Environmental Health Services
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

SUBJECT: Perjury Statement

To Whom It May Concern:

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

Signed: Jane a. allen

Date 7-10-11

May 31, 2011

SEMIANNUAL GROUNDWATER MONITORING REPORT
First Quarter 2011

325 Martin Luther King Jr. Way
Oakland, California

Project No. 277915
ACEH Site: RO0002930

Prepared For

Jane and Kimball Allen
2 Lone Tree Avenue
Mill Valley, CA 94941

Prepared By

AEI Consultants
2500 Camino Diablo
Walnut Creek, CA 94597
(925) 746-6000

AEI

May 31, 2011

Jane and Kimball Allen
2 Lone Tree Avenue
Mill Valley, California 94941

Subject: **Semiannual Groundwater Monitoring Report**
First Quarter 2011
325 Martin Luther King Jr. Way
Oakland, California
AEI Project No. 277915

Dear Mr. and Mrs. Allen:

AEI Consultants (AEI) has prepared this report to document the ongoing groundwater investigation at the above referenced site (Figure 1, Site Location Map). The groundwater investigation is being performed in accordance with the requirements of the Alameda County Environmental Health (ACEH). The purpose of these activities is to monitor groundwater quality in the vicinity of the identified release of fuel products at the site. This report presents the findings of the First Quarter 2011 Semi-annual groundwater monitoring event conducted on March 24, 2011 at the site and includes progress monitoring of the H^2O^2 infusion remediation project.

I Background

The subject property is located on the western corner of the intersection of Martin Luther King Jr. Way and 4th Street in a mixed commercial and industrial area of Oakland. The property measures approximately 100 feet along Martin Luther King and approximately 150 feet along 4th Street with the property building covering essentially 100% of the land area. The northwestern portion of the building along 4th Street has also had the address 671 4th Street. The building is currently vacant, but was previously occupied by Pucci Enterprises as warehouse space and cold storage freezers.

A Phase I Environmental Site Assessment (ESA) of the property dated November 1, 1993 identified a 10,000-gallon former fuel UST that currently exists below the north side of the building. The fuel UST was used to provide fuel for the Pucci Enterprises truck fleet.

On October 20, 1993, the tank was abandoned in place by pumping remaining sludge out of the tank, steam cleaning the tank, and filling the tank with concrete slurry. At the time of the UST closure, the eastern section of the building had not yet been built. However; the tank could not be removed because of its proximity to the footing of the 671 4th Street building.

After tank closure, the eastern portion of the building (325 Martin Luther King) was constructed. Although records show that the UST was abandoned following proper procedures at that time, no documentation was available of sampling around the tank prior to abandonment.

In May 2005, AEI performed a Phase II Subsurface Investigation. Soil borings SB-1 and SB-3 encountered refusal at 4 feet bgs, possibly the top of the concrete filled UST. Soil borings SB-2 and SB-4 were advanced into the groundwater. Total petroleum hydrocarbons as gasoline (TPH-g), as diesel (TPH-d), and benzene were reported in groundwater from boring SB-2 at concentrations up to 780 micrograms per liter (µg/L), 420 µg/L, and 53 µg/L, respectively.

In September 2005, Terra Firma collected groundwater samples were collected from four (4) soil borings (labeled 50901-1 to 50901-4). Analysis of the groundwater samples reported the highest concentrations of hydrocarbons in soil boring 50901-3 to the south of the UST, where TPH-g, TPH-d, and benzene were reported at concentrations of 20,000 µg/L, 3600 µg/L, and 990 µg/L, respectively.

In June 2006, Ceres Associates (Ceres) advanced five soil borings (SB5 through SB9). The highest concentrations of hydrocarbons in the soil were reported in boring SB-7 (located southeast of the UST) where TPH-g, TPH-d, and benzene were reported in sample SB-7-10 at concentrations of 20,000 mg/kg, 3,300 mg/kg, 200 mg/kg, respectively. Analysis of groundwater samples from SB7 reported TPH-g, TPH-d, and benzene at concentrations of 110,000 µg/l, 110,000 µg/l, and 3,300 µg/l, respectively. Concentrations of TPH-g in the other soil borings ranged from ND <50 µg/l (SB5-GW) to 610 µg/l (SB8-GW).

LRM Consulting prepared release notification documentation and a workplan for the ACEH in August 2006. The workplan included additional file and data base research into possible additional source locations (dispenser, piping, offsite releases, etc) and installing three (3) 2-inch diameter monitoring wells a screened interval of 5 to 20 feet bgs.

Following ACEH comments relating to the work plan and previous investigations, AEI was retained to prepare a comprehensive workplan. The *Site Characterization Workplan*, dated March 31, 2007, outlined the scope of work for installation of 12 additional soil borings and three groundwater monitoring wells to further characterize the release.

In May of 2007, AEI performed a soil and groundwater investigation which included the drilling of additional twelve (12) soil borings at the property. Significant concentrations of TPH-g, TPH-d, and benzene in the soil were reported only in monitoring well MW-3 (MW-3-10), located down gradient of abandoned UST, at concentrations of 1,500 mg/kg, 240 mg/kg, and 6.0 mg/kg, respectively. Low concentrations (<210 µg/l) of TPH were reported down gradient of the abandoned UST in soil boring SB-10, SB-12, SB-13, SB-16, SB-17, SB-18, and SB-19.

Data from these investigations demonstrate that the dissolved hydrocarbon plume is limited to the eastern most portion of 325 Martin Luther King Jr. Way, immediately down gradient of the abandoned in place UST. On August 10, 2007, AEI installed three (3) groundwater monitoring

wells (MW-1 thru MW-3) down gradient of the abandoned in place UST. Significant concentrations of TPH-g, TPH-d and benzene were reported only in well MW-3 at concentrations of 24,000 µg/l, 1,200 µg/l, and 2,600 µg/l, respectively. A site map and well construction details are contained in AEI's *Monitoring Well Installation Report*, dated September 21, 2008.

Chemical Oxidation Pilot Test

A *Corrective Action Pilot Test Workplan*, dated April 7, 2008, was prepared for the ACEH. The workplan proposed five injection points around monitoring well MW-3 using a RegenOx™ solution. The workplan was approved by the ACEH in a letter dated May 13, 2008. On July 17 and 18, 2008, 720 lbs of RegenOx™ was injected in five locations (IP-1 through IP-5) at spacing approximately five feet away from well MW-3.

Following the pilot test, groundwater samples collected on August 4, 2008 from well MW-3 reported an increase in TPH-g from pre-pilot concentration of 20,000 µg/L to 110,000 µg/L. Follow up sampling on August 20, 2008 reported TPH-g at a concentration of 120,000 µg/L. At the time of the present monitoring event TPG-g in well MW-3 was reported at a concentration of 83,000 µg/L. This increase was the result of release of hydrocarbons adsorbed to clay, silt and sand grains in the smear zone (between 9 - 11 feet bgs).

This significant increase indicated that the residual source area around the abandoned in place UST is significantly greater than had been anticipated and that several rounds of injection would be required to remediate the site. Based on the relative high cost of multiple direct push infusions using RegenOx™, installation of permanent injection points and alternate remedial approaches were evaluated. AEI determined that H_2O_2 infusion through permanently installed wells was a lower cost approach to remediation. A *Hydrogen Peroxide Infusion Pilot Test Workplan*, dated August 12, 2009, was completed for the site and approved in a letter from the ACEH dated August 21, 2009.

H^2O^2 Infusion

In December of 2009, a 2,400 gallon poly tank was placed on the site and manifolded to wells IW-1, IW-2 and IW-3. Between December 29, 2009, and January 29, 2010, 8,000 gallons of 0.5% H^2O^2 was infused primarily into injection wells IW-2 and IW-3.

On February 8 and 24, 2010 following the infusion of 8,000 gallons of 0.5% H^2O^2 solution, wells MW-3, IW-2, and IW-3 were sampled to determine the effects of the H^2O^2 infusion. TPH-g in MW-3 decreased from 59,000 µg/L on October 30, 2009 to 16,000 µg/L on February 24, 2010. TPH-g in IW-2 decreased from 15,000 µg/L on October 30, 2009 to 3,500 µg/L on February 24, 2010. IW-3 decreased from 77,000 µg/L on November 23, 2009 to 36,000 µg/L on February 24, 2010.

On March 16, 2010, prior to starting a second round of H^2O^2, AEI conducted the regularly scheduled groundwater-monitoring event at the site. TPH-g in wells MW-1 and MW-2 remained

below standard reporting limits. TPH-g concentrations in MW-3, IW-2, and IW-3 rebounded to 34,000 µg/L, 20,000 µg/L, and 44,000 µg/L, respectively.

Between March 16, 2010 and May 12, 2010, 9,400 gallons of 0.5% H^2O^2 were infused into wells IW-2 and IW-3. Between May 24, 2010 and June 29, 2010, 4,900 gallons of 1.25% H^2O^2 were infused primarily into well IW-3.

Progress monitoring sampling was performed on May 24, July 19, and August 5, 2010. The results of the progress sampling through July 19, 2010 is summarized in Table 3 and in the *Hydrogen Peroxide Infusion Report* dated July 30, 2010.

Following the Third Quarter 2010 semi-annual monitoring event on September 9, 2010 hydrogen peroxide infusion into well IW-3 was resumed. Between September 21, 2010 and December 29, 2010 an additional 18,000 gallons of 0.5 % hydrogen peroxide was infused in well IW-3.

II Summary of Groundwater Sampling Activities

On December 12, 2010, following completion of infusion activities wells IW-2, IW-3,and MW-3 were sampled for TPH-g and MBTEX. These three wells were again sampled on February 7, 2011. All onsite wells were sampled during the regularly scheduled First Quarter 2011 semiannual monitoring event on March 24, 2011.

During each sampling event, the well cap was removed from each well to be sampled and the wells were allowed to equilibrate with the atmosphere for a minimum of 15 minutes. The depth to groundwater from the top of the well casing was measured with an electric water level indicator to ± 0.01 ft. A peristaltic pump, with a drop tube set at a depth of 10 feet bgs, was used to purge the six wells. During purging, groundwater parameters of temperature, pH, specific conductivity, dissolved oxygen (DO), and oxidation- reduction potential (ORP) were measured during purging. A visual evaluation of turbidity was made and noted. Groundwater measurements recorded in the field are reported on the field sampling forms which are included in Appendix A. The depth to water measurements from this and previous quarterly monitoring events are summarized on Tables 3 and 3a.

When groundwater parameters of the purged water from each well stabilized, water samples were collected using the peristaltic pump. Samples for TPH-g, methyl tertiary-butyl ether (MTBE), benzene, toluene, ethylbenzene, and xylenes (BTEX) were collected in hydrochloric acid (HCl) preserved 40-milliliter (ml) volatile organic analysis vials (VOAs). During the semi annual sampling event groundwater samples were also analyzed for seven fuel additives. All samples were labeled with at minimum, project number, sample number, time, date, and sampler's name.

The samples were entered on an appropriate chain-of-custody form and placed on water ice in an ice chest pending same day transportation under chain of custody protocols to McCampbell

Analytical, Inc. of Pittsburg, California (Department of Health Services Certification # 1644). The samples were analyzed for TPH-g and MBTEX by EPA methods 8021B/8015Cm.

III Field Results

Groundwater elevations for the First Quarter 2011 groundwater monitoring event ranged from 7.21 (MW-1) to 7.88 (IW-1) feet above mean sea level (amsl). Based on these measurements, groundwater flows in a southwesterly direction at a gradient of approximately 0.009 ft/ft. The flow direction and hydraulic gradient are consistent with previous monitoring events.

Groundwater elevation data, flow direction, and hydraulic gradient are summarized in Table 2: Groundwater Elevation Data. The water table elevations and the estimated groundwater flow direction are presented on Figure 3: Water Gradient. Please refer to Appendix A for the Groundwater Monitoring Well Field Sampling Forms, which include water quality data and other parameters collected during well purging.

IV Groundwater Quality

December 29, 2010

On December 29, 2010, TPH-g and benzene in MW-3 decreased from 1,200 μg/L and 57 μg/L, respectively on September 9, 2010 of concentrations to 130 μg/L and 0..79 μg/L, respectively.

In well IW-2 TPH-g and benzene decreased from 5,100 μg/L and 59 μg/L, respectively on September 9, 2010 to concentrations of ND<50 μg/L and ND<0.5 μg/L, respectively.

In well IW-3 TPH-g and benzene decreased from 22,000 μg/L and 1,800 μg/L, respectively on September 9, 2010 to concentrations of ND<50 μg/L and ND<0.5 μg/L, respectively.

February 7, 2011

On February 7, 2011, TPH-g in MW-3 decreased from 130 μg/L on December 29, 2010 to ND<50 μg/L. Benzene increased from 0.79 μg/L to 2.3 μg/L.

In well IW-2 TPH-g and benzene remained stable at ND<50 μg/L and ND<0.5 μg/L, respectively.

In well IW-3 TPH-g and benzene increased from ND<50 μg/L and ND<0.5 μg/L, respectively on December 29, 2010 to concentrations of 2,700 μg/L and 180 μg/L, respectively.

March 24, 2011

No TPH-g or BTEX was reported in wells MW-1, MW-2, IW-1, or IW-2 at standard laboratory reporting limits.

TPH-g in well MW-3 rebounded to a concentration of to 140 μg/L. Benzene increased to a concentration of 4.9 μg/L. TPH-d was reported at a concentration of ND<50 μg/L.

TPH-g in well IW-3 decreased to a concentration of to 390 μg/L. Benzene increased to a concentration of 3.7. TPH-d was reported at a concentration of 290 μg/L.

MTBE was reported at a concentration of 1.9 in well MW-1, and as non detectable at reporting limits ranging from 0.5 μg/L to 5.0μg/L in the other wells. TAME, DIPE, and ETBE were reported as non detectable in all wells at reporting limits ranging from 0.5 μg/L to 5.0μg/L.

TBA continued to be reported as ND<2.0 μg/L in monitoring wells MW-1, MW-2 and IW-1. In well MW-3 the TBA concentration decreased from 430 μg/L on March, 16 2010 to 10 μg/L on March 24, 2011. The TBA concentration reported in well IW-2 decreased from 70 μg/L on March 16, 2010 to 5.2 μg/L on March 24, 2011. The TBA concentration reported in well IW-3 decreased from 120 μg/L on March 16, 2010 to 47 μg/L on March 24, 2011.

The concentration of EDB in wells MW-1, MW-2, and IW-1 remained non detectable at a reporting limit of 2.0 μg/L. The EDB concentration reported in well MW-3 decreased 110 decreased from 110 μg/L on March 16, 2010 to 2.2 μg/L on March 24, 2011. The EDB concentration reported in well IW-2 decreased 110 decreased from 20 μg/L on March 16, 2010 to ND<0.5 μg/L on March 24, 2011. The EDB concentration reported in well IW-3 decreased from 230 μg/L on March 16, 2010 to 22 μg/L on March 24, 2011.

The concentration of 1,2-DCA in wells MW-2 and IW-1 remained nondetectable at a reporting limit of 0.5 μg/L. The 1,2-DCA concentration reported in well MW-1, which did not change significantly was reported at as concentration of 9.3 μg/L. The 1,2-DCA concentration reported in well MW-3 decreased from 130 μg/L on March 16, 2010 to 0.61 μg/L on March 24, 2011. The 1,2-DCA concentration reported in well IW-2 decreased 110 decreased from 15 μg/L on March 16, 2010 to ND<0.5 μg/L on March 24, 2011. The 1,2-DCA concentration reported in well IW-3 decreased from 220 μg/L on March 16, 2010 to 13 μg/L on March 24, 2011.

V Summary

This report documents the findings of the First Quarter 2011 (Semiannual) groundwater monitoring event at the site. Overall hydrocarbon concentrations at the site have decreased significantly following the last round of hydrogen peroxide infusion. Only a minor rebound of hydrocarbon concentrations has been observed in wells MW-3 and IW-3.

VI Low risk Case Closure

AEI believes the site is eligible for closure as a low risk case. This eligibility is discussed below.

Leak Status

The gasoline release was stopped in 1993 with the closure in place of the UST.

Site Characterization

Site characterization was completed during the May 2007 soil boring investigation and with the installation of infusion wells IW-1, IW-2, and IW-3 which completed vertical and lateral delineation of the hydrocarbon impact in the soil and groundwater.

Dissolved Plume Migration

Dissolved hydrocarbon concentrations in the shallow aquifer suggest that the plume stabilized shortly after the UST closure and were stable at the time of the initial RegenOx™ injection event. The injection of the RegenOx™ increased the concentration of dissolved hydrocarbons by causing the release of previously immobile hydrocarbons adhering to soil particles in the smear zone. The concentration of dissolved hydrocarbons dropped slightly but remained high between 2008 and December 2009. Since December 2009 hydrocarbon concentrations have dropped significantly with each infusion event and have remained low with little rebound since December 2010. Since March 2010 concentrations of EDB and 1,2-DCA have dropped significantly.

Sensitive Receptors

No water wells, drinking water aquifers, surface water, or other sensitive receptors are likely to be impacted. The shallow relatively low permeability Merritt Sand that makes up the shallow aquifer is not suitable for production of significant groundwater.

Risk to Human Health and the Environmental

Groundwater at the site is not currently used as drinking water and is unlikely to be used within the life of the plume. Given the current low concentrations of hydrocarbons and VOCs present in the groundwater, vapor intrusion is unlikely to present a problem for current use. No pathways surface water, estuaries, or other sensitive receptors are complete.

VII Comparative Risk Evaluation

The following comparative risk evaluation has been made in an effort to help determine the potential risk posed by remaining contaminants in the groundwater. The most recent site specific analytical data is compared with environmental screening level (ESL) values presented in the RWQCB document *Screening for Environmental Concerns at Site with Contaminated Soil and Groundwater*, May 2008. The ESLs are risk-based values that have been prepared to

evaluate whether a particular contaminant presents possible threat to human health or the environment.

The highest detected concentrations of contaminants of concern (COCs) in groundwater are compared against the screening levels for the following exposure routes: gross contamination ceiling values where groundwater is a current source of drinking water and not a drinking water source, aquatic toxicity, drinking water toxicity, and vapor intrusion from groundwater

Contaminants of Concern

The primary remaining contaminants of concern detected in groundwater are MTBE and TBA. Maximum concentrations of MTBE and TBA, as well as TPH-g and BTEX (benzene, toluene/, ethylbenzene, and total xylenes), detected during the most recent monitoring event (3/24/2011) are summarized in the following table.

Shallow Zone (Range 7.5 – 9.04-feet bgs)

Contaminant	Maximum Detected (Pre- 2008 RegenOx™ Injection) (µg/L)	Maximum Detected (Following 2008 RegenOx™ Injection) (µg/L)	March 24, 2011 Semi Annual Monitoring Event (µg/L)
TPH-g	36,000	130,000	390
TPH-d	5,400	27,000	290
Benzene	4,900	11,000	4.9
Toluene	3,500	19,000	2.4
Ethylbenzene	590	1,800	7.4
Xylenes (Total)	2,700	11,000	53
MTBE	18	4.2	1.9
TBA	ND<5.0	6.0	47
EDB	34	200	22
1,2-DCA	220	500	13

5.2 ESL Comparison

The recent maximum concentrations of the contaminants detected in the groundwater are presented in the following table along with the five ESL values for the exposure pathways outlined above.

Shallow Zone Groundwater

Contaminant	Maximum Detected	Vapor Intrusion ESL (C/I)*	Ceiling Value (NDW) ***	Aquatic Toxicity **	Ceiling Value (DW) **	Drinking Water Toxicity **
TPH-g	390	Use Soil Gas	5,000	~~210~~	~~100~~	~~210~~
TPH-d	290****	Use Soil Gas	2,500	~~210~~	~~100~~	~~210~~
TPH-mo	<250	----	2,500	~~210~~	~~100~~	~~210~~
Benzene	4.9	18,000	20,000	~~46~~	~~170~~	~~1.0~~
Toluene	7.4	530,000	400	~~130~~	~~40~~	~~150~~
Ethylbenzene	2.4	170,000	300	~~43~~	~~30~~	~~300~~
Xylenes	53	160,000	5,300	~~100~~	~~20~~	~~1,800~~
MTBE	1.9/ND<5.0	8,000	1,800	~~8,000~~	~~5.0~~	~~13~~
TBA	47	Use Soil Gas	50,000	~~18,000~~	~~50,000~~	~~12~~
EDB	22	150	50,000	~~1,400~~	~~50,000~~	~~0.05~~
1,2-DCA	13	690	50,000	~~2,000~~	~~7,000~~	~~0.5~~

All values in micrograms per liter (µg/l)
All ESL from RWQCB (May 2008)
* From Table E-1b ** From Table F-1a *** From Table F-1b **** weathered gasoline
NDW = non-drinking water, DW = drinking water
ESL values shown in strikethrough (~~strikethrough)~~ are from incomplete pathways.

The groundwater in the area of the site is considered of beneficial use in accordance with the RWQCB Basin Plan, however the shallow zone is not high yielding formation nor is it expected that the shallow zone is currently used as a drinking water source. Based on this, the Drinking Water Toxicity and Drinking Water Ceiling Value ESLs are considered overly conservative for this site. Due to the proximity of the release to the San Francisco Bay, the aquatic toxicity ESL value would be protective of aquatic receptors. In addition, as is currently required, the volatilization ESL is considered potentially complete. The non-drinking water ceiling value will also be considered relevant as representative of nuisance conditions.

The residual contaminant concentrations do not exceed the commercial/industrial ESL values of the potentially complete exposure pathways. All site concentrations are over one to several orders of magnitude lower that these ESL values. Based on this, no indication of a potential for vapor intrusion from groundwater, of groundwater discharge to nearby aquatic habitat, or of exceeding gross contaminant levels for groundwater are present around the former release area.

VIII Summary and Conclusions

This report has been prepared to summarize the environmental conditions relating to the release from the former gasoline UST system, including the following:

- A discussion of previous environmental investigations and remediation activities
- Complete set of data collected, including sampling locations, monitoring, and analytical data
- Site geology and environmental setting
- A discussion of the release occurrence
- Comparison of current groundwater conditions to relevant screening levels (ESLs)

Groundwater treatment activities consisting of one RegenOx™ injection approximately 2 years of hydrogen peroxide infusions have significantly reduced dissolved phase contaminants. Recent groundwater monitoring results revealed concentrations of contaminants below relevant ESLs for vapor intrusion and gross contaminant levels. No nearby wells were identified that are considered at risk for either being impacted by the release or that could act as vertical conduits for contaminant migration.

Review of this case by the ACEH is requested so that the formal case closure process for this site can begin.

VI Report Limitations

This report presents a summary of work completed by AEI Consultants. The completed work includes observations and descriptions of site conditions encountered. 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 the requested information, but it cannot be assumed that they are representative of areas not sampled. All conclusions and/or recommendations are based on these analyses and observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document.

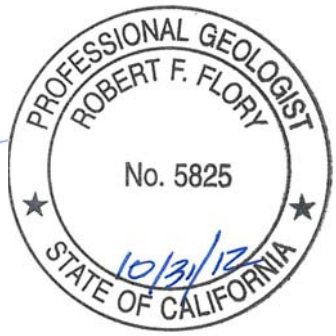
These services were performed in accordance with generally accepted practices, in the environmental engineering field, which existed at the time and location of the work.

If you have any questions regarding our investigation, please do not hesitate to contact either of the undersigned at (925) 746-6000.

Sincerely,
AEI Consultants

Adrian M. Angel
Project Geologist

Robert F. Flory, PG
Senior Geologist



Figures

Figure 1: Site Location Map
Figure 2: Site Plan
Figure 3: Water Table Elevations (3/24/2011)
Figure 4: Groundwater Analytical Data (3/24/2011)
Figure 5: TPH-g Concentrations (3/24/2011)

Tables

Table 1: Monitoring Well Construction Details
Table 2: Groundwater Elevation Data
Table 3: Groundwater Monitoring Sample Analytical Data
Table 4: Groundwater Monitoring Sample Analytical Data – Fuel Additives

Appendix A: *Groundwater Monitoring Well Field Sampling Forms*

Appendix B: *Laboratory Analyses with Chain of Custody Documentation*

Previous Documentation

AEI Consultants, *Phase II Subsurface Investigation Report*, May 18, 2005

AEI Consultants, *Site Characterization Workplan*, March 8, 2007

AEI Consultants, *Soil and Groundwater Investigation Report*, September 21, 2007

AEI Consultants, *Corrective Action Pilot Test Workplan*, April 7, 2008

AEI Consultants, *Hydrogen Peroxide Infusion Pilot Test Workplan*, August 12, 2009

AEI Consultants, *Groundwater Monitoring Report, Semi-annual Third Quarter 2010*, September 30, 2010

Ceres Associates, *Soil and Groundwater Investigation Report,* June 8, 2006

Helley, E.J., et al, *Quaternary Geology of Alameda County and Surrounding Areas, California*, 1997

LRM Consulting, Inc., *Notice of Unauthorized Release* and *Supplemental Investigation Workplan,* August 29, 2006

Terra Firma, *Findings of Environmental Subsurface Investigation,* September 16, 2005

Touchstone Developments, *Phase I Investigation*, November 1, 1993

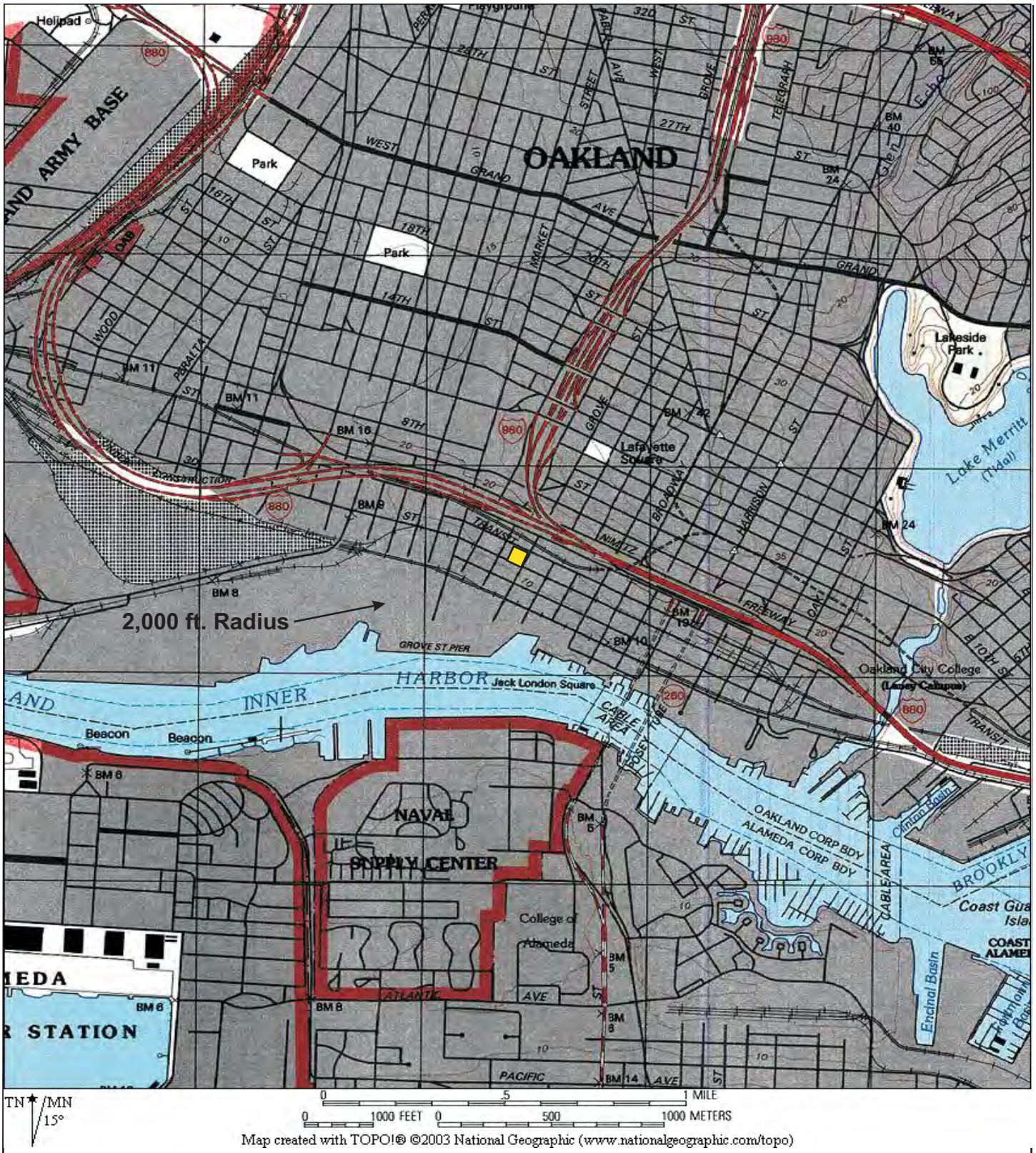
Distribution:

Jane and Kimball Allen (2 hard copies)
2 Lone Tree Way
Mill Valley, CA 94549

Alameda County Environmental Health Services (ACEHS) (electronic)
Attn: Mr. Jerry Wickham
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

GeoTracker (electronic)

FIGURES



Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)

LEGEND

N

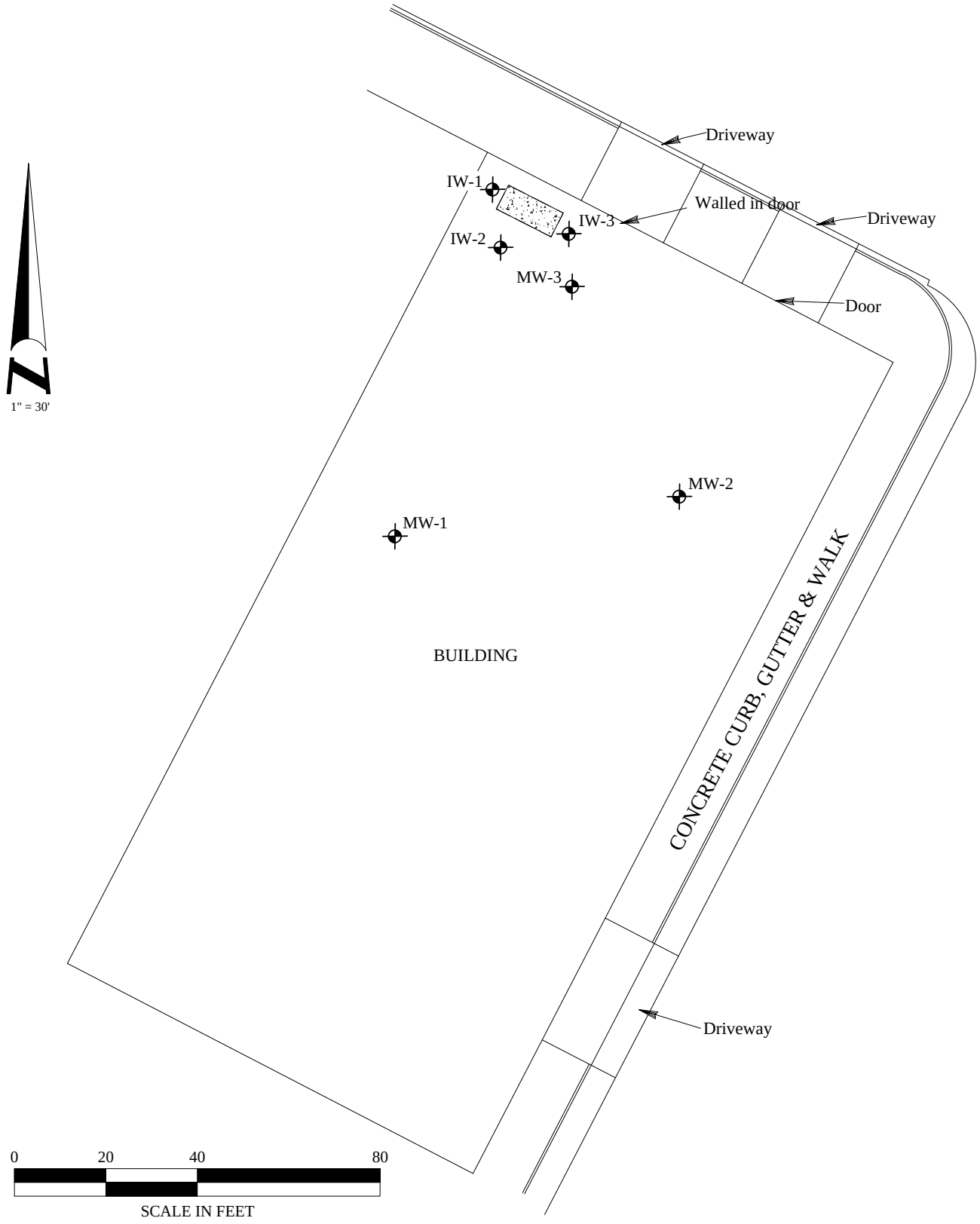
SITE LOCATION

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

Well Survey

325 Martin Luther King Jr. Way
Oakland, CA 94607

FIGURE 1
Job No: 270308



2" Monitoring / Infusion Well

Abandoned in place UST

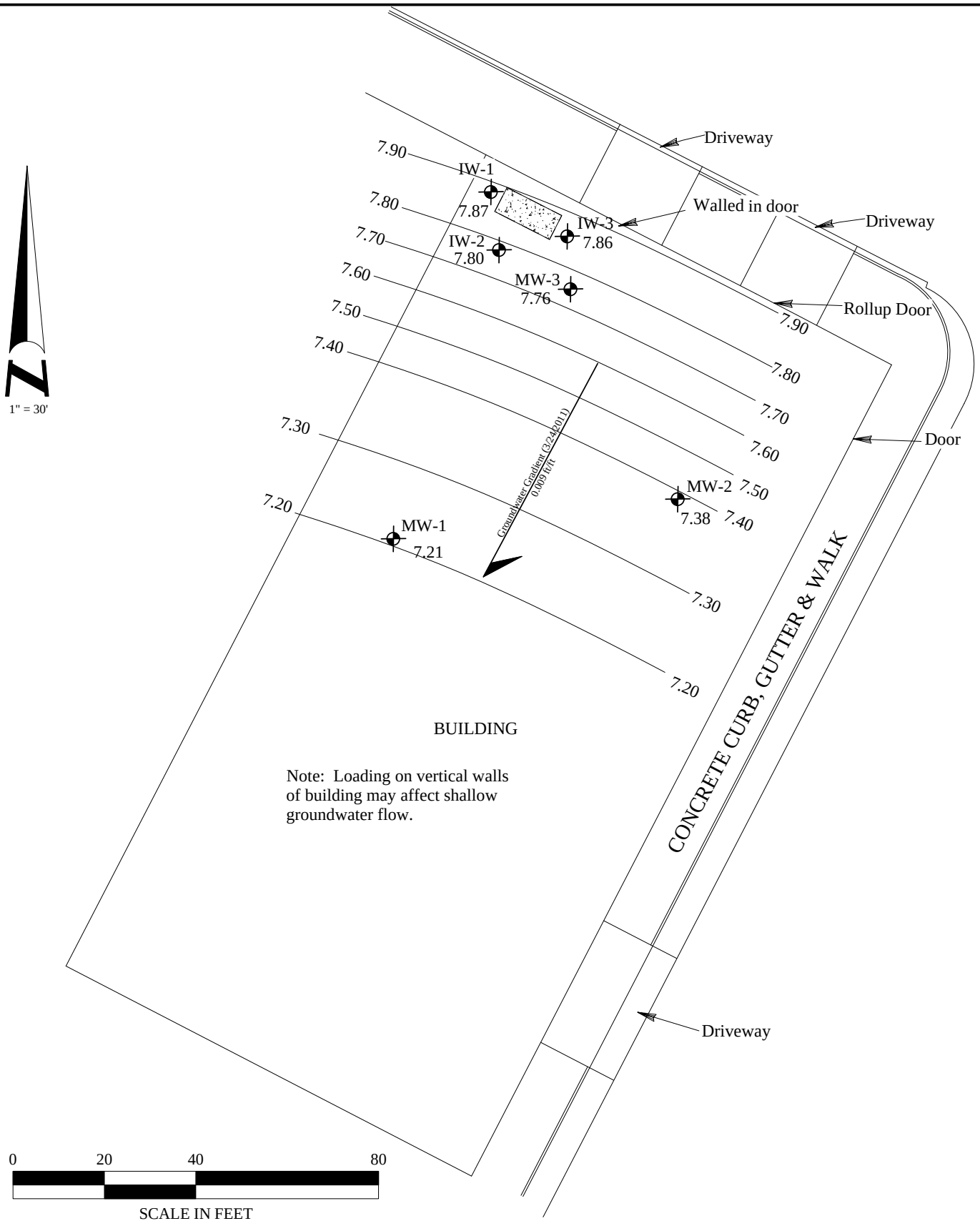
AEI CONSULTANTS

2500 Camino Diablo, Walnut Creek, CA

Site Plan

325 Martin Luther king Jr. Way
Oakland, California

FIGURE 2
AEI Project # 277915



MW-3 7.48 — 2" Monitoring / Infusion Well

Abandoned in place UST

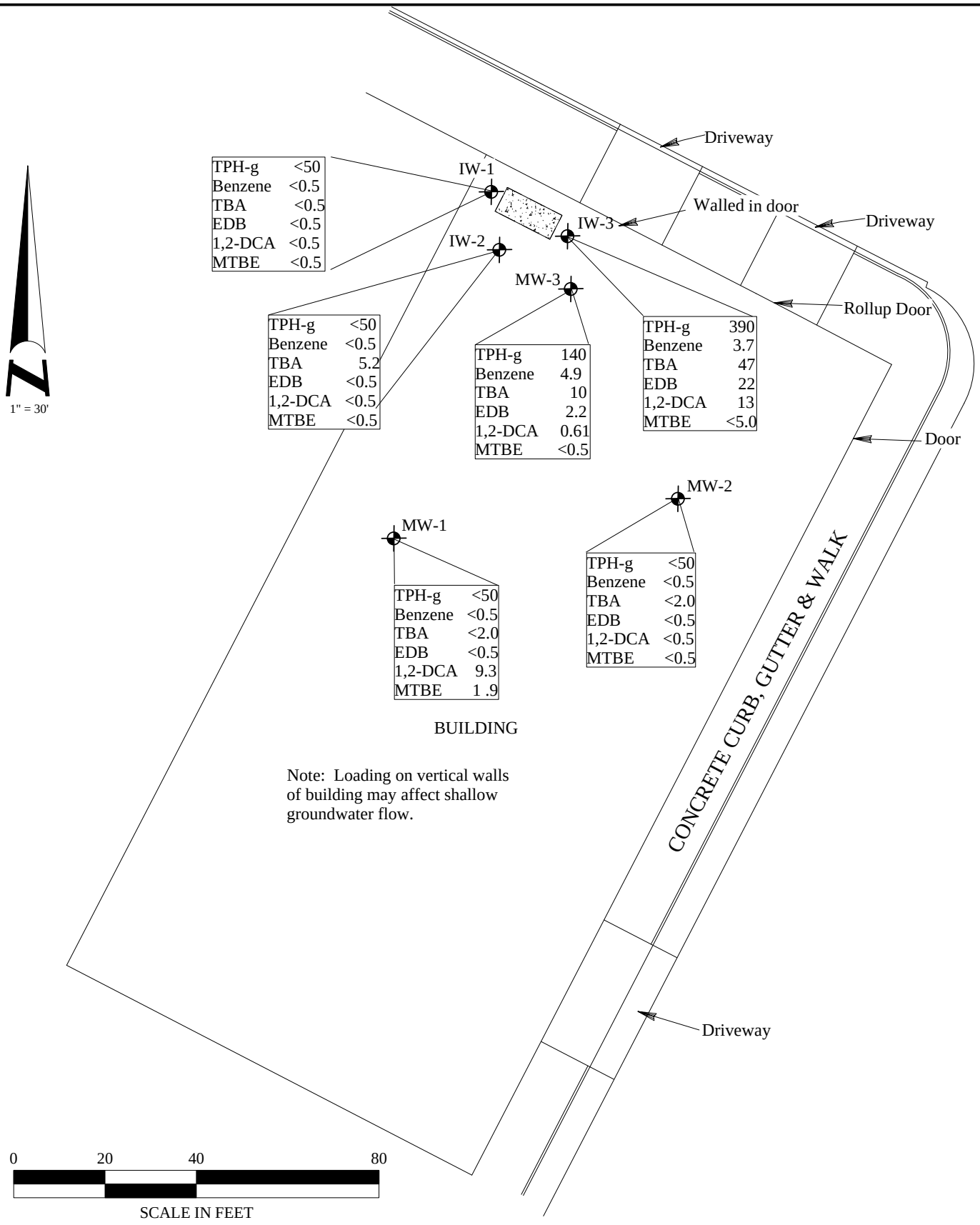
AEI CONSULTANTS

2500 Camino Diablo, Walnut Creek, CA

Groundwater Gradient (3/24/2011)

325 Martin Luther king Jr. Way
Oakland, California

FIGURE 3
AEI Project # 277915



MW-3 2" Monitoring / Infusion Well

Abandoned in place UST

TPH-g TPH as gasoline
Benzene Benzene
TBA tert-butyl alcohol
EDB 1,2-dibromoethane
1,2-DCA 1,2-dichloroethane
MTBE Methyl tertiary butyl ether
all units micrograms per liter

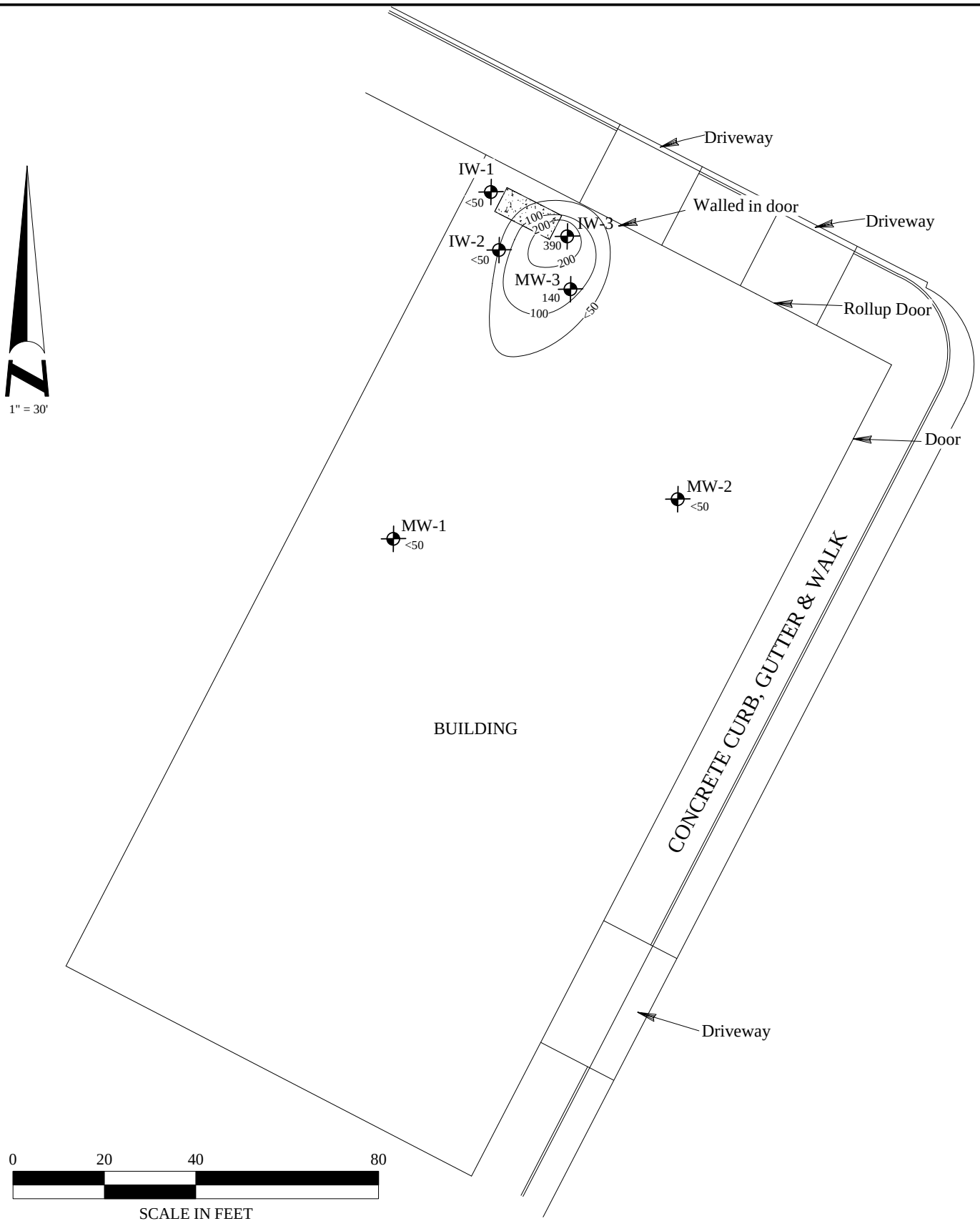
AEI CONSULTANTS

2500 Camino Diablo, Walnut Creek, CA

Groundwater Analytical Data (3/24/2011)

325 Martin Luther king Jr. Way
Oakland, California

FIGURE 4
AEI Project # 277915



MW-3
44,000
2" Monitoring / Infusion Well

Abandoned in place UST

AEI CONSULTANTS

2500 Camino Diablo, Walnut Creek, CA

TPH-g Concentrations (3/24/2011)

325 Martin Luther king Jr. Way
Oakland, California

FIGURE 5
AEI Project # 277915

TABLES

Table 1 - Well Construction Details

AEI Project # 277915

Well ID	Date Installed	Top of Casing Elevation (ft amsl)	Well Box Elevation (ft amsl)	Well Depth (ft)	Slotted Casing (ft)	Slot Size (in)	Sand Interval (ft)	Sand Size	Bentonite Interval (ft)	Grout Interval (ft)
MW-1	08/10/07	14.87*	15.34	18	8 - 18	0.010	7 - 18	# 2/12	7 - 8	0.75 - 7
MW-2	08/10/07	15.27	15.52	17	7 - 17	0.010	6 - 17	# 2/12	6 - 7	0.75 - 6
MW-3	08/10/07	15.11*	15.57	18	8 - 18	0.010	7 - 18	# 2/12	7 - 8	0.75 - 7
IW-1	02/09/10	15.23	15.61	15	5 - 15	0.010	4 - 15	2/12	3 - 4	0.5 - 3
IW-2	02/09/10	15.06	15.63	15	5 - 15	0.010	4 - 15	2/12	3 - 4	0.5 - 3
IW-3	02/09/10	15.30	15.6	15	5 - 15	0.010	4 - 15	2/12	3 - 4	0.5 - 3

Notes:
ft amsl = feet above mean sea level
14.87* = Casing elevation changes, 02/09/10

Table 2 - Groundwater Elevation Data

AEI Project # 277915

Well ID (Screen Interval)	Date Collected	Well Elevation *(ft amsl)*	Depth to Water *(ft)*	Groundwater Elevation *(ft amsl)*	Elevation Change *(ft)*
MW-1	8/21/2007	14.92	8.38	6.54	----
(8 - 18)	11/21/2007	14.92	8.37	6.55	0.01
	2/26/2008	14.92	7.98	6.94	0.39
	6/18/2008	14.92	8.41	6.51	-0.43
	9/19/2008	14.92	8.56	6.36	-0.15
	12/29/2008	14.92	8.66	6.26	-0.10
	3/17/2009	14.92	7.84	7.08	0.82
	6/15/2009	14.92	8.31	6.61	-0.47
	9/18/2009	14.92	8.59	6.33	-0.28
	3/16/2010*	14.87	7.80	7.07	----
	9/9/2010	14.87	8.75	6.12	-0.95
	3/24/2011	**14.87**	**7.66**	**7.21**	**1.09**
MW-2	8/21/2007	15.27	8.78	6.49	----
(7 - 17)	11/21/2007	15.27	8.72	6.55	0.06
	2/26/2008	15.27	8.37	6.90	0.35
	6/18/2008	15.27	8.82	6.45	-0.45
	9/19/2008	15.27	8.92	6.35	-0.10
	12/29/2008	15.27	8.87	6.40	0.05
	3/17/2009	15.27	8.27	7.00	0.60
	6/15/2009	15.27	8.71	6.56	-0.44
	9/18/2009	15.27	8.98	6.29	-0.27
	3/16/2010	15.27	8.19	7.08	0.79
	9/9/2010	15.27	9.04	6.23	-0.85
	3/24/2011	**15.27**	**7.89**	**7.38**	**1.15**
MW-3	8/21/2007	15.26	8.59	6.67	----
(8 - 18)	11/21/2007	15.26	8.55	6.71	0.04
	2/26/2008	15.26	8.11	7.15	0.44
	6/18/2008	15.26	8.62	6.64	-0.51
	8/4/2008	15.26	8.65	6.61	-0.03
	8/20/2008	15.26	8.68	6.58	-0.03
	9/19/2008	15.26	8.74	6.52	-0.06
	12/29/2008	15.26	8.67	6.59	0.07
	3/17/2009	15.26	7.96	7.30	0.71
	6/15/2009	15.26	8.47	6.79	-0.51
	9/18/2009	15.26	8.78	6.48	-0.31
	10/30/2009	15.26	8.62	6.64	-0.15
	3/16/2010	15.11	7.57	7.54	----
	7/19/2010	15.11	8.53	6.58	-0.96
	9/9/2010	15.11	8.73	6.38	-0.20
	3/24/2011	**15.11**	**7.35**	**7.76**	**1.38**

IW-1	10/30/2009	15.23	8.53	6.70	**----**
	3/16/2010	15.23	7.68	7.55	0.85
	9/9/2010	15.23	8.72	6.51	-1.04
	3/24/2011	15.23	**7.36**	**7.87**	**1.36**
IW-2	10/30/2009	15.06	8.37	6.69	----
	3/16/2010	15.06	7.57	7.49	0.80
	7/19/2010	15.06	8.29	6.77	-0.72
	9/9/2010	15.06	8.62	6.44	-0.33
	3/24/2011	**15.06**	**7.26**	**7.80**	**1.36**
IW-3	10/30/2009	15.30	8.68	6.62	----
	3/16/2010	15.30	7.82	7.48	0.86
	7/19/2010	15.30	8.51	6.79	-0.69
	9/9/2010	15.30	8.83	6.47	-0.32
	3/24/2011	**15.30**	**7.44**	**7.86**	**1.39**

Notes
14.87* = Casing elevation changes, 02/09/10

Event #	Date	Average Water Table Elevation (ft amsl)	Change from Previous Episode (ft)	Flow Direction (gradient) (ft/ft)
1	8/21/2007	6.57	NA	S (0.003)
2	11/21/2007	6.60	0.04	S (0.005)
3	2/26/2008	7.00	0.39	S (0.005)
4	6/18/2008	6.53	-0.46	SSE (0.004)
5	9/19/2008	6.41	-0.12	S (0.003)
6	12/29/2008	6.42	0.01	SSW (0.005)
7	3/17/2009	7.13	0.71	SW (0.006)
8	6/15/2009	6.65	-0.47	SW 0.004)
9	9/18/2009	6.37	-0.29	SW (0.006)
10**	3/16/2010	7.24	----	SW (0.006)
11	9/9/2010	**6.36**	----	SW (0.005)
12	**3/24/2011**	**7.65**	**1.29**	**SW (0.009)**

ft amsl = feet above mean sea level
All water level depths are measured from the top of casing
** Average calculated for all wells with 2/9/10 re-survey elevations
† = Average MW-3, IW-1, IW-3

Table 3 - Groundwater Analytical Data
AEI Project # 277915

Sample ID	Date	Depth to Water	TPHg	TPHd	MTBE	Benzene	Toluene	Ethyl benzene	Xylenes
			Method 8015		Method 8021B				
			µg/L						
MW-1	8/21/2007	8.38	<50	<50	15	<0.5	<0.5	<0.5	<0.5
	11/21/2007	8.37	<50	<50	12	<0.5	<0.5	<0.5	<0.5
	2/26/2008	7.98	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	6/18/2008	8.41	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	9/19/2008	8.56	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	12/29/2008	8.66	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	3/17/2009	7.84	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	6/15/2009	8.31	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	9/18/2009	8.59	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	3/16/2010	7.80	<50	-	-	<0.5	<0.5	<0.5	<0.5
	9/9/2010	7.75	<50	-	-	<0.5	<0.5	<0.5	<0.5
	3/24/2011	**7.66**	**<50**	**-**	**-**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW-2	8/21/2007	8.78	<50	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	11/21/2007	8.72	<50	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	2/26/2008	8.37	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	6/18/2008	53.00	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	9/19/2008	8.92	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	12/29/2008	8.87	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	3/17/2009	8.27	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	6/15/2009	8.71	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	9/18/2009	8.98	<50	<50	-	<0.5	<0.5	<0.5	<0.5
	3/16/2010	8.19	<50	-	-	<0.5	<0.5	<0.5	<0.5
	9/9/2010	9.04	<50	-	-	<0.5	<0.5	<0.5	<0.5
	3/24/2011	**7.89**	**<50**	**-**	**-**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW-3	8/21/2007	8.59	24,000	2,100	<180	2,600	3,500	450	2,400
	11/21/2007	8.55	36,000	3,800	<500	4,900	1,200	230	2,700
	2/26/2008	8.11	31,000	5,400	-	4,200	1,900	590	2,200
	6/18/2008	8.62	20,000	3,000	-	2,900	1,100	390	990
	8/4/2008	8.65	110,000	27,000	-	5,900	9,000	76	8,100
	8/20/2008	8.68	120,000	6,500	-	8,900	18,000	930	12,000
	9/19/2008	8.74	64,000	4,500	-	6,200	9,200	660	6,600
	12/29/2008	8.67	130,000	7,900	-	11,000	19,000	1,800	11,000
	3/17/2009	7.96	83,000	8,000	-	7,400	10,000	1,100	8,500
	6/15/2009	8.47	67,000	21,000	-	11,000	9,100	1,200	6,80
	9/18/2009	8.78	58,000	16,000	-	11,000	7,000	1,400	4,700
	10/30/2009	6.64	59,000	-	-	10,000	7,100	1,200	3,900
	2/8/2010	7.74	13,000	-	<50	840	1,500	120	1,700
	2/24/2010	8.03	16,000	-	<50	1,200	1,700	200	1,900
	3/16/2010	7.75	34,000	-	<250	3,000	4,100	580	4,100
	4/15/2010	-	-	-	-	-	-	-	-
	5/24/2010	-	11,000	-	<250	910	1,600	120	2,400
	7/19/2010	8.33	270	-	<5.0	2.7	2.9	<0.5	4.8
	8/5/2010	8.35	350	-	<5.0	15.0	6.3	4	46
	9/9/2010	8.67	1,200	360	-	57.0	8.3	18	160
	12/29/2010	-	130	-	<5.0	0.79	1.2	<0.5	3.1
	2/7/2011	-	<50	-	<5.0	2.3	1.0	<0.5	6.4
	3/24/2011	**7.35**	**140**	**<50**	**<5.0**	**4.9**	**6.7**	**0.6**	**19.0**

Table 3 - Groundwater Analytical Data
AEI Project # 277915

Sample ID	Date	Depth to Water	TPHg	TPHd	MTBE	Benzene	Toluene	Ethyl benzene	Xylenes
			Method 8015		Method 8021B				
			µg/L						
IW-1	10/30/2009	8.53	<50	-	<5.0	<0.5	<0.5	<0.5	<0.5
	3/16/2010	7.68	<50	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	9/9/2010	8.73	<50	-	-	<0.5	<0.5	<0.5	<0.5
	3/24/2011	**7.36**	**<50**	-	**-**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
IW-2	10/30/2009	8.37	15,000	-	-	1,100	2,100	630	2,400
	2/8/2010	7.70	630	-	<5.0	4.4	17	3.7	78
	2/24/2010	-	3,500	-	<50	22	220	57	590
	3/16/2010	7.57	20,000	-	<100	320	2,100	450	4,000
	4/15/2010	-	-	-	-	-	-	-	-
	5/24/2010	-	190	-	<5.0	0.82	6.9	1.0	20
	7/19/2010	8.29	600	-	<5.0	5.8	43	5.3	110
	8/5/2010	8.39	340	-	<5.0	1.8	14	2.7	74
	9/9/2010	8.62	5,100	660	-	59.0	330	57.0	1,100
	12/29/2010	-	<50	-	<5.0	<0.5	<0.5	<0.5	0.62
	2/7/2011	-	<50	**<50**	<5.0	<0.5	<0.5	<0.5	0.98
	3/24/2011	**7.26**	**<50**	**<50**	**<5.0**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
IW-3	10/30/2009	8.68	61,000	-	<1,000	10,000	14,000	1,400	9,800
	11/5/2009	8.60	64,000	-	<150	4,000	7,500	1,100	1,100
	11/23/2009	-	77,000	-	<250	6,700	11,000	430	11,000
	2/8/2010	7.74	18,000	-	<50	790	910	38	2,600
	2/24/2010	-	36,000	-	<250	2,400	4,300	320	460
	3/16/2010	7.82	44,000	-	<500	3,200	6,000	650	5,400
	4/15/2010	-	-	-	-	-	-	-	-
	5/24/2010	-	4,300	-	<60	170	430	19	680
	7/19/2010	8.51	4,100	-	<50	190	450	28	440
	8/5/2010	8.56	5,400	-	<50	360	780	62	730
	9/9/2010	8.83	22,000	3,230	-	1,800	3,900	310	3,300
	12/29/2010	-	<50	-	<5.0	<0.5	<0.5	<0.5	<0.5
	2/7/2011	-	2,700	870	<50	180	330	18	360
	3/24/2011	**7.44**	**390**	**290**	**<5.0**	**3.7**	**7.4**	**2.4**	**53**
GW ESL (NDW) Gross Contaminat			2,500	2,500	1,800	2,000	400	300	5,300
GW ESL (NDW) Aquatic Habitat			210	210	1,800	46	130	43	100

Notes:

TPHg = total petroleum hydrocarbons as gasoline (C6-C12)

TPHd = total petroleum hydrocarbons as diesel (C10-

Benzene, toluene, ethylbenzene, and xylenes using EPA Method 8021B

MTBE = methyl-tertiary butyl ether

µg/L= micrograms per liter

ND<50 = non detect at respective reporting limit

Table 4 - Groundwater Analytical Data - Fuel Additives

AEI Project # 277915

Sample ID	Date	TAME	TBA	EDB	1,2-DCA	DIPE	ETBE	MTBE
		µg/L						
MW-1	08/21/07	<0.5	<5.0	<0.5	5.2	<0.5	<0.5	18
	11/21/07	-	-	-	-	-	-	-
	02/26/08	-	-	<0.5	6.9	-	-	16
	06/18/08	-	-	<0.5	5.4	-	-	15
	09/19/08	-	-	<0.5	6.8	-	-	4.2
	12/29/08	-	-	<0.5	6.8	-	-	0.62
	03/17/09	-	-	<0.5	4.6	-	-	11
	06/15/09	-	-	<0.5	5.8	-	-	8.1
	09/18/09	-	-	<0.5	5.2	-	-	0.7
	03/24/11	**<0.5**	**<2.0**	**<0.5**	**9.3**	**<0.5**	**<0.5**	**1.9**
MW-2	08/21/07	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5
	11/21/07	-	-	-	-	-	-	-
	02/26/08	-	-	<0.5	<0.5	-	-	<0.5
	06/18/08	-	-	<0.5	<0.5	-	-	<0.5
	09/19/08	-	-	<0.5	<0.5	-	-	<0.5
	12/29/08	-	-	<0.5	<0.5	-	-	<0.5
	03/17/09	-	-	<0.5	<0.5	-	-	<0.5
	06/15/09	-	-	<0.5	<0.5	-	-	<0.5
	09/18/09	-	-	<0.5	<0.5	-	-	<0.5
	03/24/11	**<0.5**	**<2.0**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW-3	08/21/07	<5.0	<50	34	140	<5.0	<5.0	<5.0
	11/21/07	-	-	-	-	-	-	-
	02/26/08	-	-	31	220	-	-	<12
	06/18/08	-	-	21	190	-	-	<5.0
	08/04/08	-	-	220	410	-	-	<50
	08/20/08	-	-	330	410	-	-	<50
	09/19/08	-	-	160	320	-	-	<17
	12/29/08	-	-	200	440	-	-	<50
	03/17/09	-	-	98	370	-	-	<25
	06/15/09	-	-	87	490	-	-	<50
	09/18/09	-	-	110	500	-	-	<17
	10/30/09	-	-	96	470	-	-	<50
	02/08/10	-	-	42	42	-	-	<50
	03/16/10	<25	430	110	130	<25	<25	<25
	03/24/11	**<0.5**	**10**	**2.2**	**0.61**	**<5.0**	**<5.0**	**<5.0**

Table 4 - Groundwater Analytical Data - Fuel Additives

AEI Project # 277915

Sample ID	Date	TAME	TBA	EDB	1,2-DCA	DIPE	ETBE	MTBE
		µg/L						
IW-1	10/30/09	-	-	<0.5	<0.5	-	-	<0.5
	03/16/10	<0.5	<2.0	<0.5	<0.5	<0.5	<0.5	<0.5
	03/24/11	**<0.5**	**<2.0**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
IW-2	10/30/09	-	-	13	51	-	-	<10
	02/08/10	-	-	5.1	3.9	-	-	
	03/16/10	<10	70	20	15	<10	<10	<10
	03/24/11	**<0.5**	**5.2**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
IW-3	10/30/09	-	-	220	480	-	-	<10
	02/08/10	-	-	94	82	-	-	
	03/16/10	<25	120	230	220	<25	<25	<25
	03/24/11	**<5.0**	**47**	**22**	**13**	**<5.0**	**<5.0**	**<5.0**
GW ESL (NDW) GC		-	54,000	50,000	50,000	-	-	1,800
GW ESL (NDW) AH		-	18,000	150	200	-	-	1,800
DW - Ceiling Value		-	50,000	50,000	50,000	-	-	5
DW -VI		-	use soil gas	150	150	-	-	24,000
DW Toxicity		-	12	0.05	0.5	-	-	13

Notes:
µg/L= micrograms per liter
ND<50 = non detect at respective reporting limi
MTBE - methyl tertiary butyl ether
TAME - tert-amyl methyl ether
TBA - tert-butyl alcohol
DIPE - diisopropyl ether
ETBE - ethyl tert-butyl ether

APPENDIX A

MONITORING WELL FIELD SAMPLING FORMS

AEI CONSULTANTS

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-1

Project Name:	ALLEN	Date of Sampling:	3/24/2011
Job Number:	277915	Name of Sampler:	RFF
Project Address:	325 Martin Luther King Jr Way, Oakland CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	14.87		
Depth of Well	17.90		
Depth to Water (from top of casing)	7.66		
Water Elevation (feet above msl)	7.21		
Well Volumes Purged	Micropurged with peristaltic pump		
Actual Volume Purged (liters)	4.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size

Time	Volume Removed (liters)	Temperature (deg C)	pH	Conductivity (µ sec/cm)	DO (mg/L)	ORP (meV)	Comments
	0.5	15.79	6.43	1,119	6.71	284.1	
	1.0	16.21	6.37	1,151	4.81	258.2	
	1.5	16.22	6.43	1,133	4.63	245.0	
	2.0	16.17	6.48	1,154	4.35	241.1	
	2.5	16.07	6.51	1,155	4.16	241.0	
	3.0	16.07	6.53	1,157	3.96	231.3	
	3.5	16.09	6.55	1,157	3.86	228.5	
	4.0	16.11	6.55	1,158	3.77	226.3	

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

Clear no odors

Purge line @ 10.0 ft b gs

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-2

Project Name:	ALLEN	Date of Sampling:	3/24/2011
Job Number:	277915	Name of Sampler:	RFF
Project Address:	325 Martin Luther King Jr Way, Oakland CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	15.27		
Depth of Well	16.71		
Depth to Water (from top of casing)	7.89		
Water Elevation (feet above msl)	7.38		
Well Volumes Purged	Micropurged with peristaltic pump		
Actual Volume Purged (liters)	4.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size

Time	Volume Removed (liters)	Temperature (deg C)	pH	Conductivity (µ sec/cm)	DO (mg/L)	ORP (meV)	Comments
	0.5	13.5	6.53	855	3.66	361.3	
	1.0	16.6	6.43	853	3.14	328.6	
	1.5	16.6	6.46	852	3.04	311.6	
	2.0	16.5	6.47	851	3.14	297.9	
	2.5	16.4	6.48	852	3.20	287.7	
	3.0	16.5	6.49	853	3.28	280.3	
	3.5	16.5	6.50	855	3.34	275.2	
	4.0	16.49	6.51	860	3.49	271.8	

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

Clear, no odor

Purge line @ 10.0 ft b gs

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-3

Project Name:	ALLEN	Date of Sampling:	3/24/2011
Job Number:	277915	Name of Sampler:	RFF
Project Address:	325 Martin Luther King Jr Way, Oakland CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	15.26		
Depth of Well	17.80		
Depth to Water (from top of casing)	7.44		
Water Elevation (feet above msl)	7.82		
Well Volumes Purged	Micropurged with peristaltic pump		
Actual Volume Purged (liters)	4.5		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size

Time	Volume Removed (liters)	Temperature (deg C)	pH	Conductivity (µ sec/cm)	DO (mg/L)	ORP (meV)	Comments
	0.5	15.98	6.88	780	3.25	317.5	
	1.0	16.40	6.91	785	7.03	256.6	
	1.5	16.48	6.95	788	8.62	243.2	
	2.0	16.48	6.97	788	9.19	236.2	
	2.5	16.42	6.96	794	9.28	233.5	
	3.0	16.41	6.94	805	8.18	235.7	
	3.5	16.38	6.94	810	7.85	235.9	
	4.0	16.35	6.93	813	7.63	235.9	
	4.5	16.34	6.93	814	7.50	236.0	

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

Clear, no odor

Purge line @ 10.0 ft b gs

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: IW-1

Project Name:	ALLEN	Date of Sampling:	3/24/2011
Job Number:	277915	Name of Sampler:	RFF
Project Address:	325 Martin Luther King Jr Way, Oakland CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	15.26		
Depth of Well	14.65		
Depth to Water (from top of casing)	7.35		
Water Elevation (feet above msl)	7.91		
Well Volumes Purged	Micropurged with peristaltic pump		
Actual Volume Purged (liters)	4.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size

Time	Volume Removed (liters)	Temperature (deg C)	pH	Conductivity (µ sec/cm)	DO (mg/L)	ORP (meV)	Comments
	0.5	15.44	6.35	663	2.13	125.5	
	1.0	15.29	6.38	659	2.77	122.8	
	1.5	15.31	6.42	657	1.32	143.5	
	2.0	15.29	6.40	655	2.26	156.0	
	2.5	15.29	6.41	655	2.00	166.3	
	3.0	15.31	6.43	656	3.28	168.1	
	3.5	15.36	6.44	656	2.41	166.2	
	4.0	15.37	6.45	657	2.29	166.6	

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

Clear, no odors

Purge line @ 10.0 ft b gs

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: IW-2

Project Name:	ALLEN	Date of Sampling:	3/24/2011
Job Number:	277915	Name of Sampler:	RFF
Project Address:	325 Martin Luther King Jr Way, Oakland CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	15.26		
Depth of Well	15.75		
Depth to Water (from top of casing)	7.76		
Water Elevation (feet above msl)	7.50		
Well Volumes Purged	Micropurged with peristaltic pump		
Actual Volume Purged (liters)	4.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size

Time	Volume Removed (liters)	Temperature (deg C)	pH	Conductivity (µ sec/cm)	DO (mg/L)	ORP (meV)	Comments
	0.5	15.86	6.17	704	2.70	206.8	
	1.0	15.94	6.17	704	2.83	206.5	
	1.5	15.96	6.21	703	2.37	207.4	
	2.0	15.96	6.22	702	2.38	208.9	
	2.5	15.95	6.24	702	2.17	208.9	
	3.0	15.95	6.21	702	2.07	208.7	
	3.5	15.95	6.24	704	2.26	209.8	
	4.0	15.95	6.25	704	2.37	208.2	

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

Clear, no odor

Purge line @ 10.0 ft bgs

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: IW-3

Project Name:	ALLEN	Date of Sampling:	3/24/2011
Job Number:	277915	Name of Sampler:	RFF
Project Address:	325 Martin Luther King Jr Way, Oakland CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	15.26		
Depth of Well	14.67		
Depth to Water (from top of casing)	8.73		
Water Elevation (feet above msl)	6.53		
Well Volumes Purged	Micropurged with peristaltic pump		
Actual Volume Purged (liters)	4.5		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size

Time	Volume Removed (liters)	Temperature (deg C)	pH	Conductivity (µ sec/cm)	DO (mg/L)	ORP (meV)	Comments
	0.5	15.70	6.19	632	10.50	261.9	
	1.0	16.08	6.11	650	8.62	261.2	
	1.5	16.05	6.13	648	8.62	264.3	
	2.0	16.04	6.14	642	8.04	267.0	
	2.5	16.06	6.14	633	7.77	267.6	
	3.0	16.03	6.14	632	7.87	276.3	
	3.5	16.05	6.13	627	8.14	285.6	
	4.0	16.06	6.14	623	8.15	285.6	
	4.5	16.08	6.13	623	8.16	269.5	

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

clear, no odor

Purge line @ 10.0 ft b gs

APPENDIX B

LABORATORY ANALYTICAL AND CHAIN OF CUSTODY DOCUMENTATION

AEI CONSULTANTS

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: #277915; Allen	Date Sampled: 12/29/10
		Date Received: 12/30/10
2500 Camino Diablo, Ste. #200	Client Contact: Robert Flory	Date Reported: 01/05/11
Walnut Creek, CA 94597	Client P.O.: #WC082829	Date Completed: 01/05/11

WorkOrder: 1012964

January 05, 2011

Dear Robert:

Enclosed within are:

1) The results of the **3** analyzed samples from your project: **#277915; Allen,**
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.

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 Email PDF Report: YES

Report To: Robert Flory	Bill To: Same
Company: AEI Consultants	
2500 Camino Diablo	
Walnut Creek, CA 94597	E-Mail: rflory@aciconsultants.com
Tel: (925) 746-6000	Fax: (925) 946-6099
Project #:277915 PO WC082829	Project Name: Allen
Project Location: 325 Martin Luther King Jr. Way	
Sampler Signature: Almerose Romuelda	

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)	TPH as Diesel (8015) w/ silica gel cleanup	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260 (8010 list)	BTEX ONLY (EPA 602 / 8020)	Pesticides EPA 608 / 8080	PCBs EPA 608 / 8080	VOCs EPA 624 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	Diss Hexachrome (E218.6)	Other: Arsenic, Barium, Cadmium, Total Chromium, Copper, total Iron, Lead, Selenium (E200.8)	5 Fuel Additives , EDB, and 1,2-DCA (8260)	TPH-g (TO-3) + MBTEX (TO-15)	2-propanol (TO-15)	Comments
MW-3	MW-3	12/29/10	1700	3	VOA	X					X	X			X																			
IW-2	IW-2	12/29/10	1830	3	VOA	X					X	X			X																			
IW-3	IW-3	12/29/10	1790	3	VOA	X					X	X			X																			

Relinquished By:	Date:	Time:	Received By:
Almerose Romuelda	12/31/10	5:45p	Yale
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 4.2
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB _____ PERSERVED IN LAB _____

PRESERVATION APPROPRIATE	VOAS	O&G	METALS	OTHER
CONTAINERS	✓			

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1012964 **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: #WC082829
ProjectNo: #277915; Allen

Bill to:
Jeanette Brown
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
jbrown@aeiconsultants.com

Requested TAT: 5 days

Date Received: **12/30/2010**
Date Printed: **12/30/2010**

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
1012964-001	MW-3	Water	12/29/2010 17:00	☐	A	A										
1012964-002	IW-2	Water	12/29/2010 18:30	☐	A											
1012964-003	IW-3	Water	12/29/2010 17:40	☐	A											

Test Legend:

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

Prepared by: Zoraida Cortez

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: **12/30/2010 6:09:27 PM**

Project Name: **#277915; Allen**

Checklist completed and reviewed by: Zoraida Cortez

WorkOrder N°: **1012964** 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: 4.2°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
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: #277915; Allen	Date Sampled: 12/29/10
		Date Received: 12/30/10
2500 Camino Diablo, Ste. #200	Client Contact: Robert Flory	Date Extracted: 01/04/11
Walnut Creek, CA 94597	Client P.O.: #WC082829	Date Analyzed: 01/04/11

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1012964

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-3	W	130	ND	0.79	1.2	ND	3.1	1	116	d7,d9
002A	IW-2	W	ND	ND	ND	ND	ND	0.62	1	115	
003A	IW-3	W	ND	ND	ND	ND	ND	ND	1	114	

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.

%SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

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

d7) strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
d9) no recognizable pattern

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 55360 WorkOrder 1012964

EPA Method SW8021B/8015Bm **Extraction SW5030B** **Spiked Sample ID: 1012917-001A**

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	78.9	92.7	16.0	95	92.1	3.09	70 - 130	20	70 - 130	20
MTBE	ND	10	123	121	2.11	115	111	2.90	70 - 130	20	70 - 130	20
Benzene	ND	10	105	115	9.14	110	112	2.34	70 - 130	20	70 - 130	20
Toluene	ND	10	92.9	101	8.44	97.9	99.2	1.30	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	82.5	97.8	16.9	97.1	96.4	0.715	70 - 130	20	70 - 130	20
Xylenes	ND	30	91.9	110	18.0	111	111	0	70 - 130	20	70 - 130	20
%SS:	104	10	100	100	0	100	101	0.701	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 55360 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1012964-001A	12/29/10 5:00 PM	01/04/11	01/04/11 11:26 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

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 55384 WorkOrder 1012964

EPA Method SW8021B/8015Bm **Extraction SW5030B** **Spiked Sample ID: 1012964-002A**

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	92.1	94.2	2.27	95.7	98.2	2.54	70 - 130	20	70 - 130	20
MTBE	ND	10	119	117	1.49	125	116	7.73	70 - 130	20	70 - 130	20
Benzene	ND	10	109	111	1.43	120	109	8.77	70 - 130	20	70 - 130	20
Toluene	ND	10	93.1	94.1	1.08	106	96.8	8.95	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	94.1	96.3	2.34	104	92.5	11.5	70 - 130	20	70 - 130	20
Xylenes	0.62	30	104	106	1.76	117	106	10.0	70 - 130	20	70 - 130	20
%SS:	115	10	103	102	1.32	104	104	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 55384 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1012964-002A	12/29/10 6:30 PM	01/04/11	01/04/11 3:39 AM	1012964-003A	12/29/10 5:40 PM	01/04/11	01/04/11 4:08 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.

£ 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	Client Project ID: #270308; 325 Martin Luther King, Oakland, CA	Date Sampled: 02/07/11
		Date Received: 02/07/11
2500 Camino Diablo, Ste. #200	Client Contact: Robert Flory	Date Reported: 02/10/11
Walnut Creek, CA 94597	Client P.O.:	Date Completed: 02/09/11

WorkOrder: 1102183

February 10, 2011

Dear Robert:

Enclosed within are:

1) The results of the **3** analyzed samples from your project: **#270308; 325 Martin Luther King, Oakland, CA,**
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.

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

1102183

CHAIN OF CUSTODY RECORD

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

GeoTracker EDF ☑ **PDF** ☑ **Excel** ☐ **Write On (DW)** ☐

☐ Check if sample is effluent and "J" flag is required

Report To: ROBERT FLORY	**Bill To:** SAME
Company: AEI 2500 CAMINO DIABLO WALNUT CREEK, CA	
Tele: (925) 746-6000	**E-Mail:** RFLORY@AEICONSULTANTS.COM
Project #: 270308	**Fax:** ( )
Project Location: 325 MARKET LUTHER KING, OAKLAND, CA	**Project Name:**
Sampler Signature:	

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX: Water	Soil	Air	Sludge	Other	METHOD PRESERVED: ICE	HCL	HNO_3	Other	BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	MTBE / BTEX ONLY (EPA 602 / 8021)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	Filter sample for DISSOLVED metals analysis	Other	Other	Other	Comments
IW-2	IW-2	2/7/11	1118	4	VOA AMBER	X					X	X			X	X																				
MW-3	MW-3	"	1117	"	"	"					"	"			"	"																				
IW-3	IW-3	"	1150	"		"					"	"			"	"																				

**MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

Relinquished By:	Date:	Time:	Received By:
	2/7/11	1350	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 10.6
GOOD CONDITION ✓
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB

PRESERVATION: VOAS ✓ O&G METALS OTHER ✓ pH<2

COMMENTS:

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1102183 **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: #270308; 325 Martin Luther King, Oakland, CA

Bill to:
Jeanette Brown
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
jbrown@aeiconsultants.com

Requested TAT: 5 days

Date Received: **02/07/2011**
Date Printed: **02/07/2011**

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
1102183-001	IW-2	Water	2/7/2011 11:18	☐	A	A	B									
1102183-002	MW-3	Water	2/7/2011 12:17	☐	A		B									
1102183-003	IW-3	Water	2/7/2011 11:50	☐	A		B									

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: Zoraida Cortez

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: **2/7/2011 3:05:51 PM**

Project Name: **#270308; 325 Martin Luther King, Oakland, CA**
Checklist completed and reviewed by: Zoraida Cortez

WorkOrder N°: **1102183** 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: 10.6°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
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: #270308; 325 Martin Luther King, Oakland, CA	Date Sampled: 02/07/11
		Date Received: 02/07/11
2500 Camino Diablo, Ste. #200	Client Contact: Robert Flory	Date Extracted: 02/09/11
Walnut Creek, CA 94597	Client P.O.:	Date Analyzed: 02/09/11

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1102183

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	IW-2	W	ND	ND	ND	ND	ND	0.98	1	109	
002A	MW-3	W	ND	ND	2.3	1.0	ND	6.4	1	111	
003A	IW-3	W	2700	ND<50	180	330	18	360	10	107	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.

%SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

+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"

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: #270308; 325 Martin Luther King, Oakland, CA	Date Sampled: 02/07/11
		Date Received: 02/07/11
2500 Camino Diablo, Ste. #200	Client Contact: Robert Flory	Date Extracted: 02/07/11
Walnut Creek, CA 94597	Client P.O.:	Date Analyzed 02/08/11-02/09/11

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up*

Extraction method SW3510C/3630C Analytical methods: SW8015B Work Order: 1102183

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	DF	% SS	Comments
1102183-001B	IW-2	W	ND	1	102	
1102183-002B	MW-3	W	ND	1	98	
1102183-003B	IW-3	W	870	1	96	e4,e2

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

* water samples are reported in µg/L, wipe samples in µg/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 µg/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.

%SS = Percent Recovery of Surrogate Standard. DF = Dilution Factor

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

e2) diesel range compounds are significant; no recognizable pattern
e4) gasoline range compounds are significant.

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 56072 WorkOrder 1102183

EPA Method SW8021B/8015Bm **Extraction SW5030B** **Spiked Sample ID: 1102172-041B**

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	89.7	99.4	10.3	110	104	6.22	70 - 130	20	70 - 130	20
MTBE	ND	10	114	105	8.62	110	118	6.74	70 - 130	20	70 - 130	20
Benzene	ND	10	107	104	3.75	105	106	0.818	70 - 130	20	70 - 130	20
Toluene	ND	10	107	103	3.92	103	103	0	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	106	101	4.96	103	103	0	70 - 130	20	70 - 130	20
Xylenes	ND	30	109	104	5.01	106	106	0	70 - 130	20	70 - 130	20
%SS:	121	10	101	100	1.08	98	100	1.77	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 56072 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1102183-001A	02/07/11 11:18 AM	02/09/11	02/09/11 5:58 AM	1102183-002A	02/07/11 12:17 PM	02/09/11	02/09/11 7:27 AM
1102183-003A	02/07/11 11:50 AM	02/09/11	02/09/11 12:23 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.

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

QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 56068 WorkOrder 1102183

EPA Method SW8015B **Extraction SW3510C/3630C** **Spiked Sample ID: N/A**

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-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	93.1	111	17.1	N/A	N/A	70 - 130	30
%SS:	N/A	625	N/A	N/A	N/A	89	82	8.82	N/A	N/A	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 56068 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1102183-001B	02/07/11 11:18 AM	02/07/11	02/09/11 2:47 AM	1102183-002B	02/07/11 12:17 PM	02/07/11	02/08/11 7:07 AM
1102183-003B	02/07/11 11:50 AM	02/07/11	02/08/11 8:18 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.

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.

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	Client Project ID: #277915; Allen	Date Sampled: 03/24/11
		Date Received: 03/24/11
2500 Camino Diablo, Ste. #200	Client Contact: Robert Flory	Date Reported: 03/30/11
Walnut Creek, CA 94597	Client P.O.: #WC082829	Date Completed: 03/30/11

WorkOrder: 1103818

March 30, 2011

Dear Robert:

Enclosed within are:

1) The results of the **6** analyzed samples from your project: **#277915; Allen,**
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.

1103818

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 Email PDF Report: YES

Report To: Robert Flory	Bill To: Same
Company: AEI Consultants	
2500 Camino Diablo	
Walnut Creek, CA 94597	E-Mail: rflory@aeiconsultants.com
Tel: (925) 746-6000	Fax: (925) 946-6099
Project #:277915 PO WC082829	Project Name: Allen
Project Location: 325 Martin Luther King Jr. Way	
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	MBTEX & TPH as Gas (602/8020 + 8015)	TPH as Diesel (8015) w/ silica gel cleanup	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260 (8010 list)	BTEX ONLY (EPA 602 / 8020)	Pesticides EPA 608 / 8080	PCBs EPA 608 / 8080	VOCs EPA 624 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	Diss Hexachrome (E218.6)	Arsenic, Barium, Cadmium, Total Chromium, Copper, total Iron, Lead, Selenium (E200.8)	5 Fuel Additives, EDB, and 1,2-DCA (8260)	TPH-g (TO-3) + MBTEX (TO-15)	2-propanol (TO-15)	Comments
MW-1	MW-1	3/24/11	1215	4	VOA Amber	X									X																X			Hold Amber
MW-2	MW-2		1255	4											X																X			Hold Amber
MW-3	MW-3		1335	4											X	X															X			
IW-1	IW-1		1030	4											X																X			Hold Amber
IW-2	IW-2		1050	4											X	X															X			
IW-3	IW-3		1130	4											X	X															X			

Relinquished By:	Date: 3/24/11	Time: 1545	Received By: Enviro-Tech SR.
Relinquished By: Enviro Tech SR	Date: 3/24	Time: 1758	Received By:
Relinquished By:	Date: 3/24/11	Time: 18:15	Received By:

ICE/t° 3.5
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB ____ PERSERVED IN LAB ____

PRESERVATION	VOAS	O&G	METALS	OTHER
APPROPRIATE	✓			
CONTAINERS	✓			

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1103818 **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: #WC082829
ProjectNo: #277915; Allen

Bill to:
Jeanette Brown
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
jbrown@aeiconsultants.com

Requested TAT: 5 days

Date Received: **03/24/2011**
Date Printed: **03/24/2011**

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
1103818-001	MW-1	Water	3/24/2011 12:15	☐	B	A	A									
1103818-002	MW-2	Water	3/24/2011 12:55	☐	B	A										
1103818-003	MW-3	Water	3/24/2011 13:35	☐	C	A		B								
1103818-004	IW-1	Water	3/24/2011 10:20	☐	B	A										
1103818-005	IW-2	Water	3/24/2011 10:50	☐	C	A		B								
1103818-006	IW-3	Water	3/24/2011 11:30	☐	C	A		B								

Test Legend:

1	5-OXYS+PBSCV_W	2	G-MBTEX_W	3	PREDF REPORT	4	TPH(D)WSG_W	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: **3/24/2011 6:10:18 PM**

Project Name: **#277915; Allen**
Checklist completed and reviewed by: Maria Venegas

WorkOrder N°: **1103818** Matrix Water
Carrier: Courier

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: 3.5°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
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: #277915; Allen	Date Sampled: 03/24/11
		Date Received: 03/24/11
2500 Camino Diablo, Ste. #200	Client Contact: Robert Flory	Date Extracted: 03/25/11
Walnut Creek, CA 94597	Client P.O.: #WC082829	Date Analyzed: 03/25/11

Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 1103818

Lab ID	1103818-001B	1103818-002B	1103818-003C	1103818-004B	Reporting Limit for DF =1	
Client ID	MW-1	MW-2	MW-3	IW-1		
Matrix	W	W	W	W		
DF	1	1	1	1	S	W
Compound	**Concentration**				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND	ND	ND	ND	NA	0.5
t-Butyl alcohol (TBA)	ND	ND	10	ND	NA	2.0
1,2-Dibromoethane (EDB)	ND	ND	2.2	ND	NA	0.5
1,2-Dichloroethane (1,2-DCA)	9.3	ND	0.61	ND	NA	0.5
Diisopropyl ether (DIPE)	ND	ND	ND	ND	NA	0.5
Ethyl tert-butyl ether (ETBE)	ND	ND	ND	ND	NA	0.5
Methyl-t-butyl ether (MTBE)	1.9	ND	ND	ND	NA	0.5
Surrogate Recoveries (%)						
%SS1:	106	106	108	108		
Comments						

* 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 extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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: #277915; Allen	Date Sampled: 03/24/11
		Date Received: 03/24/11
2500 Camino Diablo, Ste. #200	Client Contact: Robert Flory	Date Extracted: 03/25/11
Walnut Creek, CA 94597	Client P.O.: #WC082829	Date Analyzed: 03/25/11

Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 1103818

					Reporting Limit for DF =1	
Lab ID	1103818-005C	1103818-006C				
Client ID	IW-2	IW-3				
Matrix	W	W				
DF	1	10			S	W
Compound	**Concentration**				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND	ND<5.0			NA	0.5
t-Butyl alcohol (TBA)	5.2	47			NA	2.0
1,2-Dibromoethane (EDB)	ND	22			NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND	13			NA	0.5
Diisopropyl ether (DIPE)	ND	ND<5.0			NA	0.5
Ethyl tert-butyl ether (ETBE)	ND	ND<5.0			NA	0.5
Methyl-t-butyl ether (MTBE)	ND	ND<5.0			NA	0.5
Surrogate Recoveries (%)						
%SS1:	108	106				
Comments						

* 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 extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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: #277915; Allen	Date Sampled: 03/24/11
		Date Received: 03/24/11
2500 Camino Diablo, Ste. #200	Client Contact: Robert Flory	Date Extracted: 03/26/11-03/30/11
Walnut Creek, CA 94597	Client P.O.: #WC082829	Date Analyzed: 03/26/11-03/30/11

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1103818

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-1	W	ND	ND	ND	ND	ND	ND	1	97	
002A	MW-2	W	ND	ND	ND	ND	ND	ND	1	104	
003A	MW-3	W	140	ND	4.9	6.7	0.60	19	1	98	d1
004A	IW-1	W	ND	ND	ND	ND	ND	ND	1	100	
005A	IW-2	W	ND	ND	ND	ND	ND	ND	1	100	
006A	IW-3	W	390	ND	3.7	7.4	2.4	53	1	107	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. %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

+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"

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: #277915; Allen	Date Sampled: 03/24/11
		Date Received: 03/24/11
2500 Camino Diablo, Ste. #200	Client Contact: Robert Flory	Date Extracted: 03/24/11
Walnut Creek, CA 94597	Client P.O.: #WC082829	Date Analyzed 03/27/11-03/30/11

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up*

Extraction method SW3510C/3630C Analytical methods: SW8015B Work Order: 1103818

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	DF	% SS	Comments
1103818-003B	MW-3	W	ND	1	97	
1103818-005B	IW-2	W	ND	1	95	
1103818-006B	IW-3	W	290	1	98	e4,e2

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

* water samples are reported in µg/L, wipe samples in µg/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 µg/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.

%SS = Percent Recovery of Surrogate Standard. DF = Dilution Factor

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

e2) diesel range compounds are significant; no recognizable pattern
e4) gasoline range compounds are significant.

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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

QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 57143 | WorkOrder 1103818

EPA Method SW8260B | **Extraction SW5030B** | **Spiked Sample ID: 1103790-002B**

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
tert-Amyl methyl ether (TAME)	ND	10	80.7	78.4	2.94	85.2	83.6	1.94	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	80.7	77	4.68	84.2	82.8	1.71	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	10	89.5	87.6	2.09	97.2	94.3	3.09	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	10	101	95.1	5.97	106	103	2.96	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	99.8	96.1	3.81	109	107	1.85	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	97.9	94.5	3.59	106	104	2.54	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	104	101	3.36	109	106	2.50	70 - 130	30	70 - 130	30
%SS1:	87	25	99	99	0	99	96	2.36	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 57143 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1103818-001B	03/24/11 12:15 PM	03/25/11	03/25/11 3:56 PM	1103818-002B	03/24/11 12:55 PM	03/25/11	03/25/11 4:37 PM
1103818-003C	03/24/11 1:35 PM	03/25/11	03/25/11 6:01 PM	1103818-004B	03/24/11 10:20 AM	03/25/11	03/25/11 8:55 PM
1103818-005C	03/24/11 10:50 AM	03/25/11	03/25/11 9:43 PM	1103818-006C	03/24/11 11:30 AM	03/25/11	03/25/11 8:14 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.

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

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

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 57155 WorkOrder 1103818

EPA Method SW8021B/8015Bm **Extraction SW5030B** **Spiked Sample ID: 1103794-005B**

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	96.2	106	9.64	93.5	91.7	2.02	70 - 130	20	70 - 130	20
MTBE	ND	10	121	115	5.61	116	112	3.76	70 - 130	20	70 - 130	20
Benzene	ND	10	107	108	1.35	108	105	3.40	70 - 130	20	70 - 130	20
Toluene	ND	10	96.8	100	3.43	96	93.1	3.06	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	98.6	98.5	0.127	97.8	95.9	1.93	70 - 130	20	70 - 130	20
Xylenes	ND	30	112	114	1.92	111	108	2.93	70 - 130	20	70 - 130	20
%SS:	102	10	103	104	0.952	100	99	0.946	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 57155 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1103818-001A	03/24/11 12:15 PM	03/30/11	03/30/11 4:01 PM	1103818-002A	03/24/11 12:55 PM	03/28/11	03/28/11 5:10 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.

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

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 57180 WorkOrder 1103818

EPA Method SW8021B/8015Bm **Extraction SW5030B** **Spiked Sample ID: 1103843-003A**

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	92	93	1.08	102	96.7	5.77	70 - 130	20	70 - 130	20
MTBE	ND	10	110	109	0.772	116	107	8.47	70 - 130	20	70 - 130	20
Benzene	ND	10	102	94.2	7.76	108	104	3.40	70 - 130	20	70 - 130	20
Toluene	ND	10	93	86.3	7.48	95.3	90	5.64	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	92.9	86.9	6.68	95.3	92.7	2.82	70 - 130	20	70 - 130	20
Xylenes	ND	30	105	98.7	6.51	109	103	5.06	70 - 130	20	70 - 130	20
%SS:	112	10	100	97	3.38	102	100	2.51	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 57180 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1103818-003A	03/24/11 1:35 PM	03/26/11	03/26/11 6:45 PM	1103818-004A	03/24/11 10:20 AM	03/26/11	03/26/11 7:17 PM
1103818-005A	03/24/11 10:50 AM	03/26/11	03/26/11 7:49 PM	1103818-006A	03/24/11 11:30 AM	03/28/11	03/28/11 5:43 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.

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

QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 57175 WorkOrder 1103818

EPA Method SW8015B **Extraction SW3510C/3630C** **Spiked Sample ID: N/A**

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-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	81.4	82.7	1.56	N/A	N/A	70 - 130	30
%SS:	N/A	625	N/A	N/A	N/A	93	94	1.36	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 57175 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1103818-003B	03/24/11 1:35 PM	03/24/11	03/28/11 6:17 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.

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

QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 57181 WorkOrder 1103818

EPA Method SW8015B **Extraction SW3510C/3630C** **Spiked Sample ID: N/A**

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-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	79.6	79.5	0.116	N/A	N/A	70 - 130	30
%SS:	N/A	625	N/A	N/A	N/A	91	91	0	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 57181 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1103818-005B	03/24/11 10:50 AM	03/24/11	03/30/11 4:45 AM	1103818-006B	03/24/11 11:30 AM	03/24/11	03/27/11 4:49 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.

DHS ELAP Certification 1644 QA/QC Officer