April 29, 2013

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

Subject: **Quarterly Summary Report, First 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:

Walter T. Sprague
Pacific Convenience & Fuel
7180 Koll Center Parkway, Suite 100
Pleasanton, California 94566
Tel: (925) 931-5714
Fax: (925) 905-2746
WSprague@pcandf.com

Sincerely,

PACIFIC CONVENIENCE & FUEL

WALTER SPRAGUE
Director of Retail Services

Attachment

Quarterly Summary Report, First 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

April 29, 2013

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

Prepared by:
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1.0 INTRODUCTION

Antea™Group is pleased to submit this *Quarterly Summary Report, First 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 March 14, 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 [First Quarter 2013]

1. Antea Group submitted the *Quarterly Summary Report, Fourth Quarter 2012*, dated January 15, 2013 to the Alameda County Health Care Services Agency (ACHCSA).
2. Antea Group submitted a *work plan* proposing the destruction of monitoring well MW-12A to the ACHCSA for their consideration.
3. Blaine Tech Services, Inc. (Blaine Tech) conducted the first quarter 2013 groundwater monitoring and sampling event on March 14, 2013.

1.2 Work Proposed [First Quarter 2013]

1. Antea Group will submit the *Quarterly Summary Report, First Quarter 2013* (contained herein) to the ACHCSA.
2. Blaine Tech will conduct the second quarter 2013 monitoring and sampling event.
3. Antea Group will prepare and submit a *Remedial Action Plan* to the ACHCSA for their consideration.
4. Antea Group will begin work proposed in the *Remedial Action Plan*.

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

No regulatory correspondence were sent to or received from the ACHCSA during the first quarter 2013.

2.2 Remedial Activities

No remedial activities took place during the first quarter 2013.

2.3 Groundwater Monitoring

During the first quarter 2013 groundwater monitoring and sampling event, fourteen wells were gauged and ten 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:	March 14, 2013
Wells gauged:	MW-3, MW-6 through MW-12, MW-12A, and MW-13 through MW-17
Wells sampled:	MW-3, MW-6 through 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: 2.20 (MW-11) Max: 4.90 (MW-7)
Current groundwater elevation range (ft):	Min: 6.74 (MW-7)

	Max: 8.56 (MW-9)
Change in water depths from previous event (average change for all gauged wells):	0.66 foot increase
Groundwater flow direction and gradient in foot per foot (ft/ft):	Southeast at 0.05 ft/ft

2.3.1 Groundwater Flow Gradient and Directional Trends

The first quarter 2013 groundwater monitoring and sampling event was performed by Blaine Tech on March 14, 2013. The average groundwater elevation decreased 0.66 feet from the December 2012 event. Depth to groundwater in the site monitoring wells ranged from 2.20 feet (MW-11) to 4.90 feet (MW-7) BTOC during the current event. The groundwater flow direction and gradient were interpreted to be to the southeast at 0.05 ft/ft during the current event (**Table 4**).

2.3.2 Groundwater Quality Data

Groundwater samples collected during the first quarter 2013 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 March 14, 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	86 (MW-10)	63,000 (MW-17)
TPHd	1 of 10	680 (MW-6)	680 (MW-6)
Benzene	5 of 10	25 (MW-10)	13,000 (MW-17)
Toluene	4 of 10	3.4 (MW-12)	5,400 (MW-17)
Ethylbenzene	5 of 10	0.6 (MW-10)	3,100 (MW-17)
Total Xylenes	5 of 10	0.8 (MW-10)	8,800 (MW-17)

MTBE	6 of 10	8.0 (MW-6)	950 (MW-16)
TBA	7 of 10	12 (MW-14)	260 (MW-17)

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

2.2.3 Groundwater Contaminant Trends

During the first quarter 2013, analytical results from the groundwater sample collected from monitoring well MW-6 indicated that TPHd, TPHg, BTEX, MTBE, and TBA increased in concentration. Analytical results from the groundwater sample collected from monitoring well MW-10 indicated that TPHg, toluene, ethylbenzene and total xylenes decreased in concentration and benzene increased in concentration.. MTBE concentrations in monitoring well MW-11 decreased. TPHg, toluene, total xylenes, and MTBE concentrations decreased in monitoring well MW-12 and benzene, ethylbenzene, and TBA concentrations increased. TPHd concentrations in monitoring well MW-12A decreased. Analytical results from the groundwater sample collected from monitoring well MW-13 indicated a decrease in MTBE concentrations and an increase in TBA concentrations. Analytical results from the groundwater sample collected from monitoring well MW-14 indicated a decrease in TPHg concentration and an increase in BTEX and TBA concentrations. Analytical results from the groundwater sample collected from monitoring well MW-15 indicated an increase in MTBE and TBA concentrations. Analytical results from the groundwater sample collected from monitoring well MW-16 indicated a decrease in TPHd and MTBE concentrations and an increase in TBA concentrations. Analytical results from the groundwater sample collected from monitoring well MW-17 indicated an increase in TPHg and BTEX concentrations and a decrease in TBA 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 110 gallons of waste water were generated during well purging/sampling and equipment cleaning during the first 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 March 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 – three 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 2:1.
*The method reporting limit for ethanol has been increased due to the presence of an interfering compound for sample FD-1.
*Surrogate recovery for sample 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 *Remedial Action Plan*.

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.

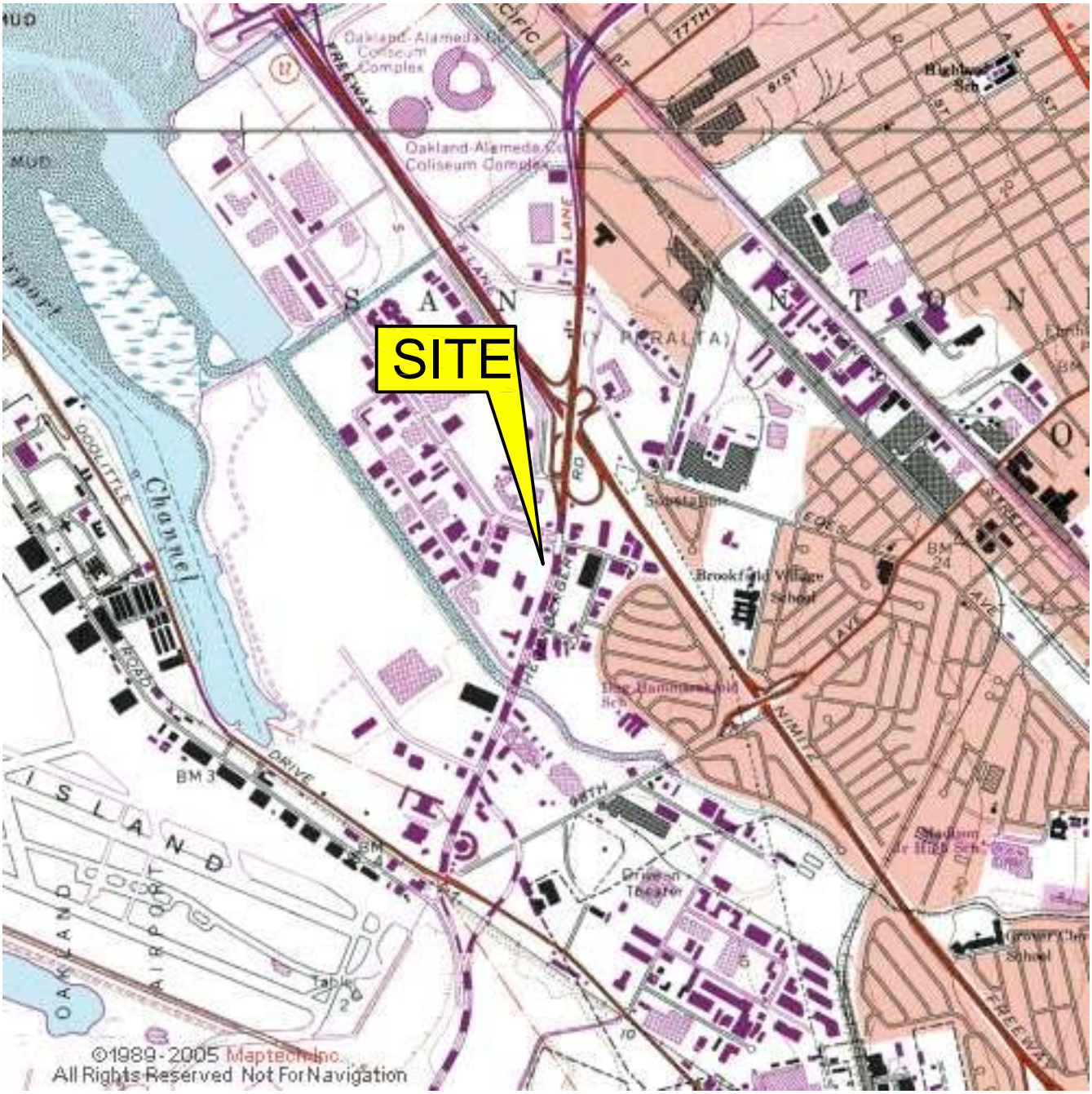
Licensed Approver:

PROFESSIONAL GEOLOGIST
DENNIS SHANNON DETTLOFF
No. 7480
Date: 4/29/13
STATE OF CALIFORNIA

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

cc: GeoTracker (upload)

Figures



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

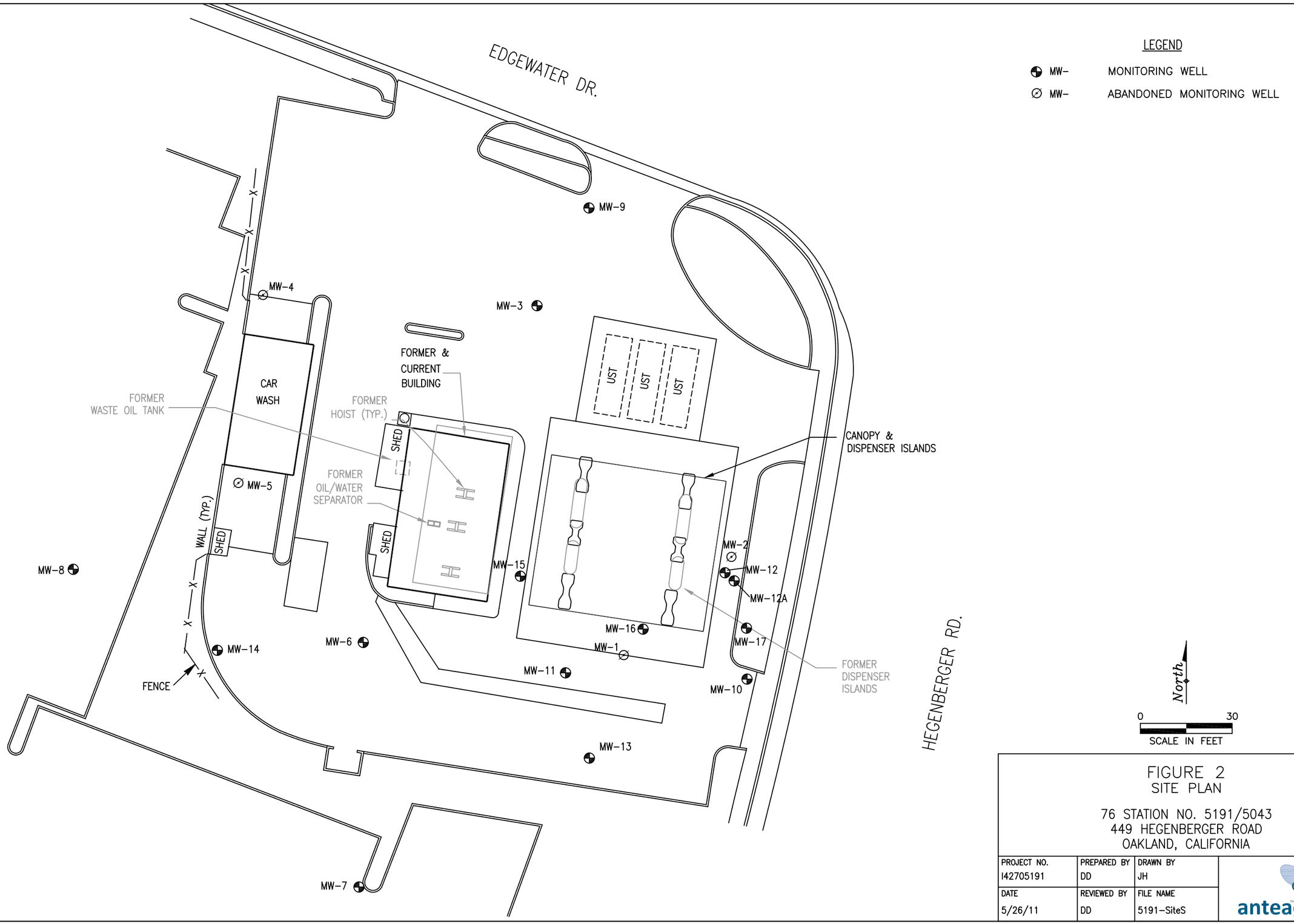
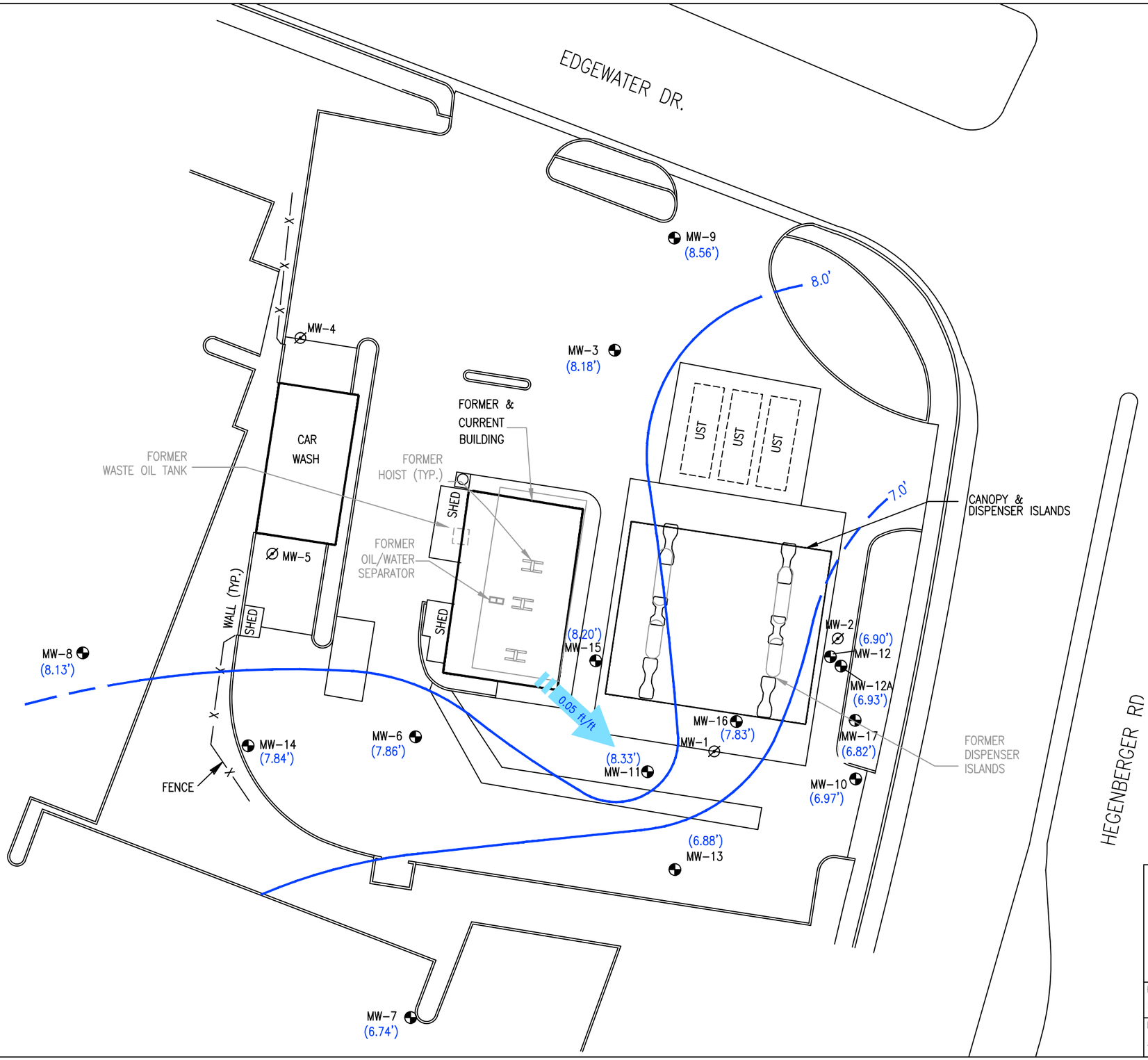


FIGURE 2
SITE PLAN

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

antea group



LEGEND

- MW- MONITORING WELL
- MW- ABANDONED MONITORING WELL
- (8.18) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (ft/msl)
- 8.0' GROUNDWATER CONTOUR LINE (ft/msl) –DASHED WHERE INFERRED (CONTOUR INTERVAL: 0.50 ft)
- 0.05 ft/ft GROUNDWATER FLOW DIRECTION AND HYDRAULIC GRADIENT

North

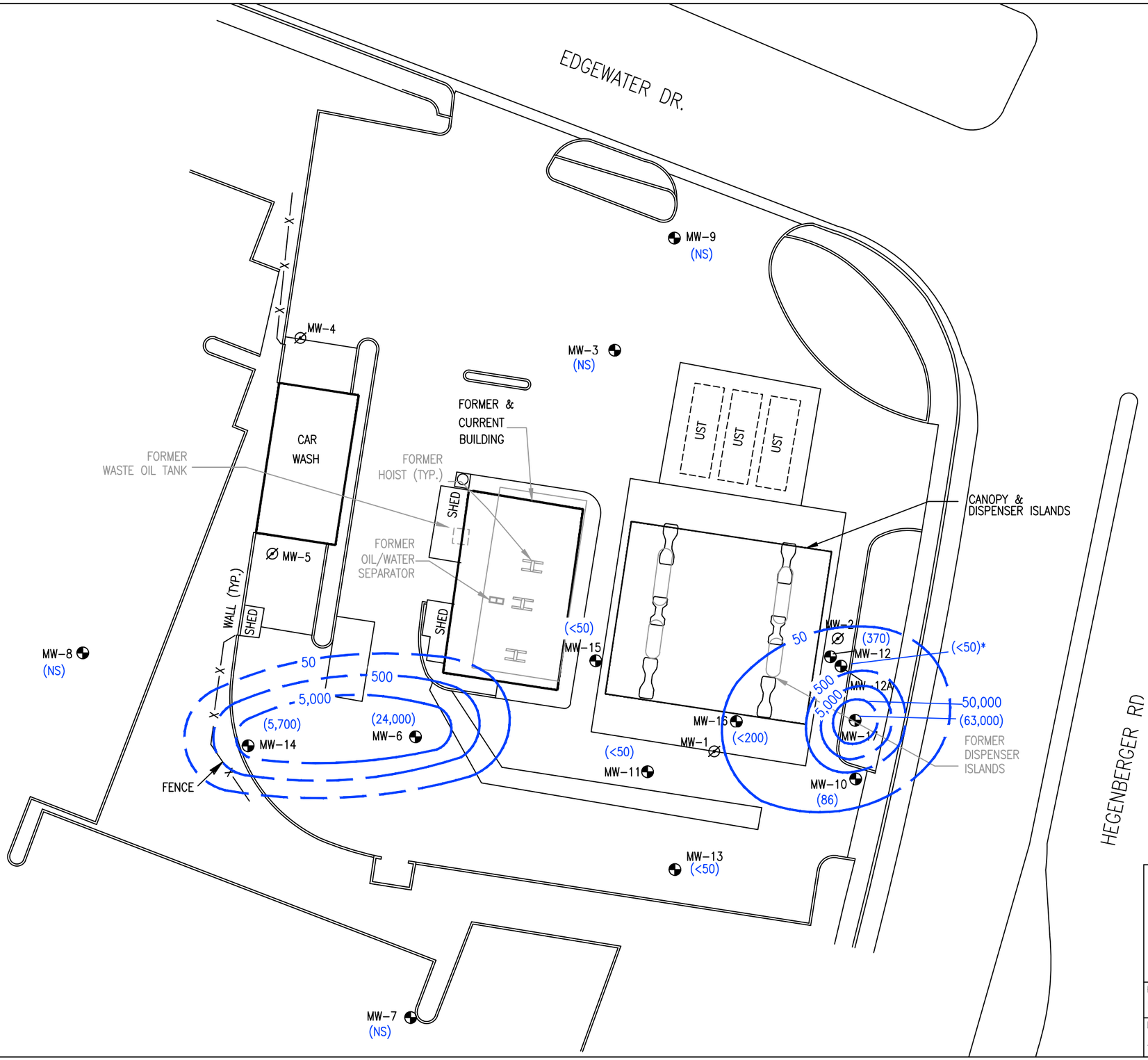
0 30

SCALE IN FEET

FIGURE 3
GROUNDWATER ELEVATION CONTOUR MAP
MARCH 14, 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
4/29/13	DD	5191-SiteS

antea group



LEGEND

- MW- MONITORING WELL
- ∅ MW- ABANDONED MONITORING WELL
- (24,000) DISSOLVED PHASE TPHg ISOOCONCENTRATION (µg/L)
- — 5,000 — — DISSOLVED PHASE TPHg ISOCONTOUR (µg/L) –DASHED WHERE INFERRED

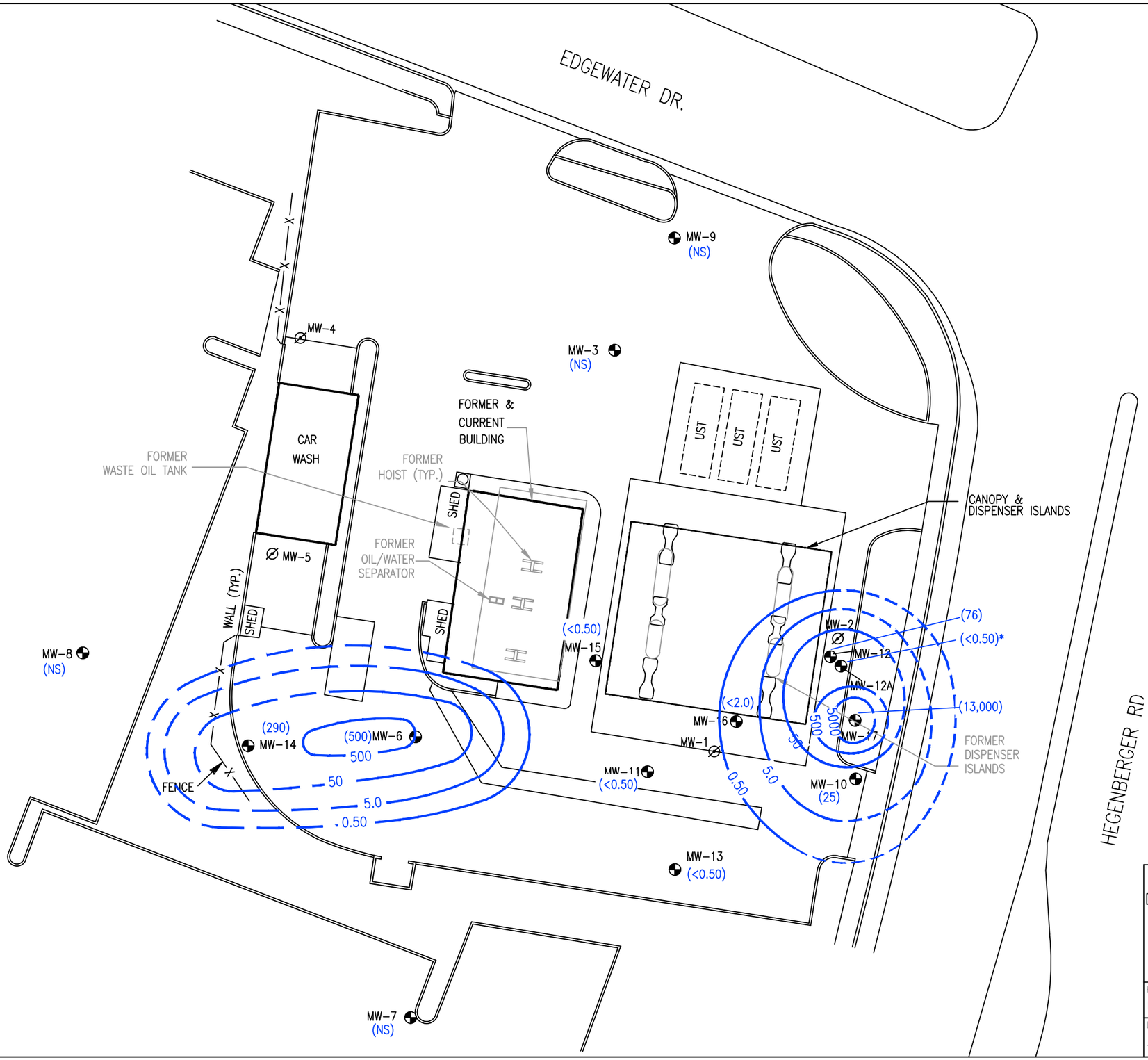
NOTES:

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

FIGURE 4
DISSOLVED PHASE TPHg ISOCONCENTRATION MAP
MARCH 14, 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
4/29/13	DD	5191-SiteS

antea group



LEGEND

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

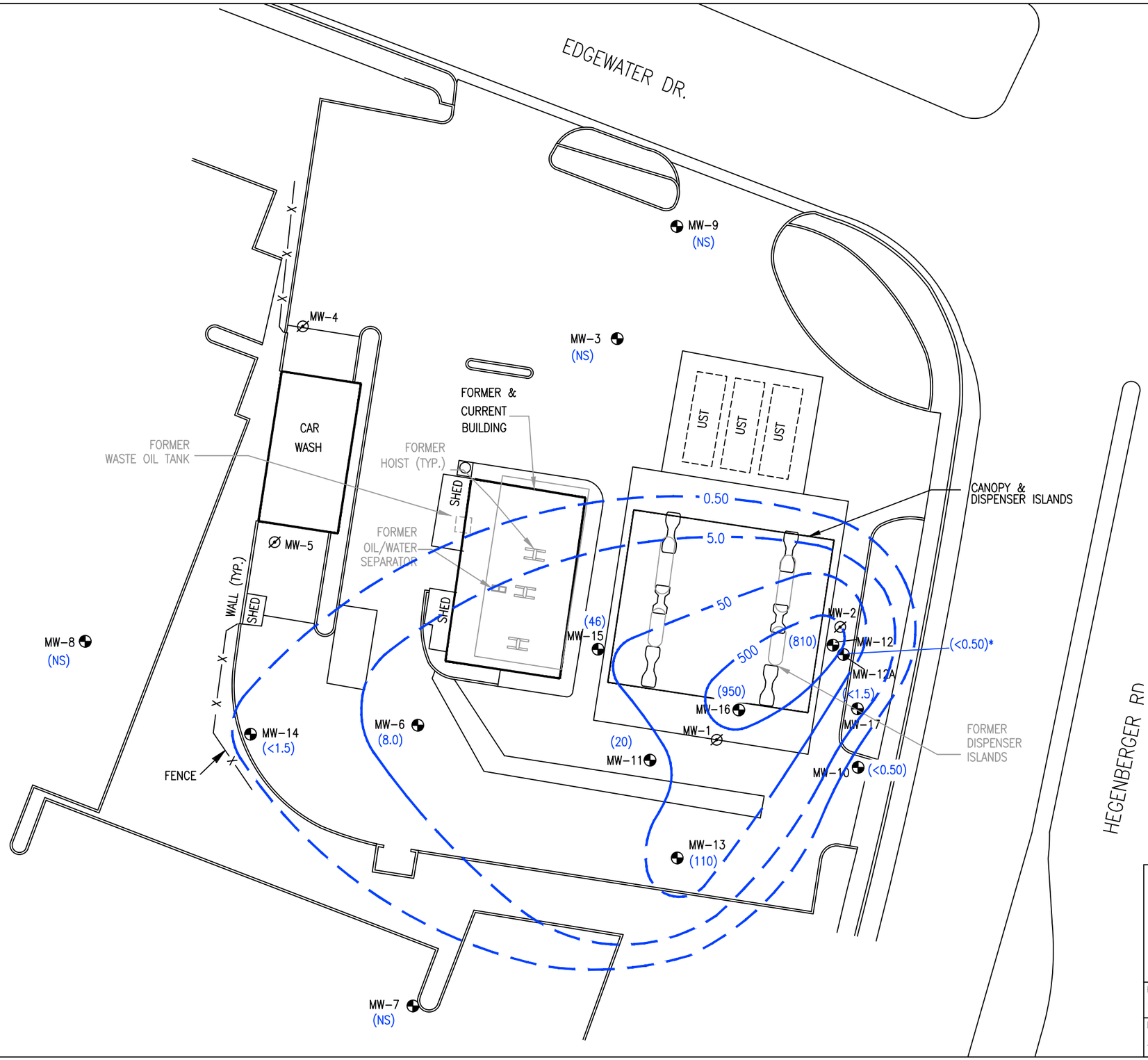
NOTES:

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

FIGURE 5
DISSOLVED PHASE BENZENE ISOCONCENTRATION MAP
MARCH 14, 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
4/29/13	DD	5191-SiteS

antea group



LEGEND

- MW- MONITORING WELL
- MW- ABANDONED MONITORING WELL
- (810) DISSOLVED PHASE MTBE ISOOCONCENTRATION (µg/L)
- 500 DISSOLVED PHASE MTBE ISOCONTOUR (µg/L) –DASHED WHERE INFERRED

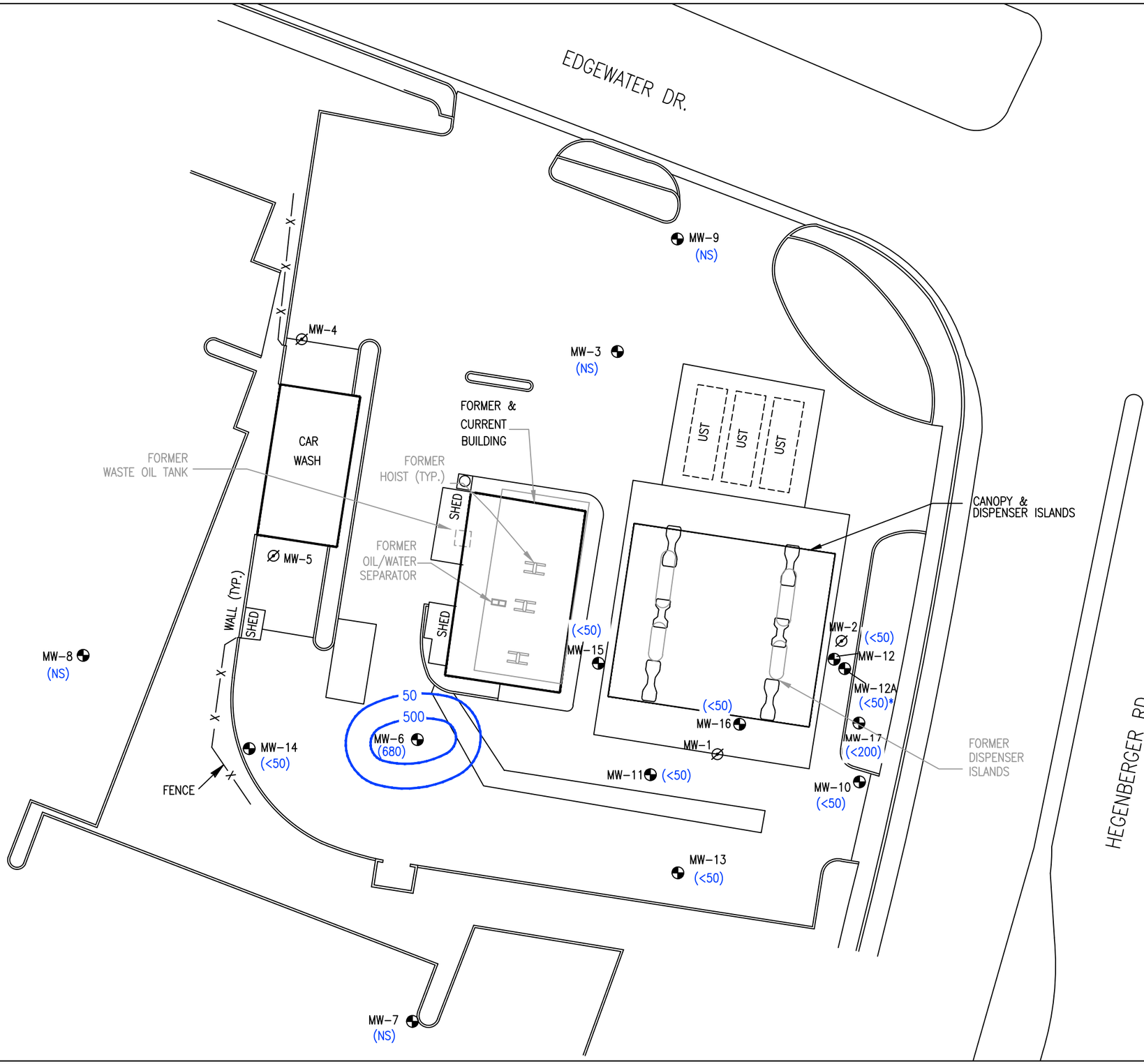
NOTES:

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

FIGURE 6
DISSOLVED PHASE MTBE ISOCONCENTRATION MAP
MARCH 14, 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
4/29/13	DD	5191-SiteS

antea group



LEGEND

- MW- MONITORING WELL
- MW- ABANDONED MONITORING WELL
- (680) DISSOLVED PHASE TPHd ISOOCONCENTRATION (µg/L)
- 50 DISSOLVED PHASE TPHd ISOCONTOUR (µg/L)

NOTES:

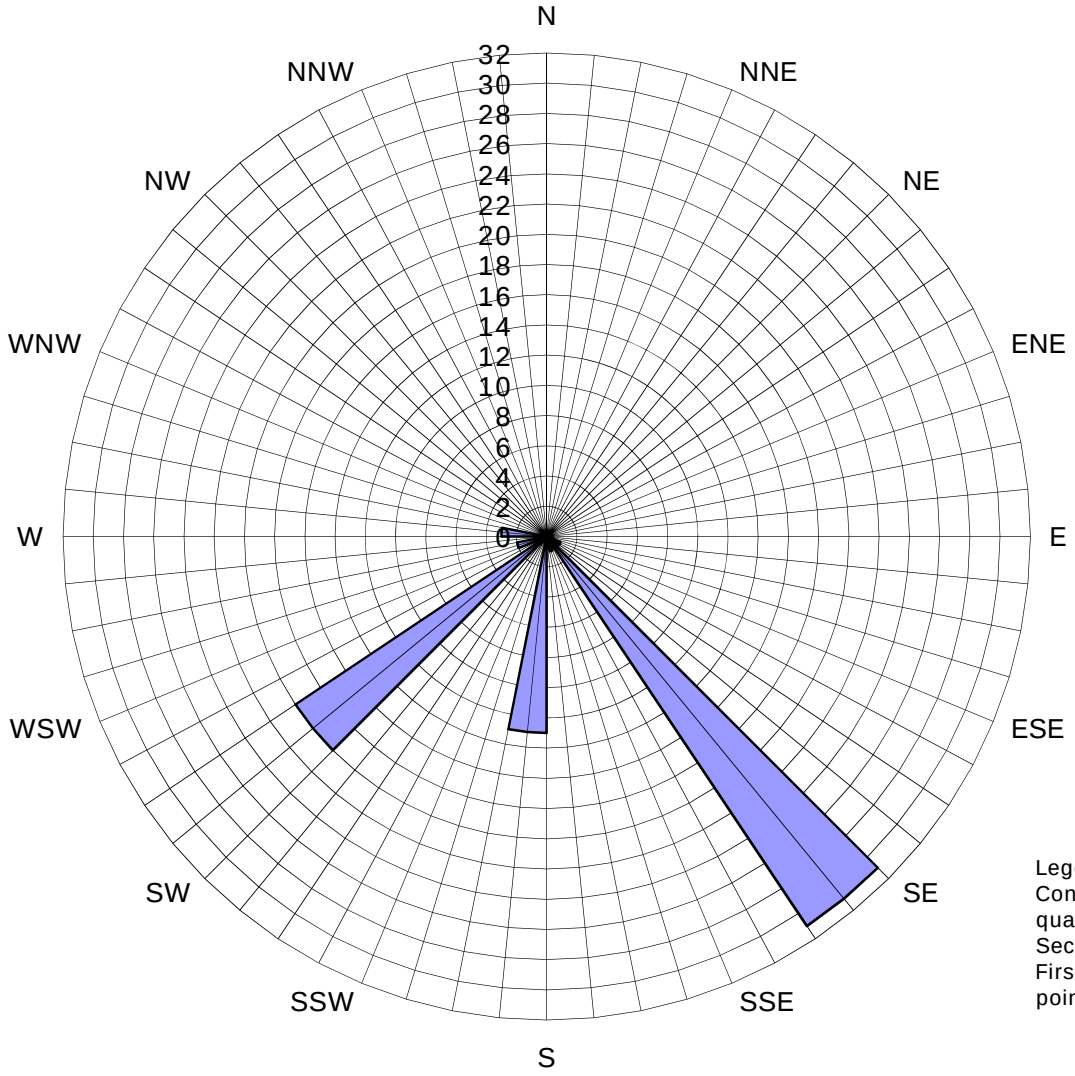
TPHd = TOTAL PETROLEUM HYDROCARBONS AS DIESEL
NS = NOT SAMPLED
µg/L = MICROGRAMS PER LITER
<50.0 = LESS THAN LABORATORY INDICATED REPORTING LIMIT
* = NOT USED IN CONTOURING

FIGURE 7
DISSOLVED PHASE TPHd ISOCONCENTRATION MAP
MARCH 14, 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
4/29/13	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 First Quarter 2013. 71 data points shown

Groundwater Flow Direction

Tables

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

Well I.D.	Drill Date	Well		Screen		Screen Length (feet)	Comments
		Depth (feet bgs)	Diameter (inches)	Top (feet bgs)	Bottom (feet bgs)		
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	3/14/2013	10.81	2.63	NP	8.18	--	--	--	--	--	--	--	--	--
MW-6	3/14/2013	11.55	3.69	NP	7.86	**680**	**24,000**	**500**	**25**	**540**	**1,700**	**8**	**110**	<40
MW-7	3/14/2013	11.64	4.90	NP	6.74	--	--	--	--	--	--	--	--	--
MW-8	3/14/2013	11.32	3.19	NP	8.13	--	--	--	--	--	--	--	--	--
MW-9	3/14/2013	10.94	2.38	NP	8.56	--	--	--	--	--	--	--	--	--
MW-10	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
MW-11	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
MW-12	3/14/2013	11.01	4.11	NP	6.90	<50	**370**	**76**	**3.4**	**12.0**	**18**	**810**	**21 J**	<15
MW-12A	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
MW-13	3/14/2013	11.08	4.20	NP	6.88	<50	<50	<0.50	<0.50	<0.50	<0.50	**110**	**24**	<5.0
MW-14	3/14/2013	12.00	4.16	NP	7.84	<50	**5,700**	**290**	**11.0**	**750**	**960**	<1.5	**12**	<15
MW-15	3/14/2013	11.11	2.91	NP	8.20	<50	<50	<0.50	<0.50	<0.50	<0.50	**46**	**21**	<5.0
MW-16	3/14/2013	10.98	3.15	NP	7.83	<50	<200	<2.0	<2.0	<2.0	<2.0	**950**	**67**	<20
MW-17	3/14/2013	11.52	4.70	NP	6.82	<200	**63,000**	**13,000**	**5,400**	**3,100**	**8,800**	<15	**260**	<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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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	--	--
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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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	--	--
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	--	--
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	--	--
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	--	--
MW-13	7/6/2010	11.08	4.26	NP	7	**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	<50.0	**250 1n**	<0.50	<0.50	<0.50	<1.5	--	**272**	--	--	--	--	<250	--	--
	12/8/2010	11.08	5.02	NP	6	**97.0**	**177 1n**	<0.50	<0.50	<0.50	<1.5	--	**390**	--	--	--	--	<250	--	--
	3/14/2011	11.08	4.32	NP	7	**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	<50.0	**167**	<0.50	<0.50	<0.50	<1.5	--	**207**	--	--	--	--	<250	--	--
	12/5/2011	11.08	5.00	NP	6	<50.0	**166 1n**	<0.50	<0.50	<0.50	<1.5	--	**215**	--	--	--	--	<250	--	--
	3/6/2012	11.08	5.37	NP	6	<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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	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	7	**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	<50	<50	<0.50	<0.50	<0.50	<0.50	--	**130**	--	--	--	**14**	<5.0	--	--
	3/14/2013	11.08	4.20	NP	7	<50	<50	<0.50	<0.50	<0.50	<0.50	--	**110**	--	--	--	**24**	<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	--	--
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	--	--
	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	--	--

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-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	--	--
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	--	--

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
	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
		0.025 Average	**0**	**0**	**0**	**0**	**0**	**1**	**31**	**1**	**13**	**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: 220519 **Site Address:** 449 Heggenberger Rd Oakland

Field Technician: Ken Sim BTS *(Print Full Name & Company*)* **Date:** 3-14-13 **Weather:** Clear

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	P	P	P	G	G	Y	2	0755	2.63	13.91			BW
12	MW-6	G	G	G	G	G	Y	2	0755	3.69	12.63			SK
2	MW-7	G	G	G	G	G	N	2	0745	4.70	12.94			BW
1	MW-8	G	G	G	G	G	N	2	0740	3.19	14.68			BW
4	MW-9	P	P	P	G	G	Y	2	0750	2.38	12.58			BW
7	MW-10	G	G	G	G	G	N	2	0728	4.00	12.60			SK
6	MW-11	G	G	G	G	G	N	4	0722	2.20	19.50			SK
11	MW-12	G	G	G	G	G	N	4	0750	4.11	19.43			SK
3	MW-12A	G	G	G	G	G	N	2	0716	4.36	32.99			SK
8	MW-13	G	G	G	G	G	N	2	0732	4.20	19.55			SK
13	MW-14	G	G	G	G	G	N	2	0800	4.16	12.78			SK
9	MW-15	G	G	G	G	G	N	2	0737	2.91	12.66			SK
10	MW-16	G	G	G	G	G	N	2	0743	3.15	12.61			SK
14	MW-17	G	G	G	G	G	N	2	0807	4.70	12.57			SK

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 Hegenberger Oakland CA		
Project No:	270519	Field Technician:	SK
Field Point:	MW-6	Date:	3-14-13
Depth to Water (DTW) (ft bgs):	3.69	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):	8.94

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): 8.94 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 = radius² * 0.163

Purge: Start Time: 1055 Stop Time: 1102

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				—		—		
1056	19.1	6.59	4268	-183	69	0.88	0.8	
1057	18.6	6.57	3194	-191	124	1.79	1.5	
1058	17.6	6.99	3046	-205	76	0.94	2.4	
1059	17.3	7.01	2823	-207	55	0.57	3.0	
—	Well	Dewatered	@	3.5			Grab	—
1330	18.3	6.88	3799	-224	47	1.03	Grab	
Post-Purge				—		—		

Did Well dewater? (Yes) No Total Purge volume (gal): 3.5

Other Comments: 80% = 5.48 Purge through Flow Cell
BTW = 7.01 (2hr) FD1-20130331 @ 1335 *Sheen

Sample Info:

Sample ID:	MW-6-20130331	Sample Date and Time:	3-14-13 @ 1330
Selected Analysis:	SEE COC		

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

Signature: _____ Date: 3-14-13

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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 Hegenberger Oakland CA		
Project No:	270519	Field Technician:	JK
Field Point:	MW-10	Date:	3-14-13
Depth to Water (DTW) (ft bgs):	4.00	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	
Total Depth of Well (ft bgs):	12.60	Water Column Height (ft):	8.6

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/BCD; Extraction Port; Dedicated Tubing; Disposable Tubing; Other:_____

Water Column Height (ft): 8.6 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: 0856 Stop Time: 0902

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				—		—		
0857	18.6	7.04	1149	-354	411	8.11	0.7	
0858	18.3	7.04	1191	-333	206	0.66	1.4	
0859	17.3	7.05	1380	-297	68	1.74	2.1	
0900	17.7	6.63	3177	-325	24	0.84	2.8	
0901	17.2	6.62	3091	-331	19	0.79	3.5	
0902	17.4	6.60	3007	-334	17	0.78	4.2	
Post-Purge				—		—		

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

Other Comments: 80% = 5.72 BTW = 4.67 Purge through Flow Cell

Sample Info:

Sample ID:	MW-10_20130331	Sample Date and Time:	3-14-13 @ 0905
Selected Analysis:	SEE COC		

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

Signature: _____ Date: 3-14-13

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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 Hegenberger Oakland CA		
Project No:	2705191	Field Technician:	SK
Field Point:	MW-11	Date:	3-14-13
Depth to Water (DTW) (ft bgs):	2.20	Well Diameter (in):	(2) (4) 6 8 ___
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	
Total Depth of Well (ft bgs):	19.50	Water Column Height (ft):	17.3

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/ DED / Extraction Port / Dedicated Tubing / Disposable Tubing / Other:

Water Column Height (ft): 17.3 X Conversion Factor (gal/ft): 0.66 = Casing Volume (gal): 11.4

Casing Volume (gal): 11.4 X Specified Volumes: 3 = Calculated Purge (gal): 34.2

Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius² * 0.163

Purge: Start Time: 0828 Stop Time:

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				—		—		
0830	18.6	7.12	1190	-278	115	0.69	5.7	
0832	18.7	7.04	1223	-297	96	0.64	11.4	
0834	18.8	7.00	1203	-318	26	0.78	17.1	
0836	18.9	7.00	1190	-321	17	0.83	22.8	
0838	18.9	7.00	1193	-325	16	0.79	28.5	
0840							34.2	
Post-Purge				—		—		

Did Well dewater? Yes (No) Total Purge volume (gal): 34.2

Other Comments: 80% = 5.66 Purge through Flow Cell

DTW = 5.20

Sample Info:

Sample ID:	MW-11-20130331	Sample Date and Time:	3-14-13 @ 0845
Selected Analysis:	SEE COC		

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

Signature: Date: 3-14-13

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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 Hegenberger Oakland CA		
Project No:	270S191	Field Technician:	SK
Field Point:	MW-12	Date:	3-14-13
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):	19.43	Water Column Height (ft):	15.32

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): 15.32 X Conversion Factor (gal/ft): (0.66) = Casing Volume (gal): 10.11

Casing Volume (gal): 10.1 X Specified Volumes: 3 = Calculated Purge (gal): 30.3

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

Purge: Start Time: 1030 Stop Time: 1042

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	18.8	6.52	23072	-264	66	0.51	5.1	
1034	18.8	6.55	23003	-263	30	0.52	10.1	
1036	17.9	6.72	19767	-262	15	0.59	15.3	
1038	17.0	6.60	22144	-267	12	0.49	20.2	
1040	16.4	6.60	23026	-258	14	0.49	25.5	
1042	16.2	6.62	24001	-260	14	0.52	30.3	
Post-Purge				—		—		

Did Well dewater? Yes (No) Total Purge volume (gal): 30.3

Other Comments: 80% = 7.17 DTW = 4.30 Purge through Flow Cell

Sample Info:

Sample ID:	MW-12_20130331	Sample Date and Time:	3-14-13 1315
Selected Analysis:	SEE COC		

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

Signature: _____ Date: 3-14-13

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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 Hegenberger Oakland CA		
Project No:	270S191	Field Technician:	SK
Field Point:	MW-12A	Date:	3-14-13
Depth to Water (DTW) (ft bgs):	4.36	Well Diameter (in):	2 ~~4~~ ~~6~~ 8 ___
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	/
Total Depth of Well (ft bgs):	32.49	Water Column Height (ft):	28.13

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/BCD
Extraction Port
Dedicated Tubing
Disposable Tubing
Other:

Water Column Height (ft): 28.13 ~~28.13~~ SP X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 4.7 ~~15.6~~ SP

Casing Volume (gal): 4.7 ~~15.6~~ SP X Specified Volumes: 3 ~~6~~ ~~6~~ SP = Calculated Purge (gal): 14.1 ~~55.9~~ SP

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

Purge: Start Time: ~~0836~~ Stop Time:

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				—		—		
0808	17.7	6.24	2791	-208	>1000	8.31	2.4	
0809	18.9	6.27	3274	-269	691	5.88	4.7	
0810	19.1	6.33	3322	-297	544	4.77	7.2	
0811	19.3	6.37	3327	-339	367	3.00	9.4	
0812	19.4	6.39	3329	-345	176	3.04	11.8	
0813	19.4	6.41	3336	-348	197	3.01	14.1	
Post-Purge				—		—		

Did Well dewater? Yes (No) Total Purge volume (gal): 14.1

Other Comments: 80% : 9.99 DTW = 4.80 Purge through Flow Cell

Sample Info:

Sample ID:	MW-12A_20130331	Sample Date and Time:	3-14-13 @ 0815
Selected Analysis:	SEE COC		

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Signature: Date: 3-14-13

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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 Hegenberger Oakland CA		
Project No:	2705191	Field Technician:	SK
Field Point:	MW-13	Date:	3-14-13
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: 0920 Stop Time: 0926

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				—		—		
0921	16.5	6.62	2701	-185	86	0.67	0.9	
0922	15.9	6.53	3350	-222	91	1.15	1.8	
0923	16.0	7.18	3173	-260	67	0.64	2.7	
0924	15.7	7.20	3203	-269	44	0.54	3.6	
0925	15.9	7.21	3219	-271	37	0.52	4.5	
0926	16.0	7.20	3244	-274	29	0.50	5.4	
Post-Purge				—		—		

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

Other Comments: 80% = 6.27 DTW = 6.20 Purge through Flow Cell

Sample Info:

Sample ID:	MW-13_20130331	Sample Date and Time:	3-14-13 @ 0935
Selected Analysis:	SEE COC		

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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 Hegenberger Oakland CA		
Project No:	270519I	Field Technician:	SK
Field Point:	MW-14	Date:	3-14-13
Depth to Water (DTW) (ft bgs):	4.16	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	
Total Depth of Well (ft bgs):	12.78	Water Column Height (ft):	8.62

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): 8.62 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: 1115 Stop Time: 1121

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				—		—		
1116	17.1	6.97	3622	-189	124	5.44	0.8	
1117	17.3	6.94	3549	-184	94	4.81	1.5	
1118	17.0	7.06	5673	-199	72	1.21	2.4	
1119	16.6	7.13	7614	-210	46	0.58	3.0	
1120	16.0	7.08	9046	-213	24	0.57	4.0	
1121	15.8	7.04	6797	-216	19	0.55	4.5	
Post-Purge				—		—		

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

Other Comments: 80% = 5.88 BTW = 4.38 Purge through Flow Cell

Sample Info:

Sample ID:	MW-14_20130331	Sample Date and Time:	3-14-13 @ 1350
Selected Analysis:	SEE COC		

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Signature: _____ Date: 3-14-13

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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 Hegenberger Oakland CA		
Project No:	270S191	Field Technician:	SK
Field Point:	MW-15	Date:	3-14-13
Depth to Water (DTW) (ft bgs):	2.91	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	
Total Depth of Well (ft bgs):	12.66	Water Column Height (ft):	9.75

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)
Extraction Port
Dedicated Tubing
Disposable Tubing
Other:_____

Water Column Height (ft): 9.75 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 1.7

Casing Volume (gal): 1.7 X Specified Volumes: 3 = Calculated Purge (gal): 5.1

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

Purge: Start Time: 0943 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				—		—		
0946	15.8	7.46	3976	-224	116	0.69	0.9	
0947	15.9	7.38	3751	-233	104	0.66	1.7	
0948	17.6	7.00	2374	-253	53	0.58	2.7	
0949	17.7	6.46	1588	-259	44	0.58	3.4	
0950	17.8	6.39	1499	-261	40	0.56	4.5	
0951	17.8	6.38	1431	-263	32	0.55	5.1	
Post-Purge				—		—		

Did Well dewater? Yes (No) Total Purge volume (gal): 5.1

Other Comments: 80% = 8.86 BTW = 806 (2hr) Purge through Flow Cell

Sample Info:

Sample ID:	MW-15_20130331	Sample Date and Time:	3-14-13 @ 1245
Selected Analysis:	SEE COC		

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Signature: _____ Date: 3-14-13

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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 Hegenberger Oakland CA		
Project No:	2705191	Field Technician:	SK
Field Point:	MW-16	Date:	3-14-13
Depth to Water (DTW) (ft bgs):	3.15	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):	9.46

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): 9.46 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: 1007 Stop Time: 1017

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	17.4	6.45	1712	-251	816	0.80	0.8	
1010	17.4	6.50	2638	-281	771	0.67	1.6	
1011	18.3	6.85	3390	-294	712	0.71	2.4	
1012	18.5	6.87	2914	-295	360	0.73	3.2	
1013	18.7	6.86	2924	-297	148	0.72	4.0	
1014	18.8	6.87	2931	-302	82	0.72	4.8	
Post-Purge				—		—		

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

Other Comments: 80% = 5.04 BTW = 3.98 (3 hr SV) Purge through Flow Cell

Sample Info:

Sample ID:	MW-16_20130331	Sample Date and Time:	3-14-13 @ 1300
Selected Analysis:	SEE COC		

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

Signature: _____ Date: 3-14-13

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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 Hegenberger Oakland CA		
Project No:	270519	Field Technician:	SK
Field Point:	MW-17	Date:	3-14-13
Depth to Water (DTW) (ft bgs):	4.70	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	
Total Depth of Well (ft bgs):	12.57	Water Column Height (ft):	7.87

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): 7.87 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: 1134 Stop Time: 1142

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				—		—		
1135	17.7	6.97	25689	-167	236	0.78	0.7	
1136	17.1	6.91	23377	-190	149	0.67	1.4	
1137	16.3	6.88	22556	-171	70	0.99	2.1	
1138	16.5	6.86	22167	-173	56	0.89	2.8	
1139	16.6	6.86	21449	-176	43	0.87	3.5	
1140	16.8	6.85	20294	-177	48	0.88	4.2	
Post-Purge				—		—		

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

Other Comments: 80% = 6.27 BTW 9.89 (2hr) Purge through Flow Cell

Sample Info:

Sample ID:	MW-17_20130351	Sample Date and Time:	3-14-13 @ 1405
Selected Analysis:	SEE COC		

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

Signature: _____ Date: 3-14-13

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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

20130331.2705191.WG_Q_201303.BO

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 ____

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1Q13 GW Event

Required Lab Information:

Lab Name:	Kiff Analytical
Address:	2795 Second Street, #300
Davis, CA 95618	
Lab PM:	Scott Forbes
Phone/Fax:	P: 530-297-4800 F: 530-297-4808
Lab PM email	SForbes@kiffanalytical.com
Applicable Lab Quote #:	

Required Project Information:

Site ID #:	2705191
Task:	WG_Q_201303
AnteaGrp proj#	
Site Address	449 Hegenberger
City	Oakland
State	CA 94621
AG PM Name:	Dennis Dettloff
Phone/Fax:	P: 916-503-1261 F: 916-638-8385
AG PM Email:	dennis.dettloff@anteagroup.com

Required Invoice Information:

Send Invoice to:	Sandy Hayes
Address:	11050 White Rock Road, Suite 110
City/State	Rancho Cordova CA 95670
Phone #:	916-638-2085
Reimbursement project?	
Non-reimbursement project?	Y
Mark one	
Send EDD to	copeltdata@intelligentehs.com
CC Hardcopy report to	
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		MATRIX	
DRINKING WATER	WP	WATER	W
GROUND WATER	WG	SURFACE WATER	WS
WASTE WATER	WW	WATER QC	WQ
FREE PRODUCT	LF	SLUDGE	SL
SOIL	SO	RINSEATE	WH
OIL	OL	OTHER	OT
WIPE	SW	ANIMAL TISSUE	TA
AMBIENT AIR	AA		
SVE AIR	AS		
SOIL GAS	GG		

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	Requested Analyses: 8015TPHDiesel w/ silica	8260 GC/MS TPHG	8260BtexMtbe TBA	8260Ethanol	Comments/Lab Sample I.D.
1	MW-10_20130331	WG	G	3-14-13	0905	5					X					X	X	X	X	
2	MW-11_20130331	WG	G		0845	5					X					X	X	X	X	
3	MW-12_20130331	WG	G		1315	5					X					X	X	X	X	
4	MW-12A_20130331	WG	G		0815	5					X					X	X	X	X	
5	MW-13_20130331	WG	G		0935	5					X					X	X	X	X	
6	MW-14_20130331	WG	G		1350	5					X					X	X	X	X	
7	MW-15_20130331	WG	G		1245	5					X					X	X	X	X	
8	MW-16_20130331	WG	G		1300	5					X					X	X	X	X	
9	MW-17_20130331	WG	G		1405	5					X					X	X	X	X	
10	MW-6_20130331	WG	G		1330	5					X					X	X	X	X	
11	FD1_20130331	W	G		1335	5					X					X	X	X	X	
12																				

Additional Comments/Special Instructions:

Global ID: T0600101476

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature]	3-14-13	1530	[signature]	3-14-13	1530
[signature] Sample Custodian BTS	3/15/13	1310			
			[signature]	031513	1320

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: Ken Sim
SIGNATURE of SAMPLER: [signature]
DATE Signed: 3-14-13
Time: 1530

Inogen

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME 449 Hegenberger Oakland				PROJECT NUMBER 270519			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP. °C	INITIALS
Pro Plus	10E102050	0612 3-14-13	pH 7 10 4	7.00 10.00 4.00	✓	14.4	SK
			Cond 3900 uS	3900 uS	✓	14.4	SK
			ORP 239 mV	234	✓	14.5	SK
			DO 100%	100%	✓	14.5	SK

Appendix D

Certified Laboratory Analytical Report and Data Validation Form

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

Preservation Temperature
(if Known): 3.8 °C

Antea™Group Laboratory Data Validation Sheet

Project/Client: 76 Station No. 5191 / cop-ELT
Project #: I42705191
Date of Validation: 3-28-13 **Date of Analysis:** 3/18/13 - 3/22/13
Sample Date: 3-14-13 **Completed By:** ETW
Signature:

Circle or Highlight
Yes / No
(below)

Analytical Lab Used and Report # (if any): Kiff #: 84344

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:

Other Qualifiers.
- MRL for Ethanol increased in FD1 due to presence of interfering compound
- TBA result in MW-12 may be biased high.
- Surrogate Recovery for MW-17 EPA 8015 may outside control limits.

KIFF Analytical LLC

Report Number : 84344
Date : 03/22/2013

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 : 84344
Date : 03/22/2013

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

Case Narrative

The Method Reporting Limit for Ethanol has been increased due to the presence of an interfering compound for sample FD1_20130331.

Tert-Butanol results for sample MW-12_20130331 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 sample MW-17_20130331 for 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.

KIFF Analytical LLC

Analysis Summary

Report Number : 84344

Date : 03/22/13

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

Project Name :2705191
Project Number :

			Sample Name	MW-10_20130331		MW-11_20130331		MW-12_20130331		MW-12A_2013033		MW-13_20130331		MW-14_20130331		MW-15_20130331	
			Sample Date	03/14/13		03/14/13		03/14/13		03/14/13		03/14/13		03/14/13		03/14/13	
Analyte	Method	Units		MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results
Benzene	EPA 8260B	ug/L		0.50	**25**	0.50	ND	1.5	**76**	0.50	ND	0.50	ND	1.5	**290**	0.50	ND
Ethylbenzene	EPA 8260B	ug/L		0.50	**0.56**	0.50	ND	1.5	**12**	0.50	ND	0.50	ND	1.5	**750**	0.50	ND
Toluene	EPA 8260B	ug/L		0.50	ND	0.50	ND	1.5	**3.4**	0.50	ND	0.50	ND	1.5	**11**	0.50	ND
Total Xylenes	EPA 8260B	ug/L		0.50	**0.80**	0.50	ND	1.5	**18**	0.50	ND	0.50	ND	2.5	**960**	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	**20**	1.5	**810**	0.50	ND	0.50	**110**	1.5	ND	0.50	**46**
Tert-Butanol	EPA 8260B	ug/L		5.0	ND	5.0	ND	7.0	**21 J**	5.0	ND	5.0	**24**	6.0	**12**	5.0	**21**
TPH as Gasoline	EPA 8260B	ug/L		50	**86**	50	ND	150	**370**	50	ND	50	ND	150	**5700**	50	ND
1,2-Dichloroethane-d4 (Surr)	EPA 8260B	%			97.0		93.2		94.0		95.0		101		98.5		94.9
Toluene - d8 (Surr)	EPA 8260B	%			103		104		104		104		101		102		105
TPH as Diesel (Silica Gel)	M EPA 8015	ug/L		50	ND	50	ND	50	ND	50	ND	50	ND	50	ND	50	ND
Octacosane (Silica Gel Surr)	M EPA 8015	%			93.9		96.0		96.7		112		108		70.1		100

MRL = Method Reporting Limit
ND = Not Detected

KIFF Analytical LLC

Analysis Summary

Report Number : 84344
Date : 03/22/13

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

Project Name :2705191
Project Number :

			Sample Name	MW-16_20130331		MW-17_20130331		MW-6_20130331		FD1_20130331	
			Sample Date	03/14/13		03/14/13		03/14/13		03/14/13	
Analyte	Method	Units		MRL	Results	MRL	Results	MRL	Results	MRL	Results
Benzene	EPA 8260B	ug/L		2.0	ND	25	**13000**	4.0	**500**	1.5	**500**
Ethylbenzene	EPA 8260B	ug/L		2.0	ND	15	**3100**	4.0	**540**	1.5	**490**
Toluene	EPA 8260B	ug/L		2.0	ND	15	**5400**	4.0	**25**	1.5	**24**
Total Xylenes	EPA 8260B	ug/L		2.0	ND	15	**8800**	4.0	**1700**	2.5	**1400**
Ethanol	EPA 8260B	ug/L		20	ND	150	ND	40	ND	50	ND
Methyl-t-butyl ether (MTBE)	EPA 8260B	ug/L		2.0	**950**	15	ND	4.0	**8.0**	1.5	**8.2**
Tert-Butanol	EPA 8260B	ug/L		15	**67**	70	**260**	20	**110**	7.0	**120**
TPH as Gasoline	EPA 8260B	ug/L		200	ND	1500	**63000**	400	**24000**	500	**27000**
1,2-Dichloroethane-d4 (Surr)	EPA 8260B	%			96.8		93.8		93.5		99.0
Toluene - d8 (Surr)	EPA 8260B	%			105		103		104		102
TPH as Diesel (Silica Gel)	M EPA 8015	ug/L		50	ND	200	ND	50	**680**	50	**420**
Octacosane (Silica Gel Surr)	M EPA 8015	%			111		68.4		112		116

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 : 84344
Date : 03/22/13

Project Name : **2705191**
Project Number :

Sample : **MW-10_20130331** Matrix : Water Lab Number : 84344-01
Sample Date :03/14/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**25**	0.50	ug/L	EPA 8260B	03/18/13 21:15
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/18/13 21:15
Ethylbenzene	**0.56**	0.50	ug/L	EPA 8260B	03/18/13 21:15
Total Xylenes	**0.80**	0.50	ug/L	EPA 8260B	03/18/13 21:15
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/18/13 21:15
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	03/18/13 21:15
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	03/18/13 21:15
TPH as Gasoline	**86**	50	ug/L	EPA 8260B	03/18/13 21:15
1,2-Dichloroethane-d4 (Surr)	97.0		% Recovery	EPA 8260B	03/18/13 21:15
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	03/18/13 21:15
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	03/21/13 17:32
Octacosane (Silica Gel Surr)	93.9		% Recovery	M EPA 8015	03/21/13 17:32

KIFF Analytical LLC

Report Number : 84344
Date : 03/22/13

Project Name : **2705191**
Project Number :

Sample : **MW-11_20130331** Matrix : Water Lab Number : 84344-02
Sample Date :03/14/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/19/13 00:12
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/19/13 00:12
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/19/13 00:12
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/19/13 00:12
Methyl-t-butyl ether (MTBE)	**20**	0.50	ug/L	EPA 8260B	03/19/13 00:12
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	03/19/13 00:12
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	03/19/13 00:12
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/19/13 00:12
1,2-Dichloroethane-d4 (Surr)	93.2		% Recovery	EPA 8260B	03/19/13 00:12
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	03/19/13 00:12
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	03/21/13 18:01
Octacosane (Silica Gel Surr)	96.0		% Recovery	M EPA 8015	03/21/13 18:01

KIFF Analytical LLC

Report Number : 84344
Date : 03/22/13

Project Name : **2705191**
Project Number :

Sample : **MW-12_20130331** Matrix : Water Lab Number : 84344-03
Sample Date :03/14/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**76**	1.5	ug/L	EPA 8260B	03/19/13 02:30
Toluene	**3.4**	1.5	ug/L	EPA 8260B	03/19/13 02:30
Ethylbenzene	**12**	1.5	ug/L	EPA 8260B	03/19/13 02:30
Total Xylenes	**18**	1.5	ug/L	EPA 8260B	03/19/13 02:30
Methyl-t-butyl ether (MTBE)	**810**	1.5	ug/L	EPA 8260B	03/19/13 02:30
Tert-Butanol	**21 J**	7.0	ug/L	EPA 8260B	03/19/13 15:13
Ethanol	< 15	15	ug/L	EPA 8260B	03/19/13 02:30
TPH as Gasoline	**370**	150	ug/L	EPA 8260B	03/19/13 02:30
1,2-Dichloroethane-d4 (Surr)	94.0		% Recovery	EPA 8260B	03/19/13 02:30
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	03/19/13 02:30
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	03/21/13 18:30
Octacosane (Silica Gel Surr)	96.7		% Recovery	M EPA 8015	03/21/13 18:30

KIFF Analytical LLC

Report Number : 84344

Date : 03/22/13

Project Name : **2705191**

Project Number :

Sample : **MW-12A_20130331** Matrix : Water Lab Number : 84344-04

Sample Date :03/14/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/19/13 00:47
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/19/13 00:47
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/19/13 00:47
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/19/13 00:47
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/19/13 00:47
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	03/19/13 00:47
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	03/19/13 00:47
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/19/13 00:47
1,2-Dichloroethane-d4 (Surr)	95.0		% Recovery	EPA 8260B	03/19/13 00:47
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	03/19/13 00:47
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	03/21/13 22:03
Octacosane (Silica Gel Surr)	112		% Recovery	M EPA 8015	03/21/13 22:03

KIFF Analytical LLC

Report Number : 84344
Date : 03/22/13

Project Name : **2705191**
Project Number :

Sample : **MW-13_20130331** Matrix : Water Lab Number : 84344-05
Sample Date :03/14/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/19/13 12:56
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/19/13 12:56
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/19/13 12:56
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/19/13 12:56
Methyl-t-butyl ether (MTBE)	**110**	0.50	ug/L	EPA 8260B	03/19/13 12:56
Tert-Butanol	**24**	5.0	ug/L	EPA 8260B	03/19/13 12:56
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	03/19/13 01:21
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/19/13 12:56
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	03/19/13 12:56
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	03/19/13 12:56
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	03/21/13 22:38
Octacosane (Silica Gel Surr)	108		% Recovery	M EPA 8015	03/21/13 22:38

KIFF Analytical LLC

Report Number : 84344
Date : 03/22/13

Project Name : **2705191**
Project Number :

Sample : **MW-14_20130331** Matrix : Water Lab Number : 84344-06
Sample Date :03/14/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**290**	1.5	ug/L	EPA 8260B	03/19/13 03:08
Toluene	**11**	1.5	ug/L	EPA 8260B	03/19/13 03:08
Ethylbenzene	**750**	1.5	ug/L	EPA 8260B	03/19/13 03:08
Total Xylenes	**960**	2.5	ug/L	EPA 8260B	03/19/13 13:31
Methyl-t-butyl ether (MTBE)	< 1.5	1.5	ug/L	EPA 8260B	03/19/13 03:08
Tert-Butanol	**12**	6.0	ug/L	EPA 8260B	03/19/13 03:08
Ethanol	< 15	15	ug/L	EPA 8260B	03/19/13 03:08
TPH as Gasoline	**5700**	150	ug/L	EPA 8260B	03/19/13 03:08
1,2-Dichloroethane-d4 (Surr)	98.5		% Recovery	EPA 8260B	03/19/13 03:08
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	03/19/13 03:08
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	03/21/13 23:12
Octacosane (Silica Gel Surr)	70.1		% Recovery	M EPA 8015	03/21/13 23:12

KIFF Analytical LLC

Report Number : 84344
Date : 03/22/13

Project Name : **2705191**
Project Number :

Sample : **MW-15_20130331** Matrix : Water Lab Number : 84344-07
Sample Date :03/14/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/19/13 01:56
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/19/13 01:56
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/19/13 01:56
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/19/13 01:56
Methyl-t-butyl ether (MTBE)	**46**	0.50	ug/L	EPA 8260B	03/19/13 01:56
Tert-Butanol	**21**	5.0	ug/L	EPA 8260B	03/19/13 01:56
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	03/19/13 01:56
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/19/13 01:56
1,2-Dichloroethane-d4 (Surr)	94.9		% Recovery	EPA 8260B	03/19/13 01:56
Toluene - d8 (Surr)	105		% Recovery	EPA 8260B	03/19/13 01:56
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	03/21/13 23:47
Octacosane (Silica Gel Surr)	100		% Recovery	M EPA 8015	03/21/13 23:47

KIFF Analytical LLC

Report Number : 84344
Date : 03/22/13

Project Name : **2705191**
Project Number :

Sample : **MW-16_20130331** Matrix : Water Lab Number : 84344-08
Sample Date :03/14/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 2.0	2.0	ug/L	EPA 8260B	03/19/13 04:22
Toluene	< 2.0	2.0	ug/L	EPA 8260B	03/19/13 04:22
Ethylbenzene	< 2.0	2.0	ug/L	EPA 8260B	03/19/13 04:22
Total Xylenes	< 2.0	2.0	ug/L	EPA 8260B	03/19/13 04:22
Methyl-t-butyl ether (MTBE)	**950**	2.0	ug/L	EPA 8260B	03/19/13 04:22
Tert-Butanol	**67**	15	ug/L	EPA 8260B	03/19/13 14:05
Ethanol	< 20	20	ug/L	EPA 8260B	03/19/13 04:22
TPH as Gasoline	< 200	200	ug/L	EPA 8260B	03/19/13 04:22
1,2-Dichloroethane-d4 (Surr)	96.8		% Recovery	EPA 8260B	03/19/13 04:22
Toluene - d8 (Surr)	105		% Recovery	EPA 8260B	03/19/13 04:22
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	03/22/13 00:21
Octacosane (Silica Gel Surr)	111		% Recovery	M EPA 8015	03/22/13 00:21

KIFF Analytical LLC

Report Number : 84344
Date : 03/22/13

Project Name : **2705191**
Project Number :

Sample : **MW-17_20130331** Matrix : Water Lab Number : 84344-09
Sample Date :03/14/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**13000**	25	ug/L	EPA 8260B	03/19/13 15:14
Toluene	**5400**	15	ug/L	EPA 8260B	03/19/13 05:31
Ethylbenzene	**3100**	15	ug/L	EPA 8260B	03/19/13 05:31
Total Xylenes	**8800**	15	ug/L	EPA 8260B	03/19/13 05:31
Methyl-t-butyl ether (MTBE)	< 15	15	ug/L	EPA 8260B	03/19/13 05:31
Tert-Butanol	**260**	70	ug/L	EPA 8260B	03/19/13 05:31
Ethanol	< 150	150	ug/L	EPA 8260B	03/19/13 05:31
TPH as Gasoline	**63000**	1500	ug/L	EPA 8260B	03/19/13 05:31
1,2-Dichloroethane-d4 (Surr)	93.8		% Recovery	EPA 8260B	03/19/13 05:31
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	03/19/13 05:31
TPH as Diesel (Silica Gel)	< 200	200	ug/L	M EPA 8015	03/22/13 00:56
(Note: MRL increased due to interference from Gasoline-range hydrocarbons.)					
Octacosane (Silica Gel Surr)	68.4		% Recovery	M EPA 8015	03/22/13 00:56

KIFF Analytical LLC

Report Number : 84344
Date : 03/22/13

Project Name : **2705191**
Project Number :

Sample : **MW-6_20130331** Matrix : Water Lab Number : 84344-10
Sample Date :03/14/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**500**	4.0	ug/L	EPA 8260B	03/19/13 04:57
Toluene	**25**	4.0	ug/L	EPA 8260B	03/19/13 04:57
Ethylbenzene	**540**	4.0	ug/L	EPA 8260B	03/19/13 04:57
Total Xylenes	**1700**	4.0	ug/L	EPA 8260B	03/19/13 04:57
Methyl-t-butyl ether (MTBE)	**8.0**	4.0	ug/L	EPA 8260B	03/19/13 04:57
Tert-Butanol	**110**	20	ug/L	EPA 8260B	03/19/13 04:57
Ethanol	< 40	40	ug/L	EPA 8260B	03/19/13 04:57
TPH as Gasoline	**24000**	400	ug/L	EPA 8260B	03/19/13 04:57
1,2-Dichloroethane-d4 (Surr)	93.5		% Recovery	EPA 8260B	03/19/13 04:57
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	03/19/13 04:57
TPH as Diesel (Silica Gel)	**680**	50	ug/L	M EPA 8015	03/22/13 01:31
(Note: Some hydrocarbons lower-boiling, some higher-boiling than Diesel.)					
Octacosane (Silica Gel Surr)	112		% Recovery	M EPA 8015	03/22/13 01:31

KIFF Analytical LLC

Report Number : 84344
Date : 03/22/13

Project Name : **2705191**
Project Number :

Sample : **FD1_20130331** Matrix : Water Lab Number : 84344-11
Sample Date :03/14/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**500**	1.5	ug/L	EPA 8260B	03/19/13 03:48
Toluene	**24**	1.5	ug/L	EPA 8260B	03/19/13 03:48
Ethylbenzene	**490**	1.5	ug/L	EPA 8260B	03/19/13 03:48
Total Xylenes	**1400**	2.5	ug/L	EPA 8260B	03/19/13 15:46
Methyl-t-butyl ether (MTBE)	**8.2**	1.5	ug/L	EPA 8260B	03/19/13 03:48
Tert-Butanol	**120**	7.0	ug/L	EPA 8260B	03/19/13 03:48
Ethanol	< 50	50	ug/L	EPA 8260B	03/19/13 03:48
TPH as Gasoline	**27000**	500	ug/L	EPA 8260B	03/20/13 01:18
1,2-Dichloroethane-d4 (Surr)	99.0		% Recovery	EPA 8260B	03/19/13 03:48
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	03/19/13 03:48
TPH as Diesel (Silica Gel)	**420**	50	ug/L	M EPA 8015	03/22/13 02:05
(Note: Some hydrocarbons lower-boiling, some higher-boiling than Diesel.)					
Octacosane (Silica Gel Surr)	116		% Recovery	M EPA 8015	03/22/13 02:05

Report Number : 84344

Date : 03/22/13

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	03/21/13
Octacosane (Silica Gel Surr)	93.5		%	M EPA 8015	03/21/13
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/18/13
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/18/13
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/18/13
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/18/13
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	03/18/13
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/18/13
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	03/18/13
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/18/13
1,2-Dichloroethane-d4 (Surr)	98.2		%	EPA 8260B	03/18/13
Toluene - d8 (Surr)	104		%	EPA 8260B	03/18/13
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/19/13
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	03/19/13
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/19/13
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/19/13
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/19/13
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/19/13
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/19/13
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	03/19/13
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/19/13
1,2-Dichloroethane-d4 (Surr)	102		%	EPA 8260B	03/19/13
Toluene - d8 (Surr)	100		%	EPA 8260B	03/19/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/19/13

KIFF ANALYTICAL, LLC

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

Report Number : 84344

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 03/22/13

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	869	952	ug/L	M EPA 8015	3/21/13	86.9	95.2	9.07	70-130	25
Benzene														
	84344-01	25	39.5	39.7	61.9	61.6	ug/L	EPA 8260B	3/18/13	94.1	92.9	1.24	80-120	25
Ethanol														
	84344-01	<5.0	99.7	100	95.7	112	ug/L	EPA 8260B	3/18/13	96.0	112	15.0	55.1-159	25
Ethylbenzene														
	84344-01	0.56	39.5	39.7	42.7	42.9	ug/L	EPA 8260B	3/18/13	107	107	0.110	80-120	25
Methyl-t-butyl ether														
	84344-01	<0.50	39.6	39.7	36.2	34.3	ug/L	EPA 8260B	3/18/13	91.4	86.3	5.71	69.7-121	25
P + M Xylene														
	84344-01	0.80	39.5	39.7	41.4	42.0	ug/L	EPA 8260B	3/18/13	103	104	1.05	76.8-120	25
Tert-Butanol														
	84344-01	<5.0	199	200	195	201	ug/L	EPA 8260B	3/18/13	98.0	101	2.89	80-120	25
Toluene														
	84344-01	<0.50	39.5	39.7	40.2	40.3	ug/L	EPA 8260B	3/18/13	102	102	0.272	80-120	25
P + M Xylene														
	84354-02	<0.50	40.0	40.0	41.2	41.3	ug/L	EPA 8260B	3/19/13	103	103	0.166	76.8-120	25

KIFF ANALYTICAL, LLC

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

Report Number : 84344

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 03/22/2013

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
Tert-Butanol														
	84354-02	<5.0	201	201	207	200	ug/L	EPA 8260B	3/19/13	103	99.4	3.61	80-120	25
Benzene														
	84354-03	<0.50	40.0	40.0	40.2	39.3	ug/L	EPA 8260B	3/19/13	100	98.2	2.37	80-120	25
Ethylbenzene														
	84354-03	<0.50	40.0	40.0	43.2	41.8	ug/L	EPA 8260B	3/19/13	108	104	3.21	80-120	25
Methyl-t-butyl ether														
	84354-03	<0.50	40.1	40.1	40.4	40.0	ug/L	EPA 8260B	3/19/13	101	99.8	1.01	69.7-121	25
P + M Xylene														
	84354-03	<0.50	40.0	40.0	42.8	41.7	ug/L	EPA 8260B	3/19/13	107	104	2.65	76.8-120	25
Tert-Butanol														
	84354-03	<5.0	201	201	202	200	ug/L	EPA 8260B	3/19/13	100	99.7	0.820	80-120	25
Toluene														
	84354-03	<0.50	40.0	40.0	41.3	40.2	ug/L	EPA 8260B	3/19/13	103	101	2.55	80-120	25
Toluene														
	84349-02	<0.50	40.0	40.0	40.9	40.5	ug/L	EPA 8260B	3/19/13	102	101	0.912	80-120	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	40.0	ug/L	EPA 8260B	3/18/13	95.4	80-120
Ethanol	101	ug/L	EPA 8260B	3/18/13	108	55.1-159
Ethylbenzene	40.0	ug/L	EPA 8260B	3/18/13	108	80-120
Methyl-t-butyl ether	40.1	ug/L	EPA 8260B	3/18/13	83.9	69.7-121
P + M Xylene	40.0	ug/L	EPA 8260B	3/18/13	104	76.8-120
Tert-Butanol	201	ug/L	EPA 8260B	3/18/13	97.8	80-120
Toluene	40.0	ug/L	EPA 8260B	3/18/13	102	80-120
P + M Xylene	39.8	ug/L	EPA 8260B	3/19/13	99.6	76.8-120
Tert-Butanol	200	ug/L	EPA 8260B	3/19/13	98.6	80-120
Benzene	39.9	ug/L	EPA 8260B	3/19/13	96.1	80-120
Ethylbenzene	39.9	ug/L	EPA 8260B	3/19/13	104	80-120
Methyl-t-butyl ether	40.0	ug/L	EPA 8260B	3/19/13	95.9	69.7-121
P + M Xylene	39.9	ug/L	EPA 8260B	3/19/13	102	76.8-120
TPH as Gasoline	507	ug/L	EPA 8260B	3/19/13	92.6	70.0-130
Tert-Butanol	201	ug/L	EPA 8260B	3/19/13	97.4	80-120
Toluene	39.9	ug/L	EPA 8260B	3/19/13	98.4	80-120
TPH as Gasoline	507	ug/L	EPA 8260B	3/19/13	88.3	70.0-130

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

84344

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 ____

anteagroup

1Q13 GW Event

Required Lab Information:

Lab Name:	Kiff Analytical
Address:	2795 Second Street, #300
Davis, CA 95618	
Lab PM:	Scott Forbes
Phone/Fax:	P: 530-297-4800 F: 530-297-4808
Lab PM email	SForbes@kiffanalytical.com
Applicable Lab Quote #:	

Required Project Information:

Site ID #:	2705191
Task:	WG_Q_201303
AnteaGrp proj#	
Site Address	449 Hegenberger
City	Oakland
State	CA 94621
AG PM Name:	Dennis Dettloff
Phone/Fax:	P: 916-503-1261 F: 916-638-8385
AG PM Email:	dennis.dettloff@anteagroup.com

Required Invoice Information:

Send Invoice to:	Sandy Hayes
Address:	11050 White Rock Road, Suite 110
City/State	Rancho Cordova CA 95670
Phone #:	916-638-2085
Reimbursement project?	
Non-reimbursement project?	Y
Mark one	
Send EDD to	copeltdata@intelligentehs.com
CC Hardcopy report to	
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; 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	Requested Analyses: 8015TPHDiesel w/ silica	8260 GC/MS TPHg	8260BtexMtbeTBA	8260EthanolTBA	Comments/Lab Sample I.D.
1	MW-10_20130331	WG	G	3-14-13	0905	5					X					X	X	X	X	01
2	MW-11_20130331	WG	G		0845	5					X					X	X	X	X	02
3	MW-12_20130331	WG	G		1315	5					X					X	X	X	X	03
4	MW-12A_20130331	WG	G		0815	5					X					X	X	X	X	04
5	MW-13_20130331	WG	G		0935	5					X					X	X	X	X	05
6	MW-14_20130331	WG	G		1350	5					X					X	X	X	X	06
7	MW-15_20130331	WG	G		1245	5					X					X	X	X	X	07
8	MW-16_20130331	WG	G		1300	5					X					X	X	X	X	08
9	MW-17_20130331	WG	G		1405	5					X					X	X	X	X	09
10	MW-6_20130331	WG	G		1330	5					X					X	X	X	X	10
11	FD1_20130331	W	G		1335	5					X					X	X	X	X	11
12																				

Additional Comments/Special Instructions:

Global ID: T0600101476

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	3-14-13	1530		3-14-13	1530
Sample Custody BTS	3/15/13	1310			
				031513	1320

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Ken Sim

SIGNATURE of SAMPLER:

DATE Signed 3-14-13

Time: 1530

Sample Receipt Conditions

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

Inogen Environmental Alliance

KIFF Analytical LLC

SAMPLE RECEIPT CHECKLIST

RECEIVER Initials: HG3

SRG#: 84344 Date: 031513

Project ID: 2705191

Method of Receipt: ☑ Courier ☐ Over-the-counter ☐ Shipper

Shipping Only: ☐ FedEx * ☐ OnTrac * ☐ Greyhound ☐ Other *Service level if not Priority or Sunrise (M-F): _____

COC Inspection

Is COC present?	☑ Yes	☐ No	A/C 031813
Custody seals on shipping container?	☐ Intact	☐ Broken ☑ ~~Not~~ present	☑ N/A
Is COC Signed by Relinquisher? ☑ Yes ☐ No Dated?	☑ Yes	☐ No	
Is sampler name legibly indicated on COC?	☑ Yes	☐ No	
Is analysis or hold requested for all samples?	☑ Yes	☐ No	
Is the turnaround time indicated on COC?	☑ Yes	☐ No	
Is COC free of whiteout and uninitialed cross-outs?	☑ Yes	☐ No, Whiteout ☐ No, Cross-outs	

Sample Inspection

Coolant Present: ☑ Yes ☐ No (includes water)

Temperature °C 3.8 Therm. ID# CW8 Initial IR-1 Date/Time 031513 1615 ☐ N/A

Are there custody seals on sample containers?	☐ Intact	☐ Broken	☑ Not present
Do containers match COC? ☑ Yes ☐ No ☐ No, COC lists absent sample(s)		☐ No, Extra sample(s) present	
Are there samples matrices other than soil, water, air or carbon?	☐ Yes	☑ No	
Are any sample containers broken, leaking or damaged?	☐ Yes	☑ No	
Are preservatives indicated? ☐ Yes, on sample containers	☑ Yes, on COC	☐ Not indicated	☐ N/A
Are preservatives correct for analyses requested?	☑ Yes	☐ No	☐ N/A
Are samples within holding time for analyses requested?	☑ Yes	☐ No	
Are the correct sample containers used for the analyses requested?	☑ Yes	☐ No	
Is there sufficient sample to perform testing?	☑ Yes	☐ No	

Does any sample contain product, have strong odor or are otherwise suspected to be hot? ☐ Yes ☑ No

Receipt Details

Matrix WA	Container type VOA	# of containers received 55
Matrix _____	Container type _____	# of containers received _____
Matrix _____	Container type _____	# of containers received _____

Date and Time Sample Put into Temp Storage Date: 031513 Time: 1643

Quicklog

Are the Sample ID's indicated:	☐ On COC	☐ On sample container(s)	☑ On Both	☐ Not indicated
If Sample ID's are listed on both COC and containers, do they all match?	☑ Yes	☐ No		☐ N/A
Is the Project ID indicated:	☐ On COC	☐ On sample container(s)	☑ On Both	☐ Not indicated
If project ID is listed on both COC and containers, do they all match?	☑ Yes	☐ No		☐ N/A
Are the sample collection dates indicated:	☐ On COC	☐ On sample container(s)	☑ On Both	☐ Not indicated
If collection dates are listed on both COC and containers, do they all match?	☑ Yes	☐ No		☐ N/A
Are the sample collection times indicated:	☐ On COC	☐ On sample container(s)	☑ On Both	☐ Not indicated
If collection times are listed on both COC and containers, do they all match?	☑ Yes	☐ No		☐ N/A

COMMENTS: