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November 8, 2013

Ms. Keith Nowell
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: **Quarterly Summary Report, Third Quarter 2013**

Site: **76 Station No. 5191/5043**
449 Hegenberger Road
Oakland, California
Fuel Leak Case No. RO0000219

Dear Mr. Nowell;

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

If you have any questions or need additional information, please call:

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Sincerely,

PACIFIC CONVENIENCE & FUEL

WALTER SPRAGUE
Director of Retail Services

Attachment

Quarterly Summary Report, Third Quarter 2013

76 Station No. 5191/5043
449 Hegenberger Road
Oakland, California

Alameda County Health Care Services
Agency Fuel Leak Case No. RO0000219

San Francisco Bay, Regional Water Quality
Control Board Case No. 01-1601

GeoTracker Global ID No.T0600101476

Antea Group Project No. I42705191

November 8, 2013

Prepared for:
Mr. Keith Nowell
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
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1.0 INTRODUCTION

Antea™Group is pleased to submit this *Quarterly Summary Report, Third Quarter 2013*, for the referenced site in Oakland, California (**Figure 1**). The subject site is an operating 76 station located on the southwestern corner of Hegenberger Road and Edgewater Drive in Oakland, CA. Station facilities include three underground storage tanks (USTs), two dispenser islands, a station building, and a carwash. A total of fourteen groundwater monitoring wells are located at or near the site (**Figures 1 and 2**). Please refer to **Appendix A** for additional site information and for the history of environmental investigations and remedial actions.

This report summarizes the data obtained from the recent groundwater monitoring and sampling event conducted on September 10, 2013. Included herein are site figures, groundwater contaminant data tables, and a discussion of trends. This report has received a technical review by Mr. Dennis Dettloff, California Professional Geologist No. 7480.

1.1 Work Performed [Third Quarter 2013]

1. Antea Group submitted the *Quarterly Summary Report, Second Quarter 2013*, dated July 31, 2013 to the Alameda County Health Care Services Agency (ACHCSA).
2. Antea Group conducted a site investigation on July 25 and 16, 2013.
3. Blaine Tech Services, Inc. (Blaine Tech) conducted the third quarter 2013 groundwater monitoring and sampling event on September 10, 2013.

1.2 Work Proposed [Fourth Quarter 2013]

1. Antea Group will submit the *Quarterly Summary Report, Third Quarter 2013* (contained herein) to the ACHCSA.
2. Blaine Tech will conduct the fourth quarter 2013 monitoring and sampling event.
3. Antea Group will prepare and submit a Feasibility Study/Corrective Action Plan to the ACHCSA for their consideration.
4. Antea Group will prepare and submit a site investigation report to the ACHCSA.
5. Antea Group will prepare and submit a work plan for the installation of down-gradient monitoring wells or borings to the ACHCSA.
6. Antea Group will prepare and submit a path to closure schedule to the ACHCSA.
7. Antea Group will prepare and submit a draft fact sheet to the ACHCSA.

2.0 CURRENT PROJECT STATUS

Current phase of project:	Quarterly Groundwater Monitoring
Local Oversight Program (LOP) – Lead agency for cleanup oversight:	Alameda County Health Care Services Agency Case No. RO0000219
Secondary agency(s):	San Francisco Bay Regional Water Quality Control Board Case No. 01-1601
Monitoring well gauging schedule:	Quarterly: MW-3, MW-6 through MW-12, MW-12A, and MW-13 through MW-17
Monitoring well sampling schedule:	Quarterly: MW-6, MW-10, MW-11, MW-12, MW-12A, and MW-13 through 17 Semi-Annual (second and fourth quarters): MW-3 and MW-7 through MW-9
Total number of monitoring/remediation wells (**Table 1**):	Fourteen (MW-3, MW-6 through MW-12, MW-12A, and MW-13 through MW-17).
Range of well depths (total depth below ground surface, bgs) (**Table 1**):	Wells are set from 13 feet to 34 feet bgs.
Wells with historical measurable LNAPL (light non-aqueous phase liquid):	Former monitoring wells MW-1 and MW-2 and current monitoring well MW-6
Historical depth to water range, in feet below top of casing (BTOC):	Min: 0.07 (MW-9, Q1 2005) Max: 8.42 (MW-6, Q4 2010)
Historical groundwater elevation range (ft) for monitoring wells MW-1 through MW-17	Min: 2.77 (MW-3, Q3 1994) Max: 9.70 (MW-9, Q3 2012)
Local receptors:	See **Appendix A**
Current remediation technique	None

2.1 Regulatory Correspondence

Antea Group did not send or receive any correspondence during the third quarter 2013. However, Antea Group staff met with Ms. Dilan Roe and Mr. Keith Nowell, both from the ACHCSA, at the ACHCSA office on September 13, 2013 to discuss the site and the path forward.

2.2 Remedial Activities

No remedial activities took place during the third quarter 2013.

2.3 Groundwater Monitoring

During the third quarter 2013 groundwater monitoring and sampling event, fourteen monitoring wells were gauged and ten monitoring wells were purged and sampled by Blaine Tech per standard sampling protocol (**Appendix B**). Copies of Blaine Tech's field data sheets are presented as **Appendix C**. The recent gauging and sampling data are summarized below and in **Table 2.** Historical gauging and sampling data are summarized in **Tables 3, 3a, 3b, and 3c**.

Well gauging and sampling date:	September 10, 2013
Wells gauged:	MW-3, MW-6 through MW-12, MW-12A, and MW-13 through MW-17
Wells sampled:	MW-6, MW-12, MW-12A, and MW-13 through MW-17
Purge method:	3 well casing volumes via electric, submersible pump
Sample collection method:	Disposable bailers
Groundwater parameters measured (**Attachment C**):	Temperature, pH, Conductivity, Dissolved Oxygen (DO), Oxidation Reduction Potential (ORP), and Turbidity
Wells with measurable LNAPL:	None
Current depth to water range (ft BTOC):	Min: 2.63 (MW-9) Max: 6.54 (MW-7)
Current groundwater elevation range (ft):	Min: 5.10 (MW-7) Max: 8.31 (MW-9)
Change in water depths from previous event (average change for all gauged wells):	0.63 foot decrease
Groundwater flow direction and gradient in foot per foot (ft/ft):	South at 0.014 ft/ft

2.3.1 Groundwater Flow Gradient and Directional Trends

The third quarter 2013 groundwater monitoring and sampling event was performed by Blaine Tech on September 10, 2013. The average groundwater elevation increased 0.63 feet from the June 2013 event. Depth to groundwater in the site monitoring wells ranged from 2. 63 feet (MW-9) to 6.54 feet (MW-7) BTOC during the current event. The groundwater flow direction and gradient were interpreted to be to the south at 0.014 ft/ft during the current event (**Table 4**).

2.3.2 Groundwater Quality Data

Groundwater samples collected during the third quarter 2013 monitoring and sampling event were submitted with chain-of-custody (COC) documentation to Kiff Analytical LLC (Kiff), a state of California Environmental Laboratory Accreditation Program (ELAP) certified laboratory (Certification No. 08263CA). The complete analytical report and Antea Group's laboratory data validation checklist is presented as **Appendix D**. Groundwater samples were analyzed for one or more of the following:

- Total petroleum hydrocarbons as diesel (TPHd) [silica gel treated] by Environmental Protection Agency (EPA) Method 8015M;
- Total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl tertiary-butyl ether (MTBE), tertiary-butyl alcohol (TBA), and ethanol by EPA Method 8260B;

Groundwater analytical results are presented in **Table 2** (current) and **Tables 3, 3a, 3b, and 3c** (historical). The following ranges of contaminant concentrations were reported in the specified site wells, groundwater samples collected on September 10, 2013. Only the reported contaminants are listed in the table below.

Constituents	Number of Reported Samples Above LRL of the Samples Collected	Minimum Reported Concentration, in µg/L (Sample ID)	Maximum Reported Concentration, in µg/L (Sample ID)
TPHg	5 of 10	68 (MW-15)	36,000 (MW-17)
TPHd	3 of 10	120 (MW-14)	470 (MW-6)
Benzene	4 of 10	52 (MW-12)	8,200 (MW-17)
Toluene	4 of 10	1.9 (MW-12)	510 (MW-17)
Ethylbenzene	4 of 10	6.4 (MW-12)	2,300 (MW-14)
Total Xylenes	7 of 10	0.62 (MW-13)	5,200 (MW-14)
MTBE	7 of 10	6.3 (MW-12A)	820 (MW-12)
TBA	7 of 10	17J (MW-12)	440 (MW-16)

Explanations:
µg/L = Micrograms per liter LRL = Laboratory reporting limit

2.3.3 Groundwater Contaminant Trends

During the third quarter 2013, analytical results from the groundwater sample collected from monitoring well MW-6 indicated that TPHd, TPHg, BTEX, MTBE, and TBA decreased in concentration. Analytical results from the groundwater sample collected from monitoring well MW-10 indicated that total xylenes increased in concentration. Analytical results from the groundwater sample collected from monitoring well MW-11 indicated that MTBE decreased in concentration. Analytical results from the groundwater sample collected from monitoring well MW-12 indicated that TPHd, total xylenes, MTBE, and TBA decreased in concentration and TPHg, benzene, toluene, and ethylbenzene increased in concentration. MTBE concentrations in monitoring well MW-12A increased. MTBE concentration decreased in monitoring well MW-13 and TBA concentration increased. Analytical results from the groundwater sample collected from monitoring well MW-14 indicated an increase in TPHd, TPHg, BTEX, and TBA concentrations. Analytical results from the groundwater sample collected from monitoring well MW-15 indicated an increase in TPHg, MTBE, and TBA concentrations. Analytical results from the groundwater sample collected from monitoring well MW-16 indicated a decrease in MTBE concentration and an increase in total xylenes and TBA concentrations. Analytical results from the groundwater sample collected from monitoring well MW-17 indicated an increase in TBA concentration and a decrease in TPHd, TPHg, and BTEX concentrations. Isoconcentration maps for TPHg, benzene, MTBE, and TPHd are presented on **Figures 4** through **7** and historical groundwater flow directions are shown on **Figure 8**.

2.3.4 Waste Disposal Summary

Approximately 109 gallons of waste water were generated during well purging/sampling and equipment cleaning during the third quarter event. The waste water was transported to Blaine Tech's bulk facility in San Jose, California. After the batching process, the wastewater will be transported to Seaport Environmental in Redwood City, California for disposal.

2.3.5 Quality Assurance / Quality Control

Antea Group's QA/QC measures included use of a field duplicate and a detailed QA/QC data validation check on the Kiff laboratory analytical results for the September 2013 sampling event. Antea Group's laboratory data validation checklist and the Kiff laboratory report are presented as **Appendix D**.

Laboratory QA/QC Performed:	Yes (validated by Antea Group)
Laboratory Data Qualifiers:	Yes – two qualifiers*
Are the data valid for their intended purpose?	Yes, the data are valid

*TBA results for samples MW-12 may be biased slightly high and are flagged with a 'J'. A fraction of MTBE (typically less than 1%) converts to TBA during the analysis of water samples. We consider this conversion effect to be mathematically significant in samples that contain MTBE/TBA ratios of over 20:1.

*Surrogate recovery for sample MW-14 and MW-17 for the test method Mod. EPA 8015 was outside of control limits. This may indicate a bias in the analysis due to the sample's matrix or an interference from compounds present in the sample.

Based on a review of the laboratory's analytical report, including their QA/QC procedures and those implemented by Antea Group, we conclude that the laboratory data obtained during this groundwater sampling event are valid for their intended purpose.

3.0 CONCLUSIONS AND RECOMMENDATIONS

Antea Group recommends that all monitoring wells MW-3 and MW-6 through MW-17 be purged and sampled on a semi-annual basis during the second and fourth quarters of each year. Additional groundwater sampling may be required for the work proposed in the work plan to install down-gradient monitoring wells and the FS/CAP.

4.0 REMARKS

The recommendations contained in this report represent Antea USA, Inc.'s professional opinions based upon the currently available information and are arrived at in accordance with currently accepted professional standards. This report is based upon a specific scope of work requested by the client. For any reports cited that were not generated by Delta or Antea Group, the data from those reports is used "as is" and is assumed to be accurate. Antea Group does not guarantee the accuracy of this data for the referenced work performed nor the inferences or conclusions stated in these reports. The contract between Antea USA, Inc. and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Antea USA, Inc.'s client and anyone else specifically identified in writing by Antea USA, Inc. as a user of this report. Antea USA, Inc. will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Antea USA, Inc. makes no express or implied warranty as to the contents of this report.

Prepared by:

Edward T. Weyrens, G.I.T.
Project Professional

Information, conclusions, and recommendations provided by Antea Group in this document regarding the site have been prepared under the supervision of and reviewed by the licensed professional whose signature appears below.

Licensed Approver:

PROFESSIONAL GEOLOGIST
DENNIS SHANNON DETTLOFF
No. 7480
STATE OF CALIFORNIA

Date: 11/8/13

Dennis S. Dettloff
Senior Project Manager
California Registered Professional Geologist No. 7480

cc: GeoTracker (upload)

Figures

Figure 1 Site Location Map
Figure 2 Site Plan
Figure 3 Groundwater Elevation Contour Map – September 10, 2013
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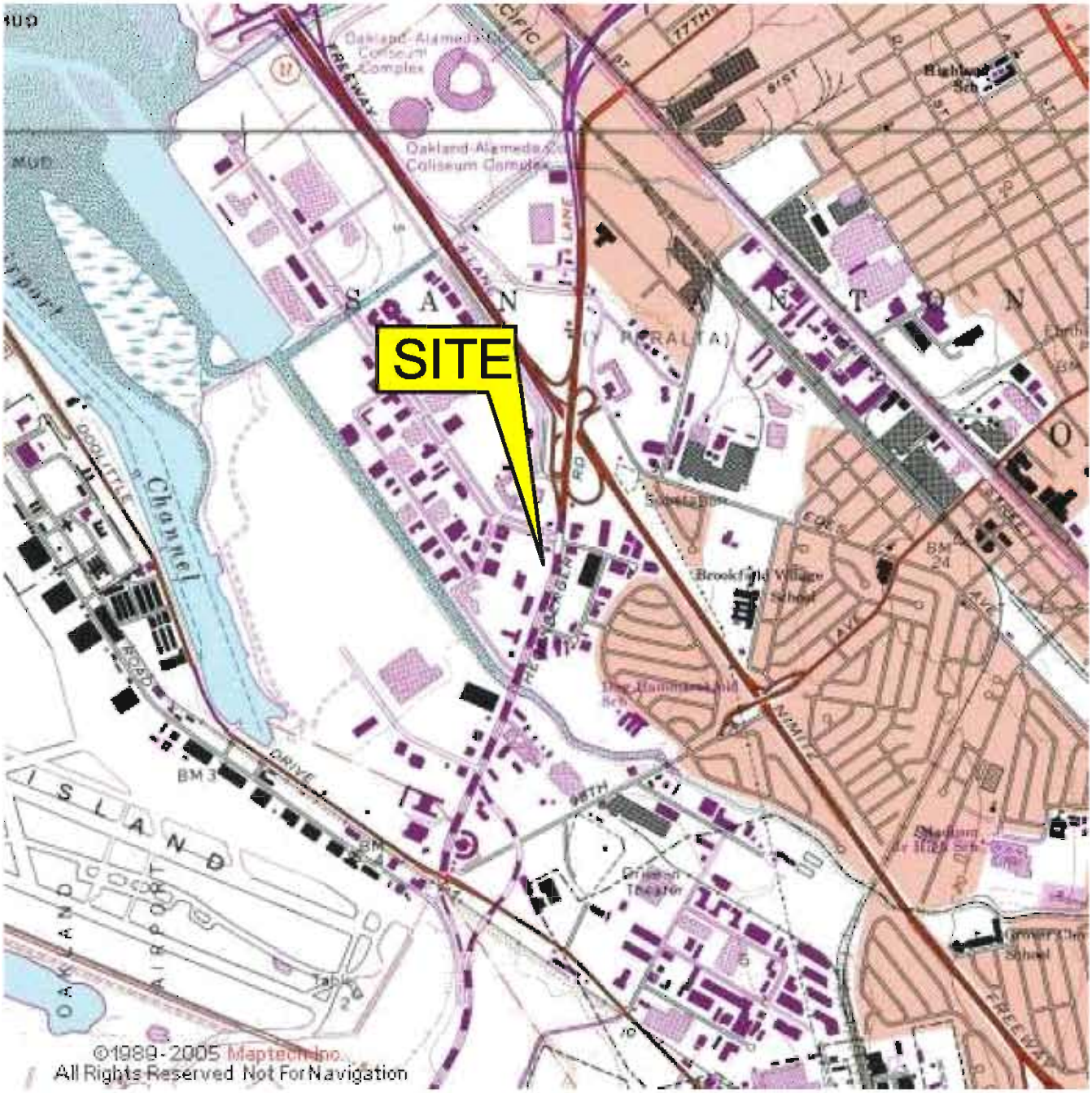
Figure 6 Dissolved Phase MTBE Isoconcentration Map – September 10, 2013
Figure 7 Dissolved Phase TPHd Isoconcentration Map – September 10, 2013
Figure 8 Historical Groundwater Flow Directions



North

0 900 1800 FT
SCALE

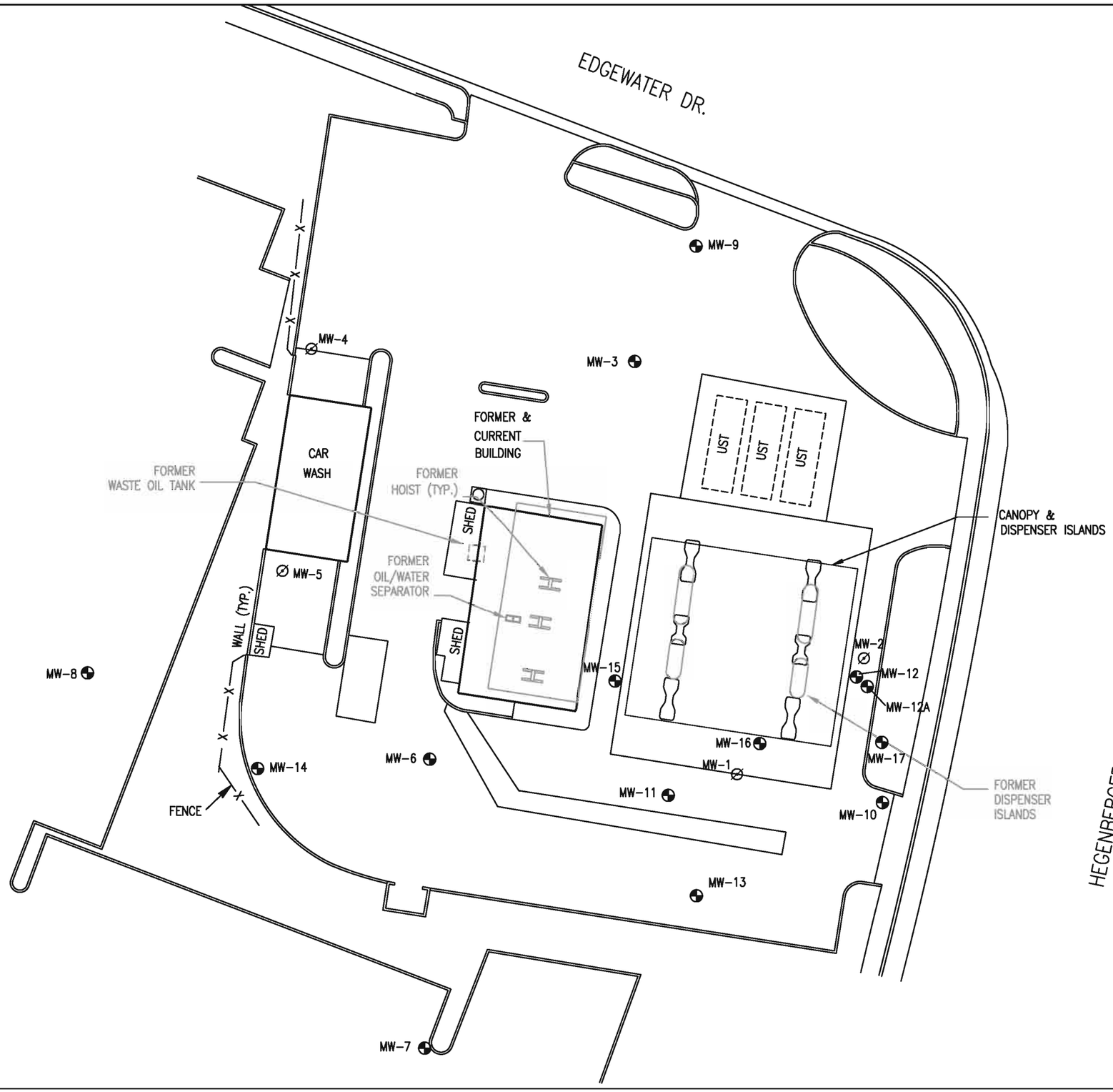
SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP, OAKLAND EAST QUADRANGLE (1973)

FIGURE 1
SITE LOCATION MAP

76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	EW	DR/JH
DATE	REVIEWED BY	FILE NAME
1/31/11	DD	5043-SiteLocator

antea group



LEGEND

- ⊕ MW- MONITORING WELL
- ⊘ MW- ABANDONED MONITORING WELL

North

0 30

SCALE IN FEET

FIGURE 2
SITE PLAN

76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	DD	JH
DATE	REVIEWED BY	FILE NAME
5/26/11	DD	5191-SiteS

anteagroup

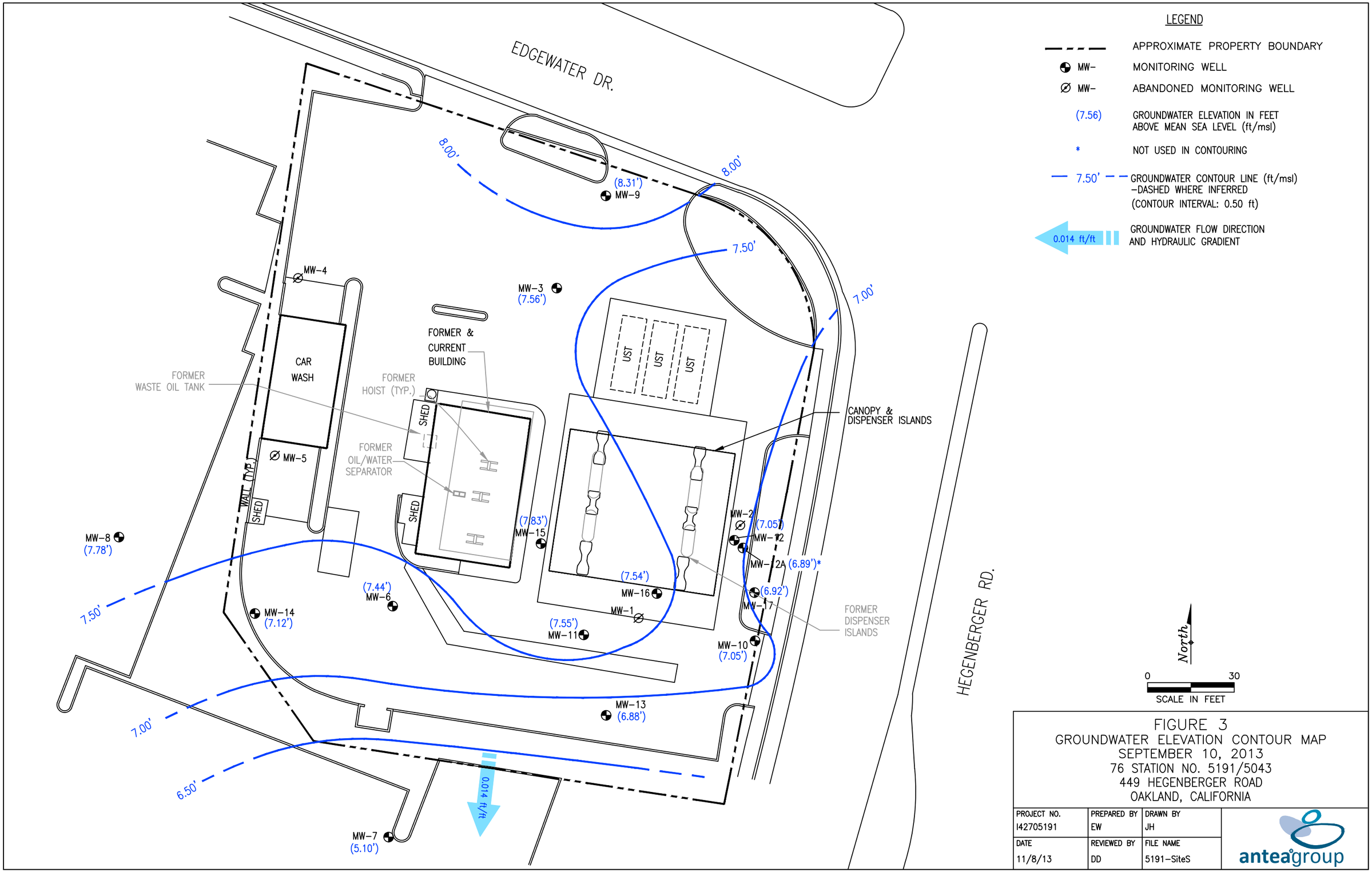
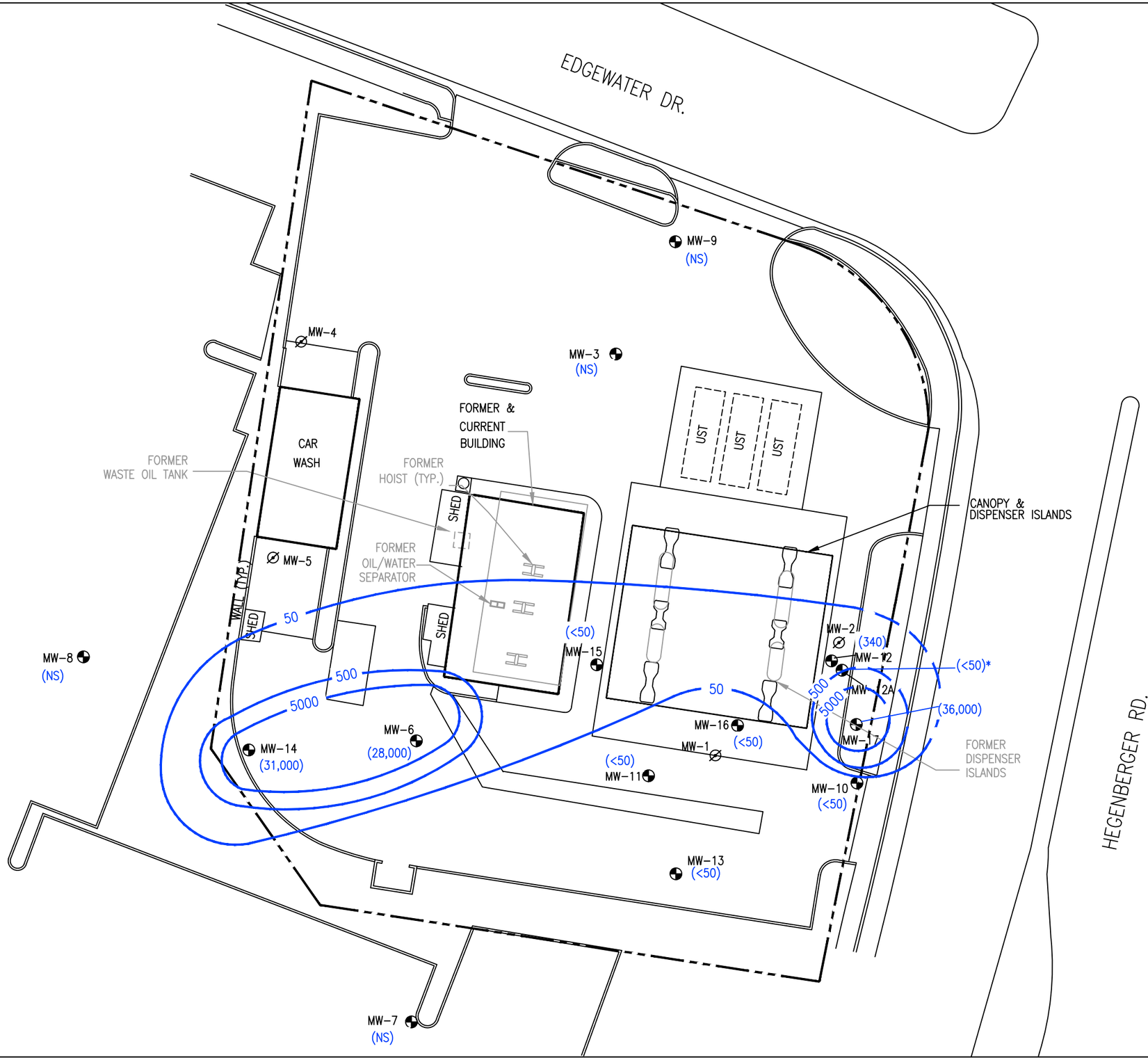


FIGURE 3
GROUNDWATER ELEVATION CONTOUR MAP
SEPTEMBER 10, 2013
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	EW	JH
DATE	REVIEWED BY	FILE NAME
11/8/13	DD	5191-SiteS

antea group



LEGEND

— — —	APPROXIMATE PROPERTY BOUNDARY
⊕ MW–	MONITORING WELL
⊘ MW–	ABANDONED MONITORING WELL
(28,000)	DISSOLVED PHASE TPHg ISOOCONCENTRATION (µg/L)
— 5,000 — —	DISSOLVED PHASE TPHg ISOCONTOUR (µg/L) –DASHED WHERE INFERRED

NOTES:

TPHg = TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
µg/L = MICROGRAMS PER LITER
<50 = LESS THAN LABORATORY INDICATED REPORTING LIMIT
NS = NOT SAMPLED
* = NOT USED IN CONTOURING

North

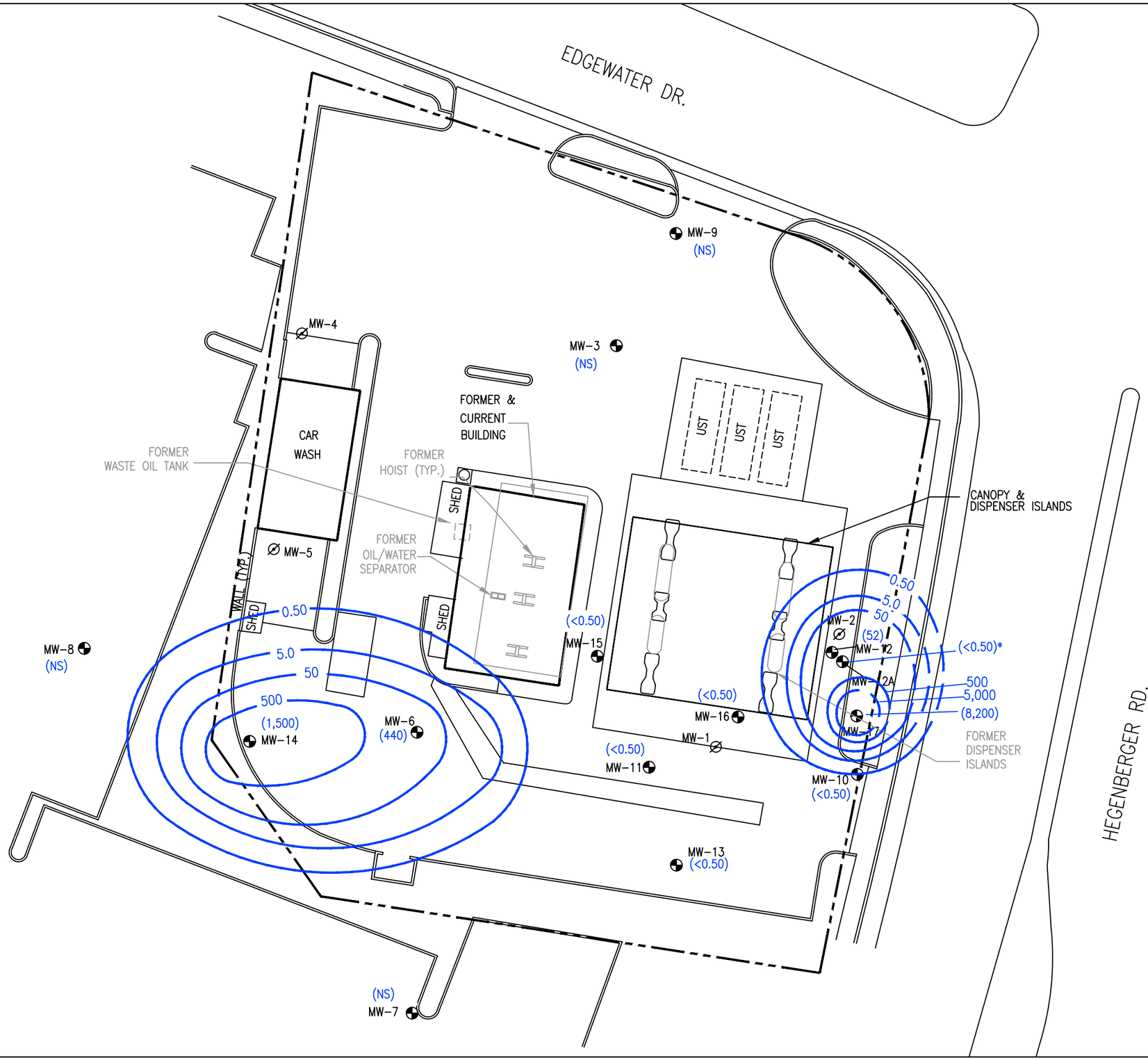
0 30

SCALE IN FEET

FIGURE 4
DISSOLVED PHASE TPHg ISOCONCENTRATION MAP
SEPTEMBER 10, 2013
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	EW	JH
DATE	REVIEWED BY	FILE NAME
11/8/13	DD	5191-SiteS

antea group



LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- MW- MONITORING WELL
- MW- ABANDONED MONITORING WELL
- (440) DISSOLVED PHASE BENZENE ISOOCONCENTRATION (µg/L)
- 500 DISSOLVED PHASE BENZENE ISOCONTOUR (µg/L) –DASHED WHERE INFERRED

NOTES:

µg/L = MICROGRAMS PER LITER
<0.50 = LESS THAN LABORATORY INDICATED REPORTING LIMIT
NS = NOT SAMPLED
* = NOT USED IN CONTOURING

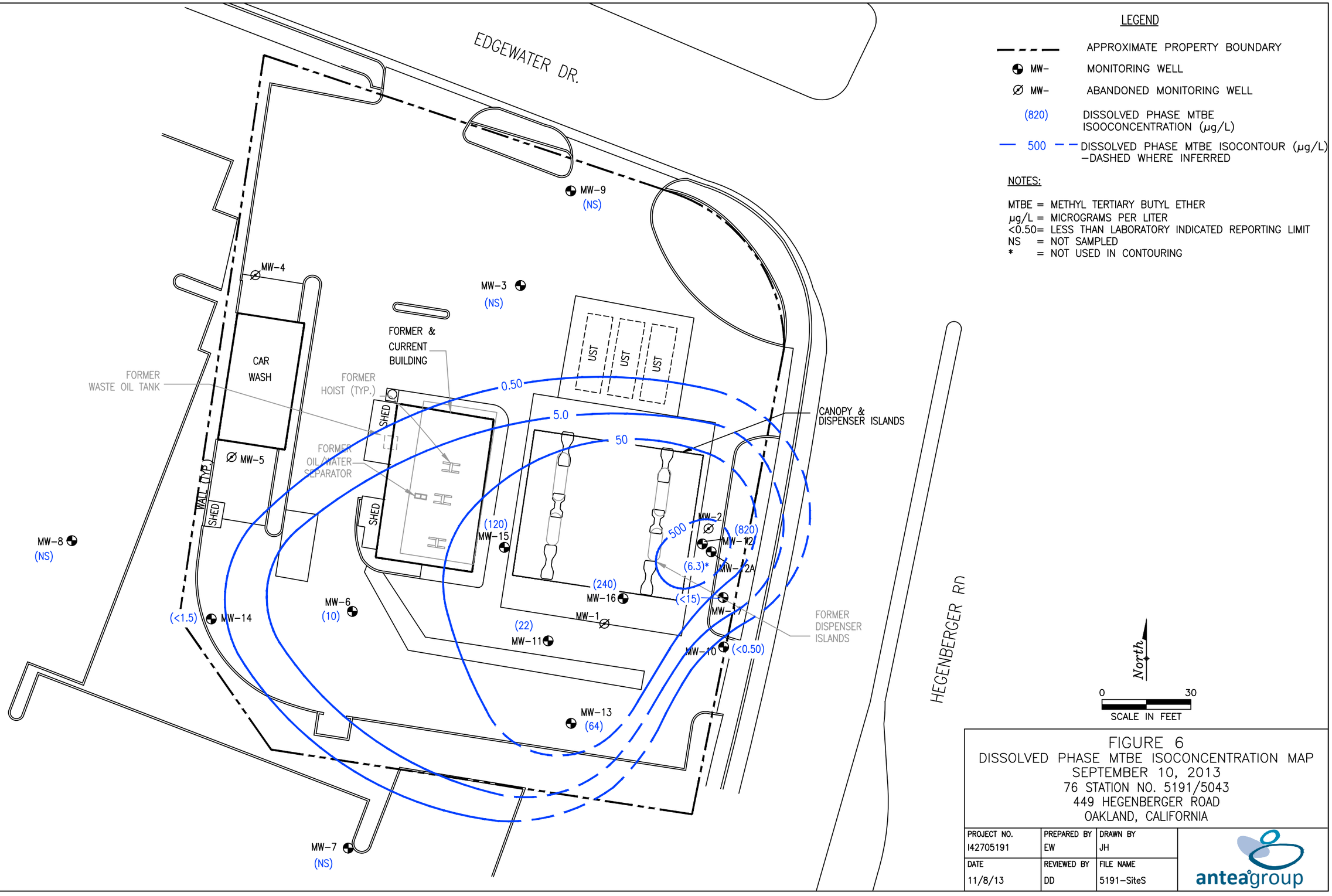
North

0 30
SCALE IN FEET

FIGURE 5
DISSOLVED PHASE BENZENE ISOCONCENTRATION MAP
SEPTEMBER 10, 2013
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	EW	JH
DATE	REVIEWED BY	FILE NAME
11/8/13	DD	5191-SiteS

antea group



LEGEND

— — —	APPROXIMATE PROPERTY BOUNDARY
⊕ MW–	MONITORING WELL
⊘ MW–	ABANDONED MONITORING WELL
(820)	DISSOLVED PHASE MTBE ISOOCONCENTRATION (µg/L)
— 500 — —	DISSOLVED PHASE MTBE ISOCONTOUR (µg/L) –DASHED WHERE INFERRED

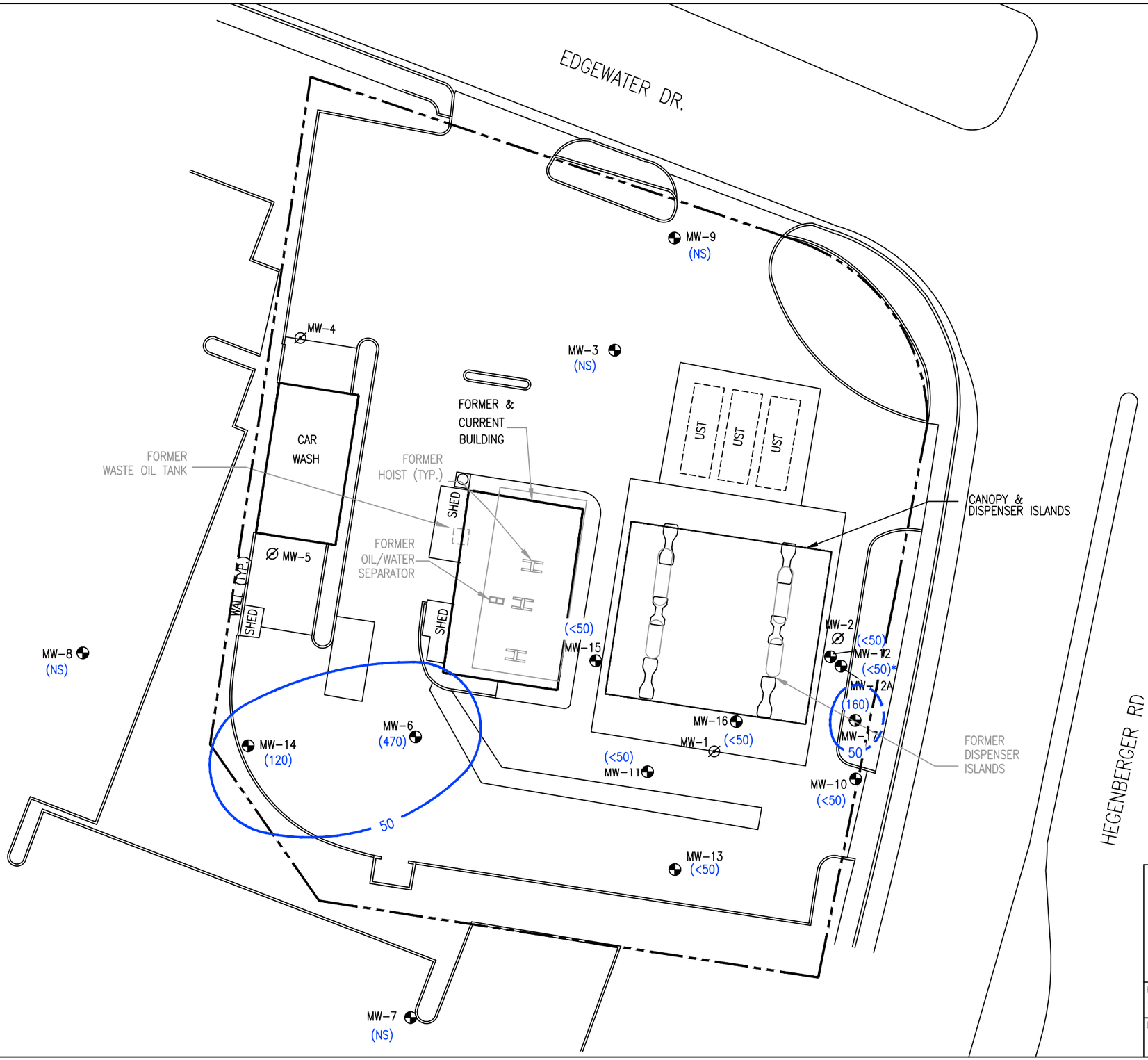
NOTES:

MTBE = METHYL TERTIARY BUTYL ETHER
µg/L = MICROGRAMS PER LITER
<0.50= LESS THAN LABORATORY INDICATED REPORTING LIMIT
NS = NOT SAMPLED
* = NOT USED IN CONTOURING

FIGURE 6
DISSOLVED PHASE MTBE ISOCONCENTRATION MAP
SEPTEMBER 10, 2013
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	EW	JH
DATE	REVIEWED BY	FILE NAME
11/8/13	DD	5191-SiteS

antea group



LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- MW– MONITORING WELL
- MW– ABANDONED MONITORING WELL
- (470) DISSOLVED PHASE TPHd ISOCONCENTRATION (µg/L)
- 50 DISSOLVED PHASE TPHd ISOCONTOUR (µg/L) –DASHED WHERE INFERRED

NOTES:

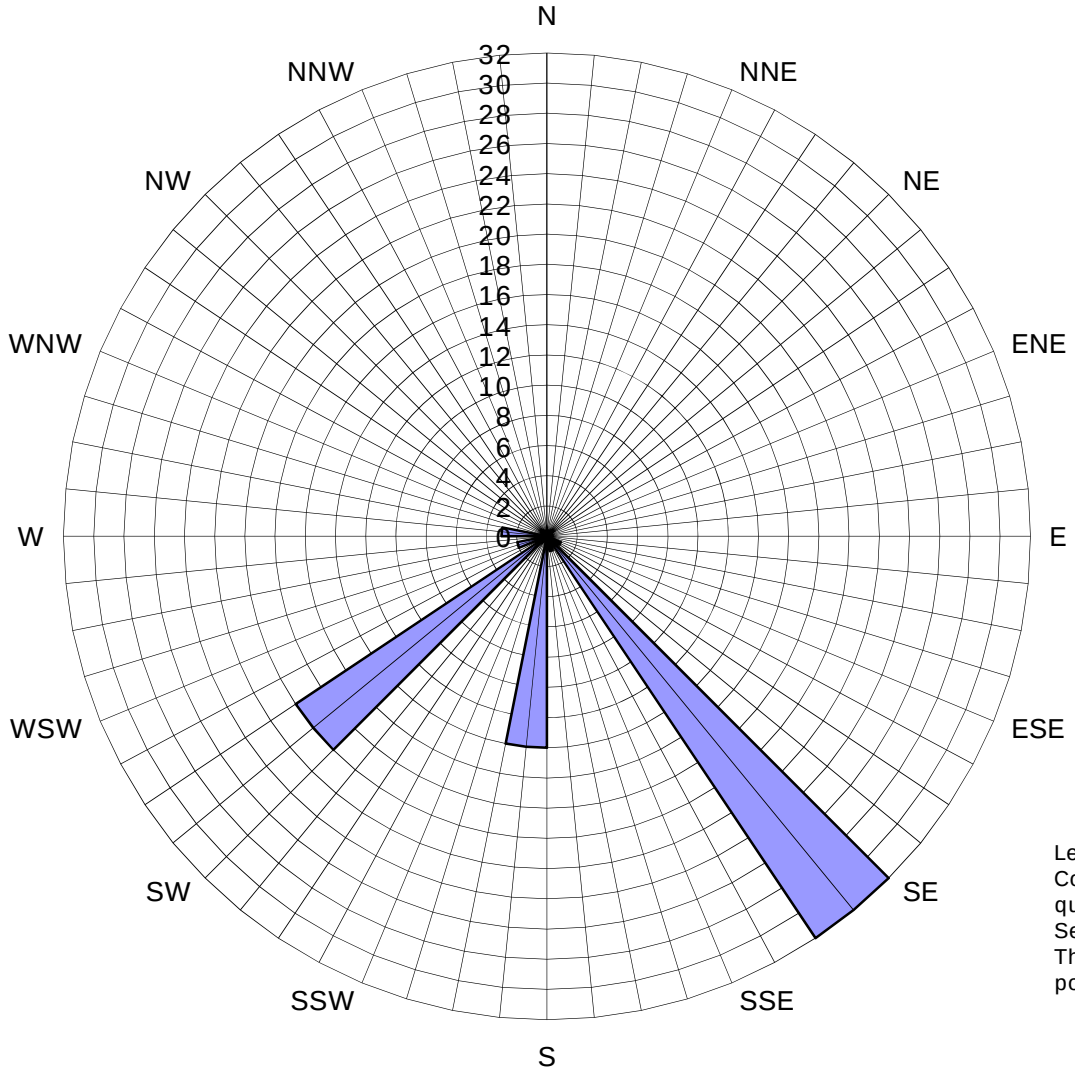
TPHd = TOTAL PETROLEUM HYDROCARBONS AS DIESEL
µg/L = MICROGRAMS PER LITER
<50 = LESS THAN LABORATORY INDICATED REPORTING LIMIT
NS = NOT SAMPLED
* = NOT USED IN CONTOURING

FIGURE 7
DISSOLVED PHASE TPHd ISOCONCENTRATION MAP
SEPTEMBER 10, 2013
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	EW	JH
DATE	REVIEWED BY	FILE NAME
11/8/13	DD	5191-SiteS

antea group

Figure 8
Historical Groundwater Flow Directions
76 Station No. 5191/5043
449 Hegenberger Road
Oakland, California



Legend
Concentric circles represent quarterly montoring events Second Quarter 1992 through Third Quarter 2013. 73 data points shown

Groundwater Flow Direction

Tables

Table 1	Well Construction Details
Table 2	Current Groundwater Gauging and Analytical Data
Table 3	Historical Groundwater Gauging and Analytical Data
Table 3a	Additional Historical Groundwater Analytical Data
Table 3b	Additional Historical Groundwater Analytical Data
Table 3c	Additional Historical Groundwater Analytical Data
Table 4	Historical Groundwater Gradient and Flow Direction Data

Table 1
Well Construction Details
76 Station No. 5191/5043
449 Hegenberger Road
Oakland, CA

Well I.D.	Drill Date	Well		Screen		Screen Length	Comments
		Depth (feet bgs)	Diameter (inches)	Top (feet bgs)	Bottom (feet bgs)	(feet)	
Monitoring Wells							
MW-1	02/05/91	13.5	2	2.0	13.0	11.0	Abandoned
MW-2	02/05/91	15.0	2	3.0	15.0	12.0	Abandoned
MW-3	02/05/91	14.0	2	2.0	14.0	12.0	
MW-4	08/21/92	13.5	2	2.5	13.5	11.0	Abandoned
MW-5	08/21/92	13.5	2	2.5	13.5	11.0	Abandoned
MW-6	08/21/92	13.5	2	2.5	13.5	11.0	
MW-7	04/21/97	13.0	2	3.0	13.0	10.0	
MW-8	04/21/97	15.0	2	3.0	15.0	12.0	
MW-9	01/25/95	13.0	2	3.0	13.0	10.0	
MW-10	01/25/95	13.0	2	3.0	13.0	10.0	
MW-11	06/22/10	20.0	4	5.0	20.0	15.0	
MW-12	06/22/10	20.0	4	5.0	20.0	15.0	
MW-12A	06/23/10	34.0	2	30.0	34.0	4.0	
MW-13	06/22/10	15.0	2	5.0	15.0	10.0	
MW-14	05/17/11	13.0	2	3.0	13.0	10.0	
MW-15	05/17/11	13.0	2	3.0	13.0	10.0	
MW-16	05/17/11	13.0	2	3.0	13.0	10.0	
MW-17	05/18/11	13.0	2	3.0	13.0	10.0	

Explanation

Wells are of poly-vinyl-chloride (PVC) construction

bgs = Below ground surface

TABLE 2
CURRENT GROUNDWATER GAUGING AND ANALYTICAL DATA
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA								
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)	TBA (ug/L)	Ethanol (ug/L)
MW-3	9/10/2013	10.81	3.25	NP	7.56	--	--	--	--	--	--	--	--	--
MW-6	9/10/2013	11.55	4.11	NP	7.44	**470**	**28,000**	**440**	**19**	**530**	**1,500**	**10**	**170**	<40
MW-7	9/10/2013	11.64	6.54	NP	5.10	--	--	--	--	--	--	--	--	--
MW-8	9/10/2013	11.32	3.54	NP	7.78	--	--	--	--	--	--	--	--	--
MW-9	9/10/2013	10.94	2.63	NP	8.31	--	--	--	--	--	--	--	--	--
MW-10	9/10/2013	10.97	3.92	NP	7.05	<50	<50	<0.50	<0.50	<0.50	**1.2**	<0.50	<5.0	<5.0
MW-11	9/10/2013	10.53	2.98	NP	7.55	<50	<50	<0.50	<0.50	<0.50	<0.50	**22**	<5.0	<5.0
MW-12	9/10/2013	11.01	3.96	NP	7.05	<50	**340**	**52**	**1.9**	**6.4**	**4.5**	**820**	**17 J**	<15
MW-12A	9/10/2013	11.29	4.40	NP	6.89	<50	<50	<0.50	<0.50	<0.50	<0.50	**6.3**	<5.0	<5.0
MW-13	9/10/2013	11.08	4.20	NP	6.88	<50	<50	<0.50	<0.50	<0.50	**0.62**	**64**	**47**	<5.0
MW-14	9/10/2013	12.00	4.88	NP	7.12	**120**	**31,000**	**1,500**	**39.0**	**2,300**	**5,200**	<1.5	**32**	<15
MW-15	9/10/2013	11.11	3.28	NP	7.83	<50	**68**	<0.50	<0.50	<0.50	<0.50	**120**	**39**	<5.0
MW-16	9/10/2013	10.98	3.44	NP	7.54	<50	<50	<0.50	<0.50	<0.50	**0.67**	**240**	**440**	<5.0
MW-17	9/10/2013	11.52	4.60	NP	6.92	**160**	**36,000**	**8,200**	**510**	**1,200**	**2,400**	<15	**320**	<150

Gauging Notes:

TOS - Top of Screen

ft - Feet

NP - LNAPL not present

LNAPL - Light non-aqueous phase liquid

* - Corrected for LNAPL if present (assumes LNAPL specific gravity = 0.75)

-- - No information available

Analytical Notes:

< - Below laboratory's indicated reporting limit

ug/L - micrograms/liter

TPHd- Total petroleum hydrocarbons as diesel

TPHg- Total petroleum hydrocarbons as gasoline

MTBE- Methyl tertiary-butyl ether

TBA- Tertiary-butyl alcohol

Bold - Above the laboratory's indicated reporting limit

J - TBA result may be biased slightly high due to MTBE converting to TBA during analysis

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-1	2/18/1992	NSVD	NG	NG	NG	**13,000**	**150,000**	**17,000**	**26,000**	**5,200**	**26,000**	--	--	--	--	--	--	--	--	--
	5/20/1992	NSVD	NG	NG	NG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/31/1992	NSVD	NG	NG	NG	**8,900**	**64,000**	**13,000**	**12,000**	**2,500**	**22,000**	--	--	--	--	--	--	--	--	--
	11/30/1992	NSVD	NG	NG	NG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/4/1993	NSVD	NG	NG	NG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	5/4/1993	8.96	2.13	0.10	6.91	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	8/4/1993	8.96	2.92	0.03	6.06	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	11/3/1993	7.38	3.04	NP	4.34	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	2/7/1994	7.38	2.55	0.03	4.85	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	5/19/1994	7.38	2.23	0.01	5.16	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	6/25/1994	7.38	2.49	0.01	4.90	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	7/27/1994	7.38	3.10	NP	4.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/15/1994	7.38	2.85	0.11	4.61	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	11/14/1994	7.38	2.97	0.12	4.50	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	2/21/1995	7.38	1.53	0.02	5.87	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	5/18/1995	NSVD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD
MW-2	2/18/1992	NSVD	NG	NG	NG	**4,300**	**29,000**	**1,000**	**5,300**	**260**	**7,900**	--	--	--	--	--	--	--	--	--
	5/20/1992	NSVD	NG	NG	NG	**4,300**	**24,000**	**2,200**	**7,600**	**630**	**11,000**	--	--	--	--	--	--	--	--	--
	8/31/1992	NSVD	NG	NG	NG	**1,600**	**9,000**	**1,800**	**640**	**140**	**2,000**	--	--	--	--	--	--	--	--	--
	11/30/1992	NSVD	NG	NG	NG	**5,700**	**29,000**	**2,000**	**3,400**	**1,200**	**6,900**	--	--	--	--	--	--	--	--	--
	2/4/1993	NSVD	NG	NG	NG	**6,100**	**18,000**	**1,600**	**3,000**	ND	**6,900**	--	--	--	--	--	--	--	--	--
	5/4/1993	8.96	2.48	NP	6.48	**7,100**	**63,000**	**3,200**	**17,000**	**470**	**17,000**	--	--	--	--	--	--	--	--	--
	8/4/1993	8.96	3.20	NP	5.76	**1,800**	**45,000**	**2,100**	**6,600**	**1,400**	**12,000**	--	--	--	--	--	--	--	--	--
	11/3/1993	8.58	3.37	NP	5.21	**2,600**	**72,000**	**3,700**	**16,000**	**3,700**	**20,000**	--	--	--	--	--	--	--	--	--
	2/7/1994	8.58	2.40	NP	6.18	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	5/19/1994	8.58	2.13	NP	6.45	**3,000**	**42,000**	**2,500**	**1,300**	**2,300**	**13,000**	--	--	--	--	--	--	--	--	--
	6/25/1994	8.58	2.65	NP	5.93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/27/1994	8.58	3.44	NP	5.14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/15/1994	8.58	3.25	NP	5.33	**2,800**	**35,000**	**2,400**	**850**	**1,700**	**15,000**	--	--	--	--	--	--	--	--	--
	11/14/1994	8.58	2.13	NP	6.45	**10,000**	**43,000**	**2,200**	**6,500**	**1,800**	**14,000**	--	--	--	--	--	--	--	--	--
	2/21/1995	8.58	1.65	NP	6.93	**2,000**	**44,000**	**2,200**	**3,200**	**1,300**	**1,500**	--	--	--	--	--	--	--	--	--
	5/18/1995	NSVD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD
MW-3	2/18/1992	NSVD	NG	NG	NG	ND	**230**	**5**	**22**	**2**	**33**	--	--	--	--	--	--	--	--	--
	5/20/1992	NSVD	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI
	8/31/1992	NSVD	NG	NG	NG	**92**	**210**	**1**	ND	ND	ND	--	--	--	--	--	--	--	--	--
	11/30/1992	NSVD	NG	NG	NG	**94**	**790**	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	2/4/1993	NSVD	NG	NG	NG	**550**	**3,300**	**320**	ND	**96**	**6**	--	--	--	--	--	--	--	--	--
	5/4/1993	7.84	4.32	NP	3.52	**250**	**1,800**	**95**	ND	ND	ND	--	--	--	--	--	--	--	--	--
	8/4/1993	7.84	4.94	NP	2.90	**100**	**210**	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	11/3/1993	7.42	4.53	NP	2.89	**160**	**640**	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	2/7/1994	7.42	2.40	NP	5.02	**620**	**2,700**	**110**	ND	**17**	ND	--	--	--	--	--	--	--	--	--
	5/19/1994	7.42	3.60	NP	3.82	**480**	**1,800**	**83**	ND	**6**	**9**	--	--	--	--	--	--	--	--	--
	6/25/1994	7.42	4.58	NP	2.84	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/27/1994	7.42	4.58	NP	2.84	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/15/1994	7.42	4.65	NP	2.77	**110**	**130**	**1**	**1**	ND	**1**	--	--	--	--	--	--	--	--	--
	11/14/1994	7.42	3.18	NP	4.24	**150**	**1,600**	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	2/21/1995	7.42	1.81	NP	5.61	**850**	**3,800**	**350**	ND	130	**22**	--	--	--	--	--	--	--	--	--
	5/18/1995	7.42	4.56	NP	2.86	**150**	**1,300**	**42**	ND	**ND**	ND	--	--	--	--	--	--	--	--	--
	8/17/1995	7.42	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI
	7/26/1996	7.42	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI
	10/28/1996	7.42	WO	WO	WO	WO	WO	WO	WO	WO	WO	WO	WO	WO	WO	WO	WO	WO	WO	WO
	1/29/1997	7.42	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI
	4/15/1997	7.42	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI
	5/27/1997	7.42	3.45	NP	3.97	--	**670**	**7**	ND	ND	ND	**250**	--	--	--	--	--	--	--	--
	6/1/1997	7.42	3.50	NP	3.92	**610**	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/15/1997	8.04	3.71	NP	4.33	**240**	**240**	ND	ND	ND	ND	**490**	--	--	--	--	--	--	--	--
	10/9/1997	8.04	3.70	NP	4.34	**500**	**270**	**1**	ND	**2**	**1**	**910**	--	--	--	--	--	--	--	--
	1/14/1998	8.04	2.16	NP	5.88	**340**	**310**	ND	ND	**1**	**1**	**140**	--	--	--	--	--	--	--	--
	4/1/1998	8.04	2.20	NP	5.84	**320**	**370**	**6**	ND	ND	ND	**93**	--	--	--	--	--	--	--	--	--
	7/15/1998	8.04	3.38	NP	4.66	**510**	**460**	ND	ND	ND	ND	**230**	--	--	--	--	--	--	--	--

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-3	10/16/1998	8.04	2.30	NP	5.74	**67**	**330**	**5**	ND	ND	ND	**60**	--	--	--	--	--	--	--	--
	1/25/1999	8.04	2.42	NP	5.62	**120**	**420**	**2**	ND	ND	ND	**180**	--	--	--	--	--	--	--	--
	4/15/1999	8.04	2.16	NP	5.88	**170**	**290**	**1**	ND	ND	ND	**160**	--	--	--	--	--	--	--	--
	7/14/1999	8.04	2.35	NP	5.69	**420**	**290**	**3**	ND	ND	ND	**160**	--	--	--	--	--	--	--	--
	10/21/1999	8.04	2.49	NP	5.55	**350**	**360**	**1**	ND	ND	ND	**82**	--	--	--	--	--	--	--	--
	1/20/2000	8.04	2.38	NP	5.66	**2,060**	ND	**1**	ND	ND	ND	**54**	--	--	--	--	--	--	--	--
	4/13/2000	8.04	2.76	NP	5.28	**200**	**250**	**1**	ND	ND	ND	**91**	**150**	ND	ND	ND	ND	ND	ND	ND
	7/14/2000	8.04	3.26	NP	4.78	**423**	**345**	ND	ND	ND	ND	**95**	--	--	--	--	--	--	--	--
	10/26/2000	8.04	3.12	NP	4.92	**330**	**480**	**6.0**	ND	ND	ND	**120**	--	--	--	--	--	--	--	--
	1/3/2001	8.04	3.65	NP	4.39	**287**	**364**	**2**	ND	ND	ND	**118**	--	--	--	--	--	--	--	--
	4/4/2001	8.04	3.98	NP	4.06	**360**	**417**	**1**	ND	ND	**1**	**237**	--	--	--	--	--	--	--	--
	7/17/2001	8.04	3.12	NP	4.92	**270**	**480**	ND	ND	ND	ND	**150**	--	--	--	--	--	--	--	--
	10/1/2001	8.04	3.25	NP	4.79	**270**	**310**	**1.0**	<0.50	<0.50	<0.50	**53**	--	--	--	--	--	--	--	--
	1/31/2002	8.04	2.27	NP	5.77	**250**	**250**	**4**	<1.0	<1.0	<1.0	**110**	--	--	--	--	--	--	--	--
	4/18/2002	8.04	3.55	NP	4.49	**320**	**300**	<2.0	<2.0	<2.0	<2.0	--	**59**	--	--	--	--	--	--	--
	7/28/2002	8.04	2.55	NP	5.49	**310**	**500**	<0.50	<0.50	<0.50	<1.0	--	**130**	--	--	--	--	--	--	--
	10/9/2002	8.04	2.47	NP	5.57	**700**	**690**	**<5**	<5	<5	<10	--	**120**	--	--	--	--	--	--	--
	1/2/2003	8.04	1.70	NP	6.34	**210**	**310**	<0.50	<0.50	<0.50	<1.0	--	**110**	<2.0	<2.0	<2.0	<100	<500	<2.0	<2.0
	4/1/2003	8.04	3.48	NP	4.56	**200**	**250**	<1.0	<1.0	<1.0	<2.0	--	**210**	--	--	--	--	--	--	--
	7/1/2003	8.04	2.65	NP	5.39	**380**	**450**	<2.5	<2.5	<2.5	<5.0	--	**70**	--	--	--	--	<2500	--	--
	10/2/2003	8.04	3.12	NP	4.92	**300**	<250	<2.5	<2.5	<2.5	<5.0	--	**210**	--	--	--	--	<2500	--	--
	1/9/2004	8.04	2.39	NP	5.65	**200**	**300**	<0.50	**1**	**1**	**2**	--	**66**	--	--	--	--	<500	--	--
	4/26/2004	8.04	3.11	NP	4.93	**160**	**440**	**3**	**6**	**3**	**9**	--	**81**	--	--	--	--	<50	--	--
	7/22/2004	8.04	2.51	NP	5.53	**330**	**420**	<0.5	<0.5	<0.5	<1	--	**72**	--	--	--	--	<1000	--	--
	10/29/2004	8.04	2.00	NP	6.04	**200**	**460**	**6**	**15**	**10**	**46**	--	**48**	--	--	--	--	<50	--	--
	1/10/2005	8.04	1.52	NP	6.52	**250**	**280**	<0.50	**1**	<0.50	**2**	--	**64**	--	--	--	--	<50	--	--
	6/15/2005	8.04	2.00	NP	6.04	**360**	**460**	<0.50	**0.70**	0.56	**2**	--	**110**	--	--	--	--	<50	--	--
	9/27/2005	8.04	1.90	NP	6.14	<200	**210**	<0.50	**0.60**	<0.50	<1.0	--	**100**	<0.50	<0.50	<0.50	**79**	<250	--	--
	12/13/2005	8.04	2.35	NP	5.69	**230**	**230**	<0.50	<0.50	<0.50	<1.0	--	**92**	--	--	--	--	<250	--	--
	3/23/2006	8.04	1.84	NP	6.20	**260**	**290**	<0.50	<0.50	<0.50	<1.0	--	**88**	--	--	--	--	<250	--	--
	6/23/2006	8.04	2.26	NP	5.78	**330**	**500**	<0.50	<0.50	<0.50	<1.0	--	**75**	--	--	--	--	<250	--	--
	9/26/2006	8.04	2.08	NP	5.96	**260**	**270**	<0.50	<0.50	<0.50	<0.50	--	**73**	--	--	--	--	<250	--	--
	12/22/2006	8.04	1.88	NP	6.16	**250**	**260**	<0.50	<0.50	<0.50	**1**	--	**71**	--	--	--	--	<250	--	--
	3/30/2007	8.04	2.47	NP	5.57	**210**	**390**	<0.50	<0.50	<0.50	<0.50	--	**120**	--	--	--	--	<250	--	--
	6/28/2007	8.04	2.54	NP	5.50	**290**	**370**	<0.50	<0.50	<0.50	<0.50	--	**55**	--	--	--	--	<250	--	--
	9/25/2007	8.04	2.56	NP	5.48	**210**	**350**	<0.50	<0.50	<0.50	<0.50	--	**61**	--	--	--	--	<250	--	--
	12/28/2007	8.04	2.29	NP	5.75	**150**	**260**	<0.50	<0.50	<0.50	<1.0	--	**66**	--	--	--	--	<250	--	--
	3/22/2008	8.04	3.26	NP	4.78	**230**	**390**	<0.50	<0.50	<0.50	<1.0	--	**39**	--	--	--	--	<250	--	--
	6/23/2008	8.04	2.60	NP	5.44	**130**	**200**	<0.50	<0.50	<0.50	<1.0	--	**46**	--	--	--	--	<250	--	--
	9/19/2008	8.04	3.45	NP	4.59	**93**	**180**	<0.50	<0.50	<0.50	<1.0	--	**120**	--	--	--	--	<250	--	--
	12/31/2008	8.04	2.55	NP	5.49	**110**	**190**	<0.50	<0.50	<0.50	<1.0	--	**38**	--	--	--	--	<250	--	--
	3/27/2009	8.04	2.37	NP	5.67	**130**	**150**	<0.50	<0.50	<0.50	<1.0	--	**50**	--	--	--	--	<250	--	--
	5/28/2009	8.04	3.32	NP	4.72	**120**	**190**	<0.50	<0.50	<0.50	<1.0	--	**60**	--	--	--	--	<250	--	--
	9/17/2009	8.04	2.63	NP	5.41	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/17/2009	8.04	2.13	NP	5.91	**338**	**300**	<0.50	<0.50	**1**	<1.5	--	**43**	--	--	--	--	<250	--	--
	3/29/2010	8.04	2.22	NP	5.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	10.81	2.91	NP	7.90	**90**	**261**	<0.50	<0.50	<0.50	<1.5	--	**89.0**	--	--	--	--	<250	--	--
	7/6/2010	10.81	2.66	NP	8.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	10.81	3.12	NP	7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/2010	10.81	2.37	NP	8.44	**137**	**306**	<0.50	<0.50	<0.50	<1.5	--	**58.8**	--	--	--	--	<250	--	--
	3/14/2011	10.81	2.26	NP	8.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/2/2011	10.81	2.43	NP	8.38	**155**	**283**	**0.58**	**1.3**	<0.50	**2.2**	--	**42.1**	--	--	--	**55.7**	<250	--	--
	9/7/2011	10.81	2.36	NP	8.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	10.81	2.55	NP	8.26	**81.7**	**381**	<0.50	<0.50	<0.50	<1.5	--	**41.8**	--	--	--	--	<250	--	--
	3/6/2012	10.81	2.63	NP	8.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	10.81	2.99	NP	7.82	**87.9**	**371**	<0.50	<0.50	<0.50	<1.5	--	**55.7**	--	--	--	**77.2**	<250	--	--
	9/6/2012	10.81	2.50	NP	8.31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	10.81	2.50	NP	8.31	<50	**130**	<0.50	<0.50	<0.50	<0.50	--	**28**	--	--	--	**77**	<5.0	--	--
	3/14/2013	10.81	2.63	NP	8.18	--	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	--
	6/11/2013	10.81	3.31	NP	7.5	<50	**190**	<0.50	<0.50	<0.50	<0.50	**--**	**44**	**--**	**--**	**--**	**97**	<5.0	**--**	--
	9/10/2013	10.81	3.25	NP	7.56	--	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	--
MW-4	8/31/1992	NSVD	NG	NG	NG	**90**	**240**	ND	ND	ND	**0.54**	--	--	--	--	--	--	--	--	--
	11/30/1992	NSVD	NG	NG	NG	**61**	**420**	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-4	2/4/1993	NSVD	NG	NG	NG	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	5/4/1993	9.00	4.09	NP	4.91	ND	**110**	**0.95**	ND	ND	ND	--	--	--	--	--	--	--	--	--
	8/4/1993	9.00	5.01	NP	3.99	**81**	**250**	ND	**3.5**	ND	**4.1**	--	--	--	--	--	--	--	--	--
	11/3/1993	8.41	4.23	NP	4.18	**68**	**130**	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	2/7/1994	8.41	3.35	NP	5.06	ND	**56**	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	5/19/1994	8.41	3.92	NP	4.49	**90**	**140**	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	6/25/1994	8.41	4.35	NP	4.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/27/1994	8.41	4.28	NP	4.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/15/1994	8.41	4.27	NP	4.14	**72**	**59**	ND	**0.6**	ND	ND	--	--	--	--	--	--	--	--	--
	11/14/1994	8.41	4.05	NP	4.36	ND	**130**	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	2/21/1995	NSVD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD
MW-5	8/31/1992	NSVD	NG	NG	NG	**690**	**78**	**1**	ND	ND	**13**	--	--	--	--	--	--	--	--	--
	11/30/1992	NSVD	NG	NG	NG	**470**	**930**	**70**	**290**	**1**	**14**	--	--	--	--	--	--	--	--	--
	2/4/1993	NSVD	NG	NG	NG	**5,500**	**5,700**	**38**	ND	**620**	**170**	--	--	--	--	--	--	--	--	--
	5/4/1993	8.95	4.37	NP	4.58	**4,600**	**7,400**	**41**	ND	**1,000**	**35**	--	--	--	--	--	--	--	--	--
	8/4/1993	8.95	5.81	NP	3.14	**970**	**1,500**	**130**	**1**	**460**	**11**	--	--	--	--	--	--	--	--	--
	11/3/1993	8.95	5.68	NP	3.27	**2,100**	**13,000**	**350**	ND	**3,500**	**530**	--	--	--	--	--	--	--	--	--
	2/7/1994	8.95	5.11	NP	3.84	**830**	**2,000**	**87**	ND	**370**	**110**	--	--	--	--	--	--	--	--	--
	5/19/1994	8.95	5.09	NP	3.86	**600**	**260**	**44**	ND	**32**	**4**	--	--	--	--	--	--	--	--	--
	6/25/1994	8.95	4.55	NP	4.40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/27/1994	8.95	5.72	NP	3.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/15/1994	8.95	5.68	NP	3.27	**860**	**1,600**	**110**	ND	**340**	**72**	--	--	--	--	--	--	--	--	--
	11/14/1994	8.95	5.63	NP	3.32	**290**	**250**	**40**	ND	ND	**5**	--	--	--	--	--	--	--	--	--
	2/21/1995	NSVD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD
MW-6	8/31/1992	NSVD	NG	NG	NG	**750**	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	11/30/1992	NSVD	NG	NG	NG	**1,400**	**9,200**	**550**	ND	**740**	**1,600**	--	--	--	--	--	--	--	--	--
	2/4/1993	NSVD	NG	NG	NG	**890**	**3,600**	**340**	ND	**290**	**550**	--	--	--	--	--	--	--	--	--
	5/4/1993	9.12	3.72	NP	5.40	**1,800**	**4,900**	**360**	**18**	**450**	**430**	--	--	--	--	--	--	--	--	--
	8/4/1993	9.12	5.15	NP	3.97	**1,100**	**3,400**	**390**	ND	**440**	**190**	--	--	--	--	--	--	--	--	--
	11/3/1993	8.87	5.25	NP	3.62	**390**	**1,400**	**320**	ND	**200**	**8**	--	--	--	--	--	--	--	--	--
	2/7/1994	8.87	4.55	NP	4.32	**970**	**4,900**	**650**	ND	**250**	**35**	--	--	--	--	--	--	--	--	--
	5/19/1994	8.87	4.62	NP	4.25	**1,400**	**3,600**	**300**	**2**	**210**	**41**	--	--	--	--	--	--	--	--	--
	8/15/1994	8.87	5.08	NP	3.79	**790**	**1,300**	**130**	**7**	**54**	**57**	--	--	--	--	--	--	--	--	--
	11/14/1994	8.87	5.30	NP	3.57	**800**	**730**	**50**	ND	ND	**39**	--	--	--	--	--	--	--	--	--
	2/21/1995	8.87	5.37	NP	3.50	**730**	**2,000**	**250**	**5**	**25**	**30**	--	--	--	--	--	--	--	--	--
	5/18/1995	8.87	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI
	8/17/1995	8.87	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI
	7/26/1996	8.87	6.40	3.33	4.97	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	10/28/1996	8.87	4.10	0.21	4.93	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	11/13/1996	8.87	4.02	0.25	5.04	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	11/25/1996	8.87	4.01	0.75	5.42	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	12/4/1996	8.87	3.65	0.50	5.60	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	12/19/1996	8.87	4.80	2.20	5.72	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	1/8/1997	8.87	4.84	1.75	5.34	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	1/14/1997	8.87	4.51	1.15	5.22	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	1/27/1997	8.87	4.00	1.75	6.18	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	1/29/1997	8.87	3.24	0.31	5.86	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	2/11/1997	8.87	4.65	1.20	5.12	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	2/24/1997	8.87	4.81	1.10	4.89	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	3/10/1997	8.87	4.60	0.95	4.98	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	3/17/1997	8.87	4.50	0.89	5.04	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	3/31/1997	8.87	4.65	1.00	4.97	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	4/15/1997	8.87	4.90	1.03	4.74	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	4/28/1997	8.87	4.78	0.03	4.11	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	5/15/1997	8.87	4.60	0.25	4.46	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	5/27/1997	8.87	4.50	0.25	4.56	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	6/9/1997	8.87	4.60	0.20	4.42	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	6/24/1997	8.87	4.50	0.25	4.56	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	7/9/1997	8.87	4.80	0.60	4.52	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	7/15/1997	8.87	4.63	0.42	4.56	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-6	7/21/1997	8.87	4.75	0.25	4.31	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	8/6/1997	8.87	4.50	0.10	4.45	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	8/20/1997	8.87	4.55	0.10	4.40	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	9/2/1997	8.87	4.75	0.05	4.16	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	10/9/1997	8.87	4.84	0.04	4.06	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	1/14/1998	8.87	3.90	0.94	5.68	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	2/12/1998	8.87	3.35	0.64	6.00	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	3/3/1998	8.87	4.51	0.02	4.38	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	4/1/1998	8.87	3.67	1.60	6.40	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	5/26/1998	8.87	4.11	0.50	5.14	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	6/15/1998	8.87	5.03	0.30	4.07	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	7/15/1998	8.87	4.56	0.05	4.35	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	8/21/1998	8.87	4.77	0.02	4.12	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	9/30/1998	8.87	5.08	0.03	3.81	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	10/16/1998	8.87	4.31	2.40	6.36	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	11/6/1998	8.87	3.98	0.17	5.02	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	11/25/1998	8.87	3.92	0.10	5.03	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	12/28/1998	8.87	3.90	0.20	5.12	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	1/25/1999	8.87	4.18	0.60	5.14	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	2/22/1999	8.87	4.07	0.22	4.97	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	3/22/1999	8.87	4.32	0.15	4.66	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	4/15/1999	8.87	4.23	0.95	5.35	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	5/28/1999	8.87	4.38	0.39	4.78	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	6/29/1999	8.87	4.12	0.02	4.77	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	7/14/1999	8.87	4.20	0.03	4.69	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	8/23/1999	8.87	4.51	0.24	4.54	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	9/30/1999	8.87	4.17	0.17	4.83	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	10/21/1999	8.87	4.27	0.12	4.69	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	11/29/1999	8.87	4.18	NP	4.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/20/1999	8.87	4.26	0.01	4.62	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	1/20/2000	8.87	4.31	NP	4.56	**67,600**	**130,000**	**2,900**	**8,600**	**2,000**	**16,000**	ND	--	--	--	--	--	--	--	--
	2/26/2000	8.87	3.98	NP	4.89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/31/2000	8.87	4.14	NP	4.73	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/13/2000	8.87	4.04	NP	4.83	**8,700**	**140,000**	**5,000**	**14,000**	**3,600**	**27,000**	**7,700**	--	--	--	--	--	--	--	--
	5/26/2000	8.87	4.41	NP	4.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/17/2000	8.87	4.35	NP	4.52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/14/2000	8.87	4.47	NP	4.40	**133,000**	**259,000**	**7,670**	**13,700**	**6,860**	**40,700**	ND	ND	--	--	--	--	--	--	--
	8/24/2000	8.87	3.71	NP	5.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/27/2000	8.87	4.33	NP	4.54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/26/2000	8.87	4.32	NP	4.55	**61,000**	**110,000**	**7,000**	**6,200**	**3,700**	**12,000**	**670**	**43**	--	--	--	--	--	--	--
	1/3/2001	8.87	4.52	NP	4.35	**929**	**84,700**	**3,950**	**4,130**	**3,650**	**11,800**	ND	ND	--	--	--	--	--	--	--
	4/4/2001	8.87	4.29	NP	4.58	**18,000**	**69,800**	**2,060**	**2,840**	**3,650**	**10,900**	ND	**48**	ND	ND	ND	ND	ND	ND	ND
	7/17/2001	8.87	4.37	NP	4.50	**20,000**	**100,000**	**3,200**	**3,300**	**3,400**	**12,000**	ND	--	--	--	--	--	--	--	--
	10/1/2001	8.87	4.45	NP	4.42	**24,000**	**110,000**	**3,200**	**2,400**	**4,500**	**13,000**	<1000	--	--	--	--	--	--	--	--
	1/31/2002	8.87	4.03	NP	4.84	**11,000**	**230,000**	**2,400**	**1,800**	**5,400**	**16,000**	<2500	--	--	--	--	--	--	--	--
	4/18/2002	8.87	3.45	NP	5.42	**3,500**	**94,000**	**6,800**	**13,000**	**3,000**	**19,000**	<500	--	--	--	--	--	--	--	--
	7/28/2002	8.87	2.24	NP	6.63	**27,000**	**110,000**	**530**	**170**	**3,200**	**7,300**	--	<100	--	--	--	--	--	--	--
	10/9/2002	8.87	3.53	NP	5.34	**170,000**	**970,000**	**10,000**	**39,000**	**13,000**	**94,000**	--	<2000	--	--	--	--	--	--	--
	1/2/2003	8.87	2.34	NP	6.53	**66,000**	**270,000**	**6,100**	**15,000**	**5,400**	**37,000**	--	<200	--	--	--	--	--	--	--
	4/1/2003	8.87	3.17	NP	5.70	**35,000**	**3,000,000**	**8,000**	**39,000**	**37,000**	**260,000**	--	<2000	--	--	--	--	--	--	--
	7/1/2003	8.87	3.55	NP	5.32	**11,000**	**38,000**	**2,100**	**990**	**2,700**	**6,500**	--	<100	--	--	--	--	<25000	--	--
	10/2/2003	8.87	3.82	NP	5.05	<50	**100,000**	**5,600**	**6,900**	**4,700**	**18,000**	--	<800	--	--	--	--	<200000	--	--
	1/9/2004	8.87	2.80	NP	6.07	**20,000**	**170,000**	**2,800**	**3,300**	**4,700**	**16,000**	--	<200	--	--	--	--	<50000	--	--
	4/26/2004	8.87	3.40	NP	5.47	**13,000**	**97,000**	**5,900**	**9,000**	**5,100**	**23,000**	--	<50	--	--	--	--	<5000	--	--
	7/22/2004	8.87	3.54	NP	5.33	**33,000**	**110,000**	**4,100**	**5,100**	**4,000**	**16,000**	--	<200	--	--	--	--	<300000	--	--
	10/29/2004	8.87	3.03	NP	5.84	**78,000**	**100,000**	**5,200**	**6,100**	**4,200**	**15,000**	--	<50	--	--	--	--	<5000	--	--
	1/10/2005	8.87	2.35	NP	6.52	**12,000**	**71,000**	**1,600**	**3,700**	**2,100**	**9,900**	--	<50	--	--	--	--	<5000	--	--
	6/15/2005	8.87	2.47	NP	6.40	**16,000**	**130,000**	**800**	**1,800**	**2,200**	**9,300**	--	<50	--	--	--	--	<5000	--	--
	9/27/2005	8.87	2.55	NP	6.32	**2,500**	**13,000**	**82**	**120**	**430**	**990**	--	**1**	**2**	<0.50	<0.50	<10	<250	--	--
	12/13/2005	8.87	3.28	NP	5.59	**18,000**	**68,000**	**1,500**	**1,100**	**2,200**	**7,700**	--	<50	--	--	--	--	<25000	--	--

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA													
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-6	3/23/2006	8.87	2.87	NP	6.00	**73,000**	**41,000**	**290**	**140**	**1,500**	**2,700**	--	<50	--	--	--	--	<25000	--	--
	6/23/2006	8.87	3.15	NP	5.72	**35,000**	**50,000**	**2,200**	**1,400**	**1,900**	**5,700**	--	<12	--	--	--	--	<6200	--	--
	9/26/2006	8.87	3.08	NP	5.79	**22,000**	**130,000**	**2,200**	**1,000**	**2,900**	**8,800**	--	<50	--	--	--	--	<25000	--	--
	12/22/2006	8.87	2.90	NP	5.97	**62,000**	**90,000**	**940**	**610**	**1,900**	**4,700**	--	<50	--	--	--	--	<25000	--	--
	3/30/2007	8.87	3.26	NP	5.61	**62,000**	**210,000**	**1,100**	**560**	**3,400**	**12,000**	--	<10	--	--	--	--	<5000	--	--
	6/28/2007	8.87	3.46	NP	5.41	**71,000**	**67,000**	**2,200**	**1,300**	**2,700**	**10,000**	--	<25	--	--	--	--	<12000	--	--
	9/25/2007	8.87	3.52	NP	5.35	**58,000**	**56,000**	**2,900**	**720**	**2,400**	**9,000**	--	<25	--	--	--	--	<12000	--	--
	12/28/2007	8.87	3.27	NP	5.60	**18,000**	**78,000**	**28,000**	**2,700**	**4,000**	**8,100**	--	**16,000**	--	--	--	--	<12000	--	--
	3/22/2008	8.87	2.48	NP	6.39	**68,000**	**66,000**	**380**	**150**	**1,500**	**2,400**	--	<25	--	--	--	--	<12000	--	--
	6/23/2008	8.87	3.54	NP	5.33	**68,000**	**59,000**	**1,600**	**130**	**1,800**	**4,100**	--	**25**	--	--	--	--	<12000	--	--
	9/19/2008	8.87	4.06	NP	4.81	**180,000**	**65,000**	**2,000**	**230**	**2,000**	**4,500**	--	<12	--	--	--	--	<6200	--	--
	12/31/2008	8.87	3.45	NP	5.42	**68,000**	**91,000**	**2,000**	**320**	**5,300**	**13,000**	--	<50	--	--	--	--	<25000	--	--
	3/27/2009	8.87	3.09	NP	5.78	**170,000**	**150,000**	**1,300**	**240**	**2,800**	**7,200**	--	<50	--	--	--	--	<25000	--	--
	5/28/2009	8.87	3.49	NP	5.38	**78,000**	**53,000**	**1,700**	**200**	**2,300**	**5,400**	--	<50	--	--	--	--	<25000	--	--
	9/17/2009	8.87	3.64	NP	5.23	**250,000 T4**	**77,000**	**2,100**	**1,400**	**2,600**	**8,500**	--	<12	--	--	--	--	<6200	--	--
	12/17/2009	8.87	3.14	NP	5.73	**30,300**	**59,100**	**1,730**	**199**	**2,260**	**5,460**	--	**20**	--	--	--	--	<250	--	--
	3/29/2010	8.87	3.16	NP	5.71	**106,000**	**48,400**	**1,980**	**208**	**3,070**	**8,070**	--	**12**	--	--	--	--	<250	--	--
	6/30/2010	11.55	3.50	NP	8.05	**170,000**	**78,700**	**2,130**	**281**	**2,860**	**8,400**	--	**6**	--	--	--	--	<250	--	--
	7/6/2010	11.55	3.49	NP	8.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	11.55	3.75	NP	7.80	**18,800**	**64,500**	**2,300**	**170**	**2,770**	**6,260**	--	**19**	--	--	--	--	<250	--	--
	12/8/2010	11.55	8.42	NP	3.13	**28,700**	**78,400**	**1,300**	**1,680**	**3,490**	**20,600**	--	**11**	--	--	--	--	<250	--	--
	3/14/2011	11.55	3.40	NP	8.15	**93,000**	**44,600**	**912**	**338**	**728**	**3,670**	--	**16**	--	--	--	**134**	<250	--	--
	6/2/2011	11.55	2.76	NP	8.79	**33,700 T4**	**56,200**	**780**	**262**	**651**	**3,890**	--	**7**	--	--	--	**81.0**	<250	--	--
	9/7/2011	11.55	2.83	NP	8.72	**6,780 T4**	**16,600**	**16**	**11**	**90**	**339**	--	**<0.50**	--	--	--	--	<250	--	--
	12/5/2011	11.55	3.56	NP	7.99	**20,200 T4**	**64,600**	**646**	**95**	**924**	**4,050**	--	**15**	--	--	--	--	<250	--	--
	3/6/2012	11.55	3.43	NP	8.12	**14,800 T4**	**55,000**	**1,020**	**131**	**1,320**	**4,730**	--	**19**	--	--	--	**316**	<1250	--	--
	6/11/2012	11.55	3.33	NP	8.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	**47,100 T4**	**33,400**	**773**	**61**	**840**	**3,110**	--	**11**	--	--	--	**123**	<250	--	--
	9/6/2012	11.55	2.85	NP	8.70	<1000	**24,000**	**450**	**51**	**610**	**1,800**	--	**6**	<4.0	<4.0	<4.0	**82**	<40	<4.0	<4.0
	9/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	11.55	2.90	NP	8.65	**470**	**20,000**	**200**	**16**	**350**	**1,100**	--	<4.0	--	--	--	**22**	<40	--	--
	3/14/2013	11.55	3.69	NP	7.86	**680**	**24,000**	**500**	**25**	**540**	**1,700**	--	**8**	--	--	--	**110**	<40	--	--
	6/11/2013	11.55	3.86	NP	7.69	**2,400**	**87,000**	**1,800**	**250**	**2,000**	**9,400**	--	**13**	--	--	--	**230**	<40	--	--
	9/10/2013	11.55	4.11	NP	7.44	**470**	**28,000**	**440**	**19**	**530**	**1,500**	--	**10**	--	--	--	**170**	<40	--	--
MW-7	5/27/1997	8.83	4.50	NP	4.33	--	**68**	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	6/1/1997	8.83	4.54	NP	4.29	**69**	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/15/1997	8.83	4.70	NP	4.13	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	10/9/1997	8.83	4.30	NP	4.53	**190**	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	1/14/1998	8.83	2.88	NP	5.95	**65**	ND	ND	ND	ND	ND	**36**	--	--	--	--	--	--	--	--
	4/1/1998	8.83	3.13	NP	5.70	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	7/15/1998	8.83	4.45	NP	4.38	**74**	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	10/16/1998	8.83	3.45	NP	5.38	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	1/25/1999	8.83	3.22	NP	5.61	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	4/15/1999	8.83	3.11	NP	5.72	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	7/14/1999	8.83	3.34	NP	5.49	**69**	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	10/21/1999	8.83	3.43	NP	5.40	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	1/20/2000	8.83	3.29	NP	5.54	ND	ND	ND	ND	ND	ND	**4.2**	--	--	--	--	--	--	--	--
	4/13/2000	8.83	3.39	NP	5.44	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	7/14/2000	8.83	4.42	NP	4.41	**68.0**	ND	ND	ND	ND	ND	**7.83**	--	--	--	--	--	--	--	--
	7/17/2001	8.83	5.06	NP	3.77	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	10/1/2001	8.83	4.98	NP	3.85	<51	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	--	--	--	--	--
	1/31/2002	8.83	3.88	NP	4.95	**90**	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	--	--	--	--	--	--
	4/18/2002	8.83	4.03	NP	4.80	**78**	<50	<0.50	<0.50	<0.50	<0.50	**5.7**	--	--	--	--	--	--	--	--
	7/28/2002	8.83	3.59	NP	5.24	<50	<50	<0.50	<0.50	<0.50	<1.0	--	**3.9**	--	--	--	--	--	--	--
	10/9/2002	8.83	4.53	NP	4.30	<96	<50	<0.50	<0.50	<0.50	<1.0	--	**3.9**	--	--	--	--	--	--	--
	1/3/2003	8.83	3.36	NP	5.47	**78**	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--
	4/1/2003	8.83	3.94	NP	4.89	**67**	**71**	<0.50	<0.50	**0.71**	<1.0	--	**3.4**	--	--	--	--	--	--	--
	7/1/2003	8.83	4.60	NP	4.23	**68**	**64**	<0.50	<0.50	**0.77**	**2.0**	--	**35**	--	--	--	--	<500	--	--
	10/2/2003	8.83	5.46	NP	3.37	**82**	<50	<0.50	<0.50	<0.50	<1.0	--	**4.9**	--	--	--	--	<500	--	--
	1/9/2004	8.83	3.55	NP	5.28	**75**	**54**	<0.50	<0.50	<0.50	<1.0	--	**2.4**	--	--	--	--	<500	--	--
	4/26/2004	8.83	4.49	NP	4.34	<50	<50	<0.50	<0.50	<0.50	**1.5**	--	**2.3**	--	--	--	--	<50	--	--
	7/22/2004	8.83	4.93	NP	3.90	<200	**82**	**0.90**	**2.0**	**3.5**	**9.9**	--	**1.4**	--	--	--	--	<1000	--	--
	10/29/2004	8.83	3.71	NP	5.12	**54**	**210**	**0.67**	**1.6**	**1.7**	**5.8**	--	<0.50	--	--	--	--	<50	--	--

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-7	1/10/2005	8.83	2.77	NP	6.06	<50	**74**	**0.51**	**2.2**	**1.7**	**7.0**	--	<0.50	--	--	--	--	<50	--	--
	6/15/2005	8.83	3.40	NP	5.43	<50	<50	<0.50	<0.50	<0.50	<1.0	--	**0.88**	--	--	--	--	<50	--	--
	9/27/2005	8.83	3.44	NP	5.39	<200	<50	**0.59**	**1.2**	<0.50	<1.0	--	**0.96**	<0.50	<0.50	<0.50	<10	<250	--	--
	12/13/2005	8.83	3.98	NP	4.85	<200	<50	<0.50	<0.50	<0.50	<1.0	--	**0.65**	--	--	--	--	<250	--	--
	3/23/2006	8.83	3.37	NP	5.46	<200	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	6/23/2006	8.83	5.25	NP	3.58	<200	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	9/26/2006	8.83	4.13	NP	4.70	<50	<50	<0.50	<0.50	<0.50	<0.50	--	0.77	--	--	--	--	<250	--	--
	12/22/2006	8.83	3.63	NP	5.20	**630**	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	3/30/2007	8.83	4.31	NP	4.52	**94**	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	6/28/2007	8.83	4.62	NP	4.21	<50	<50	<0.50	<0.50	<0.50	<0.50	--	0.54	--	--	--	--	<250	--	--
	9/25/2007	8.83	4.65	NP	4.18	<50	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	12/28/2007	8.83	3.99	NP	4.84	**75**	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	3/22/2008	8.83	4.08	NP	4.75	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	6/23/2008	8.83	4.10	NP	4.73	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	9/19/2008	8.83	4.86	NP	3.97	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	12/31/2008	8.83	4.17	NP	4.66	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	3/27/2009	8.83	4.00	NP	4.83	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	5/28/2009	8.83	4.71	NP	4.12	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	9/17/2009	8.83	4.87	NP	3.96	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/29/2010	8.83	WI	WI	WI	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	11.64	4.45	NP	7.19	**66.0**	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--
	7/6/2010	11.64	4.63	NP	7.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	11.64	4.85	NP	6.79	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/2010	11.64	3.99	NP	7.65	**57.7**	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--
	3/14/2011	11.64	3.81	NP	7.83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/2/2011	11.64	3.90	NP	7.74	**63.0 T4**	--	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
	9/7/2011	11.64	3.72	NP	7.92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	11.64	4.60	NP	7.04	<50.0	--	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--
	3/6/2012	11.64	4.54	NP	7.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	11.64	4.93	NP	6.71	<37.9	--	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
	9/6/2012	11.64	4.03	NP	7.61	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	11.64	3.43	NP	8.21	<50	--	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	<5.0	<5.0	--	--
	3/14/2013	11.64	4.9	NP	6.74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2013	11.64	6.92	NP	4.72	**96**	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	**7**	<5.0	--	--
	9/10/2013	11.64	6.54	NP	5.1	**--**	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	5/27/1997	8.52	3.42	NP	5.10	--	**310**	**0.88**	**0.67**	**15**	**70**	ND	--	--	--	--	--	--	--	--
	6/1/1997	8.52	3.46	NP	5.06	**320**	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/15/1997	8.52	3.49	NP	5.03	ND	ND	ND	ND	**2.7**	**3.8**	ND	--	--	--	--	--	--	--	--
	10/9/1997	8.52	3.73	NP	4.79	**390**	**590**	**1.4**	ND	**32**	**4.1**	ND	--	--	--	--	--	--	--	--
	1/14/1998	8.52	1.92	NP	6.60	**230**	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	4/1/1998	8.52	2.38	NP	6.14	**510**	ND	ND	ND	ND	ND	**4.7**	--	--	--	--	--	--	--	--
	7/15/1998	8.52	3.53	NP	4.99	**140**	ND	ND	ND	**0.56**	**1.1**	ND	--	--	--	--	--	--	--	--
	10/16/1998	8.52	3.04	NP	5.48	**170**	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	1/25/1999	8.52	2.92	NP	5.60	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	4/15/1999	8.52	2.40	NP	6.12	**91**	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	7/14/1999	8.52	3.03	NP	5.49	**120**	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	10/21/1999	8.52	3.11	NP	5.41	**110**	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	1/20/2000	8.52	3.06	NP	5.46	**583**	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	4/13/2000	8.52	2.84	NP	5.68	**80**	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	7/14/2000	8.52	3.39	NP	5.13	**113**	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	7/17/2001	8.52	3.46	NP	5.06	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	10/1/2001	8.52	3.51	NP	5.01	<50	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	--	--	--	--	--
	1/31/2002	8.52	2.75	NP	5.77	**260**	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	--	--	--	--	--	--
	4/18/2002	8.52	2.98	NP	5.54	**160**	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	--	--	--	--	--	--
	7/28/2002	8.52	2.41	NP	6.11	**140**	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--
	10/9/2002	8.52	2.09	NP	6.43	**120**	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--
	1/2/2003	8.52	1.98	NP	6.54	**210**	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--
	4/1/2003	8.52	2.66	NP	5.86	**220**	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--
	7/1/2003	8.52	3.08	NP	5.44	**170**	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	<500	--	--
	10/2/2003	8.52	3.89	NP	4.63	**350**	**540**	**3.9**	**15**	**29**	**80**	--	<2.0	--	--	--	--	<500	--	--
	1/9/2004	8.52	2.38	NP	6.14	**180**	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	<500	--	--
	4/26/2004	8.52	2.89	NP	5.63	**100**	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<50	--	--
	7/22/2004	8.52	3.25	NP	5.27	**250**	<50	<0.5	<0.5	<0.5	<1	--	<0.5	--	--	--	--	<1000	--	--

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-8	10/29/2004	8.52	3.06	NP	5.46	**120**	<50	<0.50	<0.50	**0.82**	**2.5**	--	<0.50	--	--	--	--	<50	--	--
	1/10/2005	8.52	1.92	NP	6.60	**140**	**58**	<0.50	**0.61**	**1.2**	**4.0**	--	<0.50	--	--	--	--	<50	--	--
	6/15/2005	8.52	2.22	NP	6.30	**140**	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<50	--	--
	9/27/2005	8.52	2.43	NP	6.09	<200	<50	<0.50	<0.50	**1.2**	<1.0	--	<0.50	<0.50	<0.50	<0.50	<10	<250	--	--
	12/13/2005	8.52	2.89	NP	5.63	<200	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	3/23/2006	8.52	2.12	NP	6.40	<200	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	6/23/2006	8.52	2.65	NP	5.87	<230	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	9/26/2006	8.52	2.75	NP	5.77	**110**	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	12/22/2006	8.52	2.58	NP	5.94	**100**	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	3/30/2007	8.52	2.74	NP	5.78	**120**	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	6/28/2007	8.52	2.90	NP	5.62	**140**	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	9/25/2007	8.52	3.26	NP	5.26	**110**	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	12/28/2007	8.52	2.64	NP	5.88	**110**	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	3/22/2008	8.52	2.31	NP	6.21	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	6/23/2008	8.52	3.13	NP	5.39	<58	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	9/19/2008	8.52	3.72	NP	4.80	**79**	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	12/31/2008	8.52	2.98	NP	5.54	**110**	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	3/27/2009	8.52	2.49	NP	6.03	**89**	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	5/28/2009	8.52	3.12	NP	5.40	**91**	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	9/17/2009	8.52	3.63	NP	4.89	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/29/2010	8.52	WI	WI	WI	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	11.32	2.60	NP	8.72	**182**	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--
	7/6/2010	11.32	3.03	NP	8.29	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	11.32	3.33	NP	7.99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/2010	11.32	2.82	NP	8.50	**116**	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--
	3/14/2011	11.32	3.84	NP	7.48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/2/2011	11.32	2.77	NP	8.55	--	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
	9/7/2011	11.32	2.84	NP	8.48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	11.32	2.68	NP	8.64	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--
	3/6/2012	11.32	3.07	NP	8.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	11.32	3.08	NP	8.24	<37.9	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	**8.3**	<250	--	--
	9/6/2012	11.32	2.91	NP	8.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	11.32	2.31	NP	9.01	<50	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	<5.0	<5.0	--	--
	3/14/2013	11.32	3.19	NP	8.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2013	11.32	3.4	NP	7.92	<50	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	<5.0	<5.0	--	--
	9/10/2013	11.32	3.54	NP	7.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	2/21/1995	8.29	1.98	NP	6.31	**71**	**70**	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	5/18/1995	8.29	3.47	NP	4.82	ND	**52**	ND	**1.1**	ND	**1.9**	--	--	--	--	--	--	--	--	--
	8/17/1995	8.29	1.49	NP	6.80	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	7/26/1996	8.29	0.28	NP	8.01	**98**	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	10/28/1996	8.29	1.15	NP	7.14	**99**	ND	ND	ND	ND	ND	**7.6**	--	--	--	--	--	--	--	--
	1/29/1997	8.29	1.05	NP	7.24	**54**	ND	ND	ND	ND	ND	**5.4**	--	--	--	--	--	--	--	--
	4/15/1997	8.29	1.88	NP	6.41	**94**	ND	ND	ND	ND	ND	**5.4**	--	--	--	--	--	--	--	--
	5/27/1997	8.29	1.05	NP	7.24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/15/1997	8.29	1.90	NP	6.39	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	10/9/1997	8.29	1.76	NP	6.53	**160**	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	1/14/1998	8.29	1.26	NP	7.03	**110**	ND	ND	ND	ND	ND	**3.0**	--	--	--	--	--	--	--	--
	4/1/1998	8.29	0.85	NP	7.44	**110**	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	7/15/1998	8.29	1.52	NP	6.77	**200**	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	10/16/1998	8.29	0.81	NP	7.48	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	1/25/1999	8.29	0.92	NP	7.37	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	4/15/1999	8.29	0.90	NP	7.39	ND	**75**	**21**	ND	ND	**1.1**	**680**	--	--	--	--	--	--	--	--
	7/14/1999	8.29	1.04	NP	7.25	**140**	ND	**1.9**	ND	ND	ND	**260**	--	--	--	--	--	--	--	--
	10/21/1999	8.29	1.23	NP	7.06	**210**	ND	ND	ND	ND	ND	**170**	--	--	--	--	--	--	--	--
	1/20/2000	8.29	1.18	NP	7.11	**519**	ND	**1.1**	ND	ND	ND	**35**	--	--	--	--	--	--	--	--
	4/13/2000	8.29	1.08	NP	7.21	**81**	**160**	**0.64**	ND	ND	ND	**53**	--	--	--	--	--	--	--	--
	7/14/2000	8.29	1.43	NP	6.86	**107**	ND	ND	ND	ND	ND	**20.2**	--	--	--	--	--	--	--	--
	10/26/2000	8.29	1.38	NP	6.91	**240**	240	**2.9**	ND	ND	ND	**56**	--	--	--	--	--	--	--	--
	1/3/2001	8.29	1.66	NP	6.63	**164**	**166**	**0.763**	**0.776**	ND	**1.28**	**50.2**	--	--	--	--	--	--	--	--
	4/4/2001	8.29	1.27	NP	7.02	**240**	**296**	**0.738**	ND	ND	0.907	**135**	--	--	--	--	--	--	--	--
	7/17/2001	8.29	1.38	NP	6.91	ND	ND	ND	ND	ND	ND	**13**	--	--	--	--	--	--	--	--
	10/1/2001	8.29	1.93	NP	6.36	<52	**51**	<0.50	<0.50	<0.50	<0.50	**5.0**	--	--	--	--	--	--	--	--
	1/31/2002	8.29	2.08	NP	6.21	200	<50	<0.50	<0.50	<0.50	<0.50	**5.8**	--	--	--	--	--	--	--	--

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-9	4/18/2002	8.29	1.76	NP	6.53	<50	<50	<0.50	<0.50	<0.50	<0.50	**5.1**	--	--	--	--	--	--	--	--
	7/28/2002	8.29	1.57	NP	6.72	<50	<50	<0.50	<0.50	<0.50	<1.0	--	**3.5**	--	--	--	--	--	--	--
	10/9/2002	8.29	1.45	NP	6.84	**100**	<50	<0.50	<0.50	<0.50	<1.0	--	**17**	--	--	--	--	--	--	--
	1/2/2003	8.29	1.18	NP	7.11	<50	<50	<0.50	<0.50	<0.50	<1.0	--	**8.6**	--	--	--	--	--	--	--
	4/1/2003	8.29	2.04	NP	6.25	56	<50	<0.50	<0.50	<0.50	<1.0	--	**9.4**	--	--	--	--	--	--	--
	7/1/2003	8.29	2.80	NP	5.49	<50	<50	<0.50	<0.50	<0.50	<1.0	--	**3.2**	--	--	--	--	<500	--	--
	10/2/2003	8.29	2.70	NP	5.59	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	<500	--	--
	1/9/2004	8.29	1.90	NP	6.39	**91**	**74**	<0.50	**0.98**	**2.3**	**6.2**	--	<2.0	--	--	--	--	<500	--	--
	4/26/2004	8.29	1.62	NP	6.67	<50	**51**	<0.50	<0.50	<0.50	<1.0	--	**0.51**	--	--	--	--	<50	--	--
	7/22/2004	8.29	1.88	NP	6.41	<200	<50	<0.5	<0.5	<0.5	<1	--	**0.78**	--	--	--	--	<1000	--	--
	10/29/2004	8.29	1.28	NP	7.01	**76**	<50	<0.50	<0.50	<0.50	**1.0**	--	<0.50	--	--	--	--	<50	--	--
	1/10/2005	8.29	0.07	NP	8.22	**77**	**93**	**0.60**	**2.3**	**2.4**	**9.0**	--	<0.50	--	--	--	--	<50	--	--
	6/15/2005	8.29	1.70	NP	6.59	**67**	<50	<0.50	<0.50	<0.50	<1.0	--	**6.6**	--	--	--	--	<50	--	--
	9/27/2005	8.29	1.98	NP	6.31	<200	<50	<0.50	**0.73**	<0.50	<1.0	--	**2.3**	<0.50	<0.50	<0.50	<10	<250	--	--
	12/13/2005	8.29	2.26	NP	6.03	<200	<50	<0.50	<0.50	<0.50	<1.0	--	**2.9**	--	--	--	--	<250	--	--
	3/23/2006	8.29	1.32	NP	6.97	<200	<50	<0.50	<0.50	<0.50	<1.0	--	**2.7**	--	--	--	--	<250	--	--
	6/23/2006	8.29	1.98	NP	6.31	<200	<50	<0.50	<0.50	<0.50	<1.0	--	**1.9**	--	--	--	--	<250	--	--
	9/26/2006	8.29	2.52	NP	5.77	<50	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	12/22/2006	8.29	1.98	NP	6.31	**150**	<50	<0.50	**0.57**	**1.8**	**4.6**	--	**1.6**	--	--	--	--	<250	--	--
	3/30/2007	8.29	2.01	NP	6.28	**72**	<50	<0.50	<0.50	<0.50	<0.50	--	**3.4**	--	--	--	--	<250	--	--
	6/28/2007	8.29	1.90	NP	6.39	**1000**	<50	<0.50	<0.50	<0.50	<0.50	--	**4.9**	--	--	--	--	<250	--	--
	9/25/2007	8.29	1.57	NP	6.72	**100**	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	12/28/2007	8.29	1.98	NP	6.31	**56**	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	3/22/2008	8.29	0.80	NP	7.49	<50	<50	<0.50	<0.50	<0.50	<1.0	--	**0.61**	--	--	--	--	<250	--	--
	6/23/2008	8.29	1.80	NP	6.49	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	9/19/2008	8.29	2.43	NP	5.86	56	<50	<0.50	<0.50	<0.50	<1.0	--	**3.9**	--	--	--	--	<250	--	--
	12/31/2008	8.29	2.66	NP	5.63	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	3/27/2009	8.29	2.01	NP	6.28	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	5/28/2009	8.29	2.20	NP	6.09	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	9/17/2009	8.29	1.83	NP	6.46	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/17/2009	8.29	1.52	NP	6.77	**105**	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--
	3/29/2010	8.29	2.21	NP	6.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	10.94	2.32	NP	8.62	**95.0**	<50.0	<0.50	<0.50	<0.50	<1.5	--	**0.85**	--	--	--	--	<250	--	--
	7/6/2010	10.94	2.02	NP	8.92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	10.94	2.03	NP	8.91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/2010	10.94	1.77	NP	9.17	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--
	3/14/2011	10.94	2.24	NP	8.70	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
	6/2/2011	10.94	2.24	NP	8.70	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
	9/7/2011	10.94	2.46	NP	8.48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	10.94	2.43	NP	8.51	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	**4.0**	--	--	--	--	<250	--	--
	3/6/2012	10.94	3.03	NP	7.91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	10.94	1.75	NP	9.19	<37.9	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
	9/6/2012	10.94	1.24	NP	9.70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	10.94	1.80	NP	9.14	<50	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	<5.0	<5.0	--	--
	3/14/2013	10.94	2.38	NP	8.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2013	10.94	2.81	NP	8.13	<50	<50	<0.50	<0.50	<0.50	<0.50	--	**4.2**	--	--	--	<5.0	<5.0	--	--
	9/10/2013	10.94	2.63	NP	8.31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	2/21/1995	8.62	4.69	NP	3.93	**270**	**1500**	**250**	**26**	**9.1**	**160**	--	--	--	--	--	--	--	--	--
	5/18/1995	8.62	4.92	NP	3.70	**75**	**810**	**520**	ND	**18**	**23**	--	--	--	--	--	--	--	--	--
	8/17/1995	8.62	4.05	NP	4.57	ND	**67**	**25**	ND	**2.4**	ND	--	--	--	--	--	--	--	--	--
	7/26/1996	8.62	4.08	NP	4.54	ND	ND	**3.7**	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	10/28/1996	8.62	4.09	NP	4.53	ND	ND	**1.1**	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	1/29/1997	8.62	2.94	NP	5.68	ND	**210**	**41**	0.67	**7.2**	**4.8**	**11**	--	--	--	--	--	--	--	--
	4/15/1997	8.62	4.07	NP	4.55	ND	**110**	**12**	ND	**0.77**	ND	**9.7**	--	--	--	--	--	--	--	--
	5/27/1997	8.62	4.40	NP	4.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/15/1997	8.62	4.19	NP	4.43	ND	ND	**2.1**	ND	**0.67**	**0.73**	ND	--	--	--	--	--	--	--	--
	10/9/1997	8.62	4.75	NP	3.87	ND	**190**	**38**	**0.92**	**6.6**	**7.6**	ND	--	--	--	--	--	--	--	--
	1/14/1998	8.62	2.66	NP	5.96	--	**59**	**9.5**	**0.85**	**1.2**	**1.7**	**4.5**	--	--	--	--	--	--	--	--
	4/1/1998	8.62	3.45	NP	5.17	**62**	**230**	**66**	**1.7**	**12**	**17**	**6.4**	--	--	--	--	--	--	--	--
	7/15/1998	8.62	4.21	NP	4.41	**78**	**290**	**98**	**45**	**21**	**38**	**21**	--	--	--	--	--	--	--	--
	10/16/1998	8.62	4.11	NP	4.51	ND	**160**	**44**	**0.96**	**2.5**	**10**	**17**	--	--	--	--	--	--	--	--
	1/25/1999	8.62	3.26	NP	5.36	ND	**140**	**27**	ND	**2.8**	**6.8**	**23**	--	--	--	--	--	--	--	--
	4/15/1999	8.62	3.63	NP	4.99	ND	**120**	**18**	ND	**1.8**	**5.1**	**14**	--	--	--	--	--	--	--	--

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-10	7/14/1999	8.62	3.89	NP	4.73	**180**	**280**	**55**	**3.2**	**11**	**31**	**6.1**	--	--	--	--	--	--	--	--
	10/21/1999	8.62	4.09	NP	4.53	**96**	**140**	**22**	**0.59**	**1.7**	**7.7**	**5.3**	--	--	--	--	--	--	--	--
	1/20/2000	8.62	3.92	NP	4.70	**252**	ND	**0.73**	**0.86**	ND	ND	**5.2**	--	--	--	--	--	--	--	--
	4/13/2000	8.62	3.85	NP	4.77	**69**	**67**	**54**	ND	**2.6**	ND	**3.8**	--	--	--	--	--	--	--	--
	7/14/2000	8.62	4.18	NP	4.44	**149**	ND	**0.547**	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	10/26/2000	8.62	3.96	NP	4.66	**83**	ND	**3.3**	ND	**0.83**	**1.5**	ND	--	--	--	--	--	--	--	--
	1/3/2001	8.62	4.14	NP	4.48	**126**	**52.7**	**5.15**	ND	**0.823**	**1.57**	ND	--	--	--	--	--	--	--	--
	4/4/2001	8.62	3.88	NP	4.74	**75**	**129**	**28.1**	**1.67**	**4.97**	**10.1**	ND	--	--	--	--	--	--	--	--
	7/17/2001	8.62	4.08	NP	4.54	ND	ND	**4.1**	ND	**1.0**	**1.8**	ND	--	--	--	--	--	--	--	--
	10/1/2001	8.62	4.22	NP	4.40	**100**	**140**	**30**	**0.51**	**4.0**	**12**	<5.0	--	--	--	--	--	--	--	--
	1/31/2002	8.62	3.68	NP	4.94	**170**	**110**	**16**	<0.50	**2.3**	**5.6**	<2.5	--	--	--	--	--	--	--	--
	4/18/2002	8.62	4.01	NP	4.61	**130**	<50	**11**	<0.50	**1.4**	**4.5**	<2.5	--	--	--	--	--	--	--	--
	7/28/2002	8.62	4.11	NP	4.51	**58**	**67**	**15**	<0.50	**0.94**	**7.3**	--	<2.0	--	--	--	--	--	--	--
	10/9/2002	8.62	3.97	NP	4.65	<94	<50	**0.67**	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--
	1/2/2003	8.62	3.03	NP	5.59	**64**	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--
	4/1/2003	8.62	3.83	NP	4.79	**76**	<50	**11**	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--
	7/1/2003	8.62	4.13	NP	4.49	**87**	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	<500	--	--
	10/2/2003	8.62	4.05	NP	4.57	**160**	**77**	9.9	**0.78**	**2.3**	**4.9**	--	<2.0	--	--	--	--	<500	--	--
	1/9/2004	8.62	3.40	NP	5.22	**74**	**53**	**1.2**	<0.50	**0.70**	**1.6**	--	<2.0	--	--	--	--	<500	--	--
	4/26/2004	8.62	3.89	NP	4.73	<50	**<50**	**2.8**	**1.3**	**1.0**	**2.9**	--	<0.50	--	--	--	--	<50	--	--
	7/22/2004	8.62	3.73	NP	4.89	<200	<50	<0.5	<0.5	<0.5	<1	--	<0.5	--	--	--	--	<1000	--	--
	10/29/2004	8.62	3.41	NP	5.21	<50	**100**	**2.0**	**1.2**	**1.1**	**3.6**	--	<0.50	--	--	--	--	<50	--	--
	1/10/2005	8.62	2.68	NP	5.94	**94**	**84**	**7.8**	**2.7**	**2.2**	**8.9**	--	<0.50	--	--	--	--	<50	--	--
	6/15/2005	8.62	4.63	NP	3.99	**62**	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<50	--	--
	9/27/2005	8.62	3.96	NP	4.66	<200	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	<0.50	<0.50	<0.50	<10	<250	--	--
	12/13/2005	8.62	3.75	NP	4.87	<200	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	3/23/2006	8.62	3.13	NP	5.49	<200	50	**13**	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	6/23/2006	8.62	3.90	NP	4.72	<200	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	9/26/2006	8.62	3.66	NP	4.96	<50	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	12/22/2006	8.62	3.56	NP	5.06	**81**	<50	<0.50	<0.50	<0.50	**1.8**	--	<0.50	--	--	--	--	<250	--	--
	3/30/2007	8.62	3.93	NP	4.69	**82**	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	6/28/2007	8.62	4.03	NP	4.59	**57**	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	9/25/2007	8.62	3.91	NP	4.71	**82**	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	12/28/2007	8.62	3.64	NP	4.98	**62**	<50	**2.1**	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	3/22/2008	8.62	4.00	NP	4.62	<50	**64**	**13**	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	6/23/2008	8.62	3.90	NP	4.72	<50	**94**	**30**	**0.53**	**3.4**	**3.5**	--	<0.50	--	--	--	--	<250	--	--
	9/19/2008	8.62	3.85	NP	4.77	<50	**130**	**15**	**1.7**	**5.7**	**11**	--	<0.50	--	--	--	--	<250	--	--
	12/31/2008	8.62	3.69	NP	4.93	<50	**82**	**11**	<0.50	**0.81**	**1.7**	--	<0.50	--	--	--	--	<250	--	--
	3/27/2009	8.62	3.75	NP	4.87	**730**	**210**	**28**	**1.4**	**1.2**	**3.9**	--	<0.50	--	--	--	--	<250	--	--
	5/28/2009	8.62	3.66	NP	4.96	<50	<50	**0.91**	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	9/17/2009	8.62	3.85	NP	4.77	**65**	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	12/17/2009	8.62	3.00	NP	5.62	**57.7**	<50.0	**1.2**	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--
	3/29/2010	8.62	3.81	NP	4.81	**82.2**	<50.0	**0.77**	<0.50	<0.50	**3.4**	--	<0.50	--	--	--	--	<250	--	--
	6/30/2010	10.97	3.90	NP	7.07	**53.4**	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--
	7/6/2010	10.97	3.73	NP	7.24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	10.97	3.85	NP	7.12	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--
	12/8/2010	10.97	3.63	NP	7.34	<50.0	<50.0	**1.8**	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--
	3/14/2011	10.97	3.46	NP	7.51	**63.3**	<50.0	**1.1**	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
	6/2/2011	10.97	3.92	NP	7.05	<50.0	**58.7**	**4.8**	**4.2**	**0.96**	**5.1**	--	<0.50	--	--	--	<5.0	<250	--	--
	9/7/2011	10.97	4.06	NP	6.91	<50.0	<50.0	**4.1**	<0.50	**0.66**	**2.4**	--	<0.50	--	--	--	--	<250	--	--
	12/5/2011	10.97	3.82	NP	7.15	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--
	3/6/2012	10.97	3.74	NP	7.23	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	**58.7**	<250	--	--
	6/11/2012	10.97	3.99	NP	6.98	<37.9	<50.0	**0.79**	<0.50	<0.50	<1.5	--	**0.72**	--	--	--	**17.2**	<250	--	--
	9/6/2012	10.97	4.00	NP	6.97	**110**	**64**	**6.9**	**0.89**	**1.8**	**3.9**	--	<0.50	<0.50	<0.50	<0.50	<5.0	<5.0	<0.50	<0.50
	9/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	10.97	3.40	NP	7.57	<50	**120**	**15**	**1.1**	**1.7**	**5.2**	--	<0.50	--	--	--	<5.0	<5.0	--	--
	3/14/2013	10.97	4.00	NP	6.97	<50	**86**	**25**	<0.50	**0.6**	**0.8**	--	<0.50	--	--	--	<5.0	<5.0	--	--
	6/11/2013	10.97	4.20	NP	6.77	<50	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	<5.0	<8.0	--	--
	9/10/2013	10.97	3.92	NP	7.05	<50	<50	<0.50	<0.50	<0.50	**1.2**	--	<0.50	--	--	--	<5.0	<5.0	--	--
MW-11	7/6/2010	10.53	2.44	NP	8.09	**226**	**99.2**	<0.50	<0.50	<0.50	<1.5	--	**165**	<0.50	<0.50	<0.50	**174**	<250	<1.0	<1.0
	9/20/2010	10.53	2.80	NP	7.73	<50.0	**76.4 1n**	<0.50	<0.50	<0.50	<1.5	--	**82.7**	--	--	--	--	<250	--	--
	12/8/2010	10.53	1.90	NP	8.63	**52.7**	<50.0	<0.50	<0.50	<0.50	<1.5	--	**59.1**	--	--	--	--	<250	--	--
	3/14/2011	10.53	1.89	NP	8.64	**67.8**	<50.0	<0.50	<0.50	<0.50	<1.5	--	**44.0**	--	--	--	<5.0	<250	--	--

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA													
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-11	6/2/2011	10.53	1.75	NP	8.78	**69.0 T4**	<50.0	<0.50	**0.61**	<0.50	<1.5	--	**24.9**	--	--	--	**7.1**	<250	--	--
	9/7/2011	10.53	1.56	NP	8.97	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	**3.8**	--	--	--	--	<250	--	--
	12/5/2011	10.53	2.05	NP	8.48	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	**26.4**	--	--	--	--	<250	--	--
	3/6/2012	10.53	2.31	NP	8.22	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	**35.3**	--	--	--	**5.7**	<250	--	--
	6/11/2012	10.53	2.24	NP	8.29	<37.9	<50.0	<0.50	<0.50	<0.50	<1.5	--	**20.9**	--	--	--	**10.4**	<250	--	--
	9/6/2012	10.53	1.70	NP	8.83	**64**	<50	<0.50	<0.50	<0.50	<0.50	--	**7.7**	<0.50	<0.50	<0.50	<5.0	<5.0	<0.50	<0.50
	12/13/2012	10.53	1.56	NP	8.97	<50	<50	<0.50	<0.50	<0.50	<0.50	--	**27**	--	--	--	<5.0	<5.0	--	--
	3/14/2013	10.53	2.20	NP	8.33	<50	<50	<0.50	<0.50	<0.50	<0.50	--	**20**	--	--	--	<5.0	<5.0	--	--
	6/11/2013	10.53	2.92	NP	7.61	<50	<50	<0.50	<0.50	<0.50	<0.50	--	**32**	--	--	--	<5.0	<5.0	--	--
	9/10/2013	10.53	2.98	NP	7.55	<50	<50	<0.50	<0.50	<0.50	<0.50	--	**22**	--	--	--	<5.0	<5.0	--	--
MW-12	7/6/2010	11.01	4.00	NP	7.01	**990**	**20,300**	**1,030**	**955**	**311**	**2,450**	--	**1,650**	<0.50	<0.50	**1.0**	**1,430**	<250	<1.0	<1.0
	9/20/2010	11.01	4.18	NP	6.83	**5,220**	**73,700**	**6,020**	**6,390**	**2,970**	**18,300**	--	**894**	--	--	--	--	<250	--	--
	12/8/2010	11.01	3.92	NP	7.09	**428**	**3,350**	**249**	**117**	**90**	**558**	--	**1,470**	--	--	--	--	<2500	--	--
	3/14/2011	11.01	3.70	NP	7.31	**283**	**2,420**	**287**	**81**	**49**	**243**	--	**1,020**	--	--	--	**70**	<250	--	--
	6/2/2011	11.01	4.40	NP	6.61	**1,330 T4**	**12,200**	**688**	**71**	**225**	**619**	--	**824**	--	--	--	**110**	<250	--	--
	9/7/2011	11.01	4.37	NP	6.64	**1,270 T4**	**7,900**	**920**	**25**	**187**	**267**	--	**896**	--	--	--	--	<2500	--	--
	12/5/2011	11.01	4.32	NP	6.69	**286 T4**	**2,240**	**296**	**38**	**38.0**	**122**	--	**1,040**	--	--	--	--	<250	--	--
	3/6/2012	11.01	4.01	NP	7.00	**272 T4**	**1,260**	**193**	**23**	**29**	**81**	--	**835**	--	--	--	**78**	<250	--	--
	6/11/2012	11.01	4.20	NP	6.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	**957 T4**	**1,030**	**178**	**17.0**	**24**	**69**	--	**993**	--	--	--	**448**	<250	--	--
	9/6/2012	11.01	4.15	NP	6.86	<200	**580**	**120**	**10**	**15**	**37**	--	**840**	<1.5	<1.5	<1.5	**15**	<15	<1.5	**14**
	12/13/2012	11.01	3.35	NP	7.66	<50	**480**	**70**	**4.60**	**7.20**	**19**	--	**820**	--	--	--	**19**	<15	--	--
	3/14/2013	11.01	4.11	NP	6.90	<50	**370**	**76**	**3.40**	**12.00**	**18**	--	**810**	--	--	--	**21**	<15	--	--
	6/11/2013	11.01	4.3	NP	6.71	**62**	**290**	**51**	<1.5	**4.30**	**6**	--	**840**	--	--	--	**19**	<15	--	--
	9/10/2013	11.01	3.96	NP	7.05	<50	**340**	**52**	**1.90**	**6.40**	**5**	--	**820**	--	--	--	**17**	<15	--	--
MW-12A	7/6/2010	11.29	4.22	NP	7.07	**89**	**664**	**18**	**0.78**	**2.30**	**50**	--	**14**	<0.50	<0.50	<0.50	**12**	<250	<1.0	<1.0
	9/20/2010	11.29	4.39	NP	6.90	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	**8.50**	--	--	--	--	<250	--	--
	12/8/2010	11.29	4.00	NP	7.29	**76**	<50.0	<0.50	<0.50	<0.50	<1.5	--	**9.40**	--	--	--	--	<250	--	--
	3/14/2011	11.29	3.81	NP	7.48	**62**	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
	6/2/2011	11.29	4.20	NP	7.09	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
	9/7/2011	11.29	4.42	NP	6.87	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	**0.74**	--	--	--	--	<250	--	--
	12/5/2011	11.29	4.30	NP	6.99	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--
	3/6/2012	11.29	4.32	NP	6.97	**52.0 T4**	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
	6/11/2012	11.29	4.36	NP	6.93	<37.9	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
	9/6/2012	11.29	4.45	NP	6.84	**300**	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	<0.50	<0.50	<0.50	<5.0	<5.0	<0.50	<0.50
	12/13/2012	11.29	3.80	NP	7.49	**62**	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	<5.0	<5.0	--	--
	3/14/2013	11.29	4.36	NP	6.93	<50	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	<5.0	<5.0	--	--
	6/11/2013	11.29	4.53	NP	6.76	<50	<50	<0.50	<0.50	<0.50	<0.50	--	**0.78**	--	--	--	<5.0	<5.0	--	--
	9/10/2013	11.29	4.4	NP	6.89	<50	<50	<0.50	<0.50	<0.50	<0.50	--	**6.3**	--	--	--	<5.0	<5.0	--	--
MW-13	7/6/2010	11.08	4.26	NP	6.82	**469**	**122**	<0.50	<0.50	<0.50	<1.5	--	**217**	<0.50	<0.50	<0.50	**199**	<250	<1.0	<1.0
	9/20/2010	11.08	4.81	NP	6.27	<50.0	**250 1n**	<0.50	<0.50	<0.50	<1.5	--	**272**	--	--	--	--	<250	--	--
	12/8/2010	11.08	5.02	NP	6.06	**97.0**	**177 1n**	<0.50	<0.50	<0.50	<1.5	--	**390**	--	--	--	--	<250	--	--
	3/14/2011	11.08	4.32	NP	6.76	**162**	**127**	<0.50	<0.50	<0.50	<1.5	--	**241**	--	--	--	**125**	<250	--	--
	6/2/2011	11.08	3.98	NP	7.10	**89.9 T4**	**260 1n**	<0.50	<0.50	<0.50	<1.5	--	**228**	--	--	--	**45**	<250	--	--
	9/7/2011	11.08	5.74	NP	5.34	<50.0	**167**	<0.50	<0.50	<0.50	<1.5	--	**207**	--	--	--	--	<250	--	--
	12/5/2011	11.08	5.00	NP	6.08	<50.0	**166 1n**	<0.50	<0.50	<0.50	<1.5	--	**215**	--	--	--	--	<250	--	--
	3/6/2012	11.08	5.37	NP	5.71	<50.0	**63.9 1n**	<0.50	<0.50	<0.50	<1.5	--	**110**	--	--	--	**39**	<250	--	--
	6/11/2012	11.08	5.73	NP	5.35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	<37.9	**118 1n**	<0.50	<0.50	<0.50	<1.5	--	**220**	--	--	--	**82**	<250	--	--
	9/6/2012	11.08	4.14	NP	6.94	**87**	<50	<0.50	<0.50	<0.50	<0.50	--	**140**	<0.50	<0.50	<0.50	**10**	<5.0	<0.50	<0.50
	12/13/2012	11.08	3.80	NP	7.28	<50	<50	<0.50	<0.50	<0.50	<0.50	--	**130**	--	--	--	**14**	<5.0	--	--
	3/14/2013	11.08	4.20	NP	6.88	<50	<50	<0.50	<0.50	<0.50	<0.50	--	**110**	--	--	--	**24**	<5.0	--	--
	6/11/2013	11.08	4.10	NP	6.98	<50	<50	<0.50	<0.50	<0.50	<0.50	--	**97**	--	--	--	**31**	<5.0	--	--
	9/10/2013	11.08	4.20	NP	6.88	<50	<50	<0.50	<0.50	<0.50	**0.62**	--	**64**	--	--	--	**47**	<5.0	--	--
MW-14	6/2/2011	12.00	3.58	NP	8.42	**4,180 T4**	**51,600**	**2,750**	**67.9**	**1,790**	**13,400**	--	**1.9**	--	--	--	**27.2**	<250	--	--
	9/7/2011	12.00	3.02	NP	8.98	**2,970 T4**	**42,600**	**1,050**	**28.1**	**2,990**	**7,300**	--	<25.0	--	--	--	--	<12500	--	--
	12/5/2011	12.00	4.05	NP	7.95	**3,980 T4**	**14,000**	**709**	**9.1**	**1,420**	**2,530**	--	**0.97**	--	--	--	--	<250	--	--
	3/6/2012	12.00	3.94	NP	8.06	**3,640 T4**	**16,600**	**959**	**15.0**	**2,330**	**3,830**	--	<2.5	--	--	--	**28.1**	<1250	--	--
	6/11/2012	12.00	3.91	NP	8.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	**4,580**	**15,700**	**1,200**	**14.0**	**1,580**	**3,010**	--	**1.4**	--	--	--	**23.3**	<250	--	--
	9/6/2012	12.00	3.35	NP	8.65	<2000	**12,000**	**210**	**9.1**	**1,100**	**1,800**	--	<4.0	<4.0	<4.0	<4.0	<20	<40	<4.0	<4.0
	9/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	12.00	3.26	NP	8.74	<50	**10,000**	**72**	**5.8**	**610**	**780**	--	<1.5	--	--	--	<7.0	<15	--	--
	3/14/2013	12.00	4.16	NP	7.84	<50	**5,700**	**290**	**11**	**750**	**960**	--	<1.5	--	--	--	**12**	<15	--	--
	6/11/2013	12.00	7.37	NP	7.37	<50	**6,900**	**630**	**5.3**	**480**	**680**	--	<1.5	--	--	--	**24**	<15	--	--
	9/10/2013	12.00	4.88	NP	7.12	**120**	**31,000**	**1,500**	**39**	**2,300**	**5,200**	--	<1.5	--	--	--	**32**	<15	--	--
MW-15	6/2/2011	11.11	2.50	NP	8.61	**124 T4**	**357**	<0.50	<0.50	<0.50	<1.5	--	**15**	--	--	--	**6.4**	<250	--	--

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA													
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-15	9/7/2011	11.11	2.54	NP	8.57	<50.0	**412**	**6.2**	<0.50	**43**	<1.5	--	**128**	--	--	--	--	<250	--	--
	12/5/2011	11.11	2.70	NP	8.41	**50.5 T4**	**201**	**6.6**	<0.50	**0.93**	<1.5	--	**142**	--	--	--	--	<250	--	--
	3/6/2012	11.11	2.69	NP	8.42	**56.2 T4**	<50.0	<0.50	<0.50	<0.50	<1.5	--	**106**	--	--	--	**101**	<250	--	--
	6/11/2012	11.11	2.84	NP	8.27	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	<37.9	**74.3 1n**	<0.50	<0.50	<0.50	<1.5	--	**114**	--	--	--	**91**	<250	--	--
	9/6/2012	11.11	2.24	NP	8.87	**64**	59	<0.50	<0.50	<0.50	<0.50	--	**76**	<0.50	<0.50	<0.50	**45**	<5.0	<0.50	<0.50
	12/13/2012	11.11	2.51	NP	8.60	<50	<50	<0.50	<0.50	<0.50	<0.50	--	**33**	--	--	--	**7.4**	<5.0	--	--
	3/14/2013	11.11	2.91	NP	8.20	<50	<50	<0.50	<0.50	<0.50	<0.50	--	**46**	--	--	--	**21.0**	<5.0	--	--
	6/11/2013	11.11	3.36	NP	7.75	<50	<50	<0.50	<0.50	<0.50	<0.50	--	**73**	--	--	--	**31.0**	<5.0	--	--
	9/10/2013	11.11	3.28	NP	7.83	<50	**68**	<0.50	<0.50	<0.50	<0.50	--	**120**	--	--	--	**39.0**	<5.0	--	--
MW-16	6/2/2011	10.98	3.00	NP	7.98	**509 T4**	**1,420 1n**	**79**	<0.50	**4**	<1.5	--	**1,200**	--	--	--	**257**	<250	--	--
	9/7/2011	10.98	2.65	NP	8.33	**90.0 T4**	**934**	<0.50	<0.50	<0.50	<1.5	--	**1,240**	--	--	--	--	<250	--	--
	12/5/2011	10.98	3.18	NP	7.80	**196 T4**	**948 1n**	<0.50	<0.50	<0.50	<1.5	--	**1,320**	--	--	--	--	<250	--	--
	3/6/2012	10.98	2.91	NP	8.07	**204 T4**	**392 1n**	<0.50	<0.50	<0.50	<1.5	--	**1,090**	--	--	--	**134**	<250	--	--
	6/11/2012	10.98	3.04	NP	7.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	**48.1 T4**	**430 1n**	<0.50	<0.50	<0.50	<1.5	--	**1,100**	--	--	--	**374**	<250	--	--
	9/6/2012	10.98	2.61	NP	8.37	**390**	<150	<1.5	<1.5	<1.5	<1.5	--	**960**	<1.5	<1.5	<1.5	**70**	<15	<1.5	<1.5
	12/13/2012	10.98	2.50	NP	8.48	**52**	<150	<1.5	<1.5	<1.5	<1.5	--	**980**	--	--	--	**55**	<20	--	--
	3/14/2013	10.98	3.15	NP	7.83	<50	<200	<2.0	<2.0	<2.0	<2.0	--	**950**	--	--	--	**67**	<20	--	--
	6/11/2013	10.98	3.19	NP	7.79	<50	<150	<1.5	<1.5	<1.5	<1.5	--	**820**	--	--	--	**70**	<15	--	--
	9/10/2013	10.98	3.44	NP	7.54	<50	<50	<0.50	<0.50	<0.50	**0.67**	--	**240**	--	--	--	**440**	<5.0	--	--
MW-17	6/2/2011	11.52	5.78	NP	5.74	**687 T4**	**9,130**	**2,530**	**960**	**35**	**907**	--	**1**	--	--	--	**366**	<250	--	--
	9/7/2011	11.52	4.56	NP	6.96	**1,900 T4**	**47,200**	**9,620**	**5,510**	**1,210**	**4,510**	--	<25.0	--	--	--	--	<12500	--	--
	12/5/2011	11.52	4.70	NP	6.82	**1,790 T4**	**17,300**	**4,720**	**511**	**238**	**747**	--	<2.5	--	--	--	--	<1250	--	--
	3/6/2012	11.52	4.64	NP	6.88	**1,530 T4**	**1,580**	**2,090**	**24**	**39**	**166**	--	**1**	--	--	--	**481**	<250	--	--
	6/11/2012	11.52	4.67	NP	6.85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	**1,090 T4**	**4,950**	**2,340**	**123**	**153**	**610**	--	<2.5	--	--	--	**411**	<1250	--	--
	9/6/2012	11.52	4.39	NP	7.13	<1000	**18,000**	**4,300**	**170**	**370**	**1,100**	--	<10	<10	<10	<10	**300**	<100	<10	110
	9/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	11.52	4.20	NP	7.32	<100	**55,000**	**7,300**	**2,700**	**1,700**	**4,600**	--	<10	--	--	--	**300**	<100	--	--
	3/14/2013	11.52	4.70	NP	6.82	<200	**63,000**	**13,000**	**5,400**	**3,100**	**8,800**	--	<15	--	--	--	**260**	<150	--	--
	6/11/2013	11.52	4.83	NP	6.69	**710**	**110,000**	**10,000**	**11,000**	**3,100**	**12,000**	--	<25	--	--	--	<150	<250	--	--
	9/10/2013	11.52	4.60	NP	6.92	**160**	**36,000**	**8,200**	**510**	**1,200**	**2,400**	--	<15	--	--	--	**320**	<150	--	--

Gauging Notes:
TOS - Top of Screen
ft - Feet
NP - LNAPL not present
LNAPL - Light non-aqueous phase liquid
* - Corrected for LNAPL if present (assumes LNAPL specific gravity = 0.75)
-- - No information available

Analytical Notes:
< - Below laboratory's indicated reporting limit
ug/L - micrograms/liter
DRO- diesel range organics
TPHd- Total petroleum hydrocarbons as diesel
TPHg- Total petroleum hydrocarbons as gasoline
MTBE- Methyl tertiary-butyl ether
TBA- Tertiary-butyl alcohol
Bold - Above the laboratory's indicated reporting limit
1n - The TPHg result for this sample did not match the laboratory standard for gasoline. This is likely due to the presence of MTBE in the sample.
T4- Result reported for the hydrocarbons within the method-specific range that do not match pattern of laboratory standard.

TABLE 3a
ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUNDWATER ANALYTICAL DATA																			
		Acetone (ug/L)	Alkalinity, Bicarbonate (mg/L)	Alkalinity, Hydroxide (CaCO) (mg/L)	Alkalinity, Total A2320B (mg/L)	Alkalinity, Total as CaCO3 A2320B (mg/L)	Antimony (ug/L)	Arsenic (ug/L)	Barium (ug/L)	Beryllium (ug/L)	Biochemical Oxygen Demand (ug/L)	Bromate (mg/L)	Bromide (mg/L)	Cadmium S(ug/L)	Chemical Oxygen Demand (ug/L)	Chloride (ug/L)	Chromium (ug/L)	Chromium, Hexavalent (ug/L)	Cobalt (ug/L)	Coliform, Total (MPN/100ML)	E. Coli (MPN/100ML)
MW-6	3/14/2011	**18**	--	--	--	--	<60.0	**23**	**216**	<5.0	**32,200**	--	--	<5.0	**173,000**	**204,000**	--	--	<50.0	--	--
	6/2/2011	<5.0	**828**	<1	**828**	<1	<60.0	**22.0**	**191**	<5.0	**45,100**	<0.005	**2**	<5.0	**121,000**	**149,000**	**4**	<2	<50.0	**42,000**	<100
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/6/2012	--	--	--	--	**650**	--	--	--	--	--	--	--	--	--	--	<5.0	<10	--	--	--
	9/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	3/14/2011	<5.0	--	--	--	--	<60.0	<20.0	<100	<5.0	**7,160.0**	--	--	<5.0	**11,500.0**	**34,700.0**	--	--	<50.0	--	--
	6/2/2011	<5.0	**226.0**	<1	**226.0**	<1	<60.0	<20.0	<100	<5.0	**4,170.0**	<0.005	**2.0**	<5.0	**15,100.0**	**32,400.0**	**2.4**	<0.2	<50.0	**2.0**	<1
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	9/6/2012	--	--	--	--	**561**	--	--	--	--	--	--	--	--	--	--	**17**	<10	--	--	--
	9/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12	3/14/2011	<5.0	--	--	--	--	<60.0	<20.0	<100	<5.0	<2000	--	--	<5.0	**80,100**	**8,240,000**	--	--	<50.0	--	--
	6/2/2011	<5.0	**905**	<1	**905**	<1	<60.0	<20.0	<100	<5.0	**7,240**	<0.05	**33**	<5.0	**191,000**	**7,260,000**	**3**	<2	<50.0	**210**	<1
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/6/2012	--	--	--	--	**806**	--	--	--	--	--	--	--	--	--	--	<5.0	<10	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-14	9/6/2012	--	--	--	--	**1,720**	--	--	--	--	--	--	--	--	--	--	**24**	<10	--	--	--
	9/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-17	9/6/2012	--	--	--	--	**2,820**	--	--	--	--	--	--	--	--	--	--	**38**	<10	--	--	--
	9/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Analytical Notes:
< - Below laboratory's indicated reporting limit
mg/L - milligrams per liter
MPN/100ML - most probable number per 100 ml
ug/L - micrograms/liter
Bold - Above the laboratory's indicated reporting limit

TABLE 3b
ADDITIONAL HISORICAL GROUNDWATER ANALYTICAL DATA
76 STATION NO. 5191/504
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUND WATER ANALYTICAL DATA																		
		Inorganic Carbon (mg/L)	Iron SW6010 D (ug/L)	Iron SW6010 T (ug/L)	Iron, Ferric (ug/L)	Iron, Ferrous (ug/L)	Lead (ug/L)	Manganese (ug/L)	Mercury (ug/L)	Methane (ug/L)	Molybdenum (ug/L)	Nickel (ug/L)	Nitrate as N E300.0 (mg/L)	Nitrate as N E353/E351 (ug/L)	Nitrite as N (ug/L)	Nitrogen, Ammonia (mg/L)	Nitrogen, NO2 plus NO3 (ug/L)	Nitrogen, Total Kjeldahl (mg/L)	Oil and Grease (ug/L)	Salinity (mg/L)
MW-3	12/17/2009	--	--	**12,300**	--	--	--	--	--	--	--	--	--	<50.0	<50.0	--	<50.0	--	--	--
	3/29/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	--	**5,550**	**10,700**	--	--	--	--	--	--	--	--	--	<50.0	**95.0**	--	**76**	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/2/2011	--	--	**13,600**	--	--	--	--	--	--	--	--	--	<50.0	<10.0	--	**53**	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	**10,900**	--	--	--	--	--	--	--	--	--	<50.0	<10	--	<50.0	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	9/17/2009	--	--	**1,500**	--	--	--	--	--	--	--	--	<0.00044	<0.44	--	--	--	--	--	--
	12/17/2009	--	--	**2,460**	--	--	--	--	--	--	--	--	--	<50.0	<50.0	--	<50.0	--	--	--
	3/29/2010	--	**1,790**	**1,510**	--	--	--	--	--	--	--	--	--	<50.0	**41**	--	**55**	--	--	--
	6/30/2010	--	**946**	**2,310**	--	--	--	--	--	--	--	--	--	<50.0	**58**	--	**69**	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	--	**2,730**	**2,600**	--	--	--	--	--	--	--	--	--	<50.0	<10.0	--	**52**	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	**4,900**	**3,900**	**1,000**	**27**	**1,270**	<0.20	**474**	<20.0	<40.0	--	**50**	<10.0	--	**54**	--	--	--
	6/2/2011	**870**	--	**4,320**	**2,520**	**1,800**	**23**	**1,510**	<0.20	**445**	<20.0	<40.0	--	<50.0	<10.0	**3**	**51**	**5**	--	**1,500**
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	**1,240**	--	--	--	--	--	--	--	--	--	<50.0	<10	--	<50.0	--	--	--
	9/6/2012	--	--	--	**1,000**	--	--	--	--	**2,890**	--	--	--	--	--	--	--	--	--	--
	9/11/2012	--	--	--	--	--	--	--	--	--	--	--	<0.10	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	6/30/2010	--	**836**	**7,550**	--	--	--	--	--	--	--	--	--	<50.0	**74**	--	**74**	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/2/2011	--	--	**7,800**	--	--	--	--	--	--	--	--	--	**233**	<10.0	--	**239**	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	**264**	--	--	--	--	--	--	--	--	--	<50.0	**67**	--	**111**	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	6/30/2010	--	**4,710**	**8,000**	--	--	--	--	--	--	--	--	--	<50.0	**68**	--	**60**	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/2/2011	--	--	**24,900**	--	--	--	--	--	--	--	--	--	**61**	<10.0	--	**61**	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	**21,000**	--	--	--	--	--	--	--	--	--	<50.0	**48**	--	<50.0	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	12/17/2009	--	--	**2,270**	--	--	--	--	--	--	--	--	--	<50.0	<50.0	--	<50.0	--	--	--
	3/29/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	--	**3,210**	**8,820**	--	--	--	--	--	--	--	--	--	<50.0	**15**	--	<50.0	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 3b
ADDITIONAL HISORICAL GROUNDWATER ANALYTICAL DATA
76 STATION NO. 5191/504
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUND WATER ANALYTICAL DATA																	
		Inorganic Carbon (mg/L)	Iron SW6010 D (ug/L)	Iron SW6010 T (ug/L)	Iron, Ferric (ug/L)	Iron, Ferrous (ug/L)	Lead (ug/L)	Manganese (ug/L)	Mercury (ug/L)	Methane (ug/L)	Molybdenum (ug/L)	Nickel (ug/L)	Nitrate as N E300.0 (mg/L)	Nitrate as N E353/E351 (ug/L)	Nitrite as N (ug/L)	Nitrogen, Ammonia (mg/L)	Nitrogen, NO2 plus NO3 (ug/L)	Nitrogen, Total Kjeldahl (mg/L)	Oil and Grease (ug/L)	Salinity (mg/L)
MW-9	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	**1,560**	**157**	**1,400**	<10.0	**148**	<0.20	**419**	<20.0	<40.0	--	<50.0	<10.0	--	<50.0	--	--	--
	6/2/2011	**240**	--	**1,260**	**1,060**	**200**	<10.0	**92**	<0.20	**673**	<20.0	<40.0	--	<50.0	<10.0	**1**	<50.0	**1**	--	**405**
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	**731**	--	--	--	--	--	--	--	--	--	<50.0	<10	--	<50.0	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	9/17/2009	--	--	**9,800**	--	--	--	--	--	--	--	--	**0**	**12**	--	--	--	--	--	--
	12/17/2009	--	--	**3,410**	--	--	--	--	--	--	--	--	--	**1,970**	**60**	--	**2,030**	--	--	--
	3/29/2010	--	**365**	**2,410**	--	--	--	--	--	--	--	--	--	**1,960**	**19**	--	**1,970**	--	--	--
	6/30/2010	--	**216**	**1,860**	--	--	--	--	--	--	--	--	--	**2,120**	**68**	--	**2,190**	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	--	**280**	**3,080**	--	--	--	--	--	--	--	--	--	**2,690**	**68**	--	**2,750**	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	**2,620**	--	--	--	--	--	--	--	--	--	--	--	--	**2,350**	--	--	--
	6/2/2011	--	--	**9,870**	--	--	--	--	--	--	--	--	--	**1,290**	**49**	--	**1,340**	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	**11,300**	--	--	--	--	--	--	--	--	--	**1,510**	**57**	--	**1,570**	--	--	--
	9/6/2012	--	--	--	**11,000**	--	--	--	--	**467**	--	--	--	--	--	--	--	--	--	--
	9/11/2012	--	--	--	--	--	--	--	--	--	--	--	**0**	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-11	7/6/2010	--	<100	**3,510**	--	--	--	--	--	--	--	--	--	<50.0	**31.0**	--	**67**	--	--	--
	9/20/2010	--	<100	**1,690**	--	--	--	--	--	--	--	--	--	**167**	<10.0	--	**172**	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	**756**	--	--	--	--	--	--	--	--	--	--	--	--	<50.0	--	--	--
	6/2/2011	--	--	**1,040**	--	--	--	--	--	--	--	--	--	**110**	<10.0	--	**115**	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	**1,300**	--	--	--	--	--	--	--	--	--	**89**	<10	--	**94**	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12	7/6/2010	--	<100	**30,200**	--	--	--	--	--	--	--	--	--	<50.0	**61**	--	<50.0	--	--	--
	9/20/2010	--	**552**	**3,890**	--	--	--	--	--	--	--	--	--	**72**	<10.0	--	**75**	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	**793**	**593**	**200**	<10.0	**12,400**	<0.20	**114**	<20.0	**151**	--	<50.0	**61**	--	**54**	--	--	--
	6/2/2011	**1,100**	--	**9,340**	**8,740**	**600**	<10.0	**12,800**	<0.20	**287**	<20.0	**119**	--	<50.0	<10.0	**0**	**58.0**	**1**	--	**15,600**
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	**497**	--	--	--	--	--	--	--	--	--	<50.0	<10	--	<50.0	--	--	--
	9/6/2012	--	--	--	**190**	--	--	--	--	**64**	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12A	7/6/2010	--	**716**	**57,300**	--	--	--	--	--	--	--	--	--	**3,680**	**164**	--	**3,840**	--	--	--
	9/20/2010	--	<100	**523**	--	--	--	--	--	--	--	--	--	**4,680**	**10**	--	**4,690**	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	**523**	--	--	--	--	--	--	--	--	--	--	--	--	**4,790**	--	--	--
	6/2/2011	--	--	**754**	--	--	--	--	--	--	--	--	--	**4,710**	<10.0	--	**4,720**	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	**859**	--	--	--	--	--	--	--	--	--	**4,250**	<10	--	**4,260**	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 3b
ADDITIONAL HISORICAL GROUNDWATER ANALYTICAL DATA
76 STATION NO. 5191/504
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUND WATER ANALYTICAL DATA																		
		Inorganic Carbon (mg/L)	Iron SW6010 D (ug/L)	Iron SW6010 T (ug/L)	Iron, Ferric (ug/L)	Iron, Ferrous (ug/L)	Lead (ug/L)	Manganese (ug/L)	Mercury (ug/L)	Methane (ug/L)	Molybdenum (ug/L)	Nickel (ug/L)	Nitrate as N E300.0 (mg/L)	Nitrate as N E353/E351 (ug/L)	Nitrite as N (ug/L)	Nitrogen, Ammonia (mg/L)	Nitrogen, NO2 plus NO3 (ug/L)	Nitrogen, Total Kjeldahl (mg/L)	Oil and Grease (ug/L)	Salinity (mg/L)
MW-13	7/6/2010	--	**116**	**92,600**	--	--	--	--	--	--	--	--	--	<50.0	**65**	--	**70**	--	--	--
	9/20/2010	--	**279**	**59,500**	--	--	--	--	--	--	--	--	--	<50.0	<10.0	--	<50.0	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	**44,600**	--	--	--	--	--	--	--	--	--	--	--	--	<50.0	--	--	--
	6/2/2011	--	--	**36,700**	--	--	--	--	--	--	--	--	--	**72**	**15**	--	**86.0**	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	**3,760**	--	--	--	--	--	--	--	--	--	<50.0	**19**	--	<50.0	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-14	6/2/2011	--	--	**47,500**	--	--	--	--	--	--	--	--	--	<50.0	**10**	--	**50**	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	**1,150**	--	--	--	--	--	--	--	--	--	<50.0	<10	--	<50.0	--	--	--
	9/6/2012	--	--	--	**8,900**	--	--	--	--	**718**	--	--	--	--	--	--	--	--	--	--
	9/11/2012	--	--	--	--	--	--	--	--	--	--	--	<0.10	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-15	6/2/2011	--	--	**11,700**	--	--	--	--	--	--	--	--	--	**890**	**38.0**	--	**928**	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	**2,920**	--	--	--	--	--	--	--	--	--	<50.0	<10	--	<50.0	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-16	6/2/2011	--	--	**34,200**	--	--	--	--	--	--	--	--	--	<50.0	<10.0	--	<50.0	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	**1,730**	--	--	--	--	--	--	--	--	--	<50.0	<10	--	<50.0	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-17	6/2/2011	--	--	**109,000**	--	--	--	--	--	--	--	--	--	<50.0	**30**	--	<50.0	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	**44,300**	--	--	--	--	--	--	--	--	--	<50.0	**39**	--	<50.0	--	--	--
	9/6/2012	--	--	--	**21,000**	--	--	--	--	**182**	--	--	--	--	--	--	--	--	--	--
	9/11/2012	--	--	--	--	--	--	--	--	--	--	--	<0.50	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Analytical Notes:
< - Below laboratory's indicated reporting limit
mg/L - milligrams per liter
ug/L - micrograms/liter
Bold - Above the laboratory's indicated reporting limit

TABLE 3c
ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA
76 STATION NO. 5191/5041
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUNDWATER ANALYTICAL DATA							
		Selenium (ug/L)	Silver (ug/L)	Sulfate E300 (ug/L)	Sulfate E300.1 (mg/L)	Thallium (ug/L)	Total Organic Carbon (mg/L)	Vanadium (ug/L)	Zinc (ug/L)
MW-3	12/17/2009	--	--	--	<0.5	--	--	--	--
	3/29/2010	--	--	--	--	--	--	--	--
	6/30/2010	--	--	<5000	--	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	--	--	--	--	--	--	--	--
	6/2/2011	--	--	<5000	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	<2000	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--
MW-6	9/17/2009	--	--	<1.0	<0.0010	--	--	--	--
	12/17/2009	--	--	--	<0.5	--	--	--	--
	3/29/2010	--	--	<1000	--	--	--	--	--
	6/30/2010	--	--	<5000	--	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--
	9/20/2010	--	--	<1000	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	<10.0	<10.0	**35,400**	--	<20.0	--	<50.0	<40.0
	6/2/2011	<10.0	<10.0	**38,900**	--	<20.0	**41**	<50.0	<40.0
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--
	6/12/2012	--	--	**1,110**	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	9/11/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--
MW-7	6/30/2010	--	--	**191,000**	--	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	--	--	--	--	--	--	--	--
	6/2/2011	--	--	**48,900**	--	--	--	--	--

TABLE 3c
ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA
76 STATION NO. 5191/5041
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUNDWATER ANALYTICAL DATA							
		Selenium (ug/L)	Silver (ug/L)	Sulfate E300 (ug/L)	Sulfate E300.1 (mg/L)	Thallium (ug/L)	Total Organic Carbon (mg/L)	Vanadium (ug/L)	Zinc (ug/L)
MW-7	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	**56,900**	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--
MW-8	6/30/2010	--	--	**2,360,000**	--	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	--	--	--	--	--	--	--	--
	6/2/2011	--	--	**2,830,000**	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	**2,570,000**	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--
MW-9	12/17/2009	--	--	--	**11**	--	--	--	--
	3/29/2010	--	--	--	--	--	--	--	--
	6/30/2010	--	--	**19,000**	--	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	<10.0	<10.0	**8,980**	--	<20.0	--	<50.0	<40.0
	6/2/2011	<10.0	<10.0	**18,600**	--	<20.0	**5**	<50.0	<40.0
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	**42,500**	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--
MW-10	9/17/2009	--	--	**84**	**0**	--	--	--	--
	12/17/2009	--	--	--	**86**	--	--	--	--
	3/29/2010	--	--	**73,600**	--	--	--	--	--
	6/30/2010	--	--	**70,800**	--	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--

TABLE 3c
ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA
76 STATION NO. 5191/5041
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUNDWATER ANALYTICAL DATA							
		Selenium (ug/L)	Silver (ug/L)	Sulfate E300 (ug/L)	Sulfate E300.1 (mg/L)	Thallium (ug/L)	Total Organic Carbon (mg/L)	Vanadium (ug/L)	Zinc (ug/L)
MW-10	9/20/2010	--	--	**82,000**	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	--	--	**68,600**	--	--	--	--	--
	6/2/2011	--	--	**71,700**	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	**70,100**	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	9/11/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--
MW-11	7/6/2010	--	--	**82,100**	--	--	--	--	--
	9/20/2010	--	--	**58,300**	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	--	--	**59,900**	--	--	--	--	--
	6/2/2011	--	--	**62,900**	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	**79,400**	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--
MW-12	7/6/2010	--	--	**3,030,000**	--	--	--	--	--
	9/20/2010	--	--	**1,970,000**	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	<10.0	<10.0	**2,500,000**	--	<20.0	--	<50.0	<40.0
	6/2/2011	<10.0	<10.0	**2,330,000**	--	<20.0	**9**	<50.0	<40.0
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--
	6/12/2012	--	--	**2,130,000**	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--
MW-12A	7/6/2010	--	--	**100,000**	--	--	--	--	--
	9/20/2010	--	--	**82,500**	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--

TABLE 3c
ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA
76 STATION NO. 5191/5041
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUNDWATER ANALYTICAL DATA							
		Selenium (ug/L)	Silver (ug/L)	Sulfate E300 (ug/L)	Sulfate E300.1 (mg/L)	Thallium (ug/L)	Total Organic Carbon (mg/L)	Vanadium (ug/L)	Zinc (ug/L)
MW-12A	3/14/2011	--	--	**81,000**	--	--	--	--	--
	6/2/2011	--	--	**101,000**	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	**118,000**	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--
MW-13	7/6/2010	--	--	**450,000**	--	--	--	--	--
	9/20/2010	--	--	**241,000**	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	--	--	**375,000**	--	--	--	--	--
	6/2/2011	--	--	**188,000**	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--
	6/12/2012	--	--	**131,000**	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--
MW-14	6/2/2011	--	--	**56,300**	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--
	6/12/2012	--	--	**439,000**	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	9/11/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--
MW-15	6/2/2011	--	--	**62,700**	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--
	6/12/2012	--	--	**42,100**	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--

TABLE 3c
ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA
76 STATION NO. 5191/5041
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUNDWATER ANALYTICAL DATA							
		Selenium (ug/L)	Silver (ug/L)	Sulfate E300 (ug/L)	Sulfate E300.1 (mg/L)	Thallium (ug/L)	Total Organic Carbon (mg/L)	Vanadium (ug/L)	Zinc (ug/L)
MW-16	6/2/2011	--	--	**8,740**	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--
	6/12/2012	--	--	**19,900**	--	--	--	--	--
	9/6/2012	--	--	**--**	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--
MW-17	6/2/2011	--	--	**3,920,000**	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--
	6/12/2012	--	--	**2,520,000**	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	9/11/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--

Analytical Notes:
< - Below laboratory's indicated reporting limit
mg/L - milligrams per liter
ug/L - micrograms/liter
Bold - Above the laboratory's indicated reporting limit

TABLE 4
Historical Groundwater Gradient and Flow Direction Data
76 Station No. 5191/5043
449 Hegenberger Road
Oakland, California

Site	Monitoring Date	Groundwater Gradient (feet per foot)	Groundwater Flow Direction															
			N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
	04/22/92		0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0
	08/31/92	0.05	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0
	11/30/92	0.04	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0
	02/07/94		0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0
	11/14/94	0.03	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0
	02/21/95	0.08	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	05/18/95	0.07	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0
	07/26/96	0.02	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	10/28/96	0.02	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	01/29/97	0.01	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	04/15/97	0.01	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	07/15/97	0.10	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	10/09/97	0.10	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	01/14/98	0.02	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0
	04/01/98	0.05	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0
	07/15/98	0.04	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0
	09/30/98	0.05	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0
	01/25/99	0.05	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0
	04/15/99	0.04	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0
	10/21/99	0.03	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0
	07/14/99	0.04	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0
	04/13/00	0.050	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0
	07/14/00	0.033	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	10/26/00	0.060	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0
	01/03/01	0.070	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0
	07/17/01	0.040	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0
	10/01/01	0.030	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0
	01/31/02	0.010	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0
	07/28/02	0.020	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	10/09/02	0.016	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	01/02/03	0.010	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0
	04/01/03	0.008	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	07/29/09	0.010	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	10/02/03	0.010	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0
	01/09/04	0.010	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0
	04/26/04	0.010	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0
	07/22/04	0.010	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0
	10/29/04	0.010	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0
	01/10/05	0.010	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0
	06/15/05	0.020	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	09/27/05	0.010	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	12/13/05	0.005	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	03/23/06	0.010	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0
	06/23/06	0.010	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0
	09/26/06	0.010	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	12/22/06	0.010	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0
	03/30/07	0.010	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	09/25/07	0.010	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0
	12/28/07	0.010	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0
	06/28/07	0.010	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0
	03/22/08	0.020	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0
	06/23/08	0.010	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0
	09/19/08	0.006	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0
	12/31/08	0.005	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	03/27/09	0.006	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	05/28/09	0.008	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	09/17/09	0.010	0	0	0	0	0	0	**1**	0	0	0	**1**	0	0	0	0	0
	12/17/09	0.008	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0
	03/29/10	0.010	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	06/30/10	0.009	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	09/20/10	0.007	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0	0
	12/08/10	0.018	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	03/14/11	0.020	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	06/02/11	0.020	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	09/07/11	0.020	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	12/05/11	0.020	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0

TABLE 4

Historical Groundwater Gradient and Flow Direction Data

76 Station No. 5191/5043

449 Hegenberger Road

Oakland, California

Site	Monitoring Date	Groundwater Gradient (feet per foot)	Groundwater Flow Direction															
			N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
	03/06/12	0.010	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0
	06/11/12	0.050	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	09/06/12	Variable	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12/13/12	0.020	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	03/14/13	0.050	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	06/11/13	0.001	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0
	09/10/13	0.014	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0
		0.025 Average	**0**	**0**	**0**	**0**	**0**	**1**	**32**	**1**	**14**	**0**	**20**	**2**	**3**	**0**	**0**	**0**

Explanation

NA = Not available

Number of Events = 67

Appendix A

Previous Investigation and Site History Summary

PREVIOUS INVESTIGATION AND SITE HISTORY SUMMARY

October 1991 - Four soil samples were collected from the product pipe trenches at depths of approximately 3 feet below ground surface (bgs) during a dispenser island modification. The product pipe trenches were subsequently excavated to the groundwater depth at 4 to 4.5 feet bgs.

February 1992 - Three monitoring wells, MW-1 through MW-3, were installed at the site to depths ranging from 13.5 to 15 feet bgs.

August 1992 - Three additional monitoring wells, MW-4 through MW-6, were installed at the site to a depth of 13.5 feet bgs.

September 1994 - One 280-gallon waste-oil UST was removed from the site. The UST was made of steel, and no apparent holes or cracks were observed in the UST. One soil sample was collected from beneath the former UST at a depth of approximately 9 feet bgs. No petroleum hydrocarbons were reported.

January 1995 - Two additional monitoring wells, MW-9 and MW-10, were installed to depths of 13 and 15 feet bgs. In addition, monitoring wells MW-4 and MW-5 were destroyed by over-drilling the wells and backfilling with neat cement.

March 1995 - Two 10,000-gallon gasoline USTs and one 10,000-gallon diesel UST were removed from the site. Groundwater was encountered in the tank cavity at a depth of approximately 8.5 feet bgs. Soil samples contained total petroleum hydrocarbons as diesel (TPHd) and benzene, and TPH as gasoline (TPHg). Approximately 125,000 gallons of groundwater were pumped from the site for remediation and properly disposed off-site. Four fuel dispenser islands and associated product piping were also removed. Based on the results of the confirmation samples, the product dispenser islands were over excavated to approximately 6 feet bgs.

March-April 1995 - During demolition activities of the former station building, soil samples were collected from two excavations, which were subsequently over excavated. Confirmation samples contained petroleum hydrocarbons. An additional area on the south side of the former station building was excavated based on photo-ionization detector (PID) readings. Two monitoring wells, MW-1 and MW-2, were destroyed in order to allow for over excavation activities to extend to an area adjacent to the dispenser islands in the southeastern quadrant of the site. The excavated areas were subsequently backfilled with clean-engineered fill.

April 1997 - Two additional monitoring wells, MW-7 and MW-8, were installed off-site to the south and east on the neighboring property to a depth of 13 feet bgs. In addition, monitoring well MW-3, which was damaged during site renovation activities, was fully drilled out and reconstructed in the same borehole.

October 2003 - Site environmental consulting responsibilities were transferred to TRC.

April 8-9, 2005 - TRC conducted a 24-hour dual phase extraction (DPE) test at the site using monitoring well MW-6. The 24-hour DPE test was only moderately successful at removing vapor-phase petroleum hydrocarbons from the subsurface; therefore, TRC recommended DPE no longer be considered a viable remedial alternative for the site.

October 2007 - Site environmental consulting responsibilities were transferred to Delta Consultants.

December 2009 - Delta advanced two borings, B-4 and B-5, to depths of 20 feet bgs and 32 feet bgs, respectively. Analytical results from the soil and groundwater samples collected from these two borings indicated that the soil and the groundwater were impacted by petroleum hydrocarbons at these locations.

June 2010 – Delta installed two 4-inch diameter monitoring/extraction wells, MW-11 and MW-12, and two 2-inch diameter monitoring wells, MW-12A and MW-13, at the site. Analytical results from the soil and groundwater samples collected from the MW-12 and MW-12A boring locations indicated that the soil and the groundwater were impacted by petroleum hydrocarbons at these locations.

May 2011 – Antea Group (formally Delta Consultants) installed four 2-inch diameter monitoring wells, MW-14 through MW-17, and advanced one soil boring, B-6, at the site. All four monitoring wells were installed with ten feet of screen from 3 feet bgs to 13 feet bgs. Analytical results of soil samples collected during the monitoring well installation reported TPHg concentrations ranging from 1.0 milligrams per kilogram (mg/kg) (MW-14d13) to 2,490 mg/kg (B-6d9), benzene concentrations ranging from 0.67 mg/kg (B-6d21) to 26.4 mg/kg (B-6d9), toluene concentrations ranging from 0.2 mg/kg (MW-14d10) to 73.9 mg/kg (B-6d9), ethylbenzene concentrations ranging from 0.037 mg/kg (MW-14d13) to 58.1 mg/kg (B-6d9), total xylenes concentrations ranging from 0.066 mg/kg (MW-14d13) to 230 mg/kg (B-6d9), methyl tertiary-butyl ether (MTBE) concentrations ranging from 0.015 mg/kg (MW-15d13) to 0.19 mg/kg (MW-15d8), tertiary-butyl alcohol (TBA) concentrations ranging from 0.014 mg/kg (MW-16d8 and B-6d21) to 0.16 mg/kg (MW-15d8), and lead concentrations ranging from 5.5 mg/kg (MW-16d13) to 16.3 mg/kg (MW-17d9). Diesel range organics (DRO) and DRO with silica gel concentrations were reported; however, all of the results did not match the laboratory standard for diesel. Concentrations of DRO ranged from 2.9 mg/kg (MW-17d13) to 258 mg/kg (B-6d14) and DRO with silica gel concentrations ranged from 2.5 mg/kg (MW-17d13) to 250 mg/kg (B-6d14).

March 2012 – Antea Group advanced five soil borings (HPB-1 through HPB-5) at the site. The borings were advanced using direct push technology. The borings were used to obtain a hydraulic profile of the substrate beneath the site. The data obtained during the investigation will be used to determine the best path forward in terms of remediation.

SENSITIVE RECEPTORS

April 24, 2006, TRC completed a sensitive receptor survey for the site. According to the Department of Water Resources (DWR) records, three water supply wells are located within one-half mile of the site. The closest well is an irrigation well, reported to be, approximately 1,080 feet southeast of the site. In addition, two surface water bodies were observed within a one-half mile radius of the site. San Leandro Creek is located approximately 1,400 feet southwest of the site and flows into the San Leandro Bay. Elmhurst Creek is located approximately 2,220 feet north of the site and also flows into the San Leandro Bay.

Current Consultant: **Antea Group**

Appendix B

Blaine Tech Services Groundwater Sampling Procedures

BLAINE TECH SERVICES, INC.
METHODS AND PROCEDURES
FOR THE ROUTINE MONITORING OF
GROUNDWATER WELLS

SAMPLING PROCEDURES OVERVIEW

SAFETY

All groundwater monitoring assignments performed for DELTA comply with safety guidelines, 29 CFR 1910.120 and SB-198 Injury and Illness Prevention Program (IIPP). All Field Technicians receive the full 40 hour 29CFR 1910.120 OSHA SARA HAZWOPER course, medical clearance and on-the-job training prior to commencing any work on any DELTA COP/ELT site.

INSPECTION AND GAUGING

Wells are inspected prior to evacuation and sampling. The condition of the wellhead is checked and noted according to a wellhead inspection checklist.

Standard measurements include the depth to water (DTW) and the total well depth (TD) obtained with industry standard electronic sounders which are graduated in increments of hundredths of a foot.

The water in each well is inspected for the presence of Immiscibles or sheen and when free product is suspected, it is confirmed using an electronic interface probe (e.g. MMC). No samples are collected from a well containing free product.

EVACUATION

Depth to water measurements are collected by our personnel prior to purging and minimum purge volumes are calculated anew for each well based on the height of the water column and the diameter of the well. Expected purge volumes are never less than three case volumes and are set at no less than four case volumes in some jurisdictions.
Well purging devices are selected on the basis of the well diameter and the total volume to be evacuated. In most cases the well will be purged using an electric submersible pump (i.e. Grundfos) suspended near (but not touching) the bottom of the well. Small volumes of purgewater are often removed by hand bailing with a disposable bailer.

PARAMETER STABILIZATION

Well purging completion standards include minimum purge volumes, but additionally require stabilization of specific groundwater parameters prior to sample collection. Typical groundwater parameters used to measure stability are electrical conductivity, pH, and temperature. Instrument readings are obtained at regular intervals during the evacuation process (no less

than once per case volume).

Stabilization standards for routine quarterly monitoring of fuel sites include the following: Temperature is considered to have stabilized when successive readings do not fluctuate more than +/- 1 degree Celsius. Electrical conductivity is considered stable when successive readings are within 10%. pH is considered to be stable when successive readings remain constant or vary no more than 0.2 of a pH unit.

DEWATERED WELLS

Normal evacuation removes no less than three case volumes of water from the well. However, less water may be removed in cases where the well dewaters and does not recharge.

Wells known to dewater are evacuated as early as possible during each site visit in order to allow for the greatest amount of recovering. Any well that does not recharge to 80% of its original volume will be sampled prior to the departure of our personnel from the site in order to eliminate the need of a return visit.

In jurisdictions where a certain percentage of recovery is included in the local completion standard, our personnel follow the regulatory expectation.

PURGEWATER CONTAINMENT

All non-hazardous purgewater evacuated from each groundwater monitoring well is captured and contained in on-board storage tanks on the Sampling Vehicle and/or special water hauling trailers. Effluent from the decontamination of reusable apparatus (sounders, electric pumps and hoses etc.), consisting of groundwater combined with deionized water and non-phosphate soap, is also captured and pumped into effluent tanks.

Non hazardous purgewater is transported under standard Bill of Lading or Non-Hazardous manifest to a Blaine Tech Services, Inc. facility before being transported to an approved disposal facility.

SAMPLE COLLECTION DEVICES

All samples are collected using disposable bailers.

SAMPLE CONTAINERS

Sample material is decanted directly from the sampling bailer into sample containers provided by the laboratory which will analyze the samples. The type of sample container, material of construction, method of closure and filling requirements are specific to the intended analysis. Chemicals needed to preserve the sample material are commonly placed inside the sample containers by the laboratory or glassware vendor prior to delivery of the bottle to our personnel. The laboratory sets the number of replicate containers.

TRIP BLANKS

Upon request, a Trip Blank is carried to each site and is kept inside the cooler for the duration of the sampling event. It is turned over to the laboratory for analysis with the samples from that site.

DUPLICATES

Upon request, one Duplicate sample is collected at each site. It is up to the Field Technician to choose the well at which the Duplicate is collected. Typically, a duplicate is collected from one of the most contaminated wells. The Duplicate sample is labeled DUP thus rendering the sample blind.

SAMPLE STORAGE

All sample containers are promptly placed in food grade ice chests for storage in the field and transport (direct or via our facility) to the analytical laboratory that will perform the intended analytical procedures. These ice chests contain quantities of restaurant grade ice as a refrigerant material. The samples are maintained in either an ice chest or a refrigerator until relinquished into the custody of the laboratory or laboratory courier.

DOCUMENTATION CONVENTIONS

Each and every sample container has a label affixed to it. In most cases these labels are generated by our office personnel and are partially preprinted. Labels can also be hand written by our field personnel. The site is identified with the store number and site address, as is the particular groundwater well from which the sample is drawn (e.g. MW-1, MW-2, S-1 etc.). The time at which the sample was collected and the initials of the person collecting the sample are handwritten onto the label.

Chain of Custody records are created using client specific preprinted forms following USEPA specifications.

Bill of Lading records are contemporaneous records created in the field at the site where the non-hazardous purgewater is generated. Field Technicians use preprinted Bill of Lading forms.

DECONTAMINATION

All equipment is brought to the site in clean and serviceable condition and is cleaned after use in each well and before subsequent use in any other well. Equipment is decontaminated before leaving the site.

The primary decontamination device is a commercial steam cleaner. The steam cleaner is de-tuned to function as a hot pressure washer which is then operated with high quality deionized water which is produced at our facility and stored onboard our sampling vehicle. Cleaning is facilitated by the use of proprietary fixtures and devices included in the patented workstation that is incorporated in each sampling vehicle. The steam cleaner is used to decon reels, pumps

and bailers.

Any sensitive equipment or parts (i.e. Dissolved Oxygen sensor membrane, sounder etc.) that cannot be washed using the hot high pressure water, will be sprayed with a non-phosphate soap and deionized water solution and rinsed with deionized water.

EXAMPLE: The sounder is cleaned between wells using the non-phosphate soap and deionized water solution followed by deionized water rinses. The sounder is then washed with the steam cleaner between sites or as necessitated by use in a particularly contaminated well.

DISSOLVED OXYGEN READINGS

All Dissolved Oxygen readings are taken using YSI meters (e.g. YSI Model 550 meter). These meters are equipped with membrane probe that enables them to collect accurate in-situ readings.

The probe and reel is decontaminated between wells as described above. The meter is calibrated as per the instructions in the operating manual. The probe is lowered into the water column allowed to stabilize before use.

OXYIDATON REDUCTION POTENTIAL READINGS

All readings are obtained with either Corning or Myron-L meters (e.g. Corning ORP-65 or a Myron-L Ultrameter GP). The meter is cleaned between wells as described above. The meter is calibrated at the start of each day according to the instruction manual. In use the probe is placed in a cup of freshly obtained monitoring well water and allowed to stabilize.

Appendix C

Blaine Tech Services Groundwater Sampling Field Data Sheets

Well-Head Inspection & Well Gauging Form

Antea Group Project No: 270591 **Site Address:** 449 Hagenberger Oakland Ca.

Field Technician: Devin Reynol *(Print Full Name & Company*)* **Date:** 9/10/13 **Weather:** HOT

Sample Order	Field Point	Well Condition: Bolts	Seal	Lid Secure	Lock	Expanding Cap	Water in Well Box	Well Casing Dia.	Time Gauged	Depth to Water (Feet)	Depth to Bottom (Feet)	Depth to LNAPL (Feet)	LNAPL Thickness (Feet)	Comments
5	MW-3	G	G	G	G	G	N	2	0823	3.25	13.92			MW 1 of 2 bolts stripped.
12	MW-6	G	G	G	G	G	N	2	0842	4.11	12.63			MM
2	MW-7	G	G	G	G	G	N	2	0807	6.54	12.95			MM
1	MW-8	G	G	G	G	G	N	2	0800	3.54	14.66			MM
4	MW-9	G	G	G	G	G	N	2	0819	2.63	12.57			MW 1 of 3 bolts missing.
7	MW-10	G	G	G	G	G	N	2	0825	3.92	12.59			DR
6	MW-11	G	G	G	G	G	N	4	0830	2.98	19.54			MM
11	MW-12	G	G	G	G	G	N	4	0844	3.96	19.42			DR
3	MW-12A	G	G	G	G	G	N	2	0822	4.40	32.67			DR
8	MW-13	G	G	G	G	G	N	2	0830	4.20	14.55			DR
13	MW-14	G	G	G	G	G	N	2	0848	4.88	12.76			MM
9	MW-15	G	G	G	G	G	N	2	0835	3.28	12.67			MM
10	MW-16	G	G	G	G	G	N	2	0839	3.44	12.63			DR
14	MW-17	G	G	G	G	G	N	2	0848	4.60	12.61			DR
										~~4.62~~				

Notes:

** All well caps opened at least 15 minutes or longer before gauging wells:
CIRCLE ONE: YES or (NO**)

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*Form provided by Antea Group

Note: Use G=good and P=poor for well condition

Groundwater Sampling Form

Site Address:	449 Heyenburger, Oakland Cg.		
Project No:	270519	Field Technician:	DR / MM
Field Point:	MW-6	Date:	9/10/13
Depth to Water (DTW) (ft bgs):	4.11	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	
Total Depth of Well (ft bgs):	12.63	Water Column Height (ft):	8.52

Purging Info and Calculations:

Purge Method: Low-Flow; (3 casing volumes); Other:_____

Purge Equipment: Disposable Bailer; (Electric Submersible); Peristaltic Pump; Bladder Pump; Other:_____

Sample Collection Method: (Disposable Bailer w/ BED); ~~Extraction Port~~; Dedicated Tubing; Disposable Tubing; Other:_____

Water Column Height (ft): 8.52 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 1.4

Casing Volume (gal): 1.4 X Specified Volumes: 3 = Calculated Purge (gal): 4.2

Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius^2 * 0.163

Purge: **Start Time:** 1004 **Stop Time:** 1008

Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge								
1005	21.7	6.77	3398	-100	39	0.22	0.7	
1006	24.3	6.54	2654	-112	29	0.20	1.4	
1007	22.8	6.48	3440	-128	24	0.18	2.1	
	WELL DEWATERED AT 2.5 GAL						2.8 (DW)	
							3.5 (DW)	
1220	22.8	6.59	3462	-127.4	74	0.66	→	
Post-Purge								

Did Well dewater? (Yes) No Total Purge volume (gal): 2.5

Other Comments: 80% = 5.81 DTW = 6.20 ODOR * Purge through flow cell

Sample Info:

Sample ID:	MW-6_20130930	Sample Date and Time:	9/10/13 @ 1220
Selected Analysis:	See CoC		

This form was provided by Antea Group and completed by: (Print Full Name) Mark McCulloch, an employee of Blaine Tech Services, Inc.

Signature: _____ Date: 9/10/13

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Antea™Group, 1-800-477-7411

LNAPL= light non-aqueous phase liquids
bgs = below ground surface
ORP = Oxidation-Reduction Potential
D.O.= dissolved oxygen

gal = gallon/s
temp = temperature
NTU = Nephelometric Turbidity Units
mV = millivolts

Groundwater Sampling Form

Site Address:	449 Heyenburger, Oakland Ca.		
Project No:	270519	Field Technician:	DR
Field Point:	MW-10	Date:	9/10/13
Depth to Water (DTW) (ft bgs):	3.92	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	
Total Depth of Well (ft bgs):	12.59	Water Column Height (ft):	8.67

Purging Info and Calculations:

Purge Method: (Low-Flow) (3 casing volumes) Other:_____

Purge Equipment: Disposable Bailer (Electric Submersible) Peristaltic Pump Bladder Pump Other:_____

Sample Collection Method: (Disposable Bailer w/BED) ~~Extraction Port~~ Dedicated Tubing Disposable Tubing Other:_____

Water Column Height (ft): 8.67 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 1.5

Casing Volume (gal): 1.5 X Specified Volumes: 3 = Calculated Purge (gal): 4.5

Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius^2 * 0.163

Purge: **Start Time:** 0944 **Stop Time:** 0951

Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge								
0945	22.13	7.00	2687	7.4	29	0.83	0.75	
0947	22.33	6.96	2456	-1.4	25	0.45	1.5	
0948	22.28	6.95	2363	-7.5	21	0.36	2.25	
0949	22.18	6.95	2262	-13.3	19	0.31	3.0	
0950	22.16	6.95	2254	-14.8	19	0.29	3.75	
0951	22.15	6.95	2251	-16.0	18	0.28	4.5	
Post-Purge								

Did Well dewater? Yes (No) Total Purge volume (gal): 4.5

Other Comments: 80% = 5.65

DTW= 5.19 * Purge through flow cell

Sample Info:

Sample ID:	MW-10_20130936	Sample Date and Time:	9/10/13 1000
Selected Analysis:	See CoC		

This form was provided by Antea Group and completed by: (Print Full Name) Devin Reynal, an employee of Blaine Tech Services, Inc.

Signature: _____ Date: 9/10/13

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Antea™Group, 1-800-477-7411

LNAPL= light non-aqueous phase liquids
bgs = below ground surface
ORP = Oxidation-Reduction Potential
D.O.= dissolved oxygen
gal = gallon/s
temp = temperature
NTU = Nephelometric Turbidity Units
mV = millivolts

Groundwater Sampling Form

Site Address:	449 Heyenburger, Oakland Ca.		
Project No:	270519	Field Technician:	DR (MM)
Field Point:	MW-11	Date:	9/10/13
Depth to Water (DTW) (ft bgs):	2.98	Well Diameter (in):	2 (4) 6 8 ___
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	
Total Depth of Well (ft bgs):	19.54	Water Column Height (ft):	16.56

Purging Info and Calculations:

Purge Method: Low-Flow; (3 casing volumes*); Other:_____

Purge Equipment: Disposable Bailer; (Electric Submersible); Peristaltic Pump; Bladder Pump; Other:_____

Sample Collection Method: (Disposable Bailer w/BED); ~~Extraction Port~~; Dedicated Tubing; Disposable Tubing; Other:_____

Water Column Height (ft): 16.56 X Conversion Factor (gal/ft): 0.66 = Casing Volume (gal): 11

Casing Volume (gal): 11 X Specified Volumes: 3 = Calculated Purge (gal): 33

Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius^2 * 0.163

Purge: **Start Time:** 0916 **Stop Time:** 0928

Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge								
0918	22.1	6.46	1260	187	27	0.52	45.5	
0920	22.3	6.57	1250	171	25	0.37	11.0	
0922	22.5	6.68	1277	148	21	0.36	16.5	
0924	22.5	6.71	1256	138	16	0.35	22.0	
0926	22.5	6.76	1267	130	16	0.36	27.5	
0928	22.5	6.79	1266	121	15	0.37	33.0	
Post-Purge								

Did Well dewater? Yes (No) Total Purge volume (gal): 33

Other Comments: 80% = 6.29; DTW = 4.63; * Purge through flow cell

Sample Info:

Sample ID:	MW-11-20130930	Sample Date and Time:	9-10-13 @ 0930
Selected Analysis:	See CoC		

This form was provided by Antea Group and completed by: (Print Full Name) Mark McCollock, an employee of Blaine Tech Services, Inc.

Signature: _____ Date: 9/10/13

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LNAPL= light non-aqueous phase liquids
bgs = below ground surface
ORP = Oxidation-Reduction Potential
D.O.= dissolved oxygen
gal = gallon/s
temp = temperature
NTU = Nephelometric Turbidity Units
mV = millivolts

Groundwater Sampling Form

Site Address:	449 Heyenburger, Oakland Ca.		
Project No:	270519	Field Technician:	DR
Field Point:	MW-12	Date:	9/10/13
Depth to Water (DTW) (ft bgs):	3.96	Well Diameter (in):	2 (4) 6 8 ___
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	
Total Depth of Well (ft bgs):	19.42	Water Column Height (ft):	15.46

Purging Info and Calculations:

Purge Method:
Low-Flow
(3 casing volumes)
Other:_____

Purge Equipment:
Disposable Bailer
(Electric Submersible)
Peristaltic Pump
Bladder Pump
Other:_____

Sample Collection Method:
(Disposable Bailer w/BED)
~~Extraction Port~~
Dedicated Tubing
Disposable Tubing
Other:_____

Water Column Height (ft): 15.46 X Conversion Factor (gal/ft): 0.66 = Casing Volume (gal): 10.2

Casing Volume (gal): 10.2 X Specified Volumes: 3 = Calculated Purge (gal): 30.6

Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius^2 * 0.163

Purge: **Start Time:** 1103 **Stop Time:** 1116

Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge								
1106	19.69	6.35	24089	-2.6	17	3.84	5.1	
1108	20.15	6.49	22458	-49.6	12	2.19	10.2	
1110	20.46	6.64	20565	-74.9	10	1.74	15.3	
1112	20.02	6.61	22257	-75.3	8	1.70	20.4	
1114	20.00	6.59	22316	-75.0	8	1.68	25.5	
1116	19.99	6.58	22394	-74.8	7	1.69	30.6	
Post-Purge								

Did Well dewater? Yes (No) Total Purge volume (gal): 30.6

Other Comments:
80% = 7.05
DTW= 6.97
* Purge through flow cell

Sample Info:

Sample ID:	MW-12-20130930	Sample Date and Time:	9/10/13 1235
Selected Analysis:	See CoC		

This form was provided by Antea Group and completed by: (Print Full Name) Devin Royal, an employee of Blaine Tech Services, Inc.

Signature: _____ Date: 9/10/13

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LNAPL= light non-aqueous phase liquids
bgs = below ground surface
ORP = Oxidation-Reduction Potential
D.O.= dissolved oxygen

gal = gallon/s
temp = temperature
NTU = Nephelometric Turbidity Units
mV = millivolts

Groundwater Sampling Form

Site Address:	449 Heyenburger, Oakland Ca.		
Project No:	270519	Field Technician:	DR
Field Point:	MW-12A	Date:	9/10/13
Depth to Water (DTW) (ft bgs):	4.40	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	
Total Depth of Well (ft bgs):	32.67	Water Column Height (ft):	28.27

Purging Info and Calculations:

Purge Method: (Low-Flow) (3 casing volumes*) Other:_____

Purge Equipment: Disposable Bailer (Electric Submersible) Peristaltic Pump Bladder Pump Other:_____

Sample Collection Method: (Disposable Bailer w/BED) ~~Extraction Port~~ Dedicated Tubing Disposable Tubing Other:_____

Water Column Height (ft): 28.27 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 4.8

Casing Volume (gal): 4.8 X Specified Volumes: 3 = Calculated Purge (gal): 14.4

Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius^2 * 0.163

Purge: **Start Time:** 0919 **Stop Time:** 0930

Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge								
0920	19.25	6.59	3415	29.6	726	0.23	2.4	
0922	19.30	6.63	3454	17.1	279	0.20	4.8	
0924	19.30	6.67	3346	9.6	191	0.21	7.2	
0926	19.29	6.67	3317	-3.1	93	0.24	9.6	
0928	19.29	6.67	3312	-3.7	39	0.26	12.0	
0930	19.28	6.68	3312	-4.1	37	0.27	14.4	
Post-Purge								

Did Well dewater? Yes (No) Total Purge volume (gal): 14.4

Other Comments: 80% = 10.05

DTW= 4.72 * Purge through flow cell

Sample Info:

Sample ID:	MW-12A_20130930	Sample Date and Time:	9/10/13 0940
Selected Analysis:	See CoC		

This form was provided by Antea Group and completed by: (Print Full Name) Devin Rayna, an employee of Blaine Tech Services, Inc.

Signature: _____ Date: 9/10/13

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LNAPL= light non-aqueous phase liquids
bgs = below ground surface
ORP = Oxidation-Reduction Potential
D.O.= dissolved oxygen

gal = gallon/s
temp = temperature
NTU = Nephelometric Turbidity Units
mV = millivolts

Groundwater Sampling Form

Site Address:	449 Heyenburger, Oakland Cg.		
Project No:	270519	Field Technician:	DR
Field Point:	MW-13	Date:	9/10/13
Depth to Water (DTW) (ft bgs):	4.20	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	
Total Depth of Well (ft bgs):	14.55	Water Column Height (ft):	10.35

Purging Info and Calculations:

Purge Method:
Low-Flow
(3 casing volumes)
Other:_____

Purge Equipment:
Disposable Bailer
(Electric Submersible)
Peristaltic Pump
Bladder Pump
Other:_____

Sample Collection Method:
(Disposable Bailer w/ BED)
~~Extraction Port~~
Dedicated Tubing
Disposable Tubing
Other:_____

Water Column Height (ft): 10.35 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 1.8

Casing Volume (gal): 1.8 X Specified Volumes: 3 = Calculated Purge (gal): 5.4

Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius^2 * 0.163

Purge: **Start Time:** 1008 **Stop Time:** 1014

Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge								
1009	21.89	7.45	3507	-43.1	427	0.87	0.9	
1010	22.48	7.46	3087	-66.9	129	0.74	1.8	
1011	22.57	7.42	3253	-79.4	97	0.70	2.7	
1012	22.26	7.36	3902	-87.6	90	0.61	3.6	
1013	22.23	7.34	3441	-89.4	87	0.60	4.5	
1014	22.22	7.32	3949	-90.9	86	0.58	5.4	
Post-Purge								

Did Well dewater? Yes (No) Total Purge volume (gal): 5.4

Other Comments:
80% = 6.27
DTW = 6.18
* Purge through flow cell

Sample Info:

Sample ID:	MW-13_20130936	Sample Date and Time:	9/10/13 1020
Selected Analysis:	See CoC		

This form was provided by Antea Group and completed by: (Print Full Name) Devin Rangel, an employee of Blaine Tech Services, Inc.

Signature: _____ Date: 9/10/13

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LNAPL= light non-aqueous phase liquids
bgs = below ground surface
ORP = Oxidation-Reduction Potential
D.O.= dissolved oxygen

gal = gallon/s
temp = temperature
NTU = Nephelometric Turbidity Units
mV = millivolts

Groundwater Sampling Form

Site Address:	449 Heyenburger, Oakland Ca.		
Project No:	270519	Field Technician:	DR/MM
Field Point:	MW-14	Date:	9/10/13
Depth to Water (DTW) (ft bgs):	4.88	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	
Total Depth of Well (ft bgs):	12.76	Water Column Height (ft):	7.88

Purging Info and Calculations:

Purge Method: (Low-Flow) (3 casing volumes*) Other:_____

Purge Equipment: Disposable Bailer; (Electric Submersible*); Peristaltic Pump; Bladder Pump; Other:_____

Sample Collection Method: (Disposable Bailer w/BED); ~~Extraction Port~~; Dedicated Tubing; Disposable Tubing; Other:_____

Water Column Height (ft): 7.88 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 1.3

Casing Volume (gal): 1.3 X Specified Volumes: 3 = Calculated Purge (gal): 3.9

Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius^2 * 0.163

Purge: **Start Time:** 1018 **Stop Time:** 1023

Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge								
1019	20.2	6.64	14998	-131	69	0.43	.65	
1020	20.9	6.83	12282	-145	37	0.30	1.3	
1021	20.9	6.82	14397	-155	43	0.20	1.9	
1022	20.0	6.86	14811	-164	49	0.24	2.6	
	WELL DEWATERED AT 3 GAL						3.25	
	20.2	6.90	14942	-166.9	91	0.54	—	
Post-Purge								

Did Well dewater? (Yes) No Total Purge volume (gal): 3

Other Comments: 80% = 6.45 DTW= 6.36 FD1-20130930 @ 1240 DUP * Purge through flow cell

Sample Info:

Sample ID:	MW-14-20130930	Sample Date and Time:	9-10-13 @ 1230
Selected Analysis:	See CoC		

This form was provided by Antea Group and completed by: (Print Full Name) Mark McCulloch, an employee of Blaine Tech Services, Inc.

Signature: _____ Date: 9/10/13

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LNAPL= light non-aqueous phase liquids
bgs = below ground surface
ORP = Oxidation-Reduction Potential
D.O.= dissolved oxygen

gal = gallon/s
temp = temperature
NTU = Nephelometric Turbidity Units
mV = millivolts

Groundwater Sampling Form

Site Address:	449 Heyenburger, Oakland Co.		
Project No:	270519	Field Technician:	DR (MM)
Field Point:	MW-15	Date:	9/10/13
Depth to Water (DTW) (ft bgs):	3.28	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	
Total Depth of Well (ft bgs):	12.67	Water Column Height (ft):	9.39

Purging Info and Calculations:

Purge Method:
Low-Flow
(3 casing volumes)*
Other:_____

Purge Equipment:
Disposable Bailer
(Electric Submersible)
Peristaltic Pump
Bladder Pump
Other:_____

Sample Collection Method:
(Disposable Bailer w/ BED)
~~Extraction Port~~
Dedicated Tubing
Disposable Tubing
Other:_____

Water Column Height (ft): 9.39 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 1.6

Casing Volume (gal): 1.6 X Specified Volumes: 3 = Calculated Purge (gal): 4.8

Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius^2 * 0.163

Purge: **Start Time:** 0940 **Stop Time:** 0948

Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge								
0941	22.2	6.59	2102	-99	25	1.09	.8	
0942	22.2	6.56	2305	-101	22	1.20	1.6	
0943	22.0	6.31	2639	-109	20	2.95	2.4	
0944	22.1	6.38	3871	-118	18	2.65	3.2	
0945	22.2	6.41	4704	-123	16	2.42	4.0	
0946	21.8	6.52	5761	-123	12	1.29	4.8	
0947	21.2	6.58	5972	-122	15	1.24	5.6	
0948	20.2	6.60	6300	-122	18	1.20	6.4	
Post-Purge								

Did Well dewater? Yes (No) Total Purge volume (gal): 6.5

Other Comments: 80% = 5.15
DTW = 4.87
* Purge through flow cell

Sample Info:

Sample ID:	MW-15_20130936	Sample Date and Time:	9-10-13 @ 1200
Selected Analysis:	See CoC		

This form was provided by Antea Group and completed by: (Print Full Name) Mark McCulloch, an employee of Blaine Tech Services, Inc.

Signature: _____ Date: 9/10/13

anteagroup
Antea™Group, 1-800-477-7411

LNAPL= light non-aqueous phase liquids
bgs = below ground surface
ORP = Oxidation-Reduction Potential
D.O.= dissolved oxygen
gal = gallon/s
temp = temperature
NTU = Nephelometric Turbidity Units
mV = millivolts

Groundwater Sampling Form

Site Address:	449 Heyenburger, Oakland Ca.		
Project No:	270519	Field Technician:	DR
Field Point:	MW-16	Date:	9/10/13
Depth to Water (DTW) (ft bgs):	3.44	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	
Total Depth of Well (ft bgs):	12.63	Water Column Height (ft):	9.19

Purging Info and Calculations:

Purge Method:
Low-Flow
(3 casing volumes)*
Other:_____

Purge Equipment:
Disposable Bailer
(Electric Submersible)
Peristaltic Pump
Bladder Pump
Other:_____

Sample Collection Method:
(Disposable Bailer w/BEI)
~~Extraction Port~~
Dedicated Tubing
Disposable Tubing
Other:_____

Water Column Height (ft): 9.19 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 1.6

Casing Volume (gal): 1.6 X Specified Volumes: 3 = Calculated Purge (gal): 4.8

Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius^2 * 0.163

Purge: **Start Time:** 1035 **Stop Time:** 1041

Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge								
1036	23.38	7.09	3442	-39.4	29	2.59	0.8	
1037	26.49	6.87	2924	-39.5	22	2.28	1.6	
1038	26.64	6.84	2960	-39.4	20	1.98	2.4	
1039	26.28	6.86	3086	-42.8	17	1.92	3.2	
1040	26.22	6.88	3092	-44.1	15	1.90	4.0	
1041	26.20	6.89	3096	-45.7	14	1.88	4.8	
Post-Purge								

Did Well dewater? Yes (No) Total Purge volume (gal): 4.8

Other Comments: 80% = 5.28
DTW = 5.19
* Purge through flow cell

Sample Info:

Sample ID:	MW-16_20130930	Sample Date and Time:	9/10/13 1058
Selected Analysis:	See CoC		

This form was provided by Antea Group and completed by: (Print Full Name) Devin Reynal, an employee of Blaine Tech Services, Inc.

Signature: _____ Date: 9/10/13

anteagroup
Antea™Group, 1-800-477-7411

LNAPL= light non-aqueous phase liquids
bgs = below ground surface
ORP = Oxidation-Reduction Potential
D.O.= dissolved oxygen

gal = gallon/s
temp = temperature
NTU = Nephelometric Turbidity Units
mV = millivolts

Groundwater Sampling Form

Site Address:	449 Heyenburger, Oakland Ca.		
Project No:	270519	Field Technician:	DR / MM
Field Point:	MW-17	Date:	9/10/13
Depth to Water (DTW) (ft bgs):	4.60	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	
Total Depth of Well (ft bgs):	12.61	Water Column Height (ft):	8.01

Purging Info and Calculations:

Purge Method: Low-Flow; (3 casing volumes); Other:_____

Purge Equipment: Disposable Bailer; (Electric Submersible); Peristaltic Pump; Bladder Pump; Other:_____

Sample Collection Method: (Disposable Bailer w/ BEI); ~~Extraction Port~~; Dedicated Tubing; Disposable Tubing; Other:_____

Water Column Height (ft): 8.01 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 1.4

Casing Volume (gal): 1.4 X Specified Volumes: 3 = Calculated Purge (gal): 4.2

Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius^2 * 0.163

Purge: **Start Time:** 1031 **Stop Time:** 1037

Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge								
1032	20.5	6.84	32199	-126	65	0.22	0.7	
1033	21.1	6.87	15989	-147	53	0.17	1.4	
1034	21.4	6.72	19483	-155	48	0.19	2.1	
1035	20.8	6.59	27821	-151	44	0.21	2.8	
1036	20.8	6.57	28075	-148	45	0.20	3.5	
1037	20.7	6.54	29098	-144	43	0.20	4.2	
Post-Purge								

Did Well dewater? Yes (No) Total Purge volume (gal): 4.2

Other Comments: 80% = 6.20 DTW = 6.07 ODOR * Purge through flow cell

Sample Info:

Sample ID:	MW-17-20130936	Sample Date and Time:	9-10-13 @ 1300
Selected Analysis:	See CoC		

This form was provided by Antea Group and completed by: (Print Full Name) Mark McCulloch, an employee of Blaine Tech Services, Inc.

Signature: _____ Date: 9/10/13

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Antea™Group, 1-800-477-7411

LNAPL= light non-aqueous phase liquids
bgs = below ground surface
ORP = Oxidation-Reduction Potential
D.O.= dissolved oxygen
gal = gallon/s
temp = temperature
NTU = Nephelometric Turbidity Units
mV = millivolts

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COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

Page: 1 of 1

Cooler # ____ of ____

3Q13 GW Event

Required Lab Information:		Required Project Information:		Required Invoice Information:	
Lab Name:	Kiff Analytical	Site ID #: 2705191	Task: WG_Q_201309	Send Invoice to:	Sandy Hayes
Address:	2795 Second St #300	AnteaGrp proj#		Address:	11050 White Rock Road, Suite 110
Davis, CA 95618		Site Address	449 Hegenberger	City/State	Rancho Cordova CA 95670 Phone #: 916-638-2085
Lab PM:	Scott Forbes	City: Oakland	State: CA 94621	Reimbursement project?	Non-reimbursement project? Y Mark one
Phone/Fax:	P: 530-297-4800 F: 530-297-4808	AG PM Name:	Dennis Dettloff	Send EDD to	copeltdata@intelligentehs.com
Lab PM email	SForbes@kiffanalytical.com	Phone/Fax:	P: 916-503-1261 F: 916-638-8385	CC Hardcopy report to	
Applicable Lab Quote #:		AG PM Email:	dennis.dettloff@anteagroup.com	CC Hardcopy report to	

Turn around time (days)	10
QC level Required: Standard	Special / Mark one
NJ Reduced Deliverable Package?	
MA MCP Cert?	CT RCP Cert? Mark One
Lab Project ID (lab use)	

Valid Matrix Codes: MATRIX — DRINKING WATER WP, GROUND WATER WG, WASTE WATER WW, FREE PRODUCT LF, SOIL SO, OIL OL, AMBIENT AIR AA, SVE AIR AE, SOIL GAS GS; WATER W, SURFACE WATER WS, WATER QC WQ, SLUDGE SL, RINSEATE WR, OTHER OT

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / ,-) Samples IDs MUST BE UNIQUE)	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	FIELD FILTERED? (Y/N)	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	8015TPHDieselW/ Silica	8260 GC/MS GRO	8260BtexMtbeTBA	8260Ethanol	Comments/Lab Sample I.D.
1	MW-10_20130930	WG	G	9/10/13	1000	5	N				X					X	X	X	X	01
2	MW-11_20130930	WG	G		0930	5	N				X					X	X	X	X	02
3	MW-12_20130930	WG	G		1235	5	N				X					X	X	X	X	03
4	MW-12A_20130930	WG	G		0940	5	N				X					X	X	X	X	04
5	MW-13_20130930	WG	G		1020	5	N				X					X	X	X	X	05
6	MW-14_20130930	WG	G		1230	5	N				X					X	X	X	X	06
7	MW-15_20130930	WG	G		1200	5	N				X					X	X	X	X	07
8	MW-16_20130930	WG	G		1058	5	N				X					X	X	X	X	08
9	MW-17_20130930	WG	G		1300	5	N				X					X	X	X	X	09
10	MW-6_20130930	WG	G		1220	5	N				X					X	X	X	X	10
11	FD1_20130390	W	G	↓	1240	3	N				X						X	X	X	11
12																				

Additional Comments/Special Instructions:

Global ID: T0600101476

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
D. [signature]	9/10/13	1551			
			[signature] Kiff Analytical	091013	1551

Sample Receipt Conditions			
	Y / N	Y / N	Y / N
	Y / N	Y / N	Y / N
	Y / N	Y / N	Y / N
	Y / N	Y / N	Y / N
Temp in °C	Samples on Ice?	Sample intact?	Trip Blank?

SHIPPING METHOD (mark as appropriate): UPS COURIER FEDEX US MAIL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed: Time:

Inogen Environmental Alliance

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME	449 Hagenberger Rd. Oakland Ca.			PROJECT NUMBER	130910-DR1		
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP. °C	INITIALS
YSI 556	05K1408 AC	9/10/13 @0630	7.0 10.0 4.0 3900 100% 239.5 DO ORP	7.01 9.98 4.01 3910 99.8 237.2	Y	20.2-20.3	DR
Hach Turbidimeter	08070C031444	9/10/13 @0645	560 55 5.7	559 54 5	Y	—	DR
YSI PRO PLUS	13E102999	9/10/13 0623	pH 7.0 10.0 4.0	pH 7.04 10.02 4.09	Y		MM
↓	↓	↓	Cond 3900us ORP 231 mv DO 100 %	Cond 3919us ORP 233 mv DO 96.2 %	Y	25.°C	MM

Appendix D

Certified Laboratory Analytical Report and Data Validation Form

KIFF Analytical LLC

Report Number : 85936
Date : 09/17/2013

Laboratory Results

Dennis Dettloff
Antea Group
11050 White Rock Rd. Suite 110
Rancho Cordova, CA 95670

Subject : 11 Water Samples
Project Name : 2705191
Project Number :

Dear Mr. Dettloff,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed. Testing procedures comply with the 2003 NELAC and TNI 2009 standards. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Troy G. Turpen

Troy Turpen

KIFF Analytical LLC

Report Number : 85936
Date : 09/17/2013

Subject : 11 Water Samples
Project Name : 2705191
Project Number :

Case Narrative

Tert-Butanol results for sample MW-12_20130930 may be biased slightly high and are flagged with a 'J'.
A fraction of MtBE (typically less than 1%) converts to Tert-Butanol during the analysis of water samples.
We consider this conversion effect to be mathematically significant in samples that contain
MtBE/Tert-Butanol in ratios of over 20:1.

Surrogate Recovery for samples MW-14_20130930 and MW-17_20130930 for test method Mod. EPA 8015 was outside of control limits. This may indicate a bias in the analysis due to the sample matrix or an interference from compounds present in the sample.

KIFF Analytical LLC

Analysis Summary

Report Number : 85936
Date : 09/17/13

Attention : Dennis Dettloff
Antea Group
11050 White Rock Rd. Suite 110
Rancho Cordova, CA 95670

Project Name :2705191
Project Number :

			Sample Name	MW-10_20130930		MW-11_20130930		MW-12_20130930		MW-12A_2013093		MW-13_20130930		MW-14_20130930		MW-15_20130930	
			Sample Date	09/10/13		09/10/13		09/10/13		09/10/13		09/10/13		09/10/13		09/10/13	
Analyte	Method	Units		MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results
Benzene	EPA 8260B	ug/L		0.50	ND	0.50	ND	1.5	**52**	0.50	ND	0.50	ND	7.0	**1500**	0.50	ND
Ethylbenzene	EPA 8260B	ug/L		0.50	ND	0.50	ND	1.5	**6.4**	0.50	ND	0.50	ND	7.0	**2300**	0.50	ND
Toluene	EPA 8260B	ug/L		0.50	ND	0.50	ND	1.5	**1.9**	0.50	ND	0.50	ND	1.5	**39**	0.50	ND
Total Xylenes	EPA 8260B	ug/L		0.50	**1.2**	0.50	ND	1.5	**4.5**	0.50	ND	0.50	**0.62**	9.0	**5200**	0.50	ND
Ethanol	EPA 8260B	ug/L		5.0	ND	5.0	ND	15	ND	5.0	ND	5.0	ND	15	ND	5.0	ND
Methyl-t-butyl ether (MTBE)	EPA 8260B	ug/L		0.50	ND	0.50	**22**	1.5	**820**	0.50	**6.3**	0.50	**64**	1.5	ND	0.50	**120**
Tert-Butanol	EPA 8260B	ug/L		5.0	ND	5.0	ND	7.0	**17 J**	5.0	ND	5.0	**47**	7.0	**32**	5.0	**39**
TPH as Gasoline	EPA 8260B	ug/L		50	ND	50	ND	150	**340**	50	ND	50	ND	700	**31000**	50	**68**
1,2-Dichloroethane-d4 (Surr)	EPA 8260B	%			99.6		100		97.2		96.4		97.8		94.5		101
Toluene - d8 (Surr)	EPA 8260B	%			105		105		99.2		98.6		98.9		98.8		105
TPH as Diesel (Silica Gel)	M EPA 8015	ug/L		50	ND	50	ND	50	ND	50	ND	50	ND	50	**120**	50	ND
Octacosane (Silica Gel Surr)	M EPA 8015	%			122		102		99.7		96.9		98.0		66.6		102

MRL = Method Reporting Limit
ND = Not Detected

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800
ELAP # 2236

KIFF Analytical LLC

Analysis Summary

Report Number : 85936
Date : 09/17/13

Attention : Dennis Dettloff
Antea Group
11050 White Rock Rd. Suite 110
Rancho Cordova, CA 95670

Project Name :2705191
Project Number :

			Sample Name	MW-16_20130930		MW-17_20130930		MW-6_20130930		FD1_20130930	
			Sample Date	09/10/13		09/10/13		09/10/13		09/10/13	
Analyte	Method	Units		MRL	Results	MRL	Results	MRL	Results	MRL	Results
Benzene	EPA 8260B	ug/L		0.50	ND	15	**8200**	4.0	**440**	9.0	**1500**
Ethylbenzene	EPA 8260B	ug/L		0.50	ND	15	**1200**	4.0	**530**	9.0	**2200**
Toluene	EPA 8260B	ug/L		0.50	ND	15	**510**	4.0	**19**	9.0	**35**
Total Xylenes	EPA 8260B	ug/L		0.50	**0.67**	15	**2400**	4.0	**1500**	9.0	**5600**
Ethanol	EPA 8260B	ug/L		5.0	ND	150	ND	40	ND	90	ND
Methyl-t-butyl ether (MTBE)	EPA 8260B	ug/L		0.50	**240**	15	ND	4.0	**10**	9.0	ND
Tert-Butanol	EPA 8260B	ug/L		5.0	**440**	70	**320**	20	**170**	50	ND
TPH as Gasoline	EPA 8260B	ug/L		50	ND	1500	**36000**	400	**28000**	900	**29000**
1,2-Dichloroethane-d4 (Surr)	EPA 8260B	%			97.5		97.5		98.1		98.5
Toluene - d8 (Surr)	EPA 8260B	%			98.8		99.3		98.9		99.6
TPH as Diesel (Silica Gel)	M EPA 8015	ug/L		50	ND	50	**160**	50	**470**		
Octacosane (Silica Gel Surr)	M EPA 8015	%			112		55.6		114		

MRL = Method Reporting Limit
ND = Not Detected

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800
ELAP # 2236

KIFF Analytical LLC

Report Number : 85936

Date : 09/17/13

Project Name : **2705191**

Project Number :

Sample : **MW-10_20130930** Matrix : Water Lab Number : 85936-01

Sample Date :09/10/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/13 13:14
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/12/13 13:14
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/13 13:14
Total Xylenes	**1.2**	0.50	ug/L	EPA 8260B	09/12/13 13:14
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	09/12/13 13:14
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	09/12/13 13:14
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	09/12/13 13:14
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/12/13 13:14
1,2-Dichloroethane-d4 (Surr)	99.6		% Recovery	EPA 8260B	09/12/13 13:14
Toluene - d8 (Surr)	105		% Recovery	EPA 8260B	09/12/13 13:14
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	09/17/13 06:59
Octacosane (Silica Gel Surr)	122		% Recovery	M EPA 8015	09/17/13 06:59

KIFF Analytical LLC

Report Number : 85936
Date : 09/17/13

Project Name : **2705191**
Project Number :

Sample : **MW-11_20130930** Matrix : Water Lab Number : 85936-02
Sample Date :09/10/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/13 13:45
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/12/13 13:45
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/13 13:45
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/12/13 13:45
Methyl-t-butyl ether (MTBE)	**22**	0.50	ug/L	EPA 8260B	09/12/13 13:45
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	09/12/13 13:45
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	09/12/13 13:45
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/12/13 13:45
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	09/12/13 13:45
Toluene - d8 (Surr)	105		% Recovery	EPA 8260B	09/12/13 13:45
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	09/17/13 07:29
Octacosane (Silica Gel Surr)	102		% Recovery	M EPA 8015	09/17/13 07:29

KIFF Analytical LLC

Report Number : 85936
Date : 09/17/13

Project Name : **2705191**
Project Number :

Sample : **MW-12_20130930** Matrix : Water Lab Number : 85936-03
Sample Date :09/10/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**52**	1.5	ug/L	EPA 8260B	09/12/13 16:19
Toluene	**1.9**	1.5	ug/L	EPA 8260B	09/12/13 16:19
Ethylbenzene	**6.4**	1.5	ug/L	EPA 8260B	09/12/13 16:19
Total Xylenes	**4.5**	1.5	ug/L	EPA 8260B	09/12/13 16:19
Methyl-t-butyl ether (MTBE)	**820**	1.5	ug/L	EPA 8260B	09/12/13 16:19
Tert-Butanol	**17 J**	7.0	ug/L	EPA 8260B	09/12/13 16:19
Ethanol	< 15	15	ug/L	EPA 8260B	09/12/13 16:19
TPH as Gasoline	**340**	150	ug/L	EPA 8260B	09/12/13 16:19
1,2-Dichloroethane-d4 (Surr)	97.2		% Recovery	EPA 8260B	09/12/13 16:19
Toluene - d8 (Surr)	99.2		% Recovery	EPA 8260B	09/12/13 16:19
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	09/17/13 11:51
Octacosane (Silica Gel Surr)	99.7		% Recovery	M EPA 8015	09/17/13 11:51

KIFF Analytical LLC

Report Number : 85936

Date : 09/17/13

Project Name : **2705191**

Project Number :

Sample : **MW-12A_20130930** Matrix : Water Lab Number : 85936-04

Sample Date :09/10/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/13 13:15
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/12/13 13:15
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/13 13:15
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/12/13 13:15
Methyl-t-butyl ether (MTBE)	**6.3**	0.50	ug/L	EPA 8260B	09/12/13 13:15
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	09/12/13 13:15
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	09/12/13 13:15
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/12/13 13:15
1,2-Dichloroethane-d4 (Surr)	96.4		% Recovery	EPA 8260B	09/12/13 13:15
Toluene - d8 (Surr)	98.6		% Recovery	EPA 8260B	09/12/13 13:15
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	09/17/13 08:27
Octacosane (Silica Gel Surr)	96.9		% Recovery	M EPA 8015	09/17/13 08:27

KIFF Analytical LLC

Report Number : 85936
Date : 09/17/13

Project Name : **2705191**
Project Number :

Sample : **MW-13_20130930** Matrix : Water Lab Number : 85936-05
Sample Date :09/10/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/13 13:49
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/12/13 13:49
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/13 13:49
Total Xylenes	**0.62**	0.50	ug/L	EPA 8260B	09/12/13 13:49
Methyl-t-butyl ether (MTBE)	**64**	0.50	ug/L	EPA 8260B	09/12/13 13:49
Tert-Butanol	**47**	5.0	ug/L	EPA 8260B	09/12/13 13:49
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	09/12/13 13:49
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/12/13 13:49
1,2-Dichloroethane-d4 (Surr)	97.8		% Recovery	EPA 8260B	09/12/13 13:49
Toluene - d8 (Surr)	98.9		% Recovery	EPA 8260B	09/12/13 13:49
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	09/17/13 08:56
Octacosane (Silica Gel Surr)	98.0		% Recovery	M EPA 8015	09/17/13 08:56

KIFF Analytical LLC

Report Number : 85936
Date : 09/17/13

Project Name : **2705191**
Project Number :

Sample : **MW-14_20130930** Matrix : Water Lab Number : 85936-06
Sample Date :09/10/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**1500**	7.0	ug/L	EPA 8260B	09/16/13 14:54
Toluene	**39**	1.5	ug/L	EPA 8260B	09/13/13 02:28
Ethylbenzene	**2300**	7.0	ug/L	EPA 8260B	09/16/13 14:54
Total Xylenes	**5200**	9.0	ug/L	EPA 8260B	09/16/13 23:12
Methyl-t-butyl ether (MTBE)	< 1.5	1.5	ug/L	EPA 8260B	09/13/13 02:28
Tert-Butanol	**32**	7.0	ug/L	EPA 8260B	09/13/13 02:28
Ethanol	< 15	15	ug/L	EPA 8260B	09/13/13 02:28
TPH as Gasoline	**31000**	700	ug/L	EPA 8260B	09/16/13 14:54
1,2-Dichloroethane-d4 (Surr)	94.5		% Recovery	EPA 8260B	09/13/13 02:28
Toluene - d8 (Surr)	98.8		% Recovery	EPA 8260B	09/13/13 02:28
TPH as Diesel (Silica Gel)	**120**	50	ug/L	M EPA 8015	09/17/13 09:26
(Note: Lower boiling hydrocarbons present, atypical for Diesel Fuel.)					
Octacosane (Silica Gel Surr)	66.6		% Recovery	M EPA 8015	09/17/13 09:26

KIFF Analytical LLC

Report Number : 85936
Date : 09/17/13

Project Name : **2705191**
Project Number :

Sample : **MW-15_20130930** Matrix : Water Lab Number : 85936-07
Sample Date :09/10/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/13 14:17
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/12/13 14:17
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/13 14:17
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/12/13 14:17
Methyl-t-butyl ether (MTBE)	**120**	0.50	ug/L	EPA 8260B	09/12/13 14:17
Tert-Butanol	**39**	5.0	ug/L	EPA 8260B	09/12/13 14:17
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	09/12/13 14:17
TPH as Gasoline	**68**	50	ug/L	EPA 8260B	09/12/13 14:17
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	09/12/13 14:17
Toluene - d8 (Surr)	105		% Recovery	EPA 8260B	09/12/13 14:17
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	09/17/13 09:55
Octacosane (Silica Gel Surr)	102		% Recovery	M EPA 8015	09/17/13 09:55

KIFF Analytical LLC

Report Number : 85936
Date : 09/17/13

Project Name : **2705191**
Project Number :

Sample : **MW-16_20130930** Matrix : Water Lab Number : 85936-08
Sample Date :09/10/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/13/13 16:56
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/13/13 16:56
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/13/13 16:56
Total Xylenes	**0.67**	0.50	ug/L	EPA 8260B	09/13/13 16:56
Methyl-t-butyl ether (MTBE)	**240**	0.50	ug/L	EPA 8260B	09/13/13 16:56
Tert-Butanol	**440**	5.0	ug/L	EPA 8260B	09/13/13 16:56
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	09/13/13 16:56
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/13/13 16:56
1,2-Dichloroethane-d4 (Surr)	97.5		% Recovery	EPA 8260B	09/13/13 16:56
Toluene - d8 (Surr)	98.8		% Recovery	EPA 8260B	09/13/13 16:56
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	09/17/13 10:24
Octacosane (Silica Gel Surr)	112		% Recovery	M EPA 8015	09/17/13 10:24

KIFF Analytical LLC

Report Number : 85936
Date : 09/17/13

Project Name : **2705191**
Project Number :

Sample : **MW-17_20130930** Matrix : Water Lab Number : 85936-09
Sample Date :09/10/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**8200**	15	ug/L	EPA 8260B	09/16/13 15:17
Toluene	**510**	15	ug/L	EPA 8260B	09/16/13 15:17
Ethylbenzene	**1200**	15	ug/L	EPA 8260B	09/16/13 15:17
Total Xylenes	**2400**	15	ug/L	EPA 8260B	09/16/13 15:17
Methyl-t-butyl ether (MTBE)	< 15	15	ug/L	EPA 8260B	09/16/13 15:17
Tert-Butanol	**320**	70	ug/L	EPA 8260B	09/16/13 15:17
Ethanol	< 150	150	ug/L	EPA 8260B	09/16/13 15:17
TPH as Gasoline	**36000**	1500	ug/L	EPA 8260B	09/16/13 15:17
1,2-Dichloroethane-d4 (Surr)	97.5		% Recovery	EPA 8260B	09/16/13 15:17
Toluene - d8 (Surr)	99.3		% Recovery	EPA 8260B	09/16/13 15:17
TPH as Diesel (Silica Gel)	**160**	50	ug/L	M EPA 8015	09/17/13 10:53
(Note: Lower boiling hydrocarbons present, atypical for Diesel Fuel.)					
Octacosane (Silica Gel Surr)	55.6		% Recovery	M EPA 8015	09/17/13 10:53

KIFF Analytical LLC

Report Number : 85936
Date : 09/17/13

Project Name : **2705191**
Project Number :

Sample : **MW-6_20130930** Matrix : Water Lab Number : 85936-10
Sample Date :09/10/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**440**	4.0	ug/L	EPA 8260B	09/16/13 14:08
Toluene	**19**	4.0	ug/L	EPA 8260B	09/16/13 14:08
Ethylbenzene	**530**	4.0	ug/L	EPA 8260B	09/16/13 14:08
Total Xylenes	**1500**	4.0	ug/L	EPA 8260B	09/16/13 14:08
Methyl-t-butyl ether (MTBE)	**10**	4.0	ug/L	EPA 8260B	09/16/13 14:08
Tert-Butanol	**170**	20	ug/L	EPA 8260B	09/16/13 14:08
Ethanol	< 40	40	ug/L	EPA 8260B	09/16/13 14:08
TPH as Gasoline	**28000**	400	ug/L	EPA 8260B	09/16/13 14:08
1,2-Dichloroethane-d4 (Surr)	98.1		% Recovery	EPA 8260B	09/16/13 14:08
Toluene - d8 (Surr)	98.9		% Recovery	EPA 8260B	09/16/13 14:08
TPH as Diesel (Silica Gel)	**470**	50	ug/L	M EPA 8015	09/17/13 11:22
(Note: Some hydrocarbons lower-boiling, some higher-boiling than Diesel.)					
Octacosane (Silica Gel Surr)	114		% Recovery	M EPA 8015	09/17/13 11:22

KIFF Analytical LLC

Report Number : 85936
Date : 09/17/13

Project Name : **2705191**
Project Number :

Sample : **FD1_20130930** Matrix : Water Lab Number : 85936-11
Sample Date :09/10/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**1500**	9.0	ug/L	EPA 8260B	09/16/13 14:42
Toluene	**35**	9.0	ug/L	EPA 8260B	09/16/13 14:42
Ethylbenzene	**2200**	9.0	ug/L	EPA 8260B	09/16/13 14:42
Total Xylenes	**5600**	9.0	ug/L	EPA 8260B	09/16/13 14:42
Methyl-t-butyl ether (MTBE)	< 9.0	9.0	ug/L	EPA 8260B	09/16/13 14:42
Tert-Butanol	< 50	50	ug/L	EPA 8260B	09/16/13 14:42
Ethanol	< 90	90	ug/L	EPA 8260B	09/16/13 14:42
TPH as Gasoline	**29000**	900	ug/L	EPA 8260B	09/16/13 14:42
1,2-Dichloroethane-d4 (Surr)	98.5		% Recovery	EPA 8260B	09/16/13 14:42
Toluene - d8 (Surr)	99.6		% Recovery	EPA 8260B	09/16/13 14:42

Report Number : 85936

Date : 09/17/13

QC Report : Method Blank Data

Project Name : **2705191**

Project Number :

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	09/17/13
Octacosane (Silica Gel Surr)	97.1		%	M EPA 8015	09/17/13
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/13
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/13
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/12/13
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/12/13
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	09/12/13
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	09/12/13
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	09/12/13
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/12/13
1,2-Dichloroethane-d4 (Surr)	102		%	EPA 8260B	09/12/13
Toluene - d8 (Surr)	105		%	EPA 8260B	09/12/13
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/12/13
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	09/12/13
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	09/12/13
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	09/12/13
1,2-Dichloroethane-d4 (Surr)	97.9		%	EPA 8260B	09/12/13
Toluene - d8 (Surr)	99.8		%	EPA 8260B	09/12/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/13
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/13
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/12/13
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/12/13
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	09/12/13
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	09/12/13
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	09/12/13
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/12/13
1,2-Dichloroethane-d4 (Surr)	96.6		%	EPA 8260B	09/12/13
Toluene - d8 (Surr)	98.7		%	EPA 8260B	09/12/13
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/13/13
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/13/13
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/13/13
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/13/13
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	09/13/13
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	09/13/13
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	09/13/13
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/13/13
1,2-Dichloroethane-d4 (Surr)	98.0		%	EPA 8260B	09/13/13
Toluene - d8 (Surr)	99.0		%	EPA 8260B	09/13/13

KIFF ANALYTICAL, LLC

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Report Number : 85936

QC Report : Method Blank Data

Date : 09/17/13

Project Name : **2705191**

Project Number :

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/16/13
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/16/13
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/16/13
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/16/13
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	09/16/13
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	09/16/13
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	09/16/13
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/16/13
1,2-Dichloroethane-d4 (Surr)	97.5		%	EPA 8260B	09/16/13
Toluene - d8 (Surr)	99.2		%	EPA 8260B	09/16/13
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/16/13
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/16/13
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/16/13
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/16/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 85936

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 09/17/13

Project Name : **2705191**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH-D (Si Gel)														
	BLANK	<50	1000	1000	936	973	ug/L	M EPA 8015	9/17/13	93.6	97.3	3.87	70-130	25
Benzene														
	85934-29	1.6	40.0	40.0	39.8	38.9	ug/L	EPA 8260B	9/12/13	95.6	93.2	2.57	70.0-130	25
Ethanol														
	85934-29	<5.0	99.3	99.3	112	111	ug/L	EPA 8260B	9/12/13	113	112	0.787	55.0-150	25
Ethylbenzene														
	85934-29	1.0	40.0	40.0	43.8	42.0	ug/L	EPA 8260B	9/12/13	107	102	4.37	70.0-130	25
Methyl-t-butyl ether														
	85934-29	2.0	39.9	39.9	41.5	40.6	ug/L	EPA 8260B	9/12/13	99.1	96.9	2.19	70.0-130	25
P + M Xylene														
	85934-29	1.9	40.0	40.0	45.0	43.0	ug/L	EPA 8260B	9/12/13	108	103	4.67	70.0-130	25
Tert-Butanol														
	85934-29	35	202	202	249	252	ug/L	EPA 8260B	9/12/13	106	107	1.24	70.0-130	25
Toluene														
	85934-29	1.4	40.0	40.0	43.8	42.8	ug/L	EPA 8260B	9/12/13	106	103	2.39	70.0-130	25
Ethanol														
	85941-01	<5.0	99.3	99.3	110	114	ug/L	EPA 8260B	9/12/13	110	114	3.52	55.0-150	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 85936

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 09/17/2013

Project Name : **2705191**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Methyl-t-butyl ether														
	85941-01	33	39.9	39.9	74.8	74.1	ug/L	EPA 8260B	9/12/13	105	104	1.48	70.0-130	25
Tert-Butanol														
	85941-01	<5.0	202	202	231	231	ug/L	EPA 8260B	9/12/13	115	114	0.250	70.0-130	25
Toluene														
	85941-01	<0.50	40.0	40.0	42.8	41.9	ug/L	EPA 8260B	9/12/13	107	105	2.18	70.0-130	25
Benzene														
	85934-28	<0.50	40.0	40.0	40.3	39.2	ug/L	EPA 8260B	9/12/13	101	98.1	2.78	70.0-130	25
Ethanol														
	85934-28	<5.0	99.3	99.3	108	105	ug/L	EPA 8260B	9/12/13	108	106	2.05	55.0-150	25
Ethylbenzene														
	85934-28	<0.50	40.0	40.0	41.1	40.7	ug/L	EPA 8260B	9/12/13	103	102	0.936	70.0-130	25
Methyl-t-butyl ether														
	85934-28	<0.50	39.9	39.9	42.4	41.9	ug/L	EPA 8260B	9/12/13	106	105	1.34	70.0-130	25
P + M Xylene														
	85934-28	<0.50	40.0	40.0	42.2	41.6	ug/L	EPA 8260B	9/12/13	105	104	1.37	70.0-130	25
Tert-Butanol														
	85934-28	<5.0	202	202	206	207	ug/L	EPA 8260B	9/12/13	102	103	0.280	70.0-130	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 85936

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 09/17/2013

Project Name : **2705191**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Toluene														
	85934-28	<0.50	40.0	40.0	40.6	39.6	ug/L	EPA 8260B	9/12/13	101	98.9	2.57	70.0-130	25
Benzene														
	85925-01	1.6	40.0	40.0	40.7	39.7	ug/L	EPA 8260B	9/13/13	97.8	95.4	2.48	70.0-130	25
Ethanol														
	85925-01	<5.0	99.3	99.3	105	106	ug/L	EPA 8260B	9/13/13	106	107	1.25	55.0-150	25
Ethylbenzene														
	85925-01	2.3	40.0	40.0	42.2	41.0	ug/L	EPA 8260B	9/13/13	99.8	96.8	3.02	70.0-130	25
Methyl-t-butyl ether														
	85925-01	19	39.9	39.9	59.1	58.9	ug/L	EPA 8260B	9/13/13	101	100	0.646	70.0-130	25
P + M Xylene														
	85925-01	2.3	40.0	40.0	43.2	42.1	ug/L	EPA 8260B	9/13/13	102	99.7	2.57	70.0-130	25
Tert-Butanol														
	85925-01	580	202	202	773	768	ug/L	EPA 8260B	9/13/13	94.0	91.9	2.25	70.0-130	25
Toluene														
	85925-01	<0.50	40.0	40.0	39.6	38.7	ug/L	EPA 8260B	9/13/13	99.0	96.7	2.35	70.0-130	25
Benzene														
	85934-07	<0.50	40.0	40.0	40.4	39.0	ug/L	EPA 8260B	9/16/13	101	97.4	3.55	70.0-130	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 85936

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 09/17/2013

Project Name : **2705191**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Ethanol														
	85934-07	<5.0	99.3	99.3	101	99.6	ug/L	EPA 8260B	9/16/13	102	100	1.49	55.0-150	25
Ethylbenzene														
	85934-07	<0.50	40.0	40.0	41.0	39.3	ug/L	EPA 8260B	9/16/13	102	98.2	4.31	70.0-130	25
Methyl-t-butyl ether														
	85934-07	33	39.9	39.9	71.8	70.8	ug/L	EPA 8260B	9/16/13	97.7	95.1	2.73	70.0-130	25
P + M Xylene														
	85934-07	<0.50	40.0	40.0	42.3	40.6	ug/L	EPA 8260B	9/16/13	106	101	4.18	70.0-130	25
Tert-Butanol														
	85934-07	<5.0	202	202	205	203	ug/L	EPA 8260B	9/16/13	102	101	1.20	70.0-130	25
Toluene														
	85934-07	<0.50	40.0	40.0	40.8	39.2	ug/L	EPA 8260B	9/16/13	102	98.1	3.86	70.0-130	25
Benzene														
	85934-11	<0.50	40.0	40.0	40.6	39.5	ug/L	EPA 8260B	9/16/13	102	98.7	2.91	70.0-130	25
Ethylbenzene														
	85934-11	<0.50	40.0	40.0	42.6	40.9	ug/L	EPA 8260B	9/16/13	106	102	4.12	70.0-130	25
P + M Xylene														
	85980-02	<0.50	40.0	40.0	41.4	40.4	ug/L	EPA 8260B	9/16/13	103	101	2.40	70.0-130	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Laboratory Control Sample (LCS)

Project Name : **2705191**

Project Number :

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.2	ug/L	EPA 8260B	9/12/13	93.5	70.0-130
Ethanol	99.8	ug/L	EPA 8260B	9/12/13	126	55.0-150
Ethylbenzene	40.2	ug/L	EPA 8260B	9/12/13	103	70.0-130
Methyl-t-butyl ether	40.1	ug/L	EPA 8260B	9/12/13	97.6	70.0-130
P + M Xylene	40.2	ug/L	EPA 8260B	9/12/13	103	70.0-130
TPH as Gasoline	492	ug/L	EPA 8260B	9/12/13	98.9	70.0-130
Tert-Butanol	202	ug/L	EPA 8260B	9/12/13	105	70.0-130
Toluene	40.2	ug/L	EPA 8260B	9/12/13	104	70.0-130
Ethanol	99.8	ug/L	EPA 8260B	9/12/13	107	55.0-150
Methyl-t-butyl ether	40.1	ug/L	EPA 8260B	9/12/13	96.0	70.0-130
Tert-Butanol	202	ug/L	EPA 8260B	9/12/13	107	70.0-130
Toluene	40.2	ug/L	EPA 8260B	9/12/13	101	70.0-130
Benzene	40.2	ug/L	EPA 8260B	9/12/13	98.4	70.0-130
Ethanol	99.8	ug/L	EPA 8260B	9/12/13	112	55.0-150
Ethylbenzene	40.2	ug/L	EPA 8260B	9/12/13	101	70.0-130
Methyl-t-butyl ether	40.1	ug/L	EPA 8260B	9/12/13	100	70.0-130
P + M Xylene	40.2	ug/L	EPA 8260B	9/12/13	104	70.0-130
TPH as Gasoline	494	ug/L	EPA 8260B	9/12/13	106	70.0-130
Tert-Butanol	202	ug/L	EPA 8260B	9/12/13	100	70.0-130
Toluene	40.2	ug/L	EPA 8260B	9/12/13	98.9	70.0-130

Report Number : 85936

QC Report : Laboratory Control Sample (LCS)

Date : 09/17/2013

Project Name : **2705191**

Project Number :

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	39.8	ug/L	EPA 8260B	9/13/13	96.3	70.0-130
Ethanol	98.9	ug/L	EPA 8260B	9/13/13	107	55.0-150
Ethylbenzene	39.8	ug/L	EPA 8260B	9/13/13	100	70.0-130
Methyl-t-butyl ether	39.7	ug/L	EPA 8260B	9/13/13	100	70.0-130
P + M Xylene	39.8	ug/L	EPA 8260B	9/13/13	103	70.0-130
TPH as Gasoline	494	ug/L	EPA 8260B	9/13/13	105	70.0-130
Tert-Butanol	201	ug/L	EPA 8260B	9/13/13	98.9	70.0-130
Toluene	39.8	ug/L	EPA 8260B	9/13/13	97.4	70.0-130
Benzene	39.9	ug/L	EPA 8260B	9/16/13	97.9	70.0-130
Ethanol	99.1	ug/L	EPA 8260B	9/16/13	107	55.0-150
Ethylbenzene	39.9	ug/L	EPA 8260B	9/16/13	100	70.0-130
Methyl-t-butyl ether	39.8	ug/L	EPA 8260B	9/16/13	99.1	70.0-130
P + M Xylene	39.9	ug/L	EPA 8260B	9/16/13	103	70.0-130
TPH as Gasoline	494	ug/L	EPA 8260B	9/16/13	104	70.0-130
Tert-Butanol	201	ug/L	EPA 8260B	9/16/13	98.8	70.0-130
Toluene	39.9	ug/L	EPA 8260B	9/16/13	98.6	70.0-130
Benzene	40.0	ug/L	EPA 8260B	9/16/13	99.8	70.0-130
Ethylbenzene	40.0	ug/L	EPA 8260B	9/16/13	105	70.0-130
TPH as Gasoline	494	ug/L	EPA 8260B	9/16/13	98.0	70.0-130

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 85936

QC Report : Laboratory Control Sample (LCS)

Date : 09/17/2013

Project Name : **2705191**

Project Number :

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
P + M Xylene	40.2	ug/L	EPA 8260B	9/16/13	100	70.0-130

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

85936

COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

anteagroup

3Q13 GW Event

Required Lab Information:		**Required** Project Information:				**Required** Invoice Information:					
Lab Name:	Kiff Analytical	Site ID #:	2705191	Task:	WG_Q_201309	Send Invoice to:	Sandy Hayes				
Address:	2795 Second St #300	AnteaGrp proj#				Address:	11050 White Rock Road, Suite 110			Turn around time (days)	10
Davis, CA 95618		Site Address	449 Hegenberger			City/State	Rancho Cordova CA 95670	Phone #:	916-638-2085	QC level Required: Standard	Special / Mark one
Lab PM:	Scott Forbes	City	Oakland	State	CA 94621	Reimbursement project?		Non-reimbursement project?	Y / Mark one	NJ Reduced Deliverable Package?	
Phone/Fax:	P: 530-297-4800 F: 530-297-4808	AG PM Name:	Dennis Dettloff			Send EDD to	copeltdata@intelligentehs.com			MA MCP Cert?	CT RCP Cert? / Mark One
Lab PM email	SForbes@kiffanalytical.com	Phone/Fax:	P: 916-503-1261 F: 916-638-8385			CC Hardcopy report to				Lab Project ID (lab use)	
Applicable Lab Quote #:		AG PM Email:	dennis.dettloff@anteagroup.com			CC Hardcopy report to				Requested Analyses	

Valid Matrix Codes: MATRIX — DRINKING WATER WP; GROUND WATER WG; WASTE WATER WW; FREE PRODUCT LF; SOIL SO; OIL OL; WIPE SW; AMBIENT AIR AA; SVE AIR AE; SOIL GAS GS; WATER W; SURFACE WATER WS; WATER QC WQ; SLUDGE SL; RINSEATE WH; OTHER OT; ANIMAL TISSUE TA

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / ,-) Samples IDs MUST BE UNIQUE)	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	8015TPHDiesel w/ Silica	8260 GC/MS GRO	8260 BTEX MTBE TBA	8260 Ethanol	Comments/Lab Sample I.D.
1	MW-10_20130930	WG	G	9/10/13	1000	5	N				X					X	X	X	X	01
2	MW-11_20130930	WG	G		0930	5	N				X					X	X	X	X	02
3	MW-12_20130930	WG	G		1235	5	N				X					X	X	X	X	03
4	MW-12A_20130930	WG	G		0940	5	N				X					X	X	X	X	04
5	MW-13_20130930	WG	G		1020	5	N				X					X	X	X	X	05
6	MW-14_20130930	WG	G		1230	5	N				X					X	X	X	X	06
7	MW-15_20130930	WG	G		1200	5	N				X					X	X	X	X	07
8	MW-16_20130930	WG	G		1058	5	N				X					X	X	X	X	08
9	MW-17_20130930	WG	G		1300	5	N				X					X	X	X	X	09
10	MW-6_20130930	WG	G		1220	5	N				X					X	X	X	X	10
11	FD1_20130390	W	G		1240	3	N				X						X	X	X	11
12																				

Additional Comments/Special Instructions:

Global ID: T0600101476

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature]	9/10/13	1551			
			[signature] Kiff Analytical	091013	1557

Sample Receipt Conditions

	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
Temp in °C	Samples on Ice?	Sample intact?	Trip Blank?

SHIPPING METHOD: (mark as appropriate) UPS COURIER FEDEX US MAIL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed: Time:

Inogen

KIFF Analytical LLC

SAMPLE RECEIPT CHECKLIST

SRG #: 85936

Sample Receipt	Initials/Date: EJ 091013	Storage Time: 1551	Sample Login	Initials/Date: TJB 091113

TAT: ☒ Standard ☐ Rush ☐ Split ☐ None

Method of Receipt: ☐ Courier ☒ Over-the-counter ☐ Shipped

Temp °C 1.8 ☐ N/A	Therm ID 123	Time 1550	Coolant present ☒ Yes ☐ No ☐ Water	☐ Temp Excursion

For Shipments Only:	Cooler Receipt Initials/Date/Time:	Custody Seals ☐ N/A ☐ Intact ☐ Broken

Chain-of-Custody:	Yes	No
Is COC present?	✓	
Is COC signed by relinquisher?	✓	
Is COC dated by relinquisher?	✓	
Is the sampler's name on the COC?		✓
Are there analyses or hold for all samples?	✓	

Documented on	COC	Labels	Discrepancies:
Sample ID	X	X	
Project ID	X	X	
Sample Date	X	X	
Sample Time	X	X	
Does COC match project history?	☐ N/A	☐ Yes	☒ No TPHd on -1C

Samples:	N/A	Yes	No
Are sample custody seals intact?	✓		
Are sample containers intact?		✓	
Is preservation documented?		✓	
In-house Analysis:	**N/A**	**Yes**	**No**
Are preservatives acceptable?		✓	
Are samples within holding time?		✓	
Are sample container types correct?		✓	
Is there adequate sample volume?		✓	

Comments:

Receipt Details:

Matrix	Container Type	# of Containers
WA	Voa	53

CS Required: ☒

Proceed With Analysis: ☑ YES ☐ NO Init/Date: SLK 091113

Client Communication:

Is the Data Set Valid?
(circle)
(Yes) / No

Preservation Temperature
(if Known): 1.8 °C

Antea™Group Laboratory Data Validation Sheet

Project/Client: 76 Station No. 5191 / COP-ELT
Project #: I42705191
Date of Validation: 9-18-13 **Date of Analysis:** 9-12-13 to 9-17-13
Sample Date: 9-10-13 **Completed By:** ETW
Signature:

Circle or Highlight **Yes / No** (below)

Analytical Lab Used and Report # (if any): Kiff #85936

1.	Were the analyses the ones requested?	**Yes** / No
2.	Do the sample number(s) on the chain-of-custody (COC) match the one(s) that appear on the laboratory data sheet?	**Yes** / No
3.	Were samples prepared (extracted, filtered, etc.) within EPA holding times?	**Yes** / No
4.	Once prepared/extracted, were the samples analyzed within the EPA holding times?	**Yes** / No
5.	Were Laboratory blanks performed, if so, were they non-detect?	**Yes** / No
6.	Are the units correct? (i.e., soil samples in mg/kg or ug/g, water samples mg/L, ug/L, and air samples in volume mg/m^3,etc.)	**Yes** / No
7.	Were appropriate Matrix Spike (MS) and Matrix Spike Duplicate (MSD) samples included in the laboratory batch sample?	**Yes** / No
8.	In lieu of MS/ MSD, were surrogate spike (SS) or surrogate spike duplicate (SSD) samples included in the laboratory batch samples?	**Yes** / No
9.	Were MS/ MSD (or SS/SSD) within the acceptable range of % recovery (i.e., approximately 80-120%, depending on the analyte)?	**Yes** / No
10.	Were MS/MSD (or SS/SSD) values used to calculate Relative Percent Difference (RPD)?	**Yes** / No
11.	Were Relative Percent Difference values within the acceptable range (i.e. ±25%)?	**Yes** / No

If any answer is no, explain why and what corrective action was taken (use additional sheet(s), as necessary:

TBA results for sample MW-12 may be biased slightly high.

Surrogate recovery for MW-14 and MW-17 for test method EPA 8015 was outside control limits. This may indicate a bias in the analysis due to the sample matrix or an interference from compounds present in the sample.