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By Alameda County Environmental Health 3:30 pm, Nov 20, 2015

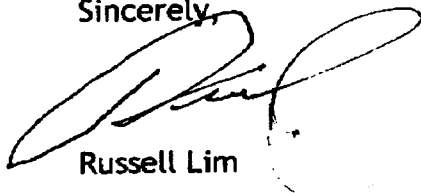
Alameda County Health Care Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Re: RO #479, Report dated 9/10/10

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 further questions I may be reached at 925-381-3608.

Sincerely,

A handwritten signature in black ink, appearing to read 'Russell Lim', with a large, stylized flourish extending from the end of the signature.

Russell Lim



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

November 19, 2015

QUARTERLY GROUNDWATER MONITORING REPORT
SEPTEMBER 2015 GROUNDWATER SAMPLING

at

Lim Family Property
250 8th Street
Oakland, California

Submitted by:
AQUA SCIENCE ENGINEERS, INC.
55 Oak Court, Suite 220
Danville, CA 94526
(925) 820-9391



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1.0 INTRODUCTION

This report presents the methods and findings of Aqua Science Engineers, Inc. (ASE)'s quarterly groundwater monitoring event at the Lim Family property located at 250 8th Street in Oakland, California (*Figures 1 and 2*).

2.0 GROUNDWATER FLOW DIRECTION AND GRADIENT

On September 30, 2015, ASE measured the depth to water in monitoring wells MW-1, MW-2, MW-3, MW-4R, MW-5, and MW-7 using an electric water level sounder. Monitoring wells MW-6 and MW-8 are no longer sampled. The surface of the groundwater was also checked for the presence of free-floating hydrocarbons or sheen. A sheen was present on the surface in monitoring well MW-3. No free-floating hydrocarbons or sheen were present in any of the other monitoring wells. This is the seventh consecutive sampling event where neither monitoring well MW-3 nor MW-4R contained free-floating hydrocarbons thicker than a sheen. Groundwater elevation data is presented in Table One.

A groundwater elevation (potentiometric surface) contour map is shown as Figure 2. The groundwater flow direction at the site is generally to the south at an approximate gradient of 0.007-feet/foot during this sampling period. The gradient and flow direction are generally consistent with previous findings.

3.0 MONITORING WELL SAMPLING

On September 30, 2015, ASE collected groundwater samples from six monitoring wells for analysis. Prior to sampling, the wells were purged of three well casing volumes of groundwater using disposable polyethylene bailers. The pH, temperature and conductivity of the purge water were monitored during evacuation, and samples were not collected until these parameters stabilized. Samples were collected from each well using disposable polyethylene bailers. The groundwater samples were decanted from the bottom of the bailers using low-flow emptying devices into 40-ml volatile organic analysis (VOA) vials, preserved with hydrochloric acid, sealed without headspace and labeled. All samples were stored on ice for transport to McCampbell Analytical of Pittsburg, California under appropriate chain of custody documentation. Well sampling purge water was contained in a sealed and labeled 55-gallon steel drum for temporary storage until off-site disposal can be arranged. See Appendix A for copies of the well sampling field logs.



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4.0 ANALYTICAL RESULTS FOR GROUNDWATER

All groundwater samples were analyzed by McCampbell for total petroleum hydrocarbons as gasoline (TPH-G), benzene, toluene, ethyl benzene, total xylenes (collectively known as BTEX), fuel oxygenates including methyl tertiary butyl ether (MTBE), and lead scavengers by EPA Method 8260B, and total petroleum hydrocarbons as diesel (TPH-D) by modified EPA Method 8015. The analytical results are tabulated in Table Two, and copies of the certified analytical report and chain of custody form are included in Appendix B.

5.0 CONCLUSIONS

- Hydrocarbon concentrations in groundwater samples collected from monitoring well MW-1 are very similar to concentrations from the previous sampling event, with slight increases in TPH-D, DIPE and TBA concentrations, and slight decreases in TPH-G, benzene and total xylene concentrations. No toluene, ethyl benzene, xylenes, oxygenates other than DIPE and TBA, or lead scavengers were detected.
- Hydrocarbon concentrations in groundwater samples collected from monitoring well MW-2 are generally similar to concentrations from the previous sampling event, with increases in TPH-D and benzene concentrations, and decreases in TPH-G and xylenes from the previous sampling event. There has been a long term decreasing trend for hydrocarbon concentrations in this well, although the results during the 2014 and 2015 sampling events are higher than those seen during 2012 and 2013.
- No free-floating hydrocarbons were detected in monitoring well MW-3 this period. TPH-G, TPH-D and BTEX concentrations all increased from the previous historic low concentrations to concentrations similar to June 2014, except for TPH-D, which increased to the highest concentration since 2013.
- No free-floating hydrocarbons were detected in monitoring well MW-4R this period. TPH-G, benzene, total xylene, and TBA concentrations in groundwater samples collected from monitoring well MW-4R increased from the previous historic low concentrations to concentrations similar to June 2014. The TPH-D concentration rose to a historic high concentration. No toluene, ethyl benzene, oxygenates other than TBA, or lead scavengers were detected.
- No hydrocarbons were detected in groundwater samples collected from monitoring well MW-5 during this sampling period other than 0.54 parts per billion (ppb) DIPE, which is almost exactly what was detected in groundwater samples collected from this well last quarter.
- There was a slight increase in all hydrocarbon concentrations detected in groundwater samples collected from monitoring well MW-7 during this sampling event from the previous historic low concentrations of last quarter. However, in general, the concentrations detected this quarter are still the second lowest concentrations historically detected at the site and still



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represent a long term decreasing trend in hydrocarbon concentrations for samples collected from this well dating back to 2010.

Concentrations in groundwater samples collected from the following wells exceeded Environmental Screening Levels (ESLs) for drinking water as presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region dated December 2013:

- Concentrations of TPH-G, TPH-D and benzene in the groundwater sample collected from monitoring wells MW-1 and MW-2.
- Concentrations of TPH-G, TPH-D, and BTEX in the groundwater sample collected from monitoring well MW-3 exceeded ESLs.
- Concentrations of TPH-G, TPH-D, benzene and TBA in the groundwater samples collected from monitoring wells MW-4R and MW-7 exceeded ESLs.

6.0 RECOMMENDATIONS

ASE recommends continuing groundwater monitoring on a quarterly sampling schedule to monitor for rebound during non-remediation conditions. Based on a quarterly sampling schedule, the next groundwater monitoring event is scheduled for December 2015.

ASE also recommends conducting a soil vapor survey to obtain data necessary to determine whether case closure might be appropriate using the low-threat closure guidelines.

7.0 REPORT LIMITATIONS

The results presented in this report represent conditions at the time of the groundwater sampling, at the specific locations where the samples were collected, and for the specific parameters analyzed by the laboratory. It does not fully characterize the site for contamination resulting from unknown sources, or for parameters not analyzed by the laboratory. All of the laboratory work cited in this report was prepared under the direction of an independent CAL-DHS certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.



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Aqua Science Engineers appreciates the opportunity to assist The Lim Family with their environmental needs. Should you have any questions or comments, please feel free to call us at (925) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

A handwritten signature in black ink that reads "Robert E. Kitay".



Robert E. Kitay, P.G.
Senior Geologist

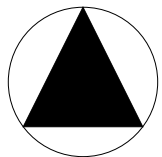
Attachments: Figures 1 and 2
Tables One, Two, and Three
Appendices A and B

cc: Mr. Jerry Wickham, ACHCSA



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
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FIGURES



NORTH

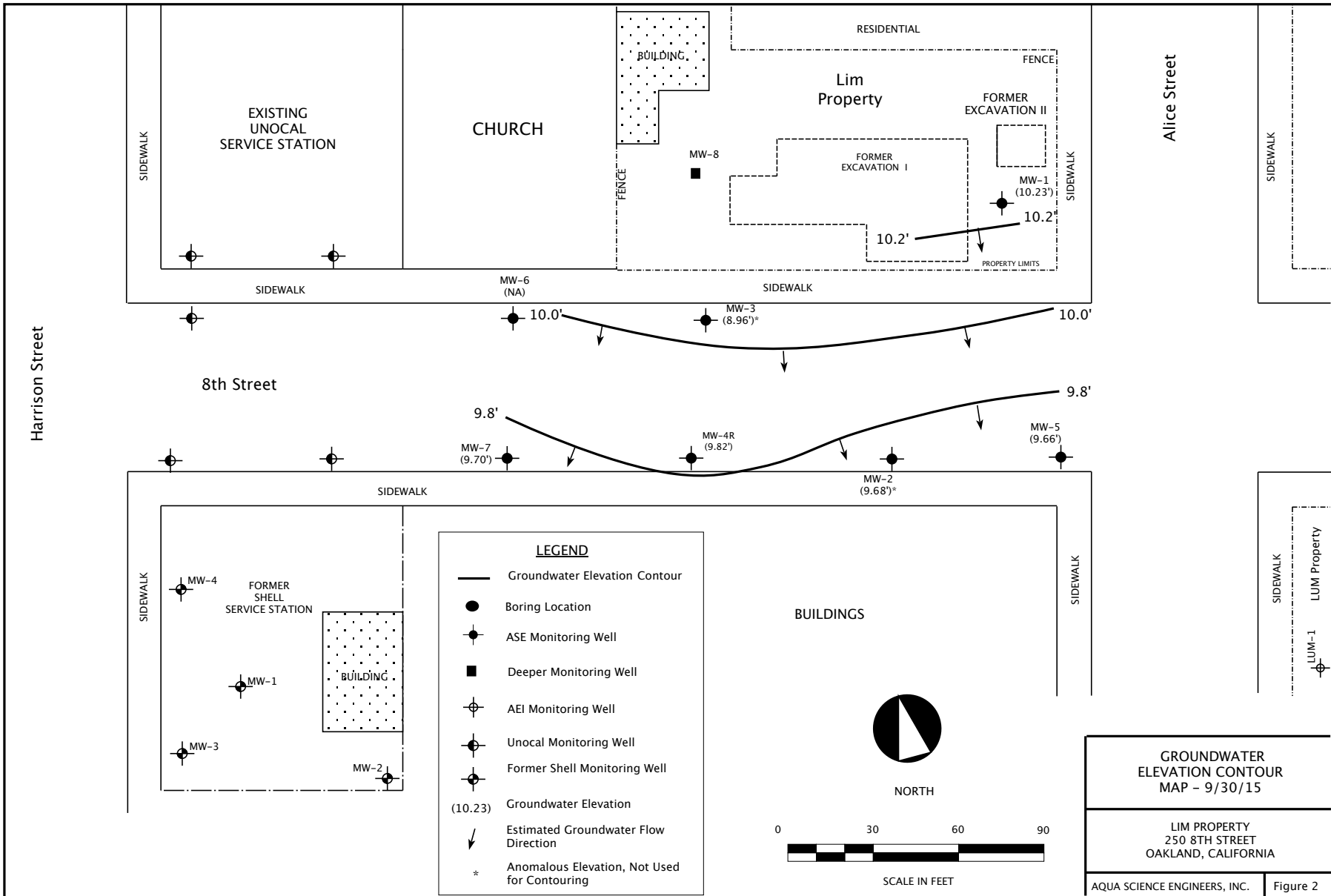
NOT TO SCALE

SITE LOCATION MAP

Lim Family Property
250 8th Street
Oakland, California

Aqua Science Engineers

Figure 1



EXISTING UNOCAL SERVICE STATION

CHURCH

RESIDENTIAL
Lim Property

Alice Street

8th Street

FORMER SHELL SERVICE STATION

BUILDINGS

LEGEND

- Groundwater Elevation Contour
- Boring Location
- ⊕ ASE Monitoring Well
- Deeper Monitoring Well
- ⊕ AEI Monitoring Well
- ⊕ Unocal Monitoring Well
- ⊕ Former Shell Monitoring Well
- ⊕ (10.23) Groundwater Elevation
- ↘ Estimated Groundwater Flow Direction
- * Anomalous Elevation, Not Used for Contouring



NORTH



SCALE IN FEET

GROUNDWATER ELEVATION CONTOUR MAP - 9/30/15

LIM PROPERTY
250 8TH STREET
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC.

Figure 2



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
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TABLES

TABLE ONE
Groundwater Elevation Data
Lim Family Property
250 8th Street
Oakland, CA

Well I.D.	Date of Measurement	Top of Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (msl)
MW-1	01/30/95	25.51	16.21		9.30
	04/12/95		15.71		9.80
	07/14/95		16.71		8.80
	10/17/95		17.72		7.79
	01/12/96		18.03		7.48
	07/25/96		16.82		8.69
	01/06/97		15.60		9.91
	07/08/97		17.31		8.20
	01/26/98		15.21		10.30
	07/23/98		15.38		10.13
	01/05/99		16.82		8.69
	07/13/99		15.89		9.62
	01/12/00		17.44		8.07
	04/24/00		16.37		9.14
	07/20/00		16.30		9.21
	10/24/00		17.25		8.26
	01/18/01		17.29		8.22
	04/05/01		15.88		9.63
	07/17/01		16.54		8.97
	10/25/01		16.89		8.62
	01/21/02		14.92		10.59
	04/11/02	14.02		11.49	
	06/11/02	29.72	15.33	14.39	
	09/17/02	15.96		13.76	
	12/18/02	16.14		13.58	
	03/25/03	16.16		13.56	
	06/23/03	16.01		13.71	
	09/26/03	16.57		13.15	
	12/18/03	16.41		13.31	
	03/12/04	14.64		15.08	
	06/17/04	15.71		14.01	
	09/17/04	16.35		13.37	
	12/17/04	16.10		13.62	
	04/28/05	14.10		15.62	
	07/19/05	15.94		13.78	
	10/03/05	16.34		13.38	
	12/06/05	16.21		13.51	
	03/15/06	16.21		13.51	
	06/28/06	14.92		14.80	
	08/31/06	15.60		14.12	
	11/21/06	17.20		12.52	
	02/12/07	16.12		13.60	
05/02/07	16.92		12.80		
08/09/07	17.58		12.14		
12/06/07	18.60		11.12		
02/26/08	17.13		12.59		
05/30/08	18.17		11.55		
08/28/08	18.47		11.25		
12/11/08	19.19		10.53		
03/31/09	17.59		12.13		
12/31/09	18.57		11.15		
06/03/10	16.94		12.78		
12/20/10	18.21		11.51		
06/30/11	17.43		12.29		
06/22/12	17.08		12.64		
12/13/12	17.32		12.40		
06/18/13	18.13		11.59		
12/23/13	18.29		11.43		
06/30/14	18.95		10.77		
12/17/14	18.39		11.33		
06/23/15	19.12		10.60		
09/30/15			19.49	10.23	

TABLE ONE
Groundwater Elevation Data
Lim Family Property
250 8th Street
Oakland, CA

Well I.D.	Date of Measurement	Top of Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (msl)
MW-2	01/30/95	23.99	15.02		8.97
	04/12/95		14.75		9.24
	07/14/95		16.02		7.97
	10/17/95		16.94		7.05
	01/12/96		17.05		6.94
	07/25/96		16.02		7.97
	01/06/97		14.34		9.65
	07/08/97		16.52		7.47
	01/26/98		14.10		9.89
	07/23/98		14.70		9.29
	01/05/99		16.01		7.98
	07/13/99		15.40		8.59
	01/12/00		16.76		7.23
	04/24/00		15.67		8.32
	07/20/00		15.70		8.29
	10/24/00		16.56		7.43
	01/18/01		16.47		7.52
	04/05/01		15.88		8.11
	07/17/01		15.35		8.64
	10/25/01		15.63		8.36
	01/21/02	13.55		10.44	
	04/11/02	13.74		10.25	
	06/11/02	28.19	14.06		14.13
	09/17/02		14.67		13.52
	12/18/02		14.88		13.31
	03/25/03		15.11		13.08
	06/23/03		14.94		13.25
	09/26/03		15.49		12.70
	12/18/03		15.13		13.06
	03/12/04		13.50		14.69
	06/17/04		14.63		13.56
	09/17/04		15.19		13.00
	12/17/04		14.88		13.31
	04/28/05		13.39		14.80
	07/19/05		15.27		12.92
	10/03/05		15.57		12.62
	12/06/05		15.35		12.84
	03/15/06		12.65		15.54
	06/28/06		14.45		13.74
	08/31/06		15.37		12.82
	11/21/06		16.22		11.97
	02/12/07		16.12		12.07
05/02/07	16.12		12.07		
08/09/07	16.85		11.34		
12/06/07	17.95		10.24		
02/26/08	16.15		12.04		
05/30/08	17.33		10.86		
08/28/08	17.53		10.66		
12/11/08	18.28		9.91		
03/31/09	16.63		11.56		
12/31/09	17.46		10.73		
06/03/10	16.00		12.19		
12/20/10	17.25		10.94		
06/30/11	16.55		11.64		
06/22/12	16.36		11.83		
12/13/12	16.24		11.95		
06/18/13	17.28		10.91		
12/23/13	18.60		9.59		
06/30/14	17.16		11.03		
12/17/14	17.39		10.80		
06/23/15	18.57		9.62		
09/30/15		18.51		9.68	

TABLE ONE
Groundwater Elevation Data
Lim Family Property
250 8th Street
Oakland, CA

Well I.D.	Date of Measurement	Top of Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (msl)	
MW-3	01/12/00	24.25	16.68	0.01	7.58*	
	04/24/00		15.58	0.15	8.79*	
	07/20/00		16.01	0.41	8.57*	
	10/24/00		16.95	0.21	7.47*	
	01/18/01		16.63	0.21	7.79*	
	04/05/01		15.16	0.23	9.27*	
	07/17/01		15.92	0.39	8.64*	
	10/25/01		16.26	0.38	8.29*	
	01/21/02		14.08	0.16	10.30*	
	04/11/02		14.59	0.54	10.09*	
	06/11/02		28.58	15.16	0.90	14.14*
	09/17/02			16.04	1.24	13.53*
	10/01/02	16.14		1.23	13.42*	
	10/25/02	15.80		0.60	13.26*	
	11/12/02	15.87		0.47	13.09*	
	12/18/02	15.42		0.47	13.54*	
	03/25/03	16.11		1.14	13.38*	
	06/23/03	16.58		1.86	13.49*	
	09/26/03	16.11		0.66	13.00*	
	12/18/03	15.83		0.59	13.22*	
	03/12/04	14.51		1.21	15.04*	
	06/17/04	15.25		0.68	13.87*	
	09/17/04	16.14	0.96	13.21*		
	12/17/04	15.05	0.25	13.73*		
	01/13/05	13.40	0.45	15.54*		
	04/28/05	15.31	2.43	15.21*		
	07/19/05	16.29	1.67	13.63*		
	10/03/05	16.10	1.47	13.66*		
	12/06/05	15.04	1.17	14.48*		
	03/15/06	12.65	2.41	15.49*		
	06/28/06	13.55	2.61	16.16*		
	08/31/06	14.85	2.20	15.49*		
	11/21/06	16.05	1.10	13.41*		
	02/12/07	15.96	0.35	12.90*		
	05/02/07	15.11	0.09	13.54*		
	08/09/07	15.83	0.09	12.82*		
12/06/07	18.10	0.50	10.88*			
02/26/08	16.47	0.22	12.29*			
05/30/08	17.90	0.70	11.24*			
08/28/08	18.05	0.54	10.96*			
12/11/08	18.57	0.46	10.38*			
03/31/09	16.89	0.23	11.87*			
12/31/09	17.64	sheen	10.94*			
06/03/10	16.58	0.56	12.45*			
12/20/10	17.20	0.45	11.74*			
06/30/11	15.92		12.66			
06/22/12	16.64	0.69	12.48*			
12/13/12	16.24	None	12.34			
06/18/13	17.01		11.57			
12/23/13	18.29		10.29			
06/30/14	NOT MEASURED - PROBE MALFUNCTION					
12/17/14		16.91		11.67		
06/23/15		17.61		10.97		
09/30/15			19.62		8.96	

TABLE ONE
Groundwater Elevation Data
Lim Family Property
250 8th Street
Oakland, CA

Well I.D.	Date of Measurement	Top of Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (msl)	
MW-4	01/12/00	23.71	17.24		6.47	
	04/24/00		16.18		7.53	
	07/20/00		16.18		7.53	
	10/24/00		17.03		6.68	
	01/18/01		16.87		6.84	
	04/05/01		15.28		8.43	
	07/17/01		15.92		7.79	
	10/25/01		16.23		7.48	
	01/21/01		14.14		9.57	
	04/11/02		14.43		9.28	
	06/11/02		28.61	14.72		13.89
	09/17/02			15.29		13.32
	12/18/02			15.20		13.41
	03/25/03			15.53		13.08
	06/23/03			15.35		13.26
	09/26/03	15.91			12.70	
	12/18/03	15.63			12.98	
	03/12/04	13.88			14.73	
	06/17/04	15.03			13.58	
	09/17/04	15.61			13.00	
	12/17/04	15.32			13.29	
	04/28/05	13.82			14.79	
	07/19/05	15.44			13.17	
	10/03/05	15.91			12.70	
	12/06/05	15.71			12.90	
	03/15/06	13.05			15.56	
	06/28/06	14.49			14.12	
	08/31/06	15.75			12.86	
	11/21/06	16.70		11.91		
	02/12/07	16.51		12.10		
	05/02/07	16.51		12.10		
	08/09/07	17.17		11.44		
	12/06/07	18.08		10.53		
02/26/08	16.57		12.04			
05/30/08	17.66		10.95			
08/28/08	17.98		10.63			
12/11/08	18.61		10.00			
03/31/09	18.75	2.00	11.46*			
MW-4R	12/31/09	28.78	19.85	2.30	10.77*	
	06/03/10		18.67	2.57	12.17*	
	12/20/10		18.95	2.00	11.43*	
	06/30/11		16.45		12.33	
	06/22/12		16.69		12.09	
	12/13/12		16.61		12.17	
	06/18/13		17.60		11.18	
	12/23/13		19.07		9.71	
	06/30/14		18.77		10.01	
	12/17/14		17.95		10.83	
	06/23/15		18.35		10.43	
09/30/15	18.96		9.82			

TABLE ONE
Groundwater Elevation Data
Lim Family Property
250 8th Street
Oakland, CA

Well I.D.	Date of Measurement	Top of Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (msl)
MW-5	06/11/02	28.40	14.23		14.17
	09/17/02		14.80		13.60
	12/18/02		15.08		13.32
	03/25/03		15.31		13.09
	06/23/03		15.16		13.24
	09/26/03		15.72		12.68
	12/18/03		15.47		12.93
	03/12/04		13.44		14.96
	06/17/04		14.90		13.50
	09/17/04		15.45		12.95
	12/17/04		15.12		13.28
	04/28/05		13.63		14.77
	07/19/05		15.67		12.73
	10/03/05		15.81		12.59
	12/06/05		15.60		12.80
	03/15/06		12.81		15.59
	06/28/06		15.21		13.19
	08/31/06		15.55		12.85
	11/21/06		17.09		11.31
	02/12/07		16.29		12.11
	05/02/07		16.21		12.19
	08/09/07		16.97		11.43
	12/06/07		18.35		10.05
	02/26/08		16.35		12.05
	05/30/08		17.62		10.78
	08/28/08		17.72		10.68
	12/11/08		18.62		9.78
	03/31/09		16.94		11.46
	12/31/09		17.73		10.67
	06/03/10		16.20		12.20
	12/20/10		17.72		10.68
	06/30/11		16.75		11.65
06/22/12		16.41		11.99	
12/13/12		16.46		11.94	
06/18/13		17.48		10.92	
12/23/13		18.62		9.78	
06/30/14		18.11		10.29	
12/17/14		17.46		10.94	
06/23/15		18.12		10.28	
	09/30/15		18.74		9.66

TABLE ONE
Groundwater Elevation Data
Lim Family Property
250 8th Street
Oakland, CA

Well I.D.	Date of Measurement	Top of Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (msl)	
MW-6	06/11/02	29.20	14.95		14.25	
	09/17/02		15.47		13.73	
	12/18/02		15.43		13.77	
	03/25/03		15.67		13.53	
	06/23/03		15.48		13.72	
	09/26/03		NOT MEASURED - SOUNDER MALFUNCTION			
	12/18/03		15.79		13.41	
	03/12/04		14.04		15.16	
	06/17/04		15.13		14.07	
	09/17/04		15.74		13.46	
	12/17/04		15.54		13.66	
	04/28/05		13.91		15.29	
	07/19/05		15.30		13.90	
	10/03/05		15.35		13.85	
	12/06/05		15.69		13.51	
	03/15/06		13.14		16.06	
	06/28/06		14.44		14.76	
	08/31/06		16.25		12.95	
	11/21/06		16.69		12.51	
	02/12/07		16.63		12.57	
	05/02/07		16.57		12.63	
	08/09/07		17.19		12.01	
	12/06/07		17.95		11.25	
	02/26/08		16.66		12.54	
	05/30/08		17.64		11.56	
	08/28/08		18.03		11.17	
	12/11/08		18.54		10.66	
	03/31/09		17.10		12.10	
	12/31/09		18.00		11.20	
	06/03/10		16.58		12.62	
	12/20/10		17.40		11.80	
	06/30/11		17.02		12.18	
06/22/12	16.70		12.50			
12/13/12	16.77		12.43			
06/18/13	17.69		11.51			
12/23/13	18.74		10.46			
06/30/14	No Longer measured					

TABLE ONE
 Groundwater Elevation Data
 Lim Family Property
 250 8th Street
 Oakland, CA

Well I.D.	Date of Measurement	Top of Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (msl)
MW-7	06/11/02	28.95	15.19		13.76
	09/17/02		15.73		13.22
	12/18/02	NOT MEASURED - CAR PARKED OVER WELL			
	03/25/03		15.96		12.99
	06/23/03		15.75		13.20
	09/26/03		16.29		12.66
	12/18/03		16.03		12.92
	03/12/04		14.28		14.67
	06/17/04		15.42		13.53
	09/17/04		16.02		12.93
	12/17/04		15.45		13.50
	04/28/05		14.15		14.80
	07/19/05		15.30		13.65
	10/03/05		16.25		12.70
	12/06/05		16.05		12.90
	03/15/06		13.36		15.59
	06/28/06		14.81		14.14
	08/31/06		16.13		12.82
	11/21/06		17.06		11.89
	02/12/07		16.97		11.98
	05/02/07		16.93		12.02
	08/09/07		17.56		11.39
	12/06/07		18.32		10.63
	02/26/08		16.93		12.02
	05/30/08		17.97		10.98
	08/28/08		18.33		10.62
	12/11/08		18.86		10.09
	03/31/09		17.37		11.58
	12/31/09		18.26		10.69
	06/03/10		16.86		12.09
	12/20/10		17.70		11.25
	06/30/11		17.36		11.59
06/22/12		17.03		11.92	
12/13/12		17.01		11.94	
06/18/13		18.02		10.93	
12/23/13		19.77		9.18	
06/30/14		18.36		10.59	
12/17/14		18.75		10.20	
06/23/15		18.75		10.20	
	09/30/15		19.25		9.70
MW-8	02/26/08	30.14	21.50		8.64
	05/30/08		22.52		7.62
	08/28/08		23.27		6.87
	12/11/08		23.15		6.99
	03/31/09		21.46		8.68
	12/31/09		22.75		7.39
	06/03/10		21.06		9.08
	12/20/10		22.18		7.96
	06/30/11		21.95		8.19
	06/22/12		21.23		8.91
	12/13/12		21.89		8.25
	06/18/13		22.44		7.70
	12/23/13		23.22		6.92
	06/30/14	No Longer measured			

Notes:

* = Adjusted for the presence of free-floating oil by the equation: Top of Casing Elevation - Depth to Water + (0.8 x Floating Hydrocarbon Thickness) = Groundwater Elevation (Adjusted).

Top of casing elevations resurveyed by Mid Coast Engineers on 6/27/02 and 7/11/02.

TABLE TWO

Summary of Chemical Analysis of Groundwater Samples
 Petroleum Hydrocarbon Concentrations
 All results are in parts per billion

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	DIPE	TBA	Other Oxys	EDC	EDB
MW-1												
01/30/95	740	200	3	5	1	4	--	---	---	---	---	---
04/12/95	400	500	< 0.5	< 0.5	3	< 2	--	---	---	---	---	---
07/14/95	520	400	1	< 0.5	2	3	--	---	---	---	---	---
10/17/95	400	200	0.5	1	3	< 2	--	---	---	---	---	---
01/12/96	120	890	< 0.5	< 0.5	< 0.5	< 1.0	< 2.0	---	---	---	---	---
07/08/96	320	300	0.52	2.7	1.2	2.3	< 5.0	---	---	---	---	---
01/06/97	110	75	< 0.5	0.68	< 0.5	< 0.5	< 5.0	---	---	---	---	---
07/08/97	380	290	< 0.5	1.5	1.4	1.9	< 5.0	---	---	---	< 0.5	< 0.5
01/26/98	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	< 0.5	< 0.5
07/23/98	190	< 50	0.54	2.8	2	1.8	< 5.0	---	---	---	< 2	< 2
01/05/99	200	< 50	1.8	1.6	3.3	< 0.5	< 5.0	---	---	---	< 0.5	< 0.5
07/13/99	340	<50	<0.5	<0.5	2.6	<0.5	< 5.0	---	---	---	< 0.5	< 0.5
01/12/00	300	1,000	22	36	5.5	24	< 5.0	---	---	---	< 0.5	< 0.5
04/24/00	360	280*	< 0.5	< 0.5	< 0.5	2.1	< 5.0	---	---	---	< 0.5	< 0.5
07/20/00	290	150*	1.8	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	< 0.5	< 0.5
10/24/00	170**	280*	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	< 0.5	< 0.5
01/18/01	170**	150*	< 0.5	< 0.5	< 0.5	2.1	< 5.0	---	---	---	< 0.5	< 0.5
04/05/01	350**	190*	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	< 0.5	< 0.5
07/17/01	310	570	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	< 0.5	< 0.5
10/25/01	250	260	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	---	---
01/22/02	200	250	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	---	---
04/11/02	260	300	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	---	---
06/11/02	270	330	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	---	---
09/17/02	320	1,700	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	---	---
12/18/02	170	320	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	---	---
03/25/03	320	< 500	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	---	---
06/23/03	240	310	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	---	---
09/26/03	110	300	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---	---	---	< 0.5	< 0.5
12/18/03	150	340	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---	---	---	< 0.5	< 0.5
03/12/04	220	510	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---	---	---	< 0.5	< 0.5
06/17/04	250	490	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---	---	---	< 0.5	< 0.5
09/17/04	110	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---	---	---	---	---
11/10/04***	180	400	0.68	< 0.5	1.7	< 0.5	< 5.0	---	---	---	---	---
12/17/04	77	130	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---	---	---	< 0.5	< 0.5
04/28/05	250	190	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.67	< 0.5	< 0.5	< 0.5	< 0.5
07/19/05	340	na	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.76	< 5.0	< 0.5	< 0.5	< 0.5
10/03/05	170	< 100	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.50	< 5.0	< 0.5	< 0.5	< 0.5
12/06/05	140	67	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	---	---
03/15/06	170	< 80	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
06/28/06	230	130	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
08/31/06	310	< 200	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
11/21/06	220	160	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
02/23/07	140	120	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.2	< 5.0	< 0.50	< 0.50	< 0.50
05/02/07	180	140	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.3	< 5.0	< 0.50	< 0.50	< 0.50
08/09/07	130	120	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.85	< 5.0	< 0.50	< 0.50	< 0.50
12/06/07	53	160	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 5.0	< 0.50	< 0.50	< 0.50
02/26/08	93	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.1	< 5.0	< 0.50	< 0.50	< 0.50
05/30/08	200	240	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.95	< 5.0	< 0.50	< 0.50	< 0.50
08/28/08	150	200	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.2	< 5.0	< 0.50	---	---
12/11/08	110	140	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.92	< 5.0	< 0.50	---	---
03/31/09	160	< 200	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.8	< 5.0	< 0.50	< 0.50	< 0.50
12/31/09	140	200	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.84	< 5.0	< 0.50	< 0.50	< 0.50
06/03/10	300	140	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.72	< 5.0	< 0.50	< 0.50	< 0.50
12/20/10	140	180	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
06/30/11	650	< 200	1.9	< 0.50	< 0.50	< 0.50	< 0.50	0.78	< 5.0	< 0.50	< 0.50	< 0.50
06/22/12	750	< 200	23	< 0.50	1.1	2.3	< 0.50	0.80	12	< 0.50	< 0.50	< 0.50
12/13/12	180	90	2.6	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
06/18/13	370	84	1.5	< 0.50	< 0.50	< 0.50	< 0.50	0.52	< 5.0	< 0.50	< 0.50	< 0.50
12/23/13	410	200	2.0	< 0.50	< 0.50	< 0.50	< 0.50	0.64	< 5.0	< 0.50	< 0.50	< 0.50
06/30/14	400	140	6.9	< 0.50	< 0.50	< 0.50	< 0.50	1.4	< 5.0	< 0.50	< 0.50	< 0.50
12/17/14	520	77	11	< 0.50	< 0.50	1.8	< 0.50	0.56	< 5.0	< 0.50	< 0.50	< 0.50
06/23/15	380	130	3.2	< 0.50	< 0.50	0.92	< 0.50	< 0.50	2.2	< 0.50	< 0.50	< 0.50
09/30/15	210	280	1.2	< 0.50	< 0.50	< 0.50	< 0.50	0.59	4.3	< 0.50	< 0.50	< 0.50

TABLE TWO

Summary of Chemical Analysis of Groundwater Samples
Petroleum Hydrocarbon Concentrations
 All results are in parts per billion

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	DIPE	TBA	Other Oxys	EDC	EDB
MW-2												
01/30/95	88,000	800	19,000	18,000	2,400	10,000	--	--	--	--	--	--
04/12/95	110,000	990	21,000	28,000	2,800	14,000	--	--	--	--	--	--
07/14/95	120,000	5,000	20,000	25,000	3,200	15,000	--	--	--	--	--	--
10/17/95	190,000	4,000	15,000	26,000	4,900	23,000	--	--	--	--	--	--
01/12/96	32,000	2,600	10,000	8,000	1,100	4,800	< 2	--	--	--	--	--
07/08/96	110,000	2,500	20,000	18,000	2,500	12,000	< 500	--	--	--	--	--
01/06/97	230,000	37,000	11,000	19,000	4,300	20,000	< 1,200	--	--	--	--	--
07/08/97	91,000	35,000	16,000	20,000	2,700	13,000	< 1,000	--	--	--	< 0.5	< 0.5
01/26/98	50,000	11,000	12,000	12,000	1,600	6,700	< 250	--	--	--	11	< 0.5
07/23/98	50,000	8,100#	11,000	8,300	1,800	7,000	1,100	--	--	--	9.9	< 0.5
01/05/99	50,000	7,600#	12,000	12,000	2,300	9,600	1,300	--	--	--	< 50	< 50
07/13/99	73,000	8,500	11,000	13,000	2,200	9,800	< 500	--	--	--	7.7	< 0.5
01/12/00	63,000	11,000	10,000	12,000	1,800	7,800	< 500	--	--	--	8.8	< 1.0
04/24/00	76,000	23,000*	7,100	14,000	2,000	9,400	< 500	--	--	--	5.9	< 5.0
07/20/00	68,000	5,300#	11,000	14,000	2,300	11,000	< 1,000	--	--	--	6.7	< 5.0
10/24/00	48,000	6,400*	11,000	9,400	1,500	7,300	< 500	--	--	--	< 5.0	< 5.0
01/18/01	37,000	4,600*	6,900	5,600	1,200	5,300	< 500	--	--	--	< 5.0	< 5.0
04/05/01	59,000	4,600*	7,100	9,800	1,600	7,600	< 500	--	--	--	4.6	< 5.0
07/17/01	90,000	< 10,000	9,200	14,000	2,700	11,000	< 50	--	--	--	< 50	--
10/25/01	79,000	< 3,800	9,200	14,000	2,400	11,000	< 50	--	--	--	< 50	< 50
01/22/02	76,000	< 2,300	7,000	13,000	2,200	9,600	< 50	--	--	--	< 50	< 50
04/11/02	76,000	< 1,500	7,800	11,000	2,900	12,000	< 50	--	--	--	--	--
06/11/02	72,000	< 2,500	7,300	9,600	2,500	12,000	< 50	--	--	--	--	--
09/17/02	52,000	< 3,000	5,000	5,400	2,100	9,100	< 20	--	--	--	< 20	< 20
12/18/02	46,000	< 6,000	2,900	3,000	1,800	7,600	22	--	--	--	< 10	< 10
03/25/03	87,000	< 8,000	7,900	9,300	2,900	12,000	< 50	--	--	--	< 50	< 50
06/23/03	46,000	< 3000	7,800	4,000	1,900	6,600	< 50	--	--	--	< 50	< 50
09/26/03	52,000	< 3000	9,100	3,500	1,300	5,000	< 50	--	--	--	< 50	< 50
12/18/03	61,000	< 4,000	13,000	3,500	1,600	5,600	< 20	--	--	--	< 20	< 20
03/12/04	53,000	< 4,000	9,100	3,500	1,700	5,700	< 25	--	--	--	< 25	< 25
06/17/04	59,000	< 3,000	7,100	4,000	1,700	7,300	< 25	--	--	--	< 25	< 25
09/17/04	33,000	--	9,800	1,200	1,300	4,000	< 20	--	--	--	--	--
11/10/04***	44,000	3,600	13,000	4,400	1,600	6,000	< 1000	--	--	--	--	--
12/17/04	54,000	< 3,000	7,900	2,200	1,700	3,900	< 15	--	--	--	< 15	< 15
04/28/05	81,000	< 3,000	7,000	6,000	2,100	8,700	< 15	90	< 15	< 15	< 15	< 15
07/19/05	59,000	na	7,900	4,400	1,900	7,000	< 15	< 15	77	< 15	< 15	< 15
10/03/05	34,000	< 800	7,800	810	1,000	2,800	< 15	< 15	< 70	< 15	< 15	< 15
12/06/05	26,000	< 800	6,100	940	770	2,000	< 15	--	--	--	--	--
03/15/06	33,000	< 1,500	7,700	2,600	1,400	4,200	< 15	< 15	< 15	< 15	< 15	< 15
06/28/06	96,000	< 4,000	10,000	14,000	2,900	12,000	< 15	< 15	< 5.0	< 15	33	< 15
8/31/06	47,000	< 3,000	5,800	5,100	2,200	8,700	< 15	< 15	< 15	< 15	< 15	< 15
11/21/06	51,000	< 1,500	6,800	3,400	1,700	6,200	< 15	< 15	82	< 15	< 15	< 15
02/23/07	38,000	< 1,500	7,800	2,000	1,500	4,600	< 15	< 15	190	< 15	< 15	< 15
05/02/07	55,000	< 3,000	6,500	5,100	2,400	8,600	< 15	< 15	110	< 15	< 15	< 15
08/09/07	39,000	< 3,000	6,600	2,200	1,600	4,900	< 15	< 15	81	< 15	< 15	< 15
12/06/07	20,000	< 1,500	7,400	510	680	1,200	< 15	< 15	120	< 15	< 15	< 15
02/26/08	43,000	< 4,000	8,200	940	1,400	3,700	< 15	< 15	70	< 15	< 15	< 15
05/30/08	31,000	< 1,000	11,000	620	1,100	2,300	< 15	< 15	84	< 15	< 15	< 15
08/28/08	38,000	< 3,000	11,000	630	1,400	3,800	< 25	< 25	< 150	< 25	--	--
12/11/08	32,000	< 2,000	11,000	610	1,000	2,700	< 25	< 25	< 150	< 25	--	--
03/31/09	44,000	< 4,000	6,500	3,300	1,700	5,600	< 9.0	< 9.0	56	< 9.0	< 9.0	< 9.0
12/31/09	36,000	< 4,000	9,700	350	1,600	3,800	< 9.0	13	56	< 9.0	< 9.0	< 9.0
06/03/10	53,000	< 10,000	8,600	2,600	2,500	8,000	< 5.0	8.9	69	< 5.0	< 5.0	< 5.0
12/20/10	39,000	< 4,000	13,000	530	1,600	3,600	< 15	21	< 70	< 15	< 15	< 15
06/30/11	65,000	< 6,000	7,300	5,900	2,400	10,000	< 20	< 20	< 90	< 20	< 20	< 20
06/22/12	1,200	140	50	56	4.0	160	< 0.50	1.6	17	< 0.50	1.1	< 0.50
12/13/12	2,400	66	890	4.1	9.6	16	< 0.50	5.4	17	< 0.50	1.4	< 0.50
06/18/13	5,300	88	2,400	7.8	80	31	< 1.5	7.8	17	< 1.5	< 1.5	< 1.5
12/23/13	6,600	210	2,200	6.6	15	16	< 4.0	7.9	34	< 4.0	< 4.0	< 4.0
06/30/14	21,000	200	8,000	94	290	400	< 4.0	16	66	< 4.0	< 4.0	< 4.0
12/17/14	27,000	180	7,600	53	100	210	< 15	< 15	< 70	< 15	< 15	< 15
06/23/15	17,000	1,400	7,800	< 250	< 250	560	< 250	< 250	< 1,000	< 250	< 250	< 250
09/30/15	11,000	1,500	8,900	< 500	< 500	< 500	< 500	< 500	< 2,000	< 500	< 500	< 500

TABLE TWO
Summary of Chemical Analysis of Groundwater Samples
Petroleum Hydrocarbon Concentrations
All results are in parts per billion

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	DIPE	TBA	Other Oxys	EDC	EDB
MW-3												
01/12/00	140,000	13,000*	22,000	19,000	2,400	11,000	< 500	---	---	---	---	---
04/24/00	240,000	700,000*	33,000/ 35,000	52,000/ 87,000	5,700/ 18,000	28,000/ 84,000	< 5,000	---	---	---	---	---
07/20/00	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
10/24/00	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
01/18/01	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
04/05/01	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
07/17/01	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
10/25/01	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
01/22/02	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
04/11/02	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
06/11/02	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
09/17/02	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
12/18/02	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
03/25/03	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
06/23/03	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
09/26/03	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
12/18/03	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
03/12/04	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
06/17/04	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
09/17/04	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
11/10/04	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
12/17/04	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
04/28/05	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
07/19/05	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
10/03/05	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
12/06/05	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
03/15/06	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
06/28/06	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
8/31/06	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
11/21/06	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
02/23/07	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
05/02/07	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
08/09/07	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
12/06/07	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
02/26/08	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
05/30/08	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
08/28/08	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
12/11/08	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
03/31/09	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
12/31/09	60,000	< 25,000	7,500	6,500	1,000	6,600	< 20	< 20	< 90	< 20	< 20	< 20
06/03/10	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
12/20/10	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
06/30/11	140,000	< 40,000	12,000	21,000	4,000	17,000	< 20	< 20	< 90	< 20	< 20	< 20
06/22/12	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS (0.69-feet)											
12/13/12	99,000	< 12,000	5,800	5,800	2,100	11,000	< 10	< 10	60	< 10	< 10	< 10
06/18/13	100,000	220,000	6,700	7,900	2,000	15,000	< 10	< 10	< 50	< 10	< 10	< 10
12/23/13	80,000	4,700	4,800	2,100	860	11,000	< 15	< 15	110	< 15	< 15	< 15
06/30/14	97,000	5,900	4,600	6,200	1,300	11,000	< 15	< 15	500	< 15	< 15	< 15
12/17/14	53,000	8,300	1,800	1,200	560	5,300	< 9.0	< 9.0	400	< 9.0	10	< 9.0
06/23/15	27,000	13,000	3,500	390	580	4,600	< 50	< 50	420	< 50	< 50	< 50
09/30/15	77,000	130,000	4,100	1,000	870	9,100	< 100	< 100	< 400	< 100	< 100	< 100

TABLE TWO
Summary of Chemical Analysis of Groundwater Samples
Petroleum Hydrocarbon Concentrations
All results are in parts per billion

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	DIPE	TBA	Other Oxys	EDC	EDB
MW-4												
01/12/00	99,000	7,900*	16,000	20,000	2,100	12,000	< 2,500	---	---	---	< 50	< 50
04/24/00	54,000	44,000*	3,400/ 4,500	13,000/ 20,000	1,800/ 2,800	8,800/ 14,000	< 1,300	---	---	---	< 250	< 250
07/20/00	8,000	3,500	9,200/ 11,000	20,000/ 22,000	2,500/ 3,400	12,000/ 13,000	< 1,000	---	---	---	< 200	< 200
10/24/00	98,000	8,000*	21,000	29,000	2,700	15,000	< 1,000	---	---	---	< 250	< 250
01/18/01	91,000	12,000	17,000/ 15,000	21,000/ 21,000	2,500/ 2,800	13,000/ 11,000	<1,000	---	---	---	< 250	< 250
04/05/01	88,000	7,500*	6,900/ 3,200	18,000/ 9,000	2,500/ 1,300	12,000/ 6,400	< 1,000	---	---	---	< 50	< 50
07/17/01	95,000	< 3,000	8,000	16,000	2,900	11,000	49	---	---	---	69	---
10/25/01	89,000	< 2,200	9,300	18,000	2,400	12,000	66	---	---	---	72	< 50
01/22/02	80,000	< 2,300	4,600	15,000	2,500	11,000	< 50	---	---	---	< 50	< 50
04/11/02	90,000	< 900	6,600	18,000	2,800	12,000	55	---	---	---	---	---
06/25/02	110,000	< 3,000	10,000	20,000	2,900	13,000	< 100	---	---	---	< 100	< 100
09/17/02	110,000	< 3,000	9,600	21,000	2,800	13,000	< 100	---	---	---	< 100	< 100
12/18/02	97,000	< 4,000	8,000	20,000	2,600	12,000	< 50	---	---	---	< 50	< 50
03/25/03	97,000	< 7,500	7,600	22,000	2,500	12,000	< 100	---	---	---	< 100	< 100
06/23/03	100,000	< 3,000	9,600	22,000	3,300	15,000	< 100	---	---	---	< 100	< 100
09/26/03	110,000	< 4,000	9,300	17,000	2,100	10,000	< 50	---	---	---	87	< 50
12/18/03	110,000	< 2,000	8,900	19,000	2,500	12,000	< 25	---	---	---	46	< 25
03/12/04	96,000	< 4,000	6,500	18,000	2,700	12,000	< 40	---	---	---	< 40	< 40
06/17/04	110,000	< 4,000	10,000	20,000	2,900	13,000	< 50	---	---	---	93	< 50
09/17/04	78,000	--	9,300	15,000	2,400	11,000	<50	---	---	---	---	---
11/10/04***	87,000	4,300	15,000	21,000	3,000	16,000	< 1300	---	---	---	---	---
12/17/04	88,000	< 3,000	8,500	16,000	2,800	12,000	< 25	---	---	---	53	< 25
04/28/05	110,000	< 3,000	7,800	14,000	2,200	10,000	< 25	< 25	< 25	< 25	46	< 25
07/19/05	90,000	na	10,000	13,000	2,300	10,000	< 40	< 20	< 20	< 20	73	< 40
10/03/05	68,000	< 800	9,400	4,000	1,800	8,700	23	23	< 5.0	< 20	62	< 20
12/06/05	81,000	< 1,500	8,900	7,200	2,200	9,500	< 20	---	---	---	---	---
03/15/06	68,000	< 3,000	7,300	14,000	2,500	10,000	< 20	< 20	< 20	< 20	< 20	< 20
06/28/06	61,000	< 3,000	8,500	4,100	2,600	11,000	< 20	< 20	< 5.0	< 20	20	< 20
08/31/06	68,000	< 2,000	9,500	9,600	2,500	12,000	< 20	< 20	< 5.0	< 20	36	< 20
11/21/06	68,000	< 1,500	9,000	5,000	2,000	9,300	< 20	< 20	230	< 20	42	< 20
02/23/07	90,000	< 2,000	11,000	11,000	2,800	12,000	< 20	< 20	290	< 20	36	< 20
05/02/07	56,000	< 2,000	7,300	6,300	2,500	11,000	< 15	< 15	160	< 15	20	< 15
08/09/07	52,000	< 2,000	7,600	2,600	2,100	8,400	< 15	15	170	< 15	31	< 15
12/06/07	60,000	< 2,000	13,000	2,000	2,800	11,000	< 15	22	150	< 15	< 15	< 15
02/26/08	42,000	< 2,000	3,700	2,300	2,300	8,900	< 15	< 15	90	< 15	< 15	< 15
05/30/08	64,000	< 3,000	9,200	5,100	3,000	12,000	< 15	< 15	83	< 15	19	< 15
08/28/08	73,000	< 5,000	9,700	5,500	3,300	12,000	< 15	< 15	< 70	< 15	---	---
12/11/08	120,000	< 40,000	14,000	12,000	4,400	19,000	< 25	< 25	< 150	< 25	---	---
03/31/09	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
MW-4R												
12/31/09	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
06/03/10	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
12/20/10	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
06/30/11	190,000	< 30,000	3,800	11,000	2,900	20,000	< 25	< 25	< 150	< 25	< 25	< 25
06/22/12	4,500	< 200	31	53	5.0	500	6.3	6.1	180	< 0.5	21	< 0.5
12/13/12	3,700	< 200	97	76	50	590	< 0.50	1.0	41	< 0.50	2.5	< 0.50
06/18/13	3,800	110	37	33	10	400	1.5	2.5	120	< 0.50	7.2	< 0.50
12/23/13	240	100	< 0.50	< 0.50	< 0.50	5.4	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
06/30/14	3,600	340	1,300	6.3	1.3	16	< 0.50	0.93	22	< 0.50	< 0.50	< 0.50
12/17/14	210	240	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
06/23/15	200	99	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	< 0.50	< 0.50	< 0.50
09/30/15	1,800	600	650	< 17	< 17	18	< 17	< 17	78	< 17	< 17	< 17

TABLE TWO
Summary of Chemical Analysis of Groundwater Samples
Petroleum Hydrocarbon Concentrations
All results are in parts per billion

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	DIPE	TBA	Other Oxys	EDC	EDB
MW-5												
06/11/02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	28	---	---	---	< 0.5	< 0.5
09/17/02	< 50	110	< 0.5	< 0.5	< 0.5	< 0.5	4.8	---	---	---	< 0.5	< 0.5
12/18/02	< 50	140	< 0.5	< 0.5	< 0.5	< 0.5	1.8	---	---	---	< 0.5	< 0.5
03/25/03	< 50	130	< 0.5	< 0.5	< 0.5	< 0.5	7.4	---	---	---	< 0.5	< 0.5
06/23/03	< 50	390	< 0.5	< 0.5	< 0.5	< 0.5	17	---	---	---	< 0.5	< 0.5
09/26/03	< 50	700	< 0.5	< 0.5	< 0.5	< 0.5	21	---	---	---	< 0.5	< 0.5
12/18/03	< 50	550	< 0.5	< 0.5	< 0.5	< 0.5	16	---	---	---	< 0.5	< 0.5
03/12/04	< 50	490	< 0.5	< 0.5	< 0.5	< 0.5	9.1	---	---	---	< 40	< 40
06/17/04	< 50	510	< 0.5	< 0.5	< 0.5	< 0.5	9.8	---	---	---	< 0.5	< 0.5
09/17/04	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	5.5	---	---	---	---	---
11/10/04***	< 50	370	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	---	---
12/17/04	< 50	120	< 0.5	< 0.5	< 0.5	< 0.5	9.2	---	---	---	< 0.5	< 0.5
04/28/05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	2.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/19/05	< 50	na	< 0.5	< 0.5	< 0.5	< 0.5	6.1	2.1	< 5.0	< 0.5	< 0.5	< 0.5
10/03/05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	2.4	1.7	< 5.0	< 0.5	< 0.5	< 0.5
12/06/05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	---	---
03/15/06	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	3.3	< 0.5	< 5.0	< 0.5	< 0.5	< 0.5
06/28/06	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	1.8	< 0.5	< 5.0	< 0.5	< 0.5	< 0.5
08/31/06	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	3.4	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
12/05/06	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	5.2	1.7	5.4	< 0.50	< 0.50	< 0.50
02/23/07	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	6.0	1.4	< 5.0	< 0.50	< 0.50	< 0.50
05/02/07	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	3.8	1.3	< 5.0	< 0.50	< 0.50	< 0.50
08/09/07	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	5.5	1.3	< 5.0	< 0.50	< 0.50	< 0.50
12/06/07	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	1.8	1.5	< 5.0	< 0.50	< 0.50	< 0.50
02/26/08	260	< 50	32	1.3	0.62	0.92	3.4	5.6	7.7	< 0.50	0.60	< 0.50
05/30/08	71	< 50	1.8	< 0.50	< 0.50	< 0.50	2.4	3.1	< 5.0	< 0.50	< 0.50	< 0.50
08/28/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	2.1	2.2	< 5.0	< 0.50	---	---
12/11/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	2.2	2.5	< 5.0	< 0.50	---	---
03/31/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	1.2	1.3	< 5.0	< 0.50	< 0.50	< 0.50
12/31/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	1.9	1.5	< 5.0	< 0.50	< 0.50	< 0.50
06/03/10	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	0.56	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
12/20/10	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	0.61	0.67	< 5.0	< 0.50	< 0.50	< 0.50
06/30/11	< 50	< 50	1.6	< 0.50	< 0.50	< 0.50	< 0.50	1.0	< 5.0	< 0.50	< 0.50	< 0.50
06/22/12	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
12/13/12	79	< 50	2.7	< 0.50	0.86	0.74	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
06/18/13	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
12/23/13	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.65	< 5.0	< 0.50	< 0.50	< 0.50
06/30/14	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.70	< 5.0	< 0.50	< 0.50	< 0.50
12/17/14	100	< 50	21	0.56	< 0.50	< 0.50	< 0.50	1.2	< 5.0	< 0.50	< 0.50	< 0.50
06/23/15	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.53	< 2.0	< 0.50	< 0.50	< 0.50
09/30/15	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.54	< 2.0	< 0.50	< 0.50	< 0.50

TABLE TWO
Summary of Chemical Analysis of Groundwater Samples
Petroleum Hydrocarbon Concentrations
All results are in parts per billion

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	DIPE	TBA	Other Oxys	EDC	EDB
MW-7												
06/25/02	38,000	< 2,000	890	5,100	1,200	5,200	< 20	---	---	---	< 20	< 20
09/17/02	26,000	< 2,000	590	3,600	880	4,000	< 20	---	---	---	< 20	< 20
12/18/02	NOT SAMPLED - CAR PARKED OVER WELL											
03/25/03	39,000	< 2,900	410	7,700	1,000	6,400	< 5.0	---	---	---	< 2.5	< 2.5
06/23/03	17,000	< 1,000	440	2,600	630	2,600	< 10	---	---	---	< 10	< 10
09/26/03	17,000	< 1,000	230	1,800	470	2,200	< 5.0	---	---	---	< 5.0	< 5.0
12/18/03	20,000	< 1,000	290	2,500	590	2,900	< 5.0	---	---	---	< 5.0	< 5.0
03/12/04	20,000	< 1,500	300	3,000	760	3,200	< 10	---	---	---	< 10	< 10
06/17/04	12,000	< 800	250	1,800	450	1,900	< 5.0	---	---	---	< 5.0	< 5.0
09/17/04	9,900	--	200	1,500	450	1,800	< 5.0	---	---	---	---	---
11/10/04***	20,000	1,900	550	4,200	920	4,000	< 500	---	---	---	---	---
12/17/04	14,000	< 800	220	1,700	530	2,000	< 3.0	---	---	---	< 3.0	< 3.0
04/28/05	13,000	< 300	84	1,000	660	2,200	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5
07/19/05	16,000	na	170	1,800	540	2,200	< 2.5	< 2.5	< 5.0	< 2.5	< 2.5	< 2.5
10/03/05	7,400	< 200	140	710	350	1,100	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
12/06/05	22,000	< 600	240	2,300	800	3,400	< 5.0	---	---	---	---	---
03/15/06	3,800	< 200	4.6	160	120	620	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
06/28/06	6,400	< 500	19.0	340	490	940	< 0.90	< 0.50	< 5.0	< 0.50	< 0.90	< 0.90
08/31/06	20,000	< 600	160	2,200	1,300	3,500	< 2.5	1.4	< 15	< 5.0	< 2.5	< 2.5
11/21/06	21,000	< 1,000	240	2,500	880	3,400	< 5.0	< 5.0	< 25	< 5.0	< 5.0	< 5.0
02/23/07	10,000	< 200	150	1,300	580	2,400	< 2.5	< 2.5	< 15	< 2.5	< 2.5	< 2.5
05/02/07	26,000	< 1,000	300	2,400	1,800	6,700	< 2.5	< 2.5	< 50	< 2.5	< 2.5	< 2.5
08/09/07	13,000	< 800	250	800	1,000	3,000	< 2.5	< 2.5	< 15	< 2.5	< 2.5	< 2.5
12/06/07	9,600	< 1,000	160	850	530	2,000	< 2.5	< 2.5	45	< 2.5	< 2.5	< 2.5
02/26/08	14,000	< 800	190	1,000	740	3,000	< 2.5	< 2.5	69	< 2.5	< 2.5	< 2.5
05/30/08	9,900	< 200	160	620	590	2,300	< 2.5	< 2.5	< 15	< 2.5	< 2.5	< 2.5
08/28/08	11,000	< 800	180	500	650	2,400	< 2.5	< 2.5	< 15	< 2.5	---	---
12/11/08	8,000	< 500	160	300	540	1,600	< 2.5	< 2.5	< 15	< 2.5	---	---
03/31/09	5,600	< 300	82	190	360	1,000	< 1.5	< 1.5	< 7.0	< 1.5	< 1.5	< 1.5
12/31/09	16,000	< 800	140	1,200	750	2,800	< 0.5	< 0.50	10	< 0.50	< 0.50	< 0.50
06/03/10	22,000	< 2,000	160	1,000	1,300	3,500	< 5.0	< 5.0	< 25	< 5.0	< 5.0	< 5.0
12/20/10	23,000	< 1,000	230	820	1,500	4,900	< 5.0	< 5.0	< 25	< 5.0	< 5.0	< 5.0
06/30/11	26,000	< 4,000	190	310	1,800	3,900	< 5.0	< 5.0	< 25	< 5.0	< 5.0	< 5.0
06/22/12	10,000	< 600	120	52	1,100	310	< 2.0	< 2.0	43	< 2.0	< 2.0	< 2.0
12/13/12	16,000	610	78	80	1,000	940	< 2.5	< 2.5	< 15	< 2.5	< 2.5	< 2.5
06/18/13	6,000	250	19	22	310	390	< 0.90	< 0.90	6.3	< 0.90	< 0.90	< 0.90
12/23/13	2,200	290	6.8	5.2	15	78	< 0.50	< 0.50	10	< 0.50	< 0.50	< 0.50
06/30/14	2,700	380	12	7.3	83	63	< 0.50	< 0.50	32	< 0.50	< 0.50	< 0.50
12/17/14	3,300	700	3.0	8.3	31	200	< 0.50	< 0.50	14	< 0.50	< 0.50	< 0.50
06/23/15	440	180	< 0.50	0.50	2.7	4.9	< 0.50	< 0.50	5.3	< 0.50	< 0.50	< 0.50
09/30/15	700	610	2.6	2.2	7.2	13	< 0.50	< 0.50	27	< 0.50	< 0.50	< 0.50

TABLE TWO
Summary of Chemical Analysis of Groundwater Samples
Petroleum Hydrocarbon Concentrations
 All results are in parts per billion

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	DIPE	TBA	Other Oxys	EDC	EDB
MW-8												
02/26/08	< 50	< 50	0.51	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
05/30/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
08/28/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	---	---
12/11/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	---	---
03/31/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
12/31/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
06/03/10	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
12/20/10	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
06/30/11	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
06/22/12	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
12/13/12	< 50	56	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
06/18/13	< 50	83	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
12/23/13	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
06/30/14												No Longer Sampled
12/17/14												No Longer Sampled
06/23/15												No Longer Sampled
09/30/15												No Longer Sampled
ESL	100	100	1	40	30	20	5	NE	12	NE	0.5	0.05

Notes:

* = Hydrocarbons reported are in the early diesel range, and do not match the laboratory standards.
 ** = Hydrocarbons reported do not match the laboratory gasoline standard.
 *** = Grab sample - Not purged
 # = Estimated concentration reported due to overlapping fuel patterns.
 / = Results separated by a slash represent results from two different laboratory methods (8020/8260)
 na = not analyzed
 Non-detectable concentrations noted by the less than sign (<) followed by the detection limit.
 Most recent data in bold.
 ESL = Environmental screening levels presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (December 2013)" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region.

TPH = Total petroleum hydrocarbons EDC = 1,2-Dichloroethane
 MTBE = Methyl tertiary butyl ether EDB = 1,2-Dibromoethane
 DIPE = Diisopropyl ether
 TBA = Tery-butanol
 Oxy = Oxygenates



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APPENDIX A

Well Sampling Field Log

AQUA SCIENCE ENGINEERS

WELL SAMPLING FIELD LOG

PROJECT NAME	LIM		
JOB NUMBER	2808	DATE OF SAMPLING	9/30/15
WELL ID.	MW- 1	SAMPLER	RK/DA
TOTAL DEPTH OF WELL	26.80	WELL DIAMETER	2"
DEPTH TO WATER PRIOR TO PURGING	19.49	TIME OF MEASUREMENT	
PRODUCT THICKNESS	0		
DEPTH OF WELL CASING IN WATER	7.31		
NUMBER OF GALLONS PER WELL CASING VOLUME	1.2		
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	3.6 gal		
EQUIPMENT USED TO PURGE WELL	NEW DISPOSABLE BAILER		
TIME EVACUATION STARTED	12:30	TIME EVACUATION COMPLETED	12:45
TIME SAMPLES WERE COLLECTED	12:45		
DID WELL GO DRY	NO	AFTER HOW MANY GALLONS	—
VOLUME OF GROUNDWATER PURGED	3.6 gal		
SAMPLING DEVICE	NEW DISPOSABLE BAILER		
SAMPLE COLOR	yellow brown	ODOR/SEDIMENT	None / yellow brown

CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	21.1°C	6.6	420 µS
2	21.2	6.4	400
3	21.2	6.4	390

SAMPLES COLLECTED

SAMPLE	DEPTH	VOLUME	DATE	REMARKS
MW- 1	5	40ML VOAs	8015/8260	Hcl

AQUA SCIENCE ENGINEERS

WELL SAMPLING FIELD LOG

PROJECT NAME	LIM		
JOB NUMBER	2808	DATE OF SAMPLING	9/30/15
WELL ID.	MW- 2	SAMPLER	RK/DA
TOTAL DEPTH OF WELL	26.80	WELL DIAMETER	2"
DEPTH TO WATER PRIOR TO PURGING	18.51	TIME OF MEASUREMENT	
PRODUCT THICKNESS	.6		
DEPTH OF WELL CASING IN WATER	8.29		
NUMBER OF GALLONS PER WELL CASING VOLUME	1.4		
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	4.2 gal		
EQUIPMENT USED TO PURGE WELL	(NEW DISPOSABLE BAILER)		
TIME EVACUATION STARTED	8:50	TIME EVACUATION COMPLETED	9:10
TIME SAMPLES WERE COLLECTED	9:10		
DID WELL GO DRY	NO	AFTER HOW MANY GALLONS	-
VOLUME OF GROUNDWATER PURGED	4.2 gal		
SAMPLING DEVICE	(NEW DISPOSABLE BAILER)		
SAMPLE COLOR	yellow brown	ODOR/SEDIMENT	mod hc / yellow brown silt

CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	TIME	RESISTIVITY
1	20.9 °C	6.0	550 μ S
2	20.7	6.2	530
3	20.7	6.2	530

SAMPLES COLLECTED

SAMPLE	DEPTH	VOLUME	DATE	ANALYSIS
MW- 2	5	40ML VOAs	8015/8260	Hcl

AQUA SCIENCE ENGINEERS

WELL SAMPLING FIELD LOG

PROJECT NAME	LIM		
JOB NUMBER	2808	DATE OF SAMPLING	9/30/15
WELL ID.	MW- 3	SAMPLER	RK/DA
TOTAL DEPTH OF WELL	30.0	WELL DIAMETER	2"
DEPTH TO WATER PRIOR TO PURGING	19.42	TIME OF MEASUREMENT	
PRODUCT THICKNESS	0 - shear		
DEPTH OF WELL CASING IN WATER	10.38		
NUMBER OF GALLONS PER WELL CASING VOLUME	1.8		
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	5.4 gal		
EQUIPMENT USED TO PURGE WELL	NEW DISPOSABLE BAILER		
TIME EVACUATION STARTED	7:40	TIME EVACUATION COMPLETED	8:00
TIME SAMPLES WERE COLLECTED	8:00		
DID WELL GO DRY	No	AFTER HOW MANY GALLONS	—
VOLUME OF GROUNDWATER PURGED	5.4 gal		
SAMPLING DEVICE	NEW DISPOSABLE BAILER		
SAMPLE COLOR	black	ODOR/SEDIMENT	v. strong / black sediment

CHEMICAL DATA

VOLUME PURGED	DATE	TIME	ANALYST
1			
2			
3			

SAMPLES COLLECTED

SAMPLE	DATE	TIME	ANALYST	REMARKS
MW- 3	5	40ML VOA5	8015/8260	Hcl

AQUA SCIENCE ENGINEERS

WELL SAMPLING FIELD LOG

PROJECT NAME	LIM		
JOB NUMBER	2808	DATE OF SAMPLING	9/30/15
WELL ID.	MW- <i>4R</i>	SAMPLER	RK/DA
TOTAL DEPTH OF WELL	<i>28.0</i>	WELL DIAMETER	<i>4"</i>
DEPTH TO WATER PRIOR TO PURGING	<i>18.96</i>	TIME OF MEASUREMENT	
PRODUCT THICKNESS	<i>0</i>		
DEPTH OF WELL CASING IN WATER	<i>9.04</i>		
NUMBER OF GALLONS PER WELL CASING VOLUME	<i>6.0</i>		
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	<i>3</i>		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	<i>18 gal</i>		
EQUIPMENT USED TO PURGE WELL	<u>NEW DISPOSABLE BAILER</u>		
TIME EVACUATION STARTED	<i>9:35</i>	TIME EVACUATION COMPLETED	<i>10:10</i>
TIME SAMPLES WERE COLLECTED	<i>10:10</i>		
DID WELL GO DRY	<i>No</i>	AFTER HOW MANY GALLONS	<i>—</i>
VOLUME OF GROUNDWATER PURGED	<i>18 gal</i>		
SAMPLING DEVICE	<u>NEW DISPOSABLE BAILER</u>		
SAMPLE COLOR	<i>olive</i>	ODOR/SEDIMENT	<i>slight hv / olive silt</i>

CHEMICAL DATA

VOLUME PURGED	DEPTH	GALLONS	TDS
1	<i>20.9</i>	<i>6.6</i>	<i>740</i>
2	<i>21.3</i>	<i>6.6</i>	<i>720</i>
3	<i>21.3</i>	<i>6.7</i>	<i>720</i>

SAMPLES COLLECTED

SAMPLE	DEPTH	ANALYSIS	LABORATORY	PRESERVED
MW- <i>4R</i>	<i>5</i>	<i>40ML VOAs</i>	<i>8015/8260</i>	<i>Hcl</i>

AQUA SCIENCE ENGINEERS

WELL SAMPLING FIELD LOG

PROJECT NAME	LIM		
JOB NUMBER	2808	DATE OF SAMPLING	9/30/15
WELL ID.	MW- 5	SAMPLER	RK/DA
TOTAL DEPTH OF WELL	29.6	WELL DIAMETER	2"
DEPTH TO WATER PRIOR TO PURGING	18.74	TIME OF MEASUREMENT	
PRODUCT THICKNESS	0		
DEPTH OF WELL CASING IN WATER	18.86		
NUMBER OF GALLONS PER WELL CASING VOLUME	18		
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	5.4 gal		
EQUIPMENT USED TO PURGE WELL	NEW DISPOSABLE BAILER		
TIME EVACUATION STARTED	1145	TIME EVACUATION COMPLETED	1205
TIME SAMPLES WERE COLLECTED	1205		
DID WELL GO DRY	No	AFTER HOW MANY GALLONS	—
VOLUME OF GROUNDWATER PURGED	5.4 gal		
SAMPLING DEVICE	NEW DISPOSABLE BAILER		
SAMPLE COLOR	yellow brown	ODOR/SEDIMENT	None / yellow brown

CHEMICAL DATA

VOLUME PURGED	CONCENTRATION	DEPTH	REMARKS
1	20.2	6.5	370 us
2	20.2	6.5	470
3	20.2	6.5	480

SAMPLES COLLECTED

SAMPLE	# OF SAMPLES	VOLUME	DATE	ANALYST
MW- 5	5	40ML VOAs	8015/8260	Hcl

AQUA SCIENCE ENGINEERS

WELL SAMPLING FIELD LOG

PROJECT NAME	LIM		
JOB NUMBER	2808	DATE OF SAMPLING	9/30/15
WELL ID.	MW- 7	SAMPLER	RK/DA
TOTAL DEPTH OF WELL	28.0	WELL DIAMETER	2"
DEPTH TO WATER PRIOR TO PURGING	19.25	TIME OF MEASUREMENT	
PRODUCT THICKNESS	0		
DEPTH OF WELL CASING IN WATER	8.75		
NUMBER OF GALLONS PER WELL CASING VOLUME	1.5		
NUMBER OF WELL CASING VOLUMES TO BE REMOVED	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	4-5 gal		
EQUIPMENT USED TO PURGE WELL	NEW DISPOSABLE BAILER		
TIME EVACUATION STARTED	10:55	TIME EVACUATION COMPLETED	11:15
TIME SAMPLES WERE COLLECTED	11:15		
DID WELL GO DRY	AFTER HOW MANY GALLONS		
VOLUME OF GROUNDWATER PURGED	4.5 gals		
SAMPLING DEVICE	NEW DISPOSABLE BAILER		
SAMPLE COLOR	black	ODOR/SEDIMENT	faint hcl / black sediment

CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	RESIDUAL
1	20.6	6.9	350
2	20.6	6.8	320
3	20.6	6.8	320

SAMPLES COLLECTED

SAMPLE	DEPTH	VOLUME	DATE	ANALYST
MW- 7	5	40ML VOAs	8015/8260	Hcl



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APPENDIX B

Certified Analytical Report
and
Chain of Custody Documentation



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1510175

Report Created for: Aqua Science Engineers, Inc.
55 Oak Court Suite 220
Danville, CA 94526

Project Contact: Robert Kitay
Project P.O.:
Project Name: 2808; LIM

Project Received: 10/06/2015

Analytical Report reviewed & approved for release on 10/13/2015 by:

Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Aqua Science Engineers, Inc.
Project: 2808; LIM
WorkOrder: 1510175

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



Glossary of Terms & Qualifier Definitions

Client: Aqua Science Engineers, Inc.
Project: 2808; LIM
WorkOrder: 1510175

Analytical Qualifiers

H samples were analyzed out of holding time
a7 reporting limit raised due to limited sample amount
b1 aqueous sample that contains greater than ~1 vol. % sediment
b6 lighter than water immiscible sheen/product is present
e3 aged diesel is significant
e4 gasoline range compounds are significant.
e11 stoddard solvent/mineral spirit (?)

Quality Control Qualifiers

F1 MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.



Analytical Report

Client: Aqua Science Engineers, Inc.
Date Received: 10/6/15 19:49
Date Prepared: 10/9/15-10/10/15
Project: 2808; LIM

WorkOrder: 1510175
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Oxygenates, MBTEX & Lead Scavengers by GC/MS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-1	1510175-001A	Water	09/30/2015 12:45	GC28	111387

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.50	1	10/09/2015 16:17
Benzene	1.2	0.50	1	10/09/2015 16:17
t-Butyl alcohol (TBA)	4.3	2.0	1	10/09/2015 16:17
1,2-Dibromoethane (EDB)	ND	0.50	1	10/09/2015 16:17
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	10/09/2015 16:17
Diisopropyl ether (DIPE)	0.59	0.50	1	10/09/2015 16:17
Ethylbenzene	ND	0.50	1	10/09/2015 16:17
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	10/09/2015 16:17
Methyl-t-butyl ether (MTBE)	ND	0.50	1	10/09/2015 16:17
Toluene	ND	0.50	1	10/09/2015 16:17
Xylenes, Total	ND	0.50	1	10/09/2015 16:17
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	104	70-130		10/09/2015 16:17
Toluene-d8	92	70-130		10/09/2015 16:17

Analyst(s): KF

Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2	1510175-002A	Water	09/30/2015 09:10	GC28	111387

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	500	1,000	10/09/2015 21:25
Benzene	8900	500	1,000	10/09/2015 21:25
t-Butyl alcohol (TBA)	ND	2000	1,000	10/09/2015 21:25
1,2-Dibromoethane (EDB)	ND	500	1,000	10/09/2015 21:25
1,2-Dichloroethane (1,2-DCA)	ND	500	1,000	10/09/2015 21:25
Diisopropyl ether (DIPE)	ND	500	1,000	10/09/2015 21:25
Ethylbenzene	ND	500	1,000	10/09/2015 21:25
Ethyl tert-butyl ether (ETBE)	ND	500	1,000	10/09/2015 21:25
Methyl-t-butyl ether (MTBE)	ND	500	1,000	10/09/2015 21:25
Toluene	ND	500	1,000	10/09/2015 21:25
Xylenes, Total	ND	500	1,000	10/09/2015 21:25
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	104	70-130		10/09/2015 21:25
Toluene-d8	94	70-130		10/09/2015 21:25

Analyst(s): KF

Analytical Comments: b1

(Cont.)



Analytical Report

Client: Aqua Science Engineers, Inc.
Date Received: 10/6/15 19:49
Date Prepared: 10/9/15-10/10/15
Project: 2808; LIM

WorkOrder: 1510175
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Oxygenates, MBTEX & Lead Scavengers by GC/MS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3	1510175-003A	Water	09/30/2015 08:00	GC28	111387

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	100	200	10/09/2015 23:56
Benzene	4100	100	200	10/09/2015 23:56
t-Butyl alcohol (TBA)	ND	400	200	10/09/2015 23:56
1,2-Dibromoethane (EDB)	ND	100	200	10/09/2015 23:56
1,2-Dichloroethane (1,2-DCA)	ND	100	200	10/09/2015 23:56
Diisopropyl ether (DIPE)	ND	100	200	10/09/2015 23:56
Ethylbenzene	870	100	200	10/09/2015 23:56
Ethyl tert-butyl ether (ETBE)	ND	100	200	10/09/2015 23:56
Methyl-t-butyl ether (MTBE)	ND	100	200	10/09/2015 23:56
Toluene	1000	100	200	10/09/2015 23:56
Xylenes, Total	9100	100	200	10/09/2015 23:56

Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	106	70-130	10/09/2015 23:56
Toluene-d8	98	70-130	10/09/2015 23:56

Analyst(s): KF

Analytical Comments: b6

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-4R	1510175-004A	Water	09/30/2015 10:10	GC28	111387

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	17	33	10/10/2015 15:02
Benzene	650	17	33	10/10/2015 15:02
t-Butyl alcohol (TBA)	78	67	33	10/10/2015 15:02
1,2-Dibromoethane (EDB)	ND	17	33	10/10/2015 15:02
1,2-Dichloroethane (1,2-DCA)	ND	17	33	10/10/2015 15:02
Diisopropyl ether (DIPE)	ND	17	33	10/10/2015 15:02
Ethylbenzene	ND	17	33	10/10/2015 15:02
Ethyl tert-butyl ether (ETBE)	ND	17	33	10/10/2015 15:02
Methyl-t-butyl ether (MTBE)	ND	17	33	10/10/2015 15:02
Toluene	ND	17	33	10/10/2015 15:02
Xylenes, Total	18	17	33	10/10/2015 15:02

Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	102	70-130	10/10/2015 15:02
Toluene-d8	96	70-130	10/10/2015 15:02

Analyst(s): KF

Analytical Comments: b1

(Cont.)



Analytical Report

Client: Aqua Science Engineers, Inc.
Date Received: 10/6/15 19:49
Date Prepared: 10/9/15-10/10/15
Project: 2808; LIM

WorkOrder: 1510175
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Oxygenates, MBTEX & Lead Scavengers by GC/MS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-5	1510175-005A	Water	09/30/2015 12:05	GC28	111387

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.50	1	10/10/2015 13:44
Benzene	ND	0.50	1	10/10/2015 13:44
t-Butyl alcohol (TBA)	ND	2.0	1	10/10/2015 13:44
1,2-Dibromoethane (EDB)	ND	0.50	1	10/10/2015 13:44
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	10/10/2015 13:44
Diisopropyl ether (DIPE)	0.54	0.50	1	10/10/2015 13:44
Ethylbenzene	ND	0.50	1	10/10/2015 13:44
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	10/10/2015 13:44
Methyl-t-butyl ether (MTBE)	ND	0.50	1	10/10/2015 13:44
Toluene	ND	0.50	1	10/10/2015 13:44
Xylenes, Total	ND	0.50	1	10/10/2015 13:44

Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	101	70-130	10/10/2015 13:44
Toluene-d8	96	70-130	10/10/2015 13:44

Analyst(s): KF

Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-7	1510175-006A	Water	09/30/2015 11:15	GC28	111387

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.50	1	10/10/2015 01:12
Benzene	2.6	0.50	1	10/10/2015 01:12
t-Butyl alcohol (TBA)	27	2.0	1	10/10/2015 01:12
1,2-Dibromoethane (EDB)	ND	0.50	1	10/10/2015 01:12
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	10/10/2015 01:12
Diisopropyl ether (DIPE)	ND	0.50	1	10/10/2015 01:12
Ethylbenzene	7.2	0.50	1	10/10/2015 01:12
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	10/10/2015 01:12
Methyl-t-butyl ether (MTBE)	ND	0.50	1	10/10/2015 01:12
Toluene	2.2	0.50	1	10/10/2015 01:12
Xylenes, Total	13	0.50	1	10/10/2015 01:12

Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	121	70-130	10/10/2015 01:12
Toluene-d8	97	70-130	10/10/2015 01:12

Analyst(s): KF

Analytical Comments: b1



Analytical Report

Client: Aqua Science Engineers, Inc.
Date Received: 10/6/15 19:49
Date Prepared: 10/9/15-10/10/15
Project: 2808; LIM

WorkOrder: 1510175
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

TPH(g) by Purge & Trap and GC/MS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-1	1510175-001A	Water	09/30/2015 12:45	GC28	111387
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	210		50	1	10/09/2015 16:17
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	94		70-130		10/09/2015 16:17
<u>Analyst(s):</u> KF			<u>Analytical Comments:</u> b1		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2	1510175-002A	Water	09/30/2015 09:10	GC28	111387
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	11,000		1000	20	10/10/2015 03:42
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	101		70-130		10/10/2015 03:42
<u>Analyst(s):</u> KF			<u>Analytical Comments:</u> b1		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3	1510175-003A	Water	09/30/2015 08:00	GC28	111387
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	77,000		5000	100	10/09/2015 17:33
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	95		70-130		10/09/2015 17:33
<u>Analyst(s):</u> KF			<u>Analytical Comments:</u> b6		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-4R	1510175-004A	Water	09/30/2015 10:10	GC28	111387
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	1800		500	10	10/10/2015 00:34
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	96		70-130		10/10/2015 00:34
<u>Analyst(s):</u> KF			<u>Analytical Comments:</u> b1		

(Cont.)



Analytical Report

Client: Aqua Science Engineers, Inc.
Date Received: 10/6/15 19:49
Date Prepared: 10/9/15-10/10/15
Project: 2808; LIM

WorkOrder: 1510175
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

TPH(g) by Purge & Trap and GC/MS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-5	1510175-005A	Water	09/30/2015 12:05	GC28	111387
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND		50	1	10/09/2015 22:41
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	96		70-130		10/09/2015 22:41
<u>Analyst(s):</u> KF			<u>Analytical Comments:</u> b1		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-7	1510175-006A	Water	09/30/2015 11:15	GC28	111387
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	700		50	1	10/10/2015 01:12
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	108		70-130		10/10/2015 01:12
<u>Analyst(s):</u> KF			<u>Analytical Comments:</u> b1		



Analytical Report

Client: Aqua Science Engineers, Inc.
Date Received: 10/6/15 19:49
Date Prepared: 10/13/15
Project: 2808; LIM

WorkOrder: 1510175
Extraction Method: SW3510C/3630C
Analytical Method: SW8015B
Unit: µg/L

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-1	1510175-001B	Water	09/30/2015 12:45	GC6B	111437
<u>Analytes</u>					
TPH-Diesel (C10-C23)	280	H	50	1	Date Analyzed 10/13/2015 12:50
<u>Surrogates</u>					
C9	104	H	70-130		10/13/2015 12:50
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e11,b1		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2	1510175-002B	Water	09/30/2015 09:10	GC6A	111437
<u>Analytes</u>					
TPH-Diesel (C10-C23)	1500	H	100	2	Date Analyzed 10/13/2015 14:04
<u>Surrogates</u>					
C9	113	H	70-130		10/13/2015 14:04
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e4,a7,b1		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3	1510175-003B	Water	09/30/2015 08:00	GC9a	111437
<u>Analytes</u>					
TPH-Diesel (C10-C23)	130,000	H	7500	50	Date Analyzed 10/13/2015 14:16
<u>Surrogates</u>					
C9	107	H	70-130		10/13/2015 14:16
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e11,b6,b1		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-4R	1510175-004B	Water	09/30/2015 10:10	GC2A	111437
<u>Analytes</u>					
TPH-Diesel (C10-C23)	600	H	50	1	Date Analyzed 10/13/2015 12:43
<u>Surrogates</u>					
C9	95	H	70-130		10/13/2015 12:43
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e11,e3,b1		

(Cont.)



Analytical Report

Client: Aqua Science Engineers, Inc.
Date Received: 10/6/15 19:49
Date Prepared: 10/13/15
Project: 2808; LIM

WorkOrder: 1510175
Extraction Method: SW3510C/3630C
Analytical Method: SW8015B
Unit: µg/L

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-5	1510175-005B	Water	09/30/2015 12:05	GC6B	111437
<u>Analytes</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND	H	50	1	10/13/2015 14:04
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>		
C9	103	H	70-130		10/13/2015 14:04
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> b1		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-7	1510175-006B	Water	09/30/2015 11:15	GC11B	111437
<u>Analytes</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	610	H	150	1	10/13/2015 13:38
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>		
C9	107	H	70-130		10/13/2015 13:38
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e11,e3,b1		



Quality Control Report

Client: Aqua Science Engineers, Inc.
Date Prepared: 10/12/15
Date Analyzed: 10/9/15
Instrument: GC28
Matrix: Water
Project: 2808; LIM

WorkOrder: 1510175
BatchID: 111387
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-111387
 1510175-005AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	12.3	0.50	10	-	123	54-140
Benzene	ND	10.9	0.50	10	-	109	47-158
Bromobenzene	ND	-	0.50	-	-	-	-
Bromochloromethane	ND	-	0.50	-	-	-	-
Bromodichloromethane	ND	-	0.50	-	-	-	-
Bromoform	ND	-	0.50	-	-	-	-
Bromomethane	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	2.0	-	-	-	-
t-Butyl alcohol (TBA)	ND	49.4	2.0	40	-	123	42-140
n-Butyl benzene	ND	-	0.50	-	-	-	-
sec-Butyl benzene	ND	-	0.50	-	-	-	-
tert-Butyl benzene	ND	-	0.50	-	-	-	-
Carbon Disulfide	ND	-	0.50	-	-	-	-
Carbon Tetrachloride	ND	-	0.50	-	-	-	-
Chlorobenzene	ND	-	0.50	-	-	-	-
Chloroethane	ND	-	0.50	-	-	-	-
Chloroform	ND	-	0.50	-	-	-	-
Chloromethane	ND	-	0.50	-	-	-	-
2-Chlorotoluene	ND	-	0.50	-	-	-	-
4-Chlorotoluene	ND	-	0.50	-	-	-	-
Dibromochloromethane	ND	-	0.50	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.20	-	-	-	-
1,2-Dibromoethane (EDB)	ND	10.8	0.50	10	-	108	44-155
Dibromomethane	ND	-	0.50	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.50	-	-	-	-
Dichlorodifluoromethane	ND	-	0.50	-	-	-	-
1,1-Dichloroethane	ND	-	0.50	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	11.0	0.50	10	-	110	66-125
1,1-Dichloroethene	ND	-	0.50	-	-	-	-
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,3-Dichloropropane	ND	-	0.50	-	-	-	-
2,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,1-Dichloropropene	ND	-	0.50	-	-	-	-

(Cont.)



Quality Control Report

Client: Aqua Science Engineers, Inc.
Date Prepared: 10/12/15
Date Analyzed: 10/9/15
Instrument: GC28
Matrix: Water
Project: 2808; LIM

WorkOrder: 1510175
BatchID: 111387
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-111387
 1510175-005AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
Diisopropyl ether (DIPE)	ND	11.0	0.50	10	-	110	57-136
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	11.8	0.50	10	-	118	55-137
Freon 113	ND	-	0.50	-	-	-	-
Hexachlorobutadiene	ND	-	0.50	-	-	-	-
Hexachloroethane	ND	-	0.50	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
Isopropylbenzene	ND	-	0.50	-	-	-	-
4-Isopropyl toluene	ND	-	0.50	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	11.7	0.50	10	-	117	53-139
Methylene chloride	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.50	-	-	-	-
Naphthalene	ND	-	0.50	-	-	-	-
n-Propyl benzene	ND	-	0.50	-	-	-	-
Styrene	ND	-	0.50	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
Tetrachloroethene	ND	-	0.50	-	-	-	-
Toluene	ND	11.0	0.50	10	-	110	52-137
1,2,3-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.50	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.50	-	-	-	-
Trichloroethene	ND	-	0.50	-	-	-	-
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.50	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	-	0.50	-	-	-	-
Xylenes, Total	ND	-	0.50	-	-	-	-

(Cont.)



Quality Control Report

Client: Aqua Science Engineers, Inc.
Date Prepared: 10/12/15
Date Analyzed: 10/9/15
Instrument: GC28
Matrix: Water
Project: 2808; LIM

WorkOrder: 1510175
BatchID: 111387
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-111387
 1510175-005AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	25.8	25.8		25	103	103	70-130
Toluene-d8	24.5	25.3		25	98	101	70-130
4-BFB	2.36	-		2.5	94	-	-

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	13.1	13.1	10	ND	131	131	69-139	0	20
Benzene	10.6	10.3	10	ND	106	103	69-141	2.88	20
t-Butyl alcohol (TBA)	59.6	75.8	40	ND	149	190,F1	41-152	24,F1	20
1,2-Dibromoethane (EDB)	11.4	11.4	10	ND	114	114	76-135	0	20
1,2-Dichloroethane (1,2-DCA)	11.3	11.3	10	ND	113	113	73-139	0	20
Diisopropyl ether (DIPE)	11.6	13.0	10	0.5370	110	124	72-140	11.1	20
Ethyl tert-butyl ether (ETBE)	12.2	12.1	10	ND	122	121	71-140	0.550	20
Methyl-t-butyl ether (MTBE)	12.7	14.9	10	ND	126	148,F1	73-139	16.0	20
Toluene	9.73	9.51	10	ND	97	95	71-128	2.35	20
Surrogate Recovery									
Dibromofluoromethane	26.4	26.4	25		106	106	70-130	0	20
Toluene-d8	23.3	23.8	25		93	95	70-130	2.05	20

CLIENT: Aqua Science Engineers, Inc.

ANALYTICAL QC SUMMARY REPORT

Work Order: 1510175

Project: 2808; LIM

BatchID: 111387

SampleID MB-111387	TestCode: 8260GAS_W	Units: µg/L	Prep Date: 10/12/2015
Batch ID: 111387	TestNo: SW8260B	Run ID: GC28_151012B	Analysis Date: 10/9/2015
Analyte	Result	PQL SPKValue SPKRefVal %REC	Limits RPDRefVal %RPD RPDLimit Qual
TPH(g)	ND	50	-

Surrogate Recovery

Dibromofluoromethane	23.4	25	94	70 - 130
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Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

CLIENT: Aqua Science Engineers, Inc.

Work Order: 1510175

Project: 2808; LIM

ANALYTICAL QC SUMMARY REPORT

BatchID: 111387

SampleID	LCS-111387	TestCode:	8260GAS_W	Units:	µg/L	Prep Date:	10/12/2015			
Batch ID:	111387	TestNo:	SW8260B	Run ID:	GC28_151012B	Analysis Date:	10/9/2015			
Analyte	Result	PQL	SPKValue	SPKRefVal	%REC	Limits	RPDRefVal	%RPD	RPDLimit	Qual

VOC (C6-C12)	571	50	644	0	89	75 - 105				
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Surrogate Recovery

Dibromofluoromethane	23.8		25		95	70 - 130				
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Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range



Quality Control Report

Client: Aqua Science Engineers, Inc.
Date Prepared: 10/13/15
Date Analyzed: 10/13/15
Instrument: GC11A, GC6A
Matrix: Water
Project: 2808; LIM

WorkOrder: 1510175
BatchID: 111437
Extraction Method: SW3510C/3630C
Analytical Method: SW8015B
Unit: µg/L
Sample ID: MB/LCS-111437

QC Report for SW8015B w/SG Clean-Up

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	1300	50	1000	-	130	59-151
TPH-Motor Oil (C18-C36)	ND	-	250	-	-	-	-
Surrogate Recovery							
C9	630	643		625	101	103	65-122



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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1510175

ClientCode: ASED

WaterTrax
 WriteOn
 EDF
 Excel
 EQulS
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:
 Robert Kitay
 Aqua Science Engineers, Inc.
 55 Oak Court Suite 220
 Danville, CA 94526
 (925) 820-9391 FAX: (925) 837-4853

Email: rkitay@aquascienceengineers.com
 cc/3rd Party:
 PO:
 ProjectNo: 2808; LIM

Bill to:
 Diane Schiell
 Aqua Science Engineers, Inc.
 217 Wild Flower Drive
 Roseville, CA 95678
 deezthng22@yahoo.com

Requested TAT: 5 days;

Date Received: 10/06/2015
Date Printed: 10/14/2015

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1510175-001	MW-1	Water	9/30/2015 12:45	<input type="checkbox"/>	A	A	B										
1510175-002	MW-2	Water	9/30/2015 9:10	<input type="checkbox"/>	A	A	B										
1510175-003	MW-3	Water	9/30/2015 8:00	<input type="checkbox"/>	A	A	B										
1510175-004	MW-4R	Water	9/30/2015 10:10	<input type="checkbox"/>	A	A	B										
1510175-005	MW-5	Water	9/30/2015 12:05	<input type="checkbox"/>	A	A	B										
1510175-006	MW-7	Water	9/30/2015 11:15	<input type="checkbox"/>	A	A	B										

Test Legend:

1	8260B_MBTEXOXPBSCV_W	2	8260GAS_W	3	TPH(D)WSG_W	4	
5		6		7		8	
9		10		11		12	

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A contain testgroup.

Prepared by: Jena Alfaro

Comments: No charge for TPH-d, extracted outside of HT

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



WORK ORDER SUMMARY

Client Name: AQUA SCIENCE ENGINEERS, INC.

QC Level: LEVEL 2

Work Order: 1510175

Project: 2808; LIM

Client Contact: Robert Kitay

Date Received: 10/6/2015

Comments:

Contact's Email: rkitay@aquascienceengineers.com

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1510175-001A	MW-1	Water	TPH(g) & BTEX & 5 Oxys+Lead Scav by 8260B	5	VOA w/ HCl	<input type="checkbox"/>	9/30/2015 12:45	5 days	1%+	<input type="checkbox"/>	
1510175-002A	MW-2	Water	TPH(g) & BTEX & 5 Oxys+Lead Scav by 8260B	5	VOA w/ HCl	<input type="checkbox"/>	9/30/2015 9:10	5 days	1%+	<input type="checkbox"/>	
1510175-003A	MW-3	Water	TPH(g) & BTEX & 5 Oxys+Lead Scav by 8260B	5	VOA w/ HCl	<input type="checkbox"/>	9/30/2015 8:00	5 days	Present	<input type="checkbox"/>	
1510175-004A	MW-4R	Water	TPH(g) & BTEX & 5 Oxys+Lead Scav by 8260B	5	VOA w/ HCl	<input type="checkbox"/>	9/30/2015 10:10	5 days	1%+	<input type="checkbox"/>	
1510175-005A	MW-5	Water	TPH(g) & BTEX & 5 Oxys+Lead Scav by 8260B	5	VOA w/ HCl	<input type="checkbox"/>	9/30/2015 12:05	5 days	1%+	<input type="checkbox"/>	
1510175-006A	MW-7	Water	TPH(g) & BTEX & 5 Oxys+Lead Scav by 8260B	5	VOA w/ HCl	<input type="checkbox"/>	9/30/2015 11:15	5 days	1%+	<input type="checkbox"/>	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

Chain of Custody

1510175

PAGE 1

SAMPLER (SIGNATURE)

Robert E. Kity

PROJECT NAME Lim

JOB NO. 2808

ADDRESS 250 8th Street, Oakland, CA

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

SAMPLE ID.	DATE	TIME	MATRIX	QUANTITY	TPH-GAS /MTBE & BTEX (EPA 5030/8015-8020)	TPH-DIESEL w/Silica (EPA 3510/8015) <i>Cleaning</i>	TPH-DIESEL & MOTOR OIL (EPA 3510/8015)	VOLATILE ORGANICS (EPA 624/8240/8260)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	ORGANOCHLORINATED HERBICIDES (EPA 8151A)	LUFT METALS (5) (EPA 6010+7000)	CAM 17 METALS (EPA 6010+7000)	PCBS (EPA 8082)	ORGANOCHLORINATED PESTICIDES (EPA 8081A)	FUEL OXYGENATES (EPA 8260)	Pb (TOTAL or DISSOLVED) (EPA 6010)	TPH-G, BTEX & 5 OXY's + Pb (EPA 8260) <i>Seal</i>	ARSENIC, LEAD & MERCURY (EPA 6010)	COMPOSITE	EDF	HOLD	
																						MW-1
MW-2		910				X											X				X	
MW-3		800				X											X				X	
MW-4R		1010				X											X				X	
MW-5		1205				X											X				X	
MW-7		1115				X											X				X	

RELINQUISHED BY:

Robert E. Kity

(signature) (time)

Robert E. Kity

(printed name) (date)

Company-ASE, INC.

RECEIVED BY:

B. YSLAS 1410

(signature) (time)

B. YSLAS 10/6/15

(printed name) (date)

Company-MAI

RELINQUISHED BY:

B. YSLAS 1520

(signature) (time)

B. YSLAS 10/6/15

(printed name) (date)

Company-MAI

RECEIVED BY LABORATORY:

[Signature] 1520

(signature) (time)

[Signature] 10/6/15

(printed name) (date)

Company-MAI

COMMENTS:

TURN AROUND TIME

STANDARD 24Hr 48Hr 72Hr

OTHER:

1.2



Sample Receipt Checklist

Client Name: **Aqua Science Engineers, Inc.** Date and Time Received: **10/6/2015 7:49:31 PM**
 Project Name: **2808; LIM** Login Reviewed by: **Jena Alfaro**
 WorkOrder No: **1510175** Matrix: Water Carrier: Benjamin Yslas (MAI Courier)

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Sample/Temp Blank temperature Temp: 1.2°C NA
 Water - VOA vials have zero headspace / no bubbles? Yes No NA
 Sample labels checked for correct preservation? Yes No
 pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes No NA
 Samples Received on Ice? Yes No

(Ice Type: WET ICE)

UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes No NA
 Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes No NA

* NOTE: If the "No" box is checked, see comments below.

 Comments: