

Environmental Health Services
Environmental Protection
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Alameda, CA 94502-6577

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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



AEI Consultants

Environmental & Engineering Services

March 5, 2013

Performance Monitoring and Fourth Quarter 2012

Property Identification:

325 Martin Luther King Jr. Way
Oakland, California

AEI Project No. 277915
ACEH Site: RO0002930

Prepared for:

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1.0 INTRODUCTION

AEI Consultants (AEI) has prepared this report to document the groundwater monitoring following hydrogen peroxide infusion at the above referenced site (Figure 1, Site Location Map). The infusion program and groundwater monitoring is being performed in accordance with the requirements of the Alameda County Environmental Health (ACEH).

2.0 SITE DESCRIPTION AND HISTORY

The subject property is located on the northwestern 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 site. 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 gasoline UST abandoned in place below the northeast corner of the building. The gasoline UST was used to provide fuel for the Pucci Enterprises truck fleet.

2.1 Tank Closure

On October 20, 1993, the tank was abandoned in place by steam cleaning the tank, and filling the tank with concrete slurry. At the time of the UST closure, it was believed that 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 over there USTs location.

2.2 2005 AEI Investigation

AEI performed a Phase II Subsurface Investigation in May 2005. 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.

AEI and other consultants performed several investigations and installed 3 groundwater monitoring. The locations of the monitoring wells are shown on Figures 2 and 3.

2.3 Chemical Oxidation/ H_2O_2 infusion

On July 17 and 18, 2008, 720 lbs. of RegenOxTM was injected in five locations with a spacing approximately five feet away from well MW-3.

Following injection of RegenOxTM, groundwater samples collected from well MW-3 on August 4, 2008 reported an increase in TPH-g from pre-injection maximum concentration from 20,000 $\mu\text{g/L}$ to 110,000 $\mu\text{g/L}$. Follow up sampling on August 20, 2008 reported TPH-g at a maximum concentration of 120,000 $\mu\text{g/L}$.

AEI recommended H₂O₂ infusion through permanently installed wells as a lower cost approach to remediation.

2.4 Initial Hydrogen Peroxide Infusion

In October 2009 AEI installed three (3) 2-inch diameter wells (IW-1 through IW-3) to be used as infusion wells. Between December of 2009 and May 2010 approximately 19,600,000 gallons of 0.5% H₂O₂ solution were infused into the groundwater, primarily into well IW-3.

Progress monitoring was performed on May 24, July 19, and August 5, 2010. Results from the August 5, 2010 sampling event reported TPH-g in wells MW-3, and IW-3 at concentrations of 350 µg/L and 5,400 µg/L, respectively.

The third quarter 2010 monitoring event on September 9, 2010 reported TPH-g in wells MW-3, and IW-3 at concentrations of 1,200 µg/L and 22,000 µg/L, respectively.

AEI recommended additional infusion and an additional 18,000 gallons of 0.5 % hydrogen peroxide was infused into well IW-3 and between September 21, 2010 and December 29, 2010.

2.5 Post Infusion Monitoring

The regularly scheduled First Quarter 2011 semiannual monitoring event was performed on March 24, 2011. No TPH-g or BTEX was reported in wells MW-1, MW-2, IW-1, or IW-2 at or below standard laboratory reporting limits.

TPH-g was reported in wells MW-3 and IW-3 at concentrations of 140 µg/L and 390 µg/L respectively.

The second semiannual monitoring event was performed on August 9, 2011. No TPH-g or BTEX was reported in wells MW-1, MW-2, IW-1, or IW-2 at or below standard laboratory reporting limits.

TPH-g and benzene concentrations in well MW-3 increased from concentrations of 590 µg/L and 38 µg/L, respectively on August 9, 2011 to 4,900 µg/L and 1,400 µg/L, respectively on December 14, 2011. The concentration of TPH-d increased from 200 µg/L to 1,000 µg/L.

TPH-g concentration in well IW-3 increased from 9,600 µg/L on August 9, 2011 to 36,000 µg/L and on December 14, 2011. Benzene concentration in well IW-2 increased from 2,400 µg/L on August 9, 2011 to 4,600 µg/L and on December 14, 2011.

2.6 Installation of Infusion Wells IW-4 and IW-5

On December 1, 2011, AEI installed two addition infusion wells (IW-4 and IW-5) on the northeast (up gradient) side of the abandoned in place UST. The locations of the wells are shown on Figures 2 and 3. Well completion details are summarized on Table 1.

During the December 14, 2011 groundwater monitoring event TPH-g and benzene concentrations in IW-4 were reported at concentrations of 95,000 µg/L and 13,000 µg/L,

respectively. TPH-g and benzene concentrations in IW-5 were reported at concentrations of 250 µg/L and 11 µg/L, respectively.

2.7 Second Hydrogen Peroxide Infusion

Between January 2012, and May 2012, approximately 12,000 gallons of 1% H₂O₂ was infused into the wells, primarily into injection well IW-4. After the first week of infusion, only Well IW-4 was directly manifolded to the tank and casings of wells IW-1, IW-2, IW-3, and IW-5 were filled with H₂O₂ during the weekly system checks.

2.8 Third Quarter 2012 Monitoring

On July 27, 29, 2012 and October 24, 2012 groundwater monitoring wells MW-3, IW-3 and IW-4 were gauged and sampled, as part of performance monitoring of the hydrogen peroxide infusion program.

TPH-g increased in MW-3 from a concentration of 51 µg/L in July to a concentration of 91 µg/L in September, 2012.

TPH-g increased in IW-3 from a concentration of 1,100 µg/L in July to a concentration of 4,300 µg/L in September, 2012.

TPH-g increased in IW-4 from a concentration of 2,900 µg/L in July to a concentration of 4,500 µg/L in September, 2012.

The complete results of the September 2012 quarterly monitoring event are summarized in Table 3 and Figures 4 and 5.

3.0 4th QUARTER POST INFUSION MONITORING

The results of the 4th quarter progress monitoring of wells MW-3, IW-3, and IW-4 which were sampled of October 24, 2012, November 20, 2012, and January 8, 2013.

3.0.1 October 24, 2012

TPH-g and MBTEX concentrations in well MW-3 increased to concentrations of 510 µg/L, 32 µg/L, 100 µg/L, 3.2 µg/L, 3.7 µg/L, and 10 µg/L, respectively.

TPH-g and MBTEX concentrations in well IW-3 increased to concentrations of 4,400 µg/L, 51 µg/L, 540 µg/L, 880 µg/L, 26 µg/L, 730 µg/L, respectively.

TPH-g and MBTEX concentrations in well IW-4 increased to concentrations of 21,000 µg/L, ND<250 µg/L, 2,000 µg/L, 4,000 µg/L, 350 µg/L, and 2,100 µg/L, respectively.

The results of the October 24, 2012 progress monitoring event are summarized in Table 3 and Figure 6.

3.0.2 November 20, 2012

TPH-g and MBTEX concentrations in well MW-3 increased to concentrations of 850 µg/L, 9.2 µg/L, 290 µg/L, 8.2 µg/L, 11 µg/L, and 23 µg/L, respectively.

TPH-g and MBTEX concentrations in well IW-3 increased to concentrations of 6,400 µg/L <50 µg/L, 550 µg/L, 1,000 µg/L, 34 µg/L, 940 µg/L, respectively.

TPH-g and MBTEX concentrations in well IW-4 decreased to concentrations of 8,700 µg/L ND<100 µg/L, 850 µg/L, 1,900 µg/L, 140 µg/L, and 910 µg/L, respectively.

The results of the November 20, 2012 progress monitoring event are summarized in Table 3 and Figure 7.

3.0.3 January 8, 2013

TPH-g and MBTEX concentrations in well MW-3 decreased to concentrations of 390 µg/L, <5.0 µg/L, 24 µg/L, 1.5 µg/L, <5.0 µg/L, and 17 µg/L, respectively.

TPH-g and MBTEX concentrations in well IW-3 increased to concentrations of 13,000 µg/L <250 µg/L, 2,300 µg/L, 660 µg/L, 210 µg/L, 1,900 µg/L, respectively.

TPH-g and MBTEX concentrations in well IW-4 decreased to concentrations of 6,500 µg/L ND<90 µg/L, 580 µg/L, 1,100 µg/L, 81 µg/L, and 660 µg/L, respectively.

The results of the January 8, 2013 progress monitoring event are summarized in Table 3 and Figure 8.

4.0 SUMMARY

Monitoring following infusion of H²O² during 2010 indicate that the source material down gradient of the abandoned in place UST has been removed. During early 2011 significant increases in hydrocarbon concentrations, initially in well IW-3 and later in well MW-3, indicated that a significant amount of hydrocarbon source remained immediately up gradient of the abandoned UST. Infusion of H²O² in 2011 into newly installed wells IW-4 and IW-5, as well as IW-3, reduced concentrations of hydrocarbons in groundwater samples to minimal concentrations. Subsequently, concentrations of TPH-g in up gradient well IW-4 increased from 270 µg/L to a maximum of 21,000 µg/L in October 2012. Since that time the concentrations in well IW-4 have decreased significantly to 6,500 µg/L.

Current dissolved Oxygen concentrations (DO) are above 3.0 mg/L. Historically DO concentrations up gradient well IW-1 have been around 2.0 mg/L indicating that oxygen concentrations in the groundwater are high enough to sustain natural biodegradation of hydrocarbons in the groundwater. The peak and subsequent decrease in hydrocarbon concentrations in up gradient well IW-4 indicate that residual hydrocarbons up gradient of the abandoned UST have been reduced to the point where natural attenuation will be able to continue to reduce hydrocarbon concentrations to target levels in the near future.

The results of groundwater monitoring are summarized in Tables 2 through Table 4. Figures 10 through Figure 12 graphically show the changes and trends in hydrocarbon concentrations.

For the reasons listed below, AEI believes the hydrocarbon concentrations at the site have reached the point where the site should be considered for site closure under the current low risk closure:

- Hydrocarbon concentrations in the groundwater have been reduced to the point where natural attenuation can continue to reduce hydrocarbon concentrations to target concentrations.
- Concentrations of volatile organic compounds (VOCs) are below regional water quality control board (RWQCB) commercial/Industrial ESLs for evaluation of potential vapor intrusions from groundwater to indoor air.

AEI will prepare a formal request for closure under low risk guidelines for submittal to ACEH within 90 days.

5.0 REPORT LIMITATIONS AND SIGNATURES

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

These services were performed in accordance with generally accepted practices in the environmental engineering and construction field that existed at the time and location of the work. If you have any questions regarding this report, we can be reached at (925) 746-6000.

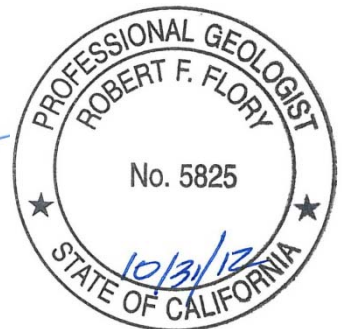
Sincerely,
AEI Consultants



Adrian M. Angel, GIT
Project Geologist

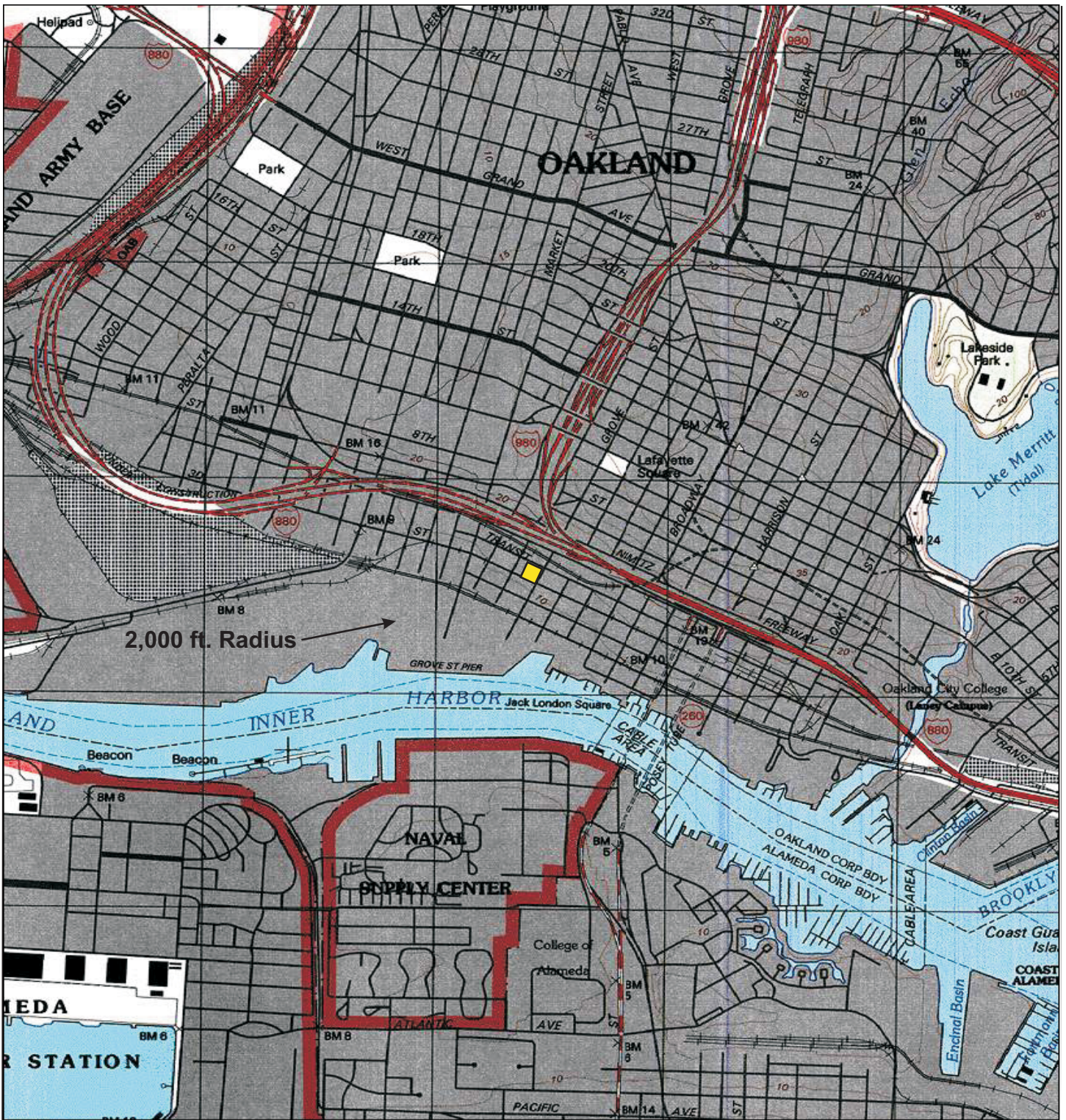


Robert F. Flory, PG
Senior Geologist




FIGURES






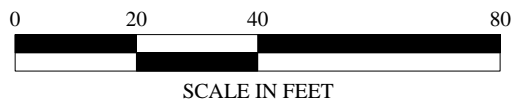
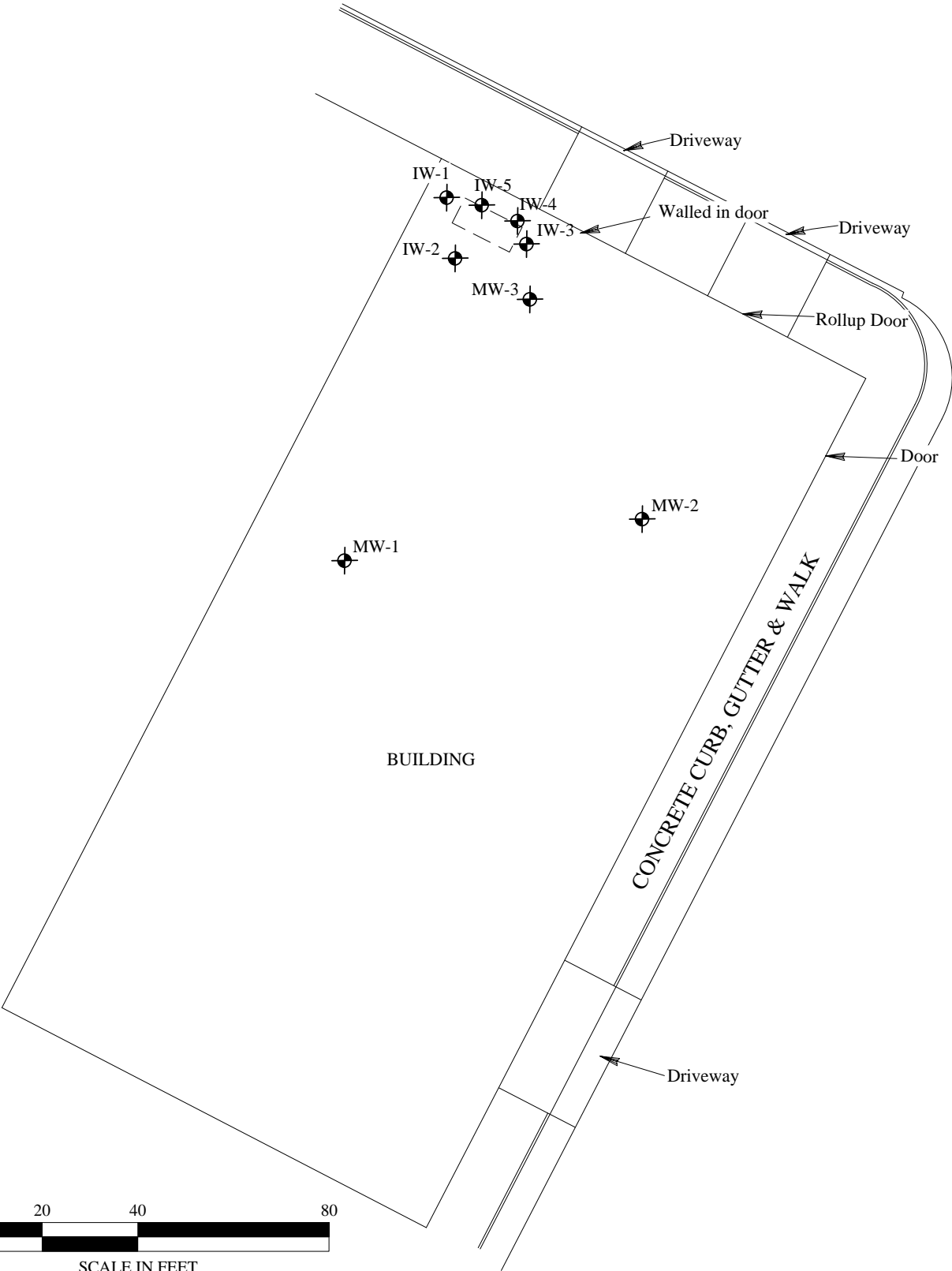
Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)

LEGEND

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 SITE LOCATION

AEI CONSULTANTS 2500 Camino Diablo, Walnut Creek, CA 94597	
SITE LOCATION MAP	
325 Martin Luther King Jr. Way Oakland, CA 94607	FIGURE 1 Job No: 277915



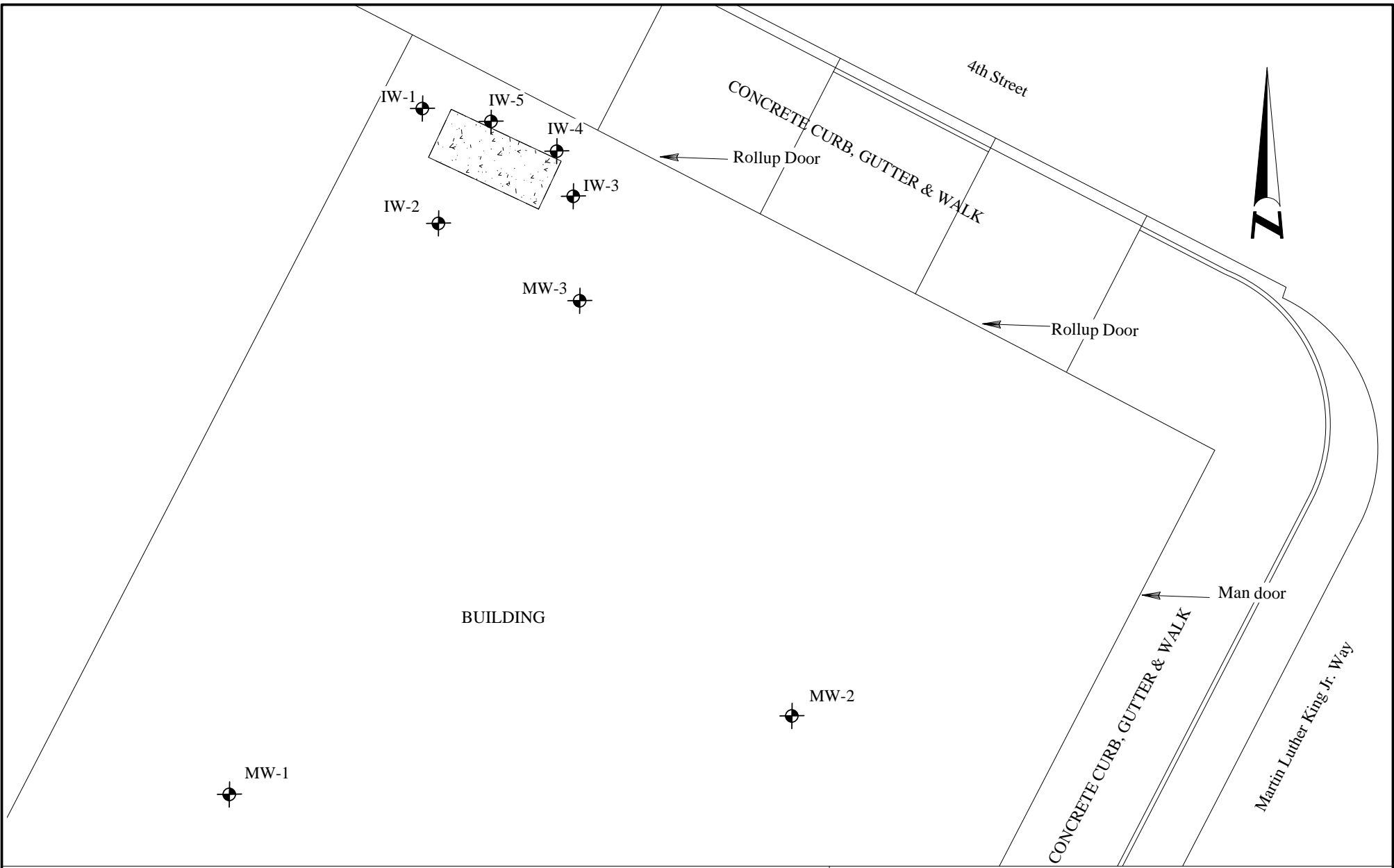
- 2" Monitoring / Infusion Well
- Abandoned in place UST


AEI CONSULTANTS
2500 Camino Diablo, Walnut Creek, CA


Site Plan

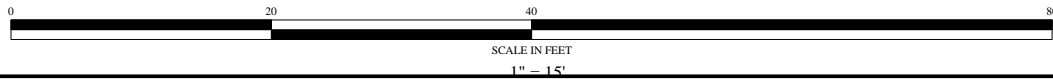
325 Martin Luther king Jr. Way
Oakland, California

FIGURE 2
AEI Project # 277915



 2" Monitoring / Infusion Well

 Abandoned in place UST



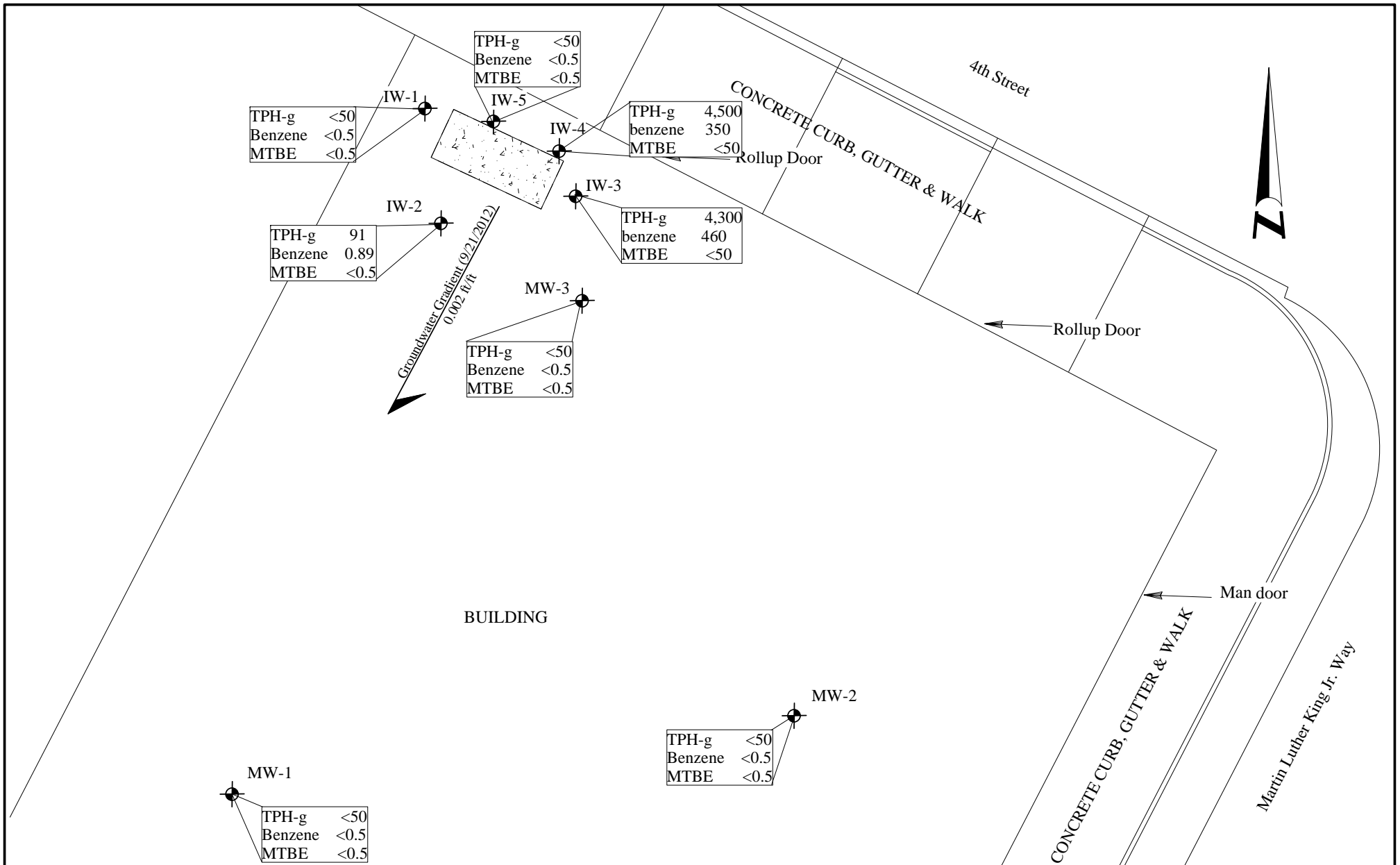
Drafted by RFF 3/4/2010 from Morrow 0116-034 MAM
Revised by RFF 12/22/2011 from 2011 Morrow Survey

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2500 Camino Diablo, Walnut Creek, CA

Detail Site Plan

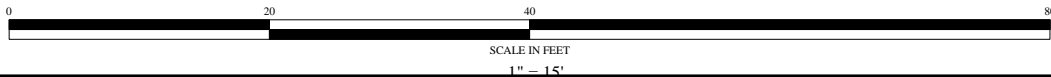
325 Martin Luther King Jr. Way
Oakland, California

FIGURE 3
AEI Project # 277915



2" Monitoring / Infusion Well

Abandoned in place UST



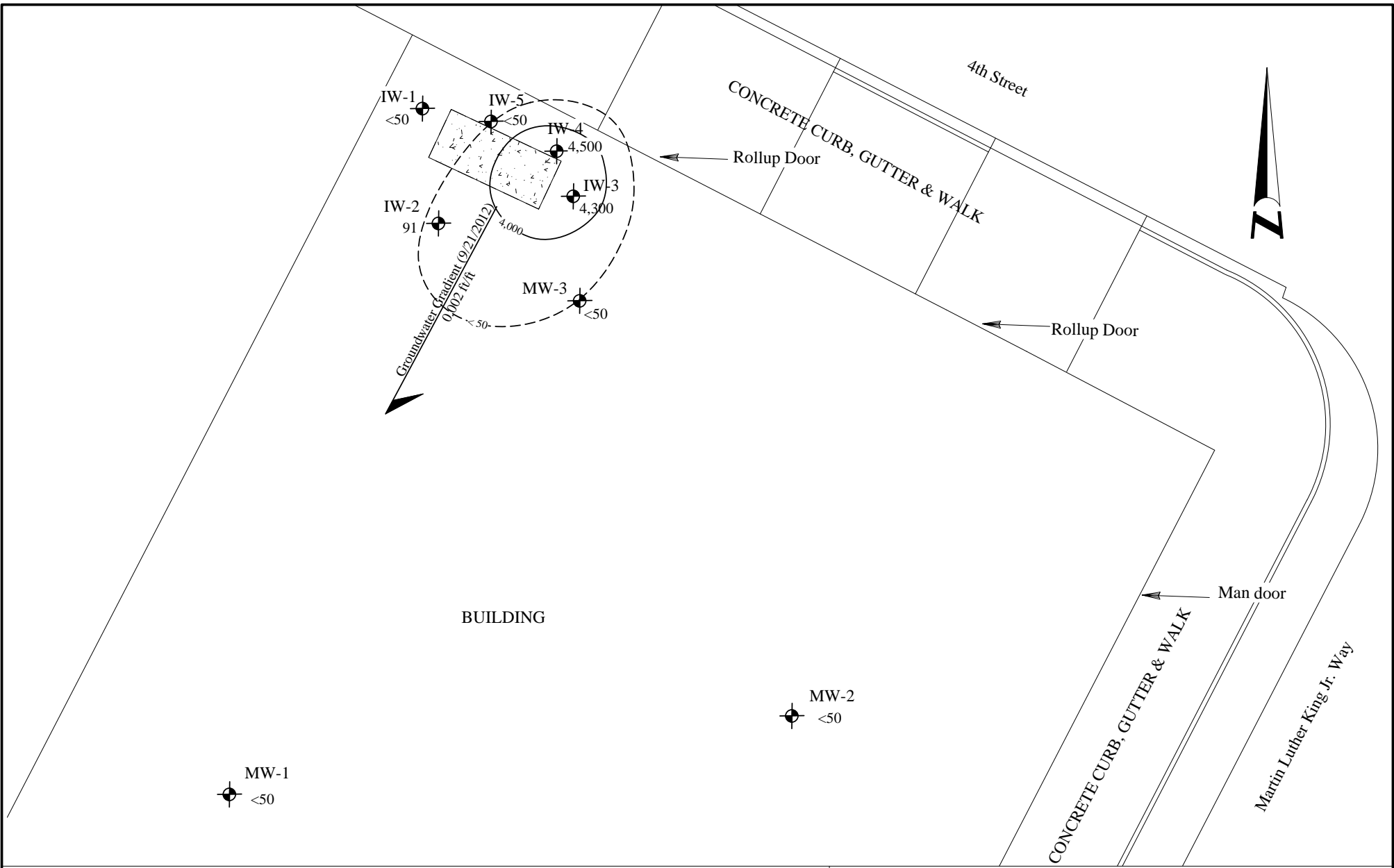
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2500 Camino Diablo, Walnut Creek, CA


Groundwater Analytical Data (9/21/2012)

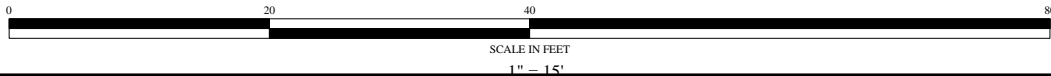
325 Martin Luther King Jr. Way
Oakland, California

FIGURE 4
AEI Project # 277915



 2" Monitoring / Infusion Well

 Abandoned in place UST



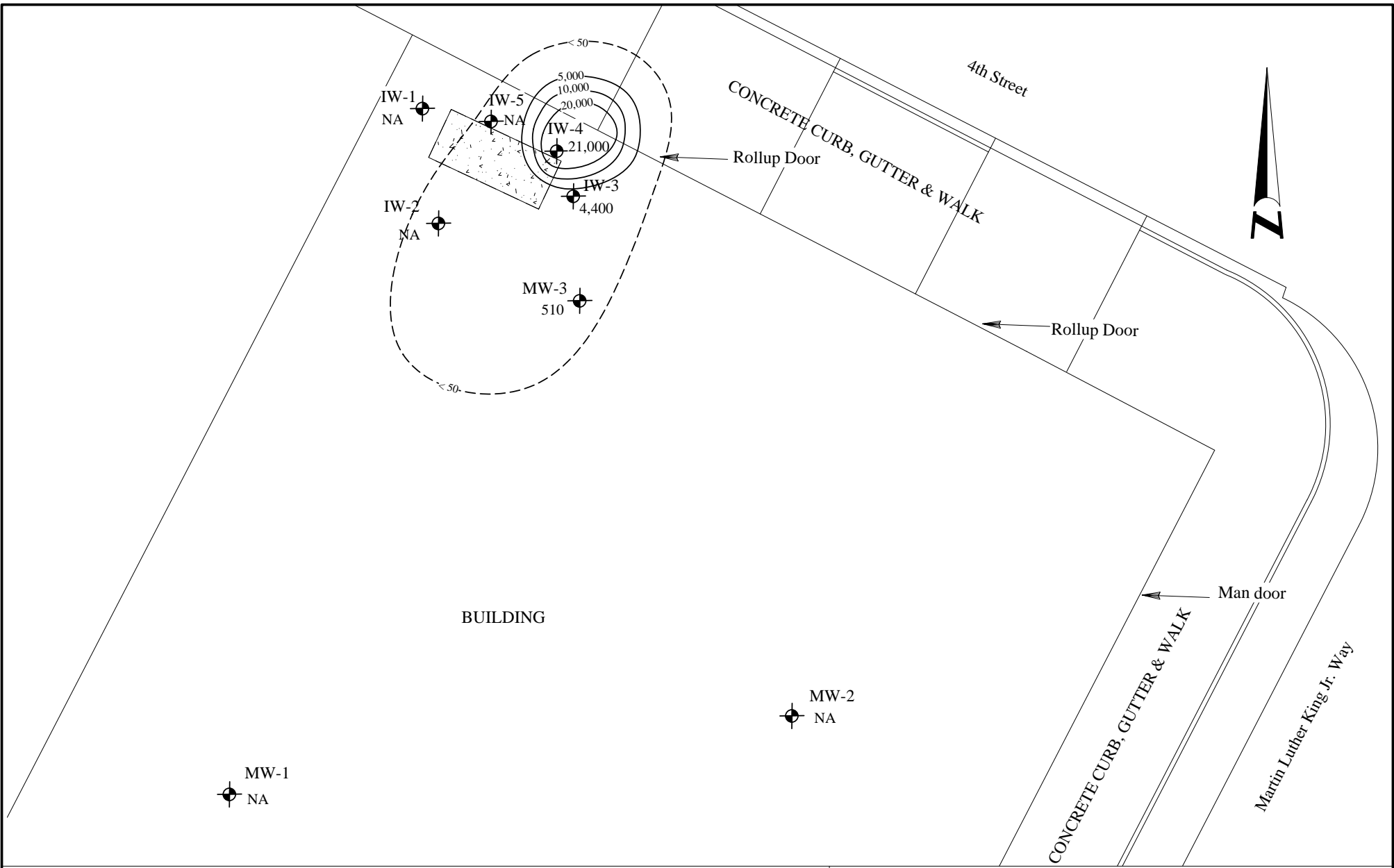
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2500 Camino Diablo, Walnut Creek, CA


TPH-g Isoconcentration Map (9/21/2012)

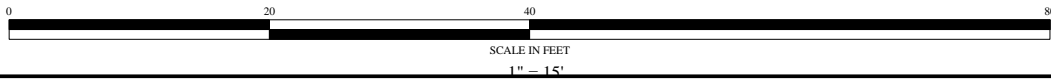
325 Martin Luther King Jr. Way
Oakland, California

FIGURE 5
AEI Project # 277915



 2" Monitoring / Infusion Well

 Abandoned in place UST



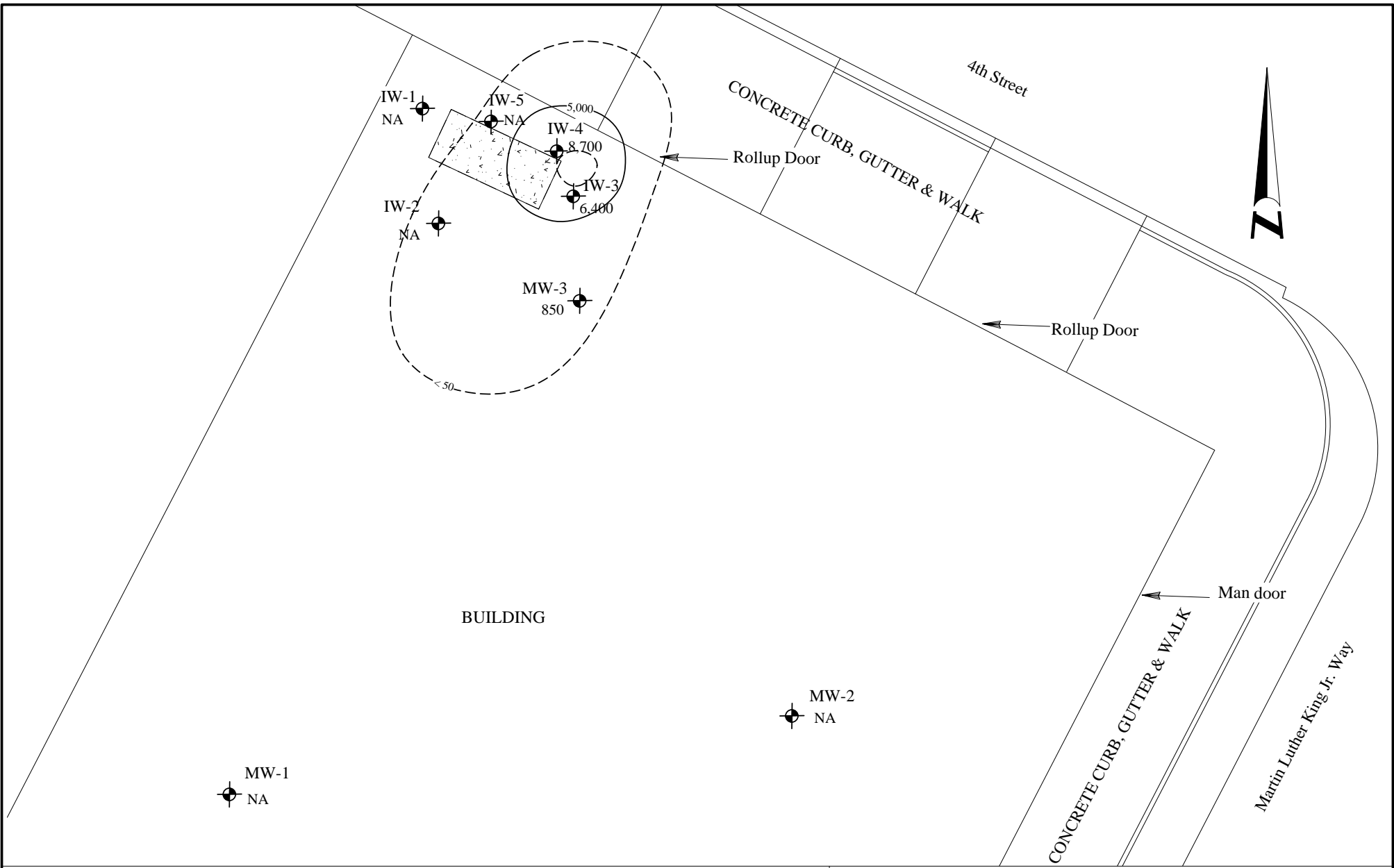
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2500 Camino Diablo, Walnut Creek, CA

TPH-g Isoconcentration Map (10/24/2012)

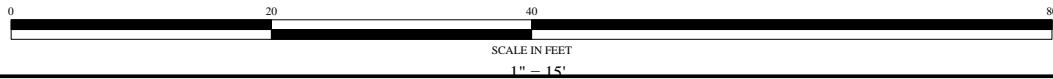
325 Martin Luther king Jr. Way
Oakland, California

FIGURE 6
AEI Project # 277915



⊕ 2" Monitoring / Infusion Well

▨ Abandoned in place UST



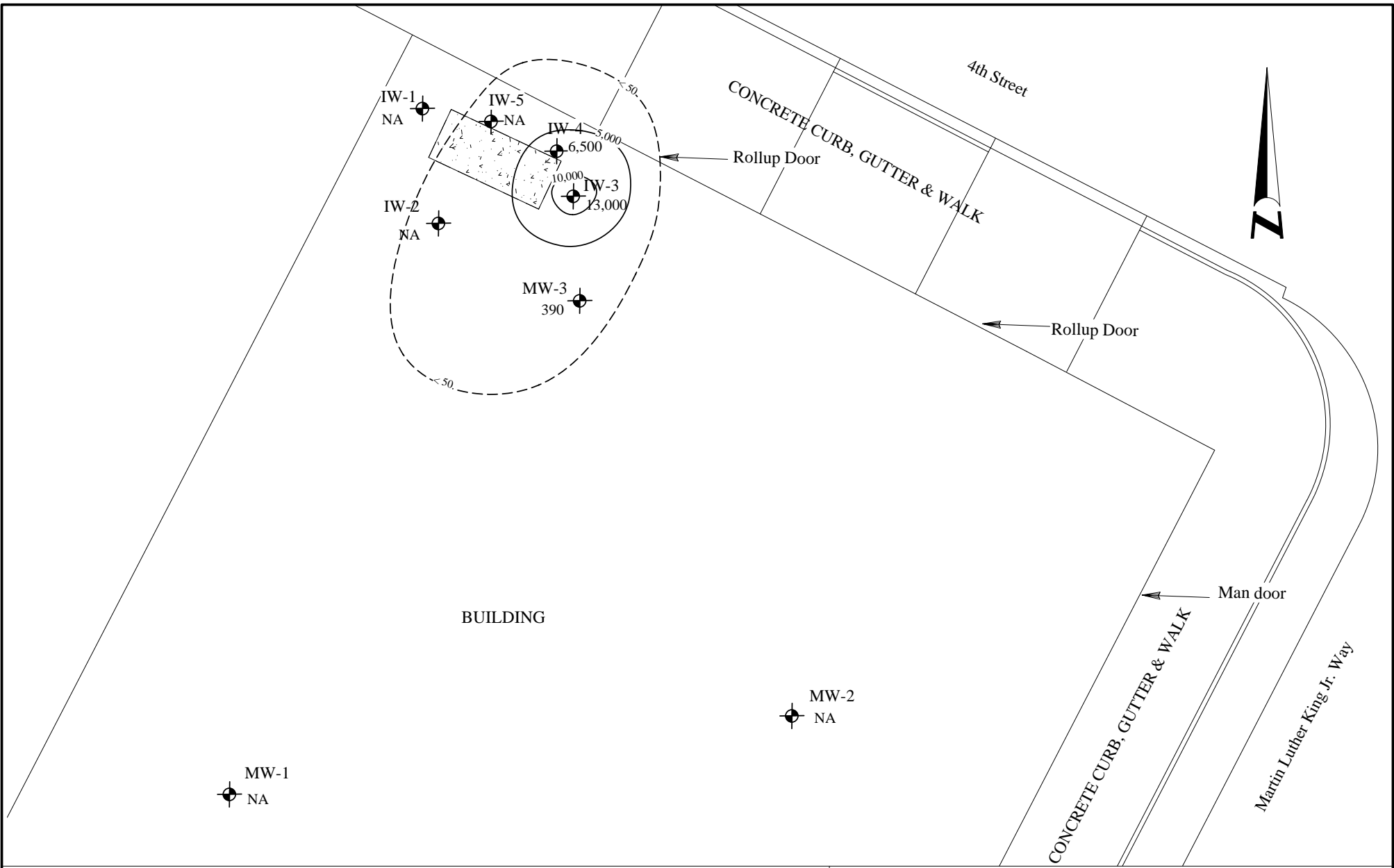
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2500 Camino Diablo, Walnut Creek, CA

TPH-g Isoconcentration Map (11/20/2012)

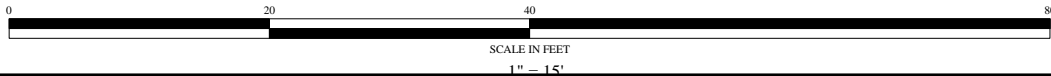
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FIGURE 7
AEI Project # 277915



⊕ 2" Monitoring / Infusion Well

▨ Abandoned in place UST



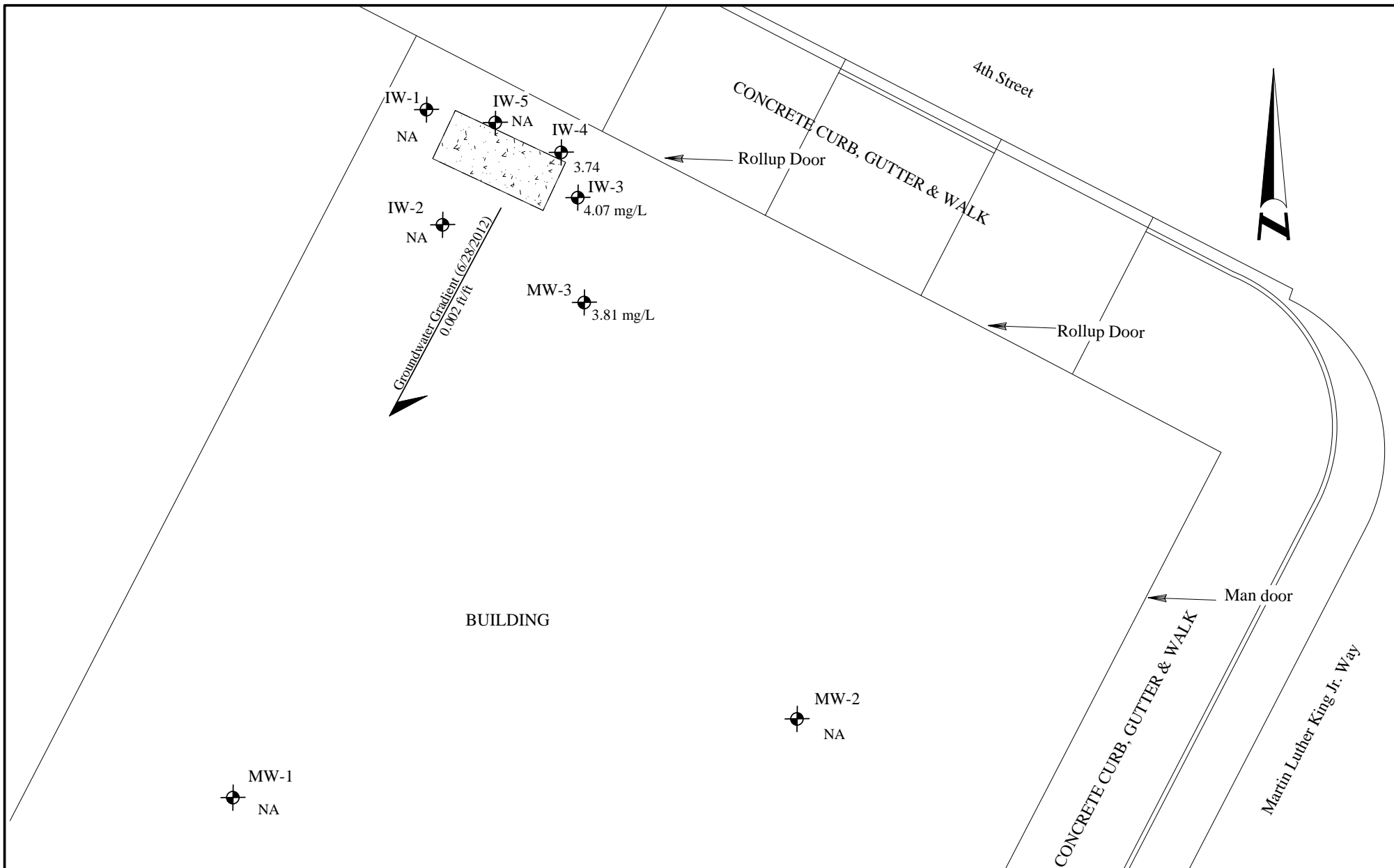
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2500 Camino Diablo, Walnut Creek, CA

TPH-g Isoconcentration Map (01/08/2013)

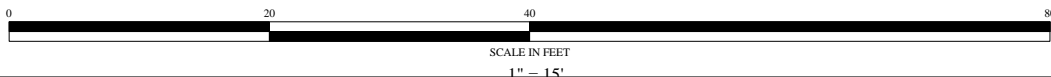
325 Martin Luther king Jr. Way
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FIGURE 8
AEI Project # 277915



2" Monitoring / Infusion Well

Abandoned in place UST



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2500 Camino Diablo, Walnut Creek, CA

Dissolved Oxygen Concentrations (1/8/2013)

325 Martin Luther King Jr. Way
Oakland, California

FIGURE 9
AEI Project # 277915

Figure 10 - MW-3 TPH-g, Benzene vs Time

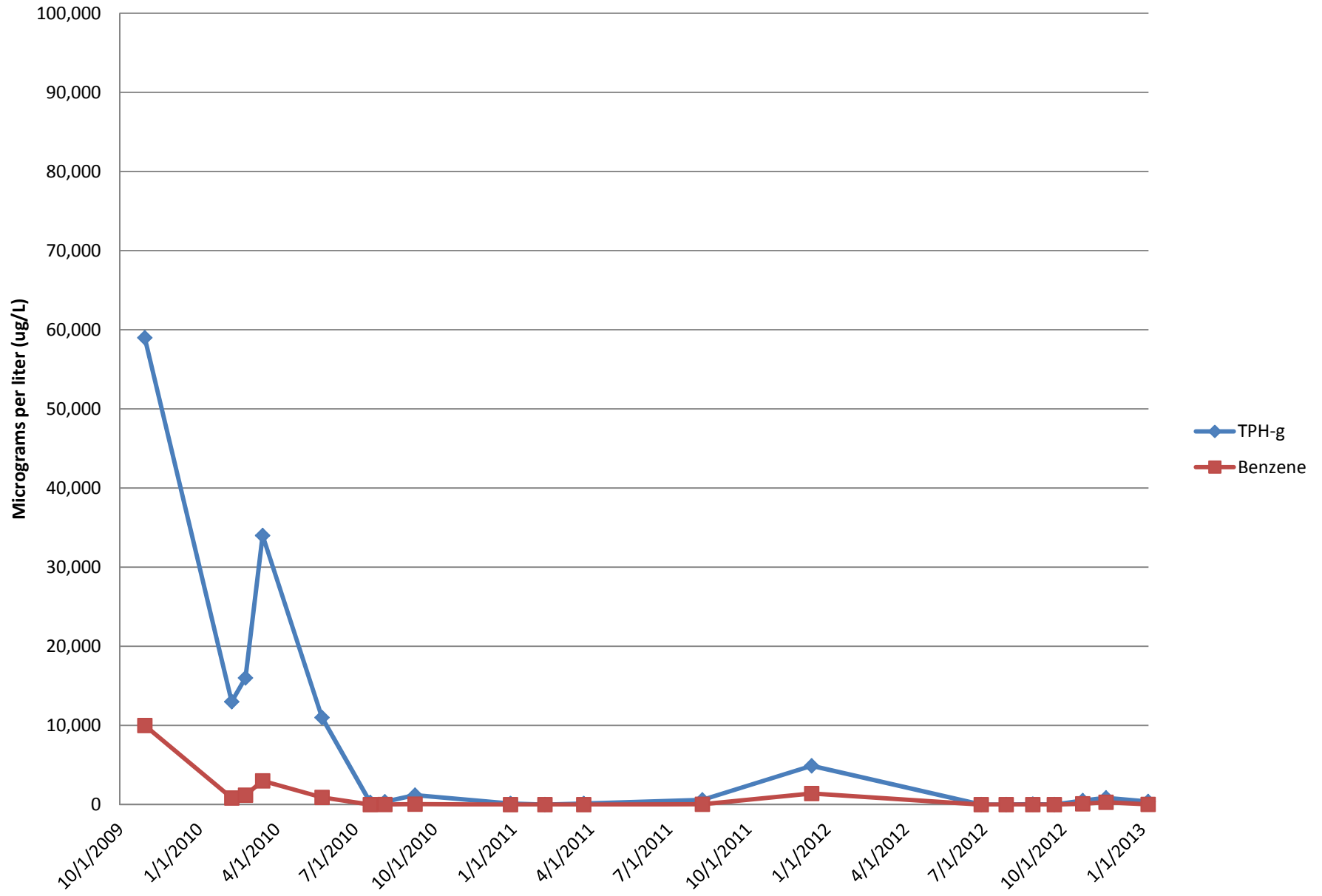


Figure 11 - IW-3 TPH-g, Benzene vs Time

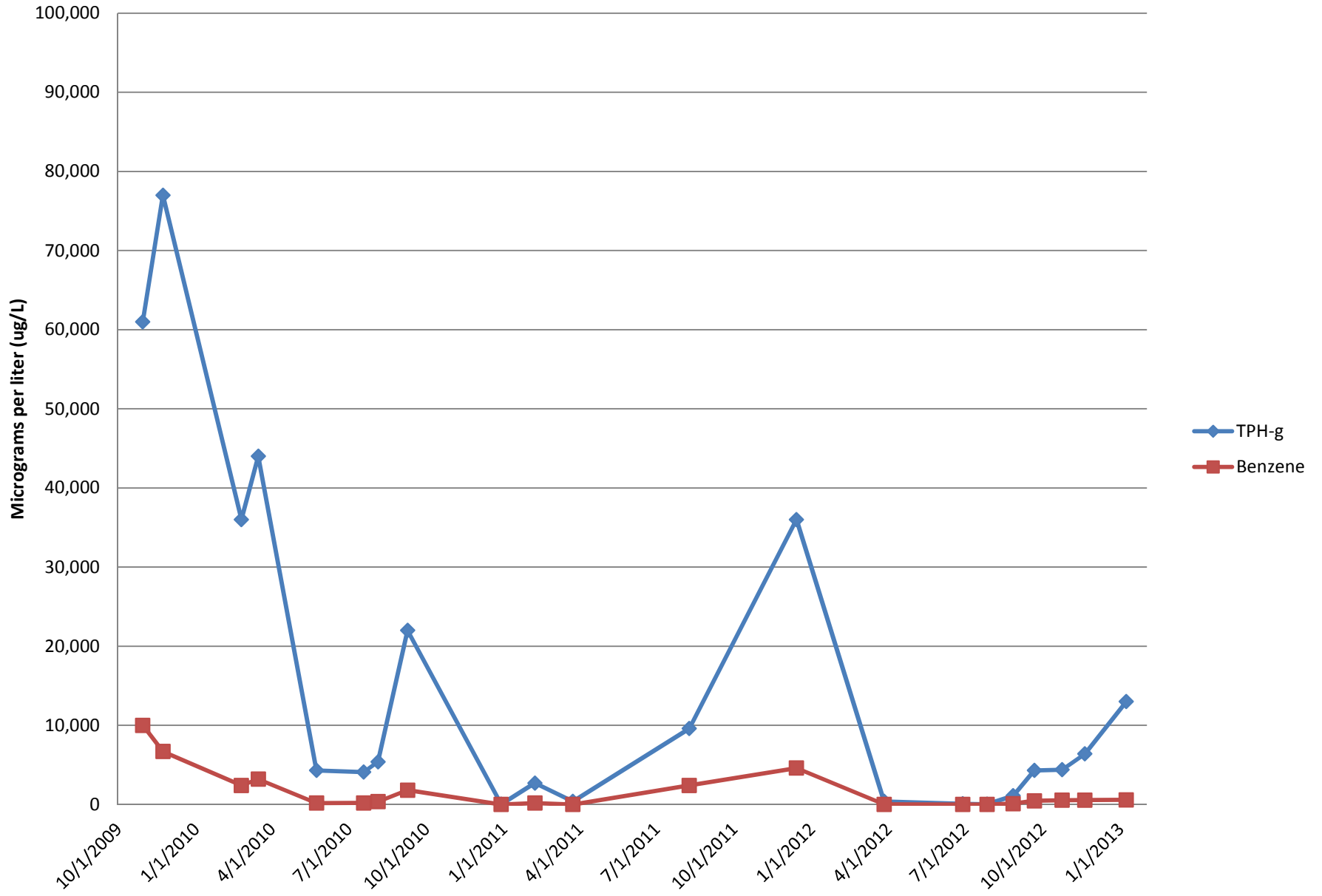
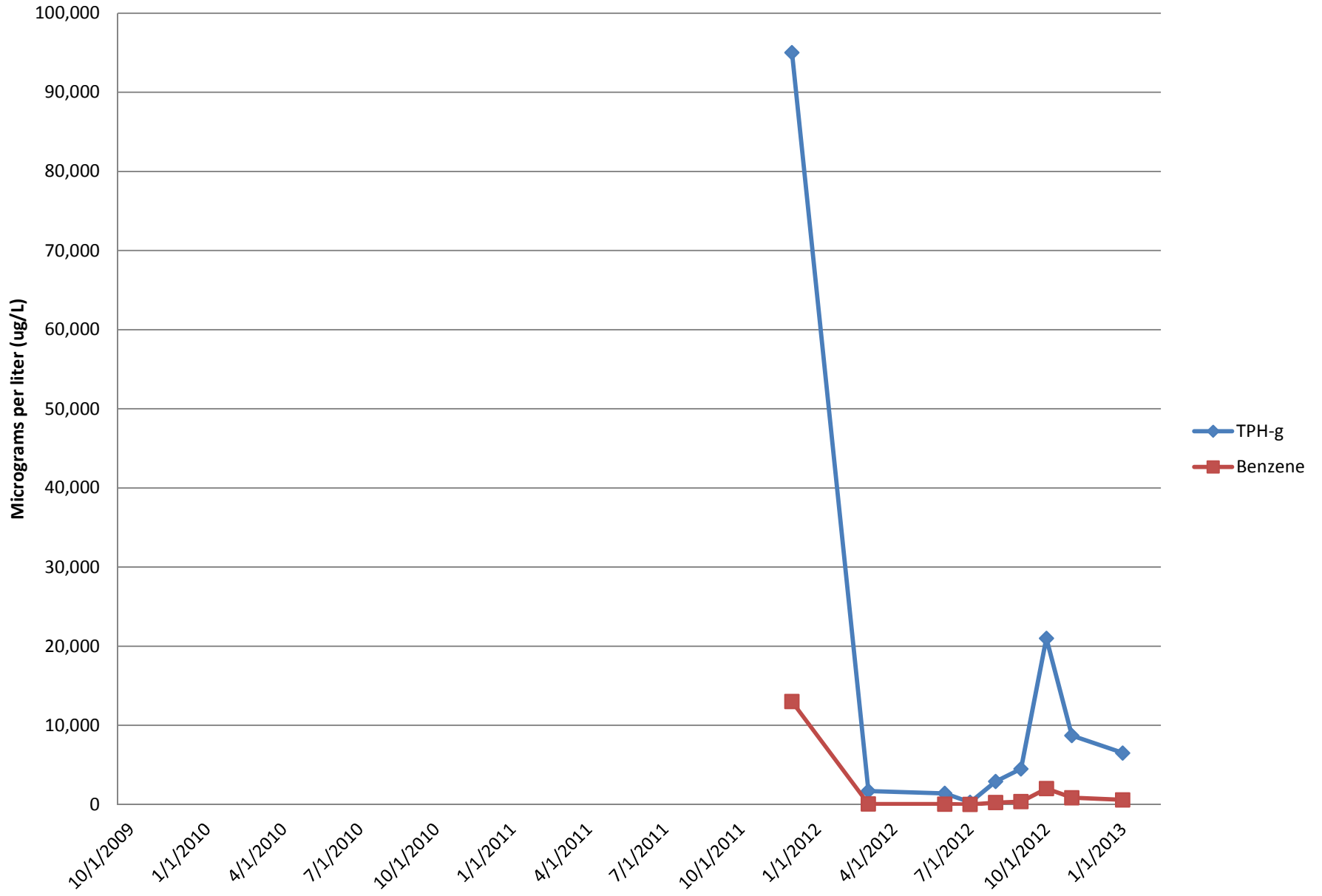


Figure 12 - IW-4 TPH-g, Benzene vs Time



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	10/13/09	15.20**	15.61	15	5 - 15	0.010	4 - 15	2/12	3 - 4	0.5 - 3
IW-2	10/13/09	15.04**	15.63	15	5 - 15	0.010	4 - 15	2/12	3 - 4	0.5 - 3
IW-3	10/13/09	15.29**	15.60	15	5 - 15	0.010	4 - 15	2/12	3 - 4	0.5 - 3
IW-4	12/01/11	14.74	15.66	15	5 - 15	0.010	4 - 15	2/12	3 - 4	1 - 3
IW-5	12/01/11	14.54	15.64	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, 02/09/2010

15.29** = Casing elevation changes, 12/06/2012

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
	3/24/2011	14.87	7.66	7.21	1.09
	12/14/2011	14.87	8.85	6.02	-1.19
	6/28/2012	14.87	8.41	6.46	0.44
	9/21/2012	14.87	8.72	6.15	-0.31
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
	3/24/2011	15.27	7.89	7.38	1.15
	12/14/2011	15.27	9.17	6.10	-1.28
	6/28/2012	15.27	8.80	6.47	0.37
	9/21/2012	15.27	9.02	6.25	-0.22
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	8.73	6.38	-0.20
	3/24/2011	15.11	7.35	7.76	1.38
	12/14/2011	15.11	8.78	6.33	-1.43
	6/28/2012	15.20	8.41	6.79	0.37
9/21/2012	15.20	8.61	6.59	-0.20	

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	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
	12/14/2011	15.20**	8.85	6.35	-1.49
	6/28/2012	15.20	8.41	6.79	0.44
	9/21/2012	15.20	8.66	6.54	-0.25
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
	12/14/2011	15.04**	8.72	6.32	-1.46
	6/28/2012	15.29	8.45	6.84	0.27
9/21/2012	15.29	8.54	6.75	-0.09	
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
	12/14/2011	15.29**	8.91	6.38	-1.47
	6/28/2012	15.29	8.45	6.84	0.46
9/21/2012	15.29	8.75	6.54	-0.30	
IW-4	12/14/2011	14.74	8.38	6.36	----
	6/28/2012	14.74	7.92	6.82	0.46
	9/21/2012	14.74	8.22	6.52	-0.30
IW-5	12/14/2011	14.54	8.18	6.36	----
	6/28/2012	14.54	7.72	6.82	0.46
	9/21/2012	14.54	8.01	6.53	-0.29

Notes

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

15.29** = Casing elevation changes, 12/14/2011

**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	-	<5.0	<0.5	<0.5	<0.5	<0.5	
	3/24/2011	7.66	<50	-	<5.0	<0.5	<0.5	<0.5	<0.5	
	12/14/2011	8.85	<50	-	<5.0	<0.5	<0.5	<0.5	<0.5	
	6/28/2012	8.41	<50	-	<5.0	<0.5	<0.5	<0.5	<0.5	
9/21/2012	8.72	<50	<50	<5.0	<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	-	<5.0	<0.5	<0.5	<0.5	<0.5	
	3/24/2011	7.89	<50	-	<5.0	<0.5	<0.5	<0.5	<0.5	
	12/14/2011	9.17	<50	-	<5.0	<0.5	<0.5	<0.5	<0.5	
	6/28/2012	8.80	<50	-	<5.0	<0.5	<0.5	<0.5	<0.5	
9/21/2012	9.02	<50	<50	<5.0	<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	6,800	
	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		

**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-3 continued	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	
	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	
	8/9/2011	-	590	200	<5.0	38	2.3	<0.5	60	
	12/14/2011	8.78	4,900	1,000	<120	1,400	28	54	250	
	6/28/2012	8.30	<50	-	<5.0	<0.5	<0.5	<0.5	0.86	
	7/27/2012	8.48	<50	-	<5.0	<0.5	<0.5	<0.5	<0.5	
	8/27/2012	8.59	51	<50	<5.0	2.4	<0.5	<0.5	4.9	
	9/21/2012	8.61	<50	<50	<5.0	<0.5	<0.5	<0.5	<0.5	
	10/24/2012	-	510	-	32	100	3.2	3.7	10	
11/20/2012	-	850	-	9.2	290	8.2	11.0	23		
1/8/2013	-	390	-	<5.0	24	1.5	<5.0	17		
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	-	<5.0	<0.5	<0.5	<0.5	<0.5	
	3/24/2011	7.36	<50	-	<5.0	<0.5	<0.5	<0.5	<0.5	
	12/14/2011	8.85	<50	-	<5.0	<0.5	<0.5	<0.5	<0.5	
	6/28/2012	8.41	<50	-	<5.0	<0.5	<0.5	<0.5	<0.5	
	9/21/2012	8.66	<50	-	<5.0	<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	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	
	8/9/2011	-	1,700	-	<10	40	2.5	1.9	270	
	12/14/2011	8.72	2,900	710	<50	110	5.9	29	430	
	6/28/2012	8.28	<50	-	<5.0	<0.5	<0.5	<0.5	<0.5	
	9/21/2012	8.54	91	<50	<5.0	0.89	<0.5	<0.5	7.5	
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	

**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-3 continued	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	
	8/9/2011	-	9,600	800	<250	2400	940	150	1,300	
	12/14/2011	8.91	36,000	4,200	<450	4,600	2,700	300	4,000	
	3/27/2012	-	390	-	<5.0	8.8	11	1.3	58	
	6/28/2012	8.45	91	-	<5.0	1.1	1.6	<0.5	3.7	
	7/27/2012	8.6	<50	-	<5.0	<0.5	<0.5	<0.5	<0.5	
	8/27/2012	8.72	1,100	-	<45	100	160	5.1	150	
	9/21/2012	8.75	4,300	360	<50	460	580	32	560	
	10/24/2012	-	4,400	-	51	540	880	26	730	
11/20/2012		6,400	-	<50	550	1000	34	940		
1/8/2013		13,000	-	<250	2,300	660	210	1,900		
IW-4	12/14/2011	8.38	95,000	5,600	<1,000	13,000	13,000	1,200	7,400	
	3/27/2012	-	1,700	-	<5.0	64	150	29	160	
	6/28/2012	7.92	1,400	-	<5.0	49	190	29	140	
	7/27/2012	8.03	270	-	<5.0	2.0	4.3	1.5	3.4	
	8/27/2012	8.16	2,900	-	<50	230	520	46	260	
	9/21/2012	8.22	4,500	150	<50	350	820	64	370	
	10/24/2012	-	21,000	-	ND<250	2,000	4,000	350	2,100	
	11/20/2012		8,700	-	<100	850	1,900	140	910	
1/8/2013		6,500	-	<90	580	1,100	81	660		
IW-5	12/14/2011	8.18	250	190	<5.0	11	0.56	<0.5	8.0	
	6/28/2012	7.72	<50	-	<5.0	<0.5	<0.5	<0.5	<0.5	
	9/21/2012	8.01	<50	<50	<5.0	<0.5	<0.5	<0.5	<0.5	
GW ESL (NDW) Gross Contamination			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-C23)
- Benzene, toluene, ethylbenzene, and xylenes using EPA Method 8021B
- MTBE = methyl-tertiary butyl ether
- mg/L= micrograms per liter
- 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-3

Project Name:	ALLEN	Date of Sampling:	11-20-12
Job Number:	277925	Name of Sampler:	J. Sigg
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	18.00		
Depth to Water (from top of casing)	8.63		
Water Elevation (feet above msl)	15.26		
Well Volumes Purged	Micropurged with peristaltic pump		
Actual Volume Purged (liters)	4.0 5		
Appearance of Purge Water	light yellow 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
0649	1	18.65	8.01	621	5.37	63.1	
	2	18.74	7.97	630	4.94	57.4	
	3	18.79	7.94	634	4.32	52.7	
	4	18.82	7.92	636	4.17	50.2	
0700	5	18.85	7.90	640	4.06	48.6	

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

Purge line @ 10.0 ft b gs

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: IW-3

Project Name:	ALLEN	Date of Sampling:	11-26-12
Job Number:	277925	Name of Sampler:	J. Sigg
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	18.00		
Depth to Water (from top of casing)	8.76		
Water Elevation (feet above msl)	15.26		
Well Volumes Purged	Micropurged with peristaltic pump		
Actual Volume Purged (liters)	40 S		
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
0735	1	18.73	7.08	287	5.83	121.4	
	2	18.80	7.01	289	5.08	87.7	
	3	18.85	6.97	291	4.78	83.5	
	4	18.86	6.95	295	4.39	80.1	
0745	5	18.88	6.95	297	4.27	78.7	

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

Purge line @ 10.0 ft bgs

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: IW-4

Project Name:	ALLEN	Date of Sampling:	11-20-12
Job Number:	277925	Name of Sampler:	J. Sigg
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)			
Depth of Well			
Depth to Water (from top of casing)	8.20		
Water Elevation (feet above msl)			
Well Volumes Purged	Micropurged with peristaltic pump		
Actual Volume Purged (liters)	40 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
0820	1	18.73	7.39	204	5.82	121.5	
	2	18.82	8.21	199	4.77	118.7	
	3	18.90	8.54	198	4.52	112.4	
	4	18.92	8.52	192	4.17	108.2	
0830	5	18.98	8.51	189	3.97	106.1	

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

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:	1-8-13
Job Number:	277925	Name of Sampler:	J. Sigg
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	18.00		
Depth to Water (from top of casing)	7.70		
Water Elevation (feet above msl)	15.26		
Well Volumes Purged	Micropurged with peristaltic pump		
Actual Volume Purged (liters)	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
0920	1	18.32	7.96	652	5.02	77.8	
	2	18.39	7.94	655	4.73	72.3	
	3	18.43	7.94	657	4.22	70.7	
	4	18.46	7.93	659	3.98	68.2	
0940	5	18.50	7.93	661	3.81	66.4	

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

Purge line @ 10.0 ft b gs

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: IW-3

Project Name:	ALLEN	Date of Sampling:	1-8-13
Job Number:	277925	Name of Sampler:	J. Sigg
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)			
Depth of Well			
Depth to Water (from top of casing)	7.81		
Water Elevation (feet above msl)			
Well Volumes Purged	Micropurged with peristaltic pump		
Actual Volume Purged (liters)	5		
Appearance of Purge Water	Clean		
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
0950	1	18.25	7.10	322	5.40		
	2	18.32	7.05	327	4.98		
	3	18.39	6.97	329	4.67		
	4	18.45	6.96	332	4.32		
1000	5	18.49	6.96	333	4.07		

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

Purge line @ 10.0 ft b gs

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: IW-4

Project Name:	ALLEN	Date of Sampling:	1-8-13
Job Number:	277925	Name of Sampler:	J. Sigg
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)			
Depth of Well			
Depth to Water (from top of casing)	7.23		
Water Elevation (feet above msl)			
Well Volumes Purged	Micropurged with peristaltic pump		
Actual Volume Purged (liters)	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
1010	1	18.37	8.01	303	4.82	152.4	
	2	18.45	8.13	294	4.27	149.7	
	3	18.49	8.18	288	3.98	142.3	
1020	4	18.52	8.21	272	3.80	138.2	
	5	18.55	8.24	267	3.72	133.1	

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

Purge line @ 10.0 ft b gs

APPENDIX B

LABORATORY ANALYTICAL AND CHAIN OF CUSTODY DOCUMENTATION





Analytical Report

AEI Consultants 2500 Camino Diablo, Ste.#200 Walnut Creek, CA 94597	Client Project ID: #277915; Allen	Date Sampled: 10/24/12
		Date Received: 10/24/12
	Client Contact: Robert Flory	Date Reported: 10/29/12
	Client P.O.: #WC083825	Date Completed: 10/26/12

WorkOrder: 1210797

October 30, 2012

Dear Robert:

Enclosed within are:

- 1) The results of the **3** analyzed samples from your project: **#277915; Allen,**
- 2) QC data for the above samples, and
- 3) A copy of the chain of custody.

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.

The analytical results relate only to the items tested.

1210797

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 #: WCO083825
 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								
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)	

(+)
(S)
(F)

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED								
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other					
MW-3		10-24-12	1000	3	VOA	X					X	X							
IW-3			0940	3	VOA	X					X	X							
IW-4			0925	3	VOA	X					X	X							

Relinquished By: *[Signature]* Date: 10-24-12 Time: 1040 Received By: *[Signature]*
 Relinquished By: Date: Time: Received By:
 Relinquished By: Date: Time: Received By:

ICE# 6-6i
 GOOD CONDITION
 HEAD SPACE ABSENT
 DECHLORINATED IN LAB PRESERVED IN LAB
 PRESERVATION APPROPRIATE
 CONTAINERS
 VQAS O&G METALS OTHER

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



CHAIN-OF-CUSTODY RECORD

WorkOrder: 1210797

ClientCode: AEL

WaterTrax
 WriteOn
 EDF
 Excel
 EQuIS
 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: #WC083825
 ProjectNo: #277915; Allen

Bill to:
 Sara Guerin
 AEI Consultants
 2500 Camino Diablo, Ste. #200
 Walnut Creek, CA 94597
 AccountsPayable@AEIConsultants.c

Requested TAT: 5 days

Date Received: 10/24/2012

Date Printed: 10/24/2012

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	
1210797-001	MW-3	Water	10/24/2012 10:00	<input type="checkbox"/>	A	A											
1210797-002	IW-3	Water	10/24/2012 9:40	<input type="checkbox"/>	A												
1210797-003	IW-4	Water	10/24/2012 9:25	<input type="checkbox"/>	A												

Test Legend:

1	G-MBTX_W	2	PREFD REPORT	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

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: **10/24/2012 11:09:08 AM**
 Project Name: **#277915; Allen** Login Reviewed by: **Melissa Valles**
 WorkOrder N°: **1210797** Matrix: Water Carrier: Client Drop-In

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Container/Temp Blank temperature Cooler Temp: 6.6°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.

 Comments:



Table with client information: AEI Consultants, Client Project ID: #277915; Allen, Date Sampled: 10/24/12, Date Received: 10/24/12, Client Contact: Robert Flory, Date Extracted: 10/24/12-10/26/12, Client P.O.: #WC083825, Date Analyzed: 10/24/12-10/26/12

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1210797

Main data table with columns: Lab ID, Client ID, Matrix, TPH(g), MTBE, Benzene, Toluene, Ethylbenzene, Xylenes, DF, % SS, Comments. Contains rows 001A through 003A.

Reporting Limit table with columns for W and S, and rows for µg/L and mg/Kg.

* water and vapor samples are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in ug/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:

BatchID: 71945

WorkOrder: 1210797

EPA Method:		Extraction: SW5030B					Spiked Sample ID: 1210704-002A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
			% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
TPH(btex) [£]	ND	60	107	113	5.38	105	70 - 130	20	80 - 120	
MTBE	ND	10	90.7	92.1	1.56	86.5	70 - 130	20	80 - 120	
Benzene	ND	10	103	104	1.59	102	70 - 130	20	80 - 120	
Toluene	ND	10	102	104	1.51	105	70 - 130	20	80 - 120	
Ethylbenzene	ND	10	104	106	1.50	104	70 - 130	20	80 - 120	
Xylenes	ND	30	107	109	1.91	108	70 - 130	20	80 - 120	
%SS:	96	10	99	96	3.32	97	70 - 130	20	70 - 130	

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

BATCH 71945 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1210797-001A	10/24/12 10:00 AM	10/26/12	10/26/12 2:46 AM	1210797-002A	10/24/12 9:40 AM	10/24/12	10/24/12 10:57 PM
1210797-003A	10/24/12 9:25 AM	10/26/12	10/26/12 4:15 AM				

DHS ELAP Certification 1644

 QA/QC Officer



Analytical Report

AEI Consultants 2500 Camino Diablo, Ste.#200 Walnut Creek, CA 94597	Client Project ID: #277915; Allen	Date Sampled: 11/20/12
		Date Received: 11/20/12
	Client Contact: Robert Flory	Date Reported: 11/27/12
	Client P.O.: WC083869	Date Completed: 11/27/12

WorkOrder: 1211565

November 28, 2012

Dear Robert:

Enclosed within are:

- 1) The results of the **3** analyzed samples from your project: **#277915; Allen,**
- 2) QC data for the above samples, and
- 3) A copy of the chain of custody.

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.

The analytical results relate only to the items tested.

1211565

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 #: ~~WCO083825~~ **WCO83869**
 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						
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)

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED							
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other				
MW-3		11-20-12	0700	3	VOA	X					X	X						
IW-3		↓	0745	3	VOA	X					X	X						
IW-4		↓	0830	3	VOA	X					X	X						

Relinquished By: *[Signature]* Date: 11/20/12 Time: 0926 Received By: *[Signature]*
 Relinquished By: Date: Time: Received By:
 Relinquished By: Date: Time: Received By:

ICE/c° 3.7°
 GOOD CONDITION yes
 HEAD SPACE ABSENT
 DECHLORINATED IN LAB
 PRESERVATION APPROPRIATE CONTAINERS
 PERSERVED IN LAB
 VOAS O&G METALS OTHER



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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1211565

ClientCode: AEL

WaterTrax
 WriteOn
 EDF
 Excel
 EQuIS
 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: WC083869
 ProjectNo: #277915; Allen

Bill to:
 Sara Guerin
 AEI Consultants
 2500 Camino Diablo, Ste. #200
 Walnut Creek, CA 94597
 AccountsPayable@AEIConsultants.c

Requested TAT: 5 days

Date Received: 11/20/2012

Date Printed: 11/20/2012

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	
1211565-001	MW-3	Water	11/20/2012 7:00	<input type="checkbox"/>	A	A											
1211565-002	IW-3	Water	11/20/2012 7:45	<input type="checkbox"/>	A												
1211565-003	IW-4	Water	11/20/2012 8:30	<input type="checkbox"/>	A												

Test Legend:

1	G-MBTX_W	2	PREFD REPORT	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Rosa 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: **11/20/2012 10:29:24 AM**
 Project Name: **#277915; Allen** Login Reviewed by: **Rosa Venegas**
 WorkOrder N°: **1211565** Matrix: Water Carrier: Client Drop-In

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Container/Temp Blank temperature Cooler Temp: 3.7°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.

 Comments:



AEI Consultants 2500 Camino Diablo, Ste.#200 Walnut Creek, CA 94597	Client Project ID: #277915; Allen	Date Sampled: 11/20/12
		Date Received: 11/20/12
	Client Contact: Robert Flory	Date Extracted: 11/21/12-11/26/12
	Client P.O.: WC083869	Date Analyzed: 11/21/12-11/26/12

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1211565

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-3	W	850	9.2	290	8.2	11	23	1	114	d1
002A	IW-3	W	6400	ND<50	550	1000	34	940	10	96	d1
003A	IW-4	W	8700	ND<100	850	1900	140	910	20	104	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: 72665

WorkOrder: 1211565

EPA Method: SW8021B/8015Bm		Extraction: SW5030B					Spiked Sample ID: 1211605-001A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
TPH(btex) [£]	ND	60	93	97.5	4.75	109	70 - 130	20	80 - 120	
MTBE	ND	10	89.3	95.7	6.93	101	70 - 130	20	80 - 120	
Benzene	ND	10	103	102	0.187	108	70 - 130	20	80 - 120	
Toluene	ND	10	102	103	1.25	108	70 - 130	20	80 - 120	
Ethylbenzene	ND	10	102	104	1.75	107	70 - 130	20	80 - 120	
Xylenes	ND	30	102	104	2.05	106	70 - 130	20	80 - 120	
%SS:	108	10	102	100	1.52	100	70 - 130	20	70 - 130	

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

BATCH 72665 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1211565-001A	11/20/12 7:00 AM	11/21/12	11/21/12 6:34 PM	1211565-001A	11/20/12 7:00 AM	11/26/12	11/26/12 3:23 PM
1211565-002A	11/20/12 7:45 AM	11/26/12	11/26/12 3:53 PM	1211565-003A	11/20/12 8:30 AM	11/26/12	11/26/12 4:23 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.



Analytical Report

AEI Consultants 2500 Camino Diablo, Ste.#200 Walnut Creek, CA 94597	Client Project ID: #277915; Allen	Date Sampled: 01/08/13
		Date Received: 01/08/13
	Client Contact: Robert Flory	Date Reported: 01/14/13
	Client P.O.: #WCO83907	Date Completed: 01/14/13

WorkOrder: 1301125

January 14, 2013

Dear Robert:

Enclosed within are:

- 1) The results of the **3** analyzed samples from your project: **#277915; Allen,**
- 2) QC data for the above samples, and
- 3) A copy of the chain of custody.

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.

The analytical results relate only to the items tested.

1301125

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 #: WCO83907
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

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)	

(+)
(+)
(+)

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED								
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other					
MW-3		1-8-13	0940	3	VOA	X					X	X							
IW-3		1-8-13	1000	3	VOA	X					X	X							
IW-4		1-8-13	1020	3	VOA	X					X	X							

Relinquished By: *[Signature]* Date: 1-8-13 Time: 1107 Received By: *[Signature]*
Relinquished By: Date: Time: Received By:
Relinquished By: Date: Time: Received By:

ICE/t° 2.4
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB _____ PRESERVED IN LAB _____
PRESERVATION APPROPRIATE CONTAINERS ✓
VOAS O&G METALS OTHER



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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1301125

ClientCode: AEL

WaterTrax
 WriteOn
 EDF
 Excel
 EQuIS
 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: #277915; Allen

Bill to:

Sara Guerin
 AEI Consultants
 2500 Camino Diablo, Ste. #200
 Walnut Creek, CA 94597
 AccountsPayable@AEIConsultants.co

Requested TAT:

5 days

Date Received: **01/08/2013**

Date Printed: **01/08/2013**

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	
1301125-001	MW-3	Water	1/8/2013 9:40	<input type="checkbox"/>	A	A											
1301125-002	IW-3	Water	1/8/2013 10:00	<input type="checkbox"/>	A												
1301125-003	IW-4	Water	1/8/2013 10:20	<input type="checkbox"/>	A												

Test Legend:

1	G-MBTX_W	2	PREFD REPORT	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Rosa 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: **1/8/2013 12:37:17 PM**
 Project Name: **#277915; Allen** Login Reviewed by: **Rosa Venegas**
 WorkOrder N°: **1301125** 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: 2.4°C NA
 Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
 Sample labels checked for correct preservation? Yes No
 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.

 Comments:



AEI Consultants 2500 Camino Diablo, Ste.#200 Walnut Creek, CA 94597	Client Project ID: #277915; Allen	Date Sampled: 01/08/13
		Date Received: 01/08/13
	Client Contact: Robert Flory	Date Extracted: 01/10/13-01/12/13
	Client P.O.: #WCO83907	Date Analyzed: 01/10/13-01/12/13

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1301125

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-3	W	390	ND	24	1.5	ND	17	1	---#	d1
002A	IW-3	W	13,000	ND<250	2300	660	210	1900	50	116	d1
003A	IW-4	W	6500	ND<90	580	1100	81	660	10	112	d1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	0.5	0.5	µg/L
	S	1.0	0.05	0.005	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: 73901

WorkOrder: 1301125

EPA Method: SW8021B/8015Bm		Extraction: SW5030B					Spiked Sample ID: 1301194-008A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
TPH(btex) £	ND	60	94.9	100	5.26	96.3	70 - 130	20	70 - 130	
MTBE	ND	10	83.9	87.7	4.41	89	70 - 130	20	70 - 130	
Benzene	ND	10	87	93.6	7.26	95.9	70 - 130	20	70 - 130	
Toluene	ND	10	86.7	94	8.13	96	70 - 130	20	70 - 130	
Ethylbenzene	ND	10	84.9	91.7	7.60	94.5	70 - 130	20	70 - 130	
Xylenes	ND	30	85.6	91.4	6.46	94.2	70 - 130	20	70 - 130	
%SS:	105	10	98	100	1.93	104	70 - 130	20	70 - 130	

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

BATCH 73901 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1301125-001A	01/08/13 9:40 AM	01/10/13	01/10/13 7:46 PM	1301125-002A	01/08/13 10:00 AM	01/11/13	01/11/13 3:05 AM
1301125-003A	01/08/13 10:20 AM	01/12/13	01/12/13 3:45 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 £ 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.