  $\mu\text{g}/\text{m}^3$  and 92  $\mu\text{g}/\text{m}^3$ , respectively.
- Thirteen water wells were located in the neighborhood southwest, west, and northwest of the site, and eight of the wells were confirmed to be in use. Additional wells are suspected to be present, but cannot be confirmed at this time.
- Six water wells were sampled, and MTBE was detected in three of the samples at concentrations of 57  $\mu\text{g}/\text{L}$ , 1.0  $\mu\text{g}/\text{L}$ , and 0.68  $\mu\text{g}/\text{L}$ . Stratus was unable to contact the owner at 1587 Via Rancho to attempt to resample the well where an MTBE concentration of 57  $\mu\text{g}/\text{L}$  was detected.
- Very limited information regarding the construction of the water wells is available. However, based on limited discussions, we believe many of the wells are hand dug and shallow, and produce water from a sand interval present below about 20 feet bgs. This sandy strata could be laterally continuous with strata observed during subsurface investigation work at the site.
- Based on a review of information obtained from EDR, Stratus did not identify any additional sources of impact that are likely to contribute to the fuel contaminants observed in the offsite water wells. The EDR report, however, would not contain information regarding small scale dumping of gasoline that could potentially have occurred in the area (such as a home owner dumping gas from a lawnmower, for example).
- EBMUD did not respond to Stratus' attempts to verify that all properties near the site are connected to municipal water supply.

## **DISCUSSION**

A review of Table 4 illustrates that January and September 2016 soil vapor sampling documents substantial reductions in shallow soil vapor concentrations have occurred since the time of the previous sampling in February 2010, likely due to use of DPE remediation equipment. In our opinion, the site appears to meet the soil vapor media criteria of the State Water Resources Control Board's LTCP, despite elevated practical quantitation limit values for naphthalene and that a Bioattenuation Zone could also not be confirmed at all locations. The site also meets soil vapor Environmental Screening Levels established by the San Francisco Bay Regional Water Quality Control Board (see Table 4 for comparison). Benzene, ethylbenzene, and naphthalene concentrations in soil are well within closure criteria established by the LTCP. In our opinion, assessment of soil vapor and soil concentrations at the site is adequate, and no additional soil or soil vapor sampling onsite appears necessary. The source of the original petroleum hydrocarbon release was removed in 1998, and replacement subsurface fuel storage equipment was not installed. After 18 years of monitoring groundwater quality close to the source area, it is our opinion that migration of dissolved contaminant mass is minimal.

It appears that some of the residences west, southwest, and northwest of the site use water wells for small scale irrigation and outdoor uses. Eight active wells were located, and more wells are suspected to be present. Although very limited information about the construction of the water wells is known, available information suggests that some, if not most, of the wells are shallow and hand-dug (roughly 17 to 24 feet in depth). Three of the water wells are impacted MTBE, in particular the well at 1587 Via Rancho (57 µg/L). Stratus only attempted to contact the well owner at 1587 Via Rancho for re-sampling of their water well, since MTBE levels in the other two wells were at or below 1.0 µg/L, however, permission to re-sample the 1587 Via Rancho well has not yet been obtained.

## **RECOMMENDATIONS**

If not for the MTBE impact to groundwater offsite and impacted irrigation wells, the site would appear to be a candidate for environmental case closure under the 'LTCP' criteria, based on the effectiveness of onsite DPE remediation. After a review of this report, Stratus recommends that ACEHD, Stratus, Mr. Jaber, and potentially technical review staff of the UST Cleanup Fund meet in order to develop a site-specific strategy for managing this environmental case to eventual closure.

## **LIMITATIONS**

This document was prepared in general accordance with accepted standards of care that existed at the time this work was performed. No other warranty, expressed or implied, is made. Conclusions and recommendations are based on field observations and data

November 28, 2016

obtained from this work and previous investigations. It should be recognized that definition and evaluation of geologic conditions is a difficult and somewhat inexact science. Judgments leading to conclusions and recommendations are generally made with an incomplete knowledge of the subsurface conditions present. More extensive studies may be performed to reduce uncertainties. This document is solely for the use and information of our client unless otherwise noted.

If you have any questions regarding this document, or the project in general, please contact Scott Bittinger at (530) 676-2062 or Gowri Kowtha at (530) 676-6001.

Sincerely,

**STRATUS ENVIRONMENTAL, INC.**



Scott G. Bittinger, P.G.  
Project Geologist



Gowri S. Kowtha, P.E.  
Project Manager / Principal

#### **ATTACHMENTS:**

Table 1	Well Construction Detail Summary
Table 2	Door-to-Door Well Search Results
Table 3	Soil Analytical Results
Table 4	Soil Vapor Analytical Results
Figure 1	Site Location Map
Figure 2	Site Plan
Figure 3	Area Map
Figure 4	Soil Vapor Analytical Result Summary
Appendix A	Field Practices and Procedures
Appendix B	Drilling Permit and Soil Boring Logs
Appendix C	Field Data Sheet
Appendix D	Certified Analytical Reports and Chain-of-Custody Documentation
Appendix E	GeoTracker Data Upload Confirmation Sheets
Appendix F	Historical Soil Analytical Data (Prior to DPE Remediation)

cc: Mr. Philip Jaber  
Ms. Cherie McCaulou, RWQCB (via GeoTracker)

**TABLE 1**  
**WELL CONSTRUCTION DETAIL SUMMARY**  
Former Olympic Service Station, 1436 Grant Avenue, San Lorenzo, CA

Boring/Well I.D.	Date	Boring Depth (feet)	Boring Diameter (inches)	Well Diameter (inches)	Screen Interval (feet bgs)	Slot Size (inches)	Drilling Method	Consultant
<b>Groundwater Monitoring Wells</b>								
MW-1	09/24/99	26.5	8	2	5 - 26.5	0.020	HSA	Aqua Science Engineers
MW-2	09/24/99	20	8	2	5-20	0.020	HSA	Aqua Science Engineers
MW-3	09/24/99	21.5	8	2	5-21	0.020	HSA	Aqua Science Engineers
MW-4	02/09/10	10	10	4	5-10	0.020	Air Knife	Conestoga-Rovers & Associates
MW-5A	05/28/14	10	8	2	5-10	0.020	HSA	Stratus Environmental
MW-5B	05/28/14	20	8	2	15-20	0.020	HSA	Stratus Environmental
MW-6A	05/28/14	10	8	2	5-10	0.020	HSA	Stratus Environmental
MW-6B	05/28/14	20	8	2	15-20	0.020	HSA	Stratus Environmental
MW-7A	12/04/15	12	8	2	4-12	0.020	HSA	Stratus Environmental
MW-8A	12/04/15	12	8	2	4-12	0.020	HSA	Stratus Environmental
<b>Extraction Wells</b>								
EX-1	05/19/11	20	10	4	5-20	0.020	HSA	Stratus Environmental
EX-2	05/19/11	20	10	4	5-20	0.020	HSA	Stratus Environmental
EX-3	05/19/11	20	10	4	5-20	0.020	HSA	Stratus Environmental
EX-4	02/20/14	20	10	4	5-20	0.020	HSA	Stratus Environmental
EX-5	02/20/14	20	10	4	5-20	0.020	HSA	Stratus Environmental
EX-6	02/21/14	20	10	4	5-20	0.020	HSA	Stratus Environmental
EX-7	02/20/14	20	10	4	5-20	0.020	HSA	Stratus Environmental
<b>Injection Wells</b>								
IW-1	05/20/11	11.5	8	0.75	9.5-11.5	microporous	HSA	Stratus Environmental
IW-2	05/20/11	16	8	0.75	14-16	microporous	HSA	Stratus Environmental
<b>Soil Vapor Sampling Points</b>								
SV-1	02/12/10	5.5	3.25	0.375	5-5.1	0.002	HA	Conestoga-Rovers & Assoc.
SV-2	02/09/10	5.5	3.25	0.375	5-5.1	0.002	HA	Conestoga-Rovers & Assoc.
SV-3	02/09/10	5.5	3.25	0.375	5-5.1	0.002	HA	Conestoga-Rovers & Assoc.
SV-4	02/09/10	5.5	3.25	0.375	5-5.1	0.002	HA	Conestoga-Rovers & Assoc.
SV-5	05/20/11	5.5	3.25	0.375	5-5.1	0.002	HA	Stratus Environmental, Inc.
SV-6	12/04/15	6	2.5	0.25	5.3-5.5	mesh	HA	Stratus Environmental, Inc.
SV-7	12/04/15	6	2.5	0.25	5.3-5.5	mesh	HA	Stratus Environmental, Inc.
Notes:								
HSA = Hollow Stem Auger								
HA = Hand Auger								
Data regarding the construction of wells MW-1 through MW-4 obtained from groundwater monitoring reports prepared by Conestoga-Rovers & Associates								

**Table 2**  
 Door-to-Door Well Search Results  
 Former Olympic Service Station  
 1436 Grant Avenue, San Lorenzo, California

Date	Address	Status
9/24/2016	15850 Corte Angelo	No Answer, house boarded up and vacant
9/24/2016	15851 Corte Angelo	No Answer
9/24/2016	15858 Corte Angelo	No Answer
9/24/2016	15859 Corte Angelo	No Well
9/24/2016	15866 Corte Angelo	Well present, but currently inactive. Owner wants to use well in future to water small orchard (4-5 fruit trees) in back yard once pump replaced (Underwood well)
9/24/2016	15867 Corte Angelo	No Well
12/16/2015	1408 Via Barrett	Well In Use: Owner refused access to sample by phone on 8/10/16 (Robinson well)
10/1/2016		Spoke to Mr. Robinson in person on 10/1/16; again refused access to sample
12/16/2015	1416 Via Barrett	No Well
12/16/2015	1417 Via Barrett	No Well
12/16/2015	1424 Via Barrett	No Well
12/16/2015	1425 Via Barrett	No Well
9/24/2016	1432 Via Barrett	Elderly owner/tenant unable to answer question about well
12/16/2015	1433 Via Barrett	No Answer
9/24/2016		No Answer
9/24/2016	1440 Via Barrett	No Well
12/16/2015	1455 Via Barrett	No Well
9/24/2016	1456 Via Barrett	Owner/tenant unable to answer question due to language barrier
12/16/2015	1464 Via Barrett	No Well
12/16/2015	1477 Via Barrett	No Answer
9/24/2016		No Answer
12/16/2015	1478 Via Barrett	No Well
12/16/2015	1484 Via Barrett	No Well
12/16/2015	1520 Via Barrett	No Well
9/24/2016	1523 Via Barrett	Tenant not aware of a well
12/16/2015	1544 Via Barrett	No Well
9/24/2016	1557 Via Barrett	No Answer
10/1/2016		No Answer
12/16/2015	1568 Via Barrett	No Answer
9/24/2016		No Answer
10/1/2016		No Answer
9/24/2016	1575 Via Barrett	No Well
9/24/2016	1582 Via Barrett	No Answer
10/1/2016		No Answer
9/24/2016	1590 Via Barrett	No Well
9/24/2016	1604 Via Barrett	No Well
9/24/2016	1618 Via Barrett	No Answer
10/1/2016	1632 Via Barrett	Well in use and sampled with permission of tenant; sample absent of fuel contaminants
9/24/2016	1625 Via Barrett	No Well
9/24/2016	1639 Via Barrett	Empty house, construction workers didn't know about well
9/24/2016	1646 Via Barrett	No Well
10/1/2016	1540 Via Chorro	Owner/tenant unable to answer question due to language barrier, likely well present, 2 EBMUD vaults
9/24/2016	1554 Via Chorro	No Answer
10/1/2016		No Answer
10/1/2016	1555 Via Chorro	No Well
9/24/2016	1570 Via Chorro	No Answer
10/1/2016		No Answer
9/24/2016	1571 Via Chorro	Water well present, owner indicates not used in their 30 years living there
10/1/2016	1587 Via Chorro	May have well because neighbor's father supposedly helped install well here, however owner/tenant indicates no well present, and only one EBMUD vault observed at street
9/24/2016	1603 Via Chorro	No Answer
9/24/2016	1619 Via Chorro	No Well
9/24/2016	1635 Via Chorro	No Answer
12/16/2015	15752 Via Esmond	No Answer
12/16/2015	15755 Via Esmond	No Answer
12/16/2015	15758 Via Esmond	No Well



**Table 2**  
 Door-to-Door Well Search Results  
 Former Olympic Service Station  
 1436 Grant Avenue, San Lorenzo, California

Date	Address	Status
12/16/2015	15761 Via Esmond	No Answer
12/16/2015	15764 Via Esmond	No Well
12/16/2015	15767 Via Esmond	No Well
12/16/2015	15770 Via Esmond	No Answer
12/16/2015	15773 Via Esmond	No Well
12/16/2015	15776 Via Esmond	No Answer
12/16/2015	15782 Via Esmond	No Well
12/16/2015	15788 Via Esmond	No Answer
10/1/2016	15854 Corte Geraldo	No Answer, neighbor at 15862 Corte Geraldo indicates that well is present
10/1/2016	15855 Corte Geraldo	Owner/tenant unable to answer question due to language barrier
10/1/2016	15862 Corte Geraldo	No Well
10/1/2016	15863 Corte Geraldo	No Well
10/1/2016	15871 Corte Geraldo	No Well
10/1/2016	1482 Via Lacqua	No Well
12/16/2015	1521 Via Lacqua	No Well
12/16/2015	1522 Via Lacqua	No Well
12/16/2015	1543 Via Lacqua	No Well
12/16/2015	1544 Via Lacqua	No Well
12/16/2015	1565 Via Lacqua	No Well
12/16/2015	1589 Via Lacqua	No Answer
10/1/2016	1603 Via Lacqua	No Answer
10/1/2016	1617 Via Lacqua	Well in Use, sampled 10/1/16; MTBE detected at 1.0 ug/L (Mangini Well)
10/1/2016	1618 Via Lacqua	No Answer
10/1/2016	1631 Via Lacqua	No Answer
10/1/2016	1632 Via Lacqua	No Answer
10/1/2016	1645 Via Lacqua	No Well
10/1/2016	1661 Via Lacqua	No Well
10/1/2016	1669 Via Lacqua	No Answer
9/24/2016	1670 Via Lacqua	No Well
10/1/2016	1677 Via Lacqua	No Well
9/24/2016	1678 Via Lacqua	No Well
10/1/2016	1685 Via Lacqua	No Well
10/1/2016	1693 Via Lacqua	No Well
10/1/2016	1705 Via Lacqua	No Well
10/1/2016	1717 Via Lacqua	Owner/tenant unable to answer question due to language barrier
10/1/2016	1722 Via Lacqua	No Answer
10/1/2016	1729 Via Lacqua	Tenant not aware of a well
10/1/2016	1737 Via Lacqua	No Answer
10/1/2016	1738 Via Lacqua	No Answer
10/1/2016	1745 Via Lacqua	No Well
10/1/2016	1757 Via Lacqua	Mental capacity of owner/tenant not sufficient to answer question about well
10/1/2016	1771 Via Lacqua	No Answer
10/1/2016	1783 Via Lacqua	Elderly owner/tenant unable to answer question about well
12/16/2015	1503 Via Rancho	No Well
9/24/2016	1504 Via Rancho	No Well
12/16/2015	1517 Via Rancho	No Well
12/16/2015	1518 Via Rancho	No Well
12/16/2015	1531 Via Rancho	No Well
12/16/2015	1532 Via Rancho	No Answer
9/24/2016		No Answer
12/16/2015	1545 Via Rancho	No Answer
9/24/2016		No Answer
10/1/2016		Resident home, but refused to answer door
12/16/2015	1546 Via Rancho	No Answer
9/24/2016		No Answer
10/1/2016		Resident home, but refused to answer door
12/16/2015	1559 Via Rancho	No Well

**Table 2**  
 Door-to-Door Well Search Results  
 Former Olympic Service Station  
 1436 Grant Avenue, San Lorenzo, California

Date	Address	Status
12/16/2015	1560 Via Rancho	No Well
12/16/2015	1573 Via Rancho	No Well
9/24/2016	1574 Via Rancho	Owner/tenant wasn't sure
12/16/2015	1587 Via Rancho	Well In Use: sample impacted with MTBE at 57 ug/L (DeCero well)
9/24/2016	1588 Via Rancho	No Well
9/24/2016	1601 Via Rancho	No Answer
10/1/2016		No Answer
9/24/2016	1602 Via Rancho	No Answer
10/1/2016		No Answer
9/24/2016	1615 Via Rancho	No Answer
10/1/2016		No Answer
9/24/2016	1616 Via Rancho	No Answer
10/1/2016		Spoke to housekeeper only, unable to answer question about well
9/24/2016	1629 Via Rancho	No Well
10/1/2016	1630 Via Rancho	Owner/tenant did not believe that a well is present
10/1/2016	1643 Via Rancho	No Well
9/24/2016	1644 Via Rancho	No Well
9/24/2016	1657 Via Rancho	No Answer
10/1/2016		No Answer
9/24/2016	1658 Via Rancho	No Well
9/24/2016	1671 Via Rancho	No Answer
10/1/2016		No Answer
10/1/2016	1672 Via Rancho	No Well
9/24/2016	1685 Via Rancho	No Answer
9/24/2016	1686 Via Rancho	Owner/tenant wasn't sure
9/24/2016	1700 Via Rancho	No Well
9/24/2016	1701 Via Rancho	No Answer
9/24/2016	1714 Via Rancho	No Well
9/24/2016	1715 Via Rancho	No Answer
9/24/2016	1728 Via Rancho	No Answer
9/24/2016	1741 Via Rancho	No Well
9/24/2016	1742 Via Rancho	Well In Use: Owner refused access to sample (Angotti well)
9/24/2016	1755 Via Rancho	No Answer
9/24/2016	1756 Via Rancho	No Answer
9/24/2016	1769 Via Rancho	Water well present, but reportedly dry
9/24/2016	1770 Via Rancho	Owner/tenant not aware of any well
9/24/2016	1781 Via Rancho	No Well
9/24/2016	1782 Via Rancho	No Well
9/24/2016	1793 Via Rancho	No Well according to neighbor (house vacant)
9/24/2016	1794 Via Rancho	No Answer: neighbor indicates well present
10/1/2016		No Answer: neighbor indicates well present
10/1/2016	15762 Via Seco	No Well
10/1/2016	15763 Via Seco	No Answer
10/1/2016	15770 Via Seco	No Answer
10/1/2016	15771 Via Seco	No Well
10/1/2016	15778 Via Seco	Granddaughter (25-30 yr old) believes well present, but needed to ask her grandparents (owners)
10/1/2016	15779 Via Seco	Water well present, 2 EBMUD vaults, owner indicates hasn't been used in 15 years & inaccessible
12/16/2015	15786 Via Seco	No Well
12/16/2015	15787 Via Seco	No Well
12/16/2015	15794 Via Seco	No Answer
10/1/2016		No Answer
12/16/2015	15800 Via Seco	No Well
12/16/2015	15801 Via Seco	No Well
12/16/2015	15816 Via Seco	No Well
12/16/2015	15824 Via Seco	No Well
12/16/2015	15825 Via Seco	No Well
12/16/2015	15832 Via Seco	No Well



**Table 2**  
 Door-to-Door Well Search Results  
 Former Olympic Service Station  
 1436 Grant Avenue, San Lorenzo, California

Date	Address	Status
12/16/2015	15835 Via Seco	No Well
12/16/2015	15848 Via Seco	No Answer
10/1/2016		No Answer
10/1/2016	15849 Via Seco	No Well
12/16/2015	15850 Via Seco	No Well
12/16/2015	15856 Via Seco	No Well
12/16/2015	15857 Via Seco	Well In Use: sample impacted with MTBE at 0.68 ug/L (Hatcher well)
12/16/2015	15864 Via Seco	No Well
12/16/2015	15865 Via Seco	No Well
9/24/2016	15753 Via Teresa	Owner/tenant indicates no well present, but 2 EBMUD vaults observed at street
9/24/2016	15756 Via Teresa	No Well
9/24/2016	15764 Via Teresa	No Well
9/24/2016	15765 Via Teresa	Water well present, owner/tenant indicates well buried and not in use
9/24/2016	15772 Via Teresa	Well in use; absent of fuel contaminants (Johnson well)
9/24/2016	15773 Via Teresa	No known well (didn't think they had one)
9/24/2016	15780 Via Teresa	No Well
9/24/2016	15781 Via Teresa	No Answer
12/16/2015	15788 Via Teresa	No Well
9/24/2016	15789 Via Teresa	No Well
9/24/2016	15852 Corte Ulisse	No Well
9/24/2016	15853 Corte Ulisse	No Well
9/24/2016	15860 Corte Ulisse	No Answer
9/24/2016	15861 Corte Ulisse	No Well
9/24/2016	15868 Corte Ulisse	Well in use: absent of fuel contaminants (Bratton well)
9/24/2016	15869 Corte Ulisse	No Answer
10/1/2016	15850 Corte Yolanda	Owner/tenant indicates no well present, but owner at 1617 Lacqua indicates there is a well here and owner/tenant is lying about not having one
10/1/2016	15851 Corte Yolanda	No Answer
10/1/2016	15858 Corte Yolanda	No Answer
10/1/2016	15859 Corte Yolanda	No Answer
10/1/2016	15866 Corte Yolanda	No Answer
10/1/2016	15867 Corte Yolanda	No Answer

**TABLE 3**  
**SOIL ANALYTICAL RESULTS**  
Former Olympic Gas Service Station  
1436 Grant Avenue, San Lorenzo, California

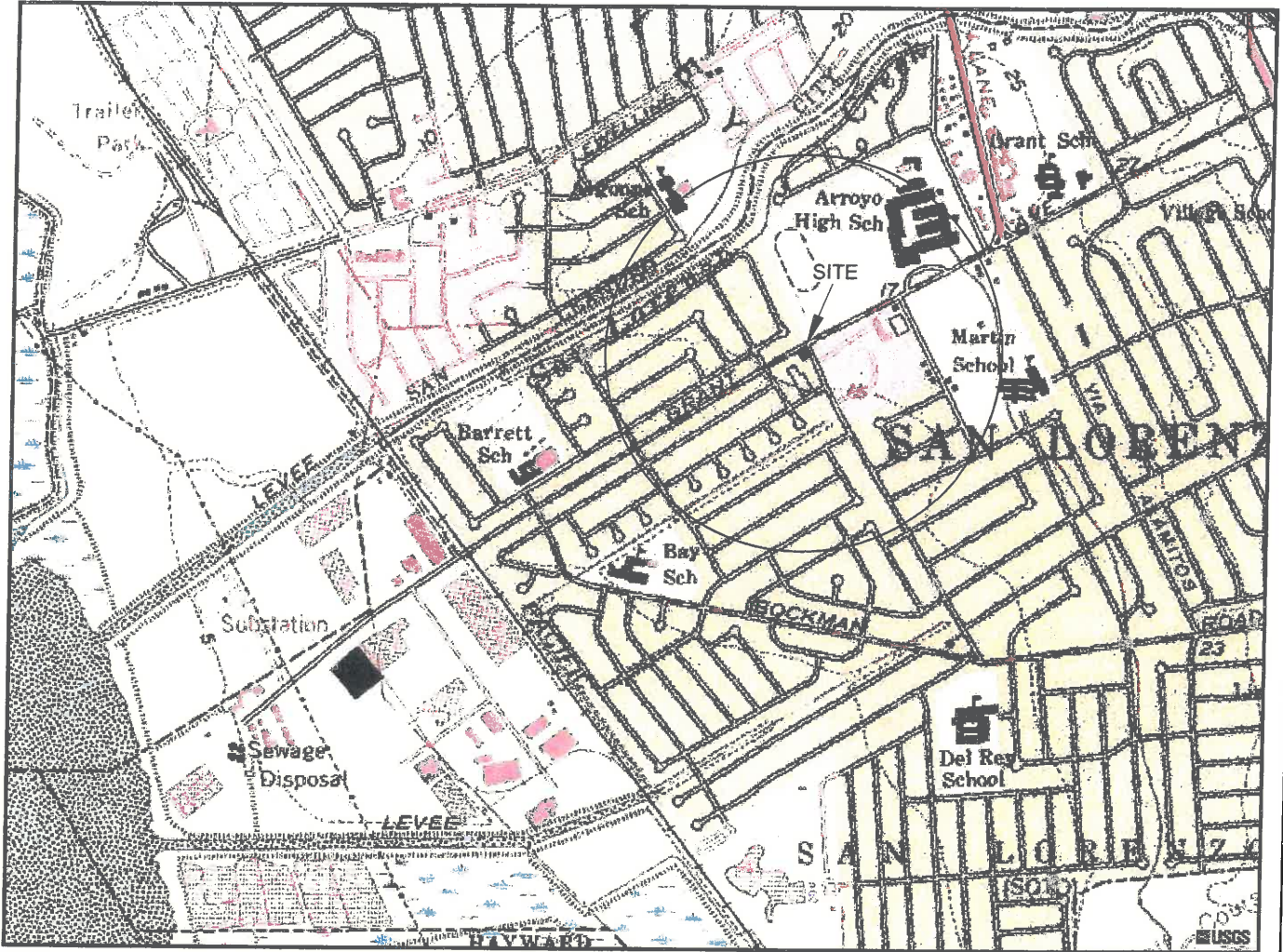
Sample ID	Sample Depth (feet bgs)	Date Collected	GRO (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl-benzene (mg/Kg)	Total Xylenes (mg/Kg)	MTBE (mg/Kg)	Naphthalene (mg/Kg)	PAH's (mg/Kg)
<b><u>Boring GP-1</u></b>										
GP-1-4.5	4.5	10/18/2016	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.66	ND
GP-1-9.5	9.5	10/18/2016	<b>100</b>	<b>0.26</b>	<0.05*	<b>1.7</b>	<b>1.17</b>	<0.05*	<b>2.4</b>	ND
GP-1-11.5	11.5	10/18/2016	<b>13</b>	<b>0.09</b>	<0.01*	<b>0.19</b>	<b>0.251</b>	<0.01*	NA	NA
GP-1-14.5	14.5	10/18/2016	<1.0	<0.005	<0.005	<0.005	<0.005	<b>0.031</b>	NA	NA
GP-1-19.5	19.5	10/18/2016	<1.0	<0.005	<0.005	<0.005	<0.005	<b>0.018</b>	NA	NA
GP-1-23.5	23.5	10/18/2016	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA
<b><u>Boring GP-2</u></b>										
GP-2-4.5	4.5	10/18/2016	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.66	ND
GP-2-7	7	10/18/2016	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.66	ND
GP-2-11.5	11.5	10/18/2016	<b>11</b>	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA
GP-2-16	16	10/18/2016	<1.0	<0.005	<0.005	<0.005	<0.005	<b>0.0094</b>	NA	NA
GP-2-23.5	23.5	10/18/2016	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA
<b><u>Boring GP-3</u></b>										
GP-3-4.5	4.5	10/18/2016	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<3.3	ND
GP-3-9.5	9.5	10/18/2016	<b>9.9</b>	<b>0.21</b>	<b>0.016</b>	<b>0.0089</b>	<b>0.0356</b>	<b>0.0056</b>	<0.66	ND
GP-3-14.5	14.5	10/18/2016	<b>5.4</b>	<b>0.036</b>	<0.005	<0.005	<0.005	<b>0.0051</b>	NA	NA
GP-3-19.5	19.5	10/18/2016	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA
GP-3-23.5	23.5	10/18/2016	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA
<b><u>Boring GP-4</u></b>										
GP-4-4	4	10/18/2016	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.66	ND
GP-4-7	7	10/18/2016	<b>26</b>	<b>0.064</b>	<0.02*	<b>0.84</b>	<0.02*	<b>0.24</b>	<b>1.3</b>	ND
GP-4-9	9	10/18/2016	<b>43</b>	<b>0.37</b>	<0.02*	<b>1.3</b>	<b>0.02</b>	<b>1.3</b>	<b>0.69</b>	ND
GP-4-10.5	10.5	10/18/2016	<b>26</b>	<b>0.26</b>	<0.005	<b>0.096</b>	<b>0.0094</b>	<b>1.5</b>	NA	NA
GP-4-19.5	19.5	10/18/2016	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA

**TABLE 3**  
**SOIL ANALYTICAL RESULTS**  
Former Olympic Gas Service Station  
1436 Grant Avenue, San Lorenzo, California

Sample ID	Sample Depth (feet bgs)	Date Collected	GRO (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	MTBE (mg/Kg)	Naphthalene (mg/Kg)	PAH's (mg/Kg)		
<b><u>Boring GP-5</u></b>												
GP-5-4.5	4.5	10/18/2016	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.66	ND		
GP-5-9.5	9.5	10/18/2016	<b>210</b>	<b>0.45</b>	<0.025*	<b>3.9</b>	<b>0.123</b>	<b>0.46</b>	<b>1.5</b>	ND		
GP-5-14.5	14.5	10/18/2016	<1.0	<0.005	<0.005	<b>0.0056</b>	<0.005	<b>0.21</b>	NA	NA		
GP-5-19.5	19.5	10/18/2016	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA		
GP-5-23.5	23.5	10/18/2016	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA		
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <p><b><u>Explanation</u></b>  GRO = Gasoline range organics  BTEX = Benzene, toluene, ethylbenzene, and xylenes  MTBE = Methyl tertiary butyl ether  PAH's = Polynuclear aromatic hydrocarbons  (includes analysis for 15 compounds besides naphthalene;  see lab report for list)  NA = Not analyzed  ND = Not detected, at various reporting limits  bgs = below ground surface  mg/Kg = milligrams per kilogram  * = Reporting limits increased due to high concentrations of target analytes</p> </td> <td style="width: 50%; vertical-align: top;"> <p><b><u>Analytical Methods</u></b>  GRO analyzed using EPA Method SW8015B/SW8260B  BTEX and MTBE analyzed using EPA Method SW8260B  Naphthalene and PAH's analyzed using EPA Method SW8270C</p> <p><b><u>Analytical Laboratory</u></b>  Alpha Analytical, Inc. (ELAP #2019)</p> </td> </tr> </table>											<p><b><u>Explanation</u></b>  GRO = Gasoline range organics  BTEX = Benzene, toluene, ethylbenzene, and xylenes  MTBE = Methyl tertiary butyl ether  PAH's = Polynuclear aromatic hydrocarbons  (includes analysis for 15 compounds besides naphthalene;  see lab report for list)  NA = Not analyzed  ND = Not detected, at various reporting limits  bgs = below ground surface  mg/Kg = milligrams per kilogram  * = Reporting limits increased due to high concentrations of target analytes</p>	<p><b><u>Analytical Methods</u></b>  GRO analyzed using EPA Method SW8015B/SW8260B  BTEX and MTBE analyzed using EPA Method SW8260B  Naphthalene and PAH's analyzed using EPA Method SW8270C</p> <p><b><u>Analytical Laboratory</u></b>  Alpha Analytical, Inc. (ELAP #2019)</p>
<p><b><u>Explanation</u></b>  GRO = Gasoline range organics  BTEX = Benzene, toluene, ethylbenzene, and xylenes  MTBE = Methyl tertiary butyl ether  PAH's = Polynuclear aromatic hydrocarbons  (includes analysis for 15 compounds besides naphthalene;  see lab report for list)  NA = Not analyzed  ND = Not detected, at various reporting limits  bgs = below ground surface  mg/Kg = milligrams per kilogram  * = Reporting limits increased due to high concentrations of target analytes</p>	<p><b><u>Analytical Methods</u></b>  GRO analyzed using EPA Method SW8015B/SW8260B  BTEX and MTBE analyzed using EPA Method SW8260B  Naphthalene and PAH's analyzed using EPA Method SW8270C</p> <p><b><u>Analytical Laboratory</u></b>  Alpha Analytical, Inc. (ELAP #2019)</p>											

**Table 4**  
**Soil Vapor Analytical Summary**  
Former Olympic Station  
1436 Grant Avenue, San Lorenzo, California

Sample ID	Sample Date	Depth (feet bgs)	TPHg (µg/m <sup>3</sup> )	Benzene (µg/m <sup>3</sup> )	Toluene (µg/m <sup>3</sup> )	Ethylbenzene (µg/m <sup>3</sup> )	m,p-Xylenes (µg/m <sup>3</sup> )	o-Xylenes (µg/m <sup>3</sup> )	MTBE (µg/m <sup>3</sup> )	Naphthalene (µg/m <sup>3</sup> )	Helium (%)	Oxygen (%)	Methane (%)	Carbon Dioxide (%)
<b>Soil Vapor ESL<sup>1</sup></b>			2,500,000	420	1,300,000	4,900	440,000 (total xylenes)		47,000	360	--	--	--	--
SV-1	02/25/10	5	36,000,000	18,000	<2,100*	<2,500*	<2,500*	<2,500*	<2,000*	<12,000*	<0.11*	1.4	35	8.5
	01/28/16		<3,700, <370**	<29, <7.5**	<34, <5.7**	<39, <5.0**	<39, <11**	<39, <4.5**	<32, <4.5**	<470, <200**	NA	6.2	<0.0002, <0.0002**	1.3
	09/06/16		<1,400, <270**	<11, <2.9**	<13, <2.2**	<15, <1.9**	<15, <4.2**	<15, <1.7**	<12, <1.7**	<180, <76**	NA	6.3	0.0055	4.4
SV-2	02/25/10	5	44,000,000	160,000	<2,500*	<2,900*	<2,900*	<2,900*	<2,400*	<14,000*	<0.13*	1.2	13	9.0
	01/28/16		<3,500, <350**	<27, <7.1**	<32, <5.4**	<37, <4.8**	<37, <10**	<37, <4.2**	<31, <4.3**	<450, <190**	NA	3.2	0.0044	1.1
	09/06/16		<1,900, <360**	<15, <3.8**	<17, <2.9**	<20, <2.6**	<20, <5.6**	<20, <2.3**	<17, <2.3**	<240, <100**	NA	2.9	0.029	10
SV-3	02/25/10	5	52,000,000	52,000	<2,200*	<2,500*	<2,500*	<2,500*	<2,100*	<12,000*	<0.12*	1.2	18	5.8
SV-4	02/25/10	5	41,000,000	120,000	<4,400*	<5,000*	<5,000*	<5,000*	5,400	<24,000*	<0.12*	1.2	5.2	9.5
	01/28/16		<3,600, <360**	<28, <7.4**	<33, <5.6**	<38, <4.9**	<38, <11**	<38, <4.4**	<32, <4.5**	<460, <190**	NA	12	0.0086	1.4
	09/06/16		<1,700, <320**	<13, <3.4**	<16, <2.6**	<18, <2.3**	<18, <5.0**	<18, <2.1**	<15, <2.1**	<220, <91**	NA	3.8	<0.00033, <0.00033**	9.3
SV-5	09/06/16	5	<18,000, <3,400**	<140, <37*	300	<190, <24**	<190, <53**	<190, <22**	<160, <22**	<2,300, <970	NA	1.7	0.52	11
SV-6	01/28/16	5.5	6,900	<22, <5.6**	<26, <4.3**	<30, <3.8**	<30, <8.3**	<30, <3.4**	<25, <3.4**	<360, <150**	NA	1.5	0.04	1.5
	09/06/16		15,000	92	21	19	30	7.8	<12, <1.7**	<180, <76**	NA	14	1.1	2.6
SV-7	01/28/16	5.5	<2,800, <280**	<22, <5.7**	<26, <4.3**	<30, <3.8**	<30, <8.3**	<30, <3.4**	<25, <3.5**	<360, <150**	NA	13	<0.0002, <0.0002**	0.58
	09/06/16		77,000	<110, <29**	270	<150, <19**	<150, <42**	<150, <17**	<120, <17**	<1,800, <760**	NA	11	0.44	4.4
<i>Duplicate Sample</i>														
SV-2-D	02/25/10	5	43,000,000	160,000	<2,400*	<2,800*	<2,800*	<2,800*	<2,300*	<13,000*	<0.13*	1.1	13	8.9
<i>Explanation</i>														
TPHg = Total Petroleum Hydrocarbons as gasoline (gasoline range organics)														
µg/m <sup>3</sup> = micrograms per cubic meter														
% = percent														
feet bgs = feet below ground surface														
NA = not analyzed														
* = Values shown as not detected are below the Method Detection Limit (MDL); Practical Quantitation Limit (PCL) requested by ACEHD are not available on the 2010 laboratory report.														
** = Values shown as not detected are illustrated as below the PQL, followed by below the MDL (<PQL, <MDL)														
SV-5 was installed 5/20/11, but has not been sampled.														
<sup>1</sup> = February 2016 Environmental Screening Levels established by San Francisco Bay Regional Water Quality Control Board. Commercial property scenario assumed, Table SG-1.														



GENERAL NOTES:  
 BASE MAP FROM U.S.G.S.  
 SAN LORENZO, CA.  
 7.5 MINUTE TOPOGRAPHIC  
 PHOTOREVISED 1978



QUADRANGLE LOCATION



APPROXIMATE SCALE



*STRATUS*  
 ENVIRONMENTAL, INC.

FORMER OLYMPIC SERVICE STATION  
 1436 GRANT AVENUE  
 SAN LORENZO, CALIFORNIA

FIGURE

1

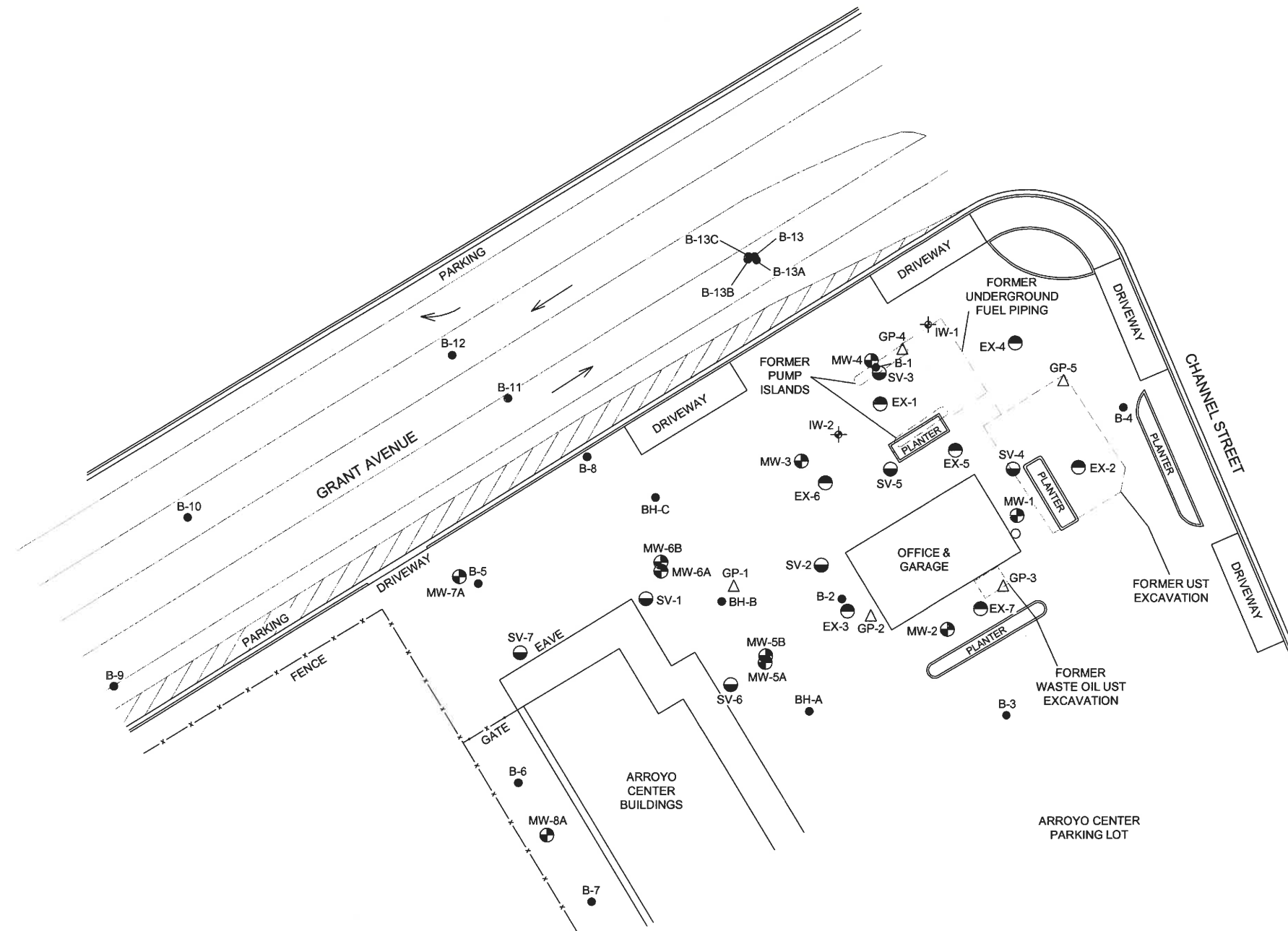
PROJECT NO.  
 2115-1436-01

SITE LOCATION MAP





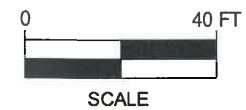
- LEGEND
- MW-1 MONITORING WELL LOCATION
  - SV-1 SOIL VAPOR PROBE LOCATION
  - EX-1 EXTRACTION WELL LOCATION
  - ⊕ IW-1 OZONE INJECTION WELL LOCATION
  - B-1 SOIL BORING LOCATION
  - △ GP-1 APPROXIMATE SOIL BORING LOCATION



BASED ON SURVEY PREPARED BY MORROW SURVEYING ON 6/15/11 & UPDATED IN JUNE 2014 & DECEMBER 2015.

**STRATUS**  
ENVIRONMENTAL, INC.

PATH NAME: Olympic  
DRAFTER INITIALS: DMG  
DATE LAST REVISED: November 1, 2016  
FILENAME: Olympic Siteplan



FORMER OLYMPIC SERVICE STATION  
1436 GRANT AVENUE  
SAN LORENZO, CALIFORNIA

SITE PLAN

FIGURE

2

PROJECT NO.  
2115-1436-01





1794 VIA RANCHO

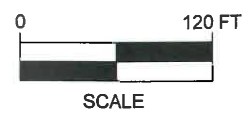


LEGEND:

- ACTIVE WELL, OWNER REFUSED TO ALLOW SAMPLING
- ACTIVE WELL, SAMPLED WITH OWNER/TENANT CONSENT
- WELL PRESENT, BUT INACTIVE FOR A LONG TIME
- WELL SUSPECTED, BUT NOT CONFIRMED TO BE PRESENT
- CONFLICTING INFORMATION ABOUT PRESENCE OF WELL

*STRATUS*  
ENVIRONMENTAL, INC.

PATH NAME: Olympic  
DRAFTER INITIALS: DMG  
DATE LAST REVISED: October 11, 2016  
FILENAME: Olympic Siteplan



FORMER OLYMPIC SERVICE STATION  
1436 GRANT AVENUE  
SAN LORENZO, CALIFORNIA

AREA MAP

FIGURE

**3**

PROJECT NO.  
2115-1436-01



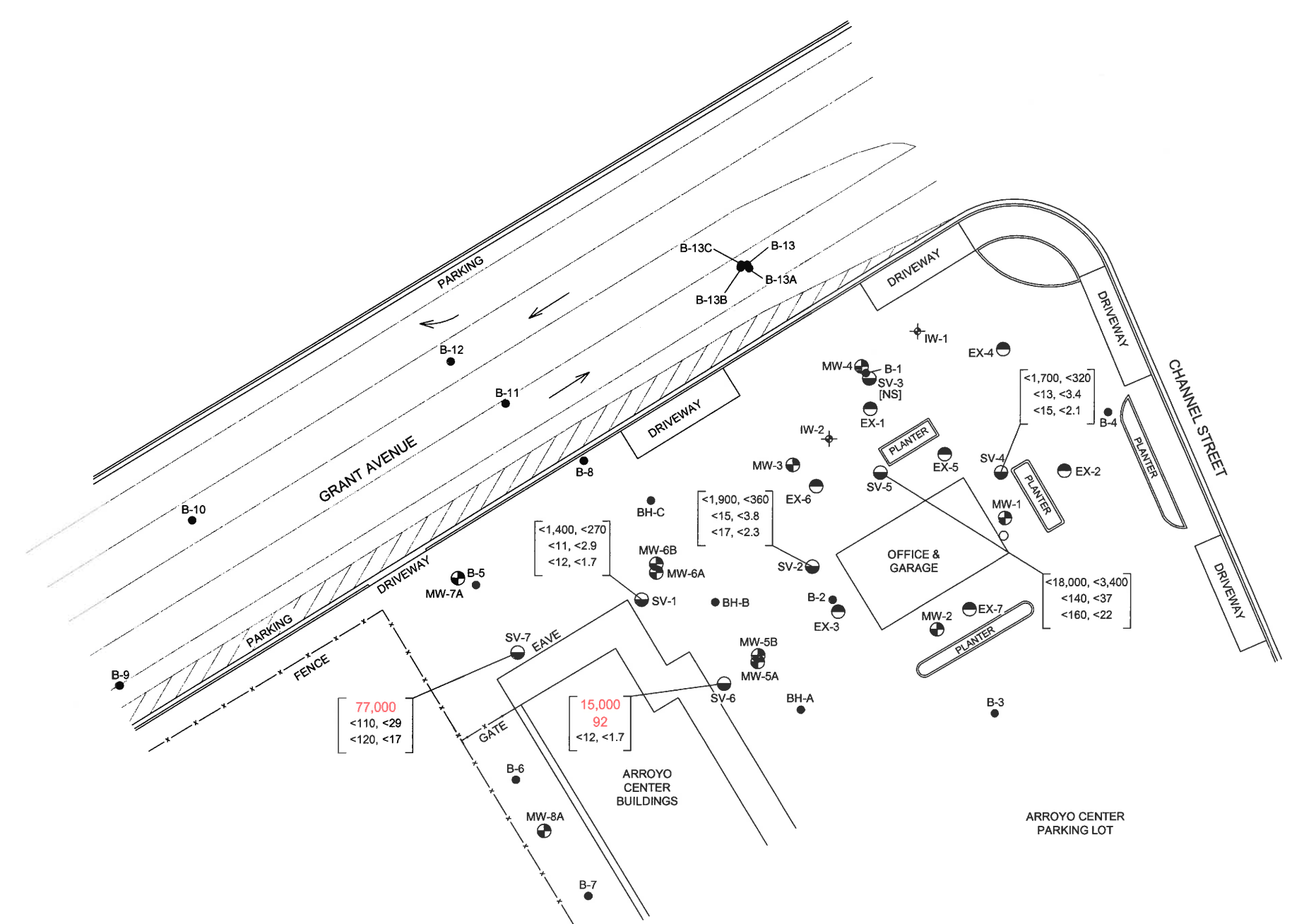


**LEGEND**

- MW-1 MONITORING WELL LOCATION
- SV-1 SOIL VAPOR PROBE LOCATION
- EX-1 EXTRACTION WELL LOCATION
- IW-1 OZONE INJECTION WELL LOCATION
- B-1 SOIL BORING LOCATION

**1,000** GASOLINE RANGE ORGANICS (GRO) CONCENTRATION IN  $\mu\text{g}/\text{m}^3$   
 <28, <3.7 BENZENE CONCENTRATION IN  $\mu\text{g}/\text{m}^3$   
 <32, <2.0 METHYL TERTIARY BUTYL ETHER (MTBE) IN  $\mu\text{g}/\text{m}^3$

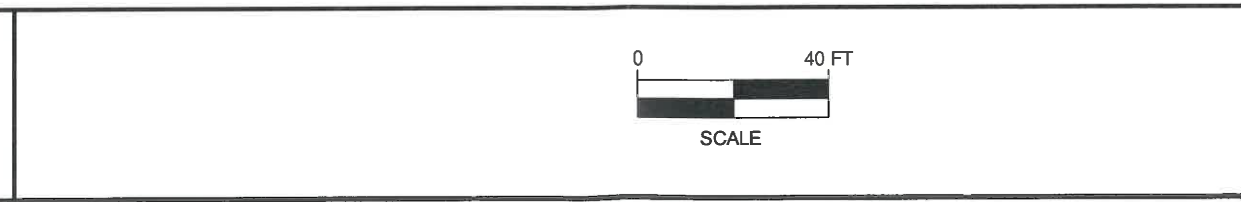
WELLS SAMPLED ON 09/06/16  
 ANALYSES PERFORMED USING EPA METHOD TO-15  
 [NS] = NOT SAMPLED DUE TO WATER IN TUBING OF SOIL VAPOR PROBE  
 NOTE: CONCENTRATIONS REPORTED IN MICROGRAMS PER CUBIC METER ( $\mu\text{g}/\text{m}^3$ )  
 NOTE: NON-DETECTABLE SAMPLE RESULTS ARE ILLUSTRATED TO SHOW THE PRACTICAL QUANTITATION LIMIT (PQL) FOLLOWED BY THE METHOD DETECTION LIMIT (MDL).



BASED ON SURVEY PREPARED BY MORROW SURVEYING ON 6/15/11 & UPDATED IN JUNE 2014 & DECEMBER 2015.



PATH NAME: Olympic  
 DRAFTER INITIALS: DMG  
 DATE LAST REVISED: September 23, 2016  
 FILENAME: Olympic Soil Vapor Analytical



FORMER OLYMPIC SERVICE STATION  
 1436 GRANT AVENUE  
 SAN LORENZO, CALIFORNIA

SOIL VAPOR ANALYTICAL RESULT SUMMARY  
 3rd QUARTER 2016

FIGURE  
 4  
 PROJECT NO.  
 2115-1436-01



**APPENDIX A**  
**FIELD PRACTICES AND PROCEDURES**

## **FIELD PRACTICES AND PROCEDURES**

---

General procedures used by Stratus in site assessments for drilling exploratory borings, collecting samples, and installing monitoring wells are described herein. These general procedures are used to provide consistent and reproducible results; however, some procedure may be modified based on site conditions. A California state-registered geologist supervises the following procedures.

### **PRE-FIELD WORK ACTIVITIES**

#### **Health and Safety Plan**

Field work performed by Stratus at the site is conducted according to guidelines established in a Site Health and Safety Plan (SHSP). The SHSP is a document which describes the hazards that may be encountered in the field and specifies protective equipment, work procedures, and emergency information. A copy of the SHSP is at the site and available for reference by appropriate parties during work at the site.

#### **Locating Underground Utilities**

Prior to commencement of any work that is to be below surface grade, the location of the excavation, boring, etc., is marked with white paint as required by law. An underground locating service such as Underground Service Alert (USA) is contacted. The locating company contacts the owners of the various utilities in the vicinity of the site to mark the locations of their underground utilities. Any invasive work is preceded by hand augering to a minimum depth of five feet below surface grade to avoid contact with underground utilities.

### **FIELD METHODS AND PROCEDURES**

#### **Exploratory Soil Borings**

Soil borings will be drilled using a truck-mounted, hollow stem auger drill rig. Soil samples for logging will be obtained from auger-return materials and by advancing a modified California split-spoon sampler equipped with brass or stainless steel liners into undisturbed soil beyond the tip of the auger. Soils will be logged by a geologist according to the Unified Soil Classification System and standard geological techniques. Drill cuttings will be screened using a portable photoionization detector (PID) or a flame ionization detector (FID). Exploratory soil borings not used for monitoring well installation will be backfilled to the surface with a bentonite-cement slurry pumped into the boring through a tremie pipe.

Soil sampling equipment will be cleaned with a detergent water solution, rinsed with clean water, and equipped with clean liners between sampling intervals. Augers and samplers will be steam cleaned between each boring to reduce the possibility of cross contamination. Steam cleaning effluent will be contained in 55-gallon drums and

temporarily stored on site. The disposal of the effluent will be the responsibility of the client, unless authorized by the client for disposal by Stratus.

Drill cuttings generated during the drilling procedure will be stockpiled on site or contained in labeled and sealed 55-gallon drums. Stockpiled drill cuttings will be placed on and covered with plastic sheeting. The stockpiled soil is typically characterized by collecting and analyzing composite samples from the stockpile. Stratus Environmental will recommend an appropriate method for disposition of the cuttings based on the analytical results. The client will be responsible for disposal of the drill cuttings.

### **Soil Sample Collection**

During drilling, soil samples will be collected in cleaned brass, two by six inch tubes. The tubes will be set in an 18-inch-long split-barrel sampler. The sampler will be conveyed to bottom of the borehole attached to a wire-line hammer device on the drill rig. When possible, the split-barrel sampler will be driven its entire length, either hydraulically or by repeated pounding a 140-pound hammer using a 30-inch drop. The number of drops (blows) used to drive the sampler will be recorded on the boring log. The sampler will be extracted from the borehole, and the tubes containing the soil samples will be removed. Upon removal, the ends of the lowermost tube will be sealed with Teflon sheets and plastic caps. Soil samples for chemical analysis will be labeled, placed on ice, and delivered to a state-certified analytical laboratory, along with the appropriate chain-of-custody documentation.

### **Soil Classification**

As the samples are obtained in the field, they will be classified by the field geologist in accordance with the Unified Soil Classification System. Representative portions of the samples will be retained for further examination and for verification of the field classification. Logs of the borings indicating the depth and identification of the various strata and pertinent information regarding the method of maintaining and advancing the borehole will be prepared.

### **Soil Sample Screening**

Soil samples selected for chemical analysis will be determined from a head-space analysis using a PID or an FID. The soil will be placed in a resealable plastic bag, sealed, and allowed to reach ambient temperature, at which time the PID probe will be inserted into the resealable plastic bag. The total volatile hydrocarbons present are detected by the PID and reported in parts per million by volume (ppmv). The PID will be calibrated to an isobutylene standard.

Generally two soil samples from each soil boring will be submitted for chemical analysis unless otherwise specified in the scope of work. Soil samples selected for analysis typically represent the highest PID reading recorded for each soil boring and the sample just above first-encountered groundwater.

## **Drill Cuttings and Soil Sampling**

Soil generated during drilling operations will be stockpiled on-site or contained in labeled and sealed 55-gallon drums. The stockpile will be set on and covered by plastic sheeting in a manner to prevent rain water from coming in contact with the soil. Prior to collecting soil samples, Stratus personnel will calculate the approximate volume of soil in the stockpile. The stockpile will then be divided into sections, if warranted, containing the predetermined volume sampling interval. Soil samples will be collected at 0.5 to 2 feet below the surface of the stockpile. Four soil samples will be collected from the stockpile and composited into one sample by the laboratory prior to analysis. The soil samples will be collected in cleaned brass, two by six inch tubes using a hand driven sampling device. To reduce the potential for cross-contamination between samples, the sampler will be cleaned between each sampling event. Upon recovery, the sample container will be sealed at each end with Teflon sheeting and plastic caps to minimize the potential of volatilization and cross-contamination prior to chemical analysis. The soil sample will be labeled, placed on ice, and delivered to a state-certified analytical laboratory, along with the appropriate chain-of-custody documentation.

## **Direct-Push Technology, Soil Sampling**

Direct-push is a drilling method of advancing small diameter borings without generating soil cuttings. The system consists of an approximately 2-inch diameter, 4- or 5-foot long, stainless steel soil sampling tool that is hydraulically advanced into subsurface soils by a small rig. The sampling tool is designed similar to a California-modified split-spoon sampler, and lined with a sample tube that enables continuous core sampling.

To collect soil samples, the sampler is advanced to the desired sampling depth. The mouth of the sampling tool is plugged to prevent soil from entering the sampler. Upon reaching the desired sampling depth, the plug at the mouth of the sample tool is disengaged and retracted, the sampler is advanced, and the sampler is filled with soil. The sample tool is then retrieved from the boring, and the sample tube removed. The sample tool is then cleaned, a new tube is placed inside and the sampling equipment is advanced back down the borehole to the next sample interval.

The Stratus geologist describes the entire interval of soil in the tube. The bottom-most 6-inch long section is cut off and retained for possible chemical analysis. The ends of the chemical sample are lined with Teflon sheets, capped, labeled, and placed in an ice-chilled cooler for transport to California Department of Health Services-certified analytical laboratory under chain-of-custody.

## **Direct Push Technology, Water Sampling**

A well known example of direct push technology for water sampling is the Hydropunch. For the purpose of this field method the term hydropunch will be used instead of direct push technology for water sampling.

The hydropunch is typically used with a drill rig. A boring is drilled with hollow stem-augers to just above the sampling zone. In some soil conditions the drill rig can push directly from the surface to the sampling interval. The hydropunch is conveyed to the bottom of the boring using drill rods. Once on bottom the hydropunch is driven a maximum of five feet. The tool is then opened by lifting up the drill rod no more than four feet. Once the tool is opened, water enters and a sample can be collected with a bailer or tubing utilizing a peristaltic pump. Soil particles larger than silt are prevented from entering the tool by a screen within the tool. The water sample is collected, labeled, and handled according to the Quality Assurance Plan.

### **Monitoring Well Installation**

Monitoring wells will be completed by installing 2 to 6 inch-diameter Schedule 40 polyvinyl chloride (PVC) casing. The borehole diameter for a monitoring well will be greater than four inches larger than the outside diameter of the casing. The 2-inch-diameter flush-threaded casing is generally used for wells dedicated for groundwater monitoring purposes.

A monitoring well is typically cased with threaded, factory-perforated and blank Schedule 40 PVC. The perforated interval consists of slotted casing, generally with 0.01 or 0.02 inch-wide by 1.5-inch-long slots, with 42 slots per foot. The screened sections of casing are factory machine slotted and will generally be installed approximately 5 feet above and 10 feet below first-encountered water level. The screened interval will allow for seasonal fluctuation in water level and for monitoring floating product. A threaded or slip PVC cap is secured to the bottom of the casing. The slip cap can be secured with stainless steel screws or friction; no solvents or cements are used. Centering devices may be fastened to the casing to ensure even distribution of filter material and grout within the borehole annulus. The well casing is thoroughly washed and/or steam cleaned, or may be purchased as pre-cleaned, prior to completion.

A filter pack of graded sand will be placed in the annular space between the PVC casing and the borehole wall. Sand will be added to the borehole through the hollow stem of the augers to provide a uniform filter pack around the casing and to stabilize the borehole. Generally the sand pack will be placed to a maximum of 2 feet above the screens, followed by a minimum 1- to 2-foot seal consisting of bentonite pellets.

Cement grout containing a maximum of 5 percent bentonite powder will be placed above the bentonite seal to the ground surface. A concrete traffic-rated vault box will be installed over the monitoring well(s). A watertight locking cap will be installed in the top of the well casing. Reference elevations for each monitoring well will be surveyed when more than two wells will be located on site. Monitoring well elevations will be surveyed by a California licensed surveyor to the nearest 0.01-foot relative to mean sea level (MSL). Horizontal coordinates of the wells will be measured at the same time. Exploratory boring logs and well construction details will be prepared for the final written report.

**APPENDIX B**

**DRILLING PERMIT AND SOIL BORING LOGS**

# Alameda County Public Works Agency - Water Resources Well Permit



Public Works Agency  
Alameda County

399 Elmhurst Street  
Hayward, CA 94544-1395  
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 10/13/2016 By jamesy

Permit Numbers: W2016-0748  
Permits Valid from 10/18/2016 to 10/18/2016

Application Id: 1475711823681  
Site Location: 1436 Grant Avenue, San Lorenzo, CA  
Project Start Date: 10/18/2016  
Assigned Inspector: Contact Marcelino Vialpando at (510) 670-5760 or Marcelino@acpwa.org  
City of Project Site: San Lorenzo  
Completion Date: 10/18/2016  
Applicant: Stratus - Scott Bittinger  
3330 Cameron Park Dr #550, Cameron Park, CA 95682  
Phone: 530-676-2062  
Property Owner: Jaber Family Trust  
2801 Encinal Ave, Alameda, CA 94501  
Phone: 510-523-4821  
Client: \*\* same as Property Owner \*\*

Receipt Number: WR2016-0511 Total Due: \$265.00  
Payer Name : Stratus Total Amount Paid: \$265.00  
Paid By: CHECK PAID IN FULL

## Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitoring Study - 5 Boreholes  
Driller: Penecore - Lic #: 906899 - Method: DP

Work Total: \$265.00

### Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2016-0748	10/13/2016	01/16/2017	5	3.00 in.	25.00 ft

### Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
6. Electronic Reporting Regulations (Chapter 30, Division 3 of Title 23 & Division 3 of Title 27, CCR) require electronic submission of any report or data required by a regulatory agency from a cleanup site. Submission dates are set by a

## Alameda County Public Works Agency - Water Resources Well Permit

Regional Water Board or by a regulatory agency. Once a report/data is successfully uploaded, as required, you have met the reporting requirement (i.e. the compliance measure for electronic submittals is the actual upload itself). The upload date should be on or prior to the regulatory due date.

### 7. NOTE:

Under California laws, the owner/operator are responsible for reporting the contamination to the governmental regulatory agencies under Section 25295(a). The owner/operator is liable for civil penalties under Section 25299(a)(4) and criminal penalties under Section 25299(d) for failure to report a leak. The owner/operator is liable for civil penalties under Section 25299(b)(4) for knowing failure to ensure compliance with the law by the operator. These penalty provisions do not apply to a potential buyer.

8. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

9. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

---



**SOIL BORING LOG**

**Boring No. GP-1**

**Sheet: 1 of 2**

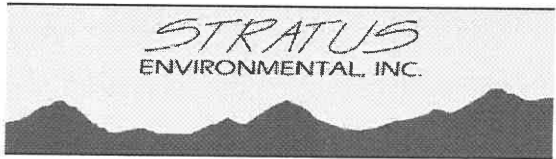
Client	Former Olympic Station	Date	October 18, 2016
Address	1436 Grant Avenue San Lorenzo, CA	Drilling Co.	Penecore Drilling Rig Type: Direct Push
Project No.	2115-1436-1	Driller	Carlos and Willie
Logged By:	Scott Bittinger	Method	Direct Push Hole Diameter: 3 in.
Backfill	grout: 0 ft. to 24 ft	Sampler:	4 ft. x 1.25 in. acetate liner

Sample Type	Sample No.	Blow Count	Sample		Well Details	Depth Scale	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
			Time	Recov.					
								asphalt surface	
						1			
						2			
						3			
						4			
S	GP-1-4.5		9:51			5	CL	Silty clay, very dark grayish brown (1'-13'), dark grayish brown (13'-15'), yellowish brown (15'-19'), est. 70% clay, 30% silt, moist	0
						6			
						7			
						8			
						9			
S	GP-1-9.5		9:54			10			1
						11			
S	GP-1-11.5		9:57			12			0
						13			
						14			
S	GP-1-14.5		9:59			15			0
						16			
						17			
						18			
						19			
S	GP-1-19.5		10:01			20	CL	Sandy clay with silt (19'-24'), yellowish brown, est. 45% clay, 30% sand, 25% silt, moist-damp	0

Recovery \_\_\_\_\_

Sample \_\_\_\_\_

Comments: Color descriptions from Munsell color chart.





**SOIL BORING LOG**

**Boring No. GP-2**

**Sheet: 1 of 2**

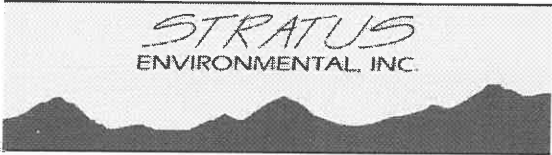
Client	Former Olympic Station	Date	October 18, 2016
Address	1436 Grant Avenue San Lorenzo, CA	Drilling Co.	Penecore Drilling Rig Type: Direct Push
Project No.	2115-1436-1	Driller	Carlos and Willie
Logged By:	Scott Bittinger	Method	Direct Push Hole Diameter: 3 in.
Backfill	grout: 0 ft. to 24 ft	Sampler:	4 ft. x 1.25 in. acetate liner

Sample Type	Sample No.	Blow Count	Sample		Well Details	Depth Scale	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
			Time	Recov.					
						1		asphalt surface	
						2			
						3			
						4			
S	GP-2-4.5		9:18			5	CL	Silty clay, very dark grayish brown (1'-11'), dark grayish brown (11'-15'), yellowish brown (15'-18'), est. 70% clay, 30% silt, moist	0
						6			
S	GP-2-7		9:20			7			0
						8			
						9			
						10			
						11			
S	GP-2-11.5		9:24			12			9
						13			
						14			
						15			
s	GP-2-16		9:28			16			0
						17			
						18			
						19			
						20	CL	Sandy clay with silt (18'-24'), yellowish brown, est. 45% clay, 30% sand, 25% silt, moist-damp	

Recovery \_\_\_\_\_

Sample \_\_\_\_\_

Comments: Color descriptions from Munsell color chart.





**SOIL BORING LOG**

**Boring No. GP-3**

**Sheet: 1 of 2**

Client	Former Olympic Station	Date	October 18, 2016	
Address	1436 Grant Avenue	Drilling Co.	Penecore Drilling	Rig Type: Direct Push
	San Lorenzo, CA	Driller	Carlos and Willie	
Project No.	2115-1436-1	Method	Direct Push	Hole Diameter: 3 in.
Logged By:	Scott Bittinger	Sampler:	4 ft. x 1.25 in. acetate liner	
Backfill	grout: 0 ft. to 24 ft			

Sample Type	Sample No.	Blow Count	Sample		Well Details	Depth Scale	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
			Time	Recov.					
						1		asphalt surface	
						2			
						3			
						4			
S	GP-3-4.5		10:20			5	CL	Silty clay, very dark grayish brown (1'-16'), est. 70% clay, 30% silt, dry to moist	0
						6			
						7			
						8			
						9			
S	GP-3-9.5		10:23			10			10
						11			
						12			
						13			
						14			
S	GP-3-14.5		10:25			15			1.5
						16	SC	Clayey sand, yellowish brown, est. 50% fine sand, 35% clay, 15% silt, damp (15'-20')	
						17			
						18			
						19			
S	GP-3-19.5		10:30			20			0

Recovery \_\_\_\_\_  
Sample \_\_\_\_\_

Comments: Color descriptions from Munsell color chart.





**SOIL BORING LOG**

**Boring No. GP-4**

**Sheet: 1 of 2**


Client	Former Olympic Station	Date	October 18, 2016
Address	1436 Grant Avenue San Lorenzo, CA	Drilling Co.	Penecore Drilling Rig Type: Direct Push
Project No.	2115-1436-1	Driller	Carlos and Willie
Logged By:	Scott Bittinger	Method	Direct Push Hole Diameter: 3 in.
Backfill	grout: 0 ft. to 24 ft	Sampler:	4 ft. x 1.25 in. acetate liner

Sample Type	Sample No.	Blow Count	Sample		Well Details	Depth Scale	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
			Time	Recov					
						1	asphalt surface		
						2			
						3			
						4			
S	GP-4-4		8:46			5	CL Silty clay, very dark gray (1'-12'), dark gray (12'-15'), yellowish brown (15-18') est. 70% clay, 30% silt, moist	0	
						6			
S	GP-4-7		8:47			7		39	
						8			
						9			
S	GP-4-9		8:48			10		55	
S	GP-4-10.5		8:53			11		210	
						12			
						13			
						14			
						15			
						16			
						17			
						18			
						19	CL Sandy clay with silt (18'-24'), yellowish brown, est. 45% clay, 30% fine sand, 25% silt, damp		
S	GP-4-19.5		8:56			20		1.2	

Recovery \_\_\_\_\_

Sample \_\_\_\_\_

Comments: Color descriptions from Munsell color chart.







**SOIL BORING LOG**

**Boring No. GP-5**

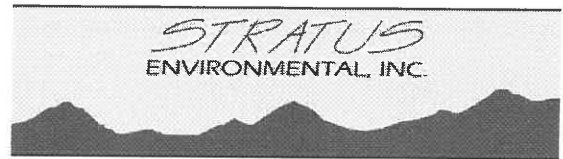
**Sheet: 1 of 2**

Client	Former Olympic Station	Date	October 18, 2016
Address	1436 Grant Avenue San Lorenzo, CA	Drilling Co.	Penecore Drilling Rig Type: Direct Push
Project No.	2115-1436-1	Driller	Carlos and Willie
Logged By:	Scott Bittinger	Method	Direct Push Hole Diameter: 3 in.
Backfill	grout: 0 ft. to 24 ft	Sampler:	4 ft. x 1.25 in. acetate liner

Sample Type	Sample No.	Blow Count	Sample		Well Details	Depth Scale	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
			Time	Recov.					
						1		asphalt surface	
						2			
						3			
						4			
S	GP-5-4.5		10:45			5	CL	Silty clay, very dark grayish brown (1'-13'), brown (13'-17') est. 70% clay, 30% silt, dry to moist	0
						6			
						7			
						8			
						9			
S	GP-5-9.5		10:47			10			14
						11			
						12			
						13			
						14			
S	GP-5-14.5		10:50			15			1.5
						16			
						17	CL	Silty clay with sand 17'-21', yellowish brown, est. 50% clay, 30% silt, 20% fine sand, damp	
						18			
						19			
S	GP-5-19.5		10:55			20			0

Recovery \_\_\_\_\_  
Sample \_\_\_\_\_

Comments: Color descriptions from Munsell color chart.





**APPENDIX C**  
**FIELD DATA SHEET**

## Soil Vapor Sampling Field Data Sheet

Site: Olympic

Date: 9/6/2016

Sampler: Allan Dudding

Vapor Point Name	Flow Controller Number	Purge Can Number	Leak Test Start		Leak Test End		Purge Start		Purge End		Sample Can Number	Sample Start		Sample End	
			Time	Pressure	Time	Pressure	Time	Pressure	Time	Pressure		Time	Pressure	Time	Pressure
SU-4	1098	423	1303	-30+	1308	-30+	1308	-30+	1322	-22	1142	1322	-30+	1329	-8
SU-3	<del>1061</del>	<del>423</del>					NO	SAMP	UNDER	IN	LINE				
SU-5	1065	431	1353	-29	1358	-29	1315	-29	1406	-22	2857	1408	-29	1413	-8
SU-2	1061	423	1357	-21	1402	-21	1402	-21	1408	-15	2087	1408	-20	1415	-7
SU-7	1007?	431	1440	-21	1445	-21	1445	-21	1451	-15	3030	1453	-25	1500	-8
SU-6	1163	423	1443	-15	1448	-15	1448	-15	1456	-8	1141	1456	-29	1502	-8
SU-1	1014	390	1516	-29	1521	-29	1521	-29	1530	-22	2646	1532	-29	1539	-7

Purge Volume:  
tube int. volume:

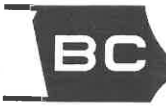
5	ft. tube x	0.010	L/ft. =	0.05
	filter pack purge volume:		+	0.417
	Single purge volume:		=	0.422
	Number of purge volumes:	x 3	=	12.1266

Total purge volume

2" diameter filter pack volume: 0.185 liters  
 3" diameter filter pack volume: 0.417 liters  
 --assuming 1 foot filter pack, 30% porosity.  
 --28.32 liters per cubic foot conversion.

## **APPENDIX D**

### **CERTIFIED ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION**



Date of Report: 09/26/2016

Scott Bittinger

Stratus Environmental, Inc.

3330 Cameron Park Drive, Suite 550

Cameron Park, CA 95682

Client Project: 2115-1436-01

BCL Project: Olympic Gas-San Lorenzo

BCL Work Order: 1625083

Invoice ID: B246697, B247166

Enclosed are the results of analyses for samples received by the laboratory on 9/8/2016. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*  
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



## Table of Contents

### Sample Information

Chain of Custody and Cooler Receipt form.....	3
Laboratory / Client Sample Cross Reference.....	6

### Sample Results

<b>1625083-01 - SV-4</b>	
Volatile Organic Compounds by GC/MS (EPA Method TO-15).....	8
Fixed Gases by GC/TCD (ASTM D1946).....	9
<b>1625083-02 - SV-5</b>	
Volatile Organic Compounds by GC/MS (EPA Method TO-15).....	10
Fixed Gases by GC/TCD (ASTM D1946).....	11
<b>1625083-03 - SV-2</b>	
Volatile Organic Compounds by GC/MS (EPA Method TO-15).....	12
Fixed Gases by GC/TCD (ASTM D1946).....	13
<b>1625083-04 - SV-7</b>	
Volatile Organic Compounds by GC/MS (EPA Method TO-15).....	14
Fixed Gases by GC/TCD (ASTM D1946).....	15
<b>1625083-05 - SV-6</b>	
Volatile Organic Compounds by GC/MS (EPA Method TO-15).....	16
Fixed Gases by GC/TCD (ASTM D1946).....	17
<b>1625083-06 - SV-1</b>	
Volatile Organic Compounds by GC/MS (EPA Method TO-15).....	18
Fixed Gases by GC/TCD (ASTM D1946).....	19

### Quality Control Reports

<b>Volatile Organic Compounds by GC/MS (EPA Method TO-15)</b>	
Method Blank Analysis.....	20
Laboratory Control Sample.....	21
<b>Fixed Gases by GC/TCD (ASTM D1946)</b>	
Method Blank Analysis.....	22
Laboratory Control Sample.....	23

### Notes

Notes and Definitions.....	24
----------------------------	----

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

Chain of Custody Form



Laboratories, Inc.

Report To: Structures Environmental, Inc.  
 Client: Structures Environmental, Inc.  
 Attn: Scott B. Hays  
 Street Address: 3330 Cameron Park Dr. #550  
 City, State, Zip: Cameron Park, CA 95682  
 Phone: 530-474-6004 Fax: 530-676-6005  
 Email Address: sbh@structuresenv.com  
 Work Order #: 16-25083

Analysis Requested

Comments:  
 Summary Can # 2422 Stamped with  
 ~21" Hg pressure, so it was not used

Are there any tests with holding times less than or equal to 48 hours?  
 Yes  No

\* Standard Turnaround = 10 work days

Page 1 of 1

Sample #	Description	Date Sampled	Time Sampled
1	SV-4	9/16/16	1322
2	SV-5		1408
3	SV-2		1408
4	SV-7		1453
5	SV-6		1456
10	SV-1		1532

Sample Matrix

Soil

Sludge

Ground Water

Drinking Water

Waste Water

Other

Soil Vapor

Notes

CHAINED BY: [Signature]  
 DATE: 9/16/16  
 TIME: 1456

Global ID (Needed for EDF): T0600102256

EDF Required? Geotracker:  Yes  No

Send Copy to State of CA? (EDT):  Yes  No

Relinquished By: [Signature] Date: 9/16/16 Time: 1630

Relinquished By: [Signature] Date: 9/16/16 Time: 1630

Relinquished By: [Signature] Date: 9/16/16 Time: 1630

Received By: [Signature] Date: 9/16/16 Time: 1630

Received By: [Signature] Date: 9/16/16 Time: 1630

Received By: [Signature] Date: 9/16/16 Time: 1630

BC Laboratories, Inc. - 4100 Atlas Ct. - Bakersfield, CA 93308 - 661.327.4911 - Fax: 661.327.1918 - www.bclabs.com





BC LABORATORIES INC. COOLER RECEIPT FORM Page (Of 17) 10/29/16

Submission #: 16-25083

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

FREE LIQUID: YES  NO

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Intact? Yes  No  Intact? Yes  No  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received: YES  NO

Emissivity: \_\_\_\_\_ Container: Canister Thermometer ID: \_\_\_\_\_ Date/Time: 9.8.16

Temperature: (A) Room °C / (C) Temp °C Analyst Initials: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	14	15	16	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCH VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER	A	A	A	A	A	A				

Comments: \_\_\_\_\_

Sample Numbering Completed By: [Signature] Date/Time: 9.9.16 1004

A - Actual / C - Corrected

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



BC LABORATORIES INC. COOLER RECEIPT FORM Page 2 of 2

Submission #: No 25083

SHIPPING INFORMATION: Fed Ex, UPS, Ontrac, Hand Delivery, BC Lab Field Service, Other. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO, W, S.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers, None. Intact? Yes, No.

All samples received? Yes, No. All samples containers intact? Yes, No. Description(s) match COC? Yes, No.

COC Received: YES, NO. Emissivity, Container: Canister, Thermometer ID, Date/Time: 9-8-16, Analyst Initials: [Signature]

Temperature: (A) Room °C / (C) Temp

Table with columns: SAMPLE CONTAINERS, SAMPLE NUMBERS (1-10). Rows include: QT PE UNPRES, 4oz / 8oz / 16oz PE UNPRES, 2oz Cr6, QT INORGANIC CHEMICAL METALS, INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz, PT CYANIDE, PT NITROGEN FORMS, PT TOTAL SULFIDE, 2oz. NITRATE / NITRITE, PT TOTAL ORGANIC CARBON, PT CHEMICAL OXYGEN DEMAND, PA PHENOLICS, 40ml VOA VIAL TRAVEL BLANK, 40ml VOA VIAL, QT EPA 1664, PT ODOR, RADIOLOGICAL, BACTERIOLOGICAL, 40 ml VOA VIAL- 504, QT EPA 508/608/8080, QT EPA 515.1/8150, QT EPA 525, QT EPA 525 TRAVEL BLANK, 40ml EPA 547, 40ml EPA 531.1, 8oz EPA 548, QT EPA 549, QT EPA 8015M, QT EPA 8270, 8oz / 16oz / 32oz AMBER, 8oz / 16oz / 32oz JAR, SOIL SLEEVE, PCB VIAL, PLASTIC BAG, TEDLAR BAG, FERROUS IRON, ENCORE, SMART KIT, SUMMA CANISTER.

Comments: Sample Numbering Completed By: [Signature] Date/Time: 9-9-16 [Signature] Rev 21 05/23/2016



Stratus Environmental, Inc.  
3330 Cameron Park Drive, Suite 550  
Cameron Park, CA 95682

**Reported:** 09/26/2016 7:07  
**Project:** Olympic Gas-San Lorenzo  
**Project Number:** 2115-1436-01  
**Project Manager:** Scott Bittinger

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1625083-01	<b>COC Number:</b>	---	<b>Receive Date:</b> 09/08/2016 09:20
	<b>Project Number:</b>	Olympic - Jaber	<b>Sampling Date:</b> 09/06/2016 13:22
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	SV-4	<b>Lab Matrix:</b> Air
	<b>Sampled By:</b>	Allan Dudding of SECP	<b>Sample Type:</b> Vapor or Air
			Delivery Work Order:
			Global ID: T0600102256
			Location ID (FieldPoint): SV-4
			Matrix: AX
			Sample QC Type (SACode): CS
			Cooler ID:
1625083-02	<b>COC Number:</b>	---	<b>Receive Date:</b> 09/08/2016 09:20
	<b>Project Number:</b>	Olympic - Jaber	<b>Sampling Date:</b> 09/06/2016 14:08
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	SV-5	<b>Lab Matrix:</b> Air
	<b>Sampled By:</b>	Allan Dudding of SECP	<b>Sample Type:</b> Vapor or Air
			Delivery Work Order:
			Global ID: T0600102256
			Location ID (FieldPoint): SV-5
			Matrix: AX
			Sample QC Type (SACode): CS
			Cooler ID:
1625083-03	<b>COC Number:</b>	---	<b>Receive Date:</b> 09/08/2016 09:20
	<b>Project Number:</b>	Olympic - Jaber	<b>Sampling Date:</b> 09/06/2016 14:08
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	SV-2	<b>Lab Matrix:</b> Air
	<b>Sampled By:</b>	Allan Dudding of SECP	<b>Sample Type:</b> Vapor or Air
			Delivery Work Order:
			Global ID: T0600102256
			Location ID (FieldPoint): SV-2
			Matrix: AX
			Sample QC Type (SACode): CS
			Cooler ID:

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Stratus Environmental, Inc.  
3330 Cameron Park Drive, Suite 550  
Cameron Park, CA 95682

**Reported:** 09/26/2016 7:07  
**Project:** Olympic Gas-San Lorenzo  
**Project Number:** 2115-1436-01  
**Project Manager:** Scott Bittinger

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1625083-04	<b>COC Number:</b>	---	<b>Receive Date:</b> 09/08/2016 09:20
	<b>Project Number:</b>	Olympic - Jaber	<b>Sampling Date:</b> 09/06/2016 14:53
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	SV-7	<b>Lab Matrix:</b> Air
	<b>Sampled By:</b>	Allan Dudding of SECP	<b>Sample Type:</b> Vapor or Air
			Delivery Work Order:
			Global ID: T0600102256
			Location ID (FieldPoint): SV-7
			Matrix: AX
			Sample QC Type (SACode): CS
			Cooler ID:
	1625083-05	<b>COC Number:</b>	---
<b>Project Number:</b>		Olympic - Jaber	<b>Sampling Date:</b> 09/06/2016 14:56
<b>Sampling Location:</b>		---	<b>Sample Depth:</b> ---
<b>Sampling Point:</b>		SV-6	<b>Lab Matrix:</b> Air
<b>Sampled By:</b>		Allan Dudding of SECP	<b>Sample Type:</b> Vapor or Air
			Delivery Work Order:
			Global ID: T0600102256
			Location ID (FieldPoint): SV-6
			Matrix: AX
			Sample QC Type (SACode): CS
			Cooler ID:
1625083-06		<b>COC Number:</b>	---
	<b>Project Number:</b>	Olympic - Jaber	<b>Sampling Date:</b> 09/06/2016 15:32
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	SV-1	<b>Lab Matrix:</b> Air
	<b>Sampled By:</b>	Allan Dudding of SECP	<b>Sample Type:</b> Vapor or Air
			Delivery Work Order:
			Global ID: T0600102256
			Location ID (FieldPoint): SV-1
			Matrix: AX
			Sample QC Type (SACode): CS
			Cooler ID:

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

Stratus Environmental, Inc. 3330 Cameron Park Drive, Suite 550 Cameron Park, CA 95682	<b>Reported:</b> 09/26/2016 7:07 Project: Olympic Gas-San Lorenzo Project Number: 2115-1436-01 Project Manager: Scott Bittinger
---	--

### Volatile Organic Compounds by GC/MS (EPA Method TO-15)

<b>BCL Sample ID:</b> 1625083-01	<b>Client Sample Name:</b> Olympic - Jaber, SV-4, 9/6/2016 1:22:00PM, Allan Dudding
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/m3 Air	13	3.4	EPA-TO-15	ND	A01	1
Ethylbenzene	ND	ug/m3 Air	18	2.3	EPA-TO-15	ND	A01	1
Isopropyl alcohol	ND	ug/m3 Air	10	3.9	EPA-TO-15	ND	A01	1
Methyl t-butyl ether	ND	ug/m3 Air	15	2.1	EPA-TO-15	ND	A01	1
Naphthalene	ND	ug/m3 Air	220	91	EPA-TO-15	ND	A01	1
Toluene	ND	ug/m3 Air	16	2.6	EPA-TO-15	ND	A01	1
p- & m-Xylenes	ND	ug/m3 Air	18	5.0	EPA-TO-15	ND	A01	1
o-Xylene	ND	ug/m3 Air	18	2.1	EPA-TO-15	ND	A01	1
Total Xylenes	ND	ug/m3 Air	36	7.2	EPA-TO-15	ND	A01	1
TPH - Gasoline	ND	ug/m3 Air	1700	320	EPA-TO-15	ND	A01	1
4-Bromofluorobenzene (Surrogate)	99.0	%	70 - 130 (LCL - UCL)		EPA-TO-15			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-TO-15	09/19/16	09/19/16 14:23	MJB	MS-A1	8.300	BZ11536

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Stratus Environmental, Inc. 3330 Cameron Park Drive, Suite 550 Cameron Park, CA 95682	<b>Reported:</b> 09/26/2016 14:21 <b>Project:</b> Olympic Gas-San Lorenzo <b>Project Number:</b> 2115-1436-01 <b>Project Manager:</b> Scott Bittinger
---	--

### Fixed Gases by GC/TCD (ASTM D1946)

<b>BCL Sample ID:</b> 1625083-01	<b>Client Sample Name:</b> Olympic - Jaber, SV-4, 9/6/2016 1:22:00PM, Allan Dudding
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Carbon dioxide (CO2)	9.3	% by Vol.	0.17	0.10	ASTM-D1946	ND		1
Methane (CH4)	ND	% by Vol.	0.00033	0.00033	ASTM-D1946	ND		1
Oxygen (O2)	3.8	% by Vol.	0.033	0.027	ASTM-D1946	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	ASTM-D1946	09/22/16	09/22/16 10:15	jh2	GC-A1	1.660	BZI2077

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*  
 All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Stratus Environmental, Inc. 3330 Cameron Park Drive, Suite 550 Cameron Park, CA 95682	<b>Reported:</b> 09/26/2016 14:21 <b>Project:</b> Olympic Gas-San Lorenzo <b>Project Number:</b> 2115-1436-01 <b>Project Manager:</b> Scott Bittinger
---	--

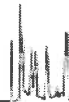
### Volatile Organic Compounds by GC/MS (EPA Method TO-15)

<b>BCL Sample ID:</b> 1625083-02	<b>Client Sample Name:</b> Olympic - Jaber, SV-5, 9/6/2016 2:08:00PM, Allan Dudding
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/m3 Air	140	37	EPA-TO-15	ND	A01	1
Ethylbenzene	ND	ug/m3 Air	190	24	EPA-TO-15	ND	A01	1
Isopropyl alcohol	ND	ug/m3 Air	110	41	EPA-TO-15	ND	A01	1
Methyl t-butyl ether	ND	ug/m3 Air	160	22	EPA-TO-15	ND	A01	1
Naphthalene	ND	ug/m3 Air	2300	970	EPA-TO-15	ND	A01	1
<b>Toluene</b>	<b>300</b>	<b>ug/m3 Air</b>	<b>170</b>	<b>28</b>	<b>EPA-TO-15</b>	ND	<b>A01</b>	1
p- & m-Xylenes	ND	ug/m3 Air	190	53	EPA-TO-15	ND	A01	1
o-Xylene	ND	ug/m3 Air	190	22	EPA-TO-15	ND	A01	1
Total Xylenes	ND	ug/m3 Air	380	76	EPA-TO-15	ND	A01	1
TPH - Gasoline	ND	ug/m3 Air	18000	3400	EPA-TO-15	ND	A01	1
4-Bromofluorobenzene (Surrogate)	110	%	70 - 130 (LCL - UCL)		EPA-TO-15			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-TO-15	09/19/16	09/19/16 15:02	MJB	MS-A1	88	BZ11536

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*  
 All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Stratus Environmental, Inc. 3330 Cameron Park Drive, Suite 550 Cameron Park, CA 95682	<b>Reported:</b> 09/26/2016 14:21 <b>Project:</b> Olympic Gas-San Lorenzo <b>Project Number:</b> 2115-1436-01 <b>Project Manager:</b> Scott Bittinger
---	--

### Fixed Gases by GC/TCD (ASTM D1946)

<b>BCL Sample ID:</b> 1625083-02	<b>Client Sample Name:</b> Olympic - Jaber, SV-5, 9/6/2016 2:08:00PM, Allan Dudding							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Carbon dioxide (CO2)	11	% by Vol.	0.18	0.11	ASTM-D1946	ND		1
Methane (CH4)	0.52	% by Vol.	0.00036	0.00036	ASTM-D1946	ND		1
Oxygen (O2)	1.7	% by Vol.	0.036	0.029	ASTM-D1946	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	ASTM-D1946	09/22/16	09/22/16 10:35	jh2	GC-A1	1.790	BZI2077

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.





Stratus Environmental, Inc.  
3330 Cameron Park Drive, Suite 550  
Cameron Park, CA 95682

**Reported:** 09/26/2016 14:21  
**Project:** Olympic Gas-San Lorenzo  
**Project Number:** 2115-1436-01  
**Project Manager:** Scott Bittinger

### Volatile Organic Compounds by GC/MS (EPA Method TO-15)

**BCL Sample ID:** 1625083-03      **Client Sample Name:** Olympic - Jaber, SV-2, 9/6/2016 2:08:00PM, Allan Dudding

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/m3 Air	15	3.8	EPA-TO-15	ND	A01	1
Ethylbenzene	ND	ug/m3 Air	20	2.6	EPA-TO-15	ND	A01	1
Isopropyl alcohol	ND	ug/m3 Air	11	4.3	EPA-TO-15	ND	A01	1
Methyl t-butyl ether	ND	ug/m3 Air	17	2.3	EPA-TO-15	ND	A01	1
Naphthalene	ND	ug/m3 Air	240	100	EPA-TO-15	ND	A01	1
Toluene	ND	ug/m3 Air	17	2.9	EPA-TO-15	ND	A01	1
p- & m-Xylenes	ND	ug/m3 Air	20	5.6	EPA-TO-15	ND	A01	1
o-Xylene	ND	ug/m3 Air	20	2.3	EPA-TO-15	ND	A01	1
Total Xylenes	ND	ug/m3 Air	40	8.0	EPA-TO-15	ND	A01	1
TPH - Gasoline	ND	ug/m3 Air	1900	360	EPA-TO-15	ND	A01	1
4-Bromofluorobenzene (Surrogate)	100	%	70 - 130 (LCL - UCL)		EPA-TO-15			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-TO-15	09/19/16	09/19/16 15:36	MJB	MS-A1	9.200	BZ11536

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Stratus Environmental, Inc.  
3330 Cameron Park Drive, Suite 550  
Cameron Park, CA 95682

**Reported:** 09/26/2016 14:21  
**Project:** Olympic Gas-San Lorenzo  
**Project Number:** 2115-1436-01  
**Project Manager:** Scott Bittinger

### Fixed Gases by GC/TCD (ASTM D1946)

<b>BCL Sample ID:</b> 1625083-03	<b>Client Sample Name:</b> Olympic - Jaber, SV-2, 9/6/2016 2:08:00PM, Allan Dudding
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Carbon dioxide (CO2)	10	% by Vol.	0.18	0.11	ASTM-D1946	ND		1
Methane (CH4)	0.029	% by Vol.	0.00037	0.00037	ASTM-D1946	ND		1
Oxygen (O2)	2.9	% by Vol.	0.037	0.029	ASTM-D1946	ND		1

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	ASTM-D1946	09/22/16	09/22/16 10:55	jh2	GC-A1	1.840	BZI2077

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*  
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Stratus Environmental, Inc.  
3330 Cameron Park Drive, Suite 550  
Cameron Park, CA 95682

**Reported:** 09/26/2016 14:21  
**Project:** Olympic Gas-San Lorenzo  
**Project Number:** 2115-1436-01  
**Project Manager:** Scott Bittinger

### Volatile Organic Compounds by GC/MS (EPA Method TO-15)

BCL Sample ID:	1625083-04	Client Sample Name:	Olympic - Jaber, SV-7, 9/6/2016 2:53:00PM, Allan Dudding						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Benzene	ND	ug/m3 Air	110	29	EPA-TO-15	ND	A01	1	
Ethylbenzene	ND	ug/m3 Air	150	19	EPA-TO-15	ND	A01	1	
Isopropyl alcohol	ND	ug/m3 Air	85	32	EPA-TO-15	ND	A01	1	
Methyl t-butyl ether	ND	ug/m3 Air	120	17	EPA-TO-15	ND	A01	1	
Naphthalene	ND	ug/m3 Air	1800	760	EPA-TO-15	ND	A01	1	
<b>Toluene</b>	<b>270</b>	<b>ug/m3 Air</b>	<b>130</b>	<b>22</b>	<b>EPA-TO-15</b>	<b>ND</b>	<b>A01</b>	<b>1</b>	
p- & m-Xylenes	ND	ug/m3 Air	150	42	EPA-TO-15	ND	A01	1	
o-Xylene	ND	ug/m3 Air	150	17	EPA-TO-15	ND	A01	1	
Total Xylenes	ND	ug/m3 Air	300	60	EPA-TO-15	ND	A01	1	
<b>TPH - Gasoline</b>	<b>77000</b>	<b>ug/m3 Air</b>	<b>14000</b>	<b>2700</b>	<b>EPA-TO-15</b>	<b>ND</b>	<b>A01</b>	<b>1</b>	
4-Bromofluorobenzene (Surrogate)	105	%	70 - 130 (LCL - UCL)		EPA-TO-15			1	

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-TO-15	09/19/16	09/19/16 16:15	MJB	MS-A1	69	BZI1536

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Stratus Environmental, Inc. 3330 Cameron Park Drive, Suite 550 Cameron Park, CA 95682	<b>Reported:</b> 09/26/2016 14:21 <b>Project:</b> Olympic Gas-San Lorenzo <b>Project Number:</b> 2115-1436-01 <b>Project Manager:</b> Scott Bittinger
---	--

### Fixed Gases by GC/TCD (ASTM D1946)

<b>BCL Sample ID:</b> 1625083-04	<b>Client Sample Name:</b> Olympic - Jaber, SV-7, 9/6/2016 2:53:00PM, Allan Dudding
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Carbon dioxide (CO2)	4.4	% by Vol.	0.14	0.083	ASTM-D1946	ND		1
Methane (CH4)	0.44	% by Vol.	0.00028	0.00028	ASTM-D1946	ND		1
Oxygen (O2)	11	% by Vol.	0.028	0.022	ASTM-D1946	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	ASTM-D1946	09/22/16	09/22/16 11:14	jh2	GC-A1	1.380	BZI2077

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Stratus Environmental, Inc.  
3330 Cameron Park Drive, Suite 550  
Cameron Park, CA 95682

**Reported:** 09/26/2016 14:21  
**Project:** Olympic Gas-San Lorenzo  
**Project Number:** 2115-1436-01  
**Project Manager:** Scott Bittinger

### Volatile Organic Compounds by GC/MS (EPA Method TO-15)

BCL Sample ID: 1625083-05		Client Sample Name: Olympic - Jaber, SV-6, 9/6/2016 2:56:00PM, Allan Dudding						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	92	ug/m3 Air	11	2.9	EPA-TO-15	ND	A01	1
Ethylbenzene	19	ug/m3 Air	15	1.9	EPA-TO-15	ND	A01	1
Isopropyl alcohol	ND	ug/m3 Air	8.5	3.2	EPA-TO-15	ND	A01	1
Methyl t-butyl ether	ND	ug/m3 Air	12	1.7	EPA-TO-15	ND	A01	1
Naphthalene	ND	ug/m3 Air	180	76	EPA-TO-15	ND	A01	1
Toluene	21	ug/m3 Air	13	2.2	EPA-TO-15	ND	A01	1
p- & m-Xylenes	30	ug/m3 Air	15	4.2	EPA-TO-15	ND	A01	1
o-Xylene	7.8	ug/m3 Air	15	1.7	EPA-TO-15	ND	J,A01	1
Total Xylenes	38	ug/m3 Air	30	6.0	EPA-TO-15	ND	A01	1
TPH - Gasoline	15000	ug/m3 Air	1400	270	EPA-TO-15	ND	A01	1
4-Bromofluorobenzene (Surrogate)	102	%	70 - 130 (LCL - UCL)		EPA-TO-15			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-TO-15	09/19/16	09/19/16 16:49	MJB	MS-A1	6.900	BZI1536

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Stratus Environmental, Inc. 3330 Cameron Park Drive, Suite 550 Cameron Park, CA 95682	<b>Reported:</b> 09/26/2016 14:21 <b>Project:</b> Olympic Gas-San Lorenzo <b>Project Number:</b> 2115-1436-01 <b>Project Manager:</b> Scott Bittinger
---	--

### Fixed Gases by GC/TCD (ASTM D1946)

<b>BCL Sample ID:</b> 1625083-05	<b>Client Sample Name:</b> Olympic - Jaber, SV-6, 9/6/2016 2:56:00PM, Allan Dudding
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Carbon dioxide (CO2)	2.6	% by Vol.	0.14	0.083	ASTM-D1946	ND		1
Methane (CH4)	1.1	% by Vol.	0.00028	0.00028	ASTM-D1946	ND		1
Oxygen (O2)	14	% by Vol.	0.028	0.022	ASTM-D1946	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	ASTM-D1946	09/22/16	09/22/16 11:34	jh2	GC-A1	1.380	BZI2077

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Stratus Environmental, Inc. 3330 Cameron Park Drive, Suite 550 Cameron Park, CA 95682	<b>Reported:</b> 09/26/2016 14:21 <b>Project:</b> Olympic Gas-San Lorenzo <b>Project Number:</b> 2115-1436-01 <b>Project Manager:</b> Scott Bittinger
---	--

### Volatile Organic Compounds by GC/MS (EPA Method TO-15)

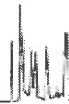
<b>BCL Sample ID:</b> 1625083-06	<b>Client Sample Name:</b> Olympic - Jaber, SV-1, 9/6/2016 3:32:00PM, Allan Dudding
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/m3 Air	11	2.9	EPA-TO-15	ND	A01	1
Ethylbenzene	ND	ug/m3 Air	15	1.9	EPA-TO-15	ND	A01	1
Isopropyl alcohol	ND	ug/m3 Air	8.5	3.2	EPA-TO-15	ND	A01	1
Methyl t-butyl ether	ND	ug/m3 Air	12	1.7	EPA-TO-15	ND	A01	1
Naphthalene	ND	ug/m3 Air	180	76	EPA-TO-15	ND	A01	1
Toluene	ND	ug/m3 Air	13	2.2	EPA-TO-15	ND	A01	1
p- & m-Xylenes	ND	ug/m3 Air	15	4.2	EPA-TO-15	ND	A01	1
o-Xylene	ND	ug/m3 Air	15	1.7	EPA-TO-15	ND	A01	1
Total Xylenes	ND	ug/m3 Air	30	6.0	EPA-TO-15	ND	A01	1
TPH - Gasoline	ND	ug/m3 Air	1400	270	EPA-TO-15	ND	A01	1
4-Bromofluorobenzene (Surrogate)	92.3	%	70 - 130 (LCL - UCL)		EPA-TO-15			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-TO-15	09/19/16	09/19/16 17:23	MJB	MS-A1	6.900	BZ11536

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Stratus Environmental, Inc.  
3330 Cameron Park Drive, Suite 550  
Cameron Park, CA 95682

**Reported:** 09/26/2016 14:21  
**Project:** Olympic Gas-San Lorenzo  
**Project Number:** 2115-1436-01  
**Project Manager:** Scott Bittinger

**Fixed Gases by GC/TCD (ASTM D1946)**

**BCL Sample ID:** 1625083-06      **Client Sample Name:** Olympic - Jaber, SV-1, 9/6/2016 3:32:00PM, Allan Dudding

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Carbon dioxide (CO2)	4.4	% by Vol.	0.14	0.083	ASTM-D1946	ND		1
Methane (CH4)	0.0055	% by Vol.	0.00028	0.00028	ASTM-D1946	ND		1
Oxygen (O2)	6.3	% by Vol.	0.028	0.022	ASTM-D1946	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	ASTM-D1946	09/22/16	09/22/16 12:07	jh2	GC-A1	1.380	BZI2077

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.





Stratus Environmental, Inc.  
3330 Cameron Park Drive, Suite 550  
Cameron Park, CA 95682

**Reported:** 09/26/2016 14:21  
Project: Olympic Gas-San Lorenzo  
Project Number: 2115-1436-01  
Project Manager: Scott Bittinger

## Volatile Organic Compounds by GC/MS (EPA Method TO-15)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BZI1536</b>						
Benzene	BZI1536-BLK1	ND	ug/m3 Air	1.6	0.42	
Ethylbenzene	BZI1536-BLK1	ND	ug/m3 Air	2.2	0.28	
Isopropyl alcohol	BZI1536-BLK1	ND	ug/m3 Air	1.2	0.47	
Methyl t-butyl ether	BZI1536-BLK1	ND	ug/m3 Air	1.8	0.25	
Naphthalene	BZI1536-BLK1	ND	ug/m3 Air	26	11	
Toluene	BZI1536-BLK1	ND	ug/m3 Air	1.9	0.32	
p- & m-Xylenes	BZI1536-BLK1	ND	ug/m3 Air	2.2	0.61	
o-Xylene	BZI1536-BLK1	ND	ug/m3 Air	2.2	0.25	
Total Xylenes	BZI1536-BLK1	ND	ug/m3 Air	4.3	0.87	
TPH - Gasoline	BZI1536-BLK1	ND	ug/m3 Air	200	39	
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>BZI1536-BLK1</b>	<b>88.1</b>	<b>%</b>	<b>70 - 130 (LCL - UCL)</b>		

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Stratus Environmental, Inc. 3330 Cameron Park Drive, Suite 550 Cameron Park, CA 95682	<b>Reported:</b> 09/26/2016 14:21 <b>Project:</b> Olympic Gas-San Lorenzo <b>Project Number:</b> 2115-1436-01 <b>Project Manager:</b> Scott Bittinger
---	--

### Volatile Organic Compounds by GC/MS (EPA Method TO-15)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: BZI1536</b>										
Benzene	BZI1536-BS1	LCS	16.159	15.974	ug/m3 Air	101		70 - 130		
	BZI1536-BSD1	LCSD	16.153	15.974	ug/m3 Air	101	0.0	70 - 130		30
Ethylbenzene	BZI1536-BS1	LCS	19.835	21.711	ug/m3 Air	91.4		70 - 130		
	BZI1536-BSD1	LCSD	19.422	21.711	ug/m3 Air	89.5	2.1	70 - 130		30
Toluene	BZI1536-BS1	LCS	18.228	18.842	ug/m3 Air	96.7		70 - 130		
	BZI1536-BSD1	LCSD	18.541	18.842	ug/m3 Air	98.4	1.7	70 - 130		30
p- & m-Xylenes	BZI1536-BS1	LCS	42.397	43.421	ug/m3 Air	97.6		70 - 130		
	BZI1536-BSD1	LCSD	41.302	43.421	ug/m3 Air	95.1	2.6	70 - 130		30
o-Xylene	BZI1536-BS1	LCS	21.663	21.711	ug/m3 Air	99.8		70 - 130		
	BZI1536-BSD1	LCSD	21.046	21.711	ug/m3 Air	96.9	2.9	70 - 130		30
Total Xylenes	BZI1536-BS1	LCS	64.059	65.132	ug/m3 Air	98.4		70 - 130		
	BZI1536-BSD1	LCSD	62.349	65.132	ug/m3 Air	95.7	2.7	70 - 130		30
4-Bromofluorobenzene (Surrogate)	BZI1536-BS1	LCS	88.8	71.6	ug/m3 Air	124		70 - 130		
	BZI1536-BSD1	LCSD	88.5	71.6	ug/m3 Air	124	0.3	70 - 130		

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*  
 All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Stratus Environmental, Inc.  
3330 Cameron Park Drive, Suite 550  
Cameron Park, CA 95682

**Reported:** 09/26/2016 14:21  
**Project:** Olympic Gas-San Lorenzo  
**Project Number:** 2115-1436-01  
**Project Manager:** Scott Bittinger

### Fixed Gases by GC/TCD (ASTM D1946)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BZI2077</b>						
Carbon dioxide (CO2)	BZI2077-BLK1	ND	% by Vol.	0.10	0.060	
Methane (CH4)	BZI2077-BLK1	ND	% by Vol.	0.00020	0.00020	
Oxygen (O2)	BZI2077-BLK1	ND	% by Vol.	0.020	0.016	

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Stratus Environmental, Inc.  
3330 Cameron Park Drive, Suite 550  
Cameron Park, CA 95682

**Reported:** 09/26/2016 14:21  
**Project:** Olympic Gas-San Lorenzo  
**Project Number:** 2115-1436-01  
**Project Manager:** Scott Bittinger

### Fixed Gases by GC/TCD (ASTM D1946)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: BZI2077</b>										
Carbon dioxide (CO2)	BZI2077-BS1	LCS	5.8760	6.0000	% by Vol.	97.9		70 - 130		
	BZI2077-BSD1	LCSD	5.8220	6.0000	% by Vol.	97.0	0.9	70 - 130		30
Methane (CH4)	BZI2077-BS1	LCS	1.9810	1.8000	% by Vol.	110		70 - 130		
	BZI2077-BSD1	LCSD	1.9640	1.8000	% by Vol.	109	0.9	70 - 130		30
Oxygen (O2)	BZI2077-BS1	LCS	1.2300	1.6000	% by Vol.	76.9		70 - 130		
	BZI2077-BSD1	LCSD	1.2200	1.6000	% by Vol.	76.2	0.8	70 - 130		30

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*  
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Stratus Environmental, Inc.  
3330 Cameron Park Drive, Suite 550  
Cameron Park, CA 95682

**Reported:** 09/26/2016 14:21  
**Project:** Olympic Gas-San Lorenzo  
**Project Number:** 2115-1436-01  
**Project Manager:** Scott Bittinger

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A01 Detection and quantitation limits are raised due to sample dilution.



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

## ANALYTICAL REPORT

Stratus Environmental  
3330 Cameron Park Drive  
Cameron Park, CA 956828861  
Job: 2115-1436-1/Former Olympic Station

Attn: Scott Bittinger  
Phone: (530) 676-2062  
Fax: (530) 676-6005

Alpha Analytical Number: STR16101921-01A  
Client I.D. Number: GP-1-4.5

Sampled: 10/18/16 09:51  
Received: 10/19/16  
Extracted: 10/19/16 10:14  
Analyzed: 10/26/16 04:15

### Semivolatile Organics by GC/MS EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Naphthalene	ND	660 µg/Kg
2	Acenaphthylene	ND	660 µg/Kg
3	Acenaphthene	ND	660 µg/Kg
4	Fluorene	ND	660 µg/Kg
5	Phenanthrene	ND	660 µg/Kg
6	Anthracene	ND	660 µg/Kg
7	Fluoranthene	ND	660 µg/Kg
8	Pyrene	ND	660 µg/Kg
9	Benzo(a)anthracene	ND	660 µg/Kg
10	Chrysene	ND	660 µg/Kg
11	Benzo(b)fluoranthene	ND	660 µg/Kg
12	Benzo(k)fluoranthene	ND	660 µg/Kg
13	Benzo(a)pyrene	ND	660 µg/Kg
14	Indeno(1,2,3-cd)pyrene	ND	660 µg/Kg
15	Dibenz(a,h)anthracene	ND	660 µg/Kg
16	Benzo(g,h,i)perylene	ND	660 µg/Kg

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.  
ND = Not Detected



*Roger Scholl*

*Randy Gardner*

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager  
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Statement of Data Authenticity: Alpha Analytical, Inc. attests that the data reported has not been altered in any way.



*AS*

10/27/16

Report Date

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

Page 1 of 1



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

## ANALYTICAL REPORT

Stratus Environmental  
3330 Cameron Park Drive  
Cameron Park, CA 956828861  
Job: 2115-1436-1/Former Olympic Station

Attn: Scott Bittinger  
Phone: (530) 676-2062  
Fax: (530) 676-6005

Alpha Analytical Number: STR16101921-02A  
Client I.D. Number: GP-1-9.5

Sampled: 10/18/16 09:54  
Received: 10/19/16  
Extracted: 10/19/16 10:14  
Analyzed: 10/26/16 04:40

### Semivolatile Organics by GC/MS EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Naphthalene	2,400	660 µg/Kg
2	Acenaphthylene	ND	660 µg/Kg
3	Acenaphthene	ND	660 µg/Kg
4	Fluorene	ND	660 µg/Kg
5	Phenanthrene	ND	660 µg/Kg
6	Anthracene	ND	660 µg/Kg
7	Fluoranthene	ND	660 µg/Kg
8	Pyrene	ND	660 µg/Kg
9	Benzo(a)anthracene	ND	660 µg/Kg
10	Chrysene	ND	660 µg/Kg
11	Benzo(b)fluoranthene	ND	660 µg/Kg
12	Benzo(k)fluoranthene	ND	660 µg/Kg
13	Benzo(a)pyrene	ND	660 µg/Kg
14	Indeno(1,2,3-cd)pyrene	ND	660 µg/Kg
15	Dibenz(a,h)anthracene	ND	660 µg/Kg
16	Benzo(g,h,i)perylene	ND	660 µg/Kg

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.  
ND = Not Detected



*Roger Scholl*

*Randy Gardner*

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Statement of Data Authenticity: Alpha Analytical, Inc. attests that the data reported has not been altered in any way.

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.



*JS*

10/27/16

Report Date

Page 1 of 1



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

## ANALYTICAL REPORT

Stratus Environmental  
3330 Cameron Park Drive  
Cameron Park, CA 956828861  
Job: 2115-1436-1/Former Olympic Station

Attn: Scott Bittinger  
Phone: (530) 676-2062  
Fax: (530) 676-6005

Alpha Analytical Number: STR16101921-07A  
Client I.D. Number: GP-2-4.5

Sampled: 10/18/16 09:18  
Received: 10/19/16  
Extracted: 10/19/16 10:14  
Analyzed: 10/26/16 05:06

### Semivolatile Organics by GC/MS EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Naphthalene	ND	660 µg/Kg
2	Acenaphthylene	ND	660 µg/Kg
3	Acenaphthene	ND	660 µg/Kg
4	Fluorene	ND	660 µg/Kg
5	Phenanthrene	ND	660 µg/Kg
6	Anthracene	ND	660 µg/Kg
7	Fluoranthene	ND	660 µg/Kg
8	Pyrene	ND	660 µg/Kg
9	Benzo(a)anthracene	ND	660 µg/Kg
10	Chrysene	ND	660 µg/Kg
11	Benzo(b)fluoranthene	ND	660 µg/Kg
12	Benzo(k)fluoranthene	ND	660 µg/Kg
13	Benzo(a)pyrene	ND	660 µg/Kg
14	Indeno(1,2,3-cd)pyrene	ND	660 µg/Kg
15	Dibenz(a,h)anthracene	ND	660 µg/Kg
16	Benzo(g,h,i)perylene	ND	660 µg/Kg

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.  
ND = Not Detected

*Roger Scholl*

*Randy Gardner*

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Statement of Data Authenticity: Alpha Analytical, Inc. attests that the data reported has not been altered in any way.

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.



*[Signature]*  
10/27/16

Report Date

Page 1 of 1





# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

## ANALYTICAL REPORT

Stratus Environmental  
3330 Cameron Park Drive  
Cameron Park, CA 956828861  
Job: 2115-1436-1/Former Olympic Station

Attn: Scott Bittinger  
Phone: (530) 676-2062  
Fax: (530) 676-6005

Alpha Analytical Number: STR16101921-08A  
Client I.D. Number: GP-2-7

Sampled: 10/18/16 09:20  
Received: 10/19/16  
Extracted: 10/19/16 10:14  
Analyzed: 10/26/16 05:31

### Semivolatile Organics by GC/MS EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Naphthalene	ND	660 µg/Kg
2	Acenaphthylene	ND	660 µg/Kg
3	Acenaphthene	ND	660 µg/Kg
4	Fluorene	ND	660 µg/Kg
5	Phenanthrene	ND	660 µg/Kg
6	Anthracene	ND	660 µg/Kg
7	Fluoranthene	ND	660 µg/Kg
8	Pyrene	ND	660 µg/Kg
9	Benzo(a)anthracene	ND	660 µg/Kg
10	Chrysene	ND	660 µg/Kg
11	Benzo(b)fluoranthene	ND	660 µg/Kg
12	Benzo(k)fluoranthene	ND	660 µg/Kg
13	Benzo(a)pyrene	ND	660 µg/Kg
14	Indeno(1,2,3-cd)pyrene	ND	660 µg/Kg
15	Dibenz(a,h)anthracene	ND	660 µg/Kg
16	Benzo(g,h,i)perylene	ND	660 µg/Kg

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.  
ND = Not Detected



*Roger Scholl*

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Statement of Data Authenticity: Alpha Analytical, Inc. attests that the data reported has not been altered in any way.

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.



*AS*

10/27/16

Report Date

Page 1 of 1



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

## ANALYTICAL REPORT

Stratus Environmental  
3330 Cameron Park Drive  
Cameron Park, CA 956828861  
Job: 2115-1436-1/Former Olympic Station

Attn: Scott Bittinger  
Phone: (530) 676-2062  
Fax: (530) 676-6005

Alpha Analytical Number: STR16101921-12A  
Client I.D. Number: GP-3-4.5

Sampled: 10/18/16 10:20  
Received: 10/19/16  
Extracted: 10/19/16 10:14  
Analyzed: 10/26/16 11:12

### Semivolatile Organics by GC/MS EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Naphthalene	ND	3,300 µg/Kg
2	Acenaphthylene	ND	3,300 µg/Kg
3	Acenaphthene	ND	3,300 µg/Kg
4	Fluorene	ND	3,300 µg/Kg
5	Phenanthrene	ND	3,300 µg/Kg
6	Anthracene	ND	3,300 µg/Kg
7	Fluoranthene	ND	3,300 µg/Kg
8	Pyrene	ND	3,300 µg/Kg
9	Benzo(a)anthracene	ND	3,300 µg/Kg
10	Chrysene	ND	3,300 µg/Kg
11	Benzo(b)fluoranthene	ND	3,300 µg/Kg
12	Benzo(k)fluoranthene	ND	3,300 µg/Kg
13	Benzo(a)pyrene	ND	3,300 µg/Kg
14	Indeno(1,2,3-cd)pyrene	ND	3,300 µg/Kg
15	Dibenz(a,h)anthracene	ND	3,300 µg/Kg
16	Benzo(g,h,i)perylene	ND	3,300 µg/Kg

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery. Reporting Limits were increased due to the hydrocarbons present in the sample.

Sample results were calculated on a wet weight basis.  
ND = Not Detected

*Roger Scholl*

*Randy Gardner*

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager  
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAC unless footnoted otherwise.  
Statement of Data Authenticity: Alpha Analytical, Inc. attests that the data reported has not been altered in any way.

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.



*[Signature]*

10/27/16

Report Date

Page 1 of 1



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

## ANALYTICAL REPORT

Stratus Environmental  
3330 Cameron Park Drive  
Cameron Park, CA 956828861  
Job: 2115-1436-1/Former Olympic Station

Attn: Scott Bittinger  
Phone: (530) 676-2062  
Fax: (530) 676-6005

Alpha Analytical Number: STR16101921-13A  
Client I.D. Number: GP-3-9.5

Sampled: 10/18/16 10:23  
Received: 10/19/16  
Extracted: 10/19/16 10:14  
Analyzed: 10/26/16 05:57

### Semivolatile Organics by GC/MS EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Naphthalene	ND	660 µg/Kg
2	Acenaphthylene	ND	660 µg/Kg
3	Acenaphthene	ND	660 µg/Kg
4	Fluorene	ND	660 µg/Kg
5	Phenanthrene	ND	660 µg/Kg
6	Anthracene	ND	660 µg/Kg
7	Fluoranthene	ND	660 µg/Kg
8	Pyrene	ND	660 µg/Kg
9	Benzo(a)anthracene	ND	660 µg/Kg
10	Chrysene	ND	660 µg/Kg
11	Benzo(b)fluoranthene	ND	660 µg/Kg
12	Benzo(k)fluoranthene	ND	660 µg/Kg
13	Benzo(a)pyrene	ND	660 µg/Kg
14	Indeno(1,2,3-cd)pyrene	ND	660 µg/Kg
15	Dibenz(a,h)anthracene	ND	660 µg/Kg
16	Benzo(g,h,i)perylene	ND	660 µg/Kg

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.  
ND = Not Detected

*Roger Scholl*

*Randy Gardner*

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Statement of Data Authenticity: Alpha Analytical, Inc. attests that the data reported has not been altered in any way.

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.



*PS*

10/27/16

Report Date

Page 1 of 1



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

## ANALYTICAL REPORT

Stratus Environmental  
3330 Cameron Park Drive  
Cameron Park, CA 956828861  
Job: 2115-1436-1/Former Olympic Station

Attn: Scott Bittinger  
Phone: (530) 676-2062  
Fax: (530) 676-6005

Alpha Analytical Number: STR16101921-17A  
Client I.D. Number: GP-4-4

Sampled: 10/18/16 08:46  
Received: 10/19/16  
Extracted: 10/19/16 10:14  
Analyzed: 10/26/16 06:22

### Semivolatile Organics by GC/MS EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Naphthalene	ND	660 µg/Kg
2	Acenaphthylene	ND	660 µg/Kg
3	Acenaphthene	ND	660 µg/Kg
4	Fluorene	ND	660 µg/Kg
5	Phenanthrene	ND	660 µg/Kg
6	Anthracene	ND	660 µg/Kg
7	Fluoranthene	ND	660 µg/Kg
8	Pyrene	ND	660 µg/Kg
9	Benzo(a)anthracene	ND	660 µg/Kg
10	Chrysene	ND	660 µg/Kg
11	Benzo(b)fluoranthene	ND	660 µg/Kg
12	Benzo(k)fluoranthene	ND	660 µg/Kg
13	Benzo(a)pyrene	ND	660 µg/Kg
14	Indeno(1,2,3-cd)pyrene	ND	660 µg/Kg
15	Dibenz(a,h)anthracene	ND	660 µg/Kg
16	Benzo(g,h,i)perylene	ND	660 µg/Kg

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.  
ND = Not Detected

*Roger Scholl*

*Randy Gardner*

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Statement of Data Authenticity: Alpha Analytical, Inc. attests that the data reported has not been altered in any way.

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.



*[Signature]*  
10/27/16

Report Date

Page 1 of 1



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

## ANALYTICAL REPORT

Stratus Environmental  
3330 Cameron Park Drive  
Cameron Park, CA 956828861  
Job: 2115-1436-1/Former Olympic Station

Attn: Scott Bittinger  
Phone: (530) 676-2062  
Fax: (530) 676-6005

Alpha Analytical Number: STR16101921-18A  
Client I.D. Number: GP-4-7

Sampled: 10/18/16 08:47  
Received: 10/19/16  
Extracted: 10/19/16 10:14  
Analyzed: 10/26/16 06:48

### Semivolatile Organics by GC/MS EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Naphthalene	1,300	660 µg/Kg
2	Acenaphthylene	ND	660 µg/Kg
3	Acenaphthene	ND	660 µg/Kg
4	Fluorene	ND	660 µg/Kg
5	Phenanthrene	ND	660 µg/Kg
6	Anthracene	ND	660 µg/Kg
7	Fluoranthene	ND	660 µg/Kg
8	Pyrene	ND	660 µg/Kg
9	Benzo(a)anthracene	ND	660 µg/Kg
10	Chrysene	ND	660 µg/Kg
11	Benzo(b)fluoranthene	ND	660 µg/Kg
12	Benzo(k)fluoranthene	ND	660 µg/Kg
13	Benzo(a)pyrene	ND	660 µg/Kg
14	Indeno(1,2,3-cd)pyrene	ND	660 µg/Kg
15	Dibenz(a,h)anthracene	ND	660 µg/Kg
16	Benzo(g,h,i)perylene	ND	660 µg/Kg

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.  
ND = Not Detected

*Roger Scholl*

*Randy Gardner*

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Statement of Data Authenticity: Alpha Analytical, Inc. attests that the data reported has not been altered in any way.



*AS*

10/27/16

Report Date

Page 1 of 1



Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

## ANALYTICAL REPORT

Stratus Environmental  
3330 Cameron Park Drive  
Cameron Park, CA 956828861  
Job: 2115-1436-1/Former Olympic Station

Attn: Scott Bittinger  
Phone: (530) 676-2062  
Fax: (530) 676-6005

Alpha Analytical Number: STR16101921-19A  
Client I.D. Number: GP-4-9

Sampled: 10/18/16 08:48  
Received: 10/19/16  
Extracted: 10/19/16 10:14  
Analyzed: 10/26/16 07:13

### Semivolatile Organics by GC/MS EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Naphthalene	690	660 µg/Kg
2	Acenaphthylene	ND	660 µg/Kg
3	Acenaphthene	ND	660 µg/Kg
4	Fluorene	ND	660 µg/Kg
5	Phenanthrene	ND	660 µg/Kg
6	Anthracene	ND	660 µg/Kg
7	Fluoranthene	ND	660 µg/Kg
8	Pyrene	ND	660 µg/Kg
9	Benzo(a)anthracene	ND	660 µg/Kg
10	Chrysene	ND	660 µg/Kg
11	Benzo(b)fluoranthene	ND	660 µg/Kg
12	Benzo(k)fluoranthene	ND	660 µg/Kg
13	Benzo(a)pyrene	ND	660 µg/Kg
14	Indeno(1,2,3-cd)pyrene	ND	660 µg/Kg
15	Dibenz(a,h)anthracene	ND	660 µg/Kg
16	Benzo(g,h,i)perylene	ND	660 µg/Kg

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.  
ND = Not Detected

*Roger Scholl*

*Randy Gardner*

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Statement of Data Authenticity: Alpha Analytical, Inc. attests that the data reported has not been altered in any way.

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.



*RS*  
10/27/16

Report Date

Page 1 of 1



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

## ANALYTICAL REPORT

Stratus Environmental  
3330 Cameron Park Drive  
Cameron Park, CA 956828861  
Job: 2115-1436-1/Former Olympic Station

Attn: Scott Bittinger  
Phone: (530) 676-2062  
Fax: (530) 676-6005

Alpha Analytical Number: STR16101921-22A  
Client I.D. Number: GP-5-4.5

Sampled: 10/18/16 10:45  
Received: 10/19/16  
Extracted: 10/19/16 10:14  
Analyzed: 10/26/16 07:39

### Semivolatile Organics by GC/MS EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Naphthalene	ND	660 µg/Kg
2	Acenaphthylene	ND	660 µg/Kg
3	Acenaphthene	ND	660 µg/Kg
4	Fluorene	ND	660 µg/Kg
5	Phenanthrene	ND	660 µg/Kg
6	Anthracene	ND	660 µg/Kg
7	Fluoranthene	ND	660 µg/Kg
8	Pyrene	ND	660 µg/Kg
9	Benzo(a)anthracene	ND	660 µg/Kg
10	Chrysene	ND	660 µg/Kg
11	Benzo(b)fluoranthene	ND	660 µg/Kg
12	Benzo(k)fluoranthene	ND	660 µg/Kg
13	Benzo(a)pyrene	ND	660 µg/Kg
14	Indeno(1,2,3-cd)pyrene	ND	660 µg/Kg
15	Dibenz(a,h)anthracene	ND	660 µg/Kg
16	Benzo(g,h,i)perylene	ND	660 µg/Kg

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.  
ND = Not Detected



*Roger Scholl*

*Randy Gardner*

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Statement of Data Authenticity: Alpha Analytical, Inc. attests that the data reported has not been altered in any way.



*PS*  
10/27/16

Report Date

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

## ANALYTICAL REPORT

Stratus Environmental  
3330 Cameron Park Drive  
Cameron Park, CA 956828861  
Job: 2115-1436-1/Former Olympic Station

Attn: Scott Bittinger  
Phone: (530) 676-2062  
Fax: (530) 676-6005

Alpha Analytical Number: STR16101921-23A  
Client I.D. Number: GP-5-9.5

Sampled: 10/18/16 10:47  
Received: 10/19/16  
Extracted: 10/19/16 10:14  
Analyzed: 10/26/16 08:04

### Semivolatile Organics by GC/MS EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Naphthalene	1,500	660 µg/Kg
2	Acenaphthylene	ND	660 µg/Kg
3	Acenaphthene	ND	660 µg/Kg
4	Fluorene	ND	660 µg/Kg
5	Phenanthrene	ND	660 µg/Kg
6	Anthracene	ND	660 µg/Kg
7	Fluoranthene	ND	660 µg/Kg
8	Pyrene	ND	660 µg/Kg
9	Benzo(a)anthracene	ND	660 µg/Kg
10	Chrysene	ND	660 µg/Kg
11	Benzo(b)fluoranthene	ND	660 µg/Kg
12	Benzo(k)fluoranthene	ND	660 µg/Kg
13	Benzo(a)pyrene	ND	660 µg/Kg
14	Indeno(1,2,3-cd)pyrene	ND	660 µg/Kg
15	Dibenz(a,h)anthracene	ND	660 µg/Kg
16	Benzo(g,h,i)perylene	ND	660 µg/Kg

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.  
ND = Not Detected

*Roger Scholl*

*Randy Gardner*

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Statement of Data Authenticity: Alpha Analytical, Inc. attests that the data reported has not been altered in any way.

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.



*[Signature]*  
10/27/16  
Report Date





# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

## ANALYTICAL REPORT

Stratus Environmental  
3330 Cameron Park Drive  
Cameron Park, CA 956828861

Attn: Scott Bittinger  
Phone: (530) 676-2062  
Fax: (530) 676-6005  
Date Received : 10/19/16

Job: 2115-1436-1/Former Olympic Station

Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B / SW8260B  
Volatile Organic Compounds (VOCs) EPA Method SW8260B

	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed	
Client ID :	GP-1-4.5					
Lab ID :	STR16101921-01A	TPH-P (GRO)	ND	1,000 µg/Kg	10/19/16 14:57	10/21/16 12:58
Date Sampled	10/18/16 09:51	Methyl tert-butyl ether (MTBE)	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 12:58
		Benzene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 12:58
		Toluene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 12:58
		Ethylbenzene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 12:58
		m,p-Xylene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 12:58
		o-Xylene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 12:58
Client ID :	GP-1-9.5					
Lab ID :	STR16101921-02A	TPH-P (GRO)	100,000	10,000 µg/Kg	10/19/16 14:57	10/21/16 20:15
Date Sampled	10/18/16 09:54	Methyl tert-butyl ether (MTBE)	ND	50 µg/Kg	10/19/16 14:57	10/21/16 20:15
		Benzene	260	50 µg/Kg	10/19/16 14:57	10/21/16 20:15
		Toluene	ND	50 µg/Kg	10/19/16 14:57	10/21/16 20:15
		Ethylbenzene	1,700	50 µg/Kg	10/19/16 14:57	10/21/16 20:15
		m,p-Xylene	870	50 µg/Kg	10/19/16 14:57	10/21/16 20:15
		o-Xylene	300	50 µg/Kg	10/19/16 14:57	10/21/16 20:15
Client ID :	GP-1-11.5					
Lab ID :	STR16101921-03A	TPH-P (GRO)	13,000	2,000 µg/Kg	10/19/16 14:57	10/21/16 18:32
Date Sampled	10/18/16 09:57	Methyl tert-butyl ether (MTBE)	ND	10 µg/Kg	10/19/16 14:57	10/21/16 18:32
		Benzene	90	10 µg/Kg	10/19/16 14:57	10/21/16 18:32
		Toluene	ND	10 µg/Kg	10/19/16 14:57	10/21/16 18:32
		Ethylbenzene	190	10 µg/Kg	10/19/16 14:57	10/21/16 18:32
		m,p-Xylene	200	10 µg/Kg	10/19/16 14:57	10/21/16 18:32
		o-Xylene	51	10 µg/Kg	10/19/16 14:57	10/21/16 18:32
Client ID :	GP-1-14.5					
Lab ID :	STR16101921-04A	TPH-P (GRO)	ND	1,000 µg/Kg	10/19/16 14:57	10/21/16 18:06
Date Sampled	10/18/16 09:59	Methyl tert-butyl ether (MTBE)	31	5.0 µg/Kg	10/19/16 14:57	10/21/16 18:06
		Benzene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 18:06
		Toluene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 18:06
		Ethylbenzene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 18:06
		m,p-Xylene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 18:06
		o-Xylene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 18:06
Client ID :	GP-1-19.5					
Lab ID :	STR16101921-05A	TPH-P (GRO)	ND	1,000 µg/Kg	10/19/16 14:57	10/25/16 19:00
Date Sampled	10/18/16 10:01	Methyl tert-butyl ether (MTBE)	18	5.0 µg/Kg	10/19/16 14:57	10/25/16 19:00
		Benzene	ND	5.0 µg/Kg	10/19/16 14:57	10/25/16 19:00
		Toluene	ND	5.0 µg/Kg	10/19/16 14:57	10/25/16 19:00
		Ethylbenzene	ND	5.0 µg/Kg	10/19/16 14:57	10/25/16 19:00
		m,p-Xylene	ND	5.0 µg/Kg	10/19/16 14:57	10/25/16 19:00
		o-Xylene	ND	5.0 µg/Kg	10/19/16 14:57	10/25/16 19:00



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Client ID :	GP-1-23.5					
Lab ID :	STR16101921-06A	TPH-P (GRO)	ND	1,000 µg/Kg	10/19/16 14:57	10/21/16 15:06
Date Sampled	10/18/16 10:03	Methyl tert-butyl ether (MTBE)	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 15:06
		Benzene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 15:06
		Toluene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 15:06
		Ethylbenzene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 15:06
		m,p-Xylene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 15:06
		o-Xylene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 15:06
Client ID :	GP-2-4.5					
Lab ID :	STR16101921-07A	TPH-P (GRO)	ND	1,000 µg/Kg	10/19/16 14:57	10/21/16 15:32
Date Sampled	10/18/16 09:18	Methyl tert-butyl ether (MTBE)	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 15:32
		Benzene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 15:32
		Toluene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 15:32
		Ethylbenzene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 15:32
		m,p-Xylene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 15:32
		o-Xylene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 15:32
Client ID :	GP-2-7					
Lab ID :	STR16101921-08A	TPH-P (GRO)	ND	1,000 µg/Kg	10/19/16 14:57	10/21/16 15:57
Date Sampled	10/18/16 09:20	Methyl tert-butyl ether (MTBE)	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 15:57
		Benzene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 15:57
		Toluene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 15:57
		Ethylbenzene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 15:57
		m,p-Xylene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 15:57
		o-Xylene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 15:57
Client ID :	GP-2-11.5					
Lab ID :	STR16101921-09A	TPH-P (GRO)	11,000	1,000 µg/Kg	10/19/16 14:57	10/21/16 16:23
Date Sampled	10/18/16 09:24	Methyl tert-butyl ether (MTBE)	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 16:23
		Benzene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 16:23
		Toluene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 16:23
		Ethylbenzene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 16:23
		m,p-Xylene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 16:23
		o-Xylene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 16:23
Client ID :	GP-2-16					
Lab ID :	STR16101921-10A	TPH-P (GRO)	ND	1,000 µg/Kg	10/19/16 14:57	10/21/16 16:49
Date Sampled	10/18/16 09:28	Methyl tert-butyl ether (MTBE)	9.4	5.0 µg/Kg	10/19/16 14:57	10/21/16 16:49
		Benzene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 16:49
		Toluene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 16:49
		Ethylbenzene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 16:49
		m,p-Xylene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 16:49
		o-Xylene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 16:49
Client ID :	GP-2-23.5					
Lab ID :	STR16101921-11A	TPH-P (GRO)	ND	1,000 µg/Kg	10/19/16 14:57	10/21/16 17:15
Date Sampled	10/18/16 09:33	Methyl tert-butyl ether (MTBE)	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 17:15
		Benzene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 17:15
		Toluene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 17:15
		Ethylbenzene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 17:15
		m,p-Xylene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 17:15
		o-Xylene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 17:15
Client ID :	GP-3-4.5					
Lab ID :	STR16101921-12A	TPH-P (GRO)	ND	1,000 µg/Kg	10/19/16 14:57	10/21/16 17:40
Date Sampled	10/18/16 10:20	Methyl tert-butyl ether (MTBE)	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 17:40
		Benzene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 17:40
		Toluene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 17:40
		Ethylbenzene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 17:40
		m,p-Xylene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 17:40
		o-Xylene	ND	5.0 µg/Kg	10/19/16 14:57	10/21/16 17:40



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Client ID :	GP-3-9.5						
Lab ID :	STR16101921-13A	TPH-P (GRO)	9,900		1,000 µg/Kg	10/19/16 14:57	10/25/16 19:25
Date Sampled	10/18/16 10:23	Methyl tert-butyl ether (MTBE)	5.6		5.0 µg/Kg	10/19/16 14:57	10/25/16 19:25
		Benzene	210		5.0 µg/Kg	10/19/16 14:57	10/25/16 19:25
		Toluene	16		5.0 µg/Kg	10/19/16 14:57	10/25/16 19:25
		Ethylbenzene	8.9		5.0 µg/Kg	10/19/16 14:57	10/25/16 19:25
		m,p-Xylene	7.6		5.0 µg/Kg	10/19/16 14:57	10/25/16 19:25
		o-Xylene	28		5.0 µg/Kg	10/19/16 14:57	10/25/16 19:25
Client ID :	GP-3-14.5						
Lab ID :	STR16101921-14A	TPH-P (GRO)	5,400		1,000 µg/Kg	10/19/16 14:57	10/25/16 19:51
Date Sampled	10/18/16 10:25	Methyl tert-butyl ether (MTBE)	5.1		5.0 µg/Kg	10/19/16 14:57	10/25/16 19:51
		Benzene	36		5.0 µg/Kg	10/19/16 14:57	10/25/16 19:51
		Toluene	ND		5.0 µg/Kg	10/19/16 14:57	10/25/16 19:51
		Ethylbenzene	ND		5.0 µg/Kg	10/19/16 14:57	10/25/16 19:51
		m,p-Xylene	ND		5.0 µg/Kg	10/19/16 14:57	10/25/16 19:51
		o-Xylene	ND		5.0 µg/Kg	10/19/16 14:57	10/25/16 19:51
Client ID :	GP-3-19.5						
Lab ID :	STR16101921-15A	TPH-P (GRO)	ND		1,000 µg/Kg	10/19/16 14:57	10/21/16 18:57
Date Sampled	10/18/16 10:30	Methyl tert-butyl ether (MTBE)	ND		5.0 µg/Kg	10/19/16 14:57	10/21/16 18:57
		Benzene	ND		5.0 µg/Kg	10/19/16 14:57	10/21/16 18:57
		Toluene	ND		5.0 µg/Kg	10/19/16 14:57	10/21/16 18:57
		Ethylbenzene	ND		5.0 µg/Kg	10/19/16 14:57	10/21/16 18:57
		m,p-Xylene	ND		5.0 µg/Kg	10/19/16 14:57	10/21/16 18:57
		o-Xylene	ND		5.0 µg/Kg	10/19/16 14:57	10/21/16 18:57
Client ID :	GP-3-23.5						
Lab ID :	STR16101921-16A	TPH-P (GRO)	ND		1,000 µg/Kg	10/19/16 14:57	10/21/16 19:23
Date Sampled	10/18/16 10:33	Methyl tert-butyl ether (MTBE)	ND		5.0 µg/Kg	10/19/16 14:57	10/21/16 19:23
		Benzene	ND		5.0 µg/Kg	10/19/16 14:57	10/21/16 19:23
		Toluene	ND		5.0 µg/Kg	10/19/16 14:57	10/21/16 19:23
		Ethylbenzene	ND		5.0 µg/Kg	10/19/16 14:57	10/21/16 19:23
		m,p-Xylene	ND		5.0 µg/Kg	10/19/16 14:57	10/21/16 19:23
		o-Xylene	ND		5.0 µg/Kg	10/19/16 14:57	10/21/16 19:23
Client ID :	GP-4-4						
Lab ID :	STR16101921-17A	TPH-P (GRO)	ND		1,000 µg/Kg	10/19/16 14:57	10/21/16 19:49
Date Sampled	10/18/16 08:46	Methyl tert-butyl ether (MTBE)	ND		5.0 µg/Kg	10/19/16 14:57	10/21/16 19:49
		Benzene	ND		5.0 µg/Kg	10/19/16 14:57	10/21/16 19:49
		Toluene	ND		5.0 µg/Kg	10/19/16 14:57	10/21/16 19:49
		Ethylbenzene	ND		5.0 µg/Kg	10/19/16 14:57	10/21/16 19:49
		m,p-Xylene	ND		5.0 µg/Kg	10/19/16 14:57	10/21/16 19:49
		o-Xylene	ND		5.0 µg/Kg	10/19/16 14:57	10/21/16 19:49
Client ID :	GP-4-7						
Lab ID :	STR16101921-18A	TPH-P (GRO)	26,000		4,000 µg/Kg	10/19/16 14:57	10/25/16 20:16
Date Sampled	10/18/16 08:47	Methyl tert-butyl ether (MTBE)	240		20 µg/Kg	10/19/16 14:57	10/25/16 20:16
		Benzene	64		20 µg/Kg	10/19/16 14:57	10/25/16 20:16
		Toluene	ND	V	20 µg/Kg	10/19/16 14:57	10/25/16 20:16
		Ethylbenzene	840		20 µg/Kg	10/19/16 14:57	10/25/16 20:16
		m,p-Xylene	ND	V	20 µg/Kg	10/19/16 14:57	10/25/16 20:16
		o-Xylene	ND	V	20 µg/Kg	10/19/16 14:57	10/25/16 20:16
Client ID :	GP-4-9						
Lab ID :	STR16101921-19A	TPH-P (GRO)	43,000		4,000 µg/Kg	10/19/16 14:57	10/25/16 20:42
Date Sampled	10/18/16 08:48	Methyl tert-butyl ether (MTBE)	1,300		20 µg/Kg	10/19/16 14:57	10/25/16 20:42
		Benzene	370		20 µg/Kg	10/19/16 14:57	10/25/16 20:42
		Toluene	ND	V	20 µg/Kg	10/19/16 14:57	10/25/16 20:42
		Ethylbenzene	1,300		20 µg/Kg	10/19/16 14:57	10/25/16 20:42
		m,p-Xylene	20		20 µg/Kg	10/19/16 14:57	10/25/16 20:42
		o-Xylene	ND	V	20 µg/Kg	10/19/16 14:57	10/25/16 20:42



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Client ID :	<b>GP-4-10.5</b>						
Lab ID :	STR16101921-20A	TPH-P (GRO)	26,000		1,000 µg/Kg	10/19/16 14:57	10/21/16 21:06
Date Sampled	10/18/16 08:53	Methyl tert-butyl ether (MTBE)	1,500		5.0 µg/Kg	10/19/16 14:57	10/21/16 21:06
		Benzene	260		5.0 µg/Kg	10/19/16 14:57	10/21/16 21:06
		Toluene	ND		5.0 µg/Kg	10/19/16 14:57	10/21/16 21:06
		Ethylbenzene	96		5.0 µg/Kg	10/19/16 14:57	10/21/16 21:06
		m,p-Xylene	9.4		5.0 µg/Kg	10/19/16 14:57	10/21/16 21:06
		o-Xylene	ND		5.0 µg/Kg	10/19/16 14:57	10/21/16 21:06
Client ID :	<b>GP-4-19.5</b>						
Lab ID :	STR16101921-21A	TPH-P (GRO)	ND		1,000 µg/Kg	10/20/16 10:38	10/24/16 19:49
Date Sampled	10/18/16 08:56	Methyl tert-butyl ether (MTBE)	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 19:49
		Benzene	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 19:49
		Toluene	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 19:49
		Ethylbenzene	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 19:49
		m,p-Xylene	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 19:49
		o-Xylene	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 19:49
Client ID :	<b>GP-5-4.5</b>						
Lab ID :	STR16101921-22A	TPH-P (GRO)	ND		1,000 µg/Kg	10/20/16 10:38	10/24/16 20:15
Date Sampled	10/18/16 10:45	Methyl tert-butyl ether (MTBE)	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 20:15
		Benzene	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 20:15
		Toluene	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 20:15
		Ethylbenzene	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 20:15
		m,p-Xylene	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 20:15
		o-Xylene	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 20:15
Client ID :	<b>GP-5-9.5</b>						
Lab ID :	STR16101921-23A	TPH-P (GRO)	210,000		5,000 µg/Kg	10/20/16 10:38	10/26/16 11:54
Date Sampled	10/18/16 10:47	Methyl tert-butyl ether (MTBE)	460		25 µg/Kg	10/20/16 10:38	10/26/16 11:54
		Benzene	450		25 µg/Kg	10/20/16 10:38	10/26/16 11:54
		Toluene	ND	V	25 µg/Kg	10/20/16 10:38	10/26/16 11:54
		Ethylbenzene	3,900		25 µg/Kg	10/20/16 10:38	10/26/16 11:54
		m,p-Xylene	69		25 µg/Kg	10/20/16 10:38	10/26/16 11:54
		o-Xylene	54		25 µg/Kg	10/20/16 10:38	10/26/16 11:54
Client ID :	<b>GP-5-14.5</b>						
Lab ID :	STR16101921-24A	TPH-P (GRO)	ND		1,000 µg/Kg	10/20/16 10:38	10/24/16 20:40
Date Sampled	10/18/16 10:50	Methyl tert-butyl ether (MTBE)	210		5.0 µg/Kg	10/20/16 10:38	10/24/16 20:40
		Benzene	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 20:40
		Toluene	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 20:40
		Ethylbenzene	5.6		5.0 µg/Kg	10/20/16 10:38	10/24/16 20:40
		m,p-Xylene	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 20:40
		o-Xylene	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 20:40
Client ID :	<b>GP-5-19.5</b>						
Lab ID :	STR16101921-25A	TPH-P (GRO)	ND		1,000 µg/Kg	10/20/16 10:38	10/24/16 21:06
Date Sampled	10/18/16 10:55	Methyl tert-butyl ether (MTBE)	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 21:06
		Benzene	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 21:06
		Toluene	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 21:06
		Ethylbenzene	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 21:06
		m,p-Xylene	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 21:06
		o-Xylene	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 21:06
Client ID :	<b>GP-5-23.5</b>						
Lab ID :	STR16101921-26A	TPH-P (GRO)	ND		1,000 µg/Kg	10/20/16 10:38	10/24/16 21:32
Date Sampled	10/18/16 10:58	Methyl tert-butyl ether (MTBE)	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 21:32
		Benzene	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 21:32
		Toluene	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 21:32
		Ethylbenzene	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 21:32
		m,p-Xylene	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 21:32
		o-Xylene	ND		5.0 µg/Kg	10/20/16 10:38	10/24/16 21:32



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Gasoline Range Organics (GRO) C4-C13

V = Reporting Limits were increased due to high concentrations of target analytes.

Sample results were calculated on a wet weight basis.

ND = Not Detected



*Roger Scholl*

*Randy Gardner*

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / [info@alpha-analytical.com](mailto:info@alpha-analytical.com)

Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Statement of Data Authenticity: Alpha Analytical, Inc. attests that the data reported has not been altered in any way.



*[Signature]*

10/27/16

Report Date

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:  
01-Nov-16

## QC Summary Report

Work Order:  
16101921

### Method Blank

File ID: 1	Type MBLK		Test Code: EPA Method SW8270C							
	Batch ID: 37325		Analysis Date: 10/19/2016 18:55							
Sample ID: MBLK-37325	Units : µg/Kg		Run ID: MANUAL_161019C				Prep Date: 10/17/2016 10:14			
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Naphthalene	ND	660								
Acenaphthylene	ND	660								
Acenaphthene	ND	660								
Fluorene	ND	660								
Phenanthrene	ND	660								
Anthracene	ND	660								
Fluoranthene	ND	660								
Pyrene	ND	660								
Benzo(a)anthracene	ND	660								
Chrysene	ND	660								
Benzo(b)fluoranthene	ND	660								
Benzo(k)fluoranthene	ND	660								
Benzo(a)pyrene	ND	660								
Indeno(1,2,3-cd)pyrene	ND	660								
Dibenz(a,h)anthracene	ND	660								
Benzo(g,h,i)perylene	ND	660								
Surr: Nitrobenzene-d5	4870		6250		78	48	131			
Surr: 2-Fluorobiphenyl	5130		6250		82	53	130			
Surr: 4-Terphenyl-d14	5660		6250		91	42	145			

### Laboratory Control Spike

File ID: 4	Type LCS		Test Code: EPA Method SW8270C							
	Batch ID: 37325		Analysis Date: 10/20/2016 19:38							
Sample ID: LCS-37325	Units : µg/Kg		Run ID: MANUAL_161019C				Prep Date: 10/17/2016 10:14			
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Acenaphthene	5290	660	6250		85	57	130			
Pyrene	4970	660	6250		79	38	141			
Surr: Nitrobenzene-d5	5370		6250		86	48	131			
Surr: 2-Fluorobiphenyl	4820		6250		77	53	130			
Surr: 4-Terphenyl-d14	4930		6250		79	42	145			

### Laboratory Control Spike Duplicate

File ID: 5	Type LCSD		Test Code: EPA Method SW8270C							
	Batch ID: 37325		Analysis Date: 10/20/2016 20:04							
Sample ID: LCSD-37325	Units : µg/Kg		Run ID: MANUAL_161019C				Prep Date: 10/17/2016 10:14			
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Acenaphthene	5120	660	6250		82	57	130	5290	3.2(31)	
Pyrene	4860	660	6250		78	38	141	4966	2.2(29)	
Surr: Nitrobenzene-d5	5140		6250		82	48	131			
Surr: 2-Fluorobiphenyl	4660		6250		75	53	130			
Surr: 4-Terphenyl-d14	4900		6250		78	42	145			

### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

1,2-Diphenylhydrazine was analyzed as Azobenzene.



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:  
01-Nov-16

## QC Summary Report

Work Order:  
16101921

### Method Blank

Type MBLK Test Code: EPA Method SW8015B/C / SW8260B

File ID: 45

Batch ID: 37358B

Analysis Date: 10/28/2016 18:22

Sample ID: MBLK MS15S7358B

Units : µg/Kg

Run ID: MANUAL\_161028H

Prep Date: 10/19/2016 14:57

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	ND	1000								
Surr: 1,2-Dichloroethane-d4	178		200		89	70	130			
Surr: Toluene-d8	210		200		105	70	130			
Surr: 4-Bromofluorobenzene	192		200		96	70	130			

### Laboratory Control Spike

Type LCS Test Code: EPA Method SW8015B/C / SW8260B

File ID: 40

Batch ID: 37358B

Analysis Date: 10/28/2016 20:20

Sample ID: GLCS MS15S7358B

Units : µg/Kg

Run ID: MANUAL\_161028H

Prep Date: 10/19/2016 14:57

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	15700	2000	16000		98	56	167			
Surr: 1,2-Dichloroethane-d4	364		400		91	70	130			
Surr: Toluene-d8	415		400		104	70	130			
Surr: 4-Bromofluorobenzene	364		400		91	70	130			

### Sample Matrix Spike

Type MS Test Code: EPA Method SW8015B/C / SW8260B

File ID: 41

Batch ID: 37358B

Analysis Date: 10/28/2016 20:43

Sample ID: 16101921-01AGS

Units : µg/Kg

Run ID: MANUAL\_161028H

Prep Date: 10/19/2016 14:57

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	19300	2000	16000	0	121	57	184			
Surr: 1,2-Dichloroethane-d4	365		400		91	70	130			
Surr: Toluene-d8	414		400		103	70	130			
Surr: 4-Bromofluorobenzene	368		400		92	70	130			

### Sample Matrix Spike Duplicate

Type MSD Test Code: EPA Method SW8015B/C / SW8260B

File ID: 42

Batch ID: 37358B

Analysis Date: 10/28/2016 21:07

Sample ID: 16101921-01AGSD

Units : µg/Kg

Run ID: MANUAL\_161028H

Prep Date: 10/19/2016 14:57

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	18800	2000	16000	0	118	57	184	19300	2.6(40)	
Surr: 1,2-Dichloroethane-d4	365		400		91	70	130			
Surr: Toluene-d8	414		400		104	70	130			
Surr: 4-Bromofluorobenzene	366		400		92	70	130			

### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Gasoline Range Organics (GRO) C4-C13

Reported in micrograms per Kilogram, per client request.



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

## QC Summary Report

Date:  
01-Nov-16

Work Order:  
16101921

### Method Blank

Type MBLK Test Code: EPA Method SW8015B/C / SW8260B

File ID: 40

Batch ID: 37362B

Analysis Date: 10/31/2016 21:31

Sample ID: MBLK MS09S7362B

Units : µg/Kg

Run ID: MANUAL\_161031B

Prep Date: 10/20/2016 10:38

Analyte

Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qual

TPH-P (GRO)

ND 1000

Surr: 1,2-Dichloroethane-d4

169

200

84

70

130

Surr: Toluene-d8

205

200

103

70

130

Surr: 4-Bromofluorobenzene

166

200

83

70

130

### Laboratory Control Spike

Type LCS Test Code: EPA Method SW8015B/C / SW8260B

File ID: 41

Batch ID: 37362B

Analysis Date: 10/31/2016 23:07

Sample ID: GLCS MS09S7362B

Units : µg/Kg

Run ID: MANUAL\_161031B

Prep Date: 10/20/2016 10:38

Analyte

Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qual

TPH-P (GRO)

18800 2000 16000 117 56 167

Surr: 1,2-Dichloroethane-d4

333

400

83

70

130

Surr: Toluene-d8

419

400

105

70

130

Surr: 4-Bromofluorobenzene

335

400

84

70

130

### Sample Matrix Spike

Type MS Test Code: EPA Method SW8015B/C / SW8260B

File ID: 42

Batch ID: 37362B

Analysis Date: 10/31/2016 23:32

Sample ID: 16101921-26AGS

Units : µg/Kg

Run ID: MANUAL\_161031B

Prep Date: 10/20/2016 10:38

Analyte

Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qual

TPH-P (GRO)

16200 2000 16000 0 101 57 184

Surr: 1,2-Dichloroethane-d4

326

400

82

70

130

Surr: Toluene-d8

421

400

105

70

130

Surr: 4-Bromofluorobenzene

334

400

84

70

130

### Sample Matrix Spike Duplicate

Type MSD Test Code: EPA Method SW8015B/C / SW8260B

File ID: 43

Batch ID: 37362B

Analysis Date: 10/31/2016 23:56

Sample ID: 16101921-26AGSD

Units : µg/Kg

Run ID: MANUAL\_161031B

Prep Date: 10/20/2016 10:38

Analyte

Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qual

TPH-P (GRO)

15500 2000 16000 0 97 57 184 16160 4.4(40)

Surr: 1,2-Dichloroethane-d4

336

400

84

70

130

Surr: Toluene-d8

418

400

104

70

130

Surr: 4-Bromofluorobenzene

335

400

84

70

130

### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Gasoline Range Organics (GRO) C4-C13

Reported in micrograms per Kilogram, per client request.





# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:  
01-Nov-16

## QC Summary Report

Work Order:  
16101921

### Method Blank

Method Blank		Type MBLK		Test Code: EPA Method SW8260B						
File ID: 6				Batch ID: 37358			Analysis Date: 10/28/2016 18:22			
Sample ID: MBLK MS15S7358A	Units : µg/Kg		Run ID: MANUAL_161028H	Prep Date: 10/19/2016 14:57						
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	ND	5								
Benzene	ND	5								
Toluene	ND	5								
Ethylbenzene	ND	5								
m,p-Xylene	ND	5								
o-Xylene	ND	5								
Surr: 1,2-Dichloroethane-d4	178		200		89	70	130			
Surr: Toluene-d8	210		200		105	70	130			
Surr: 4-Bromofluorobenzene	192		200		96	70	130			

### Laboratory Control Spike

Laboratory Control Spike		Type LCS		Test Code: EPA Method SW8260B						
File ID: 7				Batch ID: 37358			Analysis Date: 10/28/2016 19:09			
Sample ID: LCS MS15S7358A	Units : µg/Kg		Run ID: MANUAL_161028H	Prep Date: 10/19/2016 14:57						
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	414	10	400		103	65	145			
Benzene	371	10	400		93	70	137			
Toluene	373	10	400		93	70	139			
Ethylbenzene	355	10	400		89	70	137			
m,p-Xylene	356	10	400		89	70	145			
o-Xylene	347	10	400		87	70	145			
Surr: 1,2-Dichloroethane-d4	361		400		90	70	130			
Surr: Toluene-d8	419		400		105	70	130			
Surr: 4-Bromofluorobenzene	375		400		94	70	130			

### Sample Matrix Spike

Sample Matrix Spike		Type MS		Test Code: EPA Method SW8260B						
File ID: 8				Batch ID: 37358			Analysis Date: 10/28/2016 19:33			
Sample ID: 16101921-01AMS	Units : µg/Kg		Run ID: MANUAL_161028H	Prep Date: 10/19/2016 14:57						
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	508	10	400	0	127	45	155			
Benzene	436	10	400	0	109	52	151			
Toluene	443	10	400	0	111	47	154			
Ethylbenzene	431	10	400	0	108	52	154			
m,p-Xylene	427	10	400	0	107	51	162			
o-Xylene	424	10	400	0	106	52	162			
Surr: 1,2-Dichloroethane-d4	362		400		91	70	130			
Surr: Toluene-d8	418		400		104	70	130			
Surr: 4-Bromofluorobenzene	373		400		93	70	130			

### Sample Matrix Spike Duplicate

Sample Matrix Spike Duplicate		Type MSD		Test Code: EPA Method SW8260B						
File ID: 9				Batch ID: 37358			Analysis Date: 10/28/2016 19:56			
Sample ID: 16101921-01AMSD	Units : µg/Kg		Run ID: MANUAL_161028H	Prep Date: 10/19/2016 14:57						
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	502	10	400	0	125	45	155	508.1	1.3(32)	
Benzene	428	10	400	0	107	52	151	436	1.8(30)	
Toluene	437	10	400	0	109	47	154	443	1.4(28)	
Ethylbenzene	427	10	400	0	107	52	154	431.1	0.8(37)	
m,p-Xylene	424	10	400	0	106	51	162	426.6	0.6(34)	
o-Xylene	421	10	400	0	105	52	162	424.3	0.8(40)	
Surr: 1,2-Dichloroethane-d4	360		400		90	70	130			
Surr: Toluene-d8	419		400		105	70	130			
Surr: 4-Bromofluorobenzene	369		400		92	70	130			



# *Alpha Analytical, Inc.*

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

**Date:**  
*01-Nov-16*

## QC Summary Report

**Work Order:**  
16101921

**Comments:**

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:  
01-Nov-16

## QC Summary Report

Work Order:  
16101921

### Method Blank

Type MBLK Test Code: EPA Method SW8260B

File ID: 1	Units : µg/Kg		Run ID: MANUAL_161031B	Batch ID: 37362		Analysis Date: 10/31/2016 21:31		Prep Date: 10/20/2016 10:38		Qual
Sample ID: MBLK MS09S7362A	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	
Analyte										
Methyl tert-butyl ether (MTBE)	ND	5								
Benzene	ND	5								
Toluene	ND	5								
Ethylbenzene	ND	5								
m,p-Xylene	ND	5								
o-Xylene	ND	5								
Surr: 1,2-Dichloroethane-d4	169		200		84	70	130			
Surr: Toluene-d8	205		200		103	70	130			
Surr: 4-Bromofluorobenzene	166		200		83	70	130			

### Laboratory Control Spike

Type LCS Test Code: EPA Method SW8260B

File ID: 2	Units : µg/Kg		Run ID: MANUAL_161031B	Batch ID: 37362		Analysis Date: 10/31/2016 21:55		Prep Date: 10/20/2016 10:38		Qual
Sample ID: LCS MS09S7362A	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	
Analyte										
Methyl tert-butyl ether (MTBE)	372	10	400		93	65	145			
Benzene	460	10	400		115	70	137			
Toluene	444	10	400		111	70	139			
Ethylbenzene	408	10	400		102	70	137			
m,p-Xylene	402	10	400		100	70	145			
o-Xylene	393	10	400		98	70	145			
Surr: 1,2-Dichloroethane-d4	339		400		85	70	130			
Surr: Toluene-d8	412		400		103	70	130			
Surr: 4-Bromofluorobenzene	327		400		82	70	130			

### Sample Matrix Spike

Type MS Test Code: EPA Method SW8260B

File ID: 3	Units : µg/Kg		Run ID: MANUAL_161031B	Batch ID: 37362		Analysis Date: 10/31/2016 22:19		Prep Date: 10/20/2016 10:38		Qual
Sample ID: 16101921-26AMS	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	
Analyte										
Methyl tert-butyl ether (MTBE)	312	10	400	0	78	45	155			
Benzene	390	10	400	0	97	52	151			
Toluene	380	10	400	0	95	47	154			
Ethylbenzene	347	10	400	0	87	52	154			
m,p-Xylene	350	10	400	0	87	51	162			
o-Xylene	338	10	400	0	84	52	162			
Surr: 1,2-Dichloroethane-d4	334		400		83	70	130			
Surr: Toluene-d8	415		400		104	70	130			
Surr: 4-Bromofluorobenzene	321		400		80	70	130			

### Sample Matrix Spike Duplicate

Type MSD Test Code: EPA Method SW8260B

File ID: 4	Units : µg/Kg		Run ID: MANUAL_161031B	Batch ID: 37362		Analysis Date: 10/31/2016 22:43		Prep Date: 10/20/2016 10:38		Qual
Sample ID: 16101921-26AMSD	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	
Analyte										
Methyl tert-butyl ether (MTBE)	334	10	400	0	83	45	155	311.8	6.8(32)	
Benzene	408	10	400	0	102	52	151	389.6	4.6(30)	
Toluene	400	10	400	0	100	47	154	380.4	5.1(28)	
Ethylbenzene	367	10	400	0	92	52	154	347.1	5.6(37)	
m,p-Xylene	368	10	400	0	92	51	162	350	5.0(34)	
o-Xylene	357	10	400	0	89	52	162	337.8	5.5(40)	
Surr: 1,2-Dichloroethane-d4	329		400		82	70	130			
Surr: Toluene-d8	412		400		103	70	130			
Surr: 4-Bromofluorobenzene	315		400		79	70	130			



# *Alpha Analytical, Inc.*

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:  
*01-Nov-16*

## QC Summary Report

Work Order:  
16101921

**Comments:**

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Billing Information :

# CHAIN-OF-CUSTODY RECORD

**Alpha Analytical, Inc.**  
 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778  
 TEL: (775) 355-1044 FAX: (775) 355-0406

# CA

**WorkOrder : STR16101921**  
**Report Due By : 5:00 PM On : 26-Oct-16**

Client:  
 Stratus Environmental  
 3330 Cameron Park Drive  
 Suite 550  
 Cameron Park, CA 95682-8861

Report Attention	Phone Number	E-Mail Address
Scott Bittinger	(530) 676-2062 x	sbittinger@stratusinc.net

EDD Required : Yes

Sampled by : Client

PO :  
 Client's COC # : 01566, 01567, 1018      Job : 2115-1436-1/Former Olympic Station

Cooler Temp	Samples Received	Date Printed
2 °C	19-Oct-16	19-Oct-16

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	Collection Date	No. of Bottles			Requested Tests						Sample Remarks		
				Alpha	Sub	TAT	BNA_S	TPHP_S	VOC_S						
STR16101921-01A	GP-1-4.5	SO	10/18/16 09:51	1	0	5	PNA/PAH	GAS-C	BTEX/M_C						
STR16101921-02A	GP-1-9.5	SO	10/18/16 09:54	1	0	5	PNA/PAH	GAS-C	BTEX/M_C						
STR16101921-03A	GP-1-11.5	SO	10/18/16 09:57	1	0	5		GAS-C	BTEX/M_C						
STR16101921-04A	GP-1-14.5	SO	10/18/16 09:59	1	0	5		GAS-C	BTEX/M_C						
STR16101921-05A	GP-1-19.5	SO	10/18/16 10:01	1	0	5		GAS-C	BTEX/M_C						
STR16101921-06A	GP-1-23.5	SO	10/18/16 10:03	1	0	5		GAS-C	BTEX/M_C						
STR16101921-07A	GP-2-4.5	SO	10/18/16 09:18	1	0	5	PNA/PAH	GAS-C	BTEX/M_C						
STR16101921-08A	GP-2-7	SO	10/18/16 09:20	1	0	5	PNA/PAH	GAS-C	BTEX/M_C						
STR16101921-09A	GP-2-11.5	SO	10/18/16 09:24	1	0	5		GAS-C	BTEX/M_C						
STR16101921-10A	GP-2-16	SO	10/18/16 09:28	1	0	5		GAS-C	BTEX/M_C						

Comments: Security seals intact. Frozen ice. :

Signature	Print Name	Company	Date/Time
<i>K Murray</i>	<i>K Murray</i>	Alpha Analytical, Inc.	10/19/16 1015

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.  
 The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.  
 Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other)      Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

# CHAIN-OF-CUSTODY RECORD

**Alpha Analytical, Inc.**  
 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778  
 TEL: (775) 355-1044 FAX: (775) 355-0406

# CA

WorkOrder : STR16101921

Report Due By : 5:00 PM On : 26-Oct-16

Client:  
 Stratus Environmental  
 3330 Cameron Park Drive  
 Suite 550  
 Cameron Park, CA 95682-8861

Report Attention	Phone Number	E Mail Address
Scott Bittinger	(530) 676-2062 x	sbittinger@stratusinc.net

EDD Required : Yes

Sampled by : Client

PO :  
 Client's COC # : 01566, 01567, 1018 Job : 2115-1436-1/Former Olympic Station

Cooler Temp	Samples Received	Date Printed
2 °C	19-Oct-16	19-Oct-16

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	Collection Date	No. of Bottles			Requested Tests						Sample Remarks				
				Alpha	Sub	TAT	BNA_S	TPH/P_S	VOC_S								
STR16101921-11A	GP-2-23.5	SO	10/18/16 09:33	1	0	5		GAS-C	BTEX/M_C								
STR16101921-12A	GP-3-4.5	SO	10/18/16 10:20	1	0	5	PNA/PAH	GAS-C	BTEX/M_C								
STR16101921-13A	GP-3-9.5	SO	10/18/16 10:23	1	0	5	PNA/PAH	GAS-C	BTEX/M_C								
STR16101921-14A	GP-3-14.5	SO	10/18/16 10:25	1	0	5		GAS-C	BTEX/M_C								
STR16101921-15A	GP-3-19.5	SO	10/18/16 10:30	1	0	5		GAS-C	BTEX/M_C								
STR16101921-16A	GP-3-23.5	SO	10/18/16 10:33	1	0	5		GAS-C	BTEX/M_C								
STR16101921-17A	GP-4-4	SO	10/18/16 08:46	1	0	5	PNA/PAH	GAS-C	BTEX/M_C								
STR16101921-18A	GP-4-7	SO	10/18/16 08:47	1	0	5	PNA/PAH	GAS-C	BTEX/M_C								
STR16101921-19A	GP-4-9	SO	10/18/16 08:48	1	0	5	PNA/PAH	GAS-C	BTEX/M_C								
STR16101921-20A	GP-4-10.5	SO	10/18/16 08:53	1	0	5		GAS-C	BTEX/M_C								

Comments: Security seals intact. Frozen ice. :

Signature	Print Name	Company	Date/Time
<i>K Murray</i>	<i>K Murray</i>	Alpha Analytical, Inc.	10/19/16 1015

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.  
 The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.  
 Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

# CHAIN-OF-CUSTODY RECORD

**Alpha Analytical, Inc.**  
 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778  
 TEL: (775) 355-1044 FAX: (775) 355-0406

# CA

**WorkOrder : STR16101921**  
**Report Due By : 5:00 PM On : 26-Oct-16**

**Client:**  
 Stratus Environmental  
 3330 Cameron Park Drive  
 Suite 550  
 Cameron Park, CA 95682-8861

Report Attention	Phone Number	E-Mail Address
Scott Bittinger	(530) 676-2062 x	sbittinger@stratusinc.net

EDD Required : Yes

Sampled by : Client

PO :  
 Client's COC # : 01566, 01567, 1018      Job : 2115-1436-1/Former Olympic Station

Cooler Temp	Samples Received	Date Printed
2 °C	19-Oct-16	19-Oct-16

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	Collection Date	No. of Bottles			Requested Tests						Sample Remarks		
				Alpha	Sub	TAT	BNA_S	TPH/P_S	VOC_S						
STR16101921-21A	GP-4-19.5	SO	10/18/16 08:56	1	0	5		GAS-C	BTEX/M_C						
STR16101921-22A	GP-5-4.5	SO	10/18/16 10:45	1	0	5	PNA/PAH	GAS-C	BTEX/M_C						
STR16101921-23A	GP-5-9.5	SO	10/18/16 10:47	1	0	5	PNA/PAH	GAS-C	BTEX/M_C						
STR16101921-24A	GP-5-14.5	SO	10/18/16 10:50	1	0	5		GAS-C	BTEX/M_C						
STR16101921-25A	GP-5-19.5	SO	10/18/16 10:55	1	0	5		GAS-C	BTEX/M_C						
STR16101921-26A	GP-5-23.5	SO	10/18/16 10:58	1	0	5		GAS-C	BTEX/M_C						

Comments: Security seals intact. Frozen ice. :

Signature	Print Name	Company	Date/Time
<i>K Murray</i>	K Murray	Alpha Analytical, Inc.	10/19/16 1015

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.  
 The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.  
 Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other)      Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information:  
 Company: Stratus Env  
 Attn: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City, State, Zip: \_\_\_\_\_  
 Phone Number: \_\_\_\_\_ Fax: \_\_\_\_\_



Alpha Analytical, Inc.  
 Main Laboratory: 255 Glendale Ave, Suite 21 Sparks, NV 89431  
 Northern CA: 9891 Horn Road, Suite C, Rancho Cordova, CA 95827  
 Southern CA: 1007 E. Dominguez St., Suite O, Carson, CA 90746  
 Northern NV: 1250 Lamoille Hwy., #310, Elko, NV 89801  
 Southern NV: 6255 McLeod Ave, Suite 24, Las Vegas, NV 89120

Phone: 775-355-1044  
 Fax: 775-355-0406  
 Phone: 916-366-9089  
 Phone: 714-386-2901  
 Phone: 775-388-7043  
 Phone: 702-281-4848

01566

Page # 1 of 43

Consultant/ Client Info: Fordham Olympic Stadium  
 Address: 14310 Grand Ave.  
 City, State, Zip: San Lorenzo CA  
 Job and Purchase Order Info: Job # 2115-1431-1  
 Report Attention/Project Manager: Scott Bittny  
 QC Deliverable Info: EDD Required? Yes / No EDF Required? Yes / No  
 Global ID: T0600102256  
 Data Validation Packages: III or IV

Samples Collected from which State? (circle one) AR CA KS NV OR WA DOD Site Other

Time Sampled (HHMM)	Date Sampled (MM/DD)	Matrix* (See Key Below)	Lab ID Number (For Lab Use Only)	Sample Description	TAT	# Containers* (See Key Below)	Field Filtered?		Analysis Requested				Remarks
							Yes	No	GRD	Bks, Mfbr	naphthalene	PAH	
9:51	10-18	SO	STR16101921-01	GP-1-4.5	Std	1-P			✓	✓	✓	✓	
9:54			02	GP-1-9.5					✓	✓	✓	✓	
9:57			03	GP-1-11.5					✓	✓	✓	✓	
9:59			04	GP-1-14.5					✓	✓	✓	✓	
10:01			05	GP-1-19.5					✓	✓	✓	✓	
10:03			06	GP-1-23.5					✓	✓	✓	✓	
9:18			07	GP-2-4.5					✓	✓	✓	✓	
9:20			08	GP-2-7					✓	✓	✓	✓	
9:24			09	GP-2-11.5					✓	✓	✓	✓	
9:28			10	GP-2-16					✓	✓	✓	✓	
9:33			11	GP-2-23.5					✓	✓	✓	✓	

ADDITIONAL INSTRUCTIONS:  
 I (field sampler) attest to the validity and authenticity of this sample(s). I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. NAC 445.0636 (c) (2).

Sampled By: <u>Scott Bittny</u>	Date: <u>10.18.16</u>	Time: <u>1344</u>	Received by: (Signature/Affiliation): <u>E. Fruciano</u>	Date: <u>10.18.16</u>	Time: <u>1344</u>
Relinquished by: (Signature/Affiliation): _____	Date: _____	Time: _____	Received by: (Signature/Affiliation): <u>K Murray</u>	Date: <u>10/19/16</u>	Time: <u>0955</u>
Relinquished by: (Signature/Affiliation): _____	Date: _____	Time: _____	Received by: (Signature/Affiliation): _____	Date: _____	Time: _____

\* Key: AQ - Aqueous OT - Other So-Soil WA - Waste \*\*B - Brass L - Liter O - Orbo OT - Other P - Plastic S-Soil Jar T - Tedlar V - VOA  
 NOTE: Samples are discarded 60 days after sample receipt unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.



Company: Strabis Env  
 Attn: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City, State, Zip: \_\_\_\_\_  
 Phone Number: \_\_\_\_\_ Fax: \_\_\_\_\_



**Alpha Analytical, Inc.**  
 Main Laboratory: 255 Glendale Ave, Suite 21 Sparks, NV 89431  
**Satellite Service Centers:**  
 Northern CA: 9891 Horn Road, Suite C, Rancho Cordova, CA 95827  
 Southern CA: 1007 E. Dominguez St., Suite O, Carson, CA 90746  
 Northern NV: 1250 Lamolle Hwy., #310, Elko, NV 89801  
 Southern NV: 6255 McLeod Ave, Suite 24, Las Vegas, NV 89120

Phone: 775-355-1044  
 Fax: 775-355-0406  
 Phone: 916-366-9089  
 Phone: 714-386-2901  
 Phone: 775-388-7043  
 Phone: 702-281-4848

01567  
 Page # 2 of 3

**Consultant/ Client Info:**  
 Company: Forney Olympic  
 Address: \_\_\_\_\_  
 City, State, Zip: \_\_\_\_\_

**Job and Purchase Order Info:**  
 Job #: \_\_\_\_\_  
 Job Name: \_\_\_\_\_  
 P.O. #: \_\_\_\_\_

**Report Attention/Project Manager:**  
 Name: \_\_\_\_\_  
 Email Address: \_\_\_\_\_  
 Phone #: \_\_\_\_\_  
 Cell #: \_\_\_\_\_

**QC Deliverable Info:**  
 EDD Required? Yes / No \_\_\_\_\_ EDF Required? Yes / No Yes  
 Global ID: \_\_\_\_\_  
 Data Validation Packages: III or IV \_\_\_\_\_

Samples Collected from which State? (circle one) AR CA KS NV OR WA DOD Site Other

Time Sampled (HHMM)	Date Sampled (MM/DD)	Matrix* (See Key Below)	Lab ID Number (For Lab Use Only)	Sample Description	TAT	# Containers* (See Key Below)	Field Filtered?		Analysis Requested				Remarks
							Yes	No	6P	Hex, Mtxe	mg/hulm	PAH	
10:20	10-18	SU	STR16101921-12	GP-3-4.5	Std	1-P			✓	✓	✓	✓	
10:23				GP-3-9.5					✓	✓	✓	✓	
10:25				GP-3-14.5					✓	✓	✓	✓	
10:30				GP-3-19.5					✓	✓	✓	✓	
10:33				GP-3-23.5					✓	✓	✓	✓	
8:46				GP-4-4					✓	✓	✓	✓	
8:47				GP-4-7					✓	✓	✓	✓	
8:48				GP-4-9					✓	✓	✓	✓	
8:53				GP-4-10.5					✓	✓	✓	✓	
8:56				GP-4-19.5					✓	✓	✓	✓	
10:45				GP-5-4.5					✓	✓	✓	✓	

ADDITIONAL INSTRUCTIONS:

I (field sampler) attest to the validity and authenticity of this sample(s). I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. NAC 445.0636 (c) (2).

Sampled By: <u>[Signature]</u>	Date: <u>10-18-16</u>	Time: <u>13:44</u>	Received by: (Signature/Affiliation): <u>E. Francisco</u>	Date: <u>10.18.16</u>	Time: <u>13.44</u>
Relinquished by: (Signature/Affiliation): <u>[Signature]</u>	Date: _____	Time: _____	Received by: (Signature/Affiliation): <u>Kilmanay</u>	Date: <u>10/19/16</u>	Time: <u>0955</u>
Relinquished by: (Signature/Affiliation): _____	Date: _____	Time: _____	Received by: (Signature/Affiliation): _____	Date: _____	Time: _____

\* Key: AQ - Aqueous OT - Other So-Soil WA - Waste \*\* B - Brass L - Liter O - Orbo OT - Other P - Plastic S-Soil Jar T - Tedlar V - VOA

NOTE: Samples are discarded 60 days after sample receipt unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

# CHAIN OF CUSTODY

1018

**Billing Information:**  
 Company: Status Env  
 Attn: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City, State, Zip: \_\_\_\_\_  
 Phone Number: \_\_\_\_\_ Fax: \_\_\_\_\_



**Alpha Analytical, Inc.**  
 Main Laboratory: 255 Glendale Ave. Suite 21 Sparks, NV 89431  
**Satellite Service Centers:**  
 Northern CA: 9891 Horn Road, Suite C, Rancho Cordova, CA 95827  
 Southern CA: 1007 E. Dominguez St., Suite O, Carson, CA 90746  
 Northern NV: Elko, NV 89801  
 Southern NV: Las Vegas, NV 89120

Phone: 775-355-1044  
 Fax: 775-355-0406  
 Phone: 916-366-9089  
 Phone: 714-366-2901  
 Phone: 775-388-7043  
 Phone: 702-281-4848

Page # 33

**Consultant/Client Info:** Former Olympic Str      **Job and Purchase Order Info:**      **Report Attention/Project Manager:**      **QC Deliverable Info:**

Company: \_\_\_\_\_ Job #: \_\_\_\_\_ Name: \_\_\_\_\_ EDD Required? Yes / No      EDF Required? 0 / No  
 Address: \_\_\_\_\_ Job Name: \_\_\_\_\_ Email Address: \_\_\_\_\_  
 City, State, Zip: \_\_\_\_\_ P.O. #: \_\_\_\_\_ Phone #: \_\_\_\_\_  
 Global ID: \_\_\_\_\_  
 Data Validation Packages: III or IV

**Samples Collected from which State? (circle one)**    AR    CA    KS    NV    OR    WA    DOD Site    Other

Time Sampled (HH:MM)	Date Sampled (MM/DD)	Matrix* (See Key Below)	Lab ID Number (For Lab Use Only)	Sample Description	TAT	# Containers* (See Key Below)	Field Filtered?		Analysis Requested				Remarks
							Yes	No	GLC	BTEX/MTBP	naphthalene	PAT	
10:47	10-18	SO	STR16101921-23	GL-5-9.5	SH	1P	✓	✓	✓	✓			
10:50	✓	↓		GL-5-14.5	↓	↓	✓	✓	✓	✓			
10:55	✓	↓		GL-5-19.5	↓	↓	✓	✓	✓	✓			
10:58	✓	↓		GL-5-23.5	↓	↓	✓	✓	✓	✓			

**ADDITIONAL INSTRUCTIONS:**

I (field sampler) attest to the validity and authenticity of this sample(s). I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. NAC 445.0636 (c) (2).

Sampled by: <u>[Signature]</u>	Date: <u>10.18.14</u>	Time: <u>1344</u>	Received by: (Signature/Affiliation): <u>E. Fuciano</u>	Date: <u>10.18.16</u>	Time: <u>1344</u>
Relinquished by: (Signature/Affiliation): <u>[Signature]</u>	Date:	Time:	Received by: (Signature/Affiliation): <u>K Murray</u>	Date: <u>10/19/16</u>	Time: <u>0955</u>
Relinquished by: (Signature/Affiliation):	Date:	Time:	Received by: (Signature/Affiliation):	Date:	Time:

\* Key: AQ - Aqueous    AR - Air    OT - Other    So - Soil    WA - Waste    \*\* B - Brass    L - Liter    O - Orbo    OT - Other    P - Plastic    S - Soil Jar    T - Tedlar    V - VOA

**NOTE:** Samples are discarded 60 days after sample receipt unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

**APPENDIX E**

**GEOTRACKER DATA UPLOAD CONFIRMATION  
SHEETS**

STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A EDF FILE

**SUCCESS**

**Processing is complete. No errors were found!  
Your file has been successfully submitted!**

<b><u>Submittal Type:</u></b>	<b>EDF</b>
<b><u>Report Title:</u></b>	<b>Site Investigation Report</b>
<b><u>Report Type:</u></b>	<b>Site Investigation</b>
<b><u>Facility Global ID:</u></b>	<b>T0600102256</b>
<b><u>Facility Name:</u></b>	<b>OLYMPIC STATION</b>
<b><u>File Name:</u></b>	<b>EDD_BCLabs_1625083_EDF.zip</b>
<b><u>Organization Name:</u></b>	<b>Stratus Environmental, Inc.</b>
<b><u>Username:</u></b>	<b>STRATUS NOCAL</b>
<b><u>IP Address:</u></b>	<b>50.192.223.97</b>
<b><u>Submittal Date/Time:</u></b>	<b>9/26/2016 2:48:41 PM</b>
<b><u>Confirmation Number:</u></b>	<b>9075583100</b>

**[VIEW QC REPORT](#)**

**[VIEW DETECTIONS REPORT](#)**

Copyright © 2016 State of California

STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A EDF FILE

**SUCCESS**

**Processing is complete. No errors were found!  
Your file has been successfully submitted!**

<b><u>Submittal Type:</u></b>	<b>EDF</b>
<b><u>Report Title:</u></b>	<b>Additional Site Investigation Report</b>
<b><u>Report Type:</u></b>	<b>Site Investigation</b>
<b><u>Facility Global ID:</u></b>	<b>T0600102256</b>
<b><u>Facility Name:</u></b>	<b>OLYMPIC STATION</b>
<b><u>File Name:</u></b>	<b>16101921_EDF.zip</b>
<b><u>Organization Name:</u></b>	<b>Stratus Environmental, Inc.</b>
<b><u>Username:</u></b>	<b>STRATUS NOCAL</b>
<b><u>IP Address:</u></b>	<b>50.192.223.97</b>
<b><u>Submittal Date/Time:</u></b>	<b>11/7/2016 9:22:57 AM</b>
<b><u>Confirmation Number:</u></b>	<b>5370963752</b>

**[VIEW QC REPORT](#)**

**[VIEW DETECTIONS REPORT](#)**

Copyright © 2016 State of California

STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A GEO\_BORE FILE

**SUCCESS**

Your GEO\_BORE file has been successfully submitted!

<b><u>Submittal Type:</u></b>	<b>GEO_BORE</b>
<b><u>Facility Global ID:</u></b>	<b>T0600102256</b>
<b><u>Field Point:</u></b>	<b>GP-1</b>
<b><u>Facility Name:</u></b>	<b>OLYMPIC STATION</b>
<b><u>File Name:</u></b>	<b>SKM_C364e16101913220.pdf</b>
<b><u>Organization Name:</u></b>	<b>Stratus Environmental, Inc.</b>
<b><u>Username:</u></b>	<b>STRATUS NOCAL</b>
<b><u>IP Address:</u></b>	<b>50.192.223.97</b>
<b><u>Submittal Date/Time:</u></b>	<b>10/19/2016 1:21:54 PM</b>
<b><u>Confirmation Number:</u></b>	<b>3131364822</b>

Copyright © 2016 State of California

STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A GEO\_BORE FILE

**SUCCESS**

Your GEO\_BORE file has been successfully submitted!

<b><u>Submittal Type:</u></b>	<b>GEO_BORE</b>
<b><u>Facility Global ID:</u></b>	<b>T0600102256</b>
<b><u>Field Point:</u></b>	<b>GP-2</b>
<b><u>Facility Name:</u></b>	<b>OLYMPIC STATION</b>
<b><u>File Name:</u></b>	<b>SKM_C364e16101913230.pdf</b>
<b><u>Organization Name:</u></b>	<b>Stratus Environmental, Inc.</b>
<b><u>Username:</u></b>	<b>STRATUS NOCAL</b>
<b><u>IP Address:</u></b>	<b>50.192.223.97</b>
<b><u>Submittal Date/Time:</u></b>	<b>10/19/2016 1:22:41 PM</b>
<b><u>Confirmation Number:</u></b>	<b>8064536750</b>

Copyright © 2016 State of California

---

STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A GEO\_BORE FILE

**SUCCESS**

Your GEO\_BORE file has been successfully submitted!

<b><u>Submittal Type:</u></b>	<b>GEO_BORE</b>
<b><u>Facility Global ID:</u></b>	<b>T0600102256</b>
<b><u>Field Point:</u></b>	<b>GP-3</b>
<b><u>Facility Name:</u></b>	<b>OLYMPIC STATION</b>
<b><u>File Name:</u></b>	<b>SKM_C364e16101913240.pdf</b>
<b><u>Organization Name:</u></b>	<b>Stratus Environmental, Inc.</b>
<b><u>Username:</u></b>	<b>STRATUS NOCAL</b>
<b><u>IP Address:</u></b>	<b>50.192.223.97</b>
<b><u>Submittal Date/Time:</u></b>	<b>10/19/2016 1:23:19 PM</b>
<b><u>Confirmation Number:</u></b>	<b>3209708929</b>

Copyright © 2016 State of California



---

STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A GEO\_BORE FILE

**SUCCESS**

Your GEO\_BORE file has been successfully submitted!

<b><u>Submittal Type:</u></b>	<b>GEO_BORE</b>
<b><u>Facility Global ID:</u></b>	<b>T0600102256</b>
<b><u>Field Point:</u></b>	<b>GP-4</b>
<b><u>Facility Name:</u></b>	<b>OLYMPIC STATION</b>
<b><u>File Name:</u></b>	<b>SKM_C364e16101913241.pdf</b>
<b><u>Organization Name:</u></b>	<b>Stratus Environmental, Inc.</b>
<b><u>Username:</u></b>	<b>STRATUS NOCAL</b>
<b><u>IP Address:</u></b>	<b>50.192.223.97</b>
<b><u>Submittal Date/Time:</u></b>	<b>10/19/2016 1:23:53 PM</b>
<b><u>Confirmation Number:</u></b>	<b>8904130935</b>

Copyright © 2016 State of California

---

STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A GEO\_BORE FILE

**SUCCESS**

Your GEO\_BORE file has been successfully submitted!

<b><u>Submittal Type:</u></b>	<b>GEO_BORE</b>
<b><u>Facility Global ID:</u></b>	<b>T0600102256</b>
<b><u>Field Point:</u></b>	<b>GP-5</b>
<b><u>Facility Name:</u></b>	<b>OLYMPIC STATION</b>
<b><u>File Name:</u></b>	<b>SKM_C364e16101913242.pdf</b>
<b><u>Organization Name:</u></b>	<b>Stratus Environmental, Inc.</b>
<b><u>Username:</u></b>	<b>STRATUS NOCAL</b>
<b><u>IP Address:</u></b>	<b>50.192.223.97</b>
<b><u>Submittal Date/Time:</u></b>	<b>10/19/2016 1:24:26 PM</b>
<b><u>Confirmation Number:</u></b>	<b>8293631196</b>

Copyright © 2016 State of California

**APPENDIX F**

**HISTORICAL SOIL ANALYTICAL DATA  
(PRIOR TO DPE REMEDIATION)**

**TABLE 2**  
**SOIL ANALYTICAL SUMMARY**  
Former Olympic Station  
1436 Grant Avenue, San Lorenzo, California

Sample Location	Sample Depth (feet bgs)	Date Collected	Oil and Grease (mg/kg)	TPH-mo (mg/kg)	DRO (mg/kg)	GRO (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	MTBE (mg/Kg)	TBA (mg/Kg)	DIPE (mg/Kg)	ETBE (mg/Kg)	TAME (mg/Kg)	1,2-DCA (mg/Kg)	EDB (mg/Kg)	Ethanol (mg/kg)	Naphthalene (mg/kg)
<b>Shallow Soil (≤10' bgs) ESL<sup>1</sup>:</b>			NE	NE	180	180	0.27	9.3	4.7	11	8.4	110	NE	NE	NE	0.48	0.044	NE	2.8
<b>Deep Soil (&gt;10' bgs) ESL<sup>1</sup>:</b>			NE	NE	180	180	2.0	9.3	4.7	11	8.4	110	NE	NE	NE	0.48	1.0	NE	4.8
<i>July 1998 UST Removal</i>																			
WO-1-7.5	7.5	7/10/1998	4,300	--	<b>1,300</b>	<b>200</b>	<b>1.5</b>	<b>11</b>	3.6	<b>20</b>	1.4	--	--	--	--	<0.025	--	--	--
T-1E-7.5	7.5	7/10/1998	--	--	--	<b>180</b>	<0.01	0.94	4.6	0.56	<0.2	--	--	--	--	--	--	--	--
T-2E-8.0	8	7/10/1998	--	--	--	82	<0.01	0.39	2.9	0.28	0.45	--	--	--	--	--	--	--	--
T-3E-7.0	7	7/10/1998	--	--	--	<b>3,800</b>	<b>30</b>	<b>180</b>	<b>93</b>	<b>430</b>	<b>27</b>	--	--	--	--	--	--	--	--
T-3W-10.0	10	7/10/1998	--	--	--	170	<0.02	0.71	<b>5.3</b>	6.6	<0.4	--	--	--	--	--	--	--	--
D-1G-1.5	1.5	7/10/1998	--	--	--	<b>5,700</b>	<0.25	<b>14</b>	<b>54</b>	<b>280</b>	<5	--	--	--	--	--	--	--	--
D-2G-1.5	2	7/10/1998	--	--	--	<b>460</b>	<0.02	0.26	0.61	5.0	<0.4	--	--	--	--	--	--	--	--
D-1D-2.0	2	7/10/1998	--	--	5.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D-2D-2.0	2	7/10/1998	--	--	39	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PL-1-1.5	1.5	7/10/1998	--	--	2.8	5.8	0.062	0.062	0.33	0.14	<0.05	--	--	--	--	--	--	--	--
PL-2-2.0	2	7/10/1998	--	--	1.3	5.9	0.10	0.56	0.19	0.42	0.75	--	--	--	--	--	--	--	--
<i>December 1998 Waste Oil Tank Overexcavation</i>																			
WO-OEX-12	12	12/18/1998	570	940	<b>250</b>	<1.3	<0.0050	0.024	0.057	0.24	<0.0050	--	--	--	--	<0.0050	--	--	--
D1G-OEX-3.5	3.5	12/18/1998	--	<50	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--
<i>1999 Assessment</i>																			
MW-1	10.5	9/24/1999	--	--	<b>250</b>	6.5	0.42	0.18	0.065	0.027	1.7	--	--	--	--	--	--	--	--
MW-2	10	9/24/1999	700	2,400	<b>1,000</b>	2.9	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--
MW-3	10	9/24/1999	--	--	26	11	<b>0.63</b>	0.18	0.31	1.1	<0.0050	--	--	--	--	--	--	--	--
<i>2002 Assessment</i>																			
BH-A	11.5	4/30/2002	--	180	<b>270</b>	150	<0.025	0.027	1.9	0.28	<0.025	<0.25	<0.025	<0.025	<0.025	--	--	--	--
BH-B	11.5	4/30/2002	--	<10	<b>320</b>	<b>290</b>	<b>2.2</b>	0.49	<b>5.0</b>	<b>12</b>	<0.050	<0.25	<0.050	<0.050	<0.050	--	--	--	--
BH-C	11.5	4/30/2002	--	12	<b>280</b>	<b>240</b>	1.7	0.016	4.3	5.1	0.014	<0.050	<0.0050	<0.0050	<0.0050	--	--	--	--
<i>2008 Assessment</i>																			
B-1	3	2/25/2008	--	--	8.3	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.25	--
	7	2/25/2008	--	--	<b>1,700</b>	<b>290</b>	0.25	<0.20	<0.20	<0.20	<0.20	<2.0	<0.20	<0.20	<0.20	<0.16	<0.16	<10	--
	10.5	2/25/2008	--	--	120	140	0.31	0.089	0.11	<0.050	1.0	<0.50	<0.050	<0.050	<0.050	<0.040	<0.040	<2.5	--
	19.5	2/25/2008	--	--	120	<b>85</b>	0.42	<0.050	0.91	<0.050	1.7	<0.50	<0.050	<0.050	<0.050	<0.040	<0.040	<2.5	--

**TABLE 2**  
**SOIL ANALYTICAL SUMMARY**  
Former Olympic Station  
1436 Grant Avenue, San Lorenzo, California

Sample Location	Sample Depth (feet bgs)	Date Collected	Oil and Grease (mg/kg)	TPH-mo (mg/kg)	DRO (mg/kg)	GRO (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl-benzene (mg/Kg)	Total Xylenes (mg/Kg)	MTBE (mg/Kg)	TBA (mg/Kg)	DIPE (mg/Kg)	ETBE (mg/Kg)	TAME (mg/Kg)	1,2-DCA (mg/Kg)	EDB (mg/Kg)	Ethanol (mg/kg)	Naphthalene (mg/kg)
<b>Shallow Soil (≤10' bgs) ESL<sup>1</sup>:</b>			NE	NE	180	180	0.27	9.3	4.7	11	8.4	110	NE	NE	NE	0.48	0.044	NE	2.8
<b>Deep Soil (&gt;10' bgs) ESL<sup>1</sup>:</b>			NE	NE	180	180	2.0	9.3	4.7	11	8.4	110	NE	NE	NE	0.48	1.0	NE	4.8
B-2	7	2/25/2008	--	--	14	30	0.016	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.25	--
	11.5	2/25/2008	--	--	41	86	0.12	<0.005	0.020	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.25	--
	15	2/25/2008	--	--	2.2	4.9	0.018	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.25	--
	24.5	2/25/2008	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	0.033	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.25	--
B-3	7	2/26/2008	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.25	--
	15	2/26/2008	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	0.0084	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.25	--
	24.5	2/26/2008	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.25	--
B-4	7	2/25/2008	--	--	<b>260</b>	<b>250</b>	0.016	<0.010	0.037	<0.010	0.28	0.34	<0.010	<0.010	<0.010	<0.0080	<0.0080	<0.50	--
	11.5	2/25/2008	--	--	12	110	0.28	<0.050	1.1	<0.050	1.8	<0.50	<0.050	<0.050	<0.050	<0.040	<0.040	<2.5	--
	15	2/25/2008	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	0.045	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.25	--
	24.5	2/25/2008	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.25	--
B-5	7	2/26/2008	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.25	--
	11.5	2/26/2008	--	--	7.2	49	<0.005	<0.005	0.15	<0.005	0.0056	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.25	--
	15	2/26/2008	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	0.019	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.25	--
	24.5	2/26/2008	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	0.022	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.25	--
B-6	7	2/26/2008	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.25	--
	11.5	2/26/2008	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.25	--
	15.5	2/26/2008	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.25	--
	24.5	2/26/2008	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	0.020	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.25	--
B-7	7	2/26/2008	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.25	--
	11.5	2/26/2008	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.25	--
	15.5	2/26/2008	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.25	--
	24.5	2/26/2008	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.25	--
B-8	6.5	2/25/2008	--	--	4.3	5.8	0.015	<0.005	0.0075	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.25	--
	11.5	2/25/2008	--	--	16	<b>270</b>	0.72	<0.20	2.5	0.99	<0.20	<2.0	<0.20	<0.20	<0.20	<0.16	<0.16	<10	--
	15	2/25/2008	--	--	1.5	4.9	<0.005	<0.005	0.014	<0.005	0.027	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.25	--
	24.5	2/25/2008	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.25	--
<b>2010 Assessment</b>																			
MW-4	3	2/9/2010	--	--	<b>530</b>	160	<0.050	<0.050	<0.050	<0.050	<0.050	<0.50	<0.050	<0.050	<0.050	<0.040	<0.040	<5.0	1.3
	5	2/9/2010	--	--	<b>1,800</b>	<b>360</b>	<0.10	<0.10	<0.10	<0.10	<0.10	<1.0	<0.10	<0.10	<0.10	<0.080	<0.080	<10	<b>3.1</b>
	8	2/9/2010	--	--	50	<b>270</b>	<0.050	<0.050	0.70	<0.050	0.20	<0.50	<0.050	<0.050	<0.050	<0.040	<0.040	<5.0	1.1

**TABLE 2**  
**SOIL ANALYTICAL SUMMARY**  
Former Olympic Station  
1436 Grant Avenue, San Lorenzo, California

Sample Location	Sample Depth (feet bgs)	Date Collected	Oil and Grease (mg/kg)	TPH-mo (mg/kg)	DRO (mg/kg)	GRO (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl-benzene (mg/Kg)	Total Xylenes (mg/Kg)	MTBE (mg/Kg)	TBA (mg/Kg)	DIPE (mg/Kg)	ETBE (mg/Kg)	TAME (mg/Kg)	1,2-DCA (mg/Kg)	EDB (mg/Kg)	Ethanol (mg/kg)	Naphthalene (mg/kg)	
<b>Shallow Soil (≤10' bgs) ESL<sup>1</sup>:</b>			NE	NE	180	180	0.27	9.3	4.7	11	8.4	110	NE	NE	NE	0.48	0.044	NE	2.8	
<b>Deep Soil (&gt;10' bgs) ESL<sup>1</sup>:</b>			NE	NE	180	180	2.0	9.3	4.7	11	8.4	110	NE	NE	NE	0.48	1.0	NE	4.8	
B-9	3	2/11/2010	--	--	1.9	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
	5	2/11/2010	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
	10	2/11/2010	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
	15	2/11/2010	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
	20	2/11/2010	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
	24.5	2/11/2010	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
B-10	3	2/11/2010	--	--	2.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
	5	2/11/2010	--	--	1.5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
	9.5	2/11/2010	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
	15	2/11/2010	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
	20	2/11/2010	--	--	1.5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
	24.5	2/11/2010	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
B-11	3	2/10/2010	--	--	2.1	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
	5	2/10/2010	--	--	2.9	<1.0	<0.005	<0.005	<0.005	0.0078	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
	8	2/10/2010	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
	10	2/10/2010	--	--	2.7	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
B-12	3	2/11/2010	--	--	1.8	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
	5	2/11/2010	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
	10	2/11/2010	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
	15	2/11/2010	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
	20	2/11/2010	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
	24.5	2/11/2010	--	--	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
B-13A	3	2/10/2010	--	--	6.1	<1.0	0.023	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
	5	2/10/2010	--	--	1.2	<1.0	0.0060	<0.005	0.010	0.011	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
	7	2/10/2010	--	--	2.8	3.3	<0.005	<0.005	0.016	0.021	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
B-13C	11.5	2/12/2010	--	--	8.0	15	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.004	<0.004	<0.5	<0.005	
<i>Remediation Well Installation 2011</i>																				
EX-1	6	5/19/2011	--	--	--	83	0.15	<0.020	1.3	0.041	0.076	--	--	--	--	--	--	--	--	
	11	5/19/2011	--	--	--	110	1.5	0.19	1.7	3.5	0.21	--	--	--	--	--	--	--	--	
	16	5/19/2011	--	--	--	<1.0	<0.005	<0.005	<0.005	<0.005	0.046	--	--	--	--	--	--	--	--	
	21	5/19/2011	--	--	--	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	
EX-2	11	5/19/2011	--	--	--	340	0.19	<0.10	0.31	<0.10	1.7	--	--	--	--	--	--	--	--	
	16	5/19/2011	--	--	--	1.6	<0.005	<0.005	<0.005	<0.005	1.2	--	--	--	--	--	--	--	--	
	21	5/19/2011	--	--	--	2.3	<0.005	<0.005	<0.005	<0.005	0.098	--	--	--	--	--	--	--	--	

**TABLE 2**  
**SOIL ANALYTICAL SUMMARY**  
Former Olympic Station  
1436 Grant Avenue, San Lorenzo, California

Sample Location	Sample Depth (feet bgs)	Date Collected	Oil and Grease (mg/kg)	TPH-mo (mg/kg)	DRO (mg/kg)	GRO (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl-benzene (mg/Kg)	Total Xylenes (mg/Kg)	MTBE (mg/Kg)	TBA (mg/Kg)	DIPE (mg/Kg)	ETBE (mg/Kg)	TAME (mg/Kg)	1,2-DCA (mg/Kg)	EDB (mg/Kg)	Ethanol (mg/kg)	Naphthalene (mg/kg)
<b>Shallow Soil (≤10' bgs) ESL<sup>1</sup>:</b>			NE	NE	180	180	0.27	9.3	4.7	11	8.4	110	NE	NE	NE	0.48	0.044	NE	2.8
<b>Deep Soil (&gt;10' bgs) ESL<sup>1</sup>:</b>			NE	NE	180	180	2.0	9.3	4.7	11	8.4	110	NE	NE	NE	0.48	1.0	NE	4.8
EX-3	6	5/19/2011	--	--	--	41	0.023	<0.010	<0.010	<0.010	<0.010	--	--	--	--	--	--	--	--
	11	5/19/2011	--	--	--	340	<0.10	<0.10	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--
	16	5/19/2011	--	--	--	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--
IW-1	6	5/20/2011	--	--	--	220	<0.050	<0.050	0.49	0.40	0.054	--	--	--	--	--	--	--	--
	11	5/20/2011	--	--	--	170	0.17	0.11	1.9	1.8	0.070	--	--	--	--	--	--	--	--
IW-2	6	5/20/2011	--	--	--	140	0.39	<0.050	2.9	0.17	<0.050	--	--	--	--	--	--	--	--
	11	5/20/2011	--	--	--	160	0.89	0.18	2.4	3.8	<0.050	--	--	--	--	--	--	--	--
	21	5/20/2011	--	--	--	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--
<b>Explanation</b>			<p>TPH-mo = Total purgeable hydrocarbons as motor oil  DRO = Diesel range organics  GRO = Gasoline range organics (C4 - C13)  BTEX = Benzene, toluene, ethylbenzene, and xylenes  MTBE = Methyl tertiary butyl ether  TBA=Tertiary butyl alcohol  DIPE =Di-isopropyl ether  ETBE = Ethyl tertiary butyl ether  TAME = Tertiary amyl methyl ether  1,2-DCA=1,2-Dichloroethane  EDB = 1,2-Dibromoethane  mg/Kg = milligrams per kilogram  1 =</p>																
			<p>All data reported prior to 2011 provided by Conestoga-Rovers &amp; Associates.</p> <p><b>Analytical Methods</b>  Oil and grease analyzed using EPA Method 5520 E&amp;F  TPH-mo, DRO, and GRO analyzed using EPA Method SW8015B/DHS LUFT Manual  BTEX and MTBE analyzed prior to 2002 using EPA Method 8020  BTEX, MTBE, TBA, DIPE, ETBE, TAME, 1,2-DCA, and EDB analyzed using EPA Method SW8260B</p> <p><b>Analytical Laboratory</b>  Alpha Analytical, Inc. (ELAP #2019)</p>																

**TABLE 2**  
**SOIL ANALYTICAL RESULTS**  
Former Olympic Gas Service Station  
1436 Grant Avenue, San Lorenzo, California

Sample ID	Sample Depth (feet bgs)	Date Collected	GRO (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl-benzene (mg/Kg)	Total Xylenes (mg/Kg)	MTBE (mg/Kg)	Naphthalene (mg/Kg)	PAH's (mg/Kg)
<b><u>Boring EX-4</u></b>										
EX-4-4	4	2/20/2014	12	<0.005	<0.005	<0.005	<0.005	<0.005	<0.04	NA
EX-4-9	9	2/20/2014	910	0.13	<0.1*	<0.1*	<0.1*	<0.1*	2.3	NA
EX-4-15	15	2/20/2014	<1.0	<0.005	<0.005	<0.005	<0.005	0.013	NA	NA
EX-4-20	20	2/20/2014	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA
<b><u>Boring EX-5</u></b>										
EX-5-4	4	2/20/2014	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.04	NA
EX-5-9	9	2/20/2014	310	<0.25*	<0.25*	0.98	0.84	<0.25*	10	NA
EX-5-15	15	2/20/2014	<1.0	<0.005	<0.005	<0.005	<0.005	0.019	NA	NA
EX-5-20	20	2/20/2014	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA
<b><u>Boring EX-6</u></b>										
EX-6-4	4	2/21/2014	4.1	<0.01**	<0.01**	<0.01**	<0.01**	<0.01**	<0.08**	NA
EX-6-9	9	2/21/2014	220	0.89	<0.2*	4.1	<0.2*	<0.2*	7.3	NA
EX-6-15	15	2/21/2014	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA
EX-6-20	20	2/21/2014	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA
<b><u>Boring EX-7</u></b>										
EX-7-4	4	2/20/2014	<2.0**	<0.01**	<0.01**	<0.01**	<0.01**	<0.01**	<0.08**	ND
EX-7-9	9	2/20/2014	38	0.094	0.067	0.11	0.32	0.053	0.7	ND
EX-7-15	15	2/20/2014	<1.0	<0.005	<0.005	<0.005	<0.005	0.0078	NA	NA
EX-7-20	20	2/20/2014	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA
<b><u>Boring MW-5B</u></b>										
MW-5B-5	5	5/28/2014	4.9	<0.005	<0.005	<0.005	0.0073	<0.005	NA	NA
MW-5B-10	10	5/28/2014	360	<0.1*	<0.1*	1.6	2.39	<0.1*	NA	NA
MW-5B-15	15	5/28/2014	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA
MW-5B-20	20	5/28/2014	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA



**TABLE 2**  
**SOIL ANALYTICAL RESULTS**  
Former Olympic Gas Service Station  
1436 Grant Avenue, San Lorenzo, California

Sample ID	Sample Depth (feet bgs)	Date Collected	GRO (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	MTBE (mg/Kg)	Naphthalene (mg/Kg)	PAH's (mg/Kg)		
<b><u>Boring MW-6B</u></b>												
MW-6B-5	5	5/28/2014	4.3	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA		
MW-6B-10	10	5/28/2014	110	0.098	<0.05*	1.0	1.59	<0.05*	NA	NA		
MW-6B-15	15	5/28/2014	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA		
MW-6B-20	20	5/28/2014	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA		
<table border="0"> <tr> <td style="vertical-align: top;"> <p><b><u>Explanation</u></b>  GRO = Gasoline range organics  BTEX = Benzene, toluene, ethylbenzene, and xylenes  MTBE = Methyl tertiary butyl ether  PAH's = Polynuclear aromatic hydrocarbons  (includes analysis for 54 compounds, see lab report for list)  NA = Not analyzed  ND = Not detected, at various reporting limits  bgs = below ground surface  mg/Kg = milligrams per kilogram  * = Reporting limits increased due to high concentrations of target analytes  ** = Reporting limits increased due to sample foaming</p> </td> <td style="vertical-align: top;"> <p><b><u>Analytical Methods</u></b>  GRO analyzed using EPA Method SW8015B/SW8260B  BTEX, MTBE, and naphthalene analyzed using EPA Method SW8260B  PAH's analyzed using EPA Method SW8270C</p> <p><b><u>Analytical Laboratory</u></b>  Alpha Analytical, Inc. (ELAP #2019)</p> </td> </tr> </table>											<p><b><u>Explanation</u></b>  GRO = Gasoline range organics  BTEX = Benzene, toluene, ethylbenzene, and xylenes  MTBE = Methyl tertiary butyl ether  PAH's = Polynuclear aromatic hydrocarbons  (includes analysis for 54 compounds, see lab report for list)  NA = Not analyzed  ND = Not detected, at various reporting limits  bgs = below ground surface  mg/Kg = milligrams per kilogram  * = Reporting limits increased due to high concentrations of target analytes  ** = Reporting limits increased due to sample foaming</p>	<p><b><u>Analytical Methods</u></b>  GRO analyzed using EPA Method SW8015B/SW8260B  BTEX, MTBE, and naphthalene analyzed using EPA Method SW8260B  PAH's analyzed using EPA Method SW8270C</p> <p><b><u>Analytical Laboratory</u></b>  Alpha Analytical, Inc. (ELAP #2019)</p>
<p><b><u>Explanation</u></b>  GRO = Gasoline range organics  BTEX = Benzene, toluene, ethylbenzene, and xylenes  MTBE = Methyl tertiary butyl ether  PAH's = Polynuclear aromatic hydrocarbons  (includes analysis for 54 compounds, see lab report for list)  NA = Not analyzed  ND = Not detected, at various reporting limits  bgs = below ground surface  mg/Kg = milligrams per kilogram  * = Reporting limits increased due to high concentrations of target analytes  ** = Reporting limits increased due to sample foaming</p>	<p><b><u>Analytical Methods</u></b>  GRO analyzed using EPA Method SW8015B/SW8260B  BTEX, MTBE, and naphthalene analyzed using EPA Method SW8260B  PAH's analyzed using EPA Method SW8270C</p> <p><b><u>Analytical Laboratory</u></b>  Alpha Analytical, Inc. (ELAP #2019)</p>											