# RECEIVED

2:58 pm, Feb 14, 2008

Alameda County Environmental Health

# February 14, 2008

# SITE INVESTIGATION REPORT

3442 Adeline Street Oakland, CA 94608

Project No. 274761

Prepared For

Ms. Steffi Zimmerman 6330 Swainland Road Oakland, CA 94611

Prepared By

AEI Consultants 2500 Camino Diablo, Suite 200 Walnut Creek, CA 94597 (925) 283-6000

# **TABLE OF CONTENTS**

1.0	INTRODUCTION	1
2.0	SITE DESCRIPTION AND HISTORY	1
_	2.1 UST Excavation	1 1
3.0	GEOLOGY AND HYDROLOGY	2
4.0	INVESTIGATION ACTIVITIES	3
4	<ul> <li>Soil Borings and Soil Collection</li></ul>	4
5.0	SAMPLE ANALYTICAL RESULTS	5
5	<ul> <li>Soil Analytical Results</li> <li>Groundwater Analytical Results</li> <li>Soil Vapor Analytical Results</li> </ul>	5
6.0	SUMMARY	6
7.0	REPORT LIMITATIONS AND SIGNATURES	7

## **FIGURES**

FIGURE 1	SITE LOCATION MAP
FIGURE 2	SITE PROPERTY LINE
FIGURE 3	SITE PLAN
FIGURE 4	GROUNDWATER SAMPLE ANALYTICALS
FIGURE 5	SOIL VAPOR ANALYTICALS
FIGURE 6	FENCE DIAGRAM A-A'
FIGURE 7	FENCE DIAGRAM B-B'

## **TABLES**

TABLE 1	SOIL SAMPLE ANALYTICAL RESULTS
TABLE 2	GROUNDWATER SAMPLE ANALYTICAL RESULTS
TABLE 3	SOIL VAPOR SAMPLE ANALYTICAL RESULTS

## APPENDICES

APPENDIX A	BORING LOGS
APPENDIX B	PERMITS
Appendix C	LABORATORY ANALYTICAL REPORT

# **1.0** INTRODUCTION

AEI Consultants (AEI) has prepared this site investigation on behalf of Ms. Steffi Zimmerman (client) for the property located at 3433 Chestnut St. in the city of Oakland, Alameda County, California. AEI has been retained by the client to provide environmental engineering and consulting services for the subject property. During the removal of an underground storage tank (UST), it was discovered that a release of petroleum hydrocarbons had occurred at the property. This additional investigation was performed at the request of Alameda County Health Care Services Agency (ACHCSA) to characterize the extent of impacted soil, soil vapor and groundwater at the site.

# 2.0 SITE DESCRIPTION AND HISTORY

The subject site (hereinafter referred to as the "site" or "property") is situated on the northeast corner of 35<sup>th</sup> Street and Chestnut Street in a mixed commercial, industrial and residential area of Oakland. The front entrance to the property is addressed at 3442 Adeline St.; however, the rear entrance is reported with the City of Oakland with the address of 3433 Chestnut St. The on site building is currently a warehouse being used for storage.

## 2.1 UST Excavation

On February 22, 2000, Clearwater supervised the excavation and removal of a single-wall 3,750 gallon UST. Soil and groundwater samples were taken from the excavation pit and analyzed for total petroleum hydrocarbons as diesel (TPH-d), TPH as gasoline (TPH-g), methyl tertiary butyl ether (MTBE) and BTEX (benzene, toluene, ethyl benzene, and total xylenes). Based on concentrations from samples taken during tank removal, on May 15, 2006 the City of Oakland Fire Department requested the subject property to be characterized with additional soil and groundwater samples.

Soil sample concentrations of TPH-d and TPH-g were up to 850 milligrams per kilogram (mg/kg) and 920 mg/kg, respectively. Groundwater samples of TPH-d and TPH-g were 7,400 micrograms per liter ( $\mu$ g/L) and 34,000  $\mu$ g/L, respectively.

## 2.2 Phase II Investigation

On June 23, 2006 Clearwater performed a Phase II Environmental Site Investigation by advancing four (4) soil borings to approximately 16 feet below ground surface (bgs) directly around the excavated UST location. Approximate locations of these borings can be found labeled as S1, S2, S3, and S4 on Figure 3.

Soil and groundwater samples were collected and tested for TPH-d, TPH-g, BTEX, 1,2-dichloroethane (1,2-DCA) and 1,2-dibromoethane (1,2-EDB).

## Soil Samples

TPH-d concentrations ranged from 1.2 mg/kg (S1) to 250 mg/kg in (S3). TPH-g concentrations ranged from non-detectable to 1,200 mg/kg in S3. BTEX concentrations were low with the exception of total xylenes which reached a maximum of 100 mg/kg in S3. Soil samples tested for 1,2-DCA and 1,2-EDB were reported below the detection limit.

## Groundwater Samples

TPH-d concentrations ranged from 4,000  $\mu$ g/L (S2) to 40,000  $\mu$ g/L (S4). TPH-g concentrations ranged from 20,000  $\mu$ g/L (S1) to 120,000  $\mu$ g/L in (S4). BTEX in groundwater samples was detected at elevated concentrations for all samples. Groundwater from S2 contained the highest concentration of BTEX at 7,000  $\mu$ g/L, 260  $\mu$ g/L, 920  $\mu$ g/L, and 2,800  $\mu$ g/L, respectively. Groundwater samples tested for 1,2-DCA and 1,2-EDB were reported below the detection limits.

# 3.0 GEOLOGY AND HYDROLOGY

Sediments encountered during the recent investigation are generally fine grained sediments (a combination of silty/sandy clay) just below the asphalt surface to depths ranging from approximately 4.5 to 10 feet bgs. The silty/sandy clay is underlain by interbedded layers of silty clay, clayey sand and silty gravel with varying amounts of fine to coarse grained sand and minor gravel to depths ranging from approximately 5 feet bgs to 9 feet bgs. This in turn is underlain by gravelly mixtures of sand, silt and clay up to 5 feet in thickness. The top of gravelly mixtures ranged from 9 feet to a maximum of 16 feet bgs in SB-6. Beneath the gravelly sediments, silty clay was encountered at depths of 9 ft bs to boring termination at 16 ft bgs. SB-6 is the only exception with a clayey gravel at 16 feet bgs. Fence diagrams A-A' and B-B' (Figures 6 and 7) indicate that the sediments are highly variable. A detailed description of the sediments and field measurements are included on boring logs in Appendix A.

Groundwater was present eventually in all borings, although, could be generally described as slow producing in several locations. Groundwater was present after approximately 24 hours in borings SB-3, SB-5, SB-8, and SB-11. SB-6 required four days of recharging in order to produce a minimal amount of groundwater to sample. Groundwater in the remaining borings was present at varying at approximately 8-14 feet bgs and is classified as very slow producing.

# 4.0 INVESTIGATION ACTIVITIES

A workplan dated March 23, 2007 was prepared by Clearwater Group and submitted to the ACHCSA for approval. Prior to initiating drilling activities, a soil boring permit (permit number W2007-1015) was obtained from the Alameda County Public Works Agency (ACPWA) and excavation permits (permit number X0701061 and X0701356) were obtained from the City of Oakland. A copy of these permits are included in Appendix B. Following permit approval, drilling activities were scheduled and Underground Utility Services (USA North) was notified to locate possible underground utilities in the area.

Prior to initiating drilling activities, a geophysical survey was performed to identify other underground utilities and possible additional USTs. The area was swept over using a reflective induction scan to identify any anomalies within the subsurface. No anomalies were found to be present beyond suspected underground utilities.

# 4.1 Soil Borings and Soil Collection

On October 1<sup>st</sup> and 3<sup>rd</sup>, 2007, AEI advanced eleven soil borings (SB-1 through SB-11) at the subject property. Eleven additional borings (SB-12 through SB-22) were advanced on December 20<sup>th</sup> and 21<sup>st</sup>, 2007. The borings were advanced with a direct-push drilling rig operated by Precision Sampling (CA C57 License # 636387). The borings were advanced to depths of approximately 16 feet bgs. Soil core borings SB-1 through SB-22 were continuously collected in a 2" diameter acrylic liner and logged by the onsite AEI geologist. Soil samples were described by AEI personnel and logged using the unified soil classification system and screened in the field using a photo ionization detector (PID). Field observations and screening data is presented on the borings logs in Appendix A.

Sampling equipment, including sampling barrels and other equipment used to sample, were decontaminated between samples using a triple rinse system containing Alconox<sup>™</sup> or similar detergent.

A six inch sample at select depths was cut from the acrylic liner and sealed with Teflon tape and plastic caps, labeled with a unique identifier, placed in a cooler filled with water ice, and transported under appropriate chain-of-custody documentation for analysis to McCampell Analytical Inc., (DOHS Certification Number 1644) of Pittsburg, California. Select soil samples were analyzed for TPH-d by EPA method 8015, TPH-g, BTEX, and methyl tertiary butyl ether (MTBE) by EPA method 8021B and five fuel additives by EPA method 8260: tert-Amyl methyl ether (TAME), t-Butyl alcohol (TBA), diisopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), and methyl-t-butyl ether (MTBE).

Soil cuttings generated during the drilling and well installation activities were stored on-site in sealed and labeled 5-gallon buckets pending disposal.

## 4.2 Groundwater Sample Collection

In soil borings SB-1 though SB-22, upon encountering saturated sediments, a temporary <sup>3</sup>/<sub>4</sub>" diameter factory-slotted poly-vinyl chloride (PVC) casing was inserted into the borings to facilitate the collection of groundwater samples. A groundwater sample was not collected at time of drilling (ATD) from borings SB-3, SB-5 SB-8, SB-11, SB-12 through SB-15, and SB-20 through SB-22 due to a lack of sufficient groundwater. The temporary well casings were recharged with groundwater within a range of 24 to 96 hours. Groundwater samples were collected with a dedicated, disposable bailer into 40-ml volatile organic analysis (VOA) vials and 1 liter bottles. The groundwater samples were capped so that there was no head space or visible air bubbles within the vials, labeled with a unique identifier, placed in a cooler filled with ice, and transported under appropriate chain-of-custody documentation for analysis to McCampbell Analytical Inc., (DOHS Certification Number 1644) of Pittsburg, California. Groundwater samples were analyzed for TPH-d by EPA method 8015, TPH-g, BTEX and MTBE by EPA method 8021B and five fuel additives by EPA method 8260.

## 4.3 Soil Vapor Collection

Soil vapor samples were collected at three (3) locations (VB-1 through VB-3), locations presented in Figure 3. One (1) of the vapor sample locations (VB-3) was located outside of the building. Two (2) vapor sample locations were located inside the building (VB-1 and VB-2). The borings were drilled to an approximate five foot depth with a direct-push drilling rig.Following the completion of drilling, a clean and dry polyethelene soil gas probe equipped with a steel tip was inserted into the boring. Coarse grained sand was then poured into the boring to form a one foot thick layer to facilitate soil gas airflow. Dry bentonite grout was then poured into to the boring to surface elevation and subsequently hydrated with water. The one-quarter inch polyethelene probe was attached to a sampling port with a stainless steel gas tight compressor fitting passing through a one-eighth inch inert stainless steel tube manifold. Once the probe was in place, the sample was collected after waiting approximately twenty minutes for equilibration.

Soil gas was collected using a certified six liter Summa canister connected to an on/off gas tight valve via the inert stainless steel manifold. Prior to sample collection, each soil gas boring was purged approximately (3) three boring volumes using a gas tight syringe via an on/off gas tight valve via the inert stainless steel manifold. Immediately following purging, the initial vacuum pressure was recorded, then connected to an on/off flow regulator via the manifold and opened. Soil gas samples were collected for approximately (20) twenty minutes (or to 5 inHg vacuum in the summa canister) at 250 mL/minute through a gas tight stainless steel flow regulator connected to the manifold. Samples were appropriately labeled and entered into a chain of custody prior to shipping to the laboratory. During soil gas sampling, Isopropyl Alcohol was used as a leak check compound and placed around the manifold to confirm the sample was collected leak free. A copy of the chain of custody is available in Appendix B.

# 5.0 SAMPLE ANALYTICAL RESULTS

## 5.1 Soil Analytical Results

Select soil samples were analyzed from each of the borings, petroleum hydrocarbons were detected in the soil as follows:

- TPH-d concentrations ranged from <1.0 mg/kg to 450 mg/kg (SB-1-7.5).
- Concentrations of TPH-g ranged from <1.0 to 1,200 mg/kg (SB-1-7.5).
- MTBE was non detectable in all soil samples except for SB-11-15.5 at a concentration of 0.14 mg/kg.
- Benzene was detected at concentrations ranging from <0.005 mg/kg to 6.9 mg/kg (SB-10-11.5).
- Toluene concentrations ranged from <0.005 mg/kg to 2.5 mg/kg (SB-1-7.5).
- Concentrations of ethyl benzene ranged from <0.005 mg/kg to 24 mg/kg (SB-1-7.5).
- Detections of xylenes ranged from <0.005 mg/kg to 110 mg/kg (SB-1-7.5).

Soil analytical data is displayed on Table 1 and a copy of the laboratory analytical reports is included in Appendix C.

## 5.2 Groundwater Analytical Results

Petroleum hydrocarbons were detected in the groundwater samples as follows:

- TPH-d was detected in each of the borings SB-1 through SB-22 (except SB-3 which was non-detectable) at concentrations ranging from 280 µg/L (SB-19) to 12,000 µg/L (SB-14).
- TPH-g concentrations in borings SB-1 through SB-22 ranged from <50  $\mu$ g/L to 83,000  $\mu$ g/L (SB-11).
- MTBE was detected in SB-6 and SB-7 at concentrations of 2.0  $\mu$ g/L and 6.1  $\mu$ g/L, respectively.
- Benzene concentrations in borings SB-1 through SB-22 ranged from <0.5  $\mu$ g/L (SB-2) to 10,000  $\mu$ g/L (SB-11).
- Toluene was detected in borings SB-1 through SB-22 at concentrations ranging from <0.5  $\mu$ g/L to 640  $\mu$ g/L (SB-11).
- Ethylbenzene was detected in borings SB-1 through SB-22 at concentrations ranging from  $<0.5 \ \mu g/L$  to 2,700  $\mu g/L$  (SB-11).
- Xylenes concentrations in borings SB-1 through SB-22 ranged from <0.5  $\mu$ g/L to 7,900  $\mu$ g/L (SB-11).
- TBA concentrations ranged from  $<5.0 \ \mu g/L$  to  $840 \ \mu g/L$  (SB-11)

Groundwater analytical results are displayed on Table 2 and Figure 4. A copy of the laboratory analytical report is included in Appendix C.

## 5.3 Soil Vapor Analytical Results

Petroleum hydrocarbons detected in the soil vapor samples as follows:

- TPH-g was detected in VB-1 through VB-3 at concentrations of 1,900  $\mu$ g/m<sup>3</sup>, 3,100  $\mu$ g/m<sup>3</sup>, and 2,500  $\mu$ g/m<sup>3</sup>, respectively.
- MTBE was not detected in any soil vapor samples.
- Concentrations of benzene were detected in VB-1 through VB-3 at 130  $\mu$ g/m<sup>3</sup>, 32  $\mu$ g/m<sup>3</sup>, and 40  $\mu$ g/m<sup>3</sup>, respectively.
- Toluene concentrations were detected in VB-1 through VB-3 at 35  $\mu$ g/m<sup>3</sup>, 42  $\mu$ g/m<sup>3</sup>, and 42  $\mu$ g/m<sup>3</sup>, respectively.
- Concentrations of ethyl benzene were detected in VB-2 and VB-3 at 11  $\mu$ g/m<sup>3</sup> and 16  $\mu$ g/m<sup>3</sup>, respectively.
- Xylenes were detected in VB-2 and VB-3 at concentrations of 50  $\mu$ g/m<sup>3</sup> and 49  $\mu$ g/m<sup>3</sup>, respectively.

Soil vapor analytical results are presented on Table 3 and Figure 5. A copy of the laboratory analytical report is included in Appendix C.

# 6.0 SUMMARY

AEI completed additional characterization of the release of petroleum hydrocarbons at the site. The investigation activities were conducted in two phases, the first of which consisted of eleven (11) soil borings (SB-1 to SB-11) and three soil gas probes sampled in October 2007 and an additional eleven (11) soil borings (SB-12 to SB-22) sampled in December 2007. The investigation was performed to further define the extent and magnitude of impacted soil and groundwater around the former UST area.

Based on the soil and groundwater sample analytical data, the release of primarily gasoline related petroleum contaminants has spread mostly in a northwesterly direction, beneath the warehouse building on the property. Concentrations of petroleum contaminants decrease with distance from the UST to the north and south along Chestnut Street and to the east across the street. The vertical extent of impacted soil has been generally defined to be between approximately 6 and 12 feet bgs and is likely controlled by the movement of shallow groundwater. Based on the distribution of dissolved phase petroleum hydrocarbons, groundwater is expected to flow predominately in a northwesterly direction; however, the extent of the release has not been defined to non-detect in this direction. Soil gas sample analytical data was compared to the RWQCB Environmental Screening Levels (ESLs) as a preliminary screening. With the exception of benzene in SV-1, the results were below these screening levels suggesting that vapor intrusion potential may be minimal at the southeastern corner of the building.

# 7.0 REPORT LIMITATIONS AND SIGNATURES

This report presents a summary of work completed by AEI, including observations and descriptions of site conditions. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide required information, but it cannot be assumed that they are entirely representative of all areas not sampled. All conclusions and recommendations are based on these analyses, observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document.

These services were performed in accordance with generally accepted practices in the environmental engineering and construction field that existed at the time and location of the work. AEI requests comment and concurrence with this plan. If you have any questions regarding this report, we can be reached at (925) 944-2899.

Sincerely,

**AEI** Consultants

Harmony TomSun Staff Geologist

GEO PETER-J\_MCINTYRE 6 eter J. McIntyre, PG, REA Senior Project Manager

**Report Distribution:** 

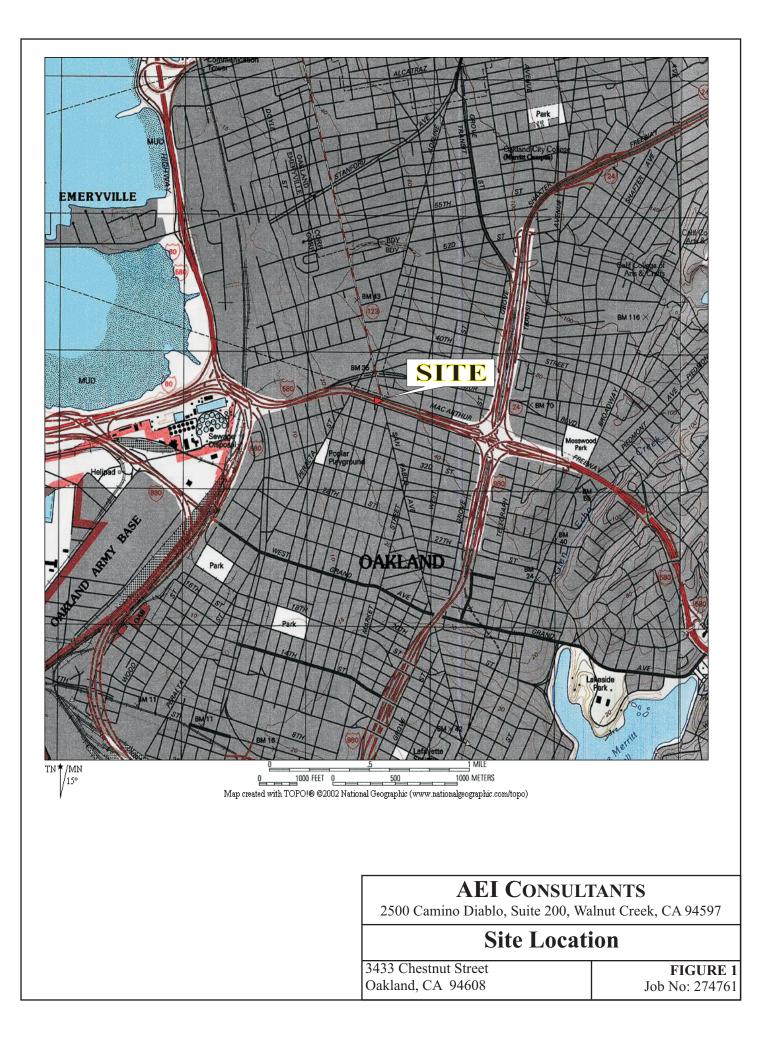
Ms. Steffi Zimmerman 6330 Swainland Road Oakland, CA 94611

Mr. Steven Plunkett Alameda County Health Care Services Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

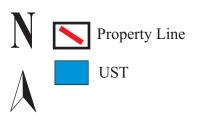
GeoTracker



**FIGURES** 







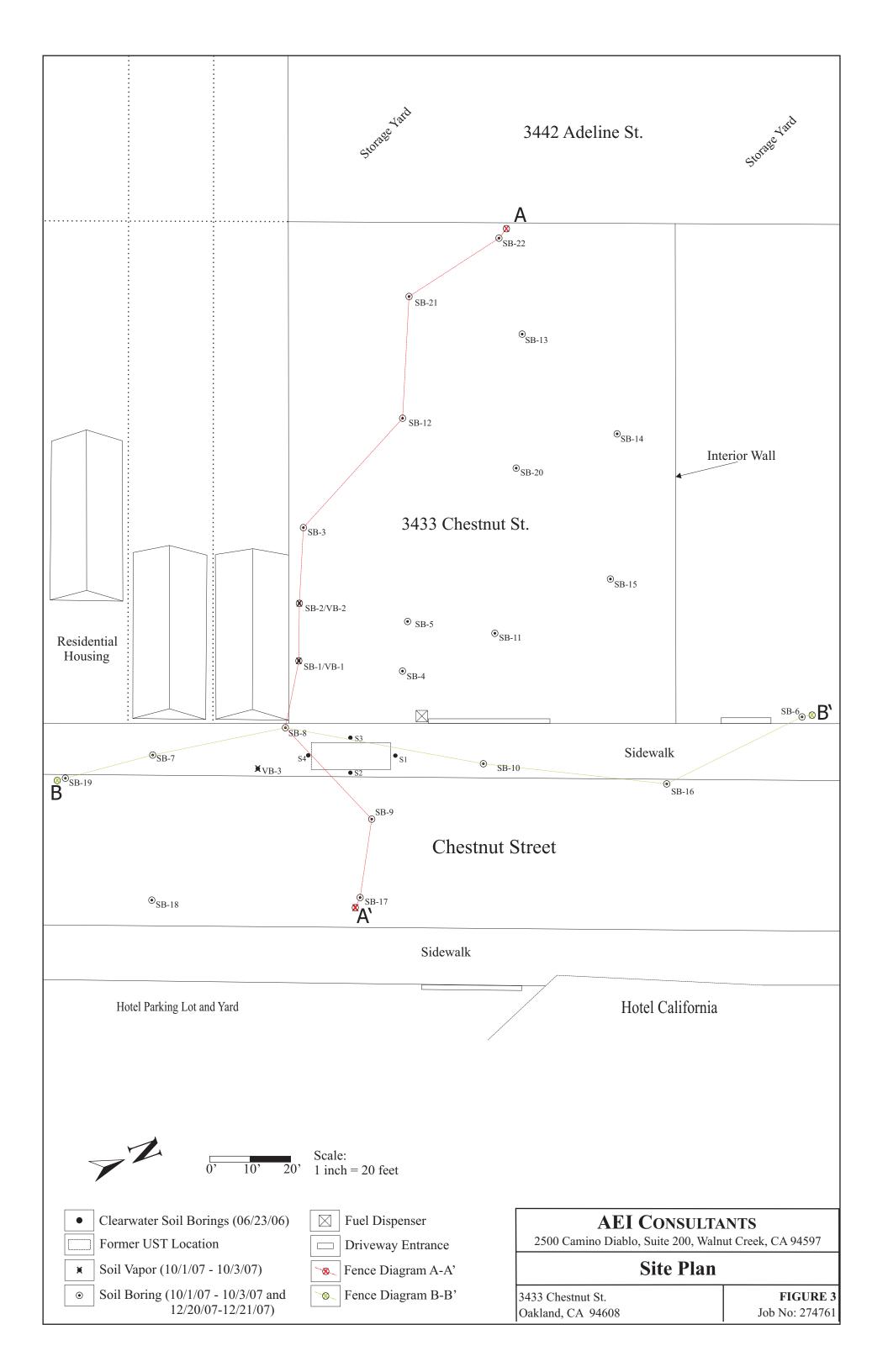
# **AEI** CONSULTANTS

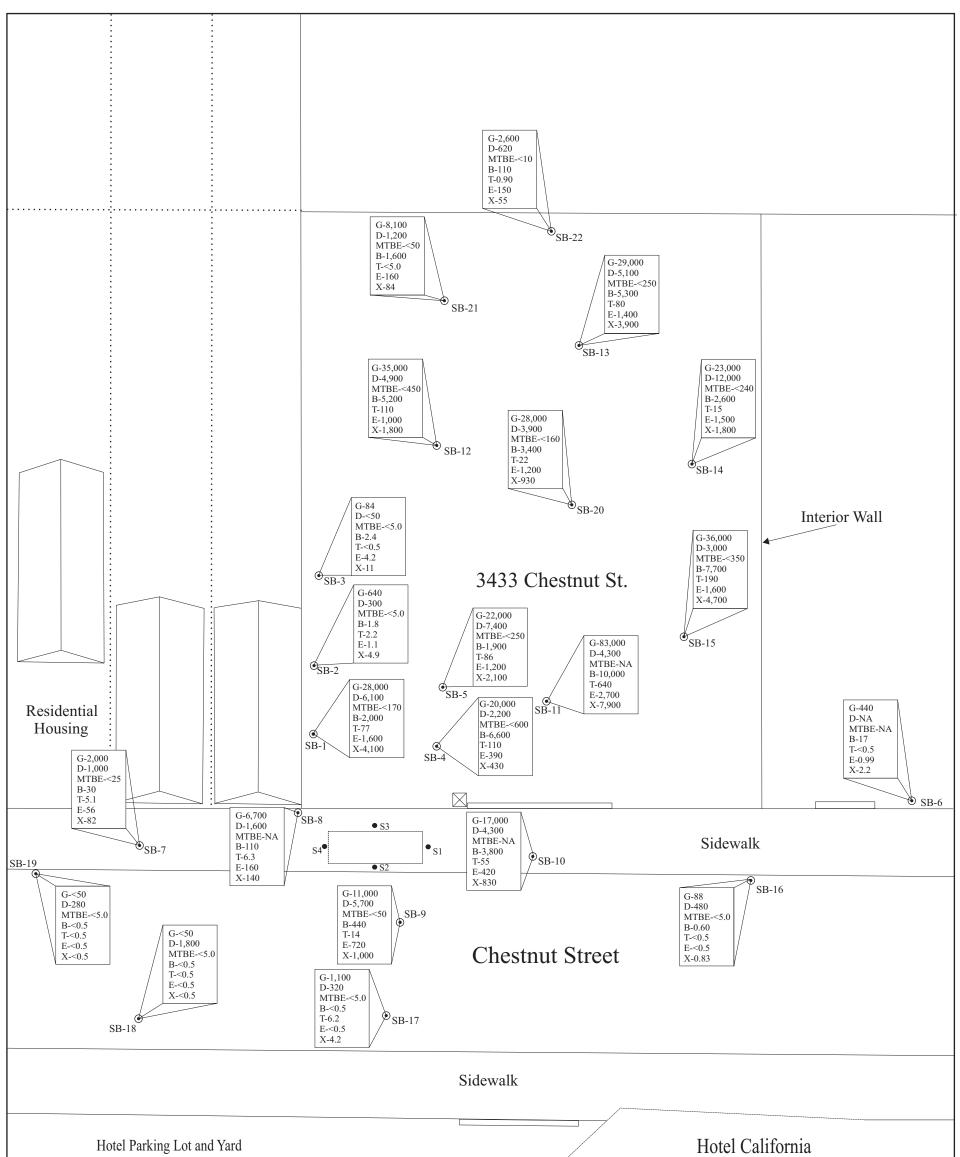
2500 Camino Diablo, Suite 200, Walnut Creek, CA 94597

# Site Property Line

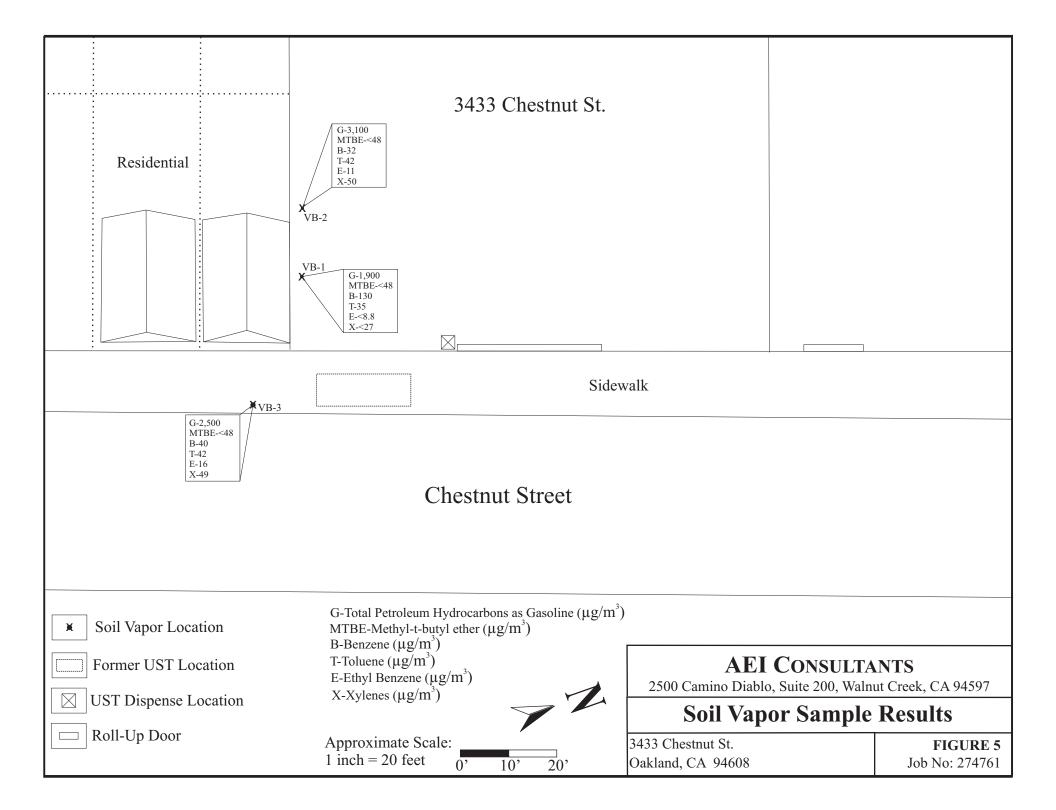
3433 Chestnut Street Oakland, CA 94608 **FIGURE 2** Job No: 274761

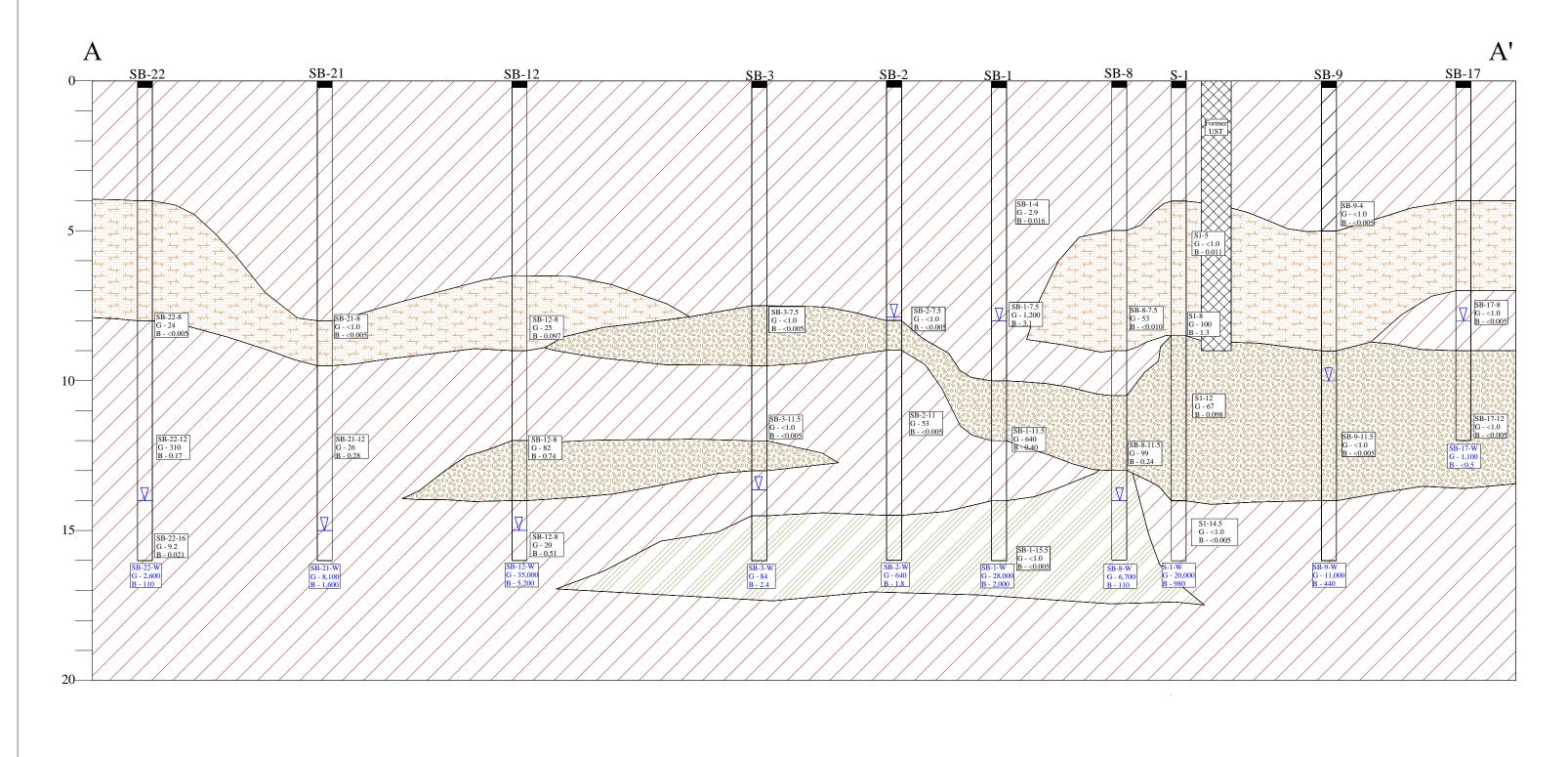
Image From Google



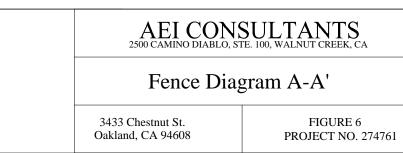


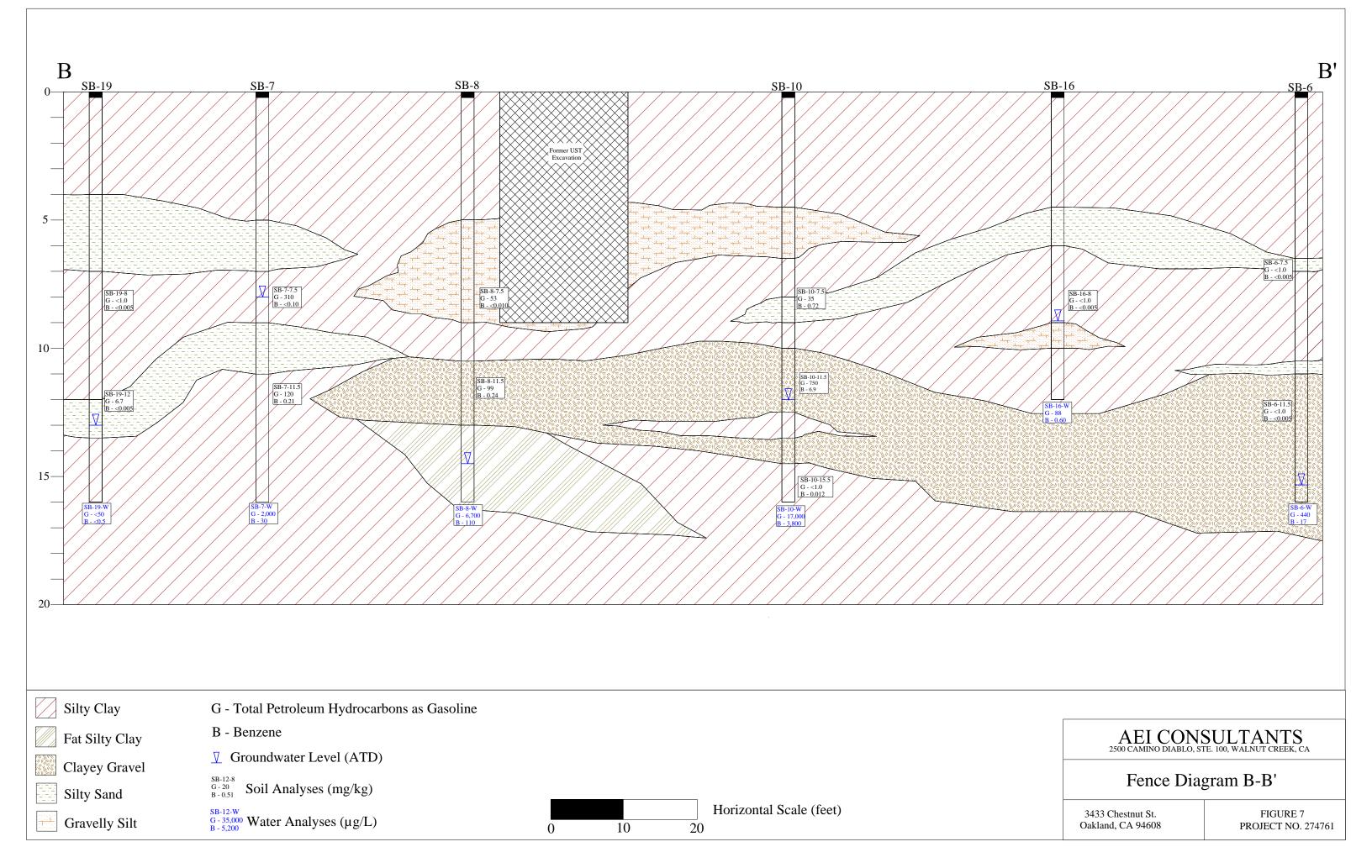
Hotel Parking Lot and Yard	Hotel Calif	ornia
$\sqrt[6]{0'}$ 10' 20' Scale: 1 inch = 20 feet		
Clearwater Soil Borings (06/23/06)     Fuel Dispenser     Former UST Location     Driveway Entrance	AEI CONSU 2500 Camino Diablo, Suite 200	
■ Soil Vapor (10/1/07 - 10/3/07)	Groundwater A	nalytical Data
<ul> <li>Soil Boring (10/1/07 - 10/3/07 12/20/07-12/21/07)</li> </ul>	3433 Chestnut St. Oakland, CA 94608	<b>FIGURE 4</b> Job No: 274761





Silty Clay	G - Total Petroleum Hydrocarbons as Gasoline	
	B - Benzene	
Fat Silty Clay	√ Groundwater Level (ATD)	
Clayey Sand	$\underset{B - 0.51}{\overset{SB-12-8}{B - 0.51}}$ Soil Analyses (mg/kg)	
Gravelly Clay	$\begin{array}{c c} SB-12-W \\ G-35,000 \\ B-5,200 \end{array}$ Water Analyses (µg/L) $0  10  20 \end{array}$ Horizontal Scale (feet)	





**TABLES** 

# Table 1: Soil Sample Analytical Data 3433 Chestnut St. Oakland, CA 94608 AEI Project #274761

Sample ID	Depth	Date	TPH-d Method 8015C	TPH-g	MTBE	Benzene Method 8021B	Toluene	E-Benzene	Xylenes	TAME	тва М	DIPE lethod 826	ETBE 0B	MTBE
	ft		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NW	6.5	2/22/2000	130	130		0.16	0.26	0.73	6.3					
sw	6.5	2/22/2000	850	920		0.3	0.37	5.3	22					
S-1	5	6/23/2006	5.6	<1.0		0.011	<0.0050	<0.0050	<0.0050					
	8		26	100		1.3	0.22	2.0	7.2					
	12		45	67		0.098	<0.025	0.73	0.39					
	14.5		1.2	<1.0		<0.0050	< 0.0050	<0.0050	0.01					
S-2	4	6/23/2006	4.7	<1.0		0.016	<0.0050	<0.0050	<0.0050					
	7.5		84	460		1.2	0.36	9.4	24					
	12		49	61		0.33	0.055	0.84	2.4					
	14		<1.0	<1.0		<0.0050	<0.0050	<0.0050	<0.0050					
S-3	3.5	6/23/2006	3.1	<1.0		<0.0050	<0.0050	<0.0050	<0.0050					
	7.5		250	1,200		0.47	0.52	18	100					
	10		76	220		0.26	<0.040	6.2	7.2					
	14.5		1.3	<1.0		<0.0050	<0.0050	0.0056	0.016					
S-4	3.5	6/23/2006	3.5	<1.0		<0.0050	<0.0050	<0.0050	<0.0050					
	7.5		240	820		<0.20	<0.20	6.7	4.4					
	11.5		120	500		0.079	<0.040	3.5	4.8					
	14.5		1.3	<1.0		<0.0050	<0.0050	<0.0050	<0.0050					
SB-1	4	10/1/2007		2.9	<0.05	0.016	0.0079	<0.005	0.0094					
	7.5		450	1,200	<5.0	3.1	2.5	24	110					
	11.5		90	640	<2.5	0.40	1.5	9.3	23	<0.33	<3.3	<0.33	<0.33	<0.33
	15.5			<1.0	<0.05	<0.005	<0.005	<0.005	<0.005					
SB-2	7.5	10/1/2007	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005					
	11		6.1	53	<0.05	<0.005	0.24	0.0084	0.19	<0.005	<0.05	<0.005	<0.005	<0.005
SB-3	7.5	10/1/2007	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005					
	11.5		<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005
SB-4	3.5	10/1/2007		1.2	<0.05	<0.005	<0.005	<0.005	<0.005					
	7.5		170	430	<1.0	1.2	0.99	3.6	1.2					
	11.5		25	340	<1.0	2.4	0.92	7.1	9.7	< 0.005	<0.05	<0.005	<0.005	<0.005
	15.5			<1.0	<0.05	<0.005	<0.005	<0.005	<0.005					
SB-5	3.5	10/1/2007		<1.0	<0.05	<0.005	<0.005	<0.005	<0.005					
	7.5		54	420	<1.5	4.0	1.1	9.5	18					
	11.5		22	130	<1.0	0.43	0.10	1.2	0.77	< 0.005	< 0.05	<0.005	<0.005	<0.005
	15.5			<1.0	< 0.05	0.017	< 0.005	< 0.005	<0.005					

# Table 1: Soil Sample Analytical Data3433 Chestnut St. Oakland, CA 94608AEI Project #274761

Sample ID	Depth	Date	TPH-d Method 8015C	TPH-g	MTBE	Benzene Method 8021B	Toluene	E-Benzene	Xylenes	TAME	ТВА	DIPE lethod 826	ETBE	MTBE
	ft		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
SB-6	7.5 11.5	10/1/2007	<1.0 <1.0	<1.0 <1.0	<0.05 <0.05	<0.005 <0.005	<0.005 <0.005	<0.005 <0.005	<0.005 <0.005	 <0.005	 <0.05	 <0.005	 <0.005	 <0.005
SB-7	7.5 11.5	10/3/2007	90 37	310 120	<1.0 <0.50	<0.10 0.21	0.48 0.069	0.28 0.39	0.38 0.22	 <0.020	 <0.20	 <0.020	 <0.020	 <0.020
SB-8	7.5 11.5	10/3/2007	23 13	53 99	<0.10 <0.17	<0.010 0.24	0.030 0.070	0.034 0.66	0.13 0.46	 <0.010	 <0.10	 <0.010	 <0.010	 <0.010
SB-9	4 11.5	10/3/2007	<1.0 <1.0	<1.0 <1.0	<0.05 <0.05	<0.005 <0.005	<0.005 <0.005	<0.005 <0.005	<0.005 <0.005	 <0.005	 <0.05	 <0.005	 <0.005	 <0.005
SB-10	7.5 11.5 15.5	10/3/2007	5.1 74 	35 750 <1.0	<0.10 <10 <0.05	0.72 6.9 0.012	0.024 1.6 <0.005	0.47 13 <0.005	0.079 33 0.0052	 <0.10 	 <1.0 	 <0.10 	 <0.10 	 <0.10 
SB-11	11.5 15.5	10/3/2007	13 10	39 41	<0.3 0.14	0.68 1.1	0.086 0.071	0.76 0.55	2.3 1.5					
SB-12	8 12 16	12/20/2007	1.8 23 	25 82 20	<0.10 <0.50 <0.25	0.097 0.74 0.51	0.024 0.14 0.083	0.81 1.5 0.48	1.3 2.9 1.8	 	 	 	 	 
SB-13	8 12 16	12/20/2007	66 74 <50	180 170 5.7	<0.50 <0.50 <0.05	0.46 1.1 0.87	0.10 0.21 0.017	2.5 2.4 0.12	2.7 6.7 0.10	 	 			 
SB-14	8 12 16	12/20/2007	<1.0 83 	<1.0 910 <1.0	<0.05 <2.5 <0.05	0.0092 3.3 <0.005	<0.005 0.43 <0.005	<0.005 10 <0.005	<0.005 16 <0.005					
SB-15	8 12 16	12/20/2007	<1.0 61 	<1.0 390 40	<0.05 <2.5 <0.1	<0.005 2.7 0.26	<0.005 0.47 0.047	<0.005 6.7 0.37	<0.005 13 1.3		 			 
SB-16	8	12/20/2007	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005					
SB-17	8 12	12/20/2007	<1.0 <1.0	<1.0 <1.0	<0.05 <0.05	<0.005 <0.005	<0.005 <0.005	<0.005 <0.005	<0.005 <0.005					
SB-18	8	12/20/2007	18	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005					
SB-19	8 12	12/20/2007	<1.0 <1.0	<1.0 6.7	<0.05 <0.05	<0.005 <0.005	<0.005 <0.005	<0.005 <0.005	<0.005 <0.005					

# Table 1: Soil Sample Analytical Data 3433 Chestnut St. Oakland, CA 94608 AEI Project #274761

Sample ID	Depth	Date	TPH-d	TPH-g	MTBE	Benzene	Toluene	E-Benzene	Xylenes	TAME	TBA	DIPE	ETBE	MTBE
			Method 8015C			Method 8021B					M	ethod 8260	ЭB	
	ft		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
SB-20	8	12/20/2007	9.7	89	<0.25	0.070	0.14	0.050	0.14					
	12		32	99	<0.17	0.61	0.061	1.6	1.4					
	16			<1.0	<0.05	<0.005	<0.005	<0.005	<0.005					
SB-21	8	12/21/2007	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005					
	12		5.8	26	<0.05	0.28	0.048	0.31	0.30					
SB-22	8	12/21/2007	<1.0	24	<0.05	<0.005	0.070	0.016	0.059					
	12		150	310	<1.7	0.17	<0.17	4.1	3.2					
	16			9.2	<0.05	0.021	0.032	0.0052	0.0083					
ESL			83	83	0.023	0.044	2.9	3.3	2.3					

Notes:

mg/kg = milligrams per kilogram

ESL = Environmental Screening Level

NW = Soil Sample Collected from northwest sidewall during excavation

SW = Soil Sample Collected from southwest sidewall during excavation

TPH-g = total petroleum hydrocarbons as gasoline

TPH-d = total petroleum hydrocarbons as diesel

#### E-Benzene = ethyl benzene TAME = tert-amyl methyl ether ETBE = ethyl tert-butyl ether TBA = tertiary butyl alcohol DIPE = Di-isopropyl Ether MTBE = methyl tert-butyl ether

#### Table 2: Groundwater Sample Analytical Data 3433 Chestnut St. Oakland, CA 94608 AEI Project #274761

Sample ID	Date	TPH-d Method 8015C	TPH-g	MTBE	Benzene Method 8021B	Toluene	E-Benzene	Xylenes	TAME	ETBE	TBA Method 8260E	DIPE	MTBE
		μg/L	μg/L	μg/L	µg/L	µg/L	μg/L	μg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Pit Water	2/22/2000	34,000	7,400		3,300	930	400	6,200					
S-1	6/23/06	<10,000	20,000		980	70	1,500	1,100					
S-2	6/23/06	<4,000	31,000		7,000	260	920	2,800					
S-3	6/23/06	<1,500	23,000		490	67	1,200	3,300					
S-4	6/23/06	<40,000	120,000		200	<15	3,500	2,900					
SB-1	10/1/2007	6,100	28,000	<170	2,000	77	1,600	4,100	<25	<25	<250	<25	<25
SB-2	10/1/2007	300	640	<5.0	1.8	2.2	1.1	4.9	<0.5	<0.5.	<5.0	<0.5	<0.5
SB-3	10/1/2007	<50	84	<5.0	2.4	<0.5	4.2	11	<0.5	<0.5.	<5.0	<0.5	<0.5
SB-4	10/1/2007	2,200	20,000	<600	6,600	110	390	430	<17	<17	430	<17	<17
SB-5	10/1/2007	7,400	22,000	<250	1,900	86	1,200	2,100	<5.0	<5.0	120	<5.0	<5.0
SB-6	10/1/2007		440		17	<0.5	0.99	2.2	<0.5	<0.5	18	<0.5	2.0
SB-7	10/3/2007	1,000	2,000	<25	30	5.1	56	82	<0.5	<0.5.	<5.0	<0.5	6.1
SB-8	10/3/2007	1,600	6,700		110	6.3	160	140	<0.5	<0.5	12	<0.5	<0.5
SB-9	10/3/2007	5,700	11,000	<50	440	14	720	1,000	<1.7	<1.7	37	<1.7	<1.7
SB-10	10/3/2007	1,700	17,000	<100	3,800	55	420	830	<10	<10	510	11	<10
SB-11	10/3/2007	4,300	83,000		10,000	640	2,700	7,900	<25	<25	840	<25	<25
SB-12	12/20/2007	4,900	35,000	<450	5,200	110	1,000	1,800					
SB-13	12/20/2007	5,100	29,000	<250	5,300	80	1,400	3,900					
SB-14	12/20/2007	12,000	23,000	<240	2,600	15	1,500	1,800					
SB-15	12/20/2007	3,000	36,000	<350	7,700	190	1,600	4,700					
SB-16	12/20/2007	480	88	<5.0	0.60	<0.5	<0.5	0.83					

# Table 2: Groundwater Sample Analytical Data3433 Chestnut St. Oakland, CA 94608

### AEI Project #274761

Sample ID	Date	TPH-d Method 8015C	TPH-g	MTBE	Benzene Method 8021B	Toluene	E-Benzene	Xylenes	TAME	ETBE	TBA Method 8260E	DIPE	MTBE
		µg/L	μg/L	μg/L	μg/L	µg/L	µg/L	μg/L	μg/L	µg/L	µg/L	µg/L	µg/L
SB-17	12/20/2007	320	1,100	<5.0	<0.5	6.2	<0.5	4.2					
SB-18	12/20/2007	1,800	<50	<5.0	<0.5	<0.5	<0.5	<0.5					
SB-19	12/20/2007	280	<50	<5.0	<0.5	<0.5	<0.5	<0.5					
SB-20	12/20/2007	3,900	28,000	<160	3,400	22	1,200	930					
SB-21	12/21/2007	1,200	8,100	<50	1,600	<5.0	160	84					
SB-22	12/21/2007	620	2,600	<10	110	0.90	150	55					
ESL		100	100	5.0	1.0	40	30	20			50,000		

#### Notes:

 $\mu g/L = micrograms$  per liter

ESL = Environmental Screening Level

TPH-g = total petroleum hydrocarbons as gasoline

TPH-d = total petroleum hydrocarbons as diesel

MTBE = methyl tert-butyl ether

E-Benzene = ethyl benzene

TAME = tert-amyl methyl ether ETBE = ethyl tert-butyl ether

TBA = tertiary butyl alcohol

DIPE = Di-isopropyl Ether

#### Table 3: Soil Vapor Sample Analytical Data 3433 Chestnut St. Oakland, CA 94608 AEI Project #274761 Boring Date Isopropyl TPH-g MTBE Benzene Toluene Ethyl **Xylenes** Alcohol Benzene Method TO15 µg/m³ µg/m³ <u>µg</u>/m<sup>3</sup> µg/m³ µg/m<sup>3</sup> µg/m<sup>3</sup> µg/m<sup>3</sup> VB-1 10/1/2007 <25 1,900 <48 130 35 <8.8 <27 VB-2 10/1/2007 <25 3,100 32 42 11 <48 50 VB-3 10/1/2007 <25 2,500 <48 40 42 16 49 ESL 26,000 9,400 85 63,000 420,000 150,000 ---

 $\mu g/m^3 \,{=}\, micrograms \; per \; cubic \; meter$ 

ESL = Environmental Screening Level

TPH-g = total petroleum hydrocarbons as gasoline

 $MTBE = methyl \; tert-butyl \; ether$ 

# **APPENDIX A**

# **BORING LOGS**

# Log of Boring SB-1

Date(s) Drilled October 1, 2007	Logged By Harmony TomSun	Checked By Peter McIntyre
Drilling	Drill Bit	Total Depth
Method Direct Push	Size/Type	of Borehole <b>16 feet bgs</b>
Drill Rig	Drilling	Approximate
Type Track Mounted GeoProbe	Contractor <b>Precision</b>	Surface Elevation
Groundwater Level	Sampling	Well
and Date Measured 8 feet ATD	Method(s) <b>Tube</b>	Permit.
Borehole Backfill Cement Slurry	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log		PID Reading, ppm	
Ē	ٽ 0	ő	ůž		Ū	MATERIAL DESCRIPTION	료업	REMARKS AND OTHER TEST
				Other		Concrety/Top Soil - Gravelly Sand		
-	-	-		CL		Silty Clay, Black, Poorly Graded, Low Plasticity, Roots, 5% Fine Grained Gravel, Stiff -	-	
_	-		SB-1-4				5.4	
	5	A	00-1-4	CL		Stiff Clay, Greenish Gray/Yellowish Brown, Low Plasticity, Poorly Graded	5.4	
	-		SB-1-7.5			(ATD) \	35.7	
_	10—		SB-1-11.5	GC		Gravelly Silty Clay, Coarse, Multi-Colored (green, gray, orange, yellowish-brown), Stiff, Low Plasticity	350.1	
_	-			CL		Silty Sandy Clay, Olive Greenish Gray, Soft, Moist	_	
-	- 15	-		СН		Fat Clay, Light Yellowish Brown with Orange Veins, Poorly Graded, High Plasticity		
_	_	$\boxtimes$	SB-1-15.5				12.5	
-	- - 20					Bottom of Boring at 16 feet bgs         -           -         -           -         -           -         -		
	-			1	ıl		1	Figure

# Log of Boring SB-2

Date(s) Drilled October 1, 2007	Logged By Harmony TomSun	Checked By Peter McIntyre
Drilling	Drill Bit	Total Depth
Method Direct Push	Size/Type	of Borehole 16 feet bgs
Drill Rig	Drilling	Approximate
Type Track Mounted GeoProbe	Contractor Precision	Surface Elevation
Groundwater Level	Sampling	Well
and Date Measured 8 feet ATD	Method(s) <b>Tube</b>	Permit.
Borehole Backfill Cement Slurry	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log		PID Reading, ppm	
ш Г	۵ —0	ű	ΰŻ	⊃ Other	9	MATERIAL DESCRIPTION           Top Soil/Fill Material	급접	REMARKS AND OTHER TESTS
_	_						-	
_	_			CL		Silty Clay, Black, Low Plasticity, Poorly Graded, Roots, 5% Fine Grained Gravel	-	
-	_	$\times$	SB-2-3.5				5.5	
_	5			CL		Gravelly Silty Clay, Dark Gray, Low Plasticity, Poorly Graded, 10% Fine Grained Gravel	_	
_	_			CL		Silty Clay, Greenish Gray, Moderate Plasticity, 5% Fine Grained Gravel		
	_	$\boxtimes$	SB-2-7.5	GC		(ATD)	7.5	
	_					(ATD) Gravelly Sandy Clay, Multi-Colored (green, blue, orange, brown), Soft, Fine Grained Gravel		-
_	10—			CL		Lean Silty Clay, Lean, Light Yellowish Brown and Greenish Gray, Moderate Plasticity	_	
	-	$\times$	SB-2-11			-	235.4	
_	-			CL		Silty Clay, Light Yellowish Brown, 10% Fine Grained Gravel	_	
_	15			СН		Fat Clay, Light Yellowish Brown with Orange Veins, High Plasticity, Moist	-	
_	_	$\boxtimes$	SB-2-15.5				14.8	-
_	-					Bottom of Boring at 16 feet bgs	-	
-	20—						-	
	-	I						Figure

# Log of Boring SB-3

Date(s) Drilled October 1, 2007	Logged By Harmony TomSun	Checked By Peter McIntyre
Drilling Method Direct Push	Drill Bit Size/Type	Total Depth of Borehole 16 feet bgs
Drill Rig Type Track Mounted GeoProbe	Drilling Contractor <b>Precision</b>	Approximate Surface Elevation
Groundwater Level and Date Measured 14 feet ATD	Sampling Method(s) <b>Tube</b>	Well Permit.
Borehole Backfill Cement Slurry	Location	

Elevalion, leel Denth feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
_ <b>0</b> _		072	Other	0	Top Soil/Fill Material		
-	-		CL		Silty Clay, Black, Stiff, Low Plasticity, Poorly Graded, Fine Grained Gravel		
-	_						
_	_						
_		SB-3-3.5				11.1	
- 5-	╞		CL		Sandy Clay, Coarse Grained, Hard, Dark Reddish/Yellowish Brown, Tight, Dry		
-	-						
-	-	00 0 7 5	GC				
		SB-3-7.5	90		Gravelly Sandy Clay, Soft, Multicolored (yellow, orange, green, brown), Coarse Grained Sand, 15% Gravel	8.1	
- 10-	+		CL		Silty Clay, Stiff, Dry, Shells, Dark Brown/Black		
_							
-		SB-3-11.5	GC		Gravelly Sandy Clay, Soft, Dark Yellowish Brown, Coarse Grained Sand, 15% Gravel	5.8	
-			CL		Sandy Clay, Coarse Grained Sand, Poorly Graded, Wet, High Plasticity		
-	_		СН		- (ATD) ≚		
- 15-	-		Сп		Fat Clay, High Water Content, High Plasticity, Reddish/Yellowish Brown		
-	$\vdash$	SB-3-15.5			Bottom of Boring at 16 feet bgs	13.4	
-	-						
-	-						
-	-						
- 20-	-						
							Figure

# Log of Boring SB-4

Date(s) Drilled October 1, 2007	Logged By Harmony TomSun	Checked By Peter McIntyre
Drilling	Drill Bit	Total Depth
Method Direct Push	Size/Type	of Borehole 16 feet bgs
Drill Rig	Drilling	Approximate
Type Track Mounted GeoProbe	Contractor <b>Precision</b>	Surface Elevation
Groundwater Level	Sampling	Well
and Date Measured	Method(s) <b>Tube</b>	Permit.
Borehole Backfill Cement Slurry	Location	

Elevation, feet	Deplin, reet Sample Type	Sample Number	USCS Symbol	Graphic Log		PID Reading, ppm	
≝ 2° ⊤0-		Nu	Other	Ğ		IId IId	REMARKS AND OTHER TESTS
					Fill Material/Top Soil		
	_		CL		Silty Clay, Black, Stiff, Low Plasticity, Poorly Graded, 5% Fine Grained Gravel	_	
_	×	SB-4-3.5				12.9	
- 5- 	-		ML		Silty Clay, Very Fine Grained, Stiff, Greenish Gray/Yellowish Brown, Low Plasticity, 5% Fine Grained Gravel	-	
_		SB-4-7.5	GC			225	
- 10-	_		GC		Gravelly Sandy Clay, Coarse Grained, Multicolored (green, gray, yellow, brown), Soft -	-	
			CL		Silty Clay, Stiff, Dry, Greenish Gray, Low Plasticity		
-		SB-4-11.5	GC		Gravelly Sandy Clay, Greenish Grayish Brown, Soft, Moist, High Plasticity, Coarse Grained Sand, 10% Fine Grained Gravel	411	
- 15-	_		СН		Fat Clay, Light Yellowish Brown with Orange Veins, High Plasticity, High Water Content		
		SB-4-15.5				9.1	
-	-				Bottom of Boring at 16 feet bgs	-	
- 20-							
							Figure

# Log of Boring SB-5

Date(s) Drilled October 1, 2007	Logged By Harmony TomSun	Checked By Peter McIntyre
Drilling	Drill Bit	Total Depth
Method Direct Push	Size/Type	of Borehole 16 feet bgs
Drill Rig	Drilling	Approximate
Type Track Mounted GeoProbe	Contractor <b>Precision</b>	Surface Elevation
Groundwater Level	Sampling	Well
and Date Measured 11 feet ATD	Method(s) <b>Tube</b>	Permit.
Borehole Backfill Cement Slurry	Location	

Elevation, feet	Depth, feet	Sample Type Sample Number	USCS Symbol	Graphic Log		PID Reading, ppm	
	0 0 0	San Nun		Gra	MATERIAL DESCRIPTION	DI9 DI9	REMARKS AND OTHER TES
			Other		Top Soil/Fill Material		
-	-		CL		Silty Clay, Black, Stiff, Low Plasticity, Poorly Graded, Roots, 5% Fine Grained Gravel		
-	-	SB-5-3.5				12.1	
- t	5		ML	-	Silty Clay, Light Yellowish Brown and Bluish Gray, Stiff, Dry, Shells, Low Plasticity		
		SB-5-7.5	GC		Gravelly Sandy Clay, Dark Olive Green, Soft, Coarse Sand, Fine Grained	339	
- 10 - 10	- 0 - - -	SB-5-11.5			Gravel	167	
- 15	5		CL		Silty Clay, Lean, Light Olive Greenish Gray with Orange Veins, Moderate Plasticity		
		SB-5-15.5			Bottom of Boring at 16 feet bgs	20.5	
- 20	0						Figure

# Log of Boring SB-6

Date(s) Drilled October 1, 2007	Logged By Harmony TomSun	Checked By Peter McIntyre
Drilling	Drill Bit	Total Depth
Method Direct Push	Size/Type	of Borehole 16 feet bgs
Drill Rig	Drilling	Approximate
Type Track Mounted GeoProbe	Contractor <b>Precision</b>	Surface Elevation
Groundwater Level	Sampling	Well
and Date Measured	Method(s) <b>Tube</b>	Permit.
Borehole Backfill Cement Slurry	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
٦	0			Other		Top Soil/Fill Material		
_	-			CL		Silty Clay, Black, Stiff, Dry, <5% Fine Grained Gravel		-
_	-	_				-	_	
_	-	$\square$	SB-6-3.5	CL			7.8	-
_	5—	_				Gravelly Silty Clay, Light Yellowish Brown and Grayish Blue, Tight, 5% Fine Grained Gravel -	-	
_	-			SW		Coarse Sand, Light Yellow Reddish Brown, Well Graded, Wet, Very Fine		-
-	-	X	SB-6-7.5	CL		Silty Clay, Light Yellowish Brown, Tight, Lean, Increasing Plasticity with Depth	13.2	
_	10—	_		ML			_	-
_	-	X	SB-6-11.5	GC		Gravelly Silty Clay, Dark Brown, Moderate Plasticity, 15% Fine Grained Gravel	19.1	
-	-			GC		Gravelly Silty Clay, Light Olive Green, Tight, Slight Plasticity, 10% Fine Grained Gravel		
_	15	×	SB-6-15				11.3	
-		-				Bottom of Boring at 16 feet bgs	_	
	-							Figure

# Log of Boring SB-7

Date(s) Drilled October 3, 2007	Logged By Harmony TomSun	Checked By Peter McIntyre
Drilling Method Direct Push	Drill Bit Size/Type	Total Depth of Borehole <b>16 feet bgs</b>
Drill Rig Type Track Mounted GeoProbe	Drilling Contractor <b>Precision</b>	Approximate Surface Elevation
Groundwater Level and Date Measured 8 feet ATD	Sampling Method(s) <b>Tube</b>	Well Permit.
Borehole Backfill Cement Slurry	Location	

Lievanuri, reer Deoth. feet	Sample Type	nple ber	USCS Symbol	Graphic Log		PID Reading, ppm	
	Sam	Sample Number	nsc	Grag	MATERIAL DESCRIPTION	DIP	REMARKS AND OTHER TES
<b>0</b> -			Asphalt		Concrete		
	-		SP CL		Coarse Sand, Dark Yellowish Brown, Loose, Wet		
			ÖL		Silty Clay, Black, Moderate Plasticity Decreasing with Depth, Gravel Quantity Increasing with Depth		
	×	SB-7-3.5				57	
- 5-			SM		Sandy Silt, Dark Gray, Dry, <5% Fine Grained Gravel		
_	×	SB-7-7.5	CL		Silty Clay, Lean, Dark Greenish Gray, Moist, Moderate Plasticity - (ATD) 목-	92	
- 10-			SM		Sandy Silt, Olive Green, Strong Hydrocarbon Odor, 5% Fine to Medium Grained Gravel		
	×	SB-7-11.5	CL		Silty Clay, Greenish Gray, Tight, Lean, Moderate Plasticity	390	
			CL		Sandy Clay, High Water Content, Greenish Gray, High Plasticity, Coarse Grained Sand		
		SB-7-15.5				52	
					Bottom of Boring at 16 feet bgs		
- 20-							
							Figure

# Log of Boring SB-8

Date(s) Drilled October 3, 2007	Logged By Harmony TomSun	Checked By Peter McIntyre
Drilling	Drill Bit	Total Depth
Method Direct Push	Size/Type	of Borehole <b>16 feet bgs</b>
Drill Rig	Drilling	Approximate
Type Track Mounted GeoProbe	Contractor <b>Precision</b>	Surface Elevation
Groundwater Level	Sampling	Well
and Date Measured 14 feet ATD	Method(s) <b>Tube</b>	Permit.
Borehole Backfill Cement Slurry	Location	

Depth. feet	Sample Type	nple nber	USCS Symbol	Graphic Log		PID Reading, ppm	
	San	Sample Number	nsc	Gra	MATERIAL DESCRIPTION	DID	REMARKS AND OTHER TES
- 0- - ·	_		Asphalt CL		Concrete Silty Clay, Black, Low Plasticity, Increasing Gravel Content with Depth, Roots, <5% Fine Grained Gravel		
		SB-8-3.5				5.2	
- <b>5</b> -	_		GM	(0,0,0,0,0,0)	Gravelly Silt, Dark Gray/Black, 20% Fine Grained Gravel		
	X	SB-8-7.5		0		44.1	
- 10-			CL		Silty Clay, Green Bluish Gray, Stiff, Low Plasticity		
_		SB-8-11.5	GC		Gravelly Silt, Dark Greenish Gray, 10% Coarse Grained Gravel, Strong Hydrocarbon Odor, Moist	369	
			СН		Silty Clay, Dark Greenish Gray, Fat Clay, High Plasticity Decreasing with Depth(ATD) ऱ		
- 15-		SB-8-15.5			Bottom of Boring at 16 feet bgs	1.2	
_	-						
_ 20_							
							Figure

# Log of Boring SB-9

Date(s) Drilled October 3, 2007	Logged By Harmony TomSun	Checked By Peter McIntyre
Drilling	Drill Bit	Total Depth
Method Direct Push	Size/Type	of Borehole <b>16 feet bgs</b>
Drill Rig	Drilling	Approximate
Type Track Mounted GeoProbe	Contractor <b>Precision</b>	Surface Elevation
Groundwater Level	Sampling	Well
and Date Measured <b>10.5 feet ATD</b>	Method(s) <b>Tube</b>	Permit.
Borehole Backfill Cement Slurry	Location	

Elevation, teet	Depth, feet	Sample Type	ple ber	USCS Symbol	Graphic Log		PID Reading, ppm	
Elev		Sam	Sample Number	nsc	Grap	MATERIAL DESCRIPTION	DID	REMARKS AND OTHER TE
	0			Asphalt CL		Asphalt		
_	_			CL		Silty Sandy Clay, Light Olive Brown with Orange Veins, Stiff, Moist		
_	-	$\times$	SB-9-4				439	
_	<b>5</b> — -			GM	$2^{\circ}0^{\circ}0^{\circ}0^{\circ}0^{\circ}0^{\circ}0^{\circ}0^{\circ}0$	Gravelly Silty Sand, Dark Greenish Gray, Increasing Silt with Depth, Low Plasticity, Moist		
_	-	$\times$	SB-9-7.5		<i>0</i> 0 0 0 0 0 0 0 0 0 0 0 0 0		104	
_	10—	$\times$	SB-9-9	GC		Gravelly Silty Clay, Olive, Stiff, Low Plasticity	353	
_	_	$\times$	SB-9-11.5	GC		Gravelly Silty Clay, Dark Greenish Gray, Moderate Plasticity, Moist	373	-
_	_			GC		Gravelly Silty Clay, Very Dark Greenish Gray, Soft, Moist, 10% Fine Grained Gravel		
_	- 15			CL		Silty Clay, Light Olive Green with Orange Veins, High Water Content, Moderate Plasticity		-
_	-	$\times$	SB-9-15.5			Bottom of Boring at 16 feet bgs	<1	
_	- 20							
								Figure

# Log of Boring SB-10

Date(s) Drilled October 3, 2007	Logged By Harmony TomSun	Checked By Peter McIntyre
Drilling Method Direct Push	Drill Bit Size/Type	Total Depth of Borehole <b>16 feet bgs</b>
Drill Rig Type Track Mounted GeoProbe	Drilling Contractor Precision	Approximate Surface Elevation
Groundwater Level and Date Measured 12 feet ATD	Sampling Method(s) <b>Tube</b>	Well Permit.
Borehole Backfill Cement Slurry	Location	

Elevation, feet Denth feet	Sample Type	Sample Number	USCS Symbol	Graphic Log		PID Reading, ppm	
ш С ¬ <b>О</b> -	S I	νZ	⊃ Asphalt		MATERIAL DESCRIPTION	٩đ	REMARKS AND OTHER TEST
_	-		CL		Concrete Silty Clay, Black, Low Plasticity, Increasing Gravel Content with Depth, Roots, <5% Fine Grained Gravel	-	
_		SB-10-3.5				23	
- 5-	-		GM	0~0~0~0° 0~0~0° 0~0~0°	Gravelly Sandy Silt, Dark Greenish Gray, Coarse Grained Gravel	-	
_			CL		Silty Clay, Olive Green, Stiff, Low Plasticity		
	$\times$	SB-10-7.5				81	
			SW		Sandy Clay, Dark Reddish Brown, Well Graded, Very Coarse Sand, Moist		
-			CL		Silty Clay, Dark Greenish Gray, Tight, Poorly Graded		
- 10-			GC		Silty Clayey Gravel, Dark Greenish Gray, Stiff, Well Graded, Moist		
_	X	SB-10-11.5				424	
_			CL		Silty Clay, Dark Greenish Gray, Moderate Plasticity, Poorly Graded, Stiff, Moist	-	
_			GC		Silty Gravelly Clay, Dark Greenish Gray, Well Graded, Stiff		
- 15-	_		CL		Silty Clay, Dark Green/Bluish Gray, Soft, Poorly Graded, Wet		
	X	SB-10-15.5				35	
					Bottom of Boring at 16 feet bgs		
_				-		-	
_	-			-			
_	-					-	
- 20-	-					-	
							Figure

# Log of Boring SB-11

Date(s) Drilled October 3, 2007	Logged By Harmony TomSun	Checked By Peter McIntyre
Drilling	Drill Bit	Total Depth
Method Direct Push	Size/Type	of Borehole <b>16 feet bgs</b>
Drill Rig	Drilling	Approximate
Type Track Mounted GeoProbe	Contractor <b>Precision</b>	Surface Elevation
Groundwater Level	Sampling	Well
and Date Measured 16 feet ATD	Method(s) <b>Tube</b>	Permit.
Borehole Backfill Cement Slurry	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TEST
ш	0—	S	<i></i> ∞∠	Asphalt			<u>п</u> а	REMARKS AND OTHER TEST
	_							
_	_	_		CL		Silty Clay, Black, Low Plasticity, Increasing Gravel Content with Depth, <5% Fine Grained Gravel	-	
-	-		SB-11-3.5				2.5	
1	-							
_	5			GM	0~0~0~0 0~0~00 0~0~00	Gravelly Sandy Silt, Dark Greenish Gray, 10% Coarse Grained Gravel, Soft	_	
-	-		00 44 7 5		00~00°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°			
_	-		SB-11-7.5	CL		Silty Clay, Light Yellowish Brown, Tight, Gravel Content Increasing with Depth, Strong Hydrocarbon Odor	4.1	
_	10—	-					-	
			SB-11-11.5				24.2	
-	-			GC		Gravelly Sand, Light Yellowish Brown, Soft, Moist		
				СН		Gravelly Clay, High Plasticity, <5% Fine Grained Gravel, Moist		
	15	-		СН		Silty Clay, Greenish Gray with Orange Veins, Medium Plasticity, High Water Content		
	_	$\boxtimes$	SB-11-15.5			(ATD) ⊻	367	
-	-	-				Bottom of Boring at 16 feet bgs	-	
	-						-	
-	20—						-	
	-			I	1		1	Figure

### Log of Boring SB-12

Date(s) Drilled December 20, 2007	Logged By Harmony TomSun	Checked By Peter McIntyre
Drilling	Drill Bit	Total Depth
Method Direct Push	Size/Type	of Borehole <b>16 feet bgs</b>
Drill Rig	Drilling	Approximate
Type Track Mounted GeoProbe	Contractor <b>Precision</b>	Surface Elevation
Groundwater Level	Sampling	Well
and Date Measured 15 feet ATD	Method(s) <b>Tube</b>	Permit.
Borehole Backfill Cement Slurry	Location	

Lievaliuli, leel Danth faat	Sample Type	Sample Number	CS Symbol	Graphic Log		PID Reading, ppm	
10 T	San	San Nur	nscs	Gra	MATERIAL DESCRIPTION	DId	REMARKS AND OTHER TES
	_		Asphalt CL		Concrete Silty Clay, Black, Low Plasticity, <5% Fine Grained Gravel		
-	-					-	
- 5-		SB-12-4	CL		Silty Clay, Light Grayish Green, Slightly Mottled Orange, Very Fine Grained, Slight Plasticity	16.4	
-		SB-12-8	GM	7 <u>0~0~0~0~0</u> 0~0~0~0~0 0~0~0~0~0~0~0~0~0~0	Gravelly Silty Sand, Dark Greenish Gray, Soft, Loose, 10% Fine Grained Gravel, 50% Medium Grained Sand	1079	
- 10-	-		CL		Gravelly Silty Clay, Light Yellowish Brown, Mottled Orange/Light Yellow, Tight/Stiff, 5% Fine Grained Gravel Content Increasing with Depth 	-	
_		SB-12-12	GC		Gravelly Sand, Light Yellowish Brown, Fine Grained Sand, 5% Fine to Medium Grained Gravel, Moist	849	
- 15-	-		CL		Silty Clay, Light Yellowish Brown, Mottled Orange, Tight, <5% Fine Grained Gravel, Moist — (ATD) ≚—		
-		SB-12-16			Bottom of Boring at 16 feet bgs	8.3	
- 20-							
							Figure

### Log of Boring SB-13

Date(s) Drilled December 20, 2007	Logged By Harmony TomSun	Checked By Peter McIntyre
Drilling	Drill Bit	Total Depth
Method Direct Push	Size/Type	of Borehole <b>16 feet bgs</b>
Drill Rig	Drilling	Approximate
Type Track Mounted GeoProbe	Contractor <b>Precision</b>	Surface Elevation
Groundwater Level	Sampling	Well
and Date Measured 15 feet ATD	Method(s) <b>Tube</b>	Permit.
Borehole Backfill Cement Slurry	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log		PID Reading, ppm	
≞ 	0 0	Sa	Sa			MATERIAL DESCRIPTION	E d	REMARKS AND OTHER TEST
_	_			Asphalt CL		Concrete Silty Clay, Black, Stiff, Dry, Slight Orange Mottling	-	
_	_						-	
_	5	$\times$	SB-13-4	SM		Sandy Silt, Light Grayish Green, Stiff, Low Plasticity, Very Fine Grained, Poorly Graded	-	
-	-	X	SB-13-8	GM	7 <u>6~0~0~0</u> • 0~0°0 • 0~0°0 • 0~0~0	Gravelly Silty Sand, Dark Greenish Gray, Soft, Loose, 10% Fine to Medium Grained Gravel	592	
_ 1 1				CL		Gravelly Silty Clay, Light Yellowish Brown, Mottled Orange/Light Yellow, Low Plasticity, 5% Fine Grained Gravel	-	
-	-	X	SB-13-12	GC		Gravelly Sandy Clay, Dark Greenish Black, Slight Plasticity, Well Graded, Moist	852	
-	- 15			CL		Lean Silty Clay, Light Yellowish Brown, Mottled Grayish Green, Tight, Slight Plasticity, <5% Fine Grained Gravel, Moist (ATD) ⊻		
						((1)) =		
-	_	$\times$	SB-13-16			Bottom of Boring at 16 feet bgs	486	
- 2	20							
								Figure

### Log of Boring SB-14

Date(s) Drilled December 20, 2007	Logged By Harmony TomSun	Checked By Peter McIntyre
Drilling	Drill Bit	Total Depth
Method Direct Push	Size/Type	of Borehole <b>16 feet bgs</b>
Drill Rig	Drilling	Approximate
Type Track Mounted GeoProbe	Contractor <b>Precision</b>	Surface Elevation
Groundwater Level	Sampling	Well
and Date Measured 15 feet ATD	Method(s) <b>Tube</b>	Permit.
Borehole Backfill Cement Slurry	Location	

Elevation, teet Denth feet	Sample Type	Sample Number	USCS Symbol	Graphic Log		PID Reading, ppm	
≝ č ¬ 0-	လိ				MATERIAL DESCRIPTION	I d d	REMARKS AND OTHER TES
-	-		Asphalt CL		Concrete Silty Clay, Black, Low Plasticity, Slight Orange Mottling, Roots		
_ _ _ 5_		SB-14-4	SM		Gravelly Silty Clay, Light Grayish Green, Stiff, Low Plasticity, Very Fine Grained, Poorly Graded	3.0	
-		SB-14-8	GM	<u>) ~ 0 ~ 0 ~ 0 ~ 0 ~ 0 ~ 0 ~ 0 ~ 0 ~ 0 ~ </u>	Gravelly Silt, Light Greenish Gray, Mottled Orange, Soft, Loose, 5% Fine Grained Gravel	1.9	
- - 10-	-		CL		Gravelly Silty Clay, Light Olive Brown, Mottled Light Grayish Green, Low Plasticity, 10% Fine Grained Gravel Increasing with Depth, Strong Hydrocarbon Odor		
-		SB-14-12	GC		Gravelly Sand, Light Yellowish Brown, Slight Plasticity, Well Graded, Moist	579	
- - 15-	-		CL		Lean Silty Clay, Light Grayish Green, Mottled Red/Orange, Tight, Slight Plasticity, Moist (ATD) ⊑—		
-		SB-14-16			Bottom of Boring at 16 feet bgs		
- - 20-	-						
							Figure

## Log of Boring SB-15

Date(s) Drilled December 20, 2007	Logged By Harmony TomSun	Checked By Peter McIntyre
Drilling Method Direct Push	Drill Bit Size/Type	Total Depth of Borehole 16 feet bgs
Drill Rig Type Track Mounted GeoProbe	Drilling Contractor <b>Precision</b>	Approximate Surface Elevation
Groundwater Level and Date Measured 15 feet ATD	Sampling Method(s) <b>Tube</b>	Well Permit.
Borehole Backfill Cement Slurry	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
_	0-			Asphalt		Concrete		
_	_			CL		Silty Clay, Black, Low Plasticity, Slight Orange Mottling, Roots		-
-	-	_					-	
-	-		SB-15-4	SM		Gravelly Silty Clay, Greenish Gray, Stiff, Low Plasticity, Very Fine	1.7	
_	5	П				Grained, Moderately Graded		
	-	-					-	
	_			GM		Gravelly Silt, Light Yellowish Brown, Mottled Orange, Soft, 5% Fine to Medium Grained Gravel		-
		Å	SB-15-8	CL		Gravelly Silty Clay, Light Olive Brown, Mottled Green Gray, Low Plasticity,	1.2	-
-	-	1				5% Fine Grained Gravel		
-	10-						_	
_	-	X	SB-15-12	SM		Sandy Silt, Dark Grayish Green, Soft, Slight Plasticity, Poorly Graded, Medium Grained Sand, Moist	25	
_	-			CL		Gravelly Sandy Silt, Light Brown,Soft, Slight Plasticity, 5% Fine Grained Gravel, Moist		_
_	15	-		CL		_ Lean Clay, Light Brown, Mottled Grayish Green, Tight, Low Plasticity <5% Fine Grained Gravel (ATD) ≧		
_	-		SB-15-16			Bottom of Boring at 16 feet bgs	5.3	-
-	-							
-	-							
-	20							
	-						1	Figure

### Log of Boring SB-16

Date(s) Drilled December 20, 2007	Logged By Harmony TomSun	Checked By Peter McIntyre
Drilling	Drill Bit	Total Depth
Method Direct Push	Size/Type	of Borehole <b>12 feet bgs</b>
Drill Rig	Drilling	Approximate
Type Track Mounted GeoProbe	Contractor <b>Precision</b>	Surface Elevation
Groundwater Level	Sampling	Well
and Date Measured 9 feet ATD	Method(s) <b>Tube</b>	Permit.
Borehole Backfill Cement Slurry	Location	

Elevation, feet Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log		PID Reading, ppm	
ш о ¬ 0	S	νz	⊃ Asphalt		MATERIAL DESCRIPTION	ፈ ጣ	REMARKS AND OTHER TESTS
			CL		Concrete Silty Clay, Black, Moderate Plasticity, Dry, <5% Fine Grained Gravel		
- ·		SB-16-4	SM		Sandy Silty Clay, Dark Grayish Green, Stiff, Low Plasticity, Very Fine	4.1	
			CL		Grained, Poorly Graded Silty Clay, Light Grayish Green, Mottled Light Yellowish Brown, Low Plasticity		
	X	SB-16-8	GM			16.9	
- 10- 	_		CL		Gravel, Saturated Silty Clay, Light Yellowish Brown, Mottled Grayish Green, Tight, <5% Fine Grained Grave, Very Moist		
		SB-16-12			Bottom of Boring at 12 feet bgs	<1	
- 15 							
- 20-							
							Figure

### Log of Boring SB-17

Date(s) Drilled December 20, 2007	Logged By Harmony TomSun	Checked By Peter McIntyre
Drilling	Drill Bit	Total Depth
Method Direct Push	Size/Type	of Borehole <b>12 feet bgs</b>
Drill Rig	Drilling	Approximate
Type Track Mounted GeoProbe	Contractor <b>Precision</b>	Surface Elevation
Groundwater Level	Sampling	Well
and Date Measured 8 feet ATD	Method(s) <b>Tube</b>	Permit.
Borehole Backfill Cement Slurry	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log		PID Reading, ppm	
ش ٦	ق –0	Se	Ser	 Asphalt		MATERIAL DESCRIPTION	II d	REMARKS AND OTHER TESTS
_	_					Concrete		
_	_			CL		Silty Clay, Black, Low Plasticity, Dry, Moderately Graded, <5% Fine Grained Gravel		
-	- 5	$\times$	SB-17-4	GM	0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-	Silty Sandy Gravel, Dark Brownish Gray, Mottled Grayish Green, Stiff, 5% Fine Grained Gravel	1.7	
-	-			CL		Silty Sandy Clay, Dark Brownish Gray, Mottled Grayish Green, Moderately Loose, 5% Fine Grained Gravel, Moist		
-	-	$\times$	SB-17-8	CL		Silty Clay, Dark Grayish Green, Stiff, No Gravel, Slightly Moist (ATD) ¥	4.2	
-	- 10— -			GC		<ul> <li>Gravelly Silty Clay, Light Olive Brown, Fine to Medium Grained Gravel, –</li> <li>Low Plasticity, Highly Saturated</li></ul>		
_	-	$\times$	SB-17-12			Bottom of Boring at 12 feet bgs	6.7	
_	15—							
-	_							
_	20—							
								Figure

### Log of Boring SB-18

Date(s) Drilled December 20, 2007	Logged By Harmony TomSun	Checked By Peter McIntyre
Drilling	Drill Bit	Total Depth
Method Direct Push	Size/Type	of Borehole 8 feet bgs
Drill Rig	Drilling	Approximate
Type Track Mounted GeoProbe	Contractor <b>Precision</b>	Surface Elevation
Groundwater Level	Sampling	Well
and Date Measured 6 feet ATD	Method(s) <b>Tube</b>	Permit.
Borehole Backfill Cement Slurry	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
7	0—			Asphalt		Asphalt		
_	_			GM	0~0~0~0~0~0 0~0~0~0~0 0~0~0~0~0~0~0~0~0	Gravelly Silty Sand, Black, Low Plasticity, Dry, Well Graded, 10% Fine Grained Gravel, Poor Recovery	-	
-	5	X	SB-18-4	CL		Silty Clay, Light Grayish Green, Moderate Plasticity, <5% Fine Grained Gravel, Very Moist 	6.7	
_	_			SM				
	_		SB-18-8	5101		Silty Sand, Black, Medium Grained, Poorly Graded, Moist, Very Loose, Poor Recovery Bottom of Boring at 8 feet bgs	2.1	-
_	_ 10—							
_	-					-	_	
_	_					_	_	
_	_ 15—						-	
	-					-	-	
-	_					_	_	
-	20—							
	_						1	Figure

### Log of Boring SB-19

Date(s) Drilled December 20, 2007	Logged By Harmony TomSun	Checked By Peter McIntyre
Drilling Method Direct Push	Drill Bit Size/Type	Total Depth of Borehole 16 feet bgs
Drill Rig Type Track Mounted GeoProbe	Drilling Contractor <b>Precision</b>	Approximate Surface Elevation
Groundwater Level and Date Measured 15 feet ATD	Sampling Method(s) <b>Tube</b>	Well Permit.
Borehole Backfill Cement Slurry	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log		PID Reading, ppm	
Ē	ت 0	ű	ΰŻ	⊃ Asphalt		MATERIAL DESCRIPTION	교접	REMARKS AND OTHER TEST
	_					Asphalt		
_	-	-		CL		Silty Clay, Black, Low Plasticity, Poorly Graded, Dry 	-	
_	- 5		SB-19-4	SM		Sandy Silt, Greenish Gray, Low Plasticity, Moderately Graded, <5% Fine Grained Gravel	17.3	
-	-	$\times$	SB-19-8	CL		Silty Clay, Greenish Gray, Mottled Yellowish Orange, Low Plasticity, Dry	3.2	
	40							
_	10—			CL		Sandy Silty Clay, Light Yellowish Brown, Low Plasticity, <5% Fine Grained Gravel	-	
-	-	X	SB-19-12	SM		Sandy Silt, Dark Greenish Brown, Low Plasticity, Moist	1.4	
-	-	-		CL		Silty Clay, Dark Greenish Brown, Moderate Plasticity, Moist	-	
-	15	-		CL		Silty Clay, Light Yellowish Brown, Mottled Light Grayish Green, Low Plasticity, Saturated		
-	-		SB-19-16			Bottom of Boring at 16 feet bgs	8.6	
_	20							
								Figure

## Log of Boring SB-20

Date(s) Drilled December 20, 2007	Logged By Harmony TomSun	Checked By Peter McIntyre
Drilling	Drill Bit	Total Depth
Method Direct Push	Size/Type	of Borehole <b>16 feet bgs</b>
Drill Rig	Drilling	Approximate
Type Track Mounted GeoProbe	Contractor Precision	Surface Elevation
Groundwater Level	Sampling	Well
and Date Measured 15 feet ATD	Method(s) <b>Tube</b>	Permit.
Borehole Backfill Cement Slurry	Location	

Elevation, reet Depth, feet	Sample Type	iple iber	USCS Symbol	Graphic Log		PID Reading, ppm	
	Sam	Sample Number	nsc	Grap	MATERIAL DESCRIPTION	DID	REMARKS AND OTHER TES
<b>0</b>			Asphalt		Cement		
	-		CL		Silty Clay, Black, Low Plasticity, Poorly Graded, Dry		
		SB-20-4	GM	0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-	Gravelly Sandy Silt, Greenish Gray, Tight, Dry	13.1	
		SB-20-8	CL		Silty Clay, Greenish Gray, Tight, <5% Fine Grained Gravel	549	
- 10- 		SB-20-12	GM	0.20.50 0.20.50 0.20.50 0.50.50	Gravelly Sandy Silt, Soft, Light Olive Brown, Moderate Plasticity, Fine Grained Gravel	179	
			CL		Silty Clay, Light Yellowish Brown, Tight, Low Plasticity, Moist		
- 15	1				(ATD) ⊻		
		SB-20-16			Bottom of Boring at 16 feet bgs	74.9	
- 20							
							Figure

### Log of Boring SB-21

Date(s) Drilled December 20, 2007	Logged By Harmony TomSun	Checked By Peter McIntyre
Drilling	Drill Bit	Total Depth
Method Direct Push	Size/Type	of Borehole <b>16 feet bgs</b>
Drill Rig	Drilling	Approximate
Type Track Mounted GeoProbe	Contractor <b>Precision</b>	Surface Elevation
Groundwater Level	Sampling	Well
and Date Measured <b>15 feet ATD</b>	Method(s) <b>Tube</b>	Permit.
Borehole Backfill Cement Slurry	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log		PID Reading, ppm	
تت ۲	ٽ 0	Š	ůž	⊃ Asphalt		MATERIAL DESCRIPTION	교업	REMARKS AND OTHER TEST
_	_					Cement		
-	-	-		CL		Silty Clay, Black, Mottled Reddish Orange, Moderate Plasticity, Poorly Graded	-	
_	- 5— -		SB-21-4	CL		Silty Clay, Light Yellowish Brown, Mottled Greenish Gray, Soft, <5% Fine Grained Gravel	4.8	
-	-		SB-21-8	GM	$2^{\circ}0_{\circ}$	Gravelly Sandy Silt, Light Greenish Gray, Medium Grained Sand, 5% Fine to Medium Grained Gravel	6.0	
_	10— - -		SB-21-12	CL		Silty Clay, Light Yellowish Brown, Mottled Greenish Gray, Tight, <5% Fine Grained Gravel, Dry	12.7	
-	-		00-21-12	CL		Silty Clay, Light Yellowish Brown, Mottled Light Gray, Moderate Plasticity, 5% Fine Grained Gravel	12.7	
-	15	-				(ATD) <u>₹</u>	-	
-	-	-				Bottom of Boring at 16 feet bgs	-	
_	20—	_						
								Figure

### Log of Boring SB-22

Date(s) Drilled December 20, 2007	Logged By Harmony TomSun	Checked By Peter McIntyre
Drilling	Drill Bit	Total Depth
Method Direct Push	Size/Type	of Borehole <b>16 feet bgs</b>
Drill Rig	Drilling	Approximate
Type Track Mounted GeoProbe	Contractor <b>Precision</b>	Surface Elevation
Groundwater Level	Sampling	Well
and Date Measured 14 feet ATD	Method(s) <b>Tube</b>	Permit.
Borehole Backfill Cement Slurry	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log		PID Reading, ppm	REMARKS AND OTHER TEST
ш Г	□ 0	S	νz	⊃ Asphalt		Cement	<u> </u>	REMARKS AND OTHER TEST
	-							
_	-	-		CL		Silty Clay, Black, Stiff, Dry, Roots 		
_	5 - -	-	SB-22-4	GM	∇ <sub>0</sub> −0 <sup>−</sup> 0 <sup>−</sup> 0 <sup>−</sup> 0 <sup>−</sup> 0 0 −0 <sup>−</sup> 0 <sup>−</sup> 0 <sup>−</sup> 0 <sup>−</sup> 0 0 −0 <sup>−</sup> 0 <sup>−</sup> 0 <sup>−</sup> 0 <sup>−</sup> 0 0 −0 <sup>−</sup> 0 <sup>−</sup> 0 <sup>−</sup> 0 <sup>−</sup> 0 0 −0 <sup>−</sup> 0 <sup>−</sup> 0 <sup>−</sup> 0 <sup>−</sup> 0	Gravelly Sandy Silt, Reddish Brown, Mottled Orange, Loose, 5% Fine Grained Gravel, Dry	2.2	
_	- 10—		SB-22-8	CL		Silty Clay, Light Olive Brown, Tight, Low Plasticity, <5% Fine Grained Gravel	5.8	-
-	-			CL		Silty Clay, Olive, Mottled Light Orange, Tight, <5% Fine Grained Gravel, Dry		
-	-	X	SB-22-12				311	
_	- 15—	-				- (ATD) ⊻		
-	-		SB-22-16			Bottom of Boring at 16 feet bgs	5.9	
_	<b>20</b> —							
								Figure

# **APPENDIX B**

PERMIT DOCUMENTATION

Alameda County Public Works Agency - Water Resources Well Permit								
Comments of the second s								
PutiLic	399 Elmhurst Street Hayward, CA 94544-13 Telephone: (510)670-6633 Fax:(5	95 10)782-1939						
Application Approved	on: 09/19/2007 By jamesy	Permit Numbers: W2007-1015 Permits Valid from 10/01/2007 to 10/03/2007						
Application Id: Site Location:	1190158793881 3433 Chestnut Street	City of Project Site:Oakland						
Project Start Date:	10/01/2007	Completion Date: 10/03/2007						
Applicant:	AEI Consultants - Jeremy Smith	Phone: 925-944-2899						
Property Owner:	2500 Camino Diablo, Walnut Creek, CA 94597 Steffi Zimmerman	Phone:						
Client: Contact:	6330 Swainland Road, Oakland, CA 94611 ** same as Property Owner ** Jeremy Smith	Phone: Cell:						
	Receipt Number: WR2007-0414 Payer Name : Jeremy Smith	Total Due:         \$200.00           Total Amount Paid:         \$200.00           Paid By: VISA         PAID IN FULL						

#### Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitorinig Study - 12 Boreholes Driller: Precision Sampling - Lic #: 636387 - Method: DP

Work Total: \$200.00

#### Specifications

rmit .vumber	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth	
W2007- 1015	09/19/2007	12/30/2007	12	2.00 in.	20.00 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.

Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five
 (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours
 rior 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. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and



# **EXCAVATION PERMIT** TO EXCAVATE IN STREETS OR OTHER SPECIFIED WORK

CIVIL ENGINEERING

PAGE 2 of 2

Permit valid for 90 days from date of issuance

	· · · · · ·		i on a valid for oo days norn date of issuance.
	PERMIT NUMBER X	D70106	L = 3443 Chestnut St. Oakland, CA
	APPROX. START DATE	APPROX. END DATE	24-HOUR EMERGENCY PHONE NUMBER
			(Permit not valid without 24-Hour number)
	CONTRACTOR'S LICENSE #	AND CLASS AHAZ	CITY BUSINESS TAX #
	ATTENTION:		AND
	l- State law requi secured an inqu	res that the contractor/owner call Underg airy identification number issued by USA.	round Service Alert (USA) two working days before excavating. This permit is not valid unless applicant has . The USA telephone number is 1-800-642-2444. Underground Service Alert (USA) #
			MUST CALL (510) 238-3651 to schedule an inspection.
			ction certificate is required (waived for approved slurry backfill).
L		1	is required (marred ter approved starry backim).
	OWNER/BUILDER		the following reason (Sec. 7031.5 Business and Professions Code: Any city or county which requires a permit to
	I as an owner of the property, Professions Code: The Contractor provided that such improvements a burden of proving that he did not t I, as owner of the property, am performed prior to sale, (3) I has situatures more than once during a I as owner of the property, am does not apply to an owner of prop	or my employees with wages as their s r's Licenst Law does not apply to an ou- are not intended or offered for sale. If h build or improve for the purpose of sale a exempt from the sale requirements of t ave resided in the residence for the 12 m my three-year period. (Sec. 7044 Busine exclusively contracting with licensed or	the above due to: (1) I am improving my principal place of residence or appurtenances thereto, (2) the work will nonths prior to completion of the work, and (4) I have not claimed exemption on this subdivision on more than two ess and Professions Code). ontractors to construct the project, (Sec. 7044, Business and Professions Code: The Contractor's License Law ind who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law
1	WORKER'S COMPENSATION		
		rtificate of consent to self-insure, or a cr	ertificate of Worker's Compensation Insurance, or a certified copy thereof (Sec. 3700, Labor Code).
4	Policy #	Company Na	승규가 같은 것 것 같아요. 그는 것 같아요. 이야기 같은 것 같아요. 것 같아요. 가슴에 가지 않는 것 같아요. 그는 것 같아요. 그는 것 같아요. 가지 않는 것 않는 것 같아요. 가지 않는 것 않는 것 같아요. 가지 않는 것 않는 것 같아요. 가지 않는 것 않는 것 같아요. 가지 않는 것 않는
E	I certify that in the performance		sued. I shall not employ any person in any manner so as to become subject to the Westerde C
gr pe an su	ranted upon the express condition the erform the obligations with respect and employees, from and against any istained or arising in the construction	bet the permittee shall be responsible for to street maintenance. The permittee sh v and all suits, claims, or actions brough on of the work performed under the per	you should become subject to the Worker's Compensation provisions of the Labor Code, you must forthwith permit is issued pursuant to all provisions of Title 12 Chapter 12.12 of the Oakland Municipal Code. It is r all claims and liabilities arising out of work performed under the permit or arising out of permittee's failure to tall, and by acceptance of the permit agrees to defend, indemnify, save and hold harmless the City, its officers at by any person for or on account of any bodily injuries, disease or illness or damage to persons and/or property mit or in consequence of permittee's failure to perform the obligations with respect to street maintenance. This ed by the Director of the Office of Planning and Building.
l h thi	nereby affirm that I am licensed und is permitfand agree to its requireme	der provisions of Chapter 9 of Division 3 ints, and that the above information is tru	3 of the Business and Professions Code and my license is in full force and effect (if contractor), that I have read ue and correct under penalty of law.
	Tant	A C	9/19/07
1.4.1	the second se	Agent for Contractor Owne	er Date
DA	TE STREET LAST	SPECIAL PAVING DETAIL	HOLIDAY RESTRICTION? LIMITED OPERATION AREA?
100	URFACED EVED BY	REQUIRED? DYES DNO	(NOV 1- JAN 1) DYES DNO (JAM-9AM & 4PM-6PM) DYES DNO
155		Ø	DATE ISSUED
-			

X

505044 B 0B070853	
	ION PERMIT
TO EXCAVATE IN STREE	IS OR OTHER SPECIFIED WORK ENGINEERING
	Permit valid for 90 days from date of issuance.
PERMIT NUMBER X 0 7 01 356	* 3433 Chestiwt St. Oakland CA
APPRON. START DATE APPRON. END DATE	24-HOLD: EMERGENCY PHONE MUMHER: Permit not valid without 24-Hour number;
CONTRACTOR'S LICENSE # AND CLASS 6549191 AHAZ	CITY BUSINESS TAX #
ATTENTION: ]- State law requires that the contractorowner call Underground 5	ervice Aleri (UDA) two working pays before excavating. This permit is not valid unless applicant has
secured an ingitury identification number issued by USA. The UI	T CALL (530) 238-3653 to schedule an inspection.
	certificate is required (waived for approved slurry backfill).
OW/NEK/BUILDEK	
I hereby affirm that J am exempt from the Contractor's License Law for the folloconstruct, alter, improve, demolish, or repair any structure, prior to its issuance, provisions of the Contractor's License law Chapter 9 (commencing with Sec. 70% alleged exemption. Any violation of Section 7031.5 by any applicant for a permit ], as an owner of the property, or my employees with wages at their sole com Professions Code: The Contractor's License Law does not apply to an owner of provided that such improvements are not intended or offered for sale. If however hurden of proving that he did not build or improve for the purpose of sale). ], is owner of the property, an exempt from the sale requirements of the above herefore more than once during any three-year period. (Sec. 7044 Business and i ] ] as owner of the property, an exclusively contracting with licensed contractor.	pensation, will do the work, and the structure is not intended or offered for sale (Sec. 7(44, Business property who builds or improves thereon, and who does such work himself or through his own employees, the building or improvement is sold within one year of completion, the owner-builder will have the seductor (1) 1 am improving my principal place of residence or appurtenances thereto, (2) the work will rior to completion of the work, and (4) I have not claimed exemption on this subdivision on more than two Professions Code).
□ ] am exempt under Sec, B&PC for this reason	contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License law).
WORIER'S COMPENSATION	· · · · · · · · · · · · · · · · · · ·
I hereby affirm that I have a certificate of consent to self-insure, or a certificate	of Worker's Compensation Insurance, or a certified copy thereof (Sec. 3700, Labor Code).
Policy # Company Name	· · ·
D I certify that in the performance of the work for which this permit is issued, I s of California (not required for work valued at one hundred dollars (\$100) or less).	hall not employ any person in any manner so as to become subject to the Worker's Compensation Laws
granted upon the express condition that the permittee shall be responsible for all chain perform the obligations with respect to street maintenance. The permittee shall, and rand employees, from and against any and all suits relations permittee shall be upon	ald become subject to the Worker's Compensation provisions of the Labor Code, you must forthwith issued pursuant to all provisions of Title 12 Chapter 12.12 of the Oakland Municipal Code. It is ms and liabilities arising out of work performed under the permit or arising out of permittee's failure to by acceptance of the permit agrees to defend, indemnify, save and hold harmless the City, its officers person for on account of any hodily injuries, disease or illness or damage to persons and/or property consequence of permittee's failure to perform the obligations with respect to street maintenance. This be Director of the Office of Planning and Building.
I hereby affirm that I am licensed under provisions of Chapter 9 of Division 3 of the this permit and agree to its requirements, and that the above information is true and c	Business and Professions Code and my license is in full force and effect (if contractor), that I have read orrect under penalty of law. $\frac{12/10/07}{\text{Date}}$
	DAY RESTRICTION? LIMITED OPERATION AREA?
	E ISSUED

K -

.

- -

.

### **APPENDIX C**

### LABORATORY ANALYSES WITH CHAIN OF CUSTODY DOCUMENTATION



### **McCampbell Analytical, Inc.**

"When Ouality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 10/01/07
2500 Camino Diablo, Ste. #200		Date Received: 10/01/07
Walnut Creek, CA 94597	Client Contact: Jeremy Smith	Date Reported: 10/05/07
Wanta Creek, Cri 91097	Client P.O.:	Date Completed: 10/05/07

#### WorkOrder: 0710018

October 05, 2007

#### Dear Jeremy:

Enclosed are:

- 1). the results of 2 analyzed samples from your #274761; Zimmerman project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence

in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

McCA Telephone: (925) 2:	1534 Y Pittsbu www.ma	Willow Pa org, CA 94	4565-1701 mpbell.com	5) 252-9269	CHA TURN AROUND T EDF Required? Coeft (N	iormal) N	USH No Wr	24 HR ite On (DV	48 HR		DAY
Report To: AET -Je	ring	Smil	L Bill To: AEI				Lab Use	Only			
Company: AET	(								Pr	essurizatio	on Gas
h	2500 (ecm.ro Diable Walnut Creck, CA 9806 E-Mail: Jasmithe accions :: (925) 944-2899 Fax: ()					Pressurized By					
Walnut Cr									1	N2	He
Tele: (925) 944-7	899	1	Fax: ( )	ord terror							
Project #: 27476			Project Name:	Limmerman							
Project Location: 200	2 0	int		-ivine man							
Project Location: 344. Sampler Signature:	sere	Strin	1 Street,	Oulcland, CA	Notes				-		
Field Sample ID (Location)	Colle	ection	Canister SN#	Sampler Kit SN#	Notes: ISopropyl	is preson	eak For Soil			- Kepo	
(Location)	Date	Time	Callister Star		Analysis Requested	Air	Gas	Initial	Final	Receipt	Final
		857			0		N				(psi)
VB-1	10/107		02593	MAN 316-671	TPHQ MBTEX		N	-275	-5		
VB-2	10/107	1000	3651	Man 316-679	¥ T03 T015 #		N	-28	-5		
										1. Beat	
<i>f</i>										25	
1											
						+					
	+										
Delinewished Day	Datas	Time	Deceived Day				1				1
Relinquished By: Relinquished By: Relinquished By: Relinquished By:	Date: 10 (1 (07 Date: 10 (1 (07) Date:	Time: <b>3</b> :25 Time: 1 5:27 Time:	Received By: Received By: Received By: Received By:	in and it was a start of the st	Temp (°C) : Condition: Custody Seals Intact?: Y Shipped Via:	es N	0	None			
Kennquisneu by:	Date:	Time:	Necciveu By:								

### McCampbell Analytical, Inc.

AW
18 B

1534 Willow Pass Rd

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Pittsburg, CA 94565- (925) 252-9262	1701				٦	Work(	Order:	07100	)18	Clie	entID:	AEL					
				EDF		Excel		Fax	✓	Email	[	HardCo	ру	Thirc	Party		
Report to: Jeremy Smith		Email:	iasmith@aeic	consultants.com			Bill t Dei	nise Mo	ockel				Requ	ested	TAT:	5 c	days
AEI Consultants 2500 Camino Diablo, St Walnut Creek, CA 9459		TEL:	(925) 283-60( #274761; Zim	0 FAX: (925) 94	44-28	9	AE 250 Wa	l Consu )0 Cam Inut Cro		94597				Rece Prin		10/01/2 10/01/2	
									Reque	ested Te	ests (S	See lege	nd bel	ow)			
Sample ID	ClientSampID		Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12

0710018-001	VB-1	Air	10/1/07 8:57:00	А	А	Α					
0710018-002	VB-2	Air	10/1/07 10:00:00		А	Α					

Test Legend:

1 PREDF REPORT	2 TO15(MBTEX)_SOILGAS	3 TO3_SOIL(UG/M3)	4	5
6	7	8	9	10
11	12			

#### Prepared by: Rosa Venegas

#### **Comments:**

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.



# McCampbell Analytical, Inc. "When Ouality Counts"

### Sample Receipt Checklist

Client Name:	AEI Consultants				Date a	and Time Received:	10/1/07 5:	21:55 PM
Project Name:	#274761; Zimmer	man			Check	klist completed and re	eviewed by:	Rosa Venegas
WorkOrder N°:	0710018	Matrix <u>Air</u>			Carrie	er: <u>Client Drop-In</u>		
		<u>Chain</u>	of Cu	stody (COC	C) Informa	ation		
Chain of custody	y present?		Yes	$\checkmark$	No 🗆			
Chain of custody	y signed when relinqu	shed and received?	Yes	$\checkmark$	No 🗆			
Chain of custody	y agrees with sample	labels?	Yes	$\checkmark$	No 🗌			
Sample IDs noted	d by Client on COC?		Yes	$\checkmark$	No 🗆			
Date and Time of	f collection noted by Cl	ient on COC?	Yes		No 🗆			
Sampler's name	noted on COC?		Yes	$\checkmark$	No 🗆			
		Si	ample	Receipt In	formation	n		
Custody seals in	tact on shipping conta		Yes		No 🗆	-	NA 🔽	
Shipping contain	er/cooler in good cond	dition?	Yes	$\checkmark$	No 🗆			
Samples in prop	er containers/bottles?		Yes	$\checkmark$	No 🗆			
Sample containe	ers intact?		Yes	$\checkmark$	No 🗆			
Sufficient sample	e volume for indicated	test?	Yes		No 🗌			
		Sample Prese	vatior	n and Hold	Time (HT	) Information		
All samples rece	ived within holding tim		Yes		No 🗌	<u>,                                     </u>		
	Blank temperature		Coole	er Temp:			NA 🗹	
	lls have zero headspa	ce / no bubbles?	Yes		No 🗆	No VOA vials subm	itted 🗹	
	hecked for correct pre		Yes		No 🗌			
TTLC Metal - pH	acceptable upon rece	ipt (pH<2)?	Yes		No 🗆		NA 🗹	

Client contacted:

Date contacted:

Contacted by:

Comments:

McCampbell An "When Ouality		nc.		Web: www.mccamp	Pass Road, Pittsburg, CA bbell.com E-mail: main 877-252-9262 Fax: 92:	@mccampbell.c	com
AEI Consultants	Client	Project ID:	#27476	1; Zimmerman	Date Sampled:	10/01/07	
2500 Camino Diablo, Ste. #200					Date Received:	10/01/07	
	Client	Contact: Je	eremy Si	nith	Date Extracted:	10/08/07	
Walnut Creek, CA 94597	Client	P.O.:			Date Analyzed:	10/08/07	
	I	MBTEX	C in nL/I	*	1		
Extraction Method: TO-15	А	nalytical Metho	d: TO15		-1	Work Order:	0710018
Lab ID	0710018-001A	0710018	8-002A				
Client ID	VB-1	VB	-2				T
Matrix	Air	Ai	r			Reporting DF	
Initial Pressure	11.79	12.1	16			-	
Final Pressure	23.48	24.2	24			S	А
Compound			Conce	entration		ug/kg	nL/L
Benzene	41	9.9	9			NA	2.0
Ethylbenzene	ND	2.5	5			NA	2.0
Isopropyl Alcohol	ND	NI	)			NA	10
Methyl-t-butyl ether (MTBE)	ND	NI	)			NA	13
Toluene	9.2	11				NA	2.0
Xylenes	ND	12	2			NA	6.0
	Su	rrogate Rec	coveries	s (%)			
%SS1:	94	96	5				
%SS2:	96	98	3				
%SS3:	96	98	3				
Comments							
*vapor samples are reported in nL/L. ND means not detected above the reportin # surrogate diluted out of range or surrog						e.	
j) sample diluted due to high organic cont	ent.						

McCampbell Ar		<u>ic.</u>	Web: www.mccam	Pass Road, Pittsburg, CA pbell.com E-mail: main 877-252-9262 Fax: 92		com
AEI Consultants	Client Pr	roject ID: #274	761; Zimmerman	Date Sampled:	10/01/07	
2500 Camino Diablo, Ste. #200				Date Received:	10/01/07	
	Client C	ontact: Jeremy	Smith	Date Extracted:	10/08/07	
Walnut Creek, CA 94597	Client P.	0.:		Date Analyzed:	10/08/07	
		MBTEX in µg	/m <sup>3*</sup>	<u> </u>		
Extraction Method: TO-15	Ana	lytical Method: TO1	5		Work Order:	0710018
Lab ID	0710018-001A	0710018-002A	<b>L</b>			
Client ID	VB-1	VB-2				
Matrix	Air	Air				Limit for $=1$
Initial Pressure	11.79	12.16				
Final Pressure	23.48	24.24			S	А
Compound		Cor	centration		ug/kg	$\mu g/m^3$
Benzene	130	32			NA	6.5
Ethylbenzene	ND	11			NA	8.8
Isopropyl Alcohol	ND	ND			NA	25
Methyl-t-butyl ether (MTBE)	ND	ND			NA	48
Toluene	35	42			NA	7.7
Xylenes	ND	50			NA	27
	Surr	ogate Recover	ies (%)			
%SS1:	94	96				
% SS2:	96	98				
%SS3:	96	98				
Comments						
*vapor samples are reported in μg/m <sup>3</sup> . ND means not detected above the reporti # surrogate diluted out of range or surrog	-		-		e.	
j) sample diluted due to high organic con	tent.					

	Campbell Analyti	cal, Inc.	We	b: www.mccamp	Pass Road, Pittsburg, CA 94565 bell.com E-mail: main@mccar 577-252-9262 Fax: 925-252-92	npbell.com	
AEI Consultants		Client Project ID:	#274761; Zir		Date Sampled: 10/01		
2500 Camino Dia	blo, Ste. #200				Date Received: 10/01	/07	
Walnut Croals C	04507	Client Contact:	Jeremy Smith		Date Extracted: 10/03	/07	
Walnut Creek, CA	A 94397	Client P.O.:			Date Analyzed 10/03	8/07	
Extraction method TO3	_	(C6-C12) Volatile Analytica	e Hydrocarbo	ns as Gasoli		Order: 07	10018
Lab ID	Client ID	Matrix	Initial Pressure	Final Pressu	re TPH(g)	DF	% SS
001A	VB-1	А	11.79	23.48	1900	1	N/A
002A	VB-2	А	12.16	24.24	3100	1	N/A
							+
							<u> </u>
							<u> </u>
	ing Limit for DF =1; ans not detected at or	А			1500	-	/m³
	the reporting limit	S			NA	N	IA

\*vapor samples are reported in  $\mu g/m^3$ .

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak.

a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?) g) strongly aged gasoline or diesel range compounds are significant; j) sample diluted due to high organic content; k) this compound's reporting limit does not meet the ESL for residential soil gas; m) no recognizable pattern.j) sample diluted due to high organic content.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

	IcCampbell Analyti "When Ouality Counts"	ical, Inc.	We	b: www.mccampl	ass Road, Pittsburg, CA 94565- bell.com E-mail: main@mccan 77-252-9262 Fax: 925-252-92	npbell.com	
AEI Consulta	ants	Client Project ID:	#274761; Zin	nmerman	Date Sampled: 10/01	/07	
2500 Camino	Diablo, Ste. #200			-	Date Received: 10/01	/07	
Walnut Creek		Client Contact: J	Jeremy Smith		Date Extracted: 10/03	/07	
		Client P.O.:			Date Analyzed 10/03	/07	
Extraction method		(C6-C12) Volatile	Hydrocarbon methods TO3	ns as Gasoliı		Order: 07	10019
Lab ID	Client ID		Initial Pressure	Final Pressur	I	DF	% SS
001A	VB-1	A	11.79	23.48	650	1	N/A
002A	VB-2	A	12.16	24.24	1000	1	N/A
L						<u></u>	
						<u> </u>	
						<u> </u>	
						<u> </u>	
						<u> </u>	
<u> </u>						<u> </u>	
	porting Limit for DF =1; means not detected at or	А			500	-	L/L
a	bove the reporting limit	S			NA	N	IA
*vapor samples	are reported in nL/L.						

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak.

j) sample diluted due to high organic content.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager



"When Ouality Counts"

### QC SUMMARY REPORT FOR TO-15

W.O. Sample Matrix: Air

QC Matrix: Air

WorkOrder: 0710018

EPA Method TO-15	ction TO-	15		Bat	tchID: 30	965	Sp	iked Samp	ole ID:	N/A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	
Analyte	nL/L	nL/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Benzene	N/A	25	N/A	N/A	N/A	97.7	96.8	0.851	N/A	N/A	70 - 130	30
Ethylbenzene	N/A	25	N/A	N/A	N/A	100	101	0.500	N/A	N/A	70 - 130	30
Methyl-t-butyl ether (MTBE)	N/A	25	N/A	N/A	N/A	98.8	98.7	0.0547	N/A	N/A	70 - 130	30
Toluene	N/A	25	N/A	N/A	N/A	97.8	98.3	0.508	N/A	N/A	70 - 130	30
Xylenes	N/A	75	N/A	N/A	N/A	98.7	100	1.34	N/A	N/A	70 - 130	30
%SS1:	N/A	500	N/A	N/A	N/A	103	103	0	N/A	N/A	70 - 130	30
%SS2:	N/A	500	N/A	N/A	N/A	101	102	0.777	N/A	N/A	70 - 130	30
%SS3:	N/A	500	N/A	N/A	N/A	102	103	1.10	N/A	N/A	70 - 130	30

#### BATCH 30965 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710018-001A	10/01/07 8:57 AM	I 10/01/07	10/04/07 6:11 PM	0710018-002A	10/01/07 10:00 AM	I 10/01/07	10/04/07 4:48 PM

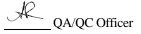
MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.





NONE

"When Ouality Counts"

#### QC SUMMARY REPORT FOR TO3

W.O. Sample Matrix: Air/Air

QC Matrix: Air

WorkOrder 0710018

EPA Method TO3	Extra	ction TO	3		Bat	chID: 30	991	Sp	iked Samp	ole ID:	N/A	
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	
, analyte	nL/L	nL/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(g)	N/A	1250	N/A	N/A	N/A	109	110	0.710	N/A	N/A	70 - 130	20

#### BATCH 30991 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710018-001A	10/01/07 8:57 AM	10/01/07	10/03/07 2:42 PM	0710018-001A	10/01/07 8:57 AM	10/01/07	10/03/07 2:42 PM
0710018-002A	10/01/07 10:00 AM	10/01/07	10/03/07 2:04 PM	0710018-002A	10/01/07 10:00 AM	10/01/07	10/03/07 2:04 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

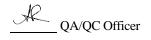
% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

\* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.





### **McCampbell Analytical, Inc.**

"When Ouality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 10/01/07
2500 Camino Diablo, Ste. #200		Date Received: 10/02/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Reported: 10/10/07
	Client P.O.:	Date Completed: 10/10/07

#### WorkOrder: 0710052

October 10, 2007

#### Dear Harmony:

Enclosed are:

- 1). the results of 15 analyzed samples from your #274761; Zimmerman project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence

in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

																		1	AF	51		Ø	71	00	5	2	-									
	McCAN	<b>IPBELI</b>	ANAL	YT	ICA	LI	NC							Т						CI	IA	IN	0	F	CU	SI	07	DY	Y F	REC	20	RD	)			
			illow Pass ourg, CA 94												Т	UF	RN .	AR	0	JN	D 1	ΓIN	1E		Ę	]					]			k.	×	
Telepho	ne: (925) 25		urg, ca >-	505	F	ax:	(92	5) 2	252-	926	59				FI	)E I	Req		49	r	٦.	Yes				JSH No	1	24 H	R	48	HR		72	HR	5 D.	AY
Report To: Harmo	ony TomSu	n	В	ill To	: san	ne		1	P.O.	. #	~			+	EI	<u>)</u>	Req	uire	And in case of the local division of the loc	and the second distance of the second distanc		is R		and the second second	YU.	140				(	Oth	er	Т	Cor	nmen	ts
Company: AEI C																30					Gel												T			
	Camino Dial	blo, Suite	200													Silice	E&F/B&F)				ca G															
Waln	ut Creek, C	A 94597		E-M	ail: h	toms	sun@	Daei	cons	sulta	ants.	com	l		TBE	SA	&F/				Silica				310							121 5	ME	. N	) Ш	
Tele: (925) 944-2				and the second se	925)										8015)/MTBE	100		(18.1)			) W/				0/8							MUTBE + A.M.	THME	184	ETBE	
Project #: 274761					t Nar	ne:	Zin	ıme	erm	an				$\neg$	- 801	ange	\$ (55	IS (4		(0)	801	2			625 / 8270 / 8310								- [		- UL-	
Project Location:		ie St., Oal	dand, CA	\$ 946	08									$\neg$	020 +	E A	rease	rbon		/ 8020)	MO	NL		~	525 /			010)				8260				
Sampler Signatur	e:Ch	Ale	~			T					M	IETI	IOD	-	(602/8020	J.	& G	roca		602	3/D/	3's O		10C		0		9.2/6								
		SAMP	LING	50	lers	L	MA	TI	ax			ESE			Gas (6	)15)-	Total Petroleum Oil & Grease (5520	Total Petroleum Hydrocarbons (418.1)	260	BTEX ONLY (EPA 602 /	TPH Multi-Range (G/D/MO 8015) w/	EPA 608 / 8080 PCB's ONLY		EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA	CAM-17 Metals 6020		Lead (7240/7421/239.2/6010)				ows				
SAMPLE ID				Containers	Containers										as	[PH as Diesel (8015)	leum	leum	HVOCs EPA 8260	LY (	-Ran	8080	EPA 624 / 8260	8270	VA's	fetal	LUFT 5 Metals	/742								
(Field Point Name)	LOCATION	Date	Time	ıtai	Con	1			e				3		& TPH	Diese	etro	etro	S EP	INO	fulti	08 /	24 /	25 /	/ bN	17 N	5 M	7240		A	1	Fuel				
		Date	THIC	Cor	Type	Water	Soil	Air	Sludge	Other	9	HCI	HNO <sub>3</sub>	Other	BTEX &	as ]	tal P	tal F	V0C	rex	ΗN	A 6	A 6	A 6	VH's	-MA	JFT	ad (	D	TOF	ç					
				#	T	13	Sc	P	S	0	Ice	H	H	Õ	BT	TPH	To	To	H	BJ	TF	EF	EF	EI	P/	C	Γſ	Le	RCI	4	)	5				
SB-1-4	Oakforno	10/1/07	11:05	1	Line		X				X																			X				MQ	4PRON	
SB-1-7.5		1	11:10	1	1		1				1				Х	X															_	-	4	4-14	1000	
58-1-11.5			11:15												X	X																X		MO	WPA .	
53-1-15.5			11:20																											X						
SB-2-3.5			10:20																											X						
58-2-7.5			10:25												X	X																				
53-2-11.			10:30												X	X																X				
58-2-15.5			10:35																											X						
58-3-3.5			2:05					-																						X						
58-3-7.5			2:10												X	X																				
58-3-11.5			2:15												X	X															`	X				
58-3-15.5			2:20													/														X						
SB-4-3.5			11:50			Τ	T				T																			$\times$						
56-4-7.5	1	1	11:55	T	I		1	-			T				X	×																				
Relinquished By:	/	Date:	Time:	Rec	ived I	3v:	2																									1				
Stri St		10/2/07	1/22 -	1	/	In	a	U	1	0	/	-	X			CE	to 1	67	D				/		DF	SER	\$7.A	TIO		DAS	0&0	G	ME	TALS	OTH	IER
Relinquished By:	/	Date:	Time:	Rec	eived I	By:				-							DD (		U DI	[OI]	N		/			ROI				/						
																HEA	DS	PAG	CE A	ABS	ENT		/		CON	TA	INE	RS_	0							
Relinquished By:		Date:	Time:	Rec	eived I	By:										DEC	CHL	ORI	INA	TEL	) IN	LA	В		PE	RSI	RV	ED	IN	LAB_						

AE1 0710052

		McCAN					LI	NC.												CH	IA	IN	0	F	CU	IST	<b>O</b> ]	D	( R	REC	CO	RI	D			
				Willow Pass burg, CA 9											L I	UF	RN	AR	01	UNI	) T	IM	E		Ę					Ľ				]	۶¢	
	Telepho	ne: (925) 25		ourg, 0117	1000	F	ax:	(925	5) 25	52-9	269							. 1		_	_					JSH	1	24 H	R	48	B HR	Ł	72	HR	5 DA	Y
	Demont Tex Howm	Tom Su			ELL T	o: san			D	0		_		_	E	DF	Req	uire	-	-		Yes	-		X	No			_		041		_	C		
	Report To: Harme Company: AEI C		11	I		): san	le		P	.0.	Ħ			-	-					Ana	iiys	IS R	equ	lest					_	$\vdash$	Oth		+	Com	ments	•
		Camino Dia	blo Suite	200										-		5	kF)				Gel											TAME	-			
		ut Creek, C		200	E-M	ail: ht	toms	un@	aeic	onsi	iltan	ts co	om	-	BE	Silica	F/B				Silica				0							PI	B			
	Tele: (925) 944-2		1171071	F		(925)				onse	110011	0.00	<u>, , , , , , , , , , , , , , , , , , , </u>		8015)/MTBE	2	(5520 E&F/B&F)	.1			w/ S				8310								$\sim$	B		
	Project #: 274761					t Nan				·ma	n			_	8015)	à	5520	(418							8270 /							NTBE	1	1-		
	Project Location:		ne St., Oa												+ 0		-	ons		\$020	0 80	LY			5/8			(0				Z	P	FTI		
	Sampler Signature	e: the.	11	-											2/802		Gre	carb		602 / 8020)	(G/D/MO 8015)	NO		Cs	A 625 /			.2/6010)				0				
		(	SAMF	PLING		ers		MA	TR	IX			THO		Gas (602/	15) 📲	Oil &	Hydro	20	PA 60		PCB's		- SVO	y EP/	6020		/239.2				82.6				
	SAMPLE ID	LOCATION			Containers	Type Containers									as	TPH as Diesel (8015)	Total Petroleum Oil & Grease	Total Petroleum Hydrocarbons (418.1)	PA 8260	BTEX ONLY (EPA	TPH Multi-Range	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.				ONTS STRO				
	(Field Point Name)		Date	Time	onta	e Co	ter			Sludge	ler		ő	er	BTEX & TPH	s Die	l Petr	l Petr	HVOCs EPA	X ON	Mult	608	624	625	's/P	1-171	T 5 N	(724		A		3				
					#C	Typ	Water	Soil	Air	Slu	Uther	DH	HNO <sub>3</sub>	Other	BTE	<b>Г</b> РН а	Tota	Tota	HVC	BTE	TPH	EPA	EPA	EPA	PAH	CAN	LUF	Lead	RCI	10	. 1	Stuel				
	SB-4-11.5	Oakland	10/1/07	12:00	1	Liver	1	X				K			X	X																X				
	SB-4-15.5	1	1	12:05	1	1		1																						X					1	
	58-5-3.5			1:30																										X						
	SB-5-7.5			1:35											X	X																				
	18-5-11.5			1:40	Π										X	X															1	X				
	58-5-15.5			1:45												1														X						
	58-10-3.5			3:00	$\square$																									X						
	58-6-7.5			3:05											X	X																				
	58-4-11.5			3:10											X	X																X				
	58-6-15			3:15	1	T		1							1	·														X	1					
+	5B-1-W			3:30	4	VeAd	X								X	X															,	×				
+	5B-2-W			3:15	4	NON/A	1								X	X																X				
+	SB-U-W	1	1	3:40	4	NIKA					1	-			X	×																X				
					<b>—</b> •	1									1	1																				
	Relinquished By:	$\checkmark$	Date:	Time:	Ree	ived B			/	7	/	_	/	-																	_		_	1		
	uper A	$\sim$		1122	//			a	6	/			ð	_	1	CE/	to K	57	)			/		Р	RE	SER	VA	ГЮ		DAS	0&0	G	ME	TALS	OTHE	R
	Relinquished By:		Date:	Time:	Rece	eived B	y:								(	GOC	DDC	ON		ION		/	/	A	PPI	ROP	RIA	TE		/						
	Relinquished By:		Date:	Time:	Rec	eived B								_						BSE FED			2	C		TAI		RS_ ED I		AR						
	Reiniquisited by:		Date:	Time:	Rece	aveu D	y:										TIL.	ORI	1/1	ED	114				112	ROL	A. 4.	ED 1		AD_						

1

### McCampbell Analytical, Inc.

Γ	_	.6	ų	b
K	-	X	-	R
	_	1		1

1534 Willow Pass Rd

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Pittsburg (925) 25	g, CA 94565-1701 2-9262				Work(	Order:	07100	)52	C	lientII	): AEL					
			EDF		Excel	[	Fax	ļ	🗸 Email		Hard	Сору	Thir	dParty		
Report to: Harmony Toi AEI Consulta 2500 Camine Walnut Creel	nts o Diablo, Ste. #200	(925) 283-60( # 274761; Zir		944-2		AE 25 Wa	nise Mo I Consu 00 Cam alnut Cre nockel@	iltants ino Dia eek, Ca	A 94597	,		Da	quested te Reco te Prin	eived	10/02/	
									1		(See leg	1	1			
Sample ID	ClientSampID	Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12
0710052-001	SB-1-4	Soil	10/1/2007	<b>~</b>	Α		Α		Α							
0710052-002	SB-1-7.5	Soil	10/1/2007				Α		Α							
0710052-003	SB-1-11.5	Soil	10/1/2007		А		Α		Α							
0710052-004	SB-1-15.5	Soil	10/1/2007	<	Α		Α		Α							
0710052-005	SB-2-3.5	Soil	10/1/2007	<ul> <li></li> </ul>	А		Α		Α							
0710052-006	SB-2-7.5	Soil	10/1/2007				Α		Α							
0710052-007	SB-2-11	Soil	10/1/2007		А		Α		Α							
0710052-008	SB-2-15.5	Soil	10/1/2007	<ul> <li></li> </ul>	А		Α		Α							
0710052-009	SB-3-3.5	Soil	10/1/2007 2:05:00	<ul> <li></li> </ul>	А		Α		Α							
0710052-010	SB-3-7.5	Soil	10/1/2007 2:10:00				Α		А							
0710052-011	SB-3-11.5	Soil	10/1/2007 2:15:00		А		Α		А							
0710052-012	SB-3-15.5	Soil	10/1/2007 2:20:00	<	А		Α		А							
0710052-013	SB-4-3.5	Soil	10/1/2007	<ul> <li></li> </ul>	А		Α		А							
0710052-014	SB-4-7.5	Soil	10/1/2007				А		А							
0710052-015	SB-4-11.5	Soil	10/1/2007		А		Α		А							

#### **Test Legend:**

1	5-OXYS_S	2	
6	TPH(D)WSG_W	7	
11		12	

2	5-OXYS_W	
7		
2		

3	G-MBTEX_S
8	

G-MBTEX\_W

4

9

5 TPH(D)WSG\_S 10

#### Prepared by: Kimberly Burks

#### **Comments:**

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.

### McCampbell Analytical, Inc.

	_	1	щ	à
4		X	H	
1	_	1		1

1534 Willow Pass Rd

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Pittsburg, (925) 252	, CA 94565-1701 2-9262					Work	Order	: 0710	052	(	ClientII	D: AEI	L				
				EDF		Excel		Fax		🖌 Email		Har	dCopy	🗌 Thi	rdParty		
Report to:							Bill t						Re	queste	d TAT:	5	days
Harmony Ton	nSun	Email:					De	enise Mo	ockel								
AEI Consultar	nts	TEL: (	(925) 283-60	0 FAX: (925)	944-2	89	AE	I Consu	ultants								
2500 Camino	Diablo, Ste. #200	ProjectNo: #	# 274761; Zir	nmerman			25	00 Carr	nino Di	ablo, St	e. #20	0	Da	te Rec	eived	10/02/	2007
Walnut Creek	, CA 94597	PO:					Wa	alnut Cr	eek, C	A 9459	7		Da	te Prin	nted:	10/02/	2007
							drr	nockel@	aeico	nsultan	ts.com						
									Rec	uested	Tests	(See le	aend b	elow)			
Sample ID	ClientSampID		Matrix	<b>Collection Date</b>	Hold	1	2	3	4	5	6	7	8	9	10	11	12
-																	
0710052-016	SB-4-15.5		Soil	10/1/2007	$\checkmark$	Α		Α		А							
0710052-017	SB-5-3.5		Soil	10/1/2007 1:30:00	$\checkmark$	А		Α		Α							
0710052-018	SB-5-7.5		Soil	10/1/2007 1:35:00				А		А							
0710052-019	SB-5-11.5		Soil	10/1/2007 1:40:00		А		Α		Α							
0710052-020	SB-5-15.5		Soil	10/1/2007 1:45:00	✓	А		Α		Α							
0710052-021	SB-6-3.5		Soil	10/1/2007 3:00:00	<	А		Α		Α							
0710052-022	SB-6-7.5		Soil	10/1/2007 3:05:00				Α		Α							
0710052-023	SB-6-11.5		Soil	10/1/2007 3:10:00		А		Α		Α							
0710052-024	SB-6-15		Soil	10/1/2007 3:15:00	$\checkmark$	А		Α		Α							
0710052-025	SB-1-W		Water	10/1/2007 3:30:00			Α		Α		Α				1	1	
0710052-026	SB-2-W		Water	10/1/2007 3:15:00			Α		А		Α				1	1	
0710052-027	SB-4-W		Water	10/1/2007 3:40:00			Α		А		Α				1	1	

Test Legend:

1	5-OXYS_S	2 5-OXYS_W	3 G-MBTEX_S	4 G-MBTEX_W	5 TPH(D)WSG_S
6	TPH(D)WSG_W	7	8	9	10
11		12			

#### Prepared by: Kimberly Burks

#### **Comments:**

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.



# McCampbell Analytical, Inc. "When Ouality Counts"

### Sample Receipt Checklist

Client Name:	AEI Consultants					Date a	and Time Received:	10/2/2007	3:56:45 PM
Project Name:	# 274761; Zimme	rman				Check	list completed and r	eviewed by:	Kimberly Burks
WorkOrder N°:	0710052	Matrix <u>So</u>	il/Water			Carrie	r: <u>Client Drop-In</u>		
			Chain	of Cu	stody (C	OC) Informa	ition		
Chain of custody	y present?			Yes		No 🗆			
Chain of custody	y signed when relinqu	ished and re	ceived?	Yes	$\checkmark$	No 🗆			
Chain of custody	y agrees with sample	labels?		Yes	✓	No 🗌			
Sample IDs noted	d by Client on COC?			Yes	$\checkmark$	No 🗆			
Date and Time o	f collection noted by Cl	ient on COC <sup>.</sup>	?	Yes	$\checkmark$	No 🗆			
Sampler's name	noted on COC?			Yes	✓	No 🗆			
			6	amnlo	Peceint	Information			
							<u>.</u>		
Custody seals in	tact on shipping conta	ainer/cooler?		Yes		No 🗆		NA 🗹	
Shipping contain	er/cooler in good cond	dition?		Yes	$\checkmark$	No 🗆			
Samples in prop	er containers/bottles?			Yes	✓	No 🗆			
Sample containe	ers intact?			Yes	$\checkmark$	No 🗆			
Sufficient sample	e volume for indicated	test?		Yes	✓	No 🗌			
		Samp	le Preser	vatior	າ and Ho	ld Time (HT	) Information		
All samples rece	ived within holding tim	le?		Yes	✓				
	Ũ			Coole	r Temp:	15.0°C			
	Blank temperature				•	_		_	
Water - VOA via	lls have zero headspa	ice / no bubb	oles?	Yes	$\checkmark$	No 🗔	No VOA vials subm		
Sample labels cl	hecked for correct pre	servation?		Yes	$\checkmark$	No			
TTLC Metal - pH	acceptable upon rece	ipt (pH<2)?		Yes		No 🗆		NA 🗹	

Client contacted:

Date contacted:

Contacted by:

Comments:

WcCampbell An "When Ouality"		Inc.		Web: www.mccamp		94565-1701 @mccampbell.c 5-252-9269	om	
AEI Consultants	Clien	Project ID:	# 27476	1; Zimmerman	Date Sampled:	10/01/07		
2500 Camino Diablo, Ste. #200					Date Received:	10/02/07		
Walnut Creek, CA 94597	Clien	t Contact: H	armony	TomSun	Date Extracted:	10/02/07-1	0/10/07	
Wantut Creek, CA 94397	Clien	t P.O.:			Date Analyzed	10/08/07-1	0/10/07	
	Oxygenated '	Volatile Orga	nics by	P&T and GC/M	IS*			
Extraction Method: SW5030B		Analytical Method	1: SW826	0B		Work Order:	0710052	
Lab ID	0710052-003	A 0710052	-007A	0710052-011A	0710052-015A			
Client ID	SB-1-11.5	SB-2-	11	SB-3-11.5	SB-4-11.5	Reporting Limit fo DF =1		
Matrix	S	S		S	S			
DF	67	1		1	1	s	W	
Compound			Conce	entration		mg/kg	μg/L	
tert-Amyl methyl ether (TAME)	ND<0.33	ND	)	ND	ND	0.005	0.5	
t-Butyl alcohol (TBA)	ND<3.3	ND	)	ND	ND	0.05	5.0	
Diisopropyl ether (DIPE)	ND<0.33	ND	1	ND	ND	0.005	0.5	
Ethyl tert-butyl ether (ETBE)	ND<0.33	ND	1	ND	ND	0.005	0.5	
Methyl-t-butyl ether (MTBE)	ND<0.33	ND	)	ND	ND	0.005	0.5	
	Sı	irrogate Rec	overies	s (%)				
%SS1:	91	89		92	87			
Comments	j							
* water and vapor samples are reported in extracts are reported in mg/L, wipe sample		e/solid samples	in mg/k	g, product/oil/non-a	queous liquid sampl	es and all TC	LP & SPLI	

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

McCampbell Ana "When Ouality Co		<u>c.</u>	Web: www.mccamp		94565-1701 @mccampbell.c 5-252-9269	com	
AEI Consultants	Client Pro	ject ID: #2747	61; Zimmerman	Date Sampled:	10/01/07		
2500 Camino Diablo, Ste. #200				Date Received:	10/02/07		
Walnut Creek, CA 94597	Client Co	ontact: Harmon	y TomSun	Date Extracted:	10/02/07-1	0/10/07	
Wallut Cleck, CA 94397	Client P.C	).:		Date Analyzed	10/08/07-1	0/10/07	
O Extraction Method: SW5030B	• 0	tile Organics by	y P&T and GC/M	IS*	Work Order:	0710052	
Lab ID (	0710052-019A	0710052-023A	0710052-025A	0710052-026A			
Client ID	SB-5-11.5	SB-6-11.5	SB-1-W	SB-2-W	Reporting Limit for DF =1		
Matrix	S	S	W	W			
DF	1	1	50	1	S	W	
Compound		Conc	centration		mg/kg	μg/L	
tert-Amyl methyl ether (TAME)	ND	ND	ND<25	ND	0.005	0.5	
t-Butyl alcohol (TBA)	ND	ND	ND<250	ND	0.05	5.0	
Diisopropyl ether (DIPE)	ND	ND	ND<25	ND	0.005	0.5	
Ethyl tert-butyl ether (ETBE)	ND	ND	ND<25	ND	0.005	0.5	
Methyl-t-butyl ether (MTBE)	ND	ND	ND<25	ND	0.005	0.5	
	Surro	gate Recoverie	es (%)				
%SS1:	99	97	101	105			
Comments			j		İ		

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

McCampbell An "When Ouality		cal, In	<u>c.</u>		Web: www.mccamp		94565-1701 @mccampbell.c 5-252-9269	om	
AEI Consultants		Client Pro	oject ID: #	# 27476	1; Zimmerman	10/01/07			
2500 Camino Diablo, Ste. #200				Date Received:	10/02/07				
Walnut Creek, CA 94597		Client Co	ontact: Ha	armony	TomSun	Date Extracted:	10/02/07-1	0/10/07	
		Client P.	D.:			Date Analyzed	10/08/07-1	0/10/07	
	Oxygei			-	P&T and GC/M	IS*			
Extraction Method: SW5030B	0		ytical Method	l: SW826	0B	1	Work Order:	0710052	
Lab ID	07100:	52-027A							
Client ID	SB	-4-W					Reporting DF		
Matrix		W							
DF		33					S	W	
Compound				Conce	entration		mg/kg	µg/L	
tert-Amyl methyl ether (TAME)	NI	D<17					0.005	0.5	
t-Butyl alcohol (TBA)	4	130					0.05	5.0	
Diisopropyl ether (DIPE)	NI	D<17					0.005	0.5	
Ethyl tert-butyl ether (ETBE)	NI	D<17					0.005	0.5	
Methyl-t-butyl ether (MTBE)	NI	D<17					0.005	0.5	
		Surr	ogate Rec	overies	s (%)				
%SS1:	1	104							
Comments									
extracts are reported in mg/L, wipe sampl	water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP xtracts are reported in mg/L, wipe samples in µg/wipe.								

# surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

	McCampbell			:	Web: www.m	nccampbell.com	Pittsburg, CA 94565 E-mail: main@mcca	mpbell.com		
AEI C	onsultants	Dualitv Counts'		ect ID: #274	761; Zimmern	hone: 877-252-926 nan	52         Fax: 925-252-9           Date Sample			
							Date Receive			
2500 C	Camino Diablo, Ste. #200		Client Cor	itact: Harmo	ny TomSun			ed: 10/02/07	10/06	/07
Walnu	t Creek, CA 94597				ny romsun					
			Client P.O.					ed 10/03/07	-10/06/	07
Extractio	Gasolin on method SW5030B	ne Range (		•	rbons as Gaso W8021B/8015Cm	line with BTH	EX and MTBE	* Work Order	: 0710	052
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% S
002A	SB-1-7.5	S	1200,b,m	ND<5.0	3.1	2.5	24	110	100	127
003A	SB-1-11.5	S	640,a	ND<2.5	0.40	1.5	9.3	23	50	120
006A	SB-2-7.5	S	ND	ND	ND	ND	ND	ND	1	92
007A	SB-2-11	S	53,g,m	ND	ND	0.24	0.0084	0.19	1	108
010A	SB-3-7.5	S	ND	ND	ND	ND	ND	ND	1	97
011A	SB-3-11.5	S	ND	ND	ND	ND	ND	ND	1	88
014A	SB-4-7.5	S	430,g,m	ND<1.0	1.2	0.99	3.6	1.2	20	108
015A	SB-4-11.5	S	340,a,m	ND<1.0	2.4	0.92	7.1	9.7	20	112
018A	SB-5-7.5	S	420,a	ND<1.5	4.0	1.1	9.5	18	20	83
019A	SB-5-11.5	S	130,b,m	ND<1.0	0.43	ND<0.10	1.2	0.77	20	108
022A	SB-6-7.5	S	ND	ND	ND	ND	ND	ND	1	93
023A	SB-6-11.5	S	ND	ND	ND	ND	ND	ND	1	87
025A	SB-1-W	W	28,000,a	ND<170	2000	77	1600	4100	33	117
026A	SB-2-W	W	640,a	ND	1.8	2.2	1.1	4.9	1	109
027A	SB-4-W	W	20,000,a	ND<600	6600	110	390	430	33	97
-	orting Limit for DF =1;	W	50	5.0	0.5	0.5	0.5	0.5	1	μg/I
	neans not detected at or ove the reporting limit	S	1.0	0.05	0.005	0.005	0.005	0.005	1	mg/K

\* water and vapor samples and all TCLP & SPLP extracts are reported in  $\mu$ g/L, soil/sludge/solid samples in mg/kg, wipe samples in  $\mu$ g/wipe, product/oil/non-aqueous liquid samples in mg/L.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high organic / MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) value derived using a client specified carbon range; o) results are reported on a dry weight basis; p) see attached narrative.



	Campbell Analyti	<u>cal, Inc.</u>	Web: www.mccamp	Pass Road, Pittsburg, CA 94565- bbell.com E-mail: main@mccam 377-252-9262 Fax: 925-252-920	pbell.com	
AEI Consultants		Client Project II	D: # 274761; Zimmerman	Date Sampled: 10/01/		
2500 Camino Dial	blo. Ste. #200			Date Received: 10/02/	/07	
		Client Contact	: Harmony TomSun	Date Extracted: 10/02/	07	
Walnut Creek, CA	A 94597	Client P.O.:		Date Analyzed 10/05/	/07-10/0	9/07
	Diesel Range (C10-0	C23) Extractable	e Hydrocarbons with Silica	a Gel Clean-Up*		
Extraction method SW3	510C/3630C/SW3550C/3630C	Analyt	ical methods SW8015C	- Work Or	der: 07	10052
Lab ID	Client ID	Matrix	TPH(d)	)	DF	% SS
0710052-002A	SB-1-7.5	S	450,d,l	)	5	89
0710052-003A	SB-1-11.5	S	90,d		1	118
0710052-006A	SB-2-7.5	S	ND		1	101
0710052-007A	SB-2-11	S	6.1,n	1	101	
0710052-010A	SB-3-7.5	S	ND	1	103	
0710052-011A	SB-3-11.5	S	ND		1	102
0710052-014A	SB-4-7.5	S	170,d		2	100
0710052-015A	SB-4-11.5	S	25,d		1	108
0710052-018A	SB-5-7.5	S	54,d		1	114
0710052-019A	SB-5-11.5	S	22,d,b		1	109
0710052-022A	SB-6-7.5	S	ND		1	103
0710052-023A	SB-6-11.5	S	ND		1	103
0710052-025A	SB-1-W	w	6100,0	I	1	107
0710052-026A	SB-2-W	w	300,d		1	82
0710052-027A	SB-4-W	w	2200,d,	b	1	103

Reporting Limit for DF =1;<br/>ND means not detected at or<br/>above the reporting limitW50 $\mu g/L$ S1.0mg/Kg

\* water samples are reported in  $\mu$ g/L, wipe samples in  $\mu$ g/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in  $\mu$ g/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit; r) results are reported on a dry weight basis



#### QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder: 0710052

QA/QC Officer

EPA Method SW8260B	Extra	ction SW	5030B		BatchID: 31024 Spiked Sample ID: 071						0710081-00	2A
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	
Analyte	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	0.050	88	87.7	0.328	94.4	94.5	0.130	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	0.25	83.7	95.8	13.5	96	88.6	7.98	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	0.050	97.5	95	2.62	105	106	0.765	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	0.050	85.1	82.4	3.16	92.9	93.6	0.746	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	0.050	88.8	85.2	4.14	101	102	0.794	70 - 130	30	70 - 130	30
%SS1:	97	0.050	92	93	1.24	96	97	0.197	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

#### BATCH 31024 SUMMARY

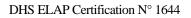
Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710052-003A	10/01/07 11:15 AM	10/02/07	10/08/07 11:03 PM	0710052-007A	10/01/07 10:30 AM	10/02/07	10/10/07 2:46 AM
0710052-011A	10/01/07 2:15 AM	10/02/07	10/08/07 11:48 PM	0710052-015A	10/01/07 12:00 PM	10/02/07	10/08/07 9:32 PM
0710052-019A	10/01/07 1:40 AM	10/02/07	10/08/07 10:18 PM	0710052-023A	10/01/07 3:10 AM	10/02/07	10/10/07 1:54 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.





#### QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder 0710052

EPA Method SW8015C	Extraction SW3550C/3630C BatchID: 30992 Spiked Sample ID: 0710019-0										0710019-00	1A	
Analyte	Sample	Spiked	MS	MSD	MS-MSD	D LCS LCSD		LCS-LCSD	Acceptance Criteria (%)				
, indigite	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD	
TPH(d)	5.6	20	101	102	0.893	107	109	2.03	70 - 130	30	70 - 130	30	
%SS:	106	50	103	103	0	116	117	0.782	70 - 130	30	70 - 130	30	
All target compounds in the Method E NONE	3lank of this	extraction	batch we	ere ND les	ss than the	method F	RL with th	e following	exceptions:				

			BATCH 30992 SL	<u>JMMARY</u>			
Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710052-002A	10/01/07 11:10 AM	10/02/07	10/09/07 4:11 AM	0710052-003A	10/01/07 11:15 AM	10/02/07	10/07/07 6:02 AM
0710052-006A	10/01/07 10:25 AM	10/02/07	10/07/07 7:10 AM	0710052-007A	10/01/07 10:30 AM	10/02/07	10/07/07 8:19 AM
0710052-010A	10/01/07 2:10 AM	10/02/07	10/07/07 9:27 AM	0710052-011A	10/01/07 2:15 AM	10/02/07	10/07/07 12:52 PM
0710052-014A	10/01/07 11:55 AM	10/02/07	10/05/07 1:58 AM	0710052-015A	10/01/07 12:00 PM	10/02/07	10/07/07 2:01 PM
0710052-018A	10/01/07 1:35 AM	10/02/07	10/07/07 3:09 PM	0710052-019A	10/01/07 1:40 AM	10/02/07	10/06/07 8:23 AM
0710052-022A	10/01/07 3:05 AM	10/02/07	10/07/07 4:53 AM	0710052-023A	10/01/07 3:10 AM	10/02/07	10/06/07 4:21 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.



#### QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder 0710052

EPA Method SW8021B/8015Cm	Extra	ction SW	5030B		Bat	chID: 30	996	Sp	iked Samp	ole ID:	0710022-02	1 <b>A</b>
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	
, individ	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex <sup>f</sup>	ND	0.60	98.6	104	5.17	77.8	99.2	24.2	70 - 130	30	70 - 130	30
MTBE	ND	0.10	101	105	4.47	86	98.8	13.9	70 - 130	30	70 - 130	30
Benzene	ND	0.10	91.3	104	12.9	89.1	99.9	11.4	70 - 130	30	70 - 130	30
Toluene	ND	0.10	85.8	95.6	10.8	79.8	90.2	12.3	70 - 130	30	70 - 130	30
Ethylbenzene	ND	0.10	92.2	104	11.7	86.7	97.1	11.3	70 - 130	30	70 - 130	30
Xylenes	ND	0.30	85.7	95.7	11.0	81	91.3	12.0	70 - 130	30	70 - 130	30
%SS:	86	0.10	98	109	10.6	89	93	4.91	70 - 130	30	70 - 130	30

NONE

#### BATCH 30996 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710052-002A	10/01/07 11:10 AM	10/02/07	10/05/07 12:47 AM	0710052-003A	10/01/07 11:15 AM	10/02/07	10/06/07 4:01 AM
0710052-006A	10/01/07 10:25 AM	10/02/07	10/03/07 5:27 AM	0710052-007A	10/01/07 10:30 AM	10/02/07	10/03/07 7:22 PM
0710052-010A	10/01/07 2:10 AM	10/02/07	10/03/07 6:57 AM	0710052-011A	10/01/07 2:15 AM	10/02/07	10/03/07 12:01 PM
0710052-014A	10/01/07 11:55 AM	10/02/07	10/03/07 8:54 PM	0710052-015A	10/01/07 12:00 PM	10/02/07	10/03/07 9:24 PM
0710052-018A	10/01/07 1:35 AM	10/02/07	10/04/07 1:17 AM	0710052-019A	10/01/07 1:40 AM	10/02/07	10/04/07 1:50 AM
0710052-022A	10/01/07 3:05 AM	10/02/07	10/05/07 2:47 AM	0710052-023A	10/01/07 3:10 AM	10/02/07	10/06/07 7:42 PM

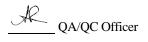
MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

 $\pounds$  TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.





#### QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 0710052

EPA Method SW8260B	Extra	ction SW	5030B		BatchID: 31007 S				piked Sample ID: 0710057-002C				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)		
Analyte	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD	
tert-Amyl methyl ether (TAME)	ND	10	87.8	99.4	12.4	89	94.9	6.46	70 - 130	30	70 - 130	30	
t-Butyl alcohol (TBA)	ND	50	85.9	86.5	0.601	83	87.3	5.05	70 - 130	30	70 - 130	30	
Diisopropyl ether (DIPE)	ND	10	101	115	13.2	98	105	6.65	70 - 130	30	70 - 130	30	
Ethyl tert-butyl ether (ETBE)	ND	10	88.3	103	15.1	89.5	95	5.97	70 - 130	30	70 - 130	30	
Methyl-t-butyl ether (MTBE)	ND	10	87.6	114	25.3	98.8	102	3.47	70 - 130	30	70 - 130	30	
%SS1:	111	10	91	102	11.4	102	100	1.72	70 - 130	30	70 - 130	30	

NONE

#### BATCH 31007 SUMMARY

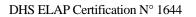
Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710052-025A	10/01/07 3:30 AM	10/09/07	10/09/07 6:48 AM	0710052-026A	10/01/07 3:15 AM	10/09/07	10/09/07 7:36 AM
0710052-027A	10/01/07 3:40 AM	10/09/07	10/09/07 8:26 AM				

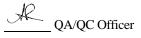
MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.







#### QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 0710052

EPA Method SW8021B/8015Cm	Extra	ction SW	5030B		BatchID: 31012 S				piked Sample ID: 0710066-001A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS LCSE		LCS-LCSD	D Acceptance Criteria (%)				
, maryto	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD	
TPH(btex) <sup>£</sup>	ND	60	77.6	79.6	2.57	100	101	1.23	70 - 130	30	70 - 130	30	
MTBE	ND	10	112	117	4.40	91.6	99.2	7.94	70 - 130	30	70 - 130	30	
Benzene	ND	10	95	97.5	2.62	94.9	100	5.33	70 - 130	30	70 - 130	30	
Toluene	ND	10	105	108	2.74	94.7	98.3	3.67	70 - 130	30	70 - 130	30	
Ethylbenzene	ND	10	102	105	3.10	94.2	99.6	5.58	70 - 130	30	70 - 130	30	
Xylenes	ND	30	110	113	2.99	90.7	95.3	5.02	70 - 130	30	70 - 130	30	
%SS:	91	10	86	90	4.49	104	107	2.77	70 - 130	30	70 - 130	30	

#### BATCH 31012 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710052-025A	10/01/07 3:30 AM	10/06/07	10/06/07 6:10 PM	0710052-026A	10/01/07 3:15 AM	10/06/07	10/06/07 4:21 PM
0710052-027A	10/01/07 3:40 AM	10/06/07	10/06/07 3:12 PM				

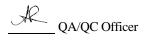
MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

 $\pounds$  TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.





#### QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 0710052

EPA Method SW8015C	Extra	ction SW	3510C/3	630C	Bat	chID: 31	013	Spiked Sample ID: N/A				
Analyte	Sample	Sample Spiked MS MSD MS-MSD LCS LCSD LC							D LCS-LCSD Acceptance Criteria (			
Analyte	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	N/A	1000	N/A	N/A	N/A	106	104	1.95	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	116	116	0	N/A	N/A	70 - 130	30
All target compounds in the Method E NONE	3lank of this	extraction	batch we	ere ND les	ss than the	method F	RL with th	ne following	exceptions:			

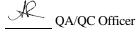
			BATCH 31013 SU	<u>JMMARY</u>			
Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710052-025A	10/01/07 3:30 AM	10/02/07	10/05/07 6:27 PM	0710052-026A	10/01/07 3:15 AM	10/02/07	10/06/07 4:34 AM
0710052-027A	10/01/07 3:40 AM	10/02/07	10/06/07 12:03 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.





"When Ouality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 10/01/07
2500 Camino Diablo, Ste. #200		Date Received: 10/02/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Reported: 10/10/07
	Client P.O.:	Date Completed: 10/22/07

#### WorkOrder: 0710052

October 22, 2007

#### Dear Harmony:

Enclosed are:

- 1). the results of **6** analyzed samples from your **# 274761; Zimmerman project,**
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence

in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

16														1				+	AF	12		0	71	tt	5	2	-							
Telepho	McCA1	Pitts	L ANA Willow Pass burg, CA 9	Road			NC (92		252-	926	59							AR	01	JNI	C D		IE		Ę	] JSH		DY I D 24 HR	Ę		[	] 2 HR	S DAY	,
Report To: Harm	ony TomSu	In	E	Bill To	o: san	ne		J	P.O.	#	-						-		and the state of the	Ana		Contraction of the local division of the loc		-	-				1	Oth	ner	Cor	nments	-
Company: AEI C																30	0				Gel													_
	Camino Dia	-	200												~	Silice	B&F				ca G							ral sila						
	ut Creek, C	CA 94597			ail: h				cons	ulta	ints.	com	1	4	8015)/MTBE	S	&F/				Silica				310			713			NE		) w	
Tele: (925) 944-2					(925)									$\neg$	15)/N	3	20 E	18.1			5) w/.				8270 / 8310			F			TAME	TRA T	ETBE	
Project #: 274761 Project Location:		no St. Oo			t Nar	ne:	Lim	ime	erma	an				-	+ 80	ange	e (55	1S (4		(0)	801	Y						Xox.		[		t i	· 17.	
Sampler Signatur				4 940	000						-			-	020	L.	rease	trbor		/ 80	MO	NIL		\$	525 /			010			8260			
Sumpler Signatur		SAMP			<u> </u>	Г	3.5.4	TT	IV		M	IETI	HOD	-	602/8		& G	lroca		602	G/D/	3's C		/0C	PA (	0		9.2/6						
		SAMP	LING	80	lers	⊢	MA			4			RVE	D	Gas (	)15)	Oil	Hyc	60	EPA	ge (	PCI		-SI	by E	602		1/23			Style			
SAMPLE ID (Field Point Name)	LOCATION	Date	Time	# Containers	Type Containers	Water	Soil	Air	Sludge	Other	Ice	HCI	HNO <sub>3</sub>	Other	BTEX & TPH as Gas (602/8020	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015)	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA 625 /	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	1 orp		5 fuel 0			
SB-1-4	Oakforno	10/1/07	11:05	1	Liner		X				X				×														X	1		MQ	APRON	
SB-1-7.5	1	1	11:10	1	1		i				1				X	X														-			V	-
58-1-11.5			11:15							1	T			~	X	X														9	X	NA	119	-
SB-1-15.5			11:20		$\square$					1	1				X	-													$\vee$	_		• •		_
SB-2-3.5			10:20	$\square$	$\square$	$\vdash$				1	$\dagger$			ľ	X														Ŷ	-				
58-2-7.5			10:25	$\square$	$\square$					+	$^{\dagger}$				X	1																		_
58-2-11			10:30	$\vdash$	$\vdash$	$\vdash$				+	$^{+}$			╡		X													$\vdash$	T	×	-		-
58-2-155			10:35	$\vdash$	$\square$	F			-	+	$^{\dagger}$			+		~								-					X	-				_
58-3-25			2:05	$\vdash$	$\square$	$\vdash$				+	$^{+}$		-	+		-													Ŷ	+				_
58-3-7.5			2:10	$\vdash$	$\square$	$\vdash$					$\square$		+	+	X	V		+							-				$\cap$	+				-
58-3-115			2:15	$\vdash$	$\vdash$	$\vdash$				+	$\square$		+	-	2	5		+		-						_			$\vdash$	-,				-
58-3-15.5			2:20		$\square$	$\vdash$				╡	$\square$	+	-	+	~	~		-								-			X	+	*			-
SB-4-3.5			11:50	$\vdash$	$\vdash$	$\vdash$				+	$^{+}$	+	+		X	+	+	-		-		-		-				-	$\mathbf{i}$	+				-
56-4-7.5	1		11:55	1	I	$\vdash$			+	+		+	+	f	X	1	+	+	-	-		-	-	-	_	-			$\cap$	+				-
Relinquished By:	/	Date:	Time:	Rece	ived,B	20	,							+	~	$\sim$							_											-
An St	-	10/2/07	1122.	1	1	la	a	a	-	1	7,0	-	×	1			10	T	)										DAS	0&0	G MI	TAL	OTHER	
Relinquished By:	7	Date:	Time:	Rece	ived B	y:							6		G		DČ	ONI				_	/	A		ROP	RIA	TION_ ATE RS						
Relinquished By:		Date:	Time:	Rece	ived B	y:												ORIN										ED IN I	_AB_					

4																					AĮ	٤١	l	)7(	10	0	58	)-					*
	McCAN					LI	NC	1 • #						Т						Cŀ	IA	IN	0	F	CU	IS7	ГО	DY I	RE	CC	ORD		
			Villow Pass burg, CA 94												TU	IR	N.	AR	01	JN	DT	IN	IE		Ę								×4
Telepho	ne: (925) 25				F	ax:	(92	5) 2	52-	926	9				EDF	FR	equ	uire	d?	[		Yes			RI	ISH No		24 HR	4	8 HI	R 72	2 HR	5 DAY
<b>Report To: Harm</b>	ony TomSu	n	В	ill To	: san	ne		P	P.O.	#				T						Ana	alys	is R	equ	esť				0		Ot		Com	ments
Company: AEI C																8	E				Jel							1 Silar			TAME PE,		
	Camino Dial													4	Cilia.	n	B&I				Silica Gel							10 fr			P w		
	ut Creek, C	A 94597			ail: ht				cons	ulta	ints.c	com	1	- 6		Ä	3&F				/ Sil				8310			ua.				ITT	
Tele: (925) 944-2					925)										15)/M	5	20 E	18.1			5) w/				8/0/			0.			104	0	
Project #: 274761		54 Oct			t Nan	ne:	Lim	ime	rma	an				- 00	8		e (55	1S (4		20)	801	Y			/ 8270 /			54			TOA, DI	FAI	
Project Location: Sampler Signatur		11 1	siand, CA	1 940	000									-	8020		Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)		BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015)	EPA 608 / 8080 PCB's ONLY		s	625			Lead (7240/7421/239.2/6010)			-		
Sampler Signatur	- And	1/		_	T	Г	3.6.4	TP	IN		M	ETI	HOD	- 00	Gas (602/8020		& G	droc		602	G/D	3's (		SVOCs	Ad	0		9.2/			60		
		SAMP	LING	20	lers		MA	IR	ax	_	PRE	SE	RVED	4	(jas (	(011	Oil	Hyc	560	EPA	ge (	PCI		- SI	by E	s 602		1/23	T		8		
SAMPLE ID				Containers	Type Containers										H as	(CIUO) ISSIC SE LL	leum	leum	HVOCs EPA 8260	JY (	-Ran	8080	EPA 624 / 8260	EPA 625 / 8270 -	PAH's / PNA's by EPA	CAM-17 Metals 6020	LUFT 5 Metals	0/7421/23			ards shire		
(Field Point Name)	LOCATION	Date	Time	ıtai	Con	1			e					L L	BTEX & TPH as DH as Diacal (9	lics	etro	etro	s EP	INO	fulti	08/	24 / 1	25/	/ PN	17 N	5 M	7240	A		202		
		Date	Thire	Col	pe	Water	Soil	Air	Sludge	Other	9	HCI	HNO <sub>3</sub>		EX 4	SP	tal F	tal P	/00	EX.	ΗN	A 6	A 6	A 6	vH's	-MI	JFT	ad (	10		Spel		
				#	T	12	Š	A	S	0	Ice	H	HO		TDH		L0	To	H	BJ	TP	EP	EP	EP	PA	C/	EL	Le	7	1.	3		
SB-4-11.5	Oakland	10/1/07	12:00	1	Liver	r	X				X			$\mathbf{D}$	XY	K															X		
SB-4-155	1	1	12:05	1	1		1				1				K														X				
58-5-25			1:30		$\square$						1			2	X														X				
SB-5-75			1:35	$\square$	$\square$									5	XX	1			-														
4B-6-115			1:40	$\vdash$	++	$\vdash$					1			К		1			_				_	_							X		
50-5-165			1:45	$\vdash$	$\vdash$							+	-	-	71	-	+		-										V		1.		
10-10-25			3:00	$\vdash$	++		+		-	-	+	+	-	1	1	+	+	-	_			-	-						X				
60 10.26				+	++	$\vdash$			-	+	+	+		t	< 7	-	+	+	_										~			<u> </u>	
56 - 9 - 1.)			3:05	+	+	$\vdash$	+		-	+	+	+		ť	$\langle \gamma \rangle$		-		_				_	_							V		
75-6-11.7			3:10	+	++		-		-	-	+	+		-17	XΧ	-	-		_					_					1		$\lambda$	<u> </u>	
78-6-15			3:15		1		-		-	-	+	-		-		-	-		_			_		_					X				
5B-1-W			3:30	4	VeAp				_	_	+	_	_		. /	X	_														×		
15B-2-W			3:15		NON/A						1	_	_		XV		_	_													X		
133-4-W	1	1	3:40	4	NIKA	1					1			þ	17	(															X		
Relinquished By:	$\checkmark$	Date:	Time:	Ree	ived B			_	1	/		~	/	Γ															I		- 1	L	
yon A	$\sim$	12/01	1122	//		M	a		0	/		ð			IC	E/t	K	50					/	P	RE	SER	VA	VC TION	DAS	08	G MI	ETALS	OTHER
Relinquished By:		Date:	Time:	Rece	eived B	y:									GC	001	DC	ON					/	A	PPI	ROF	RI	ATE _	/				
D.P. LL LD		Det		D	1			_						-				PAC					<u> </u>	C				RS <u> </u>	AD				
Relinquished By:		Date:	Time:	Rece	eived B	y:									DE		ILC	ORI	٩A.	LED	111	LAI			. rt	167	SIK V	ED IN I	LAD				
1																																	

SW.
-

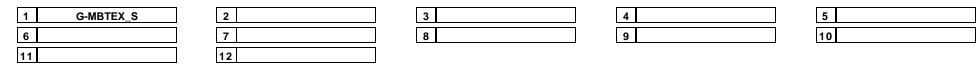
1534 Willow Pass Rd

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Pittsburg, CA (925) 252-92	A 94565-1701 262				V	VorkO	rder:	07100	5 A		Client	ID: AE	L				
				EDF	Γ	Excel	[	Fax		🗸 Email		Hard	Сору	🗌 Thir	rdParty		
Report to: Harmony TomSo AEI Consultants 2500 Camino Di Walnut Creek, C	ablo, Ste. #200	Email: TEL: ProjectNo PO:	htomsun@ae (925) 283-600 : # 274761; Zi	. ,			AE 250 Wa	alnut Cr		4 94597	7		Da Da	quested te Reco te Add- te Prin	eived: -On:	10/02 10/15	days 2/2007 5/2007 5/2007
									Req	uested	Tests	(See le	gend b	elow)			
Sample ID	ClientSampl	D	Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12
0710052-001	SB-1-4		Soil	10/1/2007		А											
0710052-004	SB-1-15.5		Soil	10/1/2007		А											
0710052-013	SB-4-3.5		Soil	10/1/2007		А											
0710052-016	SB-4-15.5		Soil	10/1/2007		Α											
0710052-017	SB-5-3.5		Soil	10/1/2007 1:30:00		А											
0710052-020	SB-5-15.5		Soil	10/1/2007 1:45:00		А											

Test Legend:



Prepared by: Kimberly Burks

#### Email Jeremy @ jasmith@aeiconsultants.com / ADDED G-MBTEX ON 10/15/07 **Comments:**

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.

	McCampbell	Analy		<u>:</u>	Web: www.m		Pittsburg, CA 94565 E-mail: main@mcca 52 Fax: 925-252-9	mpbell.com		
AEI C	Consultants		Client Proje	ect ID: #274	761; Zimmerm	nan	Date Sample	ed: 10/01/07		
2500 0	Camino Diablo, Ste. #200						Date Receiv	ed: 10/02/07		
Wəlm	tt Creek, CA 94597		Client Con	tact: Harmo	ny TomSun		Date Extract	ed: 10/15/07		
vv annu	ii Cluk, CA 94597		Client P.O.	•			Date Analyz	ed 10/16/07	-10/18/	/07
Extracti	Gasolin on method SW5030B	e Range (		•	rbons as Gaso W8021B/8015Cm	line with BTI	EX and MTBE	* Work Order	: 0710	0052
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	SB-1-4	S	2.9,a	ND	0.016	0.0079	ND	0.0094	1	94
004A	SB-1-15.5	S	ND	ND	ND	ND	ND	ND	1	85
013A	SB-4-3.5	S	1.2,g	ND	ND	ND	ND	ND	1	88
016A	SB-4-15.5	S	ND	ND	ND	ND	ND	ND	1	92
017A	SB-5-3.5	S	ND	ND	ND	ND	ND	ND	1	90
020A	SB-5-15.5	S	ND	ND	0.017	ND	ND	ND	1	74
									<u> </u>	<u> </u>
	porting Limit for DF =1; means not detected at or	W	NA	NA	NA	NA	NA	NA	1	ug/L
	ove the reporting limit	S	1.0	0.05	0.005	0.005	0.005	0.005	1	mg/Kg

\* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high organic / MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) value derived using a client specified carbon range; o) results are reported on a dry weight basis; p) see attached narrative.





#### QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder: 0710052

EPA Method SW8021B/8015Cm	Extrac	tion SW	5030B		Ba	tchID: 31	341	Sp	iked Sam	ole ID:	0710502-01	9A
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acc	eptance	Criteria (%)	
Analyte	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex <sup>£</sup>	ND	0.60	113	101	11.5	106	107	0.997	70 - 130	30	70 - 130	30
MTBE	ND	0.10	81	73.1	10.3	81.2	79.5	2.01	70 - 130	30	70 - 130	30
Benzene	ND	0.10	92.2	90.5	1.84	96.3	97.4	1.16	70 - 130	30	70 - 130	30
Toluene	ND	0.10	90.6	87	3.88	94.1	95.4	1.34	70 - 130	30	70 - 130	30
Ethylbenzene	ND	0.10	96.1	97	1.01	101	103	1.72	70 - 130	30	70 - 130	30
Xylenes	ND	0.30	91.3	91.3	0	96	96.3	0.347	70 - 130	30	70 - 130	30
%SS:	85	0.10	77	78	0.685	81	82	1.44	70 - 130	30	70 - 130	30
All target compounds in the Method E NONE	Blank of this	extraction	batch we	re ND les	ss than the	method R	L with th	e following	exceptions:			

#### BATCH 31341 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710052-001A	10/01/07 11:05 AM	10/15/07	10/18/07 6:05 PM	0710052-004A	10/01/07 11:20 AM	10/15/07	10/17/07 8:30 PM
0710052-013A	10/01/07 11:50 AM	10/15/07	10/17/07 9:37 PM	0710052-016A	10/01/07 12:05 PM	10/15/07	10/16/07 3:30 PM
0710052-017A	10/01/07 1:30 AM	10/15/07	10/16/07 4:04 PM	0710052-020A	10/01/07 1:45 AM	10/15/07	10/18/07 12:57 AM

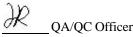
MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

 $\pounds$  TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.





"When Ouality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 10/04/07
2500 Camino Diablo, Ste. #200		Date Received: 10/04/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Reported: 10/15/07
Wanta Creek, Cri 91097	Client P.O.:	Date Completed: 10/15/07

#### WorkOrder: 0710206

October 15, 2007

#### Dear Harmony:

Enclosed are:

- 1). the results of **3** analyzed samples from your **#274761; Zimmerman project**,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence

in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

AEL 0710206

	ANALYT	ICA	L IN	IC.						1	TUI	RN	AR						FC	CU	S7	0	D)	Y F	RE (	CC	R	D	2	PR
Telephone: (925) 252-9262	Jurg, CA 94505	F	ax: (	925)	252-9	9269										1					SH	2	24 H	R	4	8 HI	R	72	HR	5 DAY
Report To: Harmony TomSun	Bill To	: sam	ıe		P.O.	#			_	E	DF	Req	uire	ar			is R				NO					Ot	her		Cor	nments
Company: AEI Consultants																										_				
2500 Camino Diablo, Suite 2										1	1.00	B&F				Silica Gel									36	DIPE	E		5	TPHS TPHS
Walnut Creek, CA 94597		ail: ht			icons	ultan	ts.co	om			'S	&F/J				Sili				8310					rrgg	4/	-		columes	1 20
Tele: (925) 944-2899	Fax: (				1000200					5)2	3	20 E	(18.1)			/M (				0/8					8	T84			olu	30
Project #: 274761	Projec		ne: Z	imm	erma	an				8015)	2.000	(55	s (41		6	8015				8270 /					9	ME	-		3	8
Project Location: 3442 Adeline St., Oak	dand, CA 946	08								)20+	1	ease	rbon		802	MO	NL			625 /			010)		8260	TAME/				si ble
Sampler Signature: Im M						-	ME	тно	D	02/8(	1	& Gr	roca		502 /	UD/I	,s 0		ocs	PA 6			.2/6		-	`			the	26
SAMP		lers	N	AATI	RIX			SERV		Gas (602/8020	15) -	Oil e	Hyd	093	EPA	ge ((	PCB		-SV	by El	\$ 602(		1/239		54				wate	52
SAMPLE ID (Field Point Name) LOCATION Date	# Containers	Type Containers	Water	Soil	Sludge	Other Ico	HCI	HNO <sub>3</sub>	Other	BTEX & TPH as (	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015) w/	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	S fuel o				w/ Low	Ana as as
-5B-6-W -ENOUGH 10/4/07/	3:051	V0.4	X				X			X	M														Ŷ				10	Ð
-5B-8-w	3400 2	VoA	Ý			ΤŔ				V	P	1													5				~	
5B-11-4	2503	VOA	X				1			R	à														X				-110	ED-1
	910-	00/1	1			-14	¥	-		F	10		$\setminus$	-				-											-	
		<u> </u>			+	+	+				-							-	-	-										
						+	+	-		-	-			1				-	-	-										
		<u> </u>		_		+	+			-		-		_				-	-	-										
		<u> </u>				+	_	_									- 1	_			-		-			,	1			0
						+	_				-						Y	ot	e	no	NG	p	S	in	10	le	25	a	ral	yze
												1						_			4	ر ا								
		1																												
				-		+	-																							
Relinquished By: M. M. Ulyloz	6.70 E	ived B	11	ofe	ec,	h	7	1			ICE/	to [	5.1	0				,	Р	RES	SER	VA	гіо		DAS	08	£G	MI	TALS	OTHER
Relinquished By: EWIYO -TECH SR 10/4	Time: Rece 1823 M	ived B	y:	n	/			1			GOG	DDC	CON				/		A	PPF	ROP	RIA	TE							
1		ived/B	#	1-			_	A	_				PAC					2			TAI			INI	AB					
Relinquished By: The Date: 10/4/17	Time: 1936	A	E				(				DEC	nL.	OKL	TA.	1.1210	TIA.	LAI	·		T E	N.SE	ALC Y	50		JAD			-		

		A	W	λ
1		76	0	Į
1	-	ų,	٠	2
		्य		ł

1534 Willow Pass Rd ----

## CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Pittsburg, CA (925) 252-92						Work	Order:	07102	206	Cl	ientID	: AEL					
				EDF		Excel	[	Fax	$\checkmark$	Email		HardO	Сору	Thir	dParty		
Report to: Harmony TomSu	ın	Email:	htomsun@ae	eiconsultants.com			Bill to: De	nise Mo	ockel				Requ	uested	TAT:	5	days
AEI Consultants 2500 Camino Dia Walnut Creek, Ca	ablo, Ste. #200	TEL: ProjectNo: PO:	(925) 944-289 # 274761; Zi	( )	4-289	95	250 Wa	alnut Cr	ultants hino Dial eek, CA @aeicons	94597		)		e Rece e Print		10/04/ 10/05/	
							1		Requ	ested T	'ests (	See leg	end be	elow)			
Sample ID	ClientSampID		Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12

0710206-001	SB-6-W	Water	10/4/2007 3:45:00	С	А	А					
0710206-002	SB-8-W	Water	10/4/2007 3:45:00	С	А		В				
0710206-003	SB-11-W	Water	10/4/2007 2:50:00	С	А		В				

**Test Legend:** 

1 5-OXYS_W	2 G-MBTEX_W	3 PREDF REPORT	4 TPH(D)WSG_W	5
6	7	8	9	10
11	12	]		

#### Prepared by: Kimberly Burks

#### **Comments:**

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.



# McCampbell Analytical, Inc. "When Ouality Counts"

### Sample Receipt Checklist

Client Name:	AEI Consultants				Date a	and Time Received:	10/4/2007	8:40:06 PM
Project Name:	# 274761; Zimme	rman			Check	klist completed and r	eviewed by:	Kimberly Burks
WorkOrder N°:	0710206	Matrix <u>Water</u>			Carrie	r: <u>Michael Herna</u>	ndez (MAI Co	urier)
		Chain	of Cu	stodv (C	OC) Informa	ation		
Chain of custody	v procont?		Yes		No 🗆			
-	•							
Chain of custody	/ signed when relinqui	shed and received?	Yes		No 🗆			
Chain of custody	agrees with sample I	labels?	Yes	✓	No 🗌			
Sample IDs noted	d by Client on COC?		Yes	$\checkmark$	No 🗆			
Date and Time of	f collection noted by Cl	ient on COC?	Yes	✓	No 🗆			
Sampler's name	noted on COC?		Yes	✓	No 🗆			
		e	amplo	Possint	Information			
		<u></u>	ampie	_		<u>.</u>		
Custody seals in	tact on shipping conta	iner/cooler?	Yes		No 🗌		NA 🔽	
Shipping contain	er/cooler in good cond	lition?	Yes	$\checkmark$	No 🗆			
Samples in prop	er containers/bottles?		Yes	✓	No 🗆			
Sample containe	ers intact?		Yes	$\checkmark$	No 🗆			
Sufficient sample	e volume for indicated	test?	Yes	✓	No 🗌			
		Sample Prese	rvatio	and Ho	ld Time (HT	) Information		
		Jampie i lesei	vatioi			<u>, mormation</u>		
All samples rece	ived within holding tim	e?	Yes	$\checkmark$	No 🗌			
Container/Temp	Blank temperature		Coole	er Temp:	5.6°C		NA 🗆	
Water - VOA via	ls have zero headspa	ce / no bubbles?	Yes	✓	No 🗆	No VOA vials subm	itted	
Sample labels cl	hecked for correct pre	servation?	Yes	✓	No 🗌			
TTLC Metal - pH	acceptable upon rece	ipt (pH<2)?	Yes		No 🗆		NA 🗹	

Client contacted:

Date contacted:

Contacted by:

Comments: Not enough sample to analyze SB-8-W for TPHd w/SG

<u> McCampbell An</u>		<u>c.</u>		Web: www.mccamp		@mccampbell.	com
"When Ouality						5-252-9269	
AEI Consultants	Client Pr	oject ID: #	#27476	51; Zimmerman	Date Sampled:	10/04/07	
2500 Camino Diablo, Ste. #200					Date Received:	10/04/07	
Walnut Creek, CA 94597	Client C	ontact: Ha	armony	TomSun	Date Extracted:	10/13/07	
Wallut Creek, CA 94397	Client P.	0.:			Date Analyzed	10/13/07	
	Oxygenated Vol	atile Orga	nics by	P&T and GC/M	IS*		
Extraction Method: SW5030B	Anal	lytical Method	l: SW826	60B		Work Order:	0710206
Lab ID	0710206-001C	0710206-	-002C	0710206-003C			
Client ID	SB-6-W	SB-8-	W	SB-11-W			; Limit for 7 =1
Matrix	W	W		W			
DF	1	1		50		S	W
Compound			Conce	entration		ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND	ND		ND<25		NA	0.5
t-Butyl alcohol (TBA)	18	12		840		NA	5.0
Diisopropyl ether (DIPE)	ND	ND		ND<25		NA	0.5
Ethyl tert-butyl ether (ETBE)	ND	ND		ND<25		NA	0.5
Methyl-t-butyl ether (MTBE)	2.0	ND		ND<25		NA	0.5
	Surr	ogate Rec	overie	s (%)			
%SS1:	119	100	)	104			
Comments							
%SS1: Comments * water and vapor samples are reported in extracts are reported in mg/L, wipe sampl ND means not detected above the reporti	µg/L, soil/sludge/so es in µg/wipe.	blid samples	in mg/k	g, product/oil/non-a		es and all TC	CLP & S

# surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

	McCampbell	Analyt uality Counts"		-	Web: www.m	ccampbell.com	Pittsburg, CA 94565 E-mail: main@mcca 52 Fax: 925-252-5	mpbell.com		
AEI C	onsultants		Client Proje	ect ID: #274	761; Zimmern	nan	Date Sample	ed: 10/04/07		
2500 0	Camino Diablo, Ste. #200						Date Receiv	ed: 10/04/07		
XX7 1			Client Con	tact: Harmon	ny TomSun		Date Extract	ed: 10/08/07	-10/09/	/07
Walnu	tt Creek, CA 94597		Client P.O.	:			Date Analyz	ed 10/08/07	-10/09/	/07
Extraction	on method SW5030B	asoline Ra		) Volatile Hy	drocarbons as V8021B/8015Cm	s Gasoline wi	th BTEX*	Work Order	r: 0710	206
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	SB-6-W	w	440,a,m		17	ND	0.99	2.2	1	104
002A	SB-8-W	w	6700,a		110	6.3	160	140	5	109
003A	SB-11-W	W	83,000,a		10,000	640	2700	7900	100	115
Rep	oorting Limit for DF =1;	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
ND	means not detected at or ove the reporting limit	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

\* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.



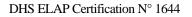
	Campbell Analyti "When Ouality Counts"	<u>cal, Inc.</u>	Web: www.mccamp	Pass Road, Pittsburg, CA 94565- bell.com E-mail: main@mccam 877-252-9262 Fax: 925-252-920	pbell.com	
AEI Consultant	S	Client Project ID:	# 274761; Zimmerman	Date Sampled: 10/04/	07	
2500 Camino Di	iablo, Ste. #200			Date Received: 10/04/	07	
Walnut Creek, C	CA 94597		Harmony TomSun	Date Extracted: 10/04/	07-10/1	6/07
		Client P.O.:		Date Analyzed 10/09/	07	
Extraction method: SW	-		Hydrocarbons with Silica methods: SW8015C	a Gel Clean-Up* Work Or	dor: 071	0206
Lab ID	Client ID	Matrix	TPH(d		DF	% SS
0710206-002B	SB-8-W	W	1600,0		1	103
0710206-003B	SB-11-W	W	4300,0	1	1	112

Reporting Limit for DF =1;	W	50	μg/L
ND means not detected at or above the reporting limit	S	NA	NA

\* water samples are reported in  $\mu$ g/L, wipe samples in  $\mu$ g/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in  $\mu$ g/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract/matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit; p) see attached narrative.







#### QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 0710206

EPA Method SW8015C	Extra	ction SW	3510C/3	630C	Bat	chID: 31	013	Sp	iked Samp	ole ID:	N/A	
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	
, analy to	μg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	N/A	1000	N/A	N/A	N/A	106	104	1.95	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	116	116	0	N/A	N/A	70 - 130	30

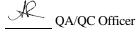
			<u>BATCH 31013 Sl</u>	<u>JMMARY</u>			
Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710206-002B	10/04/07 3:45 AM	Ν	10/09/07 1:49 PM	0710206-003B	10/04/07 2:50 AM	10/04/07	10/09/07 2:58 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.





#### QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 0710206

EPA Method SW8260B	Extra	ction SW	5030B	BatchID: 31079 Spiked Sample ID: 071012								1B
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	
Analyte	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	10	92.9	91.2	1.84	95.1	90.6	4.77	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	84.2	91.6	8.45	89.6	89	0.706	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	101	99.1	2.12	103	97.5	5.45	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	92.9	89.4	3.84	94.4	88	7.09	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	103	97.6	5.77	102	94.6	7.57	70 - 130	30	70 - 130	30
%SS1:	100	10	100	93	7.30	95	90	5.44	70 - 130	30	70 - 130	30

NONE

#### BATCH 31079 SUMMARY

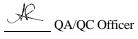
Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710206-001C	10/04/07 3:45 AM	10/13/07	10/13/07 4:46 AM	0710206-002C	10/04/07 3:45 AM	10/13/07	10/13/07 5:40 AM
0710206-003C	10/04/07 2:50 AM	10/13/07	10/13/07 6:34 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.





"When Ouality Counts"

#### QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 0710206

EPA Method SW8021B/8015Cm	Extra	ction SW	5030B		Bat	tchID: 31	135	Sp	iked Sam	ple ID:	0710203-01	1A
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acc	eptance	Criteria (%)	
Analyte	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) <sup>£</sup>	ND	60	81.4	90.5	10.6	106	102	4.21	70 - 130	30	70 - 130	30
MTBE	ND	10	96.3	104	7.90	111	117	4.52	70 - 130	30	70 - 130	30
Benzene	ND	10	85.6	98.2	13.7	105	105	0	70 - 130	30	70 - 130	30
Toluene	ND	10	78.5	88.7	12.1	103	98	4.90	70 - 130	30	70 - 130	30
Ethylbenzene	ND	10	86.5	95.3	9.76	103	103	0	70 - 130	30	70 - 130	30
Xylenes	ND	30	81.7	92.3	12.3	96.7	96.7	0	70 - 130	30	70 - 130	30
%SS:	128	10	102	103	0.304	105	104	0.465	70 - 130	30	70 - 130	30
All target compounds in the Method E NONE	Blank of this	extraction	batch we	ere ND les	s than the	method F	RL with th	e following	exceptions:			

#### BATCH 31135 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710206-001A	10/04/07 3:45 AM	10/08/07	10/08/07 2:29 PM	0710206-002A	10/04/07 3:45 AM	10/09/07	10/09/07 9:01 PM
0710206-003A	10/04/07 2:50 AM	10/08/07	10/08/07 3:30 PM				

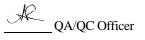
MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

 $\pounds$  TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.





"When Ouality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 10/03/07
2500 Camino Diablo, Ste. #200		Date Received: 10/04/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Reported: 10/16/07
Wallact Creek, Cri 9 1897	Client P.O.:	Date Completed: 10/16/07

#### WorkOrder: 0710218

October 16, 2007

#### Dear Harmony:

Enclosed are:

- 1). the results of 15 analyzed samples from your #274761; Zimmerman project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence

in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

								o	110	2	18	6																							
	McCAN	IPBELI	ANAI	YT	[CA]	LI	NC							Τ						CI	IA	IN	0	F	CU	ST	0	DY	Z F	REC	CO	RD	)		
			illow Pass												T	UR	N	AR							Ę										¥
Telepho	ne: (925) 25		nurg, en y	1000	F	ax:	(92	5) 2	52-9	26	9										_					SH	2	24 H	R	48	BHR	2	72 H	IR	5 DAY
Descent Tex House	To me		D	шт.			-		0	4	_	_	-	+	ED	FF	Red	uire	_	-	-	Yes		_		No	_	_			04			-	
Report To: Harm Company: AEI C		n	В	III I O	: san	ie		1	2.0.	7			_	╋	-	5				An		is R	equ	lest		-					Oth	_		omn	nents
	Camino Dial	alo. Suite	200					-		-						35	&F)				Gel											VOL	tan		
	ut Creek, C		200	E-M	ail: ht	oms	un@	aei	consu	Ita	nts o	om			BE	Silica	F/B				Silica				0							W	U		
Tele: (925) 944-2		1 7 1077	F		925)		-		Contou			om	_				E&	÷.			W/S				831							NT61		1	
Project #: 274761					t Nan		_	_	rma	n					8015)	H	5520	(418		_					270						+	St	and a		
Project Location:	and the second se	e St., Oal													+	Ĩ	ise (	ons		020	0.80	Z			5/8			6				0			
Sampler Signatur		Id	e,												/802		Grea	carb		2/8	W/O	NO		S	62			/601				8260			
		SAMP	LING		~		MA	TR	IX	Т		TH			(602	F	1&	vdro		A 60	( <u>6</u>	B's		SVOCs	EPA	020		39.2							
				rs	ner	⊢				+	PRE	SER	VEI		Gas	(8015)	n O	Hu	\$260	(EP.	nge	0 PC	0	S-0	s by	ls 6(	0	21/2				stra			
SAMPLE ID	LOCATION			Containers	Type Containers										PH as	sel (3	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015)	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 -	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)							
(Field Point Name)	Location	Date	Time	nta	S	er			e.				5		& T	<b>FPH as Diesel</b>	Petn	Petr	Cs E	NO V	Mult	808	524	525	s/P	1-1-	5 N	(724		R	1	feel			
					ype	Water	Soil	Air	Sludge	Other	Ice	HUN	Othor	Ĭ	BTEX &	H as	otal	otal	NO	TEA	Hd	PA	PA (	PA	AH'	AM	III	cad	RCI	Anat		4			
		1.1		#	-	1	S	4	S	4				1	8	Ê	F	T	H	B	H	ш	Ш	ш	~	0	-	Г	~	Ŧ	_	2	-	here a A	
SB-7-3.5	Dakland	10/3/07		1	Line		X		_	4	X	_	-		-	_									_	_	_	_		X	_	_	1	HOL/	2
58-7 - 7.5			1100	1	1		1				1			1	X)	X										_									
SB-7 - 11.5			1105												X)	Х																X	N	<b>W</b> II	8
SB-7-15.5			1110																											X					
5B-8-3.5			12:45																											X					
58-8-7.5			1250							Τ				1	X	X																			
SB-8-11.5			1:00							Τ					X	X																X			
58-8-15.5			110							T				T																X					
58-9-4			925							1				1	X	X																			
58-9-7.5			930							1																				X					
58-9-9			935							T				T																X					
5B-9 -11.5			940							1				5	X	X															1	X			
53-9-15.5			945	1						1				T	-															X					
58-10-3.5	_	1	1155	-	L		-				1																			X					
Relinguished By:		Date:	Time:	Rece	ived B	y:			1	-		-	.,	t	_	_									-	_	-		_		_				
Vin Nor	-	10/4/07	18:51	2	EU	N	21	07	12	1	21	1 .	4.	•		CIE /		2.	7				-	D	DEC	ED		TIO		OAS	0&	G	MET	ALS	OTHER
Relinquished By:	SP	Date: /	Time:	Rece	ived B	y:	Λ	11	/			1			G	OO	DO	CON	DIT	10	Y	RS	>			ROP					0			_	
Relinquished By: ENVISO Fee Relinquished By:	ch .	14/07	1820	11	in	-	V	4	-	_	d	X			H	EA	DS	PAC	CE /	BS	ENI				ON	ΓAI	NE	RS_	-	Xe	5				
Relinquished By:	1	Date:	Time:	Reco	iyed B	y'n	1	1	10	)	1	1	_		D	EC	HL	ORI	NA	FED	IN	LAI	B		PE	RSE	RV	ED	IN	LAB_					
thatt	-de	10/4/67	1936	VL	X	V	N	0	Y	-	6						_																		
/ //	0			1	0																														

Telepho	McCAN ne: (925) 25	1534 W Pittsh	ANAI Villow Pass Durg, CA 9	Road					52-9	269	9								0U 4?	NI	) T		E		RI			D 24 H			СО ] 8 нг		Ę	) HR	5 D/	AY.
Report To: Harm	ony TomSu	n	В	Bill To	: san	ne		Р	.0.	¥									1	<b>Ana</b>	lysi	s R	equ	lest							Oth	ner		Con	ment	s
Company: AEI C	onsultants															30	_				el											W				
2500 0	Camino Dial	olo, Suite	200													3	B&F				Ca O											TANK	W			
	ut Creek, C.	A 94597		E-M	ail: h	toms	un@	aeic	consu	Itar	nts.c	om		ROLEVATRE		WISING	& F/I				w/ Silica Gel				8310							F	610			
Tele: (925) 944-2	899		F	ax: (	925)	944	-289	95			_			3	In the second	2 3	E C	8.1)							/ 8.							W				
Project #: 274761				rojec		me:	Zim	me	rma	n				801	IND		700	4		6	015				8270 /							INTBE	DIFE			
<b>Project Location:</b>		e St., Oal	dand, C	A 946	08									+ 0			asc	ous		802(	08	ILY			-			(0)			-		T			
Sampler Signature	e: Hn	2A	~							_				- USI	100		3	cart		5/	N	S		Cs	A 62			09					22			
	· ·	SAMP	LING		ers	L	MA	TR	IX	1	ME	SER		D COD	() () ()	e (ci	Cil &	Hydro	09	PA 60	ie (G/	PCB's		- SVO	by EP/	6020		/239.2				5 82				
SAMPLE ID (Field Point Name)	LOCATION	Date	Time	# Containers	Type Containers	Water	Soil	Air	Sludge	Unter	Ice	HUI	HNU3	RTFX & TPH as C		THAS (CIUS) INCOME	I otal Petroleum On & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015)	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA 625	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Hord		5 fed oxys				
5B-10 - 7.5	Oakland	10/3/07	1200	1	Line		X			Ţ	X			5	5	~																		HOI	D	_
5B-10-11.5	1	1	1205	1	1		I			T	i			15	KS	4																X		1		_
58-10-15,5			1210			T				1	T			ť	1															X				HØ	lo	_
SB-11-3.5			300							Т																				X						
58-11-7.5			305							T																				X						
SB-11 - 11.5			310			$\mathbf{T}$				1		1		>	5	K	1								1											
58-11-15.5			315	1	1	t	1				1			>	<>	X									1							X				
5B-3-W				4	Y2Ho	1				1	X			7	<	L																X				
5B-5-W				1	1	1				1	i			N		1																X				
SB-7-W						T				1	T			X		1																X				
5B-9-W						П								K	5	(																X				
SB-10-W	1	1		1	1	1					4			X	5	6																X				
									-	-			-	-	-	-	_	_	_	_	_	_	_													
Relinquished By:		Date:	Time:	Rece	eived H	By:		1		_				+								_	_		-											_
An a	m	colestor	18:17	2	En	11	61	le	ch	2	T.	6	- 1		10	E/tº		2.	8			1	C		DE	CEP		THO		OAS	0&	G	ME	TALS	отн	ER
Relinquished By:	SP	Date:	Time:	Rece	eived I	By:	11	1			/	1								ION	1-	K	2					TIO		. 1	C	_				-
ENTO-Tec	hor.	14/0F	1820	11	in		4	_	-	-	-	~	-		H	EAD	SP	AC	EA	BSE	ENT		X		ON	TAI	INE	RS_	1	X	>					
Relinquished By:	1	Date: 16/4/67	Time: 1936	Reco	eived I	By:	1h	2	6	2	C	~	2		DI	ECH	LO	RIN	NAT	ED	IN	LAI	50		PE	RSI	RV	ED	IN	LAB			-			
111	0			1	(																															

ï

	J	Ū,
6	D	ł
1	-4	2
	1	-

1534 Willow Pass Rd

## CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Pittsburg (925) 252	, CA 94565-1701 2-9262				Work	Order	07102	218	0	lientI	D: AEL	ı				
			EDF	Γ	Excel		Fax		🖌 Email		Harc	lCopy	🗌 Thir	dParty		
Report to: Harmony Tor AEI Consulta 2500 Camino Walnut Creek	nts o Diablo, Ste. #200	25) 944-2899	· · · ·			AE 25 Wa	nise Mo I Consu 00 Cam alnut Cr nockel@	ultants iino Dia eek, Ca	A 94597	7		Dat	uested e Rece e Print	ived:		
						<b>-</b>	ſ	Req	uested	Tests	(See le	gend b	elow)	T		
Sample ID	ClientSampID	Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12
0710218-002	SB-7-7.5	Soil	10/3/07 11:00:00				А		А							
0710218-003	SB-7-11.5	Soil	10/3/07 11:05:00		А		А		А							
0710218-006	SB-8-7.5	Soil	10/3/07 12:50:00				А		А							
0710218-007	SB-8-11.5	Soil	10/3/07 1:00:00		А		А		А							
0710218-009	SB-9-4	Soil	10/3/07 9:25:00				А		А							
0710218-012	SB-9-11.5	Soil	10/3/07 9:40:00		А		А		А							
0710218-015	SB-10-7.5	Soil	10/3/07 12:00:00				А		А							
0710218-016	SB-10-11.5	Soil	10/3/07 12:05:00		А		А		А							
0710218-020	SB-11-11.5	Soil	10/3/07 3:10:00				А		А							
0710218-021	SB-11-15.5	Soil	10/3/07 3:15:00				А		А							
0710218-022	SB-3-W	Water	10/3/07			В		А		С						
0710218-023	SB-5-W	Water	10/3/07			В		А		С						
0710218-024	SB-7-W	Water	10/3/07			В		А		С						
0710218-025	SB-9-W	Water	10/3/07			В		А		С						
0710218-026	SB-10-W	Water	10/3/07			В		А		С						

#### **Test Legend:**

1	5-OXYS_S	] [	2	
6	TPH(D)WSG_W	] [	7	
11		] [	12	

2	5-OXYS_W	
7		
2		

3	G-MBTEX_S
8	

G-MBTEX\_W

4

9

5 TPH(D)WSG\_S 10

Prepared by: Rosa Venegas

#### **Comments:**

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.



# McCampbell Analytical, Inc. "When Ouality Counts"

### Sample Receipt Checklist

Client Name:	AEI Consultants					Date a	and Time Received:	10/4/07 9:	37:48 PM
Project Name:	#274761; Zimmer	man				Check	dist completed and re	eviewed by:	Rosa Venegas
WorkOrder N°:	0710218	Matrix	Soil/Water			Carrie	r: <u>EnviroTech</u>		
			Chain	of Cu	stody (C	OC) Informa	ation		
Chain of custody	present?			Yes		No 🗆			
	' signed when relinqui	shed an	d received?	Yes	$\checkmark$	No 🗆			
	v agrees with sample I			Yes		No 🗌			
	by Client on COC?			Yes		No 🗆			
	collection noted by Cl	ent on C	CC?	Yes	<b>~</b>	No 🗆			
Sampler's name				Yes	✓	No 🗆			
			<u>S</u> ;	ample	Receipt	Information	<u>l</u>		
Custody seals in	tact on shipping conta	iner/coo	ler?	Yes		No 🗆		NA 🔽	
Shipping contain	er/cooler in good cond	lition?		Yes	$\checkmark$	No 🗆			
Samples in prop	er containers/bottles?			Yes	$\checkmark$	No 🗆			
Sample containe	ers intact?			Yes	✓	No 🗆			
Sufficient sample	e volume for indicated	test?		Yes	✓	No 🗌			
		5.	malo Broco	rvation	and Ua	ld Time (UT	) Information		
		<u></u>		valioi			<u>intorniation</u>		
All samples rece	ived within holding tim	e?		Yes	$\checkmark$	No 🗌			
Container/Temp	Blank temperature			Coole	er Temp:	2.8°C		NA 🗆	
Water - VOA via	ls have zero headspa	ce / no b	oubbles?	Yes	✓	No 🗆	No VOA vials subm	itted 🗌	
Sample labels cl	necked for correct pre	servatio	n?	Yes	<ul><li>✓</li></ul>	No 🗌			
TTLC Metal - pH	acceptable upon rece	ipt (pH<2	2)?	Yes		No 🗆		NA 🗹	

Client contacted:

Date contacted:

Contacted by:

Comments:

When Ouality Co		<u>c.</u>	Web: www.mccamp	ass Road, Pittsburg, CA bell.com E-mail: main 77-252-9262 Fax: 92	@mccampbell.c	om
AEI Consultants	Client Pro	oject ID: #2747	61; Zimmerman	Date Sampled:	10/03/07	
2500 Camino Diablo, Ste. #200				Date Received:	10/04/07	
Walnut Creek, CA 94597	Client Co	ontact: Harmon	y TomSun	Date Extracted:	10/04/07	
wantut Creek, CA 94397	Client P.	0.:		Date Analyzed	10/12/07	
C	Dxygenated Vol	atile Organics b	y P&T and GC/M	IS*		
Extraction Method: SW5030B	Anal	ytical Method: SW82	260B	1	Work Order:	0710218
Lab ID	0710218-003A	0710218-007A	0710218-012A	0710218-016A		
Client ID	SB-7-11.5	SB-8-11.5	SB-9-11.5	SB-10-11.5	Reporting DF	Limit for =1
Matrix	S	S	S	S	1	
DF	4	2	1	20	S	W
Compound		Con	centration		mg/kg	ug/L
tert-Amyl methyl ether (TAME)	ND<0.020	ND<0.010	ND	ND<0.10	0.005	NA
t-Butyl alcohol (TBA)	ND<0.20	ND<0.10	ND	ND<1.0	0.05	NA
Diisopropyl ether (DIPE)	ND<0.020	ND<0.010	ND	ND<0.10	0.005	NA
Ethyl tert-butyl ether (ETBE)	ND<0.020	ND<0.010	ND	ND<0.10	0.005	NA
Methyl-t-butyl ether (MTBE)	ND<0.020	ND<0.010	ND	ND<0.10	0.005	NA
	Surr	ogate Recoveri	es (%)			
%SS1:	91	90	94	89		
Comments	j	j		j	ĺ	

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

When Ouality Co		2	Web: www.mccampl	ass Road, Pittsburg, CA pell.com E-mail: main 77-252-9262 Fax: 925	@mccampbell.c	com	
AEI Consultants	Client Pro	ject ID: #27476	1; Zimmerman	Date Sampled:	10/03/07		
2500 Camino Diablo, Ste. #200				Date Received:	10/04/07		
Walnut Creek, CA 94597	Client Co	ntact: Harmony	7 TomSun	Date Extracted:	10/13/07		
Wallut CICER, CA 94397	Client P.C	).:		Date Analyzed	10/13/07		
C Extraction Method: SW5030B	•••	tile Organics by	P&T and GC/M	S*	Work Order:	0710218	
Lab ID	0710218-022B	0710218-023B	0710218-024B	0710218-025B			
Client ID	SB-3-W	SB-5-W	SB-7-W	SB-9-W	Reporting Limit for DF =1		
Matrix	W	W	W	W			
DF	1	10	1	3.3	S	W	
Compound		Conc	entration		ug/kg	μg/L	
tert-Amyl methyl ether (TAME)	ND	ND<5.0	ND	ND<1.7	NA	0.5	
t-Butyl alcohol (TBA)	ND	120	ND	37	NA	5.0	
Diisopropyl ether (DIPE)	ND	ND<5.0	ND	ND<1.7	NA	0.5	
Ethyl tert-butyl ether (ETBE)	ND	ND<5.0	ND	ND<1.7	NA	0.5	
Methyl-t-butyl ether (MTBE)	ND	ND<5.0	6.1	ND<1.7	NA	0.5	
	Surro	gate Recoverie	s (%)				
%SS1:	111	103	101	108			
Comments					ĺ		

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than  $\sim 1$  vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

When Ouality Counts"					1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269					
AEI Consultants		Client Pro	oject ID: 🗧	#27476	1; Zimmerman	Date Sampled:	10/03/07			
2500 Camino Diablo, Ste. #200						Date Received:	10/04/07			
Walnut Creek, CA 94597	-	Client Co	ontact: Ha	armony	TomSun	Date Extracted:	10/13/07			
Wantat Creek, Cri y 1557		Client P.0	O.:			Date Analyzed	10/13/07			
Extraction Method: SW5030B	ytical Method	1: SW826	0B		Work Order:	0710218				
Lab ID	071021	18-026B								
Client ID SB-		10-W					Reporting DF			
Matrix		W								
DF	20						S	W		
Compound				Conce	entration		ug/kg	µg/L		
tert-Amyl methyl ether (TAME)	ND	0<10					NA	0.5		
t-Butyl alcohol (TBA)	5	10					NA	5.0		
Diisopropyl ether (DIPE)	1	11					NA	0.5		
Ethyl tert-butyl ether (ETBE)	ND	0<10					NA	0.5		
Methyl-t-butyl ether (MTBE)	ND	0<10					NA	0.5		
		Surro	ogate Rec	overies	s (%)					
%SS1:	1	04								
Comments										
* water and vapor samples are reported in extracts are reported in mg/L, wipe sampl ND means not detected above the reporti	les in μg/v	wipe.	Ĩ				es and all TC	LP & SPLP		

# surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

	McCampbell	Analyt		:	Web: www.m		Pittsburg, CA 94565 E-mail: main@mcca 52 Fax: 925-252-9	mpbell.com			
AEI C	Consultants			ect ID: #2747	#274761; Zimmerman Date Sampled: 10/03/07						
2500 0	Camino Diablo, Ste. #200					Date Receive	ed: 10/04/07				
			Client Con	tact: Harmo	ny TomSun		Date Extract	ed: 10/04/07			
Walnu	tt Creek, CA 94597	Client P.O.	:			Date Analyz	ed 10/06/07	-10/15/	/07		
	Gasolin	e Range (	C6-C12) Vola	tile Hydroca	rbons as Gasol	ine with BTH	EX and MTBE	*			
Extracti	on method SW5030B		Work Order	: 0710	218						
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	
002A	SB-7-7.5	S	310,g,m	ND<1.0	ND<0.10	0.48	0.28	0.38	20	99	
003A	SB-7-11.5	S	120,g,m	ND<0.50	0.21	0.069	0.39	0.22	10	97	
006A	SB-8-7.5	S	53,g,m	ND<0.10	ND<0.010	0.030	0.034	0.13	2	81	
007A	SB-8-11.5	S	99,a,m	ND<0.17	0.24	0.070	0.66	0.46	3.3	126	
009A	SB-9-4	S	ND	ND	ND	ND	ND	ND	1	82	
012A	SB-9-11.5	S	ND	ND	ND	ND	ND	ND	1	86	
015A	SB-10-7.5	S	35,a	ND<0.10	0.72	0.024	0.47	0.079	2	86	
016A	SB-10-11.5	S	750,a	ND<10	6.9	1.6	13	33	50	#	
020A	SB-11-11.5	S	39,a	ND<0.3	0.68	0.086	0.76	2.3	3.3	87	
021A	SB-11-15.5	S	41,a	0.14	1.1	0.071	0.55	1.5	1	108	
-	porting Limit for DF =1;	W	NA	NA	NA	NA	NA	NA	1	ug/L	
	means not detected at or ove the reporting limit	S	1.0	0.05	0.005	0.005	0.005	0.005	1	mg/Kg	

\* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high organic / MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) value derived using a client specified carbon range; o) results are reported on a dry weight basis; p) see attached narrative.



	McCampbell	Analy uality Counts'		<u>-</u>	Web: www.m		Pittsburg, CA 94565 E-mail: main@mcca 52 Fax: 925-252-9	mpbell.com			
AEI Co	onsultants		Client Proj	ect ID: #2747	#274761; Zimmerman Date Sampled: 10/03/07						
2500 C	amino Diablo, Ste. #200			Date Received: 10/04/07							
	Client Contact: Harmony TomSun Date Extracted: 10/08/07-10						-10/09	)/09/07			
Walnut	t Creek, CA 94597	Client P.O.: Date Analyzed 10/08/0						ed 10/08/07	7-10/09/07		
Extractio	Gasolin	e Range (		tile Hydrocal		line with BTI	EX and MTBE	* Work Order	: 0710	)218	
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	
022A	SB-3-W	W	84,a	ND	2.4	ND	4.2	11	1	108	
023A	SB-5-W	W	22,000,a	ND<250	1900	86	1200	2100	20	111	
024A	SB-7-W	W	2000,a	ND<25	30	5.1	56	82	5	113	
025A	SB-9-W	W	11,000,a	ND<50	440	14	720	1000	10	114	
026A	SB-10-W	W	17,000,a	ND<100	3800	55	420	830	20	105	
										+	
										-	
										1	
Repo	orting Limit for DF =1;	W	50	5.0	0.5	0.5	0.5	0.5	1	μg/L	
ND n	neans not detected at or ove the reporting limit	S	NA	NA	NA	NA	NA	NA	1	mg/Kg	

\* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.



	Campbell Analyti "When Ouality Counts"	ical, Inc.		Web: www.mccamp	ass Road, Pittsburg, CA 94565- bell.com E-mail: main@mccam 77-252-9262 Fax: 925-252-92	pbell.com	
AEI Consultants		Client Project	t ID: i	#274761; Zimmerman	Date Sampled: 10/03/	/07	
2500 Camino Dia				Date Received: 10/04	/07		
		Client Conta	et: Ha	armony TomSun	Date Extracted: 10/04/	07	
Walnut Creek, CA	A 94597	Client P.O.:			Date Analyzed 10/10/	/07-10/1	2/07
	Diesel Range (C10-	C23) Extracta	ble Hy	drocarbons with Silica	Gel Clean-Up*		
Extraction method SW3	3550C/3630C	Ana	lytical m	ethods SW8015C	Work Or	der: 07	10218
Lab ID	Client ID	Matrix		TPH(d)		DF	% SS
0710218-002A	SB-7-7.5	S		90,n		1	90
0710218-003A	SB-7-11.5	S		1	106		
0710218-006A	SB-8-7.5	S		1	119		
0710218-007A	SB-8-11.5	S	S 13,d				
0710218-009A	SB-9-4	S	S ND				
0710218-012A	SB-9-11.5	S		ND		1	88
0710218-015A	SB-10-7.5	S		5.1,d		1	91
0710218-016A	SB-10-11.5	S		74,d		1	108
0710218-020A	SB-11-11.5	S		13,d		1	118
0710218-021A	SB-11-15.5	S		10,d		1	119

Reporting Limit for DF =1;	W	NA	NA
ND means not detected at or above the reporting limit	S	1.0	mg/Kg

\* water samples are reported in  $\mu$ g/L, wipe samples in  $\mu$ g/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in  $\mu$ g/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit; r) results are reported on a dry weight basis



DHS ELAP Certification Nº 1644

	Campbell Analyti "When Ouality Counts"	cal, Inc.		Web: www.mccamp	Pass Road, Pittsburg, CA 94565- bell.com E-mail: main@mccam 877-252-9262 Fax: 925-252-926	pbell.com		
AEI Consultants	5	Client Project ID: #274761; Zimmerman Da			Date Sampled: 10/03/07			
2500 Camino Dia	2500 Camino Diablo, Ste. #200				Date Received: 10/04/	/07		
Webs (Creed) C	04507	Client Conta	act: Ha	armony TomSun	Date Extracted: 10/04/	07		
Walnut Creek, C	A 94597	Client P.O.:			Date Analyzed 10/09/	/07-10/1	0/07	
	Diesel Range (C10-0	C23) Extracta	ble Hy	ydrocarbons with Silica	Gel Clean-Up*			
Extraction method SW	/3510C/3630C	Ana	alytical m	nethods SW8015C	Work Or	der: 07	10218	
Lab ID	Client ID	Matrix		TPH(d)		DF	% SS	
0710218-022C	SB-3-W	W		ND		1	118	
0710218-023C	SB-5-W	w	W 7400,d					
0710218-024C	SB-7-W	w	W 1000,d					
0710218-025C	SB-9-W	w	W 5700,d,b,g					
0710218-026C	SB-10-W	w		1700,d,b	,g	1	82	

Reporting Limit for DF =1;	W	50	µg/L
ND means not detected at or above the reporting limit	S	NA	NA

\* water samples are reported in  $\mu$ g/L, wipe samples in  $\mu$ g/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in  $\mu$ g/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract/matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit; p) see attached narrative.



DHS ELAP Certification Nº 1644



Web: www.mo

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

#### QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder 0710218

EPA Method SW8260B Extraction SW5030B					BatchID: 31144 Spiked Sample ID: 0710278-						1 <b>A</b>
Sample	Sample Spiked MS MSD MS-MSD LCS LC						LCS-LCSD Acceptance Criteria (%)				
mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
ND	0.050	92	91	1.11	94.4	88.5	6.55	70 - 130	30	70 - 130	30
ND	0.25	95.9	94	1.99	99	92.6	6.62	70 - 130	30	70 - 130	30
ND	0.050	103	101	2.02	105	98.6	6.49	70 - 130	30	70 - 130	30
ND	0.050	90.9	89.2	1.84	94.3	86.8	8.32	70 - 130	30	70 - 130	30
ND	0.050	101	96.4	4.21	105	91.4	13.4	70 - 130	30	70 - 130	30
105	0.050	95	91	4.31	98	88	10.9	70 - 130	30	70 - 130	30
	Sample mg/Kg ND ND ND ND ND	Sample         Spiked           mg/Kg         mg/Kg           ND         0.050           ND         0.25           ND         0.050           ND         0.050           ND         0.050           ND         0.050           ND         0.050	Sample         Spiked         MS           mg/Kg         mg/Kg         % Rec.           ND         0.050         92           ND         0.25         95.9           ND         0.050         103           ND         0.050         90.9           ND         0.050         101	Sample         Spiked         MS         MSD           mg/Kg         mg/Kg         % Rec.         % Rec.           ND         0.050         92         91           ND         0.25         95.9         94           ND         0.050         103         101           ND         0.050         90.9         89.2           ND         0.050         101         96.4	Sample         Spiked         MS         MSD         MS-MSD           mg/Kg         mg/Kg         % Rec.         % Rec.         % RPD           ND         0.050         92         91         1.11           ND         0.25         95.9         94         1.99           ND         0.050         103         101         2.02           ND         0.050         90.9         89.2         1.84           ND         0.050         101         96.4         4.21	Sample         Spiked         MS         MSD         MS-MSD         LCS           mg/Kg         mg/Kg         % Rec.         % Rec.         % RPD         % Rec.           ND         0.050         92         91         1.11         94.4           ND         0.25         95.9         94         1.99         99           ND         0.050         103         101         2.02         105           ND         0.050         90.9         89.2         1.84         94.3           ND         0.050         101         96.4         4.21         105	Sample         Spiked         MS         MSD         MS-MSD         LCS         LCSD           mg/Kg         mg/Kg         % Rec.         % Rec.         % RPD         % Rec.         % Rec.           ND         0.050         92         91         1.11         94.4         88.5           ND         0.25         95.9         94         1.99         99         92.6           ND         0.050         103         101         2.02         105         98.6           ND         0.050         90.9         89.2         1.84         94.3         86.8           ND         0.050         101         96.4         4.21         105         91.4	Sample         Spiked         MS         MSD         MS-MSD         LCS         LCSD         LCS-LCSD           mg/Kg         mg/Kg         % Rec.         % Rec.         % RPD         % Rec.         % Rep           ND         0.050         92         91         1.11         94.4         88.5         6.55           ND         0.25         95.9         94         1.99         99         92.6         6.62           ND         0.050         103         101         2.02         105         98.6         6.49           ND         0.050         90.9         89.2         1.84         94.3         86.8         8.32           ND         0.050         101         96.4         4.21         105         91.4         13.4	Sample         Spiked         MS         MSD         MS-MSD         LCS         LCSD         LCS-LCSD         According           mg/Kg         mg/Kg         % Rec.         % Rec.         % RPD         % Rec.         % RPD         % RPD         % Rec.         % RPD         % RPD         % Rec.         % RPD         % RPD <td>Sample         Spiked         MS         MSD         MS-MSD         LCS         LCSD         LCS-LCSD         Acceptance           mg/Kg         mg/Kg         % Rec.         % Rec.         % RPD         % Rec.         % Rec.         % RPD         % Rec.         % Rec.         % RPD         MS / MSD         RPD           ND         0.050         92         91         1.11         94.4         88.5         6.55         70 - 130         30           ND         0.25         95.9         94         1.99         99         92.6         6.62         70 - 130         30           ND         0.050         103         101         2.02         105         98.6         6.49         70 - 130         30           ND         0.050         90.9         89.2         1.84         94.3         86.8         8.32         70 - 130         30           ND         0.050         101         96.4         4.21         105         91.4         13.4         70 - 130         30</td> <td>Sample         Spiked         MS         MSD         MS-MSD         LCS         LCSD         LCS-LCSD         Acceptance Criteria (%)           mg/Kg         mg/Kg         % Rec.         % Rec.         % RPD         % Rec.         % Rec.         % RPD         % Rec.         % RPD         LCS/LCSD           ND         0.050         92         91         1.11         94.4         88.5         6.55         70 - 130         30         70 - 130           ND         0.25         95.9         94         1.99         99         92.6         6.62         70 - 130         30         70 - 130           ND         0.050         103         101         2.02         105         98.6         6.49         70 - 130         30         70 - 130           ND         0.050         90.9         89.2         1.84         94.3         86.8         8.32         70 - 130         30         70 - 130           ND         0.050         101         96.4         4.21         105         91.4         13.4         70 - 130         30         70 - 130</td>	Sample         Spiked         MS         MSD         MS-MSD         LCS         LCSD         LCS-LCSD         Acceptance           mg/Kg         mg/Kg         % Rec.         % Rec.         % RPD         % Rec.         % Rec.         % RPD         % Rec.         % Rec.         % RPD         MS / MSD         RPD           ND         0.050         92         91         1.11         94.4         88.5         6.55         70 - 130         30           ND         0.25         95.9         94         1.99         99         92.6         6.62         70 - 130         30           ND         0.050         103         101         2.02         105         98.6         6.49         70 - 130         30           ND         0.050         90.9         89.2         1.84         94.3         86.8         8.32         70 - 130         30           ND         0.050         101         96.4         4.21         105         91.4         13.4         70 - 130         30	Sample         Spiked         MS         MSD         MS-MSD         LCS         LCSD         LCS-LCSD         Acceptance Criteria (%)           mg/Kg         mg/Kg         % Rec.         % Rec.         % RPD         % Rec.         % Rec.         % RPD         % Rec.         % RPD         LCS/LCSD           ND         0.050         92         91         1.11         94.4         88.5         6.55         70 - 130         30         70 - 130           ND         0.25         95.9         94         1.99         99         92.6         6.62         70 - 130         30         70 - 130           ND         0.050         103         101         2.02         105         98.6         6.49         70 - 130         30         70 - 130           ND         0.050         90.9         89.2         1.84         94.3         86.8         8.32         70 - 130         30         70 - 130           ND         0.050         101         96.4         4.21         105         91.4         13.4         70 - 130         30         70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions NONE

#### BATCH 31144 SUMMARY

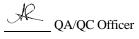
Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710218-003A	10/03/07 11:05 AM	10/04/07	10/12/07 7:17 AM	0710218-007A	10/03/07 1:00 PM	10/04/07	10/12/07 8:02 AM
0710218-012A	10/03/07 9:40 AM	10/04/07	10/12/07 1:26 PM	0710218-016A	10/03/07 12:05 PM	10/04/07	10/12/07 2:12 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.





# QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 0710218

EPA Method SW8260B	Extra	ction SW	5030B		Bat	chID: 31	137	Sp	iked Samp	ole ID:	0710219-01	1A
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	
Analyte	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	10	92.3	91.8	0.511	85.9	95.6	10.7	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	84.2	84.6	0.447	87.4	93.7	6.95	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	101	101	0	92.5	105	12.3	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	91.7	90.2	1.60	82.2	93.3	12.6	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	99	96.6	2.46	87.8	100	13.4	70 - 130	30	70 - 130	30
%SS1:	99	10	103	101	1.46	85	95	11.7	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following except NONE

### BATCH 31137 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710218-022B	10/03/07	10/13/07	10/13/07 10:43 AM	0710218-023B	10/03/07	10/13/07	10/13/07 11:31 AM
0710218-024B	10/03/07	10/13/07	10/13/07 12:22 PM	0710218-025B	10/03/07	10/13/07	10/13/07 1:10 PM
0710218-026B	10/03/07	10/13/07	10/13/07 1:58 PM				

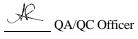
MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.





# QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder 0710218

Spiked mg/Kg	MS % Rec.	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	ontanco	Criteria (%)	
	% Rec.						7,000	plance	Cinteria (%)	
		% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
0.60	94.9	96.2	1.34	84.3	82.4	2.30	70 - 130	30	70 - 130	30
0.10	75.6	77.5	2.46	104	97.3	6.63	70 - 130	30	70 - 130	30
0.10	104	102	1.84	106	102	3.84	70 - 130	30	70 - 130	30
0.10	98.9	97.1	1.84	114	112	1.50	70 - 130	30	70 - 130	30
0.10	108	105	2.23	102	109	7.21	70 - 130	30	70 - 130	30
0.30	123	120	2.74	103	113	9.88	70 - 130	30	70 - 130	30
0.10	102	94	8.14	102	101	0.570	70 - 130	30	70 - 130	30
e	0.10 0.10 0.10 0.30 0.10	0.10         104           0.10         98.9           0.10         108           0.30         123	0.101041020.1098.997.10.101081050.301231200.1010294	0.10         104         102         1.84           0.10         98.9         97.1         1.84           0.10         108         105         2.23           0.30         123         120         2.74           0.10         102         94         8.14	0.10         104         102         1.84         106           0.10         98.9         97.1         1.84         114           0.10         108         105         2.23         102           0.30         123         120         2.74         103           0.10         102         94         8.14         102	0.10         104         102         1.84         106         102           0.10         98.9         97.1         1.84         114         112           0.10         108         105         2.23         102         109           0.30         123         120         2.74         103         113           0.10         102         94         8.14         102         101	0.10         104         102         1.84         106         102         3.84           0.10         98.9         97.1         1.84         114         112         1.50           0.10         108         105         2.23         102         109         7.21           0.30         123         120         2.74         103         113         9.88	0.10         104         102         1.84         106         102         3.84         70 - 130           0.10         98.9         97.1         1.84         114         112         1.50         70 - 130           0.10         108         105         2.23         102         109         7.21         70 - 130           0.30         123         120         2.74         103         113         9.88         70 - 130	0.10         104         102         1.84         106         102         3.84         70 - 130         30           0.10         98.9         97.1         1.84         114         112         1.50         70 - 130         30           0.10         108         105         2.23         102         109         7.21         70 - 130         30           0.30         123         120         2.74         103         113         9.88         70 - 130         30	0.10         104         102         1.84         106         102         3.84         70 - 130         30         70 - 130           0.10         98.9         97.1         1.84         114         112         1.50         70 - 130         30         70 - 130           0.10         108         105         2.23         102         109         7.21         70 - 130         30         70 - 130           0.30         123         120         2.74         103         113         9.88         70 - 130         30         70 - 130

### BATCH 31129 SUMMARY

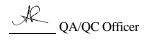
Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710218-002A	10/03/07 11:00 AM	10/04/07	10/06/07 5:08 PM	0710218-003A	10/03/07 11:05 AM	10/04/07	10/06/07 5:42 PM
0710218-006A	10/03/07 12:50 PM	10/04/07	10/06/07 6:16 PM	0710218-007A	10/03/07 1:00 PM	10/04/07	10/06/07 6:50 PM
0710218-009A	10/03/07 9:25 AM	10/04/07	10/06/07 12:32 AM	0710218-012A	10/03/07 9:40 AM	10/04/07	10/15/07 12:13 PM
0710218-015A	10/03/07 12:00 PM	10/04/07	10/06/07 7:57 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

 $\pounds$  TPH(btex) = sum of BTEX areas from the FID.





"When Ouality Counts"

# QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder 0710218

Spiked mg/Kg 0.60	MS % Rec.	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	entance	Criteria (%)	
	% Rec.	% Rec					,	plance	Cillena (%)	
0.60		70 1100.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
0.00	97.6	98.3	0.692	98.1	96.2	1.97	70 - 130	30	70 - 130	30
0.10	83.7	83.1	0.728	77.7	79.8	2.63	70 - 130	30	70 - 130	30
0.10	108	102	5.12	102	101	0.304	70 - 130	30	70 - 130	30
0.10	107	102	4.97	101	101	0	70 - 130	30	70 - 130	30
0.10	111	106	4.94	105	106	0.297	70 - 130	30	70 - 130	30
0.30	123	120	2.74	120	120	0	70 - 130	30	70 - 130	30
0.10	98	102	3.71	104	101	2.43	70 - 130	30	70 - 130	30
:2	0.10 0.10 0.10 0.30 0.10	0.10         108           0.10         107           0.10         111           0.30         123           0.10         98	0.101081020.101071020.101111060.301231200.1098102	0.10         108         102         5.12           0.10         107         102         4.97           0.10         111         106         4.94           0.30         123         120         2.74           0.10         98         102         3.71	0.10         108         102         5.12         102           0.10         107         102         4.97         101           0.10         111         106         4.94         105           0.30         123         120         2.74         120           0.10         98         102         3.71         104	0.10         108         102         5.12         102         101           0.10         107         102         4.97         101         101           0.10         111         106         4.94         105         106           0.30         123         120         2.74         120         120           0.10         98         102         3.71         104         101	0.10         108         102         5.12         102         101         0.304           0.10         107         102         4.97         101         101         0           0.10         111         106         4.94         105         106         0.297           0.30         123         120         2.74         120         120         0           0.10         98         102         3.71         104         101         2.43	0.10         108         102         5.12         102         101         0.304         70 - 130           0.10         107         102         4.97         101         101         0         70 - 130           0.10         107         102         4.97         101         101         0         70 - 130           0.10         111         106         4.94         105         106         0.297         70 - 130           0.30         123         120         2.74         120         120         0         70 - 130           0.10         98         102         3.71         104         101         2.43         70 - 130	0.10         108         102         5.12         102         101         0.304         70 - 130         30           0.10         107         102         4.97         101         101         0         70 - 130         30           0.10         107         102         4.97         101         101         0         70 - 130         30           0.10         111         106         4.94         105         106         0.297         70 - 130         30           0.30         123         120         2.74         120         120         0         70 - 130         30           0.10         98         102         3.71         104         101         2.43         70 - 130         30	0.10         108         102         5.12         102         101         0.304         70 - 130         30         70 - 130           0.10         107         102         4.97         101         101         0         70 - 130         30         70 - 130           0.10         111         106         4.94         105         106         0.297         70 - 130         30         70 - 130           0.30         123         120         2.74         120         120         0         70 - 130         30         70 - 130

## BATCH 31143 SUMMARY

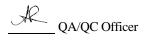
Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710218-016A	10/03/07 12:05 PM	10/04/07	10/06/07 9:03 PM	0710218-020A	10/03/07 3:10 PM	10/04/07	10/06/07 10:09 PM
0710218-021A	10/03/07 3:15 PM	10/04/07	10/06/07 1:38 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

 $\pounds$  TPH(btex) = sum of BTEX areas from the FID.





# QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 0710218

Samp			EPA Method SW8021B/8015Cm Extraction SW5030B BatchID: 31135 Spiked Sample ID: 0710								
Analyte	e Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	
µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex <sup>f</sup> ) ND	60	81.4	90.5	10.6	106	102	4.21	70 - 130	30	70 - 130	30
MTBE ND	10	96.3	104	7.90	111	117	4.52	70 - 130	30	70 - 130	30
Benzene ND	10	85.6	98.2	13.7	105	105	0	70 - 130	30	70 - 130	30
Toluene ND	10	78.5	88.7	12.1	103	98	4.90	70 - 130	30	70 - 130	30
Ethylbenzene ND	10	86.5	95.3	9.76	103	103	0	70 - 130	30	70 - 130	30
Xylenes ND	30	81.7	92.3	12.3	96.7	96.7	0	70 - 130	30	70 - 130	30
%SS: 128	10	102	103	0.304	105	104	0.465	70 - 130	30	70 - 130	30

### BATCH 31135 SUMMARY

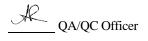
Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710218-022A	10/03/07	10/08/07	10/08/07 12:58 PM	0710218-023A	10/03/07	10/09/07	10/09/07 12:51 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

 $\pounds$  TPH(btex) = sum of BTEX areas from the FID.





# QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 0710218

EPA Method SW8015C	Extra	ction SW	3510C/3	630C	Bat	chID: 31	139	Sp	oiked Samp	ole ID:	N/A	
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	
, unanj to	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	N/A	1000	N/A	N/A	N/A	111	110	0.288	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	117	117	0	N/A	N/A	70 - 130	30

			<u>BATCH 31139 SL</u>	<u>JMMARY</u>			
Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710218-022C	10/03/07	10/04/07	10/09/07 9:06 PM	0710218-023C	10/03/07	10/04/07	10/10/07 10:56 PM
0710218-024C	10/03/07	10/04/07	10/09/07 11:20 PM	0710218-025C	10/03/07	10/04/07	10/10/07 2:15 PM
0710218-026C	10/03/07	10/04/07	10/10/07 3:22 PM				

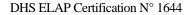
MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



A QA/QC Officer



Wet

# QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 0710218

EPA Method SW8021B/8015Cm	Extra	ction SW	5030B	BatchID: 31140 Spiked Sample ID: 0710210-013A							3A	
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acc	eptance	Criteria (%)	
Analyte	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex <sup>f</sup> )	ND	60	103	86.9	17.4	106	108	2.05	70 - 130	30	70 - 130	30
MTBE	ND	10	103	93.1	10.2	87.4	102	15.1	70 - 130	30	70 - 130	30
Benzene	ND	10	99.9	89.5	11.0	101	101	0	70 - 130	30	70 - 130	30
Toluene	ND	10	96.1	87.8	9.11	101	101	0	70 - 130	30	70 - 130	30
Ethylbenzene	ND	10	97.9	91.3	7.01	106	107	0.750	70 - 130	30	70 - 130	30
Xylenes	ND	30	91.3	86.3	5.63	120	120	0	70 - 130	30	70 - 130	30
%SS:	109	10	105	103	1.35	93	91	1.76	70 - 130	30	70 - 130	30
All target compounds in the Method E NONE	lank of this	extraction	batch we	re ND les	ss than the	method F	RL with th	e following	exceptions:			

## BATCH 31140 SUMMARY

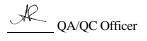
Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710218-024A	10/03/07	10/09/07	10/09/07 3:05 PM	0710218-025A	10/03/07	10/09/07	10/09/07 4:13 PM
0710218-026A	10/03/07	10/09/07	10/09/07 5:20 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

 $\pounds$  TPH(btex) = sum of BTEX areas from the FID.





# QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder 0710218

EPA Method SW8015C	Extra	ction SW	3550C/3	630C	Bat	chID: 31	029	Sp	iked Sam	ole ID:	0710061-00	2A
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	1
, mayte	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	210	20	NR	NR	NR	129	123	4.13	70 - 130	30	70 - 130	30
%SS:	93	50	73	72	2.38	123	123	0	70 - 130	30	70 - 130	30
All target compounds in the Method E NONE	lank of this	extraction	batch we	re ND les	ss than the	method F	CL with th	e following	exceptions:			

			BATCH 31029 SL	IMMARY_			
Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710218-002A	10/03/07 11:00 AM	10/04/07	10/11/07 8:16 PM	0710218-003A	10/03/07 11:05 AM	10/04/07	10/10/07 11:31 PM
0710218-006A	10/03/07 12:50 PM	10/04/07	10/11/07 12:38 AM	0710218-007A	10/03/07 1:00 PM	10/04/07	10/11/07 7:59 AM
0710218-009A	10/03/07 9:25 AM	10/04/07	10/11/07 9:26 PM	0710218-012A	10/03/07 9:40 AM	10/04/07	10/11/07 10:36 PM
0710218-015A	10/03/07 12:00 PM	10/04/07	10/12/07 2:06 AM	0710218-016A	10/03/07 12:05 PM	10/04/07	10/12/07 3:16 AM
0710218-020A	10/03/07 3:10 PM	10/04/07	10/10/07 9:17 PM	0710218-021A	10/03/07 3:15 PM	10/04/07	10/10/07 10:24 PM

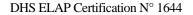
MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.





"When Ouality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 10/03/07
2500 Camino Diablo, Ste. #200		Date Received: 10/04/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Reported: 10/16/07
	Client P.O.:	Date Completed: 10/24/07

# WorkOrder: 0710218

October 24, 2007

# Dear Harmony:

Enclosed are:

- 1). the results of 1 analyzed sample from your #274761; Zimmerman project,
- 2). a QC report for the above sample
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence

in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

	McCAM	1534 V	Willow Pass	s Road		L	INC	2.							т	UF	N	AB						F	CL	JST	го	D	Y I	REC	OR	_		8
Telepho	ne: (925) 25		burg, CA 9				(92	25)-2	252-9	926	9					DFI						Yes				USH No	2	24 H	IR	48 F	IR			5 DAY
Report To: Harm		n	E	Bill To	o: sa	me		1	P.O.	#										An	alys	is R	lequ	iest						0	ther		Con	iments
Company: AEI C																3	6				c.										W			
	Camino Dial		200							_		_					B&I			1	Silica Gel							- 23			TANE	W		5
	ut Creek, C	A 94597		E-M				-	cons	ulta	nts.	com			8015)/MTBE	wisilica	&F/				Silis				310						F	500		
Tele: (925) 944-2				ax: (											S)/M	-	20 E	8.1)			/m (				0/8						W			
Project #: 274761				rojec		me:	Zin	nme	rma	n					801	1	(55	\$ (41		6	8015				827(						MTBE	DIFE		
Project Location:		ie St., Oal	kland, C.	A 946	508									_	20+	I	Grease (5520 E&F/B&F)	bons		802	10	ALY			25/			10)						
Sampler Signatur	e: fn	4	/		_	_				_					2/80		g	ocar		02 /	Q	\$ 0		)Cs	A 6.			2/60			100	122		
Children (		SAMP	PLING		ers	L	MA	ATR	UX			ESE			ias (602	15) च	Oil &	Hydn	09	SPA 6	ge (G	PCB'		- SVC	by EP	6020		1/239.			\$ 82			
SAMPLE ID (Field Point Name)	LOCATION	Date	Time	# Containers	Type Containers	Water	Soil	Air	Sludge	Other	Ice	HCI	HNO <sub>3</sub>	Other	BTEX & TPH as (	[PH as Diesel (8015) - Math	Total Petroleum Oil &	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015)	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Ant	5 fed oxy			
5B-10 - 7.5	Oakland	10/3/07	1200	1	Lin	N	×				X				X	×																	HOL	D
5B-10-11.5	1	1	1205	1	1	T	1				i				X	X															X		-	
SB-10-15,5			1210			+				1	t		1		X	1														Y	-		HOT	DEPPRO-19
SB-11-3.5			300			+			-	+		-		1																$\widehat{\mathbf{v}}$	-			-2-aX .
52-11-75			305		$\square$	+	H		-	+	+	-		+	-	-	-		-			-	-		-			-		$\checkmark$				,
58-11-115			310		+	+			-	+		-	-		X	×		-												^				
50 11-16 6			315			+			+	+		-	+			Y			-			-	-						-		V			
5B-3-W			712	4	NOR	-1	-		-	-	V	+	+	+	3	5	-		-										-		$\widehat{\mathbf{v}}$			
58-5-W				1	100	1.	-		-	+	f	-	-	-	5	7							_		-				-		1			
SB-7-W						+	-		-	+	++	+	+	-	X	7		-	-	-		-		-	-	-		-	-		£			
				$\vdash$	+	+	-		-	+	+	-	+	+	7	X	-	-	-	-	-	-	-		-		-	-	-		X			
SB-9-W SB-10-W				1			-		-	+		+	+		X	S		-		-	-	-	-		-		-	-	-		Ž	-		
00-10-00										1	-	+	-	1	X	-								_										
Relinquished By: ENVIO-Tec	hSR.	Date: 10/4/07 Date: 10/4/07	Time: 18/17 Time: 1820	Rece	ived I	11 By: h	r6.	fe	ch	2	T.	1	GOOD CONDITION APPROPRIATE HEAD SPACE ABSENT CONTAINERS																					
Relinquished By:	1	Date: **/4/67	Time: 1936	Rece	ived I	By:	l	2	6	1	Č		2		D	DEC	HLO	ORI	NAT	TED	IN	LAE	30		PE	RSE	RV	ED	IN Í	AB				

Page 1 of 1

Sample ID	ClientSampID		Matrix	Collection D	ate Hold	1	2	3	Requ 4	lested T 5	fests ( 6	See lege 7	end bo 8	elow) 9	10	11	12
Report to: Harmony TomSun AEI Consultants 2500 Camino Diab Walnut Creek, CA	olo, Ste. #200	Email: TEL: ProjectNo: PO:	htomsun@ae (925) 283-6000 #274761; Zin	(	com 25) 944-28		AEI 250 Wa	Inut Cr		94597		)	Dat Dat	quested te Recen te Add-( te Print	ived: On:	10/04 10/15	days /2007 5/2007 5/2007
Demost de .				EDF	C	] Excel	_	Fax		🖊 Email		HardC		Thirc	-	-	
Pittsburg, CA 9 (925) 252-9262					,	WorkOr	der: (	071021	Α	(	ClientI	D: AEL	4				

	•	Matrix	Collection Date	Hold		~	v	-	3	U	'	0	3	10	 12
0710218-017	SB-10-15.5	Soil	10/03/07 12:10:00		А										

Test Legend:

1 G-MBTEX_S	2	3	4	5	
6	7	8	9	10	
11	12	]			

Prepared by: Rosa Venegas

**Comments:** gmbtex added on 10/15/07 on a std tat per fax

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.

	McCampbell	Analyt		<u>.</u>		Web: www.m		Pittsburg, CA 94565 E-mail: main@mcca 52 Fax: 925-252-9	mpbell.com		
AEI C	Consultants		Client Proj	ect ID: #2	27470	61; Zimmerma	an	Date Sample	ed: 10/03/07		
2500 0	Camino Diablo, Ste. #200							Date Receive	ed: 10/04/07		
Walni	ıt Creek, CA 94597		Client Cor	ntact: Hai	rmon	y TomSun		Date Extracte	ed: 10/15/07		
vv anne	n Crock, Cri 94397		Client P.O.					Date Analyz	ed: 10/16/07		
Extracti	Gasolin ion method: SW5030B	ne Range ((		atile Hydr	EX and MTBE	* Work Order	r: 0710	218			
Lab ID	Client ID	Matrix	TPH(g)	MTBE	2	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
017A	SB-10-15.5	s	ND	ND		0.012	ND	ND	0.0052	1	78
-	porting Limit for DF =1;	W	NA	NA		NA	NA	NA	NA	1	ug/L
ND	means not detected at or	S	1.0	0.05		0.005	0.005	0.005	0.005	1	mg/Kg

\* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high organic / MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) value derived using a client specified carbon range; o) results are reported on a dry weight basis; p) see attached narrative.

above the reporting limit





"When Ouality Counts"

# QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder: 0710218

EPA Method SW8021B/8015Cm	Extrac	ction SW	5030B		Ba	tchID: 31	341	Sp	iked Sam	ole ID:	0710502-01	9A
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	
Analyte	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex <sup>£</sup>	ND	0.60	113	101	11.5	106	107	0.997	70 - 130	30	70 - 130	30
MTBE	ND	0.10	81	73.1	10.3	81.2	79.5	2.01	70 - 130	30	70 - 130	30
Benzene	ND	0.10	92.2	90.5	1.84	96.3	97.4	1.16	70 - 130	30	70 - 130	30
Toluene	ND	0.10	90.6	87	3.88	94.1	95.4	1.34	70 - 130	30	70 - 130	30
Ethylbenzene	ND	0.10	96.1	97	1.01	101	103	1.72	70 - 130	30	70 - 130	30
Xylenes	ND	0.30	91.3	91.3	0	96	96.3	0.347	70 - 130	30	70 - 130	30
%SS:	85	0.10	77	78	0.685	81	82	1.44	70 - 130	30	70 - 130	30
All target compounds in the Method E NONE	lank of this	extraction	batch we	re ND les	s than the	method R	RL with th	e following	exceptions:			

## BATCH 31341 SUMMARY

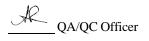
Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710218-017A	10/03/07 12:10 PM	10/15/07	10/16/07 5:45 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

 $\pounds$  TPH(btex) = sum of BTEX areas from the FID.





"When Ouality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 10/03/07
2500 Camino Diablo, Ste. #200		Date Received: 10/04/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Reported: 10/15/07
	Client P.O.:	Date Completed: 10/15/07

# WorkOrder: 0710225

October 15, 2007

# Dear Harmony:

Enclosed are:

- 1). the results of 1 analyzed sample from your #274761; Zimmerman project,
- 2). a QC report for the above sample
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence

in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

AEL 0710225.

Telephone: (925) 25	1534 V Pittsbu www.ma 2-9262	Willow P rg, CA 9	ALYTICAL INC. ass Road 4565-1701 mpbell.com Fax: (925	5) 252-9269	CHAIN OF CUSTODY RECORD TURN AROUND TIME RUSH 24 HR 48 HR 72 HR 5 DAY EDF Required? Coelt (Normal) No Write On (DW) No							
Report To: Harmany Uman			Bill To: Same			]	Lab Use	Only		- Killer av		
Company: AEI Cousulto	NS								Pr	essurizatio	on Gas	
			E-Mail: htoms	m@aeiconsultank.com	Pressurized	By		Date	1	N2	He	
Tele: (925 )944 2899			Fax: ( ) _				1.1		11 365			
Project #: 274761			Project Name: 7	immerman		1						
Project Location: Oaklaw	1											
Sampler Signature:	<u>v</u>	NA	~		Notes:	and a second		<u>la manena y fi</u>	<u>, to the second</u>	trior a la Italia		
Field Sample ID	Colle	ection		Somelan V:4 SN#	-							
(Location)	Date	Time	Canister SN#	Sampler Kit SN#	Analysis Requested	Indoor Air	Soil Gas	Ca Initial	nister Pre Final	Receipt	um Final (psi)	
VB-3	10/3/07	00:11	4713	MAN316-670	TPHy TO3/METEX		Ø	-29	-5		(p31)	
	1.				1							
							-					
										and the second sec		
Relinguished By:	Date:	Time:	Received By:	1		1			L	La ann	l	
An Non		18:18		tehT.L.	Temp (°C) :	Work Order	r #:					
Relinquished By:	Date:	Time:	Received By:	11 1	Condition:							
Ewiro-Tech	= 10/4/07	1820 Time:			Custody Seals Intact?: Ye - Shipped Via:							
Relinquished By:	Date:	/936	Řeceived By:					1				

	_
_ 340	1534 Wil
	Pittsburg
	(925) 25

llow Pass Rd

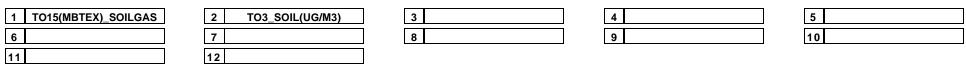
# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Pittsburg, CA 9456: (925) 252-9262	5-1701					WorkO	rder:	07102	225	Clie	ntID: A	EL				
						Excel	Γ	Fax	<b>~</b>	Email	٦۲	lardCopy	ThirdPa	rty		
Report to:						В	ill to:					Rec	uested TA	т:	5 d	ays
Harmony TomSun AEI Consultants 2500 Camino Diablo, 3 Walnut Creek, CA 945		Email: TEL: ProjectNo: PO:	htomsun@ae (925) 283-6000 #274761; Zin	( )		95	AE 250 Wa	Inut Cre	iltants ino Diat eek, CA	blo, Ste. # 94597 sultants.c			te Receive te Printed		0/04/2 0/09/2	
					[				Requ	ested Te	sts (See	legend b	oelow)			
Sample ID	ClientSampID		Matrix	<b>Collection Date</b>	Hold	1	2	3	4	5	6 7	8	9 1	0	11	12

0710225-001	VB-3	Air	10/03/07	А	А				

## Test Legend:



# Prepared by: Nickole White

#### Joanne no longer with AEI; invoices to dmockel@aeiconsultants.com **Comments:**

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.

McCampbell An "When Ouality		l <u>, Inc.</u>	1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269						
AEI Consultants	Cli	ient Project ID: 4	#274761; Zimn	nerman	Date Sampled:	10/03/07			
2500 Camino Diablo, Ste. #200					Date Received:	10/04/07			
Walnut Crock, CA 04507	Cli	ent Contact: Ha	armony TomSu	ın	Date Extracted:	10/13/07			
Walnut Creek, CA 94597	Cli	ient P.O.:			Date Analyzed	10/13/07			
	·	MBTEX	in nL/L*						
Extraction Method: TO-15		Analytical Method	: TO15		1	Work Order:	0710225		
Lab ID	0710225-0	001A				-			
Client ID	VB-3					Reporting	Limit for		
Matrix	Air						=1		
Initial Pressure	11.67								
Final Pressure	23.24					S	А		
Compound			Concentratio	n	·	ug/kg	nL/L		
Benzene	13					NA	2.0		
Ethylbenzene	3.7					NA	2.0		
Isopropyl Alcohol	ND					NA	10		
Methyl-t-butyl ether (MTBE)	ND					NA	13		
Toluene	11					NA	2.0		
Xylenes	11					NA	6.0		
		Surrogate Rec	overies (%)						
%SS1:	105								
%SS2:	97								
%SS3:	100								
Comments									
*vapor samples are reported in nL/L.									
ND means not detected above the reporting	ng limit; N/A	means analyte no	t applicable to th	nis analysis	5.				
# surrogate diluted out of range or surroga	ate coelutes v	with another peak;	&) high/low surr	ogate due	to matrix interferenc	e.			
j) sample diluted due to high organic cont	tent.								

McCampbell An		<u>c.</u>	1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269						
AEI Consultants	Client Pro	oject ID: #	#274761; Zimmerman	Date Sampled:	10/03/07				
2500 Camino Diablo, Ste. #200				Date Received:	10/04/07				
Walnut Creak CA 04507	Client Co	ontact: Ha	armony TomSun	Date Extracted:	10/13/07				
Walnut Creek, CA 94597	Client P.0	D.:		Date Analyzed:	10/13/07				
		<b>MBTEX</b> i	in μg/m³*						
Extraction Method: TO-15		ytical Method	l: TO15	1	Work Order:	0710225			
Lab ID	0710225-001A								
Client ID	VB-3				Reporting	Limit for			
Matrix	Air					=1			
Initial Pressure	11.67								
Final Pressure	23.24				S	А			
Compound			Concentration		ug/kg	μg/m³			
Benzene	40				NA	6.5			
Ethylbenzene	16				NA	8.8			
Isopropyl Alcohol	ND				NA	25			
Methyl-t-butyl ether (MTBE)	ND				NA	48			
Toluene	42				NA	7.7			
Xylenes	49				NA	27			
	Surr	ogate Rec	overies (%)						
%SS1:	105								
%SS2:	97								
%SS3:	100								
Comments									
*vapor samples are reported in µg/m <sup>3</sup> .									
ND means not detected above the reporting	ng limit; N/A means	s analyte no	t applicable to this analysi	s.					
# surrogate diluted out of range or surrog	ate coelutes with an	other peak;	&) high/low surrogate due	to matrix interference	e.				
j) sample diluted due to high organic cont	ent.								

	IcCampbell Analyti	cal, Inc.	We	b: www.mccamp	ass Road, Pittsburg, CA 94565- bell.com E-mail: main@mccan 77-252-9262 Fax: 925-252-92	npbell.com			
AEI Consult	tants	Client Project ID:	#274761; Zii	mmerman	Date Sampled: 10/03	/07			
2500 Camino	o Diablo, Ste. #200				Date Received: 10/04	/07			
Walnut Cree	k CA 94597	Client Contact: H	Harmony Ton	nSun	Date Extracted: 10/15/07				
		Client P.O.:			Date Analyzed 10/15	/07			
Extraction method		(C6-C12) Volatile Analytical	Hydrocarbo methods TO3	ns as Gasoli		μg/m <sup>3</sup> * Work Order: 0710225			
Lab ID	Client ID	Matrix I	nitial Pressure	Final Pressu	re TPH(g)	DF	% SS		
001A	VB-3	А	11.67	23.24	2500	1	N/A		
						<u> </u>			
	eporting Limit for DF =1; D means not detected at or	A			1500		/m <sup>3</sup>		
	above the reporting limit	S			NA	N	A		

\*vapor samples are reported in  $\mu g/m^3$ .

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak.

a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?) g) strongly aged gasoline or diesel range compounds are significant; j) sample diluted due to high organic content; k) this compound's reporting limit does not meet the ESL for residential soil gas; m) no recognizable pattern.j) sample diluted due to high organic content.

DHS ELAP Certification N° 1644



	IcCampbell Analyti "When Ouality Counts"	cal	<u>, Inc.</u>	We	b: www.mccamp	Pass Road, Pittsburg, CA 94565-1701 bbell.com E-mail: main@mccampbell.com 877-252-9262 Fax: 925-252-9269
AEI Consulta	ants	Clie	ent Project ID:	#274761; Zir	nmerman	Date Sampled: 10/03/07
2500 Camino	Diablo, Ste. #200					Date Received: 10/04/07
Walnut Creek	c. CA 94597	Clie	ent Contact: H	Harmony Tom	Sun	Date Extracted: 10/15/07
	., 01171071	Clie	ent P.O.:			Date Analyzed 10/15/07
Extension methods	Gasoline Range	(C6-		Hydrocarbo methods: TO3	ns as Gasol	
Extraction method:					E	Work Order: 0710225
Lab ID	Client ID			nitial Pressure	Final Pressu	
001A	VB-3		A	11.67	23.24	840 1 N/A
Re	porting Limit for DF =1;		А			500 nL/L
ND	bowe the reporting limit		S			NA NA
	are reported in nL/L.				L	

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak.

j) sample diluted due to high organic content.

Angela Rydelius, Lab Manager

DHS ELAP Certification N° 1644



"When Ouality Counts"

# **QC SUMMARY REPORT FOR TO-15**

W.O. Sample Matrix: Air

QC Matrix: Air

WorkOrder: 0710225

EPA Method TO15	Extra	ction TO	15		Ba	tchID: 31	155	Sp	iked Sam	ple ID:	N/A	
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acc	eptance	e Criteria (%)	1
Analyte	nL/L	nL/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Benzene	N/A	25	N/A	N/A	N/A	91.3	90.7	0.655	N/A	N/A	70 - 130	30
Ethylbenzene	N/A	25	N/A	N/A	N/A	96.5	98.2	1.78	N/A	N/A	70 - 130	30
Isopropyl Alcohol	N/A	25	N/A	N/A	N/A	103	104	0.413	N/A	N/A	70 - 130	30
Methyl-t-butyl ether (MTBE)	N/A	25	N/A	N/A	N/A	99.3	102	2.98	N/A	N/A	70 - 130	30
Toluene	N/A	25	N/A	N/A	N/A	94.5	96.1	1.64	N/A	N/A	70 - 130	30
Xylenes	N/A	75	N/A	N/A	N/A	93.3	94.7	1.42	N/A	N/A	70 - 130	30
%SS1:	N/A	500	N/A	N/A	N/A	102	105	2.00	N/A	N/A	70 - 130	30
%SS2:	N/A	500	N/A	N/A	N/A	99	101	1.64	N/A	N/A	70 - 130	30
%SS3:	N/A	500	N/A	N/A	N/A	101	104	2.41	N/A	N/A	70 - 130	30
%SS3: All target compounds in the Metho NONE											70 - 130	30

# BATCH 31155 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710225-001A	10/03/0	7 10/04/07	10/13/07 3:45 AM				

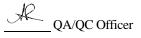
MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.





"When Ouality Counts"

# QC SUMMARY REPORT FOR TO3

W.O. Sample Matrix: Air

QC Matrix: Air

WorkOrder: 0710225

EPA Method TO3	Extra	tion TO	3		Ba	tchID: 30	991	Sp	iked Samp	ole ID:	N/A	
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	
, and y to	nL/L	nL/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(g)	N/A	1250	N/A	N/A	N/A	109	110	0.710	N/A	N/A	70 - 130	20
All target compounds in the Method I NONE	Blank of this	extraction	batch we	re ND les	s than the	method R	L with th	e following	exceptions:			

## BATCH 30991 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710225-001A	10/03/07	7 10/04/07	10/15/07 12:21 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

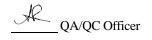
% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

\* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



McCampbell An "When Ouality		Web: www.mco	ow Pass Road, Pittsburg, campbell.com E-mail: m ne: 877-252-9262 Fax:	ain@mccampbell.com
AEI Consultants	Client Project ID: #274761	; Zimmerman	Date Sampled:	12/20/07-12/21/07
2500 Camino Diablo, Ste. #200			Date Received:	12/21/07
Walnut Creek, CA 94597	Client Contact: Harmony	TomSun	Date Reported:	01/02/08
Wallacter, Ch 94597	Client P.O.:		Date Completed:	01/02/08

# WorkOrder: 0712769

January 02, 2008

Dear Harmony:

Enclosed within are:

- 1) The results of the 25 analyzed samples from your project: #274761; Zimmerman,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager McCampbell Analytical, Inc.

Telephor	McCAN	1534 V Pittsi	L ANAI Villow Pass J Durg, CA 94	Road				) 252	-920	59				UR DF F			OU	NI		IM				SH	I				ORI HR	72 1	HR	51
Report To: Harmo	ony TomSun		Bi	ll To	: sam	e		P.0	),#								and the second division of the second divisio	-	and the owner where the party is not	s Re	equi		-	10				(	Other	T	Cen	ime
Company: AEl C	onsultants													Sel					-	T		T							T	$\uparrow$		
2500 0	amino Diab	lo, Suite	200											A S	(5520 E&F/B&F)				a Gel													
	ut Creek, C/	\$ 94597		E-Ma	ail: hte	amsu	m@	ieico	nsult	ants.	com		SOI 5/VMTBE	w silica	&F/I				Silica				8310									
Fele: (925) 944-2	899		F	HX: (	925)	944-	289	5		_		_	S)/INC	5 I	DE	8.1)			/m (				/ 83									
Project #: 274761					t Nan	1e: 2	lim	meri	nan				801	ja l	(552	(41		6	510				8270 /									
Project Location:	3433 Chestr	ut St. O	kland, C.	A 94	508		_				_		+ 02		836	pons		802(	108	15			625/8			(0)						
Sampler Signature	e: #2~	-	52	_		_	_		_	_		_	(602/8020		& Grease	Scarl		05/	A	6		č				2/60						
		SAME	LING		GLS	1	MA	TRE	X		ESER		ins (60		Oil &	Hydn	8260	SPA 6	0 2	PCB.		-SVC	by EP.	6020		//239.						
SAMPLE ID Field Point Name)	LOCATION	Date	Time	# Containers	Type Containers	Water	Soil	Air	Other	Ice	BCI	Other	BTEX & TPH us C	TPH as Diesel (8015)	Total Petroleum Oil	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 82	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015)	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	OTION				
58-17-4	Onklaud	12/20	8:35	1	Line		X	+	1	X		+	t	Ē														X		$\square$		-
8-17-8	- I - I	1	8:40	1	11		11	+	+	i			X	X														1				-
3-17-12			8:50				1	+	+	Ħ		+	1v	V	-							-			-	-			-			-
			10:45	4	VOA		4	-	+	5		-	10	V	-		-							-		-	-	+				-
B-17-W				4	Amo	1			+	X	$\vdash$	+	┢	r	-			-		-	-	-			-	-	-	KUT		$\vdash$	-	_
B-18-4			9:40	1	Line	1	X	+	+	H		+	-		-		-			-	-	_	-	_	-	-	-	Y		+		_
5-18-8			9:50	1	1		11	-	-	11		-	X	X	-	_		-			_	_		_	_	-	-	÷.,				_
8-18-W			11:00	4	AW	X			_	11			X	X	1						-					1					_	_
8-19-4			10:05	1	line		X			11					1		1.1								-			X				_
8-19-8			10:15	1	11		11			11			X	X														[ .				
8-19-12			10:20	1	III				T	T			X	X											-							
8-19-16			10:30	1	11		11		1	1	$\square$		1	1										-	1	Γ		X		T		_
B-19-W			11:20	4	AN	V	-		+	Ħ	$\uparrow \uparrow$	-	X	X	-	-	-	-	-		-		-	-	1	1		14171		T		-
1			10:40	1	Line		X		+	$\parallel$		-	1	T	+	-		1	-	-	-	-	-	-	1	-	-	Y	-	-		-
6-16-4				1	LINE	1	1		-	++	+	-	X	X	+	-	-	-	1	-	-	-	-	1	-	-	+	PA		+	-	
5B-14-8	<u> </u>	Data	10:45	D		2.11	I.			1.			1	~							-					_		Ľ				
Relinquished By:	2	Date: 12/21/01	Time: //2/	2	eived J	le	m	5-	2	1	6			ICT	140	1	3.0	) 00	-		/		DDC	0.00		TPI -		ons	0&G	M	ETAL	'n
Relinquished By:		Date:	Time:	the second value of the se	elved I	the second s									OD		NDI			V	/	1	APP	RO	PRI	ATI		4				
				-		_	_	_		_		_	4				CE				Y	. (			INE			1				
Relinquished By:		Dates	Time:	Ree	eived I	By:								DE	CHI	<b>NR</b>	INA	TE	DIN	LA	в_		_ 11	IRS	ER	VED	1 IN	LAB	ř	_		

 $\mathcal{T}_{\mathbf{r}}$ 

	McCAN	<b>IPBELI</b>			ICA	LI	NC											(	CH	AI	N	OF	C	US	TC	DD	YI	RF	CC	OR	D		
			illow Pass   urg, CA 94											Т	UR	N.	AR	OU	NI	T	M	E					1				Ę	)	X
Telephor	ne: (925) 252		el en el		F	ax:	(925	5) 2	52-9	269								10	2	1.				USI		24	HR	37	48 H	IR	72	HR	5 D
Report To: Harma	any TomSar	1	R	H To	: sam	0		P	.0.	H			-	EL	DF F	Ceq	ure			1 Y	Re	0.0.0		No	)	_		Т	0	ther	-	Car	
Company: AEI C	and the second se	<u> </u>					-	-	.0.1	IT .		-					1	Ť	-		T	que	1		T	-	T	+	T	mer		CO	nmer
the second s	Camino Diah	olo, Suite	200			-			-		_	-			4	&F)				w/ Silica Gel	1												
	ut Creek, C.			E-Ma	ail: ht	oms	una	aeio	олы	ltan	ts.co	m		IBE	Silic	(5520 E&F/B&F)				Silic			5	2									
Tele: (925) 944-2	899		Fa	ax: (	925)	944	-28	95						8015)/MTBE	SIM	0 E&	8.1)						1 83	6									
Project #: 274761					t Nan	ne:	Zim	me	rma	n				8012		(552	(418		6	015)			Drca	270									
Project Location:		nut St. Oa	kland, C.	A 94	508	_		_	-	_			_	+ 02		Grease	pons		802(	(G/D/MO 8015)	LCV		6 K15 / 6770 / 8210	2		8	in			1			
Sampler Signatur	effezz	-0	-			_	-	_	_				_	12/80		Gre	ocar		02/	8	0 ×	15		c		09/6	P a						
		SAMP	LING		z		MA	TR	IX		ME			IS (602/	5)3	30 I K	Hydr	0	PA 6	9	CB	100		10,000		020	207						
				ers	aine							Т		es G	(801	m	E	8260	E	ange	80	8 8		1 3 0	-	100	174						
SAMPLE ID (Field Point Name)	LOCATION			Lain	Containers									TPH	csel	trole	trole	EPA	IN	E-H	8/80	2010	0	LAN A	Mar	TUN	- ANH-	<	2				
		Date	Time	Containers	e l	Water	-		Sludge	her		HNO.	Other	Xæ	TPH as Diesel (8015)	Total Petroleum Oil	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	2 V 10 - 11 - V 10 - 1 - 1 V 0	FAHSUFIANS OF CON	L'UNIT C Marala		LCad (1240/1421/259.20010) RCI	17	4017				
				#	Type	M	Soil	Air	Sla	Other	HCI HCI		G	BTEX	Hd	Tot	Tot	AH	BTI	E	EP	EP		2 2	5 5		RCI PCI	1	4				
58-110-12	Oakland	12/20	10:55	1	line	t	X		1		X											+	+		T	+	+	5	Ż				
\$B-16-W			11:30	4	VO A		1				T	-		X	X								+			T	-	1	T	T			
58-15-4			12:25	1	line		X			+	H	-	1	-	1						-		+		+	-		N	KT		-	-	
58-15-8			12:30	I	1	1	1°			+	tt	+	t	X	X	-				-	+		+	+	+	+		ľ	P	1	-		
SB-15-12			12:35	1	H	t	H			+		1	1		X	-					-	+	-		+	+	-	17	1	1	-		
			12:45	1		+	+	-	. +	+	++-	+	1	r	n	-			-	-	-	-	+	+	-		+	K	1	-	+	-	
58-15-16 58-14-4			1:00	1	H	+	+	-		+	╂	+	1		-	-	-		-		+	-	-	+	+	+	+	-13		+	-	-	
20-14-9 20 11-5				÷.	++-	+	H	-		+	+	+	+		V	-	-		-		+	+	-	+	+	+	+	P	4	+	+	-	
58-14-8			1:05	+	++-	┢	++	-	$\vdash$	-	+	+	+	€	X	-	-		-		-	+	+	+	+	+	+		1	+	-	-	
53-14-0212			1:10		++-	+	+	-		+	++	+	-	4	×	-	-	-	-		-	+	-	+	-	+	+	k			-		
58-14-16			1:20			+	++-	-		-	++-	+	+-	⊢	-	-	-	-	-	-	-	-		-	+	+	-	-K	K	+	-	-	
58-13-4			1:50	H		+	++	-		+		+	-			-		-	_		-	-	-	+		+	+	P	K-	+	+-	-	
58-13 - 8-			1:55	1		+	++	-		-	+	-	+	X	X	_	-	-			-	-	+	+	+	+	+	-1-	, Ļ	-	-	-	
59-13-12			1:00	-	11	+	+	-		_	+	+	-	Ŕ		-	-	-	_		-	-	-	-	-	-		-+		-		-	
58-13-16		-	2:10		1		1				1			X	X													,	_	1			
Relinguished By:	2	Date: 12/21/07	Time:	Rec	etype 1			_	/	7	5																20	YOA	اء	0&G	1	ETAL	5 0
Relinquished By:		Date:	IIQ/	Par	elved		182	4	1	/	0	_	_		ICE												ION			080		E TAL	1
reconduisation par		Dates	Time:	Reef	AAVEU I	ay:												CE						PPR									
Relingulshed By:		Date:	Time:	Rec	elved	By:	-	-	-	-	-	-						INA			-	3		ONT PEF			ED H	NL	ĀB				
			1																														

	McCAN		LL ANA		ICA	LI	NC			-				Τ			_	_	(	CH	IA	IN	0	F	CU	SI	r0	D	YF	E	CO	R	)	_	
10000		Pit	Willow Pass tsburg, CA 9-												T	UR	IN.	AR	01	JNI	DI	'IM	E		L,	_				Ę				1	X
Telephu	ne: (925) 253	2-9262			F	ax:	(925	5) 25	52-9	269	9				FD	IF I	Requ		42	N	র	Vac				SH	2	24 H	IR	48	8 HR	2	72 1	IR	5 DA
Report To: Harm	ony TomSur	1	В	ill To	: sam	ne	-	P	.0,	#	-	_		╉	ED	T I	Key	ure	-	-	Statistics.	_	equ			NO	_	_	_	-	Oth	her	Т	Con	ment
Company: AEI C							_	-					-		1			1				10 1		201				_		H		1	+	Con	ment
2500 0	Camino Diat	lo, Suit	e 200								_					www.Silica	SEF)				a Gol														
Waln	ut Creek, C.	4 94597	1	E-M	ail: ht	oms	un@	aeic	onsu	iltar	nts.c	:om			TBE	24	EP43				Silica				2										
Tele: (925) 944-2					(925)		-								801.5)/MTBE	1	OE	8.1)			100				625 / 8270 / 8310										
Project #: 274761	and the second s		the second se		t Nan	ne:	Zim	mei	rma	n	_				801	-	(552	(41		6	(G/D/MO 8015)				\$270										
Project Location:			Jakland, C	A 94	608			_				_		_	- 1		350	nons		8020	10 8	ALY			5/8			10)							
Sampler Signatur	e: 12				-	_	_	_	_	_				_	(602/8020	ä	B	ocarl		02/	P	10		ő	A 62			2/60							
		SAM	IPLING		SIS		MA	TR	IX				RVI		as (60	12)-1	Total Petroleum Oil & Grease	Total Petroleum Hydrocarhons (418.1)	0	BTEX ONLY (EPA 602 / 8020)	0	EPA 608 / 8080 PCB's ONLY		EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA	CAM-17 Metals 6020		Lead (7240/7421/239.2/6010)							
SAMPLE ID				Containers	Type Containers					Т					as G	(\$108)	nro (	En	HVOCs EPA 8260	Y (E	TPH Multi-Range	080	09	- 012	qs.	tals	als	421							
(Field Point Name)	LOCATION	-		tain	ont										TPH	ese	trole	trole	EPA	NL	H-H	8/8	EPA 624 / 8260	18/	Na	Me	LUFT 5 Metals	40/1		R					
(,		Date	Time	0 LL	De C	Water	_		dge	ler		-	0	ler	BTEX &	IS Di	I Pe	l Pe	Sc	X	Mu	60	62	625	1.s.)	1-1	15	1 (72		12					
				#	Ty.	W	Soil	Air	S	Other	Ice	HCI	HNO3	Other	BTE	TPH as Diesel	Tota	Totz	HV	BTE	TPE	EPA	EPA	EPA	PAF	CA	3	Lea	RCI	HOL	f				
58-12-4	Oakland	12/20	2:25	1	Line		V		-	╡	$\overline{\mathbf{v}}$			-	-	F										-		-	1	X			+		
58-12-8	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	2:30	i	1		1		+	+	f				X	X											-	-	+	K			+		
58-12-12			2:35	ti	11	1	1			1	Ħ		1		X	X					1	-	-	-					1	1			+		
5B-12-16			2:40	1	1		1			1	Ħ					1													1	X					
58-20-4			1:50	1	11	1	1																				T		T	X	1				
58-20-8			3:20	1	11	T	11-				Π	_			X	X										-		-		T.	-				
SB-20-12			3:25	li	11		11								X			1						T			1		T		-				
53-20-16			3:30	1		Γ																						Γ	T	¥	1				
58-21-4		12/2		1	1	T	Π																					T	T	X	1				
8-21-8		1	8:45	1	1	1									X	X														T					
53-21 - 12			8:50	1											X	X														Ľ					
SB-21-16			8:55	1	1		Π																					Γ		X	1				
53-22-4			9:20	1	T	Т	T																					T		X	1				
SB-22-8	1	1	9:25	1	1		1				T				X	×	1													T	-				
Relinquished By:	_	Baje:			ceived ]	By:	_				_	-			1	1.	-				-						_	_	_	-					
100		Bare:	7 1121	D	77	11	ten	57	6	2	2	6	-			ICE	240								DDI	CE	RV/	TE		VOAS	0	&G	M	ETAL	6 011
Relinquished By:		Date:	Time:	Re	ceived l												OD	CO	NDI	TIC	N						PRI								
				_			_			_						HE	ADS	SPA	CE	AB	SEN	-			CO	NTA	INI	ERS	š						
Relinquished By:		Date:	Time:	Re	celved ]	By:										DE	CHI	OR	INA	TE	DIN	LA	/B_		_P	ERS	ER	VEI	DIN	LAJ	B		-		
Relinquished By:		Date:	Time:	Re	celved )	By:										DE	CHI	OR	INA	TE	DIN	LA	<b>B</b>		_P	ERS	ER	VEI	) IN	LAI	8		-		

	McCAI	MPBEL 1514	L ANA	LYT	ICA	L	INC	2.			-	-	-	Т	-	-	-	-	-	CI	IA	IN	0	F	CU	S	ГО	D	YF	E	CO	R	)		
Telenho	ne: (925) 25	Pitts	burg, CA 9	4565			(0.4)	-		10.0					T	UR	N.	AR	10	JN	DI	TIN	1E		Ģ	1		D		Į					X
							(92	5) 2	52-9	926	9				EÐ	FR	Req	uire	sd?	1	X	Yes				ISH No		24 H	IR	4	8 HH	£.	72 I	IR	5 D/
Report To: Harm Company: AEI C		n	E	Bill To	o: sau	ne		P	.0,	#		_				_			-	-		_	lequ		-rall			-			Ot	ier	T	Cum	ment
	Camino Dia	la Pulta	200				_	_		-	_			_			6				Gel								1				-	- or in	
	ut Creek, C		200	-			_		_		_			_		5	B&I																		
Tele: (925) 944-2		A 9939/			ail: h				OUS	ulta	nts.	com	-	4	80LS/WTBE	20140	&F/				w/ Silica				310										
Project #: 274761					(925) et Nar					-	_	_	_	-	S	i.	20 E	8.1							18										
Project Location:		nut St. Oa	kland (	A BA	609	ne:	ZAII	me	rma	in		-		4	80		(55	s (4)		(0)	\$015				827(										
Sampler Signatur	e:	int ou of	anipila, C	11 74	000			-		_	-			-	020+		Case	rbon		802	MO	NLY			625 / 8270 / 8310			10							
		SAMP	LING			Т	MA	TR	IX	Т		ETH			Gas (602/8020	ł	& G	droca		602	C/D/	B's 0		VOCs	2	8		9.2/60							
				2	ner	$\vdash$			T	+	PRI	ESEF	IVE	Ð	Gas	(8015)	io	Hy	260	EPA	8	PC		-S-	PA I	602		123							
SAMPLE ID (Field Point Name)	LOCATION	Date	Time	# Containers	Type Containers	Water	Soil	Air	Sludge	Other	Ice	HCI	HNO	Other	BTEX & TPH as	TPH as Dicsel (8)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015)	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EP	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	4 DUD					
58-22-12	Daldana	12/21	1:35	1	Lin	t	X		+	-	X	-	-	_	X	_	-	-	_	-	-	-	-	-		-	-	-	a	+	-	-	+	_	
58-22-12 58-22-16	U MARCINE I	144	9:45	i	1	-	Ŷ	$\vdash$	+		嶺	+	+	+	~	4	-	_	-	-		-		_	-			_	-	-		_	-		
20 20 10			1.45	-	<u> </u>	-	X	$\vdash$	+	+	A	-	+	+	-	_	-	_		_										X					
				-		-	-	$\vdash$	-	-	-	-	-	+	_	-	-	_			_					_						_			
				-	-				-		4	_	_	+	-	-					_														
					_						_																			11					
																												-							
														Т												_	-	-							
														1			-	_		-		-	-	-		-	-	-				-		-	
									+	1		-	+	+	-	-	-		-	-		-		-			-		-			-	-		
			-	-		+			+	+	+	-	+	+	+	-	-	-	-	-	-	-		-		-	-	-	-	H	-	-	+		
	1					+			+	+	+	-	+	+	-	-	-				-	-						-	-	$\left  + \right $	-	-	+	_	
				-		-	-	$\vdash$	+	-	+	-	+	+	+	-	-	_	_	_	-		-	_		-		_		$\vdash$			+	_	
				-	-	-	-	$\vdash$	+	+	-	-	+	+	-	-	-	-		_	_			-	-	_	-		_	$\downarrow$			-		_
Relinquished By:		Datas	Time:	Dee	eived B									+										_						Ľ					
422	2	12/51/07	1121					1	1/	-	/	-																				1		1	
Relinquished By:		Date:	Time:		New B		F	0	-	A	_		_	-	I	CE/	t"		200					F	RE	SER	VA	TIC		OAS	08	G	MET	ALS	OTH
				-	area p	9.													DIT					A	APPROPRIATE										
Relinquished By:		Date:	Time:	Reco	lived B	yı	_			-	-		_						NAT				B	(	CONTAINERS PERSERVED IN LAB										

	J	Ū,
6	D	ł
1	-4	2
	1	-

1534 Willow Pass Rd

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Pittsburg, C. (925) 252-9	A 94565-1701 262					Work	Order	: 0712	769	C	ClientI	D: AEL	4				
				EDF	Ľ	Excel		Fax		🖌 Email		Hard	lCopy	🗌 Thir	dParty		
Report to: Harmony TomS AEI Consultants 2500 Camino D Walnut Creek, C	iablo, Ste. #200	TEL:	htomsun@ae (925) 283-6000 #274761; Zin	( )	44-28	95	AE 25 Wa	enise M El Conse 00 Can alnut Cr nockel @	ultants nino Di reek, C	A 94597	7		Dat	uested e Rece e Print	ived:	12/21/	
			•• •						1	1	1	(See le	Ĭ	· · · ·			
Sample ID	ClientSampID		Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12
0712769-002	SB-17-8		Soil	12/20/07 8:40:00		А		А	Α								
0712769-003	SB-17-12		Soil	12/20/07 8:50:00		А			Α								
0712769-004	SB-17-W		Water	12/20/07 10:45:00			А			В							
0712769-006	SB-18-8		Soil	12/20/07 9:50:00		А			А								
0712769-007	SB-18-W		Water	12/20/07 11:00:00			Α			В							
0712769-009	SB-19-8		Soil	12/20/07 10:15:00		А			А								
0712769-010	SB-19-12		Soil	12/20/07 10:20:00		А			А								
0712769-012	SB-19-W		Water	12/20/07 11:20:00			Α			В							
0712769-014	SB-16-8		Soil	12/20/07 10:45:00		А			А								
0712769-016	SB-16-W		Water	12/20/07 11:30:00			Α			В							
0712769-018	SB-15-8		Soil	12/20/07 12:30:00		А			А								
0712769-019	SB-15-12		Soil	12/20/07 12:35:00		А			А								
0712769-022	SB-14-8		Soil	12/20/07 1:05:00		А			А								
0712769-023	SB-14-12		Soil	12/20/07 1:10:00		А			А								
0712769-026	SB-13-8		Soil	12/20/07 1:55:00		А			А								

### **Test Legend:**

1 G-MBTEX_S	2	
6	7	
11	12	

2	G-MBTEX_W	
,		
2		

3 PREDF REPORT 8

TPH(D)WSG\_S

4

9

5 TPH(D)WSG\_W 10

Prepared by: Melissa Valles

#### **Comments:**

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.

	AW	5
6	NU	
1		

1534 Willow Pass Rd

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Pittsburg, CA (925) 252-92						Work	Order	: 0712	769	C	lientII	): AEI					
				EDF	Ľ	Excel		Fax		🖌 Email		Hard	dCopy	🗌 Thi	irdParty		
Report to: Harmony TomSu AEI Consultants 2500 Camino Di Walnut Creek, C	ablo, Ste. #200	Email: TEL: ProjectNo: PO:	htomsun@ae (925) 283-6000 #274761; Zin	· · · · ·			AE 25 W	enise M El Consi 600 Carr alnut Cr	ultants nino Di reek, C	ablo, St A 94597 nsultant	,		Dat	uested te Rece te Prin	eived:	5 12/21/ 12/21/	
									Rec	quested	Tests	(See le	gend b	elow)			
Sample ID	ClientSampID		Matrix	<b>Collection Date</b>	Hold	1	2	3	4	5	6	7	8	9	10	11	12
0712769-027	SB-13-12		Soil	12/20/07 2:00:00		А			А							T	1
0712769-028	SB-13-16		Soil	12/20/07 2:10:00		Α			А								
0712769-030	SB-12-8		Soil	12/20/07 2:30:00		Α			Α								
0712769-031	SB-12-12		Soil	12/20/07 2:35:00		Α			Α								
0712769-034	SB-20-8		Soil	12/20/07 3:20:00		Α			Α								
0712769-035	SB-20-12		Soil	12/20/07 3:25:00		Α			Α								-
0712769-038	SB-21-8		Soil	12/21/07 8:45:00		Α			Α								-
0712769-039	SB-21-12		Soil	12/21/07 8:50:00		Α			Α								-
0712769-042	SB-22-8		Soil	12/21/07 9:25:00		Α			А							1	1
0712769-043	SB-22-12		Soil	12/21/07 9:35:00		Α			А							1	1

Test Legend:

1 G-MBTEX_S	2 G-MBTEX_W	3 PREDF REPORT	4 TPH(D)WSG_S	5 TPH(D)WSG_W
6	7	8	9	10
11	12	]		

# Prepared by: Melissa Valles

### **Comments:**

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.



# McCampbell Analytical, Inc. "When Ouality Counts"

# Sample Receipt Checklist

Client Name:	AEI Consultants					Date a	Date and Time Received: 12/21/07 4:58:38		
Project Name:	#274761; Zimmer	man				Check	klist completed and re	eviewed by:	Melissa Valles
WorkOrder N°:	0712769	Matrix <u>S</u>	Soil/Water			Carrie	r: <u>Client Drop-In</u>		
			Chain	of Cu	stody (C	OC) Informa	ation		
Chain of custody	y present?			Yes		No 🗆			
Chain of custody	y signed when relinqu	ished and	received?	Yes	✓	No 🗆			
	y agrees with sample			Yes	<ul><li>✓</li></ul>	No 🗌			
Sample IDs noted	d by Client on COC?			Yes	✓	No 🗆			
Date and Time o	f collection noted by Cl	ient on CO	C?	Yes	✓	No 🗆			
Sampler's name	noted on COC?			Yes	✓	No 🗆			
			C.	amnlo	Pacaint	Information			
				-			<u>I</u>		
Custody seals in	tact on shipping conta	ainer/coole	er?	Yes		No 🗆		NA 🗹	
Shipping contain	er/cooler in good cond	dition?		Yes	$\checkmark$	No 🗆			
Samples in prop	er containers/bottles?			Yes	✓	No 🗆			
Sample containe	ers intact?			Yes	$\checkmark$	No 🗆			
Sufficient sample	e volume for indicated	test?		Yes	$\checkmark$	No 🗌			
		Sam	nple Prese	rvatior	n and Ho	old Time (HT	) Information		
All samples rece	ived within holding tim			Yes	<	No 🗌			
All samples leve								🗖	
Container/Temp	Blank temperature			Coole	er Temp:	13°C		NA	
Water - VOA via	ls have zero headspa	ice / no bu	ibbles?	Yes	$\checkmark$	No 🗆	No VOA vials subm	itted 🗆	
Sample labels cl	hecked for correct pre	servation?	?	Yes	✓	No 🗌			
TTLC Metal - pH	acceptable upon rece	ipt (pH<2)	?	Yes		No 🗆		NA 🗹	

Client contacted:

Date contacted:

Contacted by:

Comments:

	McCampbell	Analy ality Counts			1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269						
AEI C	Consultants		Client Proje	ect ID: #27	#274761; Zimmerman Date Sampled: 12/20/07-12						
2500 0	Camino Diablo, Ste. #200					Date Received: 12/21/07					
Wolnu	ıt Creek, CA 94597		Client Con	tact: Harm	ony TomSun	Date Extract	Date Extracted: 12/21/07-12/28/07				
vv annu	it Cleek, CA 94397		Client P.O.	:			Date Analyz	ed 12/22/07	-12/28	/07	
Extracti	Gasolin on method SW5030B	e Range (		-	carbons as Gasol SW8021B/8015Cm	ine with BTH	X and MTBE	* Work Order	: 0712	2769	
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	
002A	SB-17-8	S	ND	ND	ND	ND	ND	ND	1	83	
003A	SB-17-12	S	ND	ND	ND	ND	ND	ND	1	84	
004A	SB-17-W	W	1100,g,m	ND	ND	6.2	ND	4.2	1	110	
006A	SB-18-8	S	ND	ND	ND	ND	ND	ND	1	78	
007A	SB-18-W	W	ND	ND	ND	ND	ND	ND	1	96	
009A	SB-19-8	S	ND	ND	ND	ND	ND	ND	1	100	
010A	SB-19-12	S	6.7,g,m	ND	ND	ND	ND	ND	1	90	
012A	SB-19-W	w	ND	ND	ND	ND	ND	ND	1	95	
014A	SB-16-8	S	ND	ND	ND	ND	ND	ND	1	97	
016A	SB-16-W	W	88,a	ND	0.60	ND	ND	0.83	1	107	
018A	SB-15-8	S	ND	ND	ND	ND	ND	ND	1	100	
019A	SB-15-12	S	390,a	ND<2.5	2.7	0.47	6.7	13	50	103	
022A	SB-14-8	S	ND	ND	0.0092	ND	ND	ND	1	100	
023A	SB-14-12	S	910,b,m	ND<2.5	3.3	0.43	10	16	50	#	
026A	SB-13-8	S	180,b,m	ND<0.50	0.46	0.10	2.5	2.7	10	110	
027A	SB-13-12	S	170,b,m	ND<0.50	1.1	0.21	2.4	6.7	10	105	
-	porting Limit for DF =1;	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L	
	means not detected at or ove the reporting limit	S	1.0	0.05	0.005	0.005	0.005	0.005	1	mg/Kg	

\* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high organic / MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) value derived using a client specified carbon range; o) results are reported on a dry weight basis; p) see attached narrative.



	McCampbell	Analy uality Counts'		2	Web: www.m		Pittsburg, CA 94565 E-mail: main@mcca 52 Fax: 925-252-9	mpbell.com			
AEI C	Consultants		Client Proje	ect ID: #274	274761; Zimmerman Date Sampled: 12/20/07-12/21/07						
2500 (	Camino Diablo, Ste. #200						Date Received: 12/21/07				
Walnı	ıt Creek, CA 94597		Client Cor	tact: Harmo	ny TomSun	Date Extracted: 12/21/07-12/28/07					
vv ann	at Clock, CA 74577		Client P.O.	:			Date Analyz	ied 12/22/07-	-12/28	/07	
Extracti	Gasolin	e Range (		-	rbons as Gaso W8021B/8015Cm	line with BTH	EX and MTBE	* Work Order	: 0712	2769	
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	
028A	SB-13-16	S	5.7,a	ND	0.87	0.017	0.12	0.10	1	83	
030A	SB-12-8	S	25,b,m	ND<0.10	0.097	0.024	0.81	1.3	2	89	
031A	SB-12-12	S	82,b,m	ND<0.50	0.74	0.14	1.5	2.9	10	100	
034A	SB-20-8	S	89,b,m	ND<0.25	0.070	0.14	0.050	0.14	5	103	
035A	SB-20-12	S	99,a	ND<0.17	0.61	0.061	1.6	1.4	3.3	119	
038A	SB-21-8	S	ND	ND	ND	ND	ND	ND	1	98	
039A	SB-21-12	S	26,a	ND	0.28	0.048	0.31	0.30	1	91	
042A	SB-22-8	S	24,g,m	ND	ND	0.070	0.016	0.059	1	89	
043A	SB-22-12	S	310,b,m	ND<1.7	0.17	ND<0.17	4.1	3.2	33	127	
-	porting Limit for DF =1;	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L	
	means not detected at or bove the reporting limit	S	1.0	0.05	0.005	0.005	0.005	0.005	1	mg/Kg	

\* water and vapor samples and all TCLP & SPLP extracts are reported in  $\mu g/L$ , soil/sludge/solid samples in mg/kg, wipe samples in  $\mu g/wipe$ , product/oil/non-aqueous liquid samples in mg/L.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high organic / MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) value derived using a client specified carbon range; o) results are reported on a dry weight basis; p) see attached narrative.



	Campbell Analyti	<u>cal, Inc.</u>		Web: www.mccamp	Pass Road, Pittsburg, CA 94565- bbell.com E-mail: main@mccam 377-252-9262 Fax: 925-252-920	pbell.com		
AEI Consultants		Client Project	ct ID: 🗄	#274761; Zimmerman		/07-12/2	1/07	
2500 Carrier D'	11. 94. #200	5			Date Received: 12/21/			
2500 Camino Dia	ablo, Ste. #200	Client Cont	II.					
Walnut Creek, C	A 94597		act: Ha	armony TomSun	Date Extracted: 12/21/		1 10 7	
		Client P.O.:			•	/07-12/3	1/07	
			-	vdrocarbons with Silica	-	1 07	107.00	
Lab ID	23510C/3630C/SW3550C/3630C Client ID	Matrix	alytical n	nethods SW8015C TPH(d)	Work On	DF	12769 % SS	
0712769-002A	SB-17-8	S		ND		1	115	
	SB-17-12	S		ND		1	113	
0712769-003A								
0712769-004B	SB-17-W	W	320,d				114	
0712769-006A	SB-18-8	S	18,g,b				104	
0712769-007B	SB-18-W	W	1800,g,b				83	
0712769-009A	SB-19-8	S	ND				118	
0712769-010A	SB-19-12	S		ND		1	115	
0712769-012B	SB-19-W	w		280,g,t	)	2	92	
0712769-014A	SB-16-8	S		ND		1	116	
0712769-016B	SB-16-W	w		480,g,c	1	2	88	
0712769-018A	SB-15-8	S		ND		1	111	
0712769-019A	SB-15-12	S		61,d		20	101	
0712769-022A	SB-14-8	s		ND		1	109	
0712769-023A	SB-14-12	S		83,d		5	98	
0712769-026A	SB-13-8	S		66,d		2	116	
0712769-027A	SB-13-12	S		74,d		10	109	
Dementi	ng Limit for DF =1:	W		50			α/I	

Reporting Limit for DF =1;W50μg/LND means not detected at or<br/>above the reporting limitS1.0mg/Kg

\* water samples are reported in  $\mu$ g/L, wipe samples in  $\mu$ g/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in  $\mu$ g/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit; r) results are reported on a dry weight basis

	Campbell Analyti "When Ouality Counts"	cal, Inc.		Web: www.mccamp	Pass Road, Pittsburg, CA 94565- bell.com E-mail: main@mccam 377-252-9262 Fax: 925-252-92	pbell.com		
AEI Consultants	3	Client Project	t ID: 🕴	#274761; Zimmerman	Date Sampled: 12/20	/07-12/2	1/07	
2500 Camino Dia	ablo, Ste. #200				Date Received: 12/21/	1/07		
Walnut Crush, C	A 04507	Client Conta	ct: Ha	armony TomSun	Date Extracted: 12/21/	07		
Walnut Creek, C	A 94597	Client P.O.:			Date Analyzed 12/27	/07-12/3	1/07	
	Diesel Range (C10-0	C23) Extracta	ble Hy	ydrocarbons with Silica	Gel Clean-Up*			
Extraction method SW	3510C/3630C/SW3550C/3630C	Anal	lytical m	nethods SW8015C	Work Or	der: 07	12769	
Lab ID	Client ID	Matrix		TPH(d)		DF	% SS	
0712769-028A	SB-13-16	S		ND		1	107	
0712769-030A	SB-12-8	S		1.8,d		1	118	
0712769-031A	SB-12-12	S	23,d				112	
0712769-034A	SB-20-8	S	9.7,d				101	
0712769-035A	SB-20-12	S	32,d				117	
0712769-038A	SB-21-8	S		ND		1	97	
0712769-039A	SB-21-12	S		5.8,d		1	102	
0712769-042A	SB-22-8	S		ND		1	95	
0712769-043A	SB-22-12	S		150,d		20	106	

Reporting Limit for DF =1;	W	50	µg/L
ND means not detected at or above the reporting limit	S	1.0	mg/Kg

\* water samples are reported in  $\mu$ g/L, wipe samples in  $\mu$ g/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in  $\mu$ g/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit; r) results are reported on a dry weight basis

DHS ELAP Certification Nº 1644



# QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder 0712769

EPA Method SW8021B/8015Cm		BatchID: 32724 Spiked Sample ID: 0712737-001A						1A				
Analyte	Sample Spiked MS			MSD	D MS-MSD LCS LCS			LCS-LCSD	Acceptance Criteria (%)			
Analyte	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) <sup>£</sup>	ND	0.60	92.6	97.1	4.79	104	97.8	6.17	70 - 130	30	70 - 130	30
MTBE	ND	0.10	87.1	83.4	4.26	116	114	1.96	70 - 130	30	70 - 130	30
Benzene	ND	0.10	93.9	92.1	1.97	99.7	94.3	5.56	70 - 130	30	70 - 130	30
Toluene	ND	0.10	84.3	83.2	1.29	116	114	2.32	70 - 130	30	70 - 130	30
Ethylbenzene	ND	0.10	97.2	98.8	1.58	110	107	2.61	70 - 130	30	70 - 130	30
Xylenes	ND	0.30	90.3	91.7	1.47	120	120	0	70 - 130	30	70 - 130	30
%SS:	89	0.10	90	86	4.41	101	97	3.31	70 - 130	30	70 - 130	30

### BATCH 32724 SUMMARY

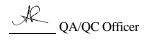
Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0712769-002A	12/20/07 8:40 AM	12/21/07	12/22/07 11:26 PM	0712769-003A	12/20/07 8:50 AM	12/21/07	12/23/07 12:33 AM
0712769-006A	12/20/07 9:50 AM	12/21/07	12/22/07 9:58 AM	0712769-009A	12/20/07 10:15 AM	12/21/07	12/27/07 5:23 PM
0712769-010A	12/20/07 10:20 AM	12/21/07	12/22/07 11:39 AM	0712769-014A	12/20/07 10:45 AM	12/21/07	12/27/07 5:53 PM
0712769-018A	12/20/07 12:30 PM	12/21/07	12/27/07 6:24 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

 $\pounds$  TPH(btex) = sum of BTEX areas from the FID.





"When Ouality Counts"

# QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder 0712769

EPA Method SW8021B/8015Cm		BatchID: 32727 Spiked Sample ID: 0712762-0						0712762-00	6A			
Analyte	Sample Spiked MS			MSD	MS-MSD LCS LCSD			LCS-LCSD Acceptance Criteria (%)				
Analyte	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex <sup>f</sup>	ND	0.60	107	102	4.60	111	108	2.92	70 - 130	30	70 - 130	30
MTBE	ND	0.10	103	99.9	3.11	119	111	6.52	70 - 130	30	70 - 130	30
Benzene	ND	0.10	93.2	97.7	4.79	99.1	95.8	3.43	70 - 130	30	70 - 130	30
Toluene	ND	0.10	86	90.5	4.85	116	114	0.947	70 - 130	30	70 - 130	30
Ethylbenzene	ND	0.10	100	104	3.87	110	110	0	70 - 130	30	70 - 130	30
Xylenes	ND	0.30	95.3	96.7	1.39	120	120	0	70 - 130	30	70 - 130	30
%SS:	94	0.10	88	93	5.23	99	99	0	70 - 130	30	70 - 130	30

NONE

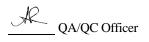
BATCH 32727 SUMMARY												
Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed					
0712769-019A	12/20/07 12:35 PM	12/21/07	12/22/07 11:14 PM	0712769-022A	12/20/07 1:05 PM	12/21/07	12/27/07 6:55 PM					
0712769-023A	12/20/07 1:10 PM	12/21/07	12/22/07 8:04 PM	0712769-026A	12/20/07 1:55 PM	12/21/07	12/24/07 1:47 AM					
0712769-027A	12/20/07 2:00 PM	12/21/07	12/23/07 1:30 PM	0712769-028A	12/20/07 2:10 PM	12/21/07	12/22/07 4:09 PM					
0712769-030A	12/20/07 2:30 PM	12/21/07	12/24/07 1:14 AM	0712769-031A	12/20/07 2:35 PM	12/21/07	12/24/07 12:40 AM					
0712769-034A	12/20/07 3:20 PM	12/21/07	12/22/07 5:50 PM	0712769-035A	12/20/07 3:25 PM	12/21/07	12/22/07 4:43 PM					
0712769-038A	12/21/07 8:45 AM	12/21/07	12/27/07 7:25 PM	0712769-039A	12/21/07 8:50 AM	12/21/07	12/23/07 3:55 AM					
0712769-042A	12/21/07 9:25 AM	12/21/07	12/23/07 2:48 AM	0712769-043A	12/21/07 9:35 AM	12/21/07	12/22/07 5:16 PM					

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

 $\pounds$  TPH(btex) = sum of BTEX areas from the FID.





# QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 0712769

EPA Method SW8021B/8015Cm Extraction SW5030B					BatchID: 32748 Spiked Sample ID: 0712748-00						5A	
Analyte	Sample Spiked MS			MSD	MS-MSD LCS LCSD			LCS-LCSD Acceptance Criteria (%)				
, mary to	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex <sup>f</sup>	ND	60	104	104	0	109	119	8.16	70 - 130	30	70 - 130	30
MTBE	ND	10	89.9	103	13.6	85.9	90.6	5.34	70 - 130	30	70 - 130	30
Benzene	ND	10	89	96.4	7.95	91.3	94.2	3.10	70 - 130	30	70 - 130	30
Toluene	ND	10	89.5	92.9	3.75	97.9	102	4.14	70 - 130	30	70 - 130	30
Ethylbenzene	ND	10	102	101	1.44	106	106	0	70 - 130	30	70 - 130	30
Xylenes	ND	30	100	96.7	3.39	120	120	0	70 - 130	30	70 - 130	30
%SS:	92	10	99	102	2.65	91	96	5.11	70 - 130	30	70 - 130	30

### BATCH 32748 SUMMARY

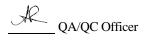
Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0712769-004A	12/20/07 10:45 AM	12/28/07	12/28/07 9:26 AM	0712769-007A	12/20/07 11:00 AM	12/28/07	12/28/07 10:00 AM
0712769-012A	12/20/07 11:20 AM	12/28/07	12/28/07 11:06 AM	0712769-016A	12/20/07 11:30 AM	12/28/07	12/28/07 7:08 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

 $\pounds$  TPH(btex) = sum of BTEX areas from the FID.





1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

#### QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 0712769

EPA Method SW8015C	Extra	ction SW	3510C/3	630C	Bat	chID: 32	758	Sp	iked Sam	ole ID:	N/A	
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	N/A	1000	N/A	N/A	N/A	111	113	1.78	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	117	118	1.01	N/A	N/A	70 - 130	30
All target compounds in the Method E NONE	lank of this	extraction	batch we	ere ND les	s than the	method F	RL with th	ne following	exceptions:			

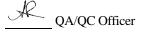
Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0712769-004B	12/20/07 10:45 AM	12/21/07	12/28/07 5:55 PM	0712769-007B	12/20/07 11:00 AM	12/21/07	12/31/07 1:52 PM
0712769-012B	12/20/07 11:20 AM	12/21/07	12/31/07 11:50 AM	0712769-016B	12/20/07 11:30 AM	12/21/07	12/28/07 7:04 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.





1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

#### QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder: 0712769

QA/QC Officer

EPA Method SW8015C	Extrac	tion SW	3550C/36	630C	Bat	chID: 32	667	Sp	iked Samp	ole ID:	0712612-00	5A
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	
, indigite	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	31	20	70.3	72.8	1.07	102	99.4	2.40	70 - 130	30	70 - 130	30
%SS:	101	50	95	102	7.01	102	100	1.25	70 - 130	30	70 - 130	30
All target compounds in the Method E NONE	Blank of this	extraction	batch we	re ND les	s than the	method R	L with th	e following	exceptions:			

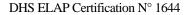
			<u>BATCH 32667 SL</u>	JMMARY			
Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0712769-002A	12/20/07 8:40 AM	12/21/07	12/27/07 4:01 AM	0712769-003A	12/20/07 8:50 AM	12/21/07	12/27/07 5:10 AM
0712769-006A	12/20/07 9:50 AM	12/21/07	12/28/07 9:20 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.





<u>McCampbell Analytical, Inc.</u>

"When Ouality Counts"

#### QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder: 0712769

EPA Method SW8015C	Extrac	ction SW	3550C/36	530C	Ba	tchID: 32	706	Sp	iked Sam	ble ID:	0712684-00	4A
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	
, mary to	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	4.4	20	101	96.6	3.50	121	119	1.22	70 - 130	30	70 - 130	30
%SS:	117	50	113	113	0	115	117	1.34	70 - 130	30	70 - 130	30
All target compounds in the Method E NONE	Blank of this	extraction	batch we	re ND les	s than the	method R	L with th	e following	exceptions:			

#### BATCH 32706 SUMMARY

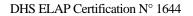
Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0712769-009A	12/20/07 10:15 AM	12/21/07	12/27/07 7:26 AM	0712769-010A	12/20/07 10:20 AM	12/21/07	12/27/07 8:35 AM
0712769-014A	12/20/07 10:45 AM	12/21/07	12/28/07 8:35 AM	0712769-018A	12/20/07 12:30 PM	12/21/07	12/28/07 10:52 AM
0712769-019A	12/20/07 12:35 PM	12/21/07	12/28/07 4:04 AM	0712769-022A	12/20/07 1:05 PM	12/21/07	12/28/07 1:47 AM
0712769-023A	12/20/07 1:10 PM	12/21/07	12/28/07 1:14 PM	0712769-026A	12/20/07 1:55 PM	12/21/07	12/28/07 3:38 PM
0712769-027A	12/20/07 2:00 PM	12/21/07	12/27/07 7:32 PM	0712769-028A	12/20/07 2:10 PM	12/21/07	12/28/07 8:35 AM
0712769-030A	12/20/07 2:30 PM	12/21/07	12/28/07 4:47 PM	0712769-031A	12/20/07 2:35 PM	12/21/07	12/28/07 1:14 PM
0712769-034A	12/20/07 3:20 PM	12/21/07	12/28/07 1:22 PM	0712769-035A	12/20/07 3:25 PM	12/21/07	12/28/07 8:12 PM
0712769-038A	12/21/07 8:45 AM	12/21/07	12/27/07 11:07 PM	0712769-039A	12/21/07 8:50 AM	12/21/07	12/28/07 6:13 AM

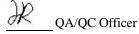
MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.







"When Ouality Counts"

#### QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder: 0712769

EPA Method SW8015C	Extra	ction SW	3550C/36	530C	Bat	tchID: 32	765	Sp	iked Samp	ble ID:	0712769-04	3A
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
ГРН(d)	150	20	NR	NR	NR	93.7	106	12.7	70 - 130	30	70 - 130	30
%SS:	106	50	101	101	0	109	111	1.39	70 - 130	30	70 - 130	30

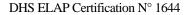
			<u>BATCH 32765 Sl</u>	<u>JMMARY</u>			
Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0712769-042A	12/21/07 9:25 AM	12/21/07	12/28/07 2:40 AM	0712769-043A	12/21/07 9:35 AM	I 12/21/07	12/27/07 6:18 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.



QA/QC Officer

When Ouality		Web: www.mce	ow Pass Road, Pittsburg, campbell.com E-mail: m one: 877-252-9262 Fax:	ain@mccampbell.com
AEI Consultants	Client Project ID: #274761	; Zimmerman	Date Sampled:	12/20/07-12/21/07
2500 Camino Diablo, Ste. #200			Date Received:	12/21/07
Walnut Creek, CA 94597	Client Contact: Harmony	TomSun	Date Reported:	01/09/08
Wundt Crock, CIT 94397	Client P.O.:		Date Completed:	01/09/08

#### WorkOrder: 0712769

January 09, 2008

Dear Harmony:

Enclosed within are:

- 1) The results of the **5** analyzed samples from your project: **#274761; Zimmerman**,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager McCampbell Analytical, Inc.

	McCA	MPBEL			ICA	LI	NC							Τ						CI	IA	IN	0	F	CU	SI	<b>O</b>	D	Y F	E	CO	RI	)			
			Willow Pass burg, CA 9-												Т	UR	N.	AR	01	UN	DI	TIN	IE		Ę										X	
Telephon	ne: (925) 25		e,		F	ax:	(925	) 2	52-9	26	9				FT	E E	laa	uivo	49	2	*	Var				SH	1	24 H	IR	4	8 HR		72 1	HR	5 DAY	1
Report To: Harmo	ny TomSu	n	В	ill To	: san	ne		Р	.0.	#	-	-	-	+	EL	T F	ceq	uire	a :			is R		_	<u> </u>	NO	-	_	_		Oth	er	Т	Com	ments	-
Company: AEI Co		-						-						1			_																			-
	amino Dia	blo, Suite	200														Grease (5520 E&F/B&F)				a Gel													3		
Walnu	t Creek, C	A 94597		E-M	ail: ht	toms	un@:	aeic	onsu	ulta	nts.c	com	í.,		TBE		&F/I				w/ Silica				310									0		
Tele: (925) 944-28	399			ax: (											8015)/MTBE		20 E	8.1)			/m ()				8270 / 8310											
Project #: 274761				rojec		ne:	Zim	me	rma	n				4	801	nge	(552	s (41		6	8015				827(									2		
Project Location: 3	3433 Chest	nut St. O.	akland, C	A 94	608									-	120+	ti-ra	ease	thon		802	MO	NLY			625/			010)					-	<		
Sampler Signature	: 22	10				-				-	M	ETH	100	-	02/80	Mul	k Gr	rocau		502	1/D/1	0 S.		SVOCs	PA 6	~		.2/6					-	R		
		SAMI	PLING		ers		MA	TR	IX			ESEI			ias (6	15)-	Total Petroleum Oil &	Total Petroleum Hydrocarbons (418.1)	60	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015)	EPA 608 / 8080 PCB's ONLY		-SV	PAH's / PNA's by EPA	CAM-17 Metals 6020		Lead (7240/7421/239.2/6010)					9	Ş		
SAMPLE ID				Containers	ntain										TPH as (	1 (80	eum	eum	HVOCs EPA 8260	N (I	Rang	080	EPA 624 / 8260	EPA 625 / 8270 -	A's	etals	tals	742						é		
(Field Point Name)	LOCATION		Time	tai	Con	Type Containers Water Soil Sludge Cother HCI HNO3 Other Other Other										<b>TPH as Diesel</b>	etrol	etrol	EP	INO	ulti-	8/8	4/8	5/8	/ PN	7 M	LUFT 5 Metals	240		R				0		
		Date	Time	Co	pe	Water	=	-	Sludge	Other	0	HCI	HNO3	Other	BTEX &	as I	tal P	tal P	00	EX	HM	A 60	A 62	A 62	H's	M-I	E	() pe	-	õ			<	3		
				#	F	M	Soil	Air	S	ō	Ice	Ŧ	H	ō	BT	HdT	To	To	H	BT	TP	EP	EP	EP	PA	C	LL	Le	RCI	SUNH	-		2	H		
5B-12-4	Oakland	12/20	2:25	1	Line		X			Ţ	X			Т																1						
5B-12-8	1	1	2:30	I	1		1				1																									
58-12-12			2:35	1							Π																									
5B-12-16			2:40	1											X																		1	986	-hold	
58-20-4			2:50	1																														1-1	5-05	
58-20-8			3:20	1																																
SB-20-12			3:25	1											-																					
53-20-16		1	3:30	I.											$\times$																		(	\$30	hold	
58-21-4		12/21	8:40	-t																														ŀ	3-00	
8-21-8		1	8:45	1																																
53-21-12			8:50	1																																
SB-21-16			8:55	(	Π																							-								
58-22-4			9:20	1																								1								
SB-22-8	1	1	9:25	1			1				T																									
Relinquished By:	-	Date:	Time:	Rec	eived E	-				_																						1		E		
1000		12/21/07	1121	1			10	7-	1	1	-	6			I	CE/	10	3						I	RF	SEP	VA	TIC		DAS	0&	G	MET	TALS	OTHEF	1
Relinquished By:		Date:	Time:	Rec	eived H	sy:									(	GOO	DO	ON						A	PP	ROF	RL	ATE	_							1
				-				_		_	_	_		_				PAC					D	(		TAI			IN	LAB						
Relinquished By:		Date:	Time:	Rec	eived H	iy:											nL	URI	NA	ILL	114	LA	D	~	re	not	LIR V	ED	TLA 1	LAD	-					

Telenho	McCAN	Pittsh	L ANA Villow Pass Durg, CA 9	Road			INC (92		52-	926	0				т	UR	IN.	AR		JNI	DI	TIN	IE	F	Ę	JST J		D D 24 H				OR	Ę		5	( DAY
							()*			_	·			4	EL	OF F	Req	uire				Yes			-	No		_								
Report To: Harm		n	B	ill To	: san	ne		F	P.O.	#				+	_		_	_		An	àlys	is R	equ	iest		_	_		_	⊢	Ot	ther	_	Co	mme	nts
Company: AEI C		1 6 14	200				_							-			6				Gel													2		
	Camino Dial	the second division in the second division of	200	E M	alle be								-	-	ш		;/B&				Silica				0									0		
Tele: (925) 944-2	ut Creek, C.	A 94597	F		ail: ht 925)	_		_	cons	uita	nts.c	com	-	-	MTB		E&F	=			w/ Si				8310									m		
Project #: 274761					t Nar				rm	an			_	-	8015)/MTBE	0	520	418.							8270 /									5		
Project Location:		nut St. Oa				ne.	Zan	mite					_	-	+ 8	rang	se (5	) suc		020)	080	X			/ 82			6						DA		
Sampler Signatur		-3	2												8020	ulti-	Grea	carbo		602 / 8020)	MIC	INO		3	625 /			109						X		
		SAMP	LING		s	Γ	MA	TR	IX			ETH			s (602	5)-M	bil & (	lydroo			(G/I	CB's		SVOCs	EPA	020		239.2						10		
				ers	g MATRIA PRESERVED											(801	E	H	8260	(EF	ange	80 P	09	- 01	's by	als 6	ls	421/						2-4		
SAMPLE ID (Field Point Name)	LOCATION	Date	Time	# Containers	T T N S S S I H H H H H H H H H H H H H H H H										BTEX & TPH a	[PH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA	BTEX ONLY (EPA	TPH Multi-Range (G/D/MO 8015)	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 -	PAH's / PNA's by EPA	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Anat				Added G		
58-16-12	Oakfand	12/20	10:55	1	liner	$\mathbf{T}$	X				X	-	+	+		F														4	1	+		-		
5B-16-W	0 (106)		11:30	4	VO A AMB	X	1				1			1																Ħ						
58-15-4			12:25	1	Line		X			1	$\uparrow$			1																Ħ	-					
58-15-8			12:30	1		t	6			1	$\uparrow$		+	1																Ħ	1			-		
SB-15-12			12:35	1	++	t	H				+	+	1	1																Ħ	1					
53-15-16			12:45	1	+	$\vdash$	H			+	$^{+}$				X										_			-		Ħ	-			68	e i	old
58-14 - 4			1:00	1	H	t	H			+	++	-		1									-					-		Ħ	-	++		1-	3-0	Sia
58-14-8			1:05	i	H	+	H			+	+		+	+																Ħ						
58-14-0212			1:10	i	11	t	H			1	t		1	+									_					-		#	+	++				
58-14-16			1:20	i		t				1	+		+		$\checkmark$								_							Ħ	-			088	He	11
5B-13 - 4			1:50	1	H	t	H				+			1									_							Ħ	-				3-0	84
58-13 - 8			1:55	1		t	1				+			1																tt	-				aller activ	
58-13-12			1:00	1	It	t	Ħ				+	-	+	+														1		Ħ	-					
53-13-16			2:10	1	1	$\vdash$	H		-		+		+	+									_		_			-		tt	1			-	_	
Belinguished By:		Date: ,	Time:	Reco	ived B	ly:	-		_	_				+	-	_	_	_			-						-	-	-	<u> </u>	-			_	-	
no	2	13/21/07	1121 .	1			11	5	1	1	0					CE/		3						D	DE	CED	NTA.	TIC		OAS	0	&G	M	ETAL	0	THER
Relinquished By: Relinquished By:		Date: Date:	Time: Time:		eived B			C H	GOO IEA	D C D S	ON	E A	BS	ENT		B	A	ON	ROP	RL		6	LAB	B					_							
					incu b																		-								-		0			

	McCAN				ICA	LI	INC	2.						Т						CI	IA	IN	0	F	CU	IST	ГO	D	Y I	RE	C	OR	D			
			Villow Pass burg, CA 9												T	UR	N	AR	οι	JNI	DI	IN	IE		Ę								[		X	
Telepho	ne: (925) 25		ourgi erri	1000	F	ax:	(925	5) 2	52-9	926	9									>	-					SH		24 H	IR		48 H	IR	7	2 HR	5 DA	Y
Report To: Harm	ony TomSu		D	ill To			1	D	.0.	4		_		+	ED	FR	equ	lire	_	Ana	_	Yes	_	_		No	-		_	-	0	ther		Car	iment	
Company: AEI C		1	D	an ro	; san	le		r	.0.	#				┢						Ana		IS R	equ	lest				-		⊢	-	ther	_	Con	iment	8
	Camino Dial	lo Suite	200														&F)				Gel									L .				à		
	ut Creek, C.		200	E-M	ail: ht	oms	un@	aeic	ons	ultar	nts c	om			BE		F/B				Silica				0									0		
Tele: (925) 944-2	and the second se		F	'ax: (	And in case of the local division of the loc			Concession in the local division in the loca	-ono	ar con	110.0	um			8015)/MTBE		E&	-			/m				831									3		
Project #: 274761				rojec					rma	n					8015)	20	5520	(418		_	(21)				270											
Project Location:		nut St. Oa													+	-rang	ise (	ons		020	0.80	ΓX			5/8			6						0		
Sampler Signatur	e:														/802	-Multi-range	Grea	carb		2/8	W/O	NO		C	1 62			/601		L .				×		
		SAMP	LING	PRESERVE												(2)-N	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	00	BTEX ONLY (EPA 602 / 8020)	[PH Multi-Range (G/D/MO 8015)	EPA 608 / 8080 PCB's ONLY		EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals 6020		Lead (7240/7421/239.2/6010)						te		
				ers	aine									٦	as G	(8015)	m	m	826	Y (E	ang	80 I	090	- 013	v's b	tals (	als	421						X		
SAMPLE ID (Field Point Name)	LOCATION			Containers	ont										TPH	<b>FPH as Diesel</b>	trole	trole	HVOCs EPA 8260	NL	Iti-R	8/8(	EPA 624 / 8260	5 / 82	PNA	Mc	LUFT 5 Metals	40/1		6	)			0		
(		Date	Time	OII	De C	Water	_		dg	ler		- 3	5	ler	BTEX & TPH	IS D	Il Pe	Il Pe	OCs	X	Mu	09	62	62	1.8/	M-17	T.5	P (72		2	7			Q		
				#	Type	W.	Soil	Air	Sludge	Other	Ice	HCI	HNO3	Other	BTE	Hd	Totz	Tota	HV	BTF	TPF	EP.A	EPA	EPA	PAF	CAJ	3	Lead	RCI	£	4			PP		
58-22-12	Daldana	12/21	9:35	1	Line		X		+	1	X			$^{+}$		E														ĥ		+				
5B-22-12 5B-22-16		.99	9:45	L	1		V			1	X				X																-	-		off	hold	
30 20 14			1.7		-		~		-	+	1	-	-	ſ																Ħ		-			3-08	
						$\vdash$			-	+	+	-		+	+	-			-						-		-	-		H	-	-	-			-
				-		-			-	+	+	-	+	+	+	-	-	-	-	_	-		-	-	_	-	-	-	-	H	-	-	-	-		-
					<u> </u>	-			-	+	+	+	-	+	-	-	-	-	-	_	-	_		-	-	-	-	-	-	₩	-	-	-			
					<u> </u>	-			-	+	-	-	-	+	_	_	_	-	_		_					-	-	-	-	₽	-	-	-			
						1			_	4	-	_	-	4	_	_	_	_		_	_				_				_	#	-	-	-			
																														1						
																														Π						
														1																11						_
									-	+		-		1		-		-										-		$\square$			-			-
								$\vdash$		+	-	+		+	-	-		-									-	-	-	H	-	-	-			
Relinquished By:		Date:	Time:	Rece	ived B	iv:								+																						_
472	2	13/51/07	1121.	0	nu.	-	-	1	1/	-	1																		V	OAS	0	&G	М	ETALS	OTH	ER
Relinquished By:		Date:	Time:	_	eived B	_	~7	v		-0	)					CE/t					5							TIC	N_						10.00002000	_
																ioo IEAI						-				ROI		ATE	5							
Relinquished By:		Date:	Time:	Rece	eived B	y:				-		-		-		ECI							B	C				ED/ED	IN	LA	B					
																							_										_			

## McCampbell Analytical, Inc.

	W
[	J.C.
1	
	$\sim$

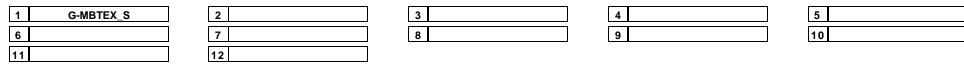
1534 Willow Pass Rd

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Pittsburg, C (925) 252-9	CA 94565-1701 9262				V	VorkO	rder:	07127	6 A		Clientl	D: AE	L				
				EDF		Excel		Fax		🖌 Email		Hard	lCopy	🗌 Thi	rdParty		
Report to: Harmony TomS AEI Consultants 2500 Camino D Walnut Creek, 0	s Diablo, Ste. #200	TEL:	htomsun@ae (925) 283-6000 #274761; Zir	. ,	44-289		AE 25 Wa	enise M El Cons 00 Can alnut Ci	ultants nino Dia reek, Ca	ablo, St A 94597 Asultant	7	)	Dat Dat		-0n:	12/21 01/03	days 1/2007 3/2008 7/2008
					[				Req	uested	Tests	(See leg	gend b	elow)			
Sample ID	ClientSampID		Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12
0712769-020	SB-15-16		Soil	12/20/07 12:45:00		А											
0712769-024	SB-14-16		Soil	12/20/07 1:20:00		А											
0712769-032	SB-12-16		Soil	12/20/07 2:40:00		А											
0712769-036	SB-20-16		Soil	12/20/07 3:30:00		А											
0712769-044	SB-22-16		Soil	12/21/07 9:45:00		А											

#### Test Legend:



Prepared by: Melissa Valles

#### Added G-MBTEX on 01/03/08. **Comments:**

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.

	McCampbell	Analy		•	Web: www.m	ccampbell.com	Pittsburg, CA 94565 E-mail: main@mcca 52 Fax: 925-252-9	mpbell.com		
AEI C	consultants		Client Proje	ect ID: #274	761; Zimmerm	an	Date Sample	ed: 12/20/07	-12/21	/07
2500 0	Camino Diablo, Ste. #200						Date Receive	ed: 12/21/07		
Walnu	tt Creek, CA 94597		Client Con	tact: Harmo	ony TomSun		Date Extract	ed: 01/03/08		
vv ante	it Cleck, CA 7+377		Client P.O.	:			Date Analyz	ed 01/04/08	-01/08	/08
Extracti	Gasolin	e Range (		-	www.www.awarbons as Gasol W8021B/8015Cm	line with BTI	EX and MTBE	* Work Order	: 0712	2769
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
020A	SB-15-16	S	40,a	ND<0.1	0.26	0.047	0.37	1.3	1	108
024A	SB-14-16	S	ND	ND	ND	ND	ND	ND	1	90
032A	SB-12-16	S	20,a	ND<0.25	0.51	0.083	0.48	1.8	5	91
036A	SB-20-16	S	ND ND		ND	ND	ND	ND	1	90
044A	SB-22-16	S	9.2,a	ND	0.021	0.032	0.0052	0.0083	1	93
-	porting Limit for DF =1;	W	NA	NA	NA	NA	NA	NA	1	ug/L
	means not detected at or ove the reporting limit	S	1.0	0.05	0.005	0.005	0.005	0.005	1	mg/Kg

\* water and vapor samples and all TCLP & SPLP extracts are reported in  $\mu g/L$ , soil/sludge/solid samples in mg/kg, wipe samples in  $\mu g/wipe$ , product/oil/non-aqueous liquid samples in mg/L.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high organic / MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) value derived using a client specified carbon range; o) results are reported on a dry weight basis; p) see attached narrative.





"When Ouality Counts"

#### QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder 0712769

EPA Method SW8021B/8015Cm	Extra	ction SW	5030B		Bat	tchID: 32	986	Sp	iked Sam	ole ID:	0801113-00	13-001A	
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acc	eptance	Criteria (%)		
Analyte	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD	
TPH(btex <sup>£</sup>	ND	0.60	103	103	0	103	109	5.20	70 - 130	30	70 - 130	30	
MTBE	ND	0.10	107	111	3.35	112	109	2.89	70 - 130	30	70 - 130	30	
Benzene	ND	0.10	94.3	98.7	4.54	92.6	93.1	0.596	70 - 130	30	70 - 130	30	
Toluene	ND	0.10	82	84.5	2.87	82.9	83.5	0.709	70 - 130	30	70 - 130	30	
Ethylbenzene	ND	0.10	96.5	98.6	2.15	93.2	95.6	2.60	70 - 130	30	70 - 130	30	
Xylenes	ND	0.30	92	93	1.08	91	91	0	70 - 130	30	70 - 130	30	
%SS:	94	0.10	94	99	5.10	93	92	1.81	70 - 130	30	70 - 130	30	
All target compounds in the Method F NONE	Blank of this	extraction	batch we	ere ND les	ss than the	method F	RL with th	ne following	exceptions:				

#### BATCH 32986 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0712769-020A	12/20/07 12:45 PM	01/03/08	01/04/08 1:41 PM	0712769-024A	12/20/07 1:20 PM	01/03/08	01/08/08 2:19 AM
0712769-032A	12/20/07 2:40 PM	01/03/08	01/07/08 11:46 PM	0712769-036A	12/20/07 3:30 PM	01/03/08	01/04/08 4:15 PM
0712769-044A	12/21/07 9:45 AM	01/03/08	01/04/08 2:12 PM				

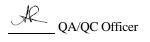
MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

 $\pounds$  TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.



McCampbell An "When Ouality"		Web: www.mco	ow Pass Road, Pittsburg, campbell.com E-mail: m ne: 877-252-9262 Fax:	ain@mccampbell.com
AEI Consultants	Client Project ID: #274761	; Zimmerman	Date Sampled:	12/31/07
2500 Camino Diablo, Ste. #200			Date Received:	12/31/07
Walnut Creek, CA 94597	Client Contact: Harmony	TomSun	Date Reported:	01/08/08
Wallat Creek, Cri 91897	Client P.O.:		Date Completed:	01/08/08

#### WorkOrder: 0712925

January 08, 2008

Dear Harmony:

Enclosed within are:

- 1) The results of the 7 analyzed samples from your project: #274761; Zimmerman,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager McCampbell Analytical, Inc.

0712925

	McCAI	MPBEL 1534 V	L ANA Willow Pass		ICA	LI	INC						Τ	т	IID	INI	A D		CH				FO	CU			D	ł R	REC	OF	D		
Telepho	ne: (925) 25		burg, CA 9	4565	F	ax:	(925	250	2_92	69				1	UN	11	AK	U	JINI	, 1	IIVI	E			SH		4 H	R	48	HR	7	2 HR	5 DA
							()						$\downarrow$	EL	)F F	Req	uire	d?	and the second division of the second divisio	100	Yes		-		No						de la		
Report To: Harmo		n	E	ill To	: san	ne		P.0	<b>).</b> #				+	_		_		_	Апа	lysi	s Re	equ	est	_		_	_		- (	Othe	r	Co	mments
Company: AEI C	amino Dial	hlo Suite	200										-		nee.	kF)				Gel												1	
	ut Creek, C		200	E-M	ail: h	toms	un@s	eico	nsult	tants	cor	11		BE	25	F/B/				Silica												1	
Tele: (925) 944-2	and the second se		F	ax: (					113411	ano				8015J/MTBE	5	E&	9			W/S				8310									
Project #: 274761				rojec					nan					8015)	2	5520	(418			12)				270/								1	
Project Location:	3433 Chesti	nut St. Oa												+ 0		ise (	ons (		020)	080	Z			625 / 82			6						
Sampler Signature	: th		M											/802(		Grea	carb		2 / 8	(G/D/MO 8015)	NO		Co	V 625			/601						
	.7	SAMP	LING	s	iers		MAT	RD	ĸ			HOD	D	Gas (602/8020	15)-#	Oil &	Hydro	09	BPA 60	ge (G/]	PCB's		- SVO	by EPA	6020		1/239.2						
SAMPLE ID Field Point Name)	LOCATION	Date	Time	# Containers	Type Containers	Water	Soil	Sludge	Other	Ice	HCI	HNO <sub>3</sub>		BTEX & TPH as (	TPH as Diesel (8015) - Muterange W/ Silved	Total Petroleum	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOC	PAH's / PNA's by	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI					
5B-12-W	Dakland	12/3/07	12:15	5		X				X				X	X															+	+		
B-13-W		1	17:45	5		li				1				1	1																		
B-14-W			12:50	5																													
B-15-W			12:35	5																													
R-20-10			12.95	5									1																	+	-		
B-21-W			17:00	5																										-			
B-77-14)		F	11:70	R				+	+	H			+	+	t				-	+		+	-		-				-	+	-		
0-26 00		Ø	11.10	2		-	-	+	+	-			+	-	-	-		-		+		+	-	-	-	-	-	-	+	+			
							-	+	+				+	+	-	-	-	-	+	+	-	+	+	-	-	-	-	-	-	+	-		
				-	-		-	-	-			-	+	-	-	-	-	-	-	+	-	+	-	-	-	-	-	467		-	-		
							-	-	-			_	+	-	3	•	-	-	-	+	-	+	-	-	-	-	-	-		+-	-	<u> </u>	
							-	+	-			-	+	-	-	-	_	_	-	-	-	+	-	-	_	_	_		_	-	-	<u> </u>	
							_	-	-				4	-	_		_	_	-	-	-		-	-	_		_			_	-		
													4					_	_	_		_			_					_			
								1																									
Relinquished By:	1	Date:	Time: 5:30 <sub>A</sub> Time:	.(	ived B	er	V	9	3					10	CE/t	.C	5.	8	-				PI	RES	ER	VAT	101		AS	0&G	M	ETAL	OTHE

### McCampbell Analytical, Inc.

	J	Ū,
6	D	ł
1	-4	2
	1	-

1534 Willow Pass Rd

## CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Pittsburg, C (925) 252-9	CA 94565-1701 9262					Work	Order	: 0712	925	C	lientID:	AEL					
				EDF	Γ	Excel		Fax	<u>-</u>	🖊 Email		HardCo	ру	Third	Party		
Report to:							Bill to:						Requ	uested T	AT:	5 c	days
Harmony TomS		Email:		eiconsultants.com				enise Mo									
AEI Consultants 2500 Camino D Walnut Creek, (	Diablo, Ste. #200	TEL: ProjectNo: PO:	(925) 944-2899 #274761; Zin	( <i>)</i>	44-28	95	25 Wa	alnut Cr	nino Dia eek, CA	iblo, Ste 94597 isultants				e Receiv e Printe		12/31/2 12/31/2	
									Requ	uested	Tests (S	ee legei	nd be	elow)			
Sample ID	ClientSampID		Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12
0712925-001	SB-12-W		Water	12/31/07 12:15:00		А	А	В									
0712925-002	SB-13-W		Water	12/31/07 11:45:00		Α		В									
0712925-003	SB-14-W		Water	12/31/07 12:50:00		Α		В									
0712925-004	SB-15-W		Water	12/31/07 12:35:00		Α		В									
0712925-005	SB-20-W		Water	12/31/07 12:25:00		Α		В									
0712925-006																	
	SB-21-W		Water	12/31/07 12:00:00		Α		В									

**Test Legend:** 

1	G-MBTEX_W	2 PREDF REPORT	3 TPH(D)WSG_W	]	4	5
6		7	8		9	10
11		12				

#### Prepared by: Ana Venegas

#### **Comments:**

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.



# McCampbell Analytical, Inc. "When Ouality Counts"

#### Sample Receipt Checklist

Client Name:	AEI Consultants				Date a	nd Time Received:	12/31/07 5	:38:00 PM
Project Name:	#274761; Zimme	man			Check	list completed and r	eviewed by:	Ana Venegas
WorkOrder N°:	0712925	Matrix <u>Water</u>			Carrier	r: <u>Client Drop-In</u>		
		<u>Chain</u>	of Cu	stody (C	OC) Informa	tion		
Chain of custody	y present?		Yes		No 🗆			
Chain of custody	y signed when relinqu	ished and received?	Yes	$\checkmark$	No 🗆			
Chain of custody	y agrees with sample	labels?	Yes	✓	No 🗌			
Sample IDs note	d by Client on COC?		Yes	$\checkmark$	No 🗆			
Date and Time o	f collection noted by C	lient on COC?	Yes	$\checkmark$	No 🗆			
Sampler's name	noted on COC?		Yes	$\checkmark$	No 🗆			
		s	amnle	Receint	Information			
			-				NA 🔽	
·	tact on shipping conta		Yes					
Shipping contain	er/cooler in good cone	dition?	Yes	$\checkmark$	No 🗆			
Samples in prop	er containers/bottles?		Yes	$\checkmark$	No 🗆			
Sample containe	ers intact?		Yes	$\checkmark$	No 🗆			
Sufficient sample	e volume for indicated	test?	Yes	✓	No 🗌			
		Sample Prese	rvatio	n and Ho	old Time (HT)	Information		
All samples rece	ived within holding tim		Yes	✓	No 🗌			
Container/Temp	Blank temperature		Coole	er Temp:	5.8°C			
·					_	No VOA vials subm	_	
Water - VOA via	Ils have zero headspa	ice / no bubbles?	Yes			No VOA viais subm		
Sample labels c	hecked for correct pre	servation?	Yes	$\checkmark$	No 🗌			
TTLC Metal - pH	acceptable upon rece	ipt (pH<2)?	Yes		No 🗆		NA 🗹	

Client contacted:

Date contacted:

Contacted by:

Comments:

	McCampbell	Analy uality Counts		<u>-</u>	Web: www.m		Pittsburg, CA 94565 E-mail: main@mcca 52 Fax: 925-252-9	mpbell.com		
AEI Co	onsultants		Client Proje	ect ID: #274	761; Zimmerm	an	Date Sample	ed: 12/31/07		
2500 C	Camino Diablo, Ste. #200						Date Receive	ed: 12/31/07		
			Client Con	ntact: Harmo	ny TomSun		Date Extract	ed: 01/03/08	-01/05/	/08
Walnut	t Creek, CA 94597		Client P.O.	:			Date Analyz	ed 01/03/08	-01/05/	/08
Extractio	Gasolin on method SW5030B	e Range (		tile Hydroca		line with BTI	EX and MTBE	* Work Order	: 0712	2925
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	SB-12-W	W	35,000,a	ND<450	5200	110	1000	1800	50	93
002A	SB-13-W	W	29,000,a	ND<250	5300	80	1400	3900	50	104
003A	SB-14-W	W	23,000,a	ND<240	2600	15	1500	1800	20	101
004A	SB-15-W	W	36,000,a ND<350		7700	190	1600	4700	50	99
005A	SB-20-W	W	28,000,a	ND<160	3400	22	1200	930	20	97
006A	SB-21-W	W	8100,a	ND<50	1600	ND<5.0	160	84	10	107
007A	SB-22-W	W	2600,a	ND<10	110	0.90	150	55	1	96
										<u> </u>
									<u> </u>	
-	orting Limit for DF =1;	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	neans not detected at or ove the reporting limit	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

\* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.



	ampbell Analyti "When Ouality Counts"	<u>cal, Inc.</u>	Web: www.mccamp	Pass Road, Pittsburg, CA 94565- bell.com E-mail: main@mccam 877-252-9262 Fax: 925-252-92	pbell.com			
AEI Consultants		Client Project ID:	#274761; Zimmerman	Date Sampled: 12/31	/07			
2500 Camino Diat	blo, Ste. #200			Date Received: 12/31	/07			
Walnut Creek, CA 94597		Client Contact:	Harmony TomSun	Date Extracted:         12/31/07           Date Analyzed         01/04/08-01/05/08				
		Client P.O.:						
	Diesel Range (C10-0	C23) Extractable 1	Hydrocarbons with Silica	a Gel Clean-Up*				
Extraction method SW3	510C/3630C	Analytica	l methods SW8015C	Work Or	der: 07	12925		
Lab ID	Client ID	Matrix	TPH(d)	)	DF	% SS		
0712925-001B	SB-12-W	W	4900,0	1	1	113		
0712925-002B	SB-13-W	W	5100,d					
0712925-003B	SB-14-W	W	W 12,000,d,b					
0712925-004B	SB-15-W	W	W 3000,d					
0712925-005B	SB-20-W	W	1	110				
0712925-006B	SB-21-W	W	1	110				
0712925-007B	SB-22-W	W	1	110				

Reporting Limit for DF =1;	W	50	µg/L
ND means not detected at or above the reporting limit	S	NA	NA

\* water samples are reported in  $\mu$ g/L, wipe samples in  $\mu$ g/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in  $\mu$ g/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract/matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit; p) see attached narrative.



DHS ELAP Certification Nº 1644



1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

#### QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 0712925

EPA Method SW8021B/8015Cm	8021B/8015Cm Extraction SW5030B				Bat	918	Sp	Spiked Sample ID: 0712749-010A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex <sup>f</sup>	ND	60	101	108	6.81	88.9	74.9	17.0	70 - 130	30	70 - 130	30
MTBE	ND	10	114	119	3.90	88.5	93.3	5.20	70 - 130	30	70 - 130	30
Benzene	ND	10	93.3	96.5	3.33	89	95.2	6.70	70 - 130	30	70 - 130	30
Toluene	ND	10	91.2	94	3.02	87.7	92.8	5.60	70 - 130	30	70 - 130	30
Ethylbenzene	ND	10	94.2	96.1	1.93	88.6	92.9	4.67	70 - 130	30	70 - 130	30
Xylenes	ND	30	94.6	95.6	1.04	81	86	5.99	70 - 130	30	70 - 130	30
%SS:	93	10	101	100	1.23	107	109	1.76	70 - 130	30	70 - 130	30

NONE

#### BATCH 32918 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0712925-001A	12/31/07 12:15 PM	01/03/08	01/03/08 2:30 AM	0712925-002A	12/31/07 11:45 AM	01/03/08	01/03/08 11:16 AM
0712925-003A	12/31/07 12:50 PM	01/04/08	01/04/08 9:49 PM	0712925-004A	12/31/07 12:35 PM	01/03/08	01/03/08 12:22 PM
0712925-005A	12/31/07 12:25 PM	01/04/08	01/04/08 8:58 PM	0712925-006A	12/31/07 12:00 PM	01/05/08	01/05/08 12:28 AM
0712925-007A	12/31/07 11:20 AM	01/05/08	01/05/08 5:04 AM				

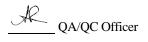
MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

 $\pounds$  TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.





McCampbell Analytical, Inc. "When Ouality Counts" 1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

#### QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0712925

EPA Method SW8015C	Extraction SW3510C/3630C				BatchID: 32919			Spiked Sample ID: N/A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	1
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	N/A	1000	N/A	N/A	N/A	112	110	2.29	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	99	91	8.74	N/A	N/A	70 - 130	30
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE												

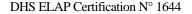
#### BATCH 32919 SUMMARY Sample ID **Date Sampled** Date Extracted Date Analyzed Sample ID Date Sampled Date Extracted Date Analyzed 0712925-001B 12/31/07 12:15 PM 12/31/07 01/04/08 8:30 AM 0712925-002B 12/31/07 11:45 AM 12/31/07 01/04/08 5:19 PM 01/04/08 8:42 PM 0712925-003B 12/31/07 12:50 PM 12/31/07 01/04/08 6:27 PM 0712925-004B 12/31/07 12:35 PM 12/31/07 0712925-005B 0712925-006B 01/04/08 10:57 PM 12/31/07 12:25 PM 12/31/07 01/04/08 9:50 PM 12/31/07 12:00 PM 12/31/07 0712925-007B 12/31/07 11:20 AM 12/31/07 01/05/08 12:08 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.



QA/QC Officer