October 30, 2009

GROUNDWATER MONITORING REPORT
Third Quarter, 2009

3442 Adeline Street
Oakland, California

AEI Project No. 281939
ACHCS # RO0002936

Prepared For

Ms. Steffi Zimmerman
3289 Lomas Verdes Place
Lafayette, CA 94545

Prepared By

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October 30, 2009

Ms. Steffi Zimmerman
3289 Lomas Verdes Place
Lafayette, CA 94545

Subject: **Quarterly Groundwater Monitoring Report**
Third Quarter, 2009
3442 Adeline Street
Oakland, California
AEI Project No. 281939
ACHCS # RO0002936

Dear Ms. Zimmerman:

AEI Consultants (AEI) has prepared this report on behalf of Ms. Steffi Zimmerman, the owner of the property located at 3442 Adeline Street in the City of Oakland, Alameda County, California. AEI has been retained by Ms. Zimmerman to provide environmental engineering and consulting services relating to the release of gasoline from a former underground storage tank (UST) on the property.

Previous site investigations have identified a release of gasoline from the former UST. Following an onsite meeting with the ACEH on March 19, 2008, AEI prepared a work plan for source area removal and installation of groundwater monitoring wells. This report summarizes the source removal activities in March and soil and Water disposal in and April and May 2009.

Site Description and Background

The subject site (hereinafter referred to as the "site" or "property") is situated on the northeast corner of 35th Street and Chestnut Street in a mixed commercial, industrial and residential area of Oakland. The Main entrance to the property is on 3442 Adeline Street.. A second entrance is located at 3433 Chestnut Street. The on-site building covers approximately 65% of the property and is currently being used as a warehouse facility. Refer to Figure 2 for an aerial photo of the property and Figure 3, Site Map.

UST Removal

On February 22, 2000, Clearwater supervised the excavation and removal of a single-wall 3,750 gallon UST. Soil samples and a groundwater sample was collected from the excavation pit and analyzed for total petroleum hydrocarbons as gasoline (TPH-g), as diesel (TPH-d), methyl tertiary butyl ether (MTBE) and BTEX (benzene, toluene, ethyl benzene, and total xylenes). Soil analyses

reported concentrations of TPH-g, TPH-d and benzene at concentrations up to 920 milligrams per kilogram (mg/kg), 850 mg/kg, and 0.3 mg/kg, respectively. TPH-g, TPH-d, and benzene were reported in the excavation groundwater sample at concentrations of 7,400 micrograms per liter (µg/L), 34,000 µg/L, and 3,300 µg/L, respectively.

Following receipt of the tank removal report, the City of Oakland Fire Department requested (May 15, 2006) requested additional soil and groundwater samples to further characterize the site. The location of the former UST and sample locations are presented in Figure 3

Clearwater Phase II Investigation

In June, 2006 Clearwater Group (Clearwater) performed a Phase II Environmental Site Investigation. Four (4) additional soil borings (S1 - S4) were drilled on June 23, 2006. The location of soil borings are shown in Figure 3. Analysis of groundwater samples reported TPH-g and benzene at concentrations up to 120,000 µg/L and 7,000 µg/L, respectively. TPH-d was reported as non-detectable at elevated reporting limits.

AEI Consultants Site Investigation

In October and December of 2007 and May of 2008, AEI performed additional site investigations to further define the nature and extent of the release. A total of thirty-one soil borings (SB-1 through SB-22) have been advanced to an approximate depth of 16 feet bgs and three (3) soil vapor samples collected from within the building. Soil boring locations are shown on Figure 3.

The maximum concentrations of TPH-g, TPH-d, and BTEX reported in soil were 1,200 mg/kg, 450 mg/kg, 6.9 mg/kg, 2.5 mg/kg, 24 mg/kg and 110 mg/kg, respectively. MTBE was reported at a concentration of 0.14 mg/kg in one sample, SB-11-15.5.

The maximum concentrations of TPH-g, TPH-d and BTEX reported in groundwater were 83,000 µg/L, 12,000 µg/L, 10,000 µg/L, 640 µg/L, 2,700 µg/L and 7,900 µg/L, respectively. No MTBE was reported in groundwater samples from any of the soil borings

The maximum concentrations of TPH-g, TPH-d and BTEX reported in soil vapor samples were 3,100 $\mu g/m^3$, 130 $\mu g/m^3$, 42 $\mu g/m^3$, 16 $\mu g/m^3$, and 49 µg/L, respectively. No MTBE was reported in soil vapor samples.

Soil and groundwater analytical data indicates gasoline plume in the soil and groundwater trend in a west to northwesterly direction, beneath the warehouse building on the property. TPH-g concentrations decrease rapidly to the north, south and east of the former UST. The results of these and previous soil, soil vapor, and groundwater analyses can be found in Well Installation Report. Soil boring locations are shown on Figure 3.

Interim Source removal

During March and April of 2009, AEI impacted soil from down gradient of the former UST and inside the building. The excavation measured 35 feet by 75 feet by approximately 12 feet deep. Excavated soil was disposed of at West Contra Costa Sanitary Landfill (745.37 tons) and Keller Canyon Landfill (352.84 tons). The base of the excavation was backfilled with a layer of permeable rock to allow normal groundwater movement. Five (5) 4-inch diameter casings were installed in the permeable bridge to allow the excavation to be kept water free. The excavation and backfill activities are summarized in the Interim Source Removal Report, dated August 31, 2009.

Well Installation

On April 1 - 2, 2009 and May 12 - 13, 2009, AEI advanced eight soil borings (MW-1 through MW-7 and IW-1) at the property and converted seven (7) of the borings (MW-1 through MW-7) into groundwater monitoring wells and one boring (IW-1) into an injection/sparge well. The monitoring wells were installed at a depth of 17 feet bgs, the sparge well was installed at a depth of 15 feet bgs. The locations of the wells are shown on Figure 3. The details of the well installation are summarized in the Groundwater Monitoring Well Installation Report, dated July 31, 2009..

TPH-g was reported in soil samples collected from the monitoring wells at concentrations ranging from ND<1.0 mg/kg to 1,100 mg/kg (MW-4-1). TPH-d was reported at concentrations ranging from ND<1.0 mg/kg to 99 mg/kg (MW-4-12). Inspection of 8015 chromatographs indicates that the hydrocarbon present in the soil is weathered gasoline and that the diesel range hydrocarbon concentrations reported represent the heavy portion of gasoline component compounds.

MTBE was reported above reporting limits in samples MW-6-19 and MW-6-25 at 0.12 mg/kg and 0.029 mg/kg, respectively. Benzene was reported at concentrations ranging from ND<0.005 mg/kg to 0.81 mg/kg (MW-2-12). Toluene was reported at concentrations ranging from ND<0.005 mg/kg to 2.9 mg/kg (MW-4-12). Ethylbenzene was reported at concentrations ranging from ND<0.005 mg/kg to 6.7 mg/kg (IW-1-10.5). Xylenes were reported concentrations ranging from ND<0.005 mg/kg to 3.5 mg/kg (IW-1-10.5).

TPH-g was reported in groundwater samples at concentrations ranging from 220 µg/L (MW-1) to 14,000 µg/L (MW-5). TPH-d was reported at concentrations ranging from 97 µg/L (MW-1) to 3,700 µg/L (MW-7). Inspection of 8015 chromatographs indicated that the hydrocarbons present in the soil is gasoline. The diesel range hydrocarbon concentrations reported represent the heavy portion of gasoline component compounds.

MTBE was reported as non-detectable at a laboratory reporting limit of 5.0 µg/L in MW-1 and as non-detectable at elevated reporting limits in the other monitoring wells. Benzene was reported at concentrations ranging from 10 µg/L (MW-1) to 3,000 µg/L (MW-5). Toluene was reported at concentrations ranging from ND<0.5 µg/L (MW-1) to 37 µg/L (MW-7). Ethylbenzene was reported at concentrations ranging from 2.3 µg/L (IW-1) to 340 µg/L (MW-5). Xylenes were reported at a concentrations ranging from 5.4 µg/L (MW-1) to 920 µg/L (MW-3).

On March 27, 2009, TPH-g and MBTEX were reported in backfill well casing BF-1 at concentrations of 19,000 µg/L, ND<250 µg/L, 890 µg/L, 27 µg/L, 460 µg/L, and 1200 µg/L, respectively.

On June 22, 2009, TPH-g and MBTEX were reported in backfill well casing BF-1 at concentrations of 6,700 µg/L, ND<150 µg/L, 840 µg/L, 19 µg/L, 170 µg/L, and 150 µg/L, respectively.

Environmental Concerns

Soil

Based on the results of previous investigations significant concentrations of hydrocarbon contamination have been identified in the shallow soil, typically between a depth 5 feet and 12 feet bgs with only occasional significant impact identified below 12 feet bgs. Maximum hydrocarbon concentrations reported in the tank removal samples were samples for TPH-g, and benzene were 920 mg/kg and 0.3 mg/kg, respectively. Maximum hydrocarbon concentrations reported in soil boring samples were 1,200 mg/kg and 6.9 mg/kg, respectively for TPH-g and benzene. The distribution of hydrocarbons in the soil is variable and appears related to variations in lithology and permeability.

Groundwater

Maximum concentrations of TPH-g and BTEX reported in groundwater monitoring well samples 26,000 µg/L (MW-2), 3,300 µg/L MW-5), 36 µg/L (MW-5),1,200 µg/L (MW-2), and 3,000 µg/L (MW-2), respectively. No MTBE has been reported in groundwater samples.

Geology and Hydrology

The site lies on the distal end of the Temescal Creek Alluvial Fan at approximately 45 feet above mean seal level (amsl). The Temescal Alluvial Fan is a low relief broad fan sloping westerly and southwesterly from the mouth of the Temescal Creek. The Holocene age alluvial fan deposits are mapped as Qhaf (Helley 1997). The sediments are described as typically, brown to tan gravelly sand or sandy gravel, which generally grades upward into sandy or silty clay.

The sediments in the upper four (4) to five (5) feet underlying the site are black silty clay – clayey silt containing variable amounts of scattered gravel. These sediments are considered to be bay margin sediments.

The shallow fine grained surface layer is underlain by alluvial deposits of intercalated, lenticular bodies of silt, clay, sand, and gravel. The sediments are typically highly variable mixtures of the four primary lithologies. Permeability (transmissivity) of the coarse grained sediments is typically low due to the presence of interstitial clay; however scattered clean sands and gravels are present

with good permeability. These permeable bodies appear to act as preferential channels for groundwater flow across the site and are the likely cause of the slightly sinuous, asymmetric appearance of the hydrocarbon plume in the soil and groundwater.

Groundwater elevations range from 24.11 feet amsl (6.53 ft bgs) in well MW-7, located in Chestnut Street to the east, to 19.36 ft amsl (9.98 ft bgs) in well MW-6 adjacent to Adeline Street to the West. Groundwater flow direction is in a westerly direction at an average gradient of 0.019ft/ft.

Summary of Activities

On August 27, 2009 the 3rd quarter 2009 groundwater monitoring event was performed. Depth to water and well purging were performed using a peristaltic pump according to the AEI Standard operating procedure (SOP) for low flow (micropurge) sampling. A copy of the low flow SOP is attached as Appendix A.

Groundwater parameters measured in the field are reported on the field sampling forms included in Appendix B.

Groundwater samples were collected using the peristaltic pump bailers and placed into 40-milliliter (ml) Volatile Organic Analysis (VOA) vials and 1-liter amber bottles. The VOAs were filled so that no headspace or air bubbles were visible within the sample containers. Samples were transported in a cooler on ice under appropriate chain-of-custody protocol to McCampbell Analytical, Inc. of Pittsburg, California (Department of Health Services Certification #1644).

Groundwater samples from the wells were analyzed for TPH-g, MTBE, benzene, toluene, ethyl benzene, and total xylenes (MBTEX), by SW8021B/8015Cm.

On September 13, 2009 a grab water groundwater sample was collected from backfill casing BF-1. The field report for collection of this sample reported hydrocarbon odor. On September 17, 2009, following discovery that the client was injecting air into the five (5) backfill wells, groundwater samples were collected from wells MW-1, MW-3, and sparge well IW-1 under the AEI low flow SOP.

Field Results

On August 27, 2009, groundwater elevations in the monitoring wells ranged from 24.85 (MW-7) to 17.50 (MW-6) feet above mean sea level (amsl). These elevations are an average of 0.42 feet higher than the previous quarterly monitoring event. The groundwater hydraulic gradient in the Shallow Zone is 0.003 ft/ft to the southwest.

Current and historical groundwater elevation data are summarized in Tables 3 and 3a. The groundwater elevation contours and the groundwater flow directions are presented in Figures 3 and 4. Groundwater Monitoring Well Field Sampling Forms are presented Appendix A.

Groundwater Quality

Backfill Casings

On August 27, 2009, TPH-g concentration in backfill casing BF-1 was reported at a concentration of 9,600 µg/L. On September 13, 2009, TPH-g decreased to ND<50 µg/L. Benzene concentration in BF-1 was reported at a concentration 590 µg/L on August 27, 2009 and decreased to 1.2 µg/L on September 13, 2009. MTBE in BF-1 was reported as non-detectable at reporting limits of 90 µg/L and 5.0 µg/L, on August 27, and September 13, respectively.

On August 27, 2009, TPH-g concentration in backfill casing BF-5 was reported at a concentration of 170 µg/L. BTEX concentrations were reported at concentrations of 32 µg/L, 0.55 µg/L, 4.2 µg/L, 220 µg/L, respectively. MTBE in BF-5 was reported as non-detectable at reporting limits of 25µg/L.

Monitoring Wells

No MTBE was reported in the groundwater sample from sparge well IW-1 at a reporting limit of ND<5.0 µg/L. No MTBE was reported in groundwater samples from Wells MW-1 through MW-7 at elevated reporting limits ranging from ND<15 µg/L to ND<1,200 µg/L.

TPH-g and benzene concentrations are summarized below. Toluene, ethylbenzene and total xylenes concentrations are not detailed below but typically vary in a similar fashion to benzene concentrations.

The TPH-g concentrations in monitoring well MW-1 increased from 220 µg/L in April 17, 2009 to 7,000 µg/L on August 27, 2009. Then decreased on September 17, 2009 to 92 µg/L. Benzene concentrations in MW-1 increased from 10 µg/L in April to 610 µg/L on August 27, 2009. On September 17, 2009, benzene decreased to 0.91 µg/L.

The TPH-g concentration in monitoring well MW-2 increased from 7,000 µg/L in April to 26,000 µg/L on August 27, 2009. Benzene concentrations in MW-2 increased from 850 µg/L in April to 3,600 µg/L on August 27, 2009.

The TPH-g concentrations in monitoring well MW-3 increased from 10,000 µg/L in April to 17,000 µg/L on August 27, 2009. On September 17, 2009, TPH-g decreased to 260 µg/L. Benzene concentrations in MW-1 increased from 930 µg/L in April to 3,800 µg/L on August 27, 2009. On September 17, 2009, benzene decreased to 1.8 µg/L.

The TPH-g concentration in monitoring well MW-4 decreased from 4,700 µg/L in April to 4,300 µg/L on August 27, 2009. Benzene concentrations in MW-4 decreased from 140 µg/L in April to 75 µg/L on August 27, 2009.

The TPH-g concentration in monitoring well MW-5 increased from 14,000 µg/L in April to 25,000 µg/L on August 27, 2009. Benzene concentrations in MW-5 increased from 3,000 µg/L in April to 3,300 µg/L on August 27, 2009.

The TPH-g concentration in monitoring well MW-6 decreased from 5,600 µg/L in April to 2,200 µg/L on August 27, 2009. Benzene concentrations in MW-6 decreased from 210 µg/L in April to 98 µg/L on August 27, 2009.

The TPH-g concentration in monitoring well MW-7 remained constant at a concentration of 12,000 µg/L on August 27, 2009. Benzene concentrations in MW-7 decreased from 1,000 µg/L in April to 550 µg/L on August 27, 2009.

The TPH-g concentration in sparge well IW-1 decreased from 1,200 µg/L in April 17, 2009 to 160 µg/L on August 27, 2009 and increased to 300 µg/L on September 17, 2009. Benzene concentrations in IW-1 decreased from 58 µg/L in April to 4.1 µg/L on August 27, 2009 and increased to 8.0 µg/L on September 17, 2009.
A summary of groundwater analytical data is presented in Table 2 and Figure 5. TPH-g contaminant isopleths are presented in Figure 6. Laboratory results and chain of custody documents are included in Appendix B.

Summary

The analytical results from the third quarter 2009 groundwater monitoring event confirms the results of the initial monitoring event. TPH-g in monitoring wells ranged from 26,000 µg/L (MW-2 – mid point of plume) to 2,200 µg/L (MW-6, down gradient end of plume).

The next quarterly groundwater monitoring event is tentatively scheduled for late November 2009.

Report Limitations and Signatures

This report presents a summary of work completed by AEI Consultants, 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.

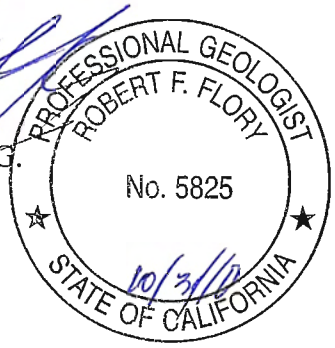
These services were performed in accordance with generally accepted practices in the geologic, environmental engineering and construction fields that existed at the time and location of the work.

Please contact Harmony TomSun or Robert Flory at (925) 746-6000, if you have any questions regarding the findings and recommendations included in this report.

Sincerely,
AEI Consultants

Harmony TomSun
Project Geologist

Robert F. Flory, P.G.
Senior Geologist



Attachments

Figures

Tables

Distribution:

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Alameda Health Care Services Agency
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Alameda, CA 94502 electronic

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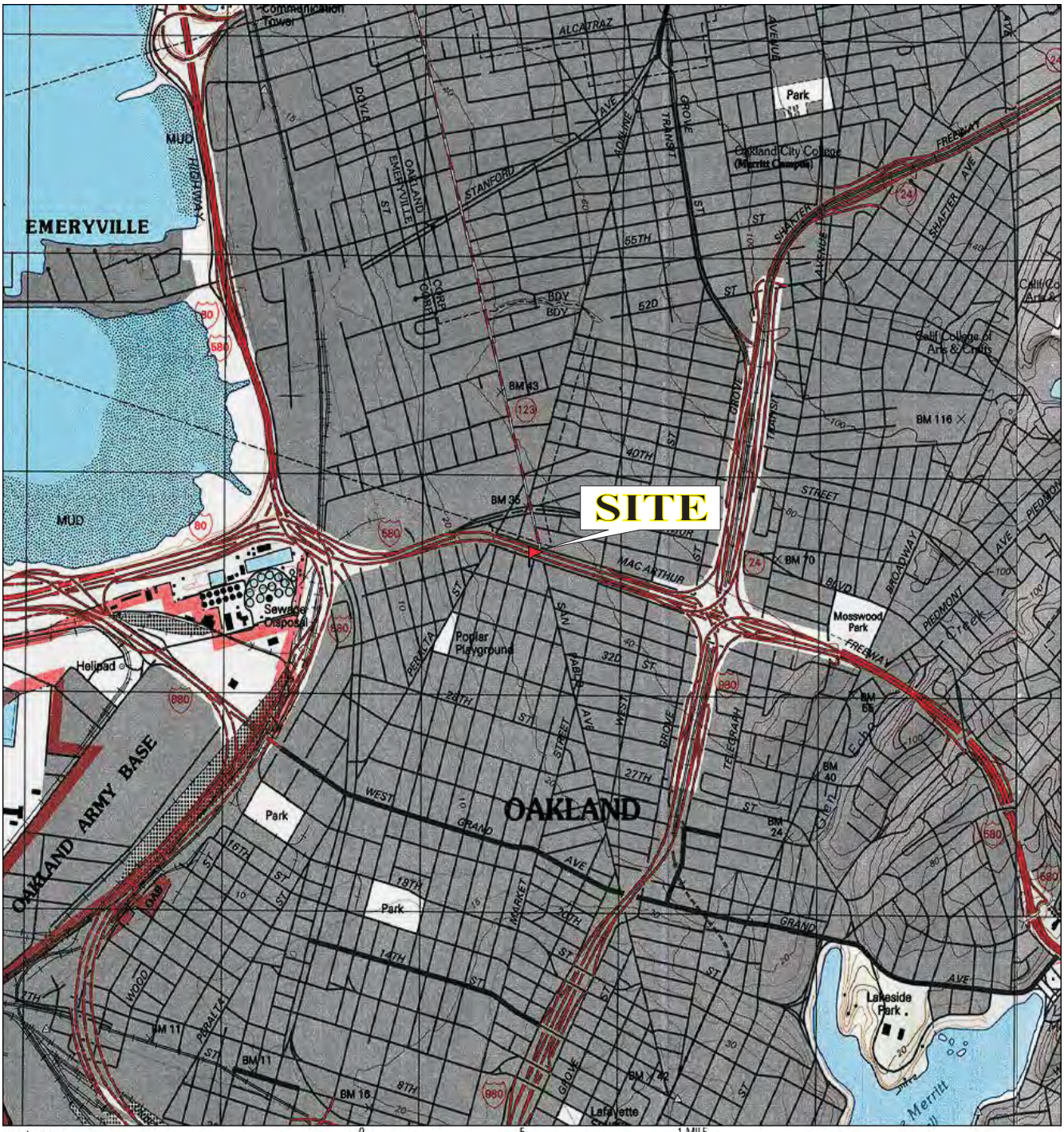
FIGURES



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Site Location Map

3442 Adeline Street
Oakland, CA 94608

FIGURE 1
Job No: 281939

Property Boundary

Former UST Area

Approximate Scale:
1 inch = 55 feet

0’ 55’

N

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Site Vicinity Map

3442 Adeline Street
Oakland, CA 94608

FIGURE 2
Job No: 281939

LEGEND

- Soil Boring - 2006
- Soil Boring - 2007
- Monitoring Well
- Former UST
- Soil vapor Sample Point
- Source Removal Excavation

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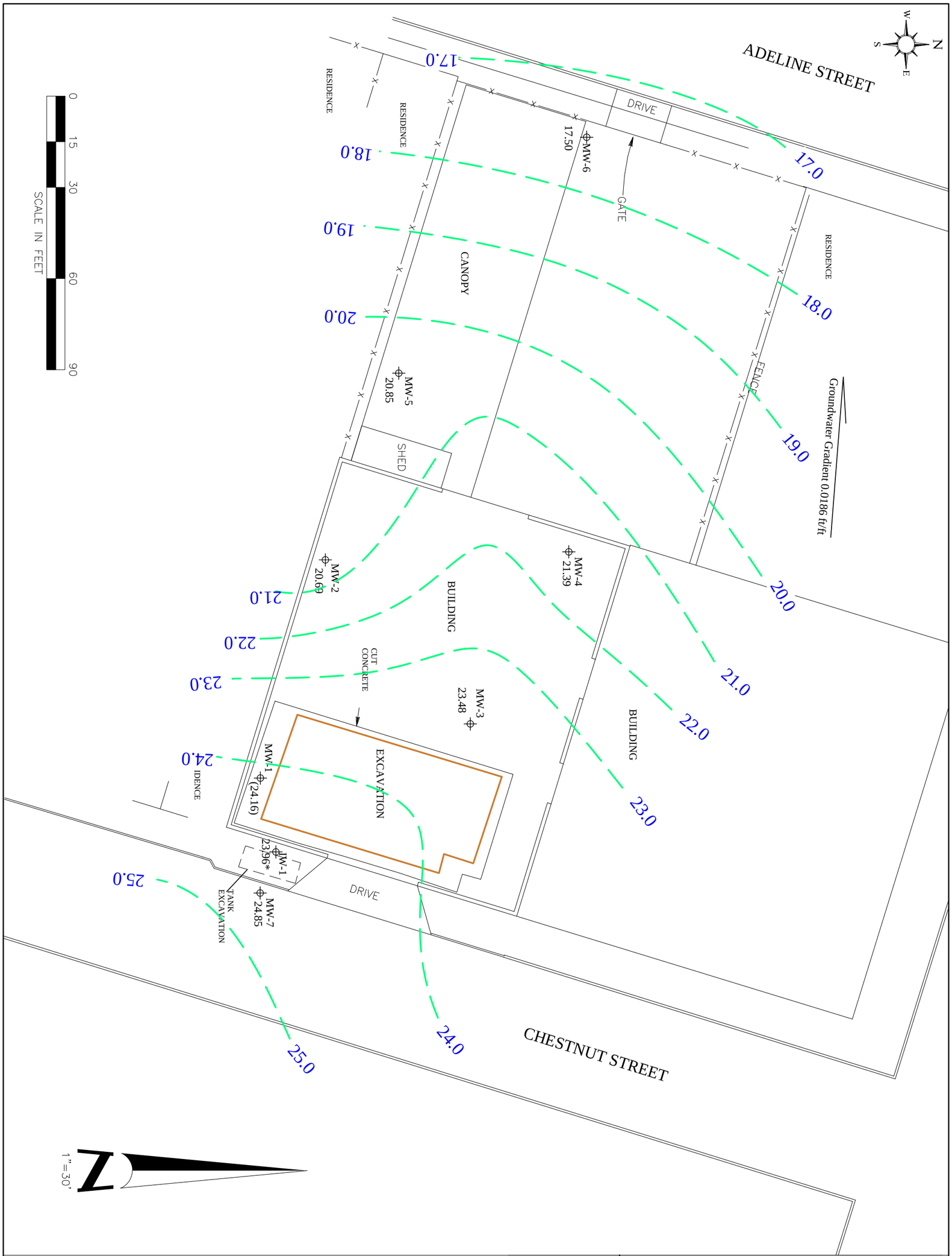
2500 CAMINO DIABLO, WALNUT CREEK

SITE PLAN

3442 ADELINE STREET
OAKLAND, CALIFORNIA

FIGURE 3
PROJECT NO. 281939



LEGEND

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- Soil Boring - 2006
- Soil Boring - 2007
- Monitoring Well
- Former UST
- Source Removal Excavation
- Groundwater Elevation Contour Lines
- (24.51) - Groundwater Elevation

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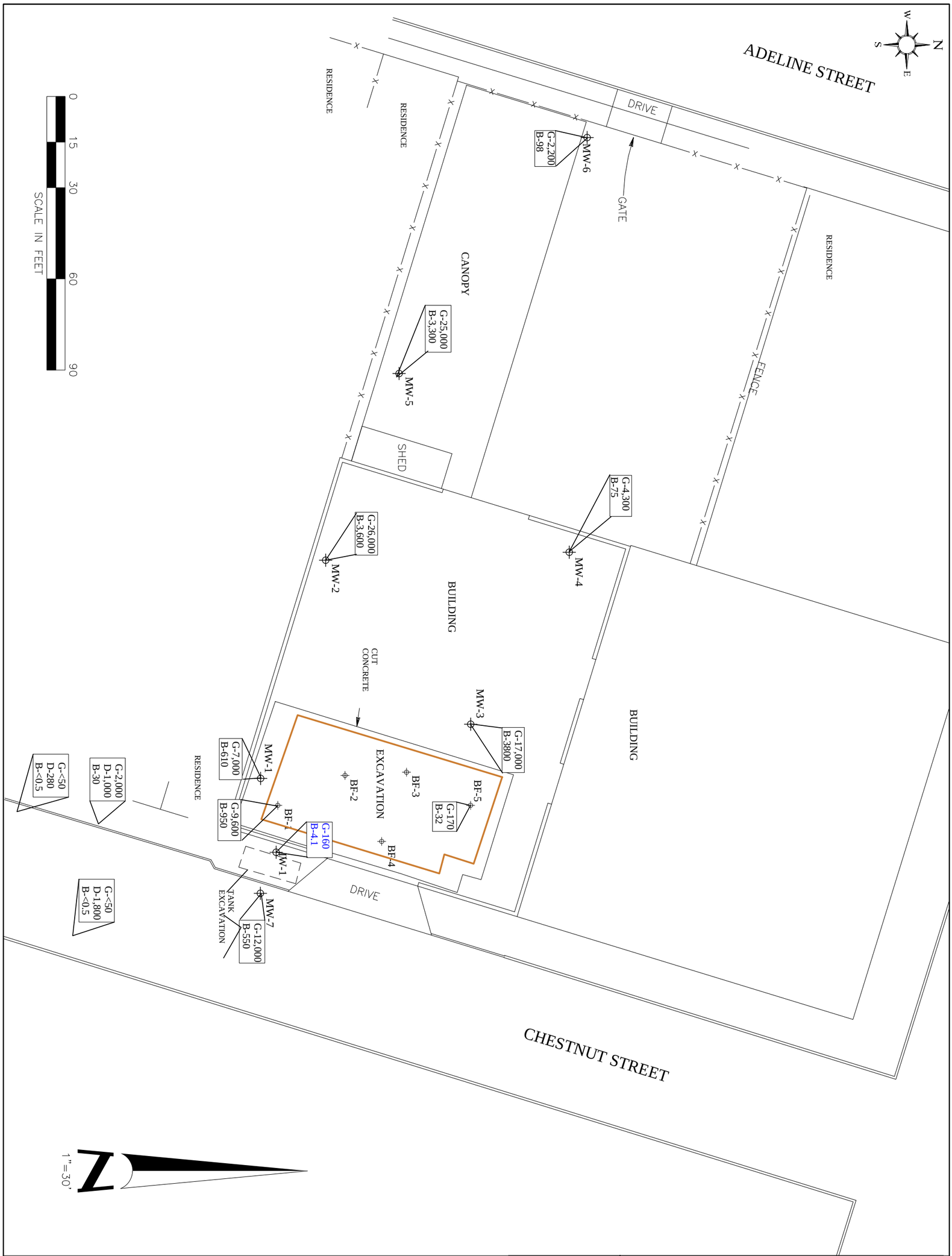
Groundwater Elevations

3442 ADELINE STREET
OAKLAND, CALIFORNIA

FIGURE 4
PROJECT NO. 281939



LEGEND

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Soil Boring - 2006

Soil Boring - 2007

Monitoring Well

Former UST

Source Removal Excavation

G - Total Petroleum Hydrocarbons as Gasoline (µg/L)
D - Total Petroleum Hydrocarbons as Diesel (µg/L)
B - Benzene (µg/L)

G-28,000
D-3,900
B-3,400
Soil Boring Grab Sample

G-7,000
D-2,200
B-850
Monitoring Well Data

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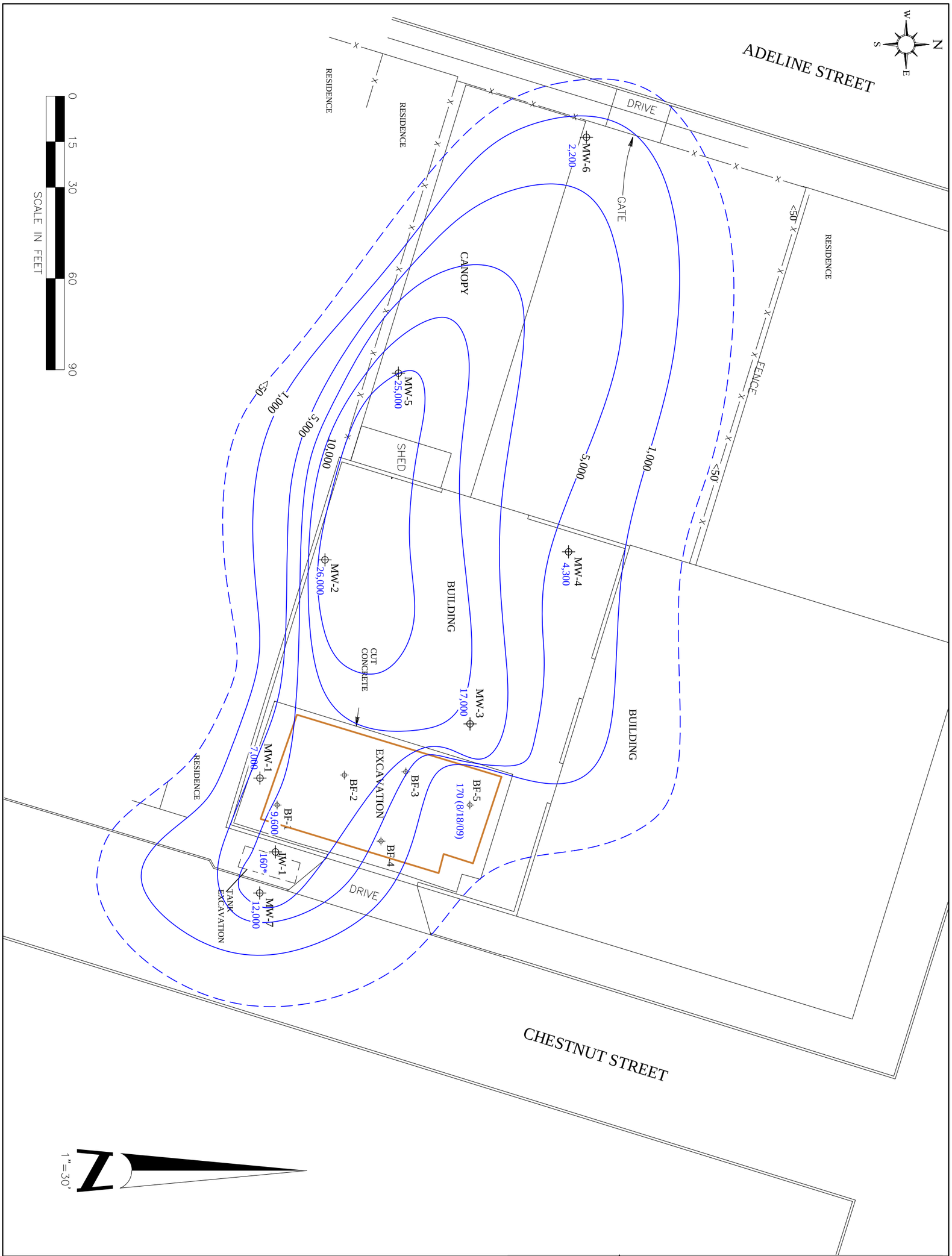
Groundwater Analytical Data

3442 ADELINE STREET
OAKLAND, CALIFORNIA

FIGURE 5
PROJECT NO. 281939



LEGEND

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- Monitoring Well
- Former UST
- Source Removal Excavation
- TPH-g concentration isopleth
- 890 Monitoring Well TPH-g Concentration (µg/L) 8/27/2009

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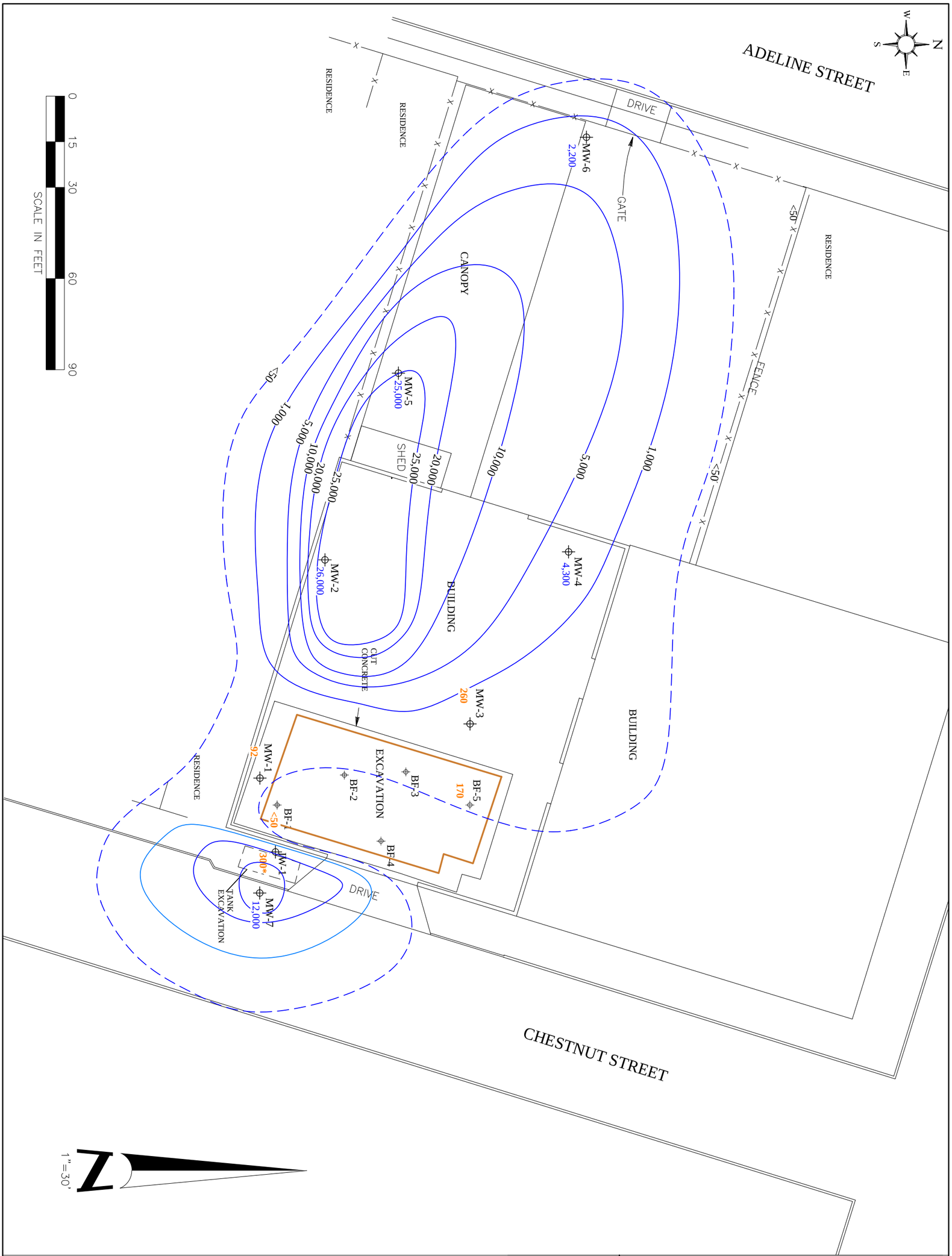
TPH-g in Groundwater (8/27/09)

3442 ADELINE STREET
OAKLAND, CALIFORNIA

FIGURE 6
PROJECT NO. 281939



LEGEND

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- Monitoring Well
- Former UST
- Source Removal Excavation
- TPH-g concentration isopleth
- 890 Monitoring Well TPH-g Concentration (µg/L) 8/27/2009
- 890 Well TPH-g Concentration (µg/L) September 13 & 17, 2009

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TPH-g in Groundwater

3442 ADELINE STREET
OAKLAND, CALIFORNIA

FIGURE 7
PROJECT NO. 281939

TABLES

Table 1
Monitoring Well Construction Details
3442 Adeline Street St. Oakland, CA 94608

Well ID	Date Installed	Top of Casing Elevation (ft amsl)	Well Box Rim Elevation (ft amsl)	Well Depth (ft)	Casing Diameter (in)	Slotted Casing (ft)	Slot Size (in)	Sand Interval (ft)	Sand Size	Bentonite Interval (ft)	Grout Interval (ft)
MW-1	04/01/09	31.12	32.13	17	4	7-17	0.020	6-17	# 2/12	5-6	0.75 - 5
MW-2	04/01/09	31.19	31.43	17	4	7-17	0.020	6-17	# 2/12	5-6	0.75 - 5
MW-3	04/01/09	32.07	32.39	17	4	7-17	0.020	6-17	# 2/12	5-6	0.75 - 5
MW-4	04/02/09	31.68	31.98	17	2	7-17	0.020	6-17	# 2/12	5-6	0.75 - 5
MW-5	05/12/09	30.39	30.82	17	2	7-17	0.020	6-17	# 2/12	5-6	0.75 - 5
MW-6	04/02/09	29.34	29.96	17	2	7-17	0.020	6-17	# 2/12	5-6	0.75 - 5
MW-7	05/13/09	31.04	31.45	17	2	7-17	0.020	6-17	# 2/12	5-6	0.75 - 5
IW-1	05/12/09	31.66	31.90	15	2	13-15	0.010	12-15	# 2/12	11-12	0.75-12

Notes:
ft amsl = feet above mean sea level

Table 2
Groundwater Elevation Data
3442 Adeline Street St. Oakland, CA 94608

Well ID (Screen Interval)	Date Collected	Top of Casing Elevation *(ft amsl)*	Depth to Water *(ft)*	Groundwater Elevation *(ft amsl)*	Elevation Change *(ft)*
MW-1	6/10/2009	31.12	7.01	24.11	----
(7-17)	8/27/2009	31.12	6.96	24.16	0.05
MW-2	6/10/2009	31.19	9.50	21.69	----
(7-17)	8/27/2009	31.19	10.50	20.69	-1.00
MW-3	6/10/2009	32.07	8.44	23.63	----
(7-17)	8/27/2009	32.07	8.59	23.48	-0.15
MW-4	6/10/2009	31.68	9.45	22.23	----
(7-17)	8/27/2009	31.68	10.29	21.39	-0.84
MW-5	6/10/2009	30.39	9.13	21.26	----
(7-17)	8/27/2009	30.39	9.54	20.85	-0.41
MW-6	6/10/2009	29.34	9.98	19.36	
(7-17)	8/27/2009	29.34	11.84	17.50	-1.86
MW-7	6/10/2009	31.04	6.53	24.51	----
(7-17)	8/27/2009	31.04	6.19	24.85	0.34
IW-1	6/10/2009	31.66	7.65	24.01	----
(13-15)	8/27/2009	31.66	7.70	23.96	-0.05

Groundwater Gradient Data

Event #	Date	Average Water Table Elevation (ft amsl)	Change from Previous Episode (ft)	Flow Direction (gradient) (ft/ft)
1	6/10/2009	22.40	----	West (0.0186)
2	8/27/2009	21.85	-0.55	West (0.0186)

Table 3: Groundwater Analytical Data
3442 Adeline Street St. Oakland, CA 94608

Sample ID	Date	Depth to Water	TPH-d	TPH-g	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
			Method 8015C			*Method 8021B*			
		(ft)	(µg/L)						
MW-1	04/17/09		97	220	<5.0	10	<0.5	3.0	5.4
	08/27/09		----	**7,000**	<180	**610**	10	**320**	**220**
	09/17/09		----	**92**	**<15**	**0.91**	**0.70**	**<0.5**	**<0.5**
MW-2	04/17/09		2,200	7,000	<100	850	19	93	470
	08/27/09		----	**26,000**	**<1,200**	**3600**	**<25**	**1200**	**3000**
MW-3	04/17/09		2,200	10,000	<110	930	5.6	270	920
	08/27/09		----	**17,000**	<250	**3800**	38	**730**	**710**
	09/17/09		----	**260**	**<15**	**1.8**	**1.0**	**<0.5**	**2.1**
MW-4	04/17/09		1,200	4,700	<30	140	2.0	28	18
	08/27/09		----	**4,300**	**<25**	**75**	**11**	**8.6**	**3.4**
MW-5	05/22/09		2,800	14,000	<100	3,000	12	340	420
	08/27/09		----	**25,000**	**<400**	**3,300**	**36**	**1100**	**1600**
MW-6	04/17/09		1,000	5,600	<300	210	3.0	180	160
	08/27/09		----	**2,200**	**<120**	**98**	**7.9**	**20**	**1.1**
MW-7	04/17/09		3,700	12,000	<120	1,000	37	100	36
	08/27/09		----	**12,000**	**<100**	**550**	**30**	**130**	**33**
IW-1	05/22/09		680	1,200	<15	58	2.7	2.3	18
	08/27/09		----	**160**	<5.0	**4.1**	0.53	0.8	1.6
	09/17/09		----	**300**	**<5.0**	**8.0**	**1.5**	**1.4**	**0.85**

Table 3: Groundwater Analytical Data
3442 Adeline Street St. Oakland, CA 94608

Sample ID	Date	Depth to Water	TPH-d	TPH-g	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
			Method 8015C			*Method 8021B*			
		(ft)	(µg/L)						
BF-1	03/27/09		----	19,000	<250	890	27	460	1,200
post H_2O_2	06/17/09		----	6,700	<150	840	19	170	150
pre-aeration	08/10/09		----	11,000	<120	710	14	440	290
post aeration	**08/27/09**		----	**9,600**	<90	**590**	14	**350**	**220**
	09/13/09		----	**<50**	**<5.0**	**1.2**	**<0.5**	**<0.5**	**<0.5**
BF-5	**08/27/09**		----	**170**	**<25**	**32**	**0.55**	**4.2**	**220**
ESL	---		100	100	5.0	1.0	40	30	20

Notes:
µg/L = micrograms per liter
ESL = Environmental Screening Level
TPH-g = total petroleum hydrocarbons as gasoline
680 = Concentration above ESL
TPH-d = total petroleum hydrocarbons as diesel
MTBE = methyl tert-butyl ether
BOLD = most recent sample

APPENDIX A

Groundwater Monitoring Well
Field Sampling Forms

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-1

Project Name:	Zimmerman	Date of Sampling:	8/25/2009
Job Number:	281939	Name of Sampler:	A Nieto
Project Address:	3442 Adeline St. Oakland Cal		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	31.12		
Depth of Well	17.00		
Depth to Water (from top of casing)	6.96		
Water Elevation (feet above msl)	24.16		
Well Volumes Purged	Micropurged		
Actual Volume Purged (liters)	4.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size: 3 VOA

Time	Vol Removed (Liters)	Temperature (deg C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
	0.0	18.00	6.26	1133	3.20	-156.8	Clear
	0.5	17.91	6.37	1129	1.30	-156.4	Clear
	1.0	17.87	6.36	1117	1.27	-155.4	Clear
	1.5	17.84	6.35	1118	1.44	-155.4	Clear
	2.0	17.84	6.34	1115	1.34	-155.0	Clear
	2.5	17.84	6.33	1110	1.15	-154.8	Clear
	3.0	17.84	6.33	1106	1.01	-155.5	Clear
	3.5	17.85	6.34	1103	0.92	-156.2	Clear
	4.0	17.85	6.34	1102	0.90	-156.5	Clear

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Clear with strong hydrocarbon odor

Bottom of drop tube at 10.0 feet bgs. Purge rate <0.5 liters per minute.

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-2

Project Name:	Zimmerman	Date of Sampling:	8/25/2009
Job Number:	281939	Name of Sampler:	A Nieto
Project Address:	3442 Adeline St. Oakland Cal		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	31.19		
Depth of Well	17.00		
Depth to Water (from top of casing)	10.58		
Water Elevation (feet above msl)	20.61		
Well Volumes Purged	Micropurged		
Actual Volume Purged (liters)	3.5		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size: 3 VOA

Time	Vol Removed (Liters)	Temperature (deg C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
	0.0	18.14	6.42	1137	2.19	-156	Clear
	0.5	17.9	6.35	1126	0.80	-121.3	Clear
	1.0	17.83	6.23	1117	0.61	-121.6	Clear
	1.5	17.83	6.27	1117	0.62	-121.1	Clear
	2.0	17.83	6.25	1112	0.61	-120.5	Clear
	2.5	17.84	6.22	1102	0.60	-119.6	Clear
	3.0	17.84	6.22	1099	0.59	-119.6	Clear
	3.5	17.85	6.22	1098	0.60	-118.7	Clear

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Clear with strong hydrocarbon odor

Bottom of drop tube at 12.0 feet bgs. Purge rate <0.5 liters per minute.

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-3

Project Name:	Zimmerman	Date of Sampling:	8/25/2009
Job Number:	281939	Name of Sampler:	A Nieto
Project Address:	3442 Adeline St. Oakland Cal		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	32.07		
Depth of Well	17.00		
Depth to Water (from top of casing)	8.59		
Water Elevation (feet above msl)	23.48		
Well Volumes Purged	4.0		
Actual Volume Purged (liters)	Micropurged		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size: 3 VOA

Time	Vol Removed (Liters)	Temperature (deg C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
	0.0	19.69	6.42	1234	1.34	-115.2	Clear
	0.5	18.88	6.39	1221	0.89	-117.1	Clear
	1.0	18.79	6.36	1214	0.81	-119.6	Clear
	1.5	18.76	6.22	1212	0.78	-125.7	Clear
	2.0	18.73	6.24	1210	0.53	-130.5	Clear
	2.5	18.74	6.23	1203	0.85	-131.6	Clear
	3.0	17.75	6.22	1199	0.81	-132.1	Clear
	3.5	18.77	6.23	1195	0.79	-134.2	Clear
	4.0	18.78	6.22	1194	0.76	-134.1	Clear

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Clear with strong hydrocarbon odor

Bottom of drop tube at 12.0 feet bgs. Purge rate <0.5 liters per minute.

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-4

Project Name:	Zimmerman	Date of Sampling:	8/25/2009
Job Number:	281939	Name of Sampler:	A Nieto
Project Address:	3442 Adeline St. Oakland Cal		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	31.68		
Depth of Well	17.00		
Depth to Water (from top of casing)	10.29		
Water Elevation (feet above msl)	21.39		
Well Volumes Purged	Micropurged		
Actual Volume Purged (liters)	3.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size: 3 VOA

Time	Vol Removed (Liters)	Temperature (deg C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
	0.0	18.38	6.24	668	1.39	-94.9	Clear
	0.5	18.34	6.22	648	0.83	-100.9	Clear
	1.0	18.38	6.21	636	0.58	-105.7	Clear
	1.5	18.42	6.21	633	0.47	-107.7	Clear
	2.0	18.48	6.21	631	0.43	-108.8	Clear
	2.5	18.56	6.22	631	0.38	-110.7	Clear
	3.0	18.61	6.22	632	0.34	-112.5	Clear

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Clear with strong hydrocarbon odor

Bottom of drop tube at 12.0 feet bgs. Purge rate <0.5 liters per minute.

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-5

Project Name:	Zimmerman	Date of Sampling:	8/25/2009
Job Number:	281939	Name of Sampler:	A Nieto
Project Address:	3442 Adeline St. Oakland Cal		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	30.39		
Depth of Well	17.00		
Depth to Water (from top of casing)	9.54		
Water Elevation (feet above msl)	20.85		
Well Volumes Purged	Micropurged		
Actual Volume Purged (liters)	3.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size: 3 VOA

Time	Vol Removed (Liters)	Temperature (deg C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
	0.0	16.53	7.19	1099	1.85	-134.4	
	0.5	16.45	7.17	1095	1.33	-1297.0	
	1.0	16.11	7.10	1094	1.07	-121.7	
	1.5	16.42	6.97	1092	0.80	-113.4	
	2.0	16.38	7.05	1096	0.53	-122.2	
	2.5	16.37	7.00	1093	0.42	-118.4	
	3.0	16.36	6.88	1095	0.31	-110.5	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Clear with strong hydrocarbon odor

Bottom of drop tube at 12.0 feet bgs. Purge rate <0.5 liters per minute.

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-6

Project Name:	Zimmerman	Date of Sampling:	8/25/2009
Job Number:	281939	Name of Sampler:	A Nieto
Project Address:	3442 Adeline St. Oakland Cal		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	29.34		
Depth of Well	17.00		
Depth to Water (from top of casing)	11.84		
Water Elevation (feet above msl)	17.50		
Well Volumes Purged	Micropurged		
Actual Volume Purged (liters)	3.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size: 3 VOA

Time	Vol Removed (Liters)	Temperature (deg C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
	0.0	18.34	6.31	666	7.03	-994.5	
	0.5	18.33	6.25	644	1.31	-104.1	
	1.0	18.4	6.76	654	0.93	-11.1	
	1.5	18.42	6.23	659	0.84	-111.9	
	2.0	18.44	6.28	660	0.62	-114.3	
	2.5	18.46	6.28	660	0.49	-116.4	
	3.0	18.47	6.30	661	0.40	-117.8	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Clear with light hydrocarbon odors

Bottom of drop tube at 12.0 feet bgs. Purge rate <0.5 liters per minute.

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-7

Project Name:	Zimmerman	Date of Sampling:	8/25/2009
Job Number:	281939	Name of Sampler:	A Nieto
Project Address:	3442 Adeline St. Oakland Cal		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	31.04		
Depth of Well	17.00		
Depth to Water (from top of casing)	6.19		
Water Elevation (feet above msl)	24.85		
Well Volumes Purged	Micropurged		
Actual Volume Purged (liters)	3.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size: 3 VOA

Time	Vol Removed (Liters)	Temperature (deg C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
	0.0	21.67	6.99	650	4.28	-143.4	Clear
	0.5	21.49	6.84	653	0.90	-140.0	Clear
	1.0	21.20	9.46	644	0.57	-121.2	Clear
	1.5	21.10	6.37	641	0.53	-118.2	Clear
	2.0	21.07	6.35	640	0.54	-117.0	Clear
	2.5	21.02	6.34	641	0.51	-118.4	Clear
	3.0	21.01	6.33	640	0.48	-118.7	Clear

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Clear with hydrocarbon odors

Bottom of drop tube at 12.0 feet bgs. Purge rate <0.5 liters per minute.

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: IW-1

Project Name:	Zimmerman	Date of Sampling:	8/25/2009
Job Number:	281939	Name of Sampler:	A Nieto
Project Address:	3442 Adeline St. Oakland Cal		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	31.66		
Depth of Well	17.00		
Depth to Water (from top of casing)	7.70		
Water Elevation (feet above msl)	23.96		
Well Volumes Purged	Micropurged		
Actual Volume Purged (liters)	3.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size: 3 VOA

Time	Vol Removed (Liters)	Temperature (deg C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
	0.0	20.32	6.53	1433	7.09	-129.4	Clear
	0.5	20.23	6.59	1421	1.40	-127.8	Clear
	1.0	20.29	6.60	1412	0.91	-127.1	Clear
	1.5	20.43	6.61	1414	0.73	-128.7	Clear
	2.0	20.57	6.61	1416	0.66	-130.7	Clear
	2.5	20.52	6.61	1416	0.64	-130.6	Clear
	3.0	20.50	6.61	1416	0.62	-130.8	Clear

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Initially slighty brown, becoming clear @ 0.5 liters, strong hydrocarbon odor.

Bottom of drop tube at 12.0 feet bgs. Purge rate <0.5 liters per minute.

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: BF-1

Project Name:	Zimmerman	Date of Sampling:	8/25/2009
Job Number:	281939	Name of Sampler:	A Nieto
Project Address:	3442 Adeline St. Oakland Cal		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	Not surveyed		
Depth of Well	12.00		
Depth to Water (from top of casing)	7.97		
Water Elevation (feet above msl)	----		
Well Volumes Purged	Micropurged		
Actual Volume Purged (liters)	2.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size: 3 VOA

Time	Vol Removed (Liters)	Temperature (deg C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
	0.0	18.78	6.38	1112	7.19	-107.8	Clear
	0.5	18.77	6.36	1114	1.02	-109.3	Clear
	1.0	18.77	6.38	1110	0.82	-111.7	Clear
	1.5	18.78	6.40	1113	0.65	-113.6	Clear
	2.0	18.78	6.41	1113	0.65	-113.8	Clear
	2.5	18.78	6.41	1113	0.66	-114.0	Clear

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Clear with strong hydrocarbon odor

Bottom of drop tube at 11.0 feet bgs. Purge rate <0.5 liters per minute.

APPENDIX B

Laboratory Analytical Reports
With
Chain of Custody Documentation

McCampbell Analytical, Inc.
"When Quality 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 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #281939; Zimmerman	Date Sampled: 08/27/09
		Date Received: 08/27/09
	Client Contact: Harmony TomSun	Date Reported: 09/02/09
	Client P.O.: #WC081890	Date Completed: 09/01/09

WorkOrder: 0908691

September 02, 2009

Dear Harmony:

Enclosed within are:

1) The results of the **9** analyzed samples from your project: **#281939; 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.

0908691

McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road
Pittsburg, CA 94565
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ■ 5 DAY

EDF Required? ■ Yes ☐ No

Report To: Harmony TomSun Bill To: same P.O. # WC081890

Company: AEI Consultants

2500 Camino Diablo, Suite 200

Walnut Creek, CA 94597 E-Mail: htomsun@aeiconsultants.com

Tele: (925) 944-2899 Fax: (925) 944-2895

Project #: 281939 Project Name: Zimmerman

Project Location: 3442 Adeline Street, Oakland, CA

Sampler Signature:

SAMPLE ID	Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	Analysis Request: BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015) with Silica Gel Cleanup	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOC's EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (GC/MS) 8015 w/ Silica Gel	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOC's	PAH's, PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other	Comments
(+)	MW-1	MW-1	2/27/09	1240	4	VOA	x					x	✓			x															
+	MW-2	MW-2		1235			x					x	✓			x															
(+)	MW-3	MW-3		1220			x					x	✓			x															
(+)	MW-4	MW-4		1200			x					x	✓			x															
+	MW-5	MW-5		1150			x					x	✓			x															
(+)	MW-6	MW-6		1130			x					x	✓			x															
+	MW-7	MW-7		1340			x					x	✓			x															
+	TW-1	TW-1		1305			x					x	✓			x															
✓	BF-1	BF-1		1250			x					x	✓			x															

Relinquished By:	Date:	Time:	Received By:
	2/27/09	1600	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 3 4

GOOD CONDITION ✓

HEAD SPACE ABSENT ✓

DECHLORINATED IN LAB _____

	VOAS	O&G	METALS	OTHER
PRESERVATION	✓			
APPROPRIATE CONTAINERS	✓			

PERSERVED IN LAB _____

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0908691 **ClientCode: AEL**

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Harmony TomSun
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
(925) 944-2899 FAX (925) 944-2895
Email: htomsun@aeiconsultants.com
cc:
PO: #WC081890
ProjectNo: #281939; Zimmerman

Bill to:
Denise Mockel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
dmockel@aeiconsultants.com

Requested TAT: 5 days

Date Received: **08/27/2009**
Date Printed: **08/27/2009**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0908691-001	MW-1	Water	8/27/2009 12:40	☐	A	A										
0908691-002	MW-2	Water	8/27/2009 12:35	☐	A											
0908691-003	MW-3	Water	8/27/2009 12:20	☐	A											
0908691-004	MW-4	Water	8/27/2009 12:00	☐	A											
0908691-005	MW-5	Water	8/27/2009 11:50	☐	A											
0908691-006	MW-6	Water	8/27/2009 11:30	☐	A											
0908691-007	MW-7	Water	8/27/2009 13:40	☐	A											
0908691-008	IW-1	Water	8/27/2009 13:05	☐	A											
0908691-009	BF-1	Water	8/27/2009 12:50	☐	A											

Test Legend:

1	G-MBTEX_W	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Shino Hamilton

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.
"When Quality 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

Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **8/27/2009 6:46:05 PM**

Project Name: **#281939; Zimmerman**

Checklist completed and reviewed by: Shino Hamilton

WorkOrder N°: **0908691** Matrix Water

Carrier: Client Drop-In

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 3.4°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TTLC Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

** NOTE: If the "No" box is checked, see comments below.*

Client contacted: Date contacted: Contacted by:

Comments:

McCampbell Analytical, Inc.
"When Quality 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: #281939; Zimmerman	Date Sampled: 08/27/09
		Date Received: 08/27/09
2500 Camino Diablo, Ste. #200	Client Contact: Harmony TomSun	Date Extracted: 08/28/09-08/31/09
Walnut Creek, CA 94597	Client P.O.: #WC081890	Date Analyzed: 08/28/09-08/31/09

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 0908691

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-1	W	7000	ND<180	610	10	320	220	20	114	d1
002A	MW-2	W	26,000	ND<1200	3600	ND<25	1200	3000	50	99	d1
003A	MW-3	W	17,000	ND<250	3800	38	730	710	20	119	d1
004A	MW-4	W	4300	ND<25	75	11	8.6	3.4	1	117	d1
005A	MW-5	W	25,000	ND<400	3300	36	1100	1600	50	110	d1
006A	MW-6	W	2200	ND<120	98	7.9	20	1.1	2	120	d1
007A	MW-7	W	12,000	ND<100	550	30	130	33	10	97	d1
008A	IW-1	W	160	ND	4.1	0.53	0.79	1.6	1	108	d1
009A	BF-1	W	9600	ND<90	590	14	350	220	10	112	d1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

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

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 45381 WorkOrder 0908691

EPA Method SW8021B/8015Bm **Extraction SW5030B** **Spiked Sample ID: 0908625-001A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	120	123	2.56	115	121	5.51	70 - 130	20	70 - 130	20
MTBE	ND	10	90.1	84.3	6.71	91.3	91.2	0.0902	70 - 130	20	70 - 130	20
Benzene	ND	10	96.5	100	3.84	103	98.3	4.36	70 - 130	20	70 - 130	20
Toluene	ND	10	98.6	98.2	0.428	104	99.5	4.41	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	99.1	98.1	1.02	101	97.5	3.19	70 - 130	20	70 - 130	20
Xylenes	ND	30	102	98.9	3.24	105	100	4.58	70 - 130	20	70 - 130	20
%SS:	99	10	103	101	1.38	103	101	1.25	70 - 130	20	70 - 130	20

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

BATCH 45381 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0908691-001A	08/27/09 12:40 PM	08/28/09	08/28/09 6:04 PM	0908691-002A	08/27/09 12:35 PM	08/29/09	08/29/09 5:12 AM
0908691-003A	08/27/09 12:20 PM	08/28/09	08/28/09 4:04 PM	0908691-004A	08/27/09 12:00 PM	08/29/09	08/29/09 4:12 AM
0908691-005A	08/27/09 11:50 AM	08/28/09	08/28/09 4:40 PM	0908691-006A	08/27/09 11:30 AM	08/31/09	08/31/09 10:00 PM
0908691-007A	08/27/09 1:40 PM	08/28/09	08/28/09 5:50 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.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

NR = matrix interference and/or 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, or inconsistency in sample containers.

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 45391 WorkOrder 0908691

EPA Method SW8021B/8015Bm **Extraction SW5030B** **Spiked Sample ID: 0908631-001A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	93.8	99.3	5.63	118	113	4.70	70 - 130	20	70 - 130	20
MTBE	ND	10	115	120	4.26	115	118	2.55	70 - 130	20	70 - 130	20
Benzene	ND	10	101	109	7.56	103	101	1.58	70 - 130	20	70 - 130	20
Toluene	ND	10	91.8	96.1	4.56	91.8	91.7	0.184	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	92.7	97	4.55	91.4	95.5	4.42	70 - 130	20	70 - 130	20
Xylenes	ND	30	99.7	110	9.93	104	105	1.23	70 - 130	20	70 - 130	20
%SS:	100	10	101	102	0.716	101	97	4.34	70 - 130	20	70 - 130	20

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

BATCH 45391 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0908691-008A	08/27/09 1:05 PM	08/31/09	08/31/09 10:30 PM	0908691-009A	08/27/09 12:50 PM	08/28/09	08/28/09 6:58 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.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

NR = matrix interference and/or 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, or inconsistency in sample containers.

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Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #281939; Zimmerman	Date Sampled: 09/13/09
2500 Camino Diablo, Ste. #200		Date Received: 09/14/09
Walnut Creek, CA 94597	Client Contact: Robert Flory	Date Reported: 09/18/09
	Client P.O.:	Date Completed: 09/16/09

WorkOrder: 0909384

September 18, 2009

Dear Robert:

Enclosed within are:

1) The results of the **1** analyzed sample from your project: **#281939; Zimmerman,**
2) A QC report for the above sample,
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.

0909384

McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road
Pittsburg, CA 94565
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ■ 5 DAY

EDF Required? ■ Yes ☐ No

Report To: Robert Flory Bill To: same P.O. # ~~WC031840~~

Company: AEI Consultants
2500 Camino Diablo
Walnut Creek, CA 94597 E-Mail: rflory@aeiconsultants.com
Tele: (925) 746-6000 Fax: (925) 746-6099
Project #: 281939 Project Name: Zimmerman
Project Location: 3442 Adeline Street, Oakland, CA
Sampler Signature:

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other
BF-1		9/13	3:30	4	Vials	X					X	X		

Analysis Request

MBTEX & TPH as Gas (602/8020 + 8015)	TPH as Diesel (8015) Multi-range w silica gel	Hexane Extractable Materia w/ sil gel EPA 1664	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (GC/MS 8015) w/ Silica Gel	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
X														

Other | Comments

Relinquished By:	Date:	Time:	Received By:
	9/14	6:05	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 4.6 WET ICE
GOOD CONDITION ____
HEAD SPACE ABSENT ____
DECHLORINATED IN LAB ____

	VOAS	O&G	METALS	OTHER
PRESERVATION				
APPROPRIATE				
CONTAINERS				
PERSERVED IN LAB				

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0909384 **ClientCode: AEL**

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Robert Flory
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
(925) 283-6000 FAX (925) 283-6121

Email: rflory@aeiconsultants.com
cc:
PO:
ProjectNo: #281939; Zimmerman

Bill to:
Denise Mockel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
dmockel@aeiconsultants.com

Requested TAT: 5 days

Date Received: **09/14/2009**
Date Printed: **09/14/2009**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0909384-001	BF-1	Water	9/13/2009 15:30	☐	A	A										

Test Legend:

1	G-MBTEX_W	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Ana Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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Telephone: 877-252-9262 Fax: 925-252-9269

Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **9/14/2009 6:11:32 PM**

Project Name: **#281939; Zimmerman**

Checklist completed and reviewed by: Ana Venegas

WorkOrder N°: **0909384** Matrix Water

Carrier: Client Drop-In

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 8.6°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TTLC Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

** NOTE: If the "No" box is checked, see comments below.*

Client contacted: Date contacted: Contacted by:

Comments:

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #281939; Zimmerman	Date Sampled: 09/13/09
		Date Received: 09/14/09
2500 Camino Diablo, Ste. #200	Client Contact: Robert Flory	Date Extracted: 09/16/09
Walnut Creek, CA 94597	Client P.O.:	Date Analyzed: 09/16/09

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 0909384

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	BF-1	W	ND	ND	1.2	ND	ND	ND	1	101	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

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

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 45822 WorkOrder: 0909384

EPA Method SW8021B/8015Bm **Extraction SW5030B** **Spiked Sample ID: 0909379-001A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	106	103	2.40	126	113	11.1	70 - 130	20	70 - 130	20
MTBE	ND	10	105	102	2.61	106	98.2	7.45	70 - 130	20	70 - 130	20
Benzene	ND	10	99.1	104	5.14	91.8	89.2	2.91	70 - 130	20	70 - 130	20
Toluene	ND	10	97.3	102	5.22	98.2	87.9	11.1	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	96.7	101	4.87	89.3	87.1	2.54	70 - 130	20	70 - 130	20
Xylenes	ND	30	98.1	103	4.72	90.2	87.7	2.82	70 - 130	20	70 - 130	20
%SS:	104	10	97	99	2.57	106	96	10.5	70 - 130	20	70 - 130	20

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

BATCH 45822 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909384-001A	09/13/09 3:30 PM	09/16/09	09/16/09 6:20 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.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

NR = matrix interference and/or 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, or inconsistency in sample containers.

DHS ELAP Certification 1644

QA/QC Officer

McCampbell Analytical, Inc.
"When Quality 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 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #281939; Zimmerman	Date Sampled: 09/17/09
		Date Received: 09/18/09
	Client Contact: Robert Flory	Date Reported: 09/24/09
	Client P.O.: #WC081969	Date Completed: 09/24/09

WorkOrder: 0909522

September 24, 2009

Dear Robert:

Enclosed within are:

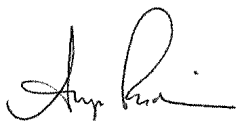
1) The results of the **3** analyzed samples from your project: **#281939; Zimmerman,**
2) A QC report for the above samples,
3) A copy of the chain of custody, and
4) An invoice for analytical services.

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.

0909522

McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road
Pittsburg, CA 94565
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ■ 5 DAY

EDF Required? ■ Yes ☐ No

Report To: Robert Flory Bill To: same PO:WC081969

Company: AEI Consultants

2500 Camino Diablo

Walnut Creek, CA 94597 E-Mail:rflory@aeiconsultants.com

Tele: (925) 746-6000 Fax: (925) 746-6099

Project #: 281939 Project Name: Zimmerman

Project Location: 3442 Adeline Street, Oakland, CA

Sampler Signature:

	SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	Analysis Request: MBTEX & TPH as Gas (602/8020 + 8015)	Analysis Request: TPH as Diesel (8015) Multi-range w silica gel	Analysis Request: Hexane Extractable Material w/ sil gel EPA 1664	Analysis Request: Total Petroleum Hydrocarbons (418.1)	Analysis Request: HVOC's EPA 8260	Analysis Request: BTEX ONLY (EPA 602 / 8020)	Analysis Request: TPH Multi-Range (GRO 8015) w Silica Gel	Analysis Request: EPA 608 8080 PCB's ONLY	Analysis Request: EPA 624 8260	Analysis Request: EPA 625 8270 - SVOC's	Analysis Request: PAH's PNA's by EPA 625 / 8270 / 8310	Analysis Request: CAM-17 Metals 6020	Analysis Request: LUFT 5 Metals	Analysis Request: Lead (7240/7421/239.2/6010)	Analysis Request: RCI	Other	Comments
H)	MW-3		4/17/14	4:50	3	VOA	X					X				X																
H)	MW-1		"	4:15	"	"										X																
*	MW-2		"	5:25	1	"										X																

Relinquished By:	Date:	Time:	Received By:
	4/17/14	7:30	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 6.2 VOAS ✓ O&G. METALS OTHER

GOOD CONDITION ✓ PRESERVATION ✓

HEAD SPACE ABSENT ✓ APPROPRIATE CONTAINERS ✓

DECHLORINATED IN LAB _____ PERSERVED IN LAB _____

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0909522 **ClientCode: AEL**

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Robert Flory
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
(925) 283-6000 FAX (925) 283-6121

Email: rflory@aeiconsultants.com
cc:
PO: #WC081969
ProjectNo: #281939; Zimmerman

Bill to:
Denise Mockel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
dmockel@aeiconsultants.com

Requested TAT: 5 days

Date Received: **09/17/2009**
Date Printed: **09/18/2009**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0909522-001	MW-3	Water	9/17/2009 16:50	☐	A	A										
0909522-002	MW-1	Water	9/17/2009 16:35	☐	A											
0909522-003	IW-1	Water	9/17/2009 17:25	☐	A											

Test Legend:

1	G-MBTEX_W	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Maria Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.
"When Quality 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

Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **9/17/2009**

Project Name: **#281939; Zimmerman**

Checklist completed and reviewed by: Samantha Arbuckle

WorkOrder N°: **0909522** Matrix Water

Carrier: Client Drop-In

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 6.2°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TTLC Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

** NOTE: If the "No" box is checked, see comments below.*

Client contacted: Date contacted: Contacted by:

Comments:

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AEI Consultants	Client Project ID: #281939; Zimmerman	Date Sampled: 09/17/09
		Date Received: 09/18/09
2500 Camino Diablo, Ste. #200	Client Contact: Robert Flory	Date Extracted: 09/20/09-09/24/09
Walnut Creek, CA 94597	Client P.O.: #WC081969	Date Analyzed: 09/20/09-09/24/09

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 0909522

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-3	W	260	ND<15	1.8	1.0	ND	2.1	1	86	d1
002A	MW-1	W	92	ND<15	0.91	0.70	ND	ND	1	93	d1
003A	IW-1	W	300	ND	8.0	1.5	1.4	0.85	1	100	d1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

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

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 45815 WorkOrder 0909522

EPA Method SW8021B/8015Bm **Extraction SW5030B** **Spiked Sample ID: 0909371-002A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	112	118	4.63	105	117	10.2	70 - 130	20	70 - 130	20
MTBE	ND	10	97.9	89.3	9.23	99.2	107	7.27	70 - 130	20	70 - 130	20
Benzene	ND	10	97.2	99.2	2.02	96.9	96.6	0.320	70 - 130	20	70 - 130	20
Toluene	ND	10	92.5	94	1.48	96.7	100	3.73	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	96.7	98.8	2.18	95.7	98.4	2.77	70 - 130	20	70 - 130	20
Xylenes	ND	30	97.4	99.7	2.27	97.9	100	2.57	70 - 130	20	70 - 130	20
%SS:	95	10	99	100	1.78	101	101	0	70 - 130	20	70 - 130	20

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

BATCH 45815 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909522-003A	09/17/09 5:25 PM	09/20/09	09/20/09 1:09 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.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

NR = matrix interference and/or 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, or inconsistency in sample containers.

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 45892 WorkOrder 0909522

EPA Method SW8021B/8015Bm **Extraction SW5030B** **Spiked Sample ID: 0909486-007A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	98.9	98.8	0.112	110	99.3	9.76	70 - 130	20	70 - 130	20
MTBE	ND	10	96.8	95.7	1.18	108	106	1.30	70 - 130	20	70 - 130	20
Benzene	ND	10	95.2	95.3	0.0370	102	102	0	70 - 130	20	70 - 130	20
Toluene	ND	10	95.3	95.4	0.182	103	102	0.540	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	93.7	94.7	1.01	101	101	0	70 - 130	20	70 - 130	20
Xylenes	ND	30	100	102	2.12	109	110	0.531	70 - 130	20	70 - 130	20
%SS:	94	10	95	93	1.47	96	94	1.56	70 - 130	20	70 - 130	20

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

BATCH 45892 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909522-001A	09/17/09 4:50 PM	09/21/09	09/21/09 6:53 PM	0909522-002A	09/17/09 4:35 PM	09/24/09	09/24/09 1:57 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.

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cluttered chromatogram; sample peak coelutes with surrogate peak.

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

NR = matrix interference and/or 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, or inconsistency in sample containers.

DHS ELAP Certification 1644

QA/QC Officer