

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

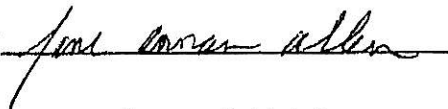
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10:46 am, Aug 19, 2011
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SUBJECT: Perjury Statement

To Whom It May Concern:

I declare, under penalty of perjury, that the information and/or recommendations contained in the requested attached reports in your letter dated August 8, 2011 are true and correct to the best of my knowledge.

Signed: 
JANE A. ALLEN

September 30, 2010

**GROUNDWATER MONITORING REPORT
Semi-annual Third Quarter 2010**

325 Martin Luther King Jr. Way
Oakland, California

Project No. 277915

Prepared For

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

Prepared By

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ENVIRONMENTAL & ENGINEERING SERVICES

www.aeiconsultants.com

September 30, 2010

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

**Subject: Quarterly Groundwater Monitoring Report
Semi-annual Third Quarter 2010**
325 Martin Luther King Jr. Way
Oakland, California
AEI Project No. 270308

Dear Mr. and Mrs. Allen:

AEI Consultants (AEI) has prepared this report on behalf of Jane and Kimball Allen 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 Semi-annual (Third Quarter) 2010 groundwater monitoring event conducted on March 16, 2010 at the site and includes data from progress monitoring of the H₂O₂ infusion pilot test.

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

AEI

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. Analysis of 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 ($\mu\text{g/L}$), 420 $\mu\text{g/L}$, and 53 $\mu\text{g/L}$, 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 $\mu\text{g/L}$, 3600 $\mu\text{g/L}$, and 990 $\mu\text{g/L}$, respectively.

In June 2006, Ceres Associates (Ceres) advanced five soil borings (SB5 thru 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. The highest concentration of TPH reported in soil from a depth of 10 feet below the ground surface (bgs) the other borings was 7.5 mg/kg in sample SB-9-10. Analysis of groundwater samples from SB7 reported TPH-g, TPH-d, and benzene at concentrations of 110,000 $\mu\text{g/l}$, 110,000 $\mu\text{g/l}$, and 3,300 $\mu\text{g/l}$, respectively. Concentrations of TPH-g in the other soil borings ranged from ND <50 $\mu\text{g/l}$ (SB5-GW) to 610 $\mu\text{g/l}$ (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 of drilling 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 $\mu\text{g/l}$) 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 SB19.

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 the RegenOx™. 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 TPH-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 H₂O₂ 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.

H₂O₂ Infusion

In December of 2009, a 2400 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% H₂O₂ 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% H₂O₂ solution, wells MW-3, IW-2, and IW-3 were sampled to determine the effects of the H₂O₂ 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 H₂O₂, 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% H₂O₂ were infused into wells IW-2 and IW-3. Between May 24, 2010 and June 29, 2010, 4,900 gallons of 1.25% H₂O₂ 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.

II Summary of Groundwater Sampling Activities

On August 5, 2010, wells MW-3, IW-2, and IW-3 were sampled to monitor the effects of the H₂O₂ infusion and enhanced biodegradation of hydrocarbons in the dissolved plume.

The well cap was removed from each well 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 three 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). All samples were labeled with at minimum, project number, sample number, time, date, and sampler's name.

The samples were then 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.

On September 9, 2010, the regularly scheduled semiannual groundwater monitoring event was performed as described above. An additional to sampling for TPH-g and MBTEX in all wells, a sample was collected from impacted wells MW-3, IW-2, and IW-3 in a one liter amber bottle for extractable hydrocarbon analysis to monitor concentrations of lower diesel range hydrocarbons present due to weathering of the gasoline release.

III Field Results

On September 9, 2010, the dissolved oxygen (DO) concentration remained high in well IW-1 (>20 mg/L) and slightly elevated in wells MW-2, MW-3, and IW-2 (>2.5 - >4.0 mg/L). DO decreased to <1 mg/L in wells MW-1 and IW-3. Well MW-1 is down gradient of the dissolved hydrocarbon plume and MW-3 is in the down gradient edge of the dissolved plume.

Groundwater elevations for the Third Quarter 2010 groundwater monitoring event ranged from 6.12 (MW-1) to 6.50 (IW-1) feet above mean sea level (amsl). Based on these measurements, groundwater flows in a southwesterly direction at a gradient of approximately 0.005 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

August 5, 2010

On *August 5, 2010*, TPH-g and benzene in MW-3 increased from 270 µg/L and 2.7 µg/L, respectively on July 19, 2010 to concentrations to 350 µg/L and 15 µg/L, respectively.

In well IW-2 TPH-g and benzene decreased from 600 µg/L and 5.8 µg/L, respectively on July 19, 2010 to concentrations to 354 µg/L and 1.8 µg/L, respectively.

In well IW-3 TPH-g and benzene increased from 4,100 µg/L and 190 µg/L, respectively on July 19, 2010 to concentrations to 5,400 µg/L and 360 µg/L, respectively.

September 9, 2010

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

TPH-g in well MW-3 rebounded to a concentration of to 5,100 µg/L. Benzene increased to a concentration of 57 µg/L.

TPH-g in well IW-2 rebounded to a concentration of to 1,200 µg/L. Benzene increased to a concentration of 59 µg/L.

TPH-g in well IW-3 rebounded to a concentration of to 22,000 µg/L. Benzene increased to a concentration of 1,800 µg/L.

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V Summary

This report documents the findings of the Third Quarter 2010 (Semiannual) groundwater monitoring event and infusion progress monitoring at the site. Overall hydrocarbon concentrations at the site have decreased significantly following hydrogen peroxide infusion however significant rebound has occurred in the three impacted wells. AEI resumed hydrogen peroxide infusion into wells IW-2 and IW-3 on October 1, 2010

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.

325 Martin Luther King Jr. Way, Oakland, CA
AEI Project # 277915
September 30, 2010
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If you have any questions regarding our investigation, please do not hesitate to contact either of the undersigned at (925) 746-6000.

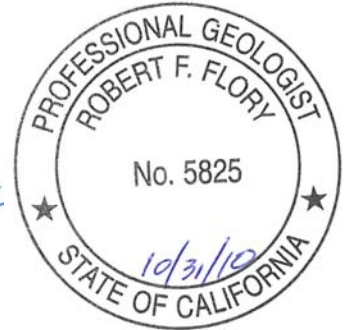
Sincerely,
AEI Consultants



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 (9/9/2010)

Figure 4: Dissolved Phase Hydrocarbon Concentrations (9/9/2010)

Figure 5: TPH-g Concentrations (9/9/2010)

Figure 6: MW-3 Hydrocarbons vs Time

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

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

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AEI Project # 277915
September 30, 2010
Page 9

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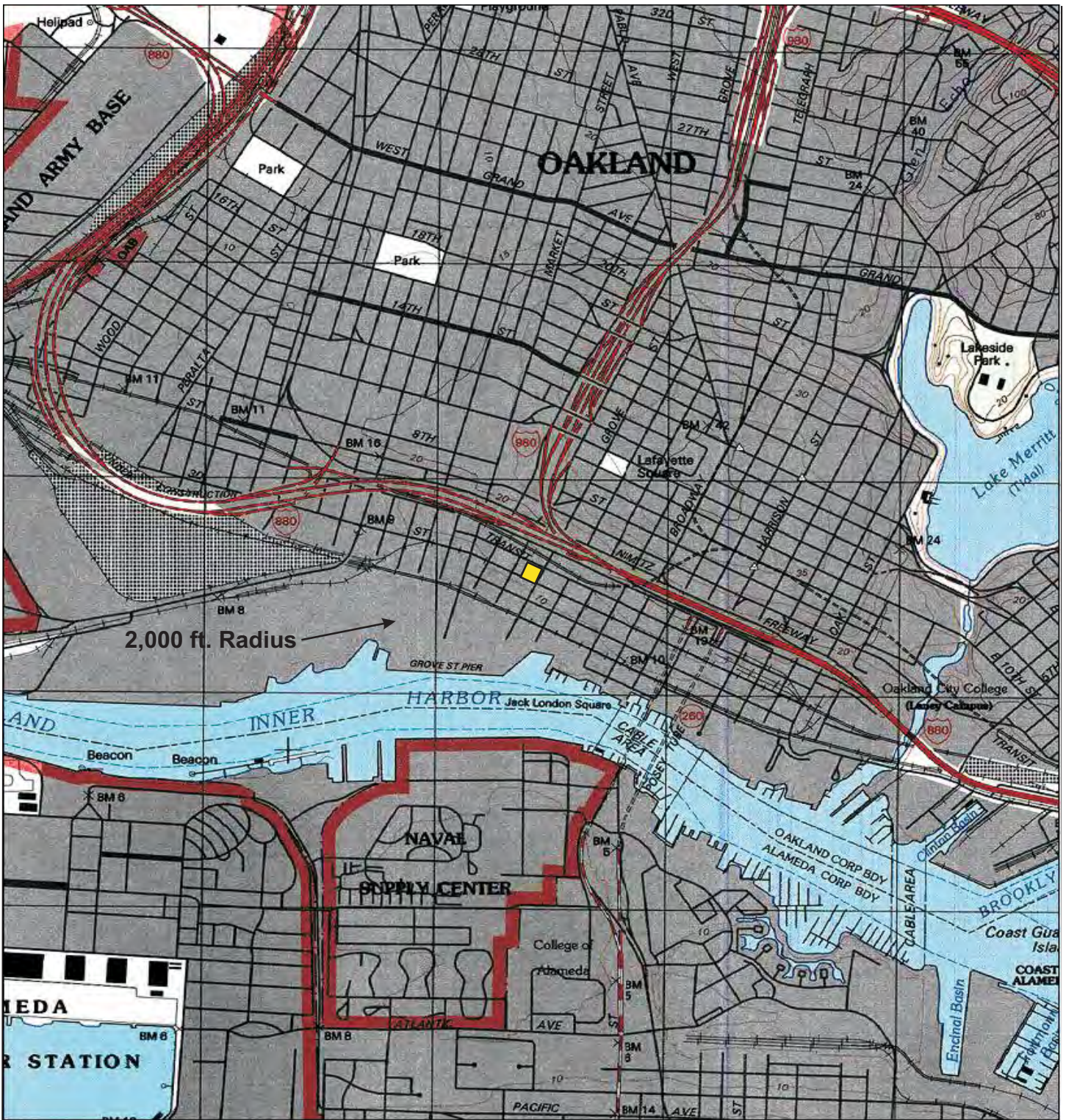
Jane and Kimball Allen (2 hard copies)
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Attn: Mr. Jerry Wickham
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

GeoTracker (electronic)


FIGURES






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

LEGEND

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 SITE LOCATION

AEI CONSULTANTS
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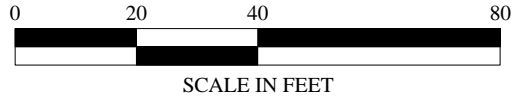
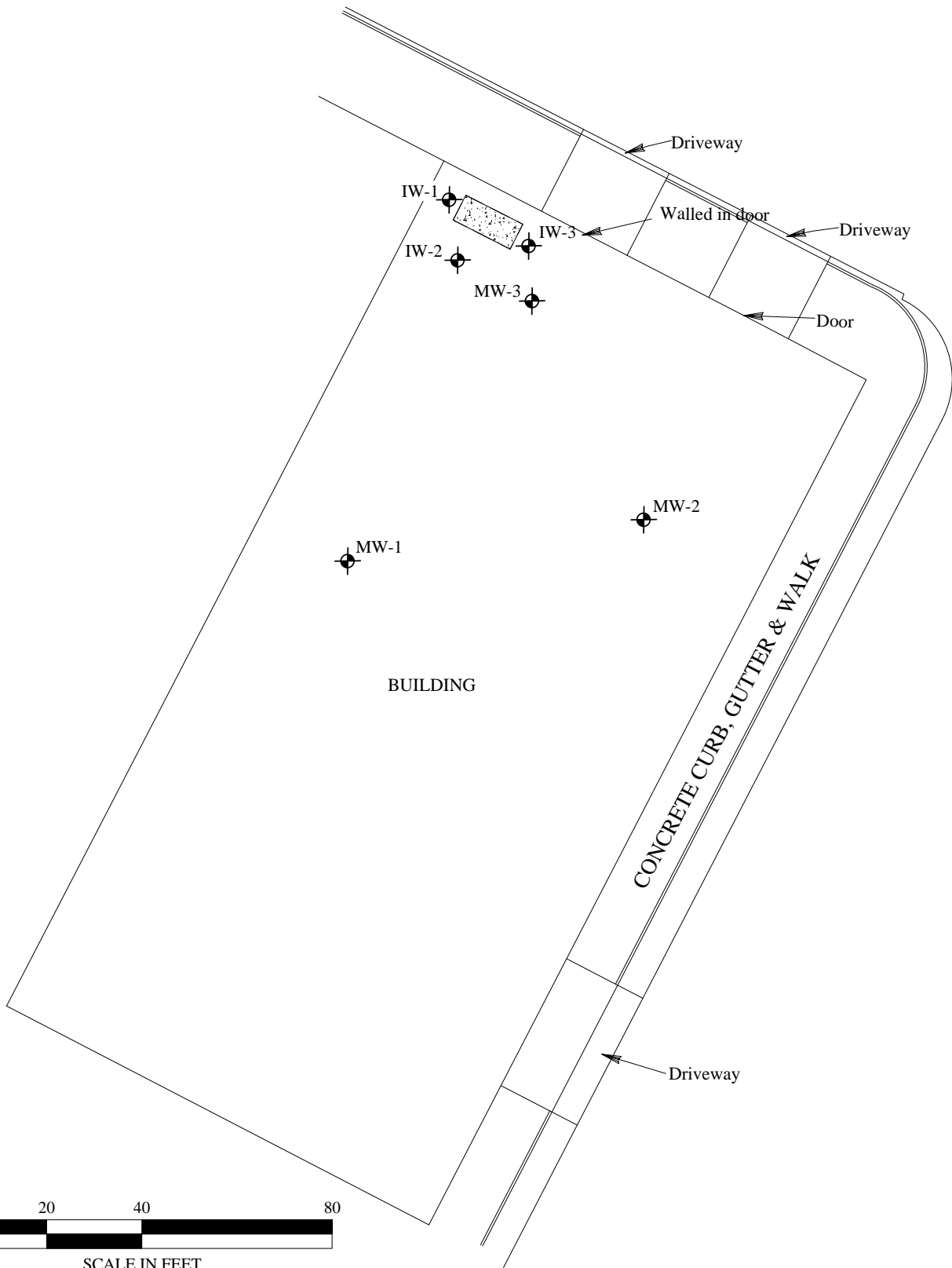
Well Survey


325 Martin Luther King Jr. Way
 Oakland, CA 94607


FIGURE 1
 Job No: 270308



1" = 30'



 2" Monitoring / Infusion Well

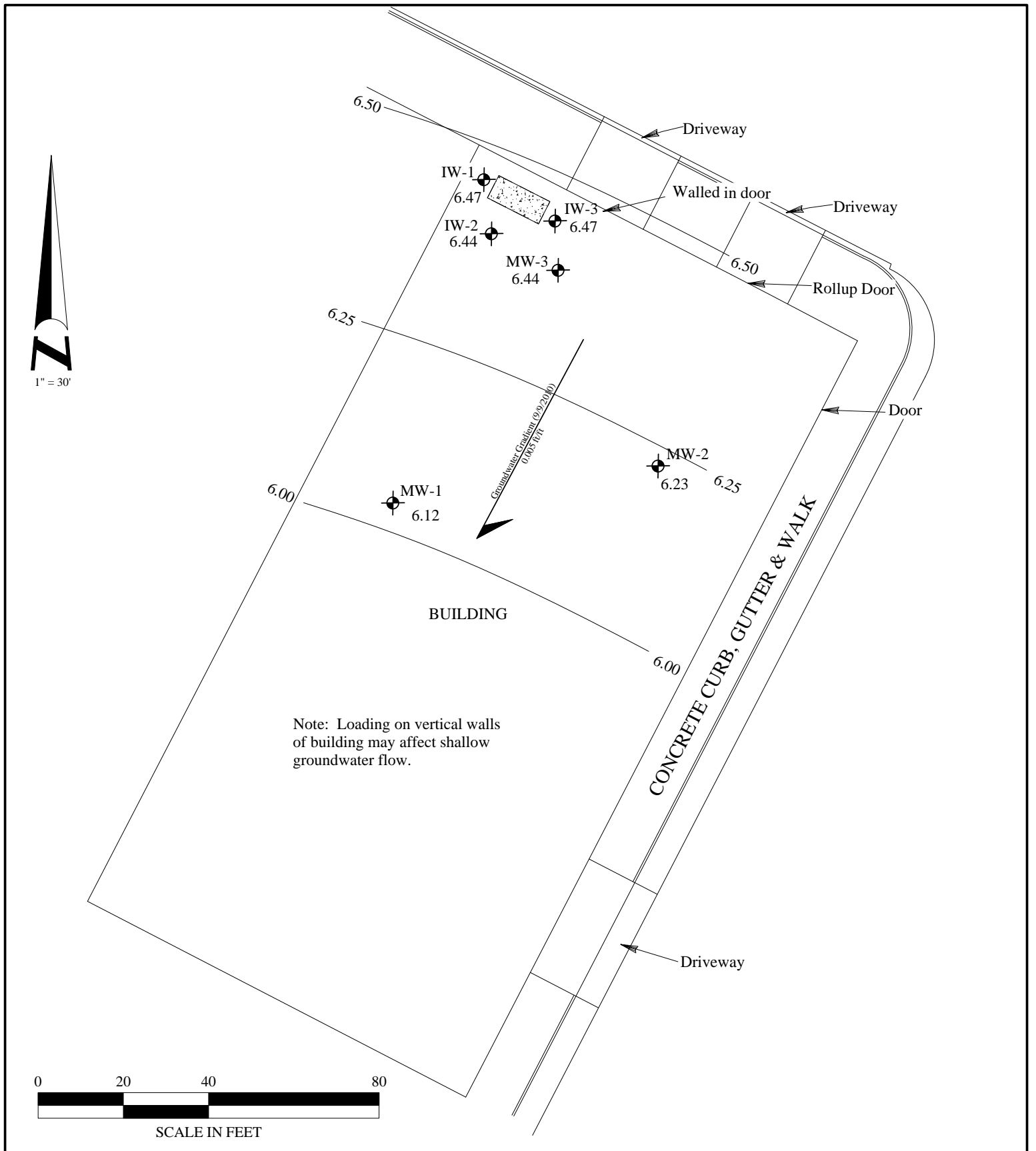
 Abandoned in place UST



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Site Plan

325 Martin Luther king Jr. Way
Oakland, California

FIGURE 2
AEI Project # 277915



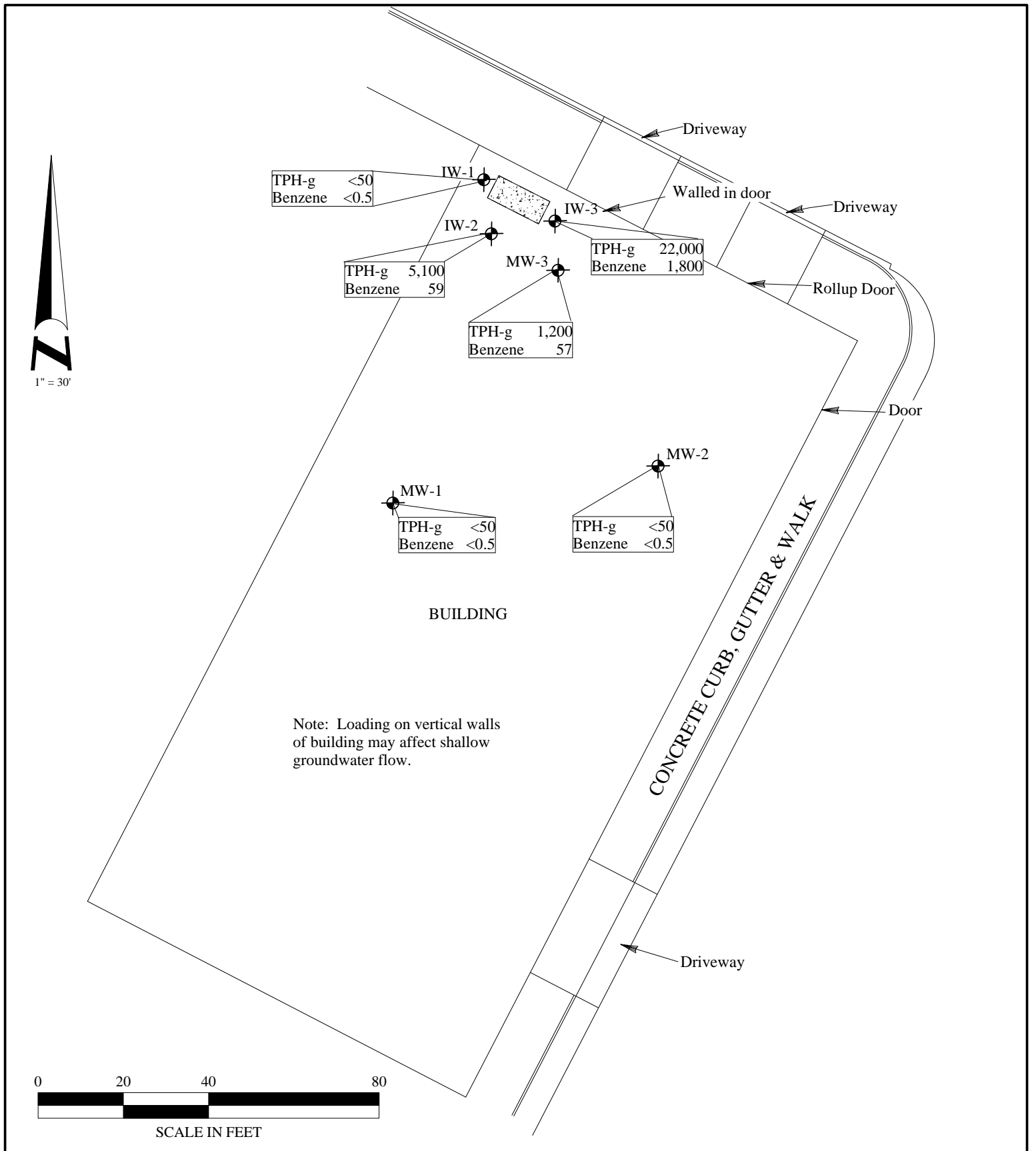
- MW-3  2" Monitoring / Infusion Well
7.48
- 7.54* Elevation not used for contouring
-  Abandoned in place UST

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2500 Camino Diablo, Walnut Creek, CA

Groundwater Gradient (9/9/2010)


325 Martin Luther King Jr. Way
Oakland, California

FIGURE 3
AEI Project # 277915



MW-3  2" Monitoring / Infusion Well

TPH-g TPH as gasoline
 Benzene Benzene
 EDB 1,2-dibromoethane
 1,2-DCA 1,2-dichloroethane
 all units micrograms per liter

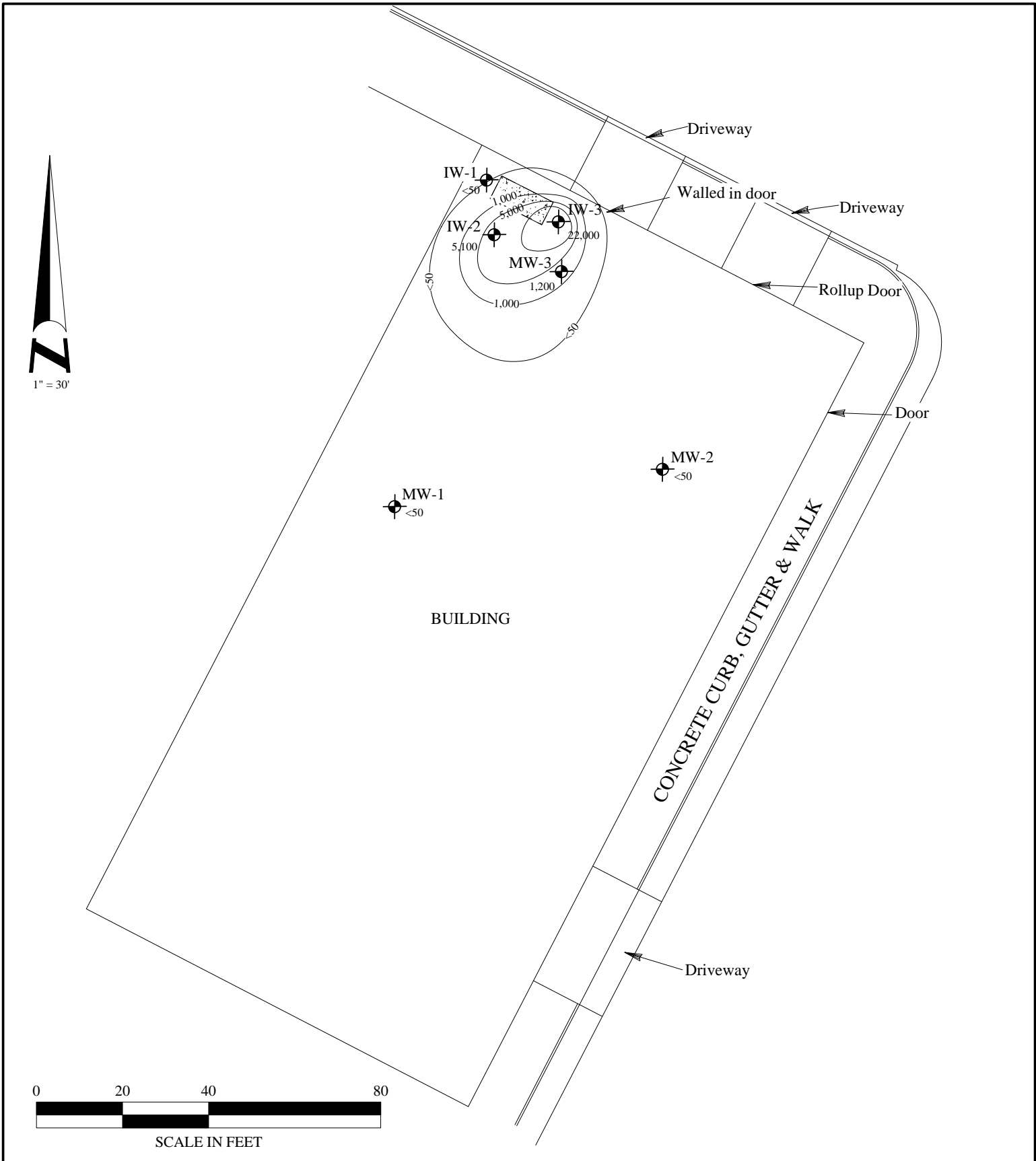
 Abandoned in place UST

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 2500 Camino Diablo, Walnut Creek, CA


Groundwater Analytical Data (9/9/2010)

325 Martin Luther King Jr. Way
 Oakland, California

FIGURE 4
 AEI Project # 277915



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

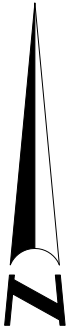
 Abandoned in place UST

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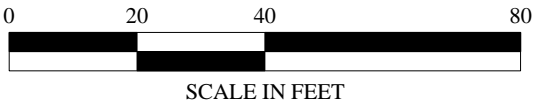
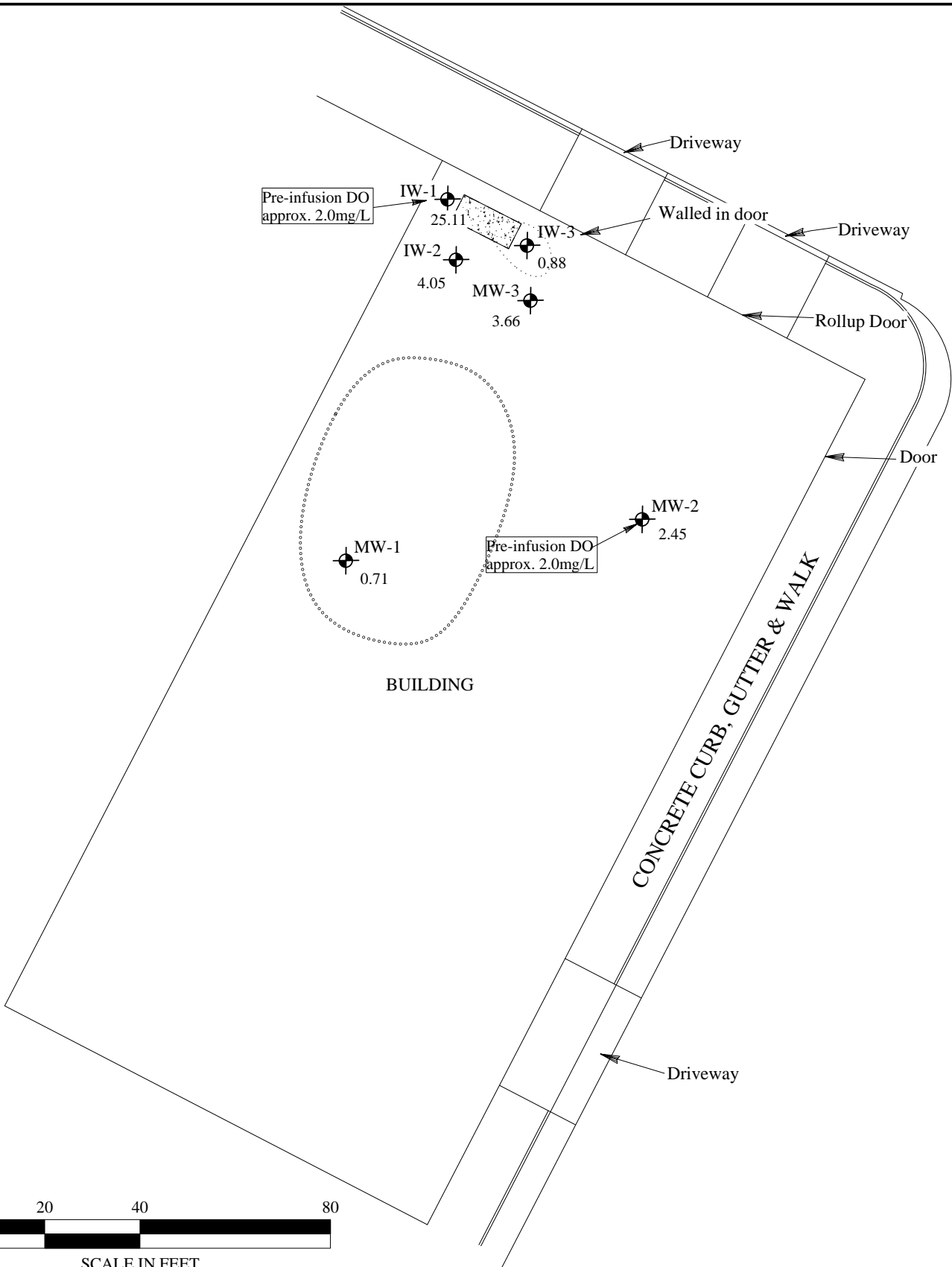
TPH-g Concentrations (9/9/2010)

325 Martin Luther King Jr. Way
Oakland, California


FIGURE 5
AEI Project # 277915



1" = 30'



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

 Abandoned in place UST

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DO Concentrations (9/9/2010)

325 Martin Luther King Jr. Way
Oakland, California

FIGURE 6
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 - 18)	8/21/2007	14.92	8.38	6.54	----
	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
MW-2 (7 - 17)	8/21/2007	15.27	8.78	6.49	----
	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
MW-3 (8 - 18)	8/21/2007	15.26	8.59	6.67	----
	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	8.67	6.44	-0.14	

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)
IW-1 (5-15)	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	8.73	6.50	-1.05
IW-2 (5-15)	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	8.67	6.39	-0.38
IW-3 (5-15)	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

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	7.37	----	SW (0.006)
11 [†]	7/19/2010	8.44	----	SW (0.006)
12**	9/9/2010	6.36	----	SW (0.005)

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	Notes	
			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		
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		
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			

**Table 3 - Groundwater Analytical Data
AEI Project # 277915**

Sample ID	Date	Depth to Water	TPHg	TPHd	MTBE	Benzene	Toluene	Ethyl benzene	Xylenes	Notes	
			Method 8015		Method 8021B						
			µg/L								
MW-3 continued	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	After 8,000 0.5%	
	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	3/16 start 4900 gal	
	4/15/2010	-	-	-	-	-	-	-	-	4/15 start 4900 gal 0.5%	
	5/24/2010	-	11,000	-	<250	910	1,600	120	2,400	5/24 start 4900 gal 1.25%	
	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	6.3	4	46		
9/9/2010	8.67	1,200	360	-	57	8.3	18	160			
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		
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	After 8,000 0.5%	
	2/24/2010	-	3,500	-	<50	22	220	57	590		
	3/16/2010	7.57	20,000	-	<100	320	2,100	450	4,000	3/16 start 4900 gal	
	4/15/2010	-	-	-	-	-	-	-	-	4/15 start 4900 gal 0.5%	
	5/24/2010	-	190	-	<5.0	0.82	6.9	1.0	20	5/24 start 4900 gal 1.25%	
	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	330	57	1,100		
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	after 20 gallons 0.16%	
	11/23/2009	-	77,000	-	<250	6,700	11,000	430	11,000	30 gallons 0.5%	
	2/8/2010	7.74	18,000	-	<50	790	910	38	2,600	After 8,000 0.5%	
	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	3/16 start 4900 gal	
	4/15/2010	-	-	-	-	-	-	-	-	4/15 start 4900 gal 0.5%	
	5/24/2010	-	4,300	-	<60	170	430	19	680	5/24 start 4900 gal 1.25%	
	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	3,200	-	1,800	3,900	310	3,300			

Notes:

TPHg = total petroleum hydrocarbons as gasoline (C6-C12)
Benzene, toluene, ethylbenzene, and xylenes using EPA Method 8021B
µg/L= micrograms per liter

TPHd = total petroleum hydrocarbons as diesel (C10-C23)
MTBE = methyl-tertiary butyl ether
ND<50 = non detect at respective reporting limit

APPENDIX A

MONITORING WELL FIELD SAMPLING FORMS



AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-1

Project Name:	ALLEN	Date of Sampling:	9/9/2010
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	18.00		
Depth to Water (from top of casing)	8.75		
Water Elevation (feet above msl)	6.12		
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	18.25	7.25	813	4.71	327.6	Clear
	1.0	18.15	7.49	811	2.01	326.8	Clear
	1.5	18.15	7.27	810	1.42	325.7	Clear
	2.0	18.16	7.15	810	1.17	324.3	Clear
	2.5	18.18	7.07	810	1.03	322.7	Clear
	3.0	18.22	6.97	811	0.99	320.0	Clear
	3.5	18.23	6.93	812	0.78	318.9	Clear
	4.0	18.23	6.90	813	0.71	316.5	Clear

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-2

Project Name:	ALLEN	Date of Sampling:	9/9/2010
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	17.00		
Depth to Water (from top of casing)	9.04		
Water Elevation (feet above msl)	6.23		
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
	0.0	19.01	7.54	669	9.90	331.1	Clear
	0.5	18.50	7.25	663	2.70	330.7	Clear
	1.0	18.51	7.10	660	2.52	329.2	Clear
	1.5	18.54	7.00	659	2.50	326.3	Clear
	2.0	18.59	6.93	659	2.53	323.3	Clear
	2.5	18.63	6.88	663	2.60	320.5	Clear
	3.0	18.64	6.85	666	2.60	318.6	Clear
	3.5	18.64	6.82	670	2.52	316.0	Clear
	4.0	18.63	6.81	671	2.45	314.3	Clear

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:	9/9/2010
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)	15.11		
Depth of Well	18.00		
Depth to Water (from top of casing)	8.67		
Water Elevation (feet above msl)	6.44		
Well Volumes Purged	Micropurged with peristaltic pump		
Actual Volume Purged (liters)	4.0		
Appearance of Purge Water	very slightly yellow		
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
	0.0	18.56	6.75	1,137	4.32	336.5	
	0.5	18.53	6.80	1,130	2.74	325.0	
	1.0	18.56	6.81	1,123	2.54	333.4	
	1.5	18.59	6.82	1,122	1.67	329.3	
	2.0	18.64	6.84	1,095	1.92	324.7	
	2.5	18.66	6.83	1,081	2.73	322.1	
	3.0	18.68	6.82	1,045	3.18	320.8	
	3.5	18.68	6.80	1,029	3.63	317.3	
	4.0	18.68	6.78	1,029	3.66	316.9	

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

Very slightly yellow, peroxide ? 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:	9/9/2010
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)	15.23		
Depth of Well	18.00		
Depth to Water (from top of casing)	8.73		
Water Elevation (feet above msl)	6.50		
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	18.46	7.44	905	20.57	339.2	Clear
	1.0	18.44	7.38	902	20.01	337.8	Clear
	1.5	18.45	7.24	905	20.46	335.8	Clear
	2.0	18.46	7.18	906	20.87	334.9	Clear
	2.5	18.44	7.14	910	22.15	332.1	Clear
	3.0	18.43	7.11	912	23.07	330.9	Clear
	3.5	18.42	7.09	915	24.32	329.5	Clear
	4.0	18.41	7.09	917	25.11	328.2	Clear

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

Clear, peroxide ? odor
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:	9/9/2010
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)	15.06		
Depth of Well	18.00		
Depth to Water (from top of casing)	8.67		
Water Elevation (feet above msl)	6.39		
Well Volumes Purged	Micropurged with peristaltic pump		
Actual Volume Purged (liters)	3.4		
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	18.44	7.82	486	10.41	339.1	Clear
	1.0	18.38	7.29	499	8.01	331.2	Clear
	1.5	18.40	6.99	490	5.62	334.4	Clear
	2.0	18.42	6.84	487	5.01	332.5	Clear
	2.5	18.42	6.77	490	5.01	330.5	Clear
	3.0	18.42	6.73	488	4.48	328.3	Clear
	3.5	18.43	6.72	461	4.05	327.1	Clear

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

Clear, very slight hydrocarbon odor, peroxide ? 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:	9/9/2010
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)	15.30		
Depth of Well	18.00		
Depth to Water (from top of casing)	8.83		
Water Elevation (feet above msl)	6.47		
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	19.02	6.81	295	4.87	338.3	Clear
	1.0	19.02	6.30	292	1.85	334.1	Clear
	1.5	19.03	6.27	293	1.43	330.7	Clear
	2.0	19.02	6.23	293	1.19	328.6	Clear
	2.5	19.02	6.22	292	1.03	326.7	Clear
	3.0	19.02	6.20	291	0.93	326.7	Clear
	3.5	19.02	6.19	290	0.88	324.5	Clear

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

Clear, slight hydrocarbon odor
Purge line @ 10.0 ft b gs

APPENDIX B

LABORATORY ANALYTICAL AND CHAIN OF CUSTODY DOCUMENTATION





McC Campbell Analytical, Inc.

"When Quality Counts"

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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #277915; CBT, 325 Martin Luther King Jr	Date Sampled: 08/05/10
		Date Received: 08/05/10
	Client Contact: Robert Flory	Date Reported: 08/10/10
	Client P.O.: #WC082574	Date Completed: 08/09/10

WorkOrder: 1008131

August 10, 2010

Dear Robert:

Enclosed within are:

- 1) The results of the **3** analyzed samples from your project: **#277915; CBT, 325 Martin Luther King Jr,**
- 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

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1008131

ClientCode: AEL

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:	Robert Flory	Email: rflory@aeiconsultants.com	Bill to:	Denise Mockel	Requested TAT:	5 days
	AEI Consultants	cc:		AEI Consultants	Date Received:	08/05/2010
	2500 Camino Diablo, Ste. #200	PO: #WC082574		2500 Camino Diablo, Ste. #200	Date Printed:	08/05/2010
	Walnut Creek, CA 94597	ProjectNo: #277915; CBT, 325 Martin Luther King Jr		Walnut Creek, CA 94597		
	(925) 283-6000 FAX (925) 283-6121			dmockel@aeiconsultants.com		

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	
1008131-001	MW-3	Water	8/5/2010 14:15	<input type="checkbox"/>	A	A											
1008131-002	IW-2	Water	8/5/2010 12:30	<input type="checkbox"/>	A												
1008131-003	IW-3	Water	8/5/2010 13:10	<input type="checkbox"/>	A												

Test Legend:

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

Prepared by: Ana Venegas

Comments:

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



Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **8/5/2010 3:12:07 PM**

Project Name: **#277915; CBT, 325 Martin Luther King Jr**

Checklist completed and reviewed by: **Ana Venegas**

WorkOrder N°: **1008131** 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: 11.2°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:



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 52331

WorkOrder 1008131

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 1008153-009A			
	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	123	127	3.76	120	120	0	70 - 130	20	70 - 130	20
MTBE	ND	10	118	117	1.13	119	121	1.83	70 - 130	20	70 - 130	20
Benzene	ND	10	95.3	97.3	2.04	93.6	95.5	2.01	70 - 130	20	70 - 130	20
Toluene	ND	10	94.2	96.6	2.50	92.6	94.4	1.94	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	95.6	96.3	0.727	92.6	95.6	3.22	70 - 130	20	70 - 130	20
Xylenes	ND	30	95.4	96.5	1.10	92.8	94.4	1.73	70 - 130	20	70 - 130	20
%SS:	106	10	94	95	0.610	96	95	0.695	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 52331 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1008131-001A	08/05/10 2:15 PM	08/09/10	08/09/10 5:44 PM	1008131-002A	08/05/10 12:30 PM	08/06/10	08/06/10 6:16 PM
1008131-003A	08/05/10 1:10 PM	08/06/10	08/06/10 3:13 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.



McC Campbell Analytical, Inc.

"When Quality Counts"

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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #277915; Allen	Date Sampled: 09/09/10
		Date Received: 09/09/10
	Client Contact: Robert Flory	Date Reported: 09/14/10
	Client P.O.: #WC082628	Date Completed: 09/14/10

WorkOrder: 1009243

September 14, 2010

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

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell 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 PO #: WCO82628
2500 Camino Diablo
Walnut Creek, CA 94597 E-Mail: rflory@aeiconsultants.com
Tel: (925) 746-6000 Fax: (925) 946-6099
Project #: 277915 Project Name: Allen
Project Location: 325 Martin Luther King Jr. Way
Sampler Signature: *[Signature]*

Analysis Request

Other

Comments

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				BTEX & 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)				
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other																							
MW-1		9/9/10	1140	3	VOP	X					X	X																									
MW-2			1205	3	VOP	X					X	X																									
MW-3			1110	4	VOP	X					X	X																									
IW-1		9/9/10	1000	3	VOP	X					X	X																									
IW-2			1020	4	VOP	X					X	X																									
IW-3			1040	4	VOP	X					X	X																									

Relinquished By: *[Signature]* Date: 9/9/10 Time: 1350 Received By: *[Signature]* Enviro-Tech SR
 Relinquished By: *[Signature]* Date: 9/9/10 Time: 1515 Received By: *[Signature]*
 Relinquished By: *[Signature]* Date: 9/9/10 Time: 1535 Received By: *[Signature]*

ICE/TPH/PS 5.20c
 GOOD CONDITION
 HEAD SPACE ABSENT
 DECHLORINATED IN LAB
 PRESERVATION APPROPRIATE
 CONTAINERS PRESERVED IN LAB
 VOAS O&G METALS OTHER

IITII

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1009243

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: #WC082628
ProjectNo: #277915; Allen

Bill to:

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

Requested TAT: 5 days

Date Received: 09/09/2010

Date Printed: 09/15/2010

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	
1009243-001	MW-1	Water	9/9/2010 11:40	<input type="checkbox"/>	A	A											
1009243-002	MW-2	Water	9/9/2010 12:05	<input type="checkbox"/>	A												
1009243-003	MW-3	Water	9/9/2010 11:10	<input type="checkbox"/>	A		B										
1009243-004	IW-1	Water	9/9/2010 10:00	<input type="checkbox"/>	A												
1009243-005	IW-2	Water	9/9/2010 10:20	<input type="checkbox"/>	A		B										
1009243-006	IW-3	Water	9/9/2010 10:40	<input type="checkbox"/>	A		B										

Test Legend:

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

Prepared by: Samantha Arbuckle

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.



Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **9/9/2010 7:30:10 PM**

Project Name: **#277915; Allen**

Checklist completed and reviewed by: **Samantha Arbuckle**

WorkOrder N°: **1009243** Matrix Water

Carrier: Rob Pringle (MAI 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: 5.2°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:



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AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #277915; Allen	Date Sampled: 09/09/10
		Date Received: 09/09/10
	Client Contact: Robert Flory	Date Extracted: 09/10/10-09/11/10
	Client P.O.: #WC082628	Date Analyzed: 09/10/10-09/11/10

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1009243

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-1	W	ND	---	ND	ND	ND	ND	1	105	
002A	MW-2	W	ND	---	ND	ND	ND	ND	1	104	
003A	MW-3	W	1200	---	57	8.3	18	160	10	100	d1
004A	IW-1	W	ND	---	ND	ND	ND	ND	1	104	
005A	IW-2	W	5100	---	59	330	57	1100	20	109	d1
006A	IW-3	W	22,000	---	1800	3900	310	3300	50	115	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	0.5	µg/L
	S	1.0	0.05	0.005	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 McC Campbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 52899

WorkOrder 1009243

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 1009041-002A			
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) ^f	ND	60	105	104	0.773	106	108	1.80	70 - 130	20	70 - 130	20
MTBE	ND	10	118	112	5.03	113	117	3.61	70 - 130	20	70 - 130	20
Benzene	ND	10	99.3	96.3	3.02	98.6	99.2	0.621	70 - 130	20	70 - 130	20
Toluene	ND	10	99.7	97.2	2.48	98.6	99.8	1.18	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	97.9	96.5	1.40	97.1	98.7	1.68	70 - 130	20	70 - 130	20
Xylenes	ND	30	101	99	1.64	99.6	102	2.27	70 - 130	20	70 - 130	20
%SS:	98	10	97	96	1.13	97	97	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 52899 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1009243-002A	09/09/10 12:05 PM	09/11/10	09/11/10 5:34 AM	1009243-003A	09/09/10 11:10 AM	09/10/10	09/10/10 6:34 PM
1009243-004A	09/09/10 10:00 AM	09/11/10	09/11/10 6:03 AM	1009243-005A	09/09/10 10:20 AM	09/10/10	09/10/10 7:04 PM
1009243-006A	09/09/10 10:40 AM	09/10/10	09/10/10 7:34 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.



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 53008

WorkOrder 1009243

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 1009201-007A			
	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) ^f	ND	60	94.7	95.4	0.670	96.2	94.4	1.95	70 - 130	20	70 - 130	20
MTBE	ND	10	112	120	6.86	117	117	0	70 - 130	20	70 - 130	20
Benzene	ND	10	116	113	2.45	114	113	0.681	70 - 130	20	70 - 130	20
Toluene	ND	10	103	100	2.45	100	99	1.21	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	101	99.2	2.01	99.2	97.9	1.31	70 - 130	20	70 - 130	20
Xylenes	ND	30	113	111	1.65	111	110	0.874	70 - 130	20	70 - 130	20
%SS:	99	10	108	105	2.32	106	107	0.107	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 53008 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1009243-001A	09/09/10 11:40 AM	09/11/10	09/11/10 5:04 AM				

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

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

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

£ 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.



QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 52941

WorkOrder 1009243

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	107	106	1.22	N/A	N/A	70 - 130	30
%SS:	N/A	625	N/A	N/A	N/A	119	118	0.965	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 52941 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1009243-003B	09/09/10 11:10 AM	09/09/10	09/12/10 6:05 AM	1009243-005B	09/09/10 10:20 AM	09/09/10	09/12/10 2:41 AM
1009243-006B	09/09/10 10:40 AM	09/09/10	09/12/10 1:33 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.