

RECEIVED

3:16 pm, Apr 30, 2008

Alameda County
Environmental Health

**FIRST QUARTER 2008
GROUNDWATER MONITORING**

**ABE Petroleum LLC
17715 Mission Boulevard
Hayward, California 94539**

**Prepared for
Mr. Paul Garg
ABE Petroleum LLC**

**Prepared by
Sierra Environmental, Inc.**

**April 2, 2008
Project 03-103.00**

**April 2, 2008
Project 03-103.00**

**Mr. Paul Garg
ABE Petroleum LLC
33090 Mission Boulevard
Union City, California 94587**

Subject: Report for First Quarter 2008 Groundwater Monitoring, ABE Petroleum LLC, 17715 Mission Boulevard, Hayward, California

Dear Mr. Garg:

Sierra Environmental, Inc. (Sierra) is pleased to present this report summarizing the results for the first quarter 2008 groundwater monitoring at the subject location, hereafter, referred to as Site. Figure 1 shows the Site location. The groundwater monitoring was concurred by Alameda County Health Care Services (ACHCS) in a letter dated February 16, 2000, as result of gasoline impact to groundwater beneath the Site.

On March 13, 2008, Sierra obtained and recorded groundwater data, and collected groundwater samples from five (5) groundwater monitoring wells at and near the Site for chemical analysis. Sierra submitted the samples to Accutest/Entech Analytical Labs, Inc. (Entech) of Santa Clara, California for chemical analysis. Entech is an independent State-certified analytical laboratory (# 2346).

BACKGROUND

Please refer to Appendix A for Site's background information.

GROUNDWATER MONITORING

On March 13, 2008, Sierra performed the first quarter 2008 groundwater monitoring at the Site. Sierra's field personnel measured the groundwater levels at MW1, MW2, MW3, MW6, and MW7 (Figure 2) using an electronic sounder. Depth of groundwater was measured to the TOC. Groundwater levels were measured at approximately 17.46' to 21.34' feet below TOC with a westerly flow direction during this monitoring event. Table I presents the groundwater measurement data.

MW4 and MW5 were inaccessible due to route 238 expansion construction project.

Sierra's field personnel purged the wells using bailers. pH, temperature, and electrical conductivity of groundwater were recorded during the purging activities to affirm that groundwater in the wells have stabilized. After completion of the purging, groundwater samples MW-1, MW-2, MW-3, MW-6, and MW-7 were collected from the wells. After collection, the groundwater from each well was transferred into clean volatile organic analysis vials. The vials were sealed with Teflon-septum screw caps, labeled, placed on ice in a cooler, and delivered to Entech with chain-of-custody documentation.

All sampling and measurement equipment were washed with Liqui-Nox[®] (a phosphate free laboratory detergent), and rinsed with tap water at each measurement and sampling interval. Purged and wash water was stored in 55-gallon drums at a designated location at the Site. Sierra's quality assurance/quality control (QA/QC) protocol is presented in Appendix B.

CHEMICAL ANALYSIS

The samples were analyzed for TPHG using the United States Environmental Protection Agency (EPA) method 5030B/GC-MS. The samples were also analyzed for benzene, toluene, ethyl benzene, total xylenes (BTEX), and fuel oxygenates using EPA method 8260B. Copies of certified analytical results and chain-of-custody documentation are presented in Appendix C. Copies of the field notes are presented in Appendix D.

ANALYTICAL RESULTS

Table II presents Summary of the analytical results.

CONCLUSION AND RECOMMENDATIONS

No gasoline constituents were detected in offsite monitoring well MW6 and MW7. Concentrations of the gasoline constituents in the groundwater samples collected from the onsite wells remain high. Sierra recommends performing feasibility study and preparing remedial action plan for the Site.

LIMITATIONS

The content and conclusion provided by Sierra in this report are based on information collected during its assessment/monitoring, which include, but are not limited to field observations and analytical results for the groundwater samples collected at the Site. Sierra assumes that the samples collected and laboratory results are reasonably representative of the whole Site, which may not be the case at unsampled areas. This assessment/monitoring was performed in accordance with generally accepted principles and practices of environmental engineering and assessment in Northern California at the time of the work. This report presents our professional opinion based on our findings, technical knowledge, and experience working on similar projects. No warranty, either expressed or implied, is made. The conclusions presented are based on the analytical results and current regulatory requirements. We are not responsible for the impact of any changes in environmental standards or regulations in the future.

Please feel welcome to call us if you have questions.

Very Truly Yours,
Sierra Environmental, Inc.



Reza Baradaran, PE, GE
Principal

A large, stylized handwritten signature in black ink, appearing to read "Mitch Hajiaghai".

Mitch Hajiaghai, REA II, CAC
Principal

APR 4 - 2008
[Handwritten initials]

- Attachments:
- Table I - Groundwater Elevation Data
 - Table II - Analytical Results for Groundwater Samples
 - Figure 1 - Site Location Map
 - Figure 2 - Groundwater Monitoring Well Locations
 - Appendix A - Background Information
 - Appendix B - QA/QC Protocol
 - Appendix C - Certified Analytical Results and Chain-of-Custody Documentation
 - Appendix D - Field Notes

cc: Ms. Donna Drogos ACHCS (1 Copy)

**TABLE I
GROUNDWATER ELEVATION DATA**

Well ID	Measurement Date	Well Casing Diameter (in)	Well Casing Elevation (ft)	Depth to ¹ Water (ft)	Water Table ² Elevation (ft)
MW1	8-18-00	2	99.46	20.32	79.14
	3-30-01			20.30	79.16
	6-22-01			21.91	77.55
	9-20-01			23.56	75.90
	12-27-01			22.59	76.87
	9-24-02			23.69	75.77
	12-17-02			22.75	76.71
	4-2-03			21.15	78.31
	6-12-03			20.64	78.82
	9-29-03			22.95	76.51
	12-04-03			23.70	75.76
	03-09-04			19.80	79.66
	6-24-04			21.44	78.02
	9-09-04			23.30	76.16
	12-21-04			22.92	76.54
	3-16-05			18.99	80.47
	6-09-05			20.02	79.44
	9-22-05			20.69	78.77
	12-07-05			21.90	77.56
	3-10-06			17.85	81.61
	6-7-06			15.91	43.59
	9-11-06			18.60	40.90
	12-13-06			20.05	39.45
	3-12-07			19.47	40.03
	6-6-07			21.11	38.39
	9-6-07			22.61	36.89
	12-14-07	23.50	36.00		
3-13-08	20.09	39.41			
			59.50		

**TABLE I
GROUNDWATER ELEVATION DATA
(CONTINUED)**

Well ID	Measurement Date	Well Casing Diameter (in)	Well Casing Elevation (ft)	Depth to Water (ft)	Water Table Elevation (ft)
MW2	8-18-00	2	100.58	21.55	79.03
	3-30-01			21.55	79.03
	6-22-01			23.15	77.43
	9-20-01			24.78	75.80
	12-27-01			23.82	76.76
	9-24-02			24.89	75.69
	12-17-02			23.99	76.59
	4-2-03			22.32	78.26
	6-12-03			21.84	78.74
	9-29-03			24.15	76.43
	12-04-03			24.91	75.67
	03-09-04			21.05	79.53
	6-24-04			22.95	77.63
	9-09-04			24.55	76.03
	12-21-04			24.21	76.37
	3-16-05			20.29	80.29
	6-09-05			21.68	78.90
	9-22-05			21.98	78.60
	12-7-05			23.22	77.36
	3-10-06	19.15	81.43		
	6-7-06	17.31	43.30		
	9-11-06	19.99	40.62		
	12-13-06	21.48	39.13		
3-12-07	20.71	39.90			
6-6-07	22.33	38.28			
9-6-07	23.85	36.76			
12-14-07	24.71	35.90			
3-13-08	21.34	39.27			

**TABLE I
GROUNDWATER ELEVATION DATA
(CONTINUED)**

Well ID	Measurement Date	Well Casing Diameter (in)	Well Casing Elevation (ft)	Depth to Water (ft)	Water Table Elevation (ft)
MW3	8-18-00	2	99.69	20.68	79.01
	3-30-01			20.68	79.01
	6-22-01			22.31	77.38
	9-20-01			23.92	75.77
	12-27-01			22.95	76.74
	9-24-02			24.03	75.66
	12-17-02			23.09	76.60
	4-2-03			21.46	78.23
	6-12-03			20.99	78.70
	9-29-03			23.30	76.39
	12-04-03			24.05	75.64
	03-09-04			20.20	79.49
	6-24-04			22.11	77.58
	9-09-04			20.20	79.49
	12-21-04			23.35	76.34
	3-16-05			19.43	80.26
	6-09-05			20.47	79.22
	9-22-05			21.13	78.56
	12-7-05			22.36	77.33
	3-10-06			18.30	81.39
	6-7-06		16.47	43.26	
	9-11-06		19.13	40.60	
	12-13-06		20.66	39.07	
	3-12-07		19.88	39.85	
	6-6-07		21.48	38.25	
	9-6-07		22.99	36.74	
	12-14-07		23.85	35.88	
3-13-08	20.47	39.26			
			59.73		

**TABLE I
GROUNDWATER ELEVATION DATA
(CONTINUED)**

Well ID	Measurement Date	Well Casing Diameter (in)	Well Casing Elevation (ft)	Depth to Water (ft)	Water Table Elevation (ft)
MW4	6-7-06	2	59.29	15.71	43.58
	9-11-06			18.40	40.89
	12-13-06			19.64	39.65
	3-12-07			19.13	40.16
	6-6-07			N/A ³	N/A
	9-6-07			N/A	N/A
	12-14-08			N/A	N/A
	3-13-08			N/A	N/A
MW5	6-7-06	2	56.31	13.35	42.96
	9-11-06			15.99	40.32
	12-13-06			17.45	38.86
	3-12-07			16.68	39.63
	6-6-07			N/A	N/A
	9-6-07			N/A	N/A
	12-14-08			N/A	N/A
	3-13-08			N/A	N/A
MW6	6-7-06	2	56.63	13.64	42.99
	9-11-06			16.25	40.38
	12-13-06			17.72	38.91
	3-12-07			16.95	39.68
	6-6-07			18.47	38.16
	9-6-07			19.96	36.67
	12-14-07			20.81	35.82
	3-13-08			17.46	39.17
MW7	6-7-06	2	57.50	14.50	43.00
	9-11-06			17.12	40.38
	12-13-06			18.58	38.92
	3-12-07			17.81	39.69
	6-6-07			19.32	38.18
	9-6-07			20.87	36.63
	12-14-07			21.30	36.20
	3-13-08			18.34	39.16

1. Depths to groundwater were measured to the top of the well casings
2. Water table elevations were measured in relation to mean sea level (MSL)
3. N/A = Not Accessible

**TABLE II
ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES**

Sample ID	Sample Date	Sample Location	TPHG ¹ µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MTBE ² µg/L
MW-1	8-18-00	MW1	280,000	10,000	16,000	11,000	49,000	4,000
*	3-30-01		98,000	8,600	14,000	6,300	26,000	7,600
*	6-22-01		110,000	7,500	12,000	5,700	24,000	3,800
*	9-20-01		93,000	8,700	11,000	6,300	27,000	4,600
*	12-27-01		140,000	7,700	11,000	6,500	28,000	7,700
*	9-24-02		110,000	4,600	4,000	4,000	18,000	3,400
*	12-17-02		110,000	6,600	6,700	5,400	23,000	2,900
*	4-2-03		89,000	4,800	6,000	4,600	20,000	5,900
*	6-12-03		69,000	4,100	4,300	3,900	17,000	4,700
*	9-29-03		96,000	7,000	7,700	5,100	22,000	6,200
*	12-04-03		110,000	5,800	5,900	4,300	18,000	4,500
*	03-09-04		130,000	5,900	9,700	4,900	22,000	6,000
*	6-24-04		48,000	5,800	7,500	4,000	18,000	4,000
*	9-09-04		64,000	4,800	7,500	4,500	19,000	2,200
*	12-21-04		53,000	4,800	6,000	3,600	15,000	2,600
*	3-16-05		82,000	4,000	8,600	3,900	18,000	4,300
*	6-09-05		52,000	3,600	6,400	3,300	17,000	3,500
*	9-22-05		62,000	3,500	5,400	3,900	17,000	2,100
*	12-7-05		40,000	3,300	7,500	3,700	18,000	2,500
*	3-10-06		53,000	3,600	6,900	4,000	18,000	3,300
*	6-07-06		57,000	4,200	12,000	3,700	16,000	3,900
*	9-11-06		120,000	3,600	9,500	5,200	23,000	3,000
*	12-13-06		21,000	2,600	8,400	4,300	20,000	1,200
*	3-12-07		96,000	2,300	5,600	5,900	26,000	1,400
*	6-6-07		58,000	2,000	3,400	3,900	16,000	1,500
*	9-6-07		84,000	3,000	4,300	6,000	25,000	2,300
*	12-14-07		55,000	2,500	2,400	4,400	18,000	1,900
*	3-13-08		80,000	2,400	5,400	4,700	22,000	2,000

**TABLE II
ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES
(CONTINUED)**

Sample ID	Sample Date	Sample Location	TPHG µg/L	Benzene µg/L	Toluene µg/L	Ethyl benzene µg/L	Xylenes µg/L	MTBE µg/L
MW-2	8-18-00	MW2	290,000	3700	990	7,300	26,000	ND ³
*	3-30-01		47,000	3,200	470	4,500	13,000	3,100
*	6-22-01		57,000	2,500	350	4,200	12,000	1,800
*	9-20-01		42,000	2,300	230	4,300	12,000	2,200
*	12-27-01		70,000	2,900	390	4,800	14,000	2,400
*	9-24-02		110,000	1,600	200	3,400	9,100	2,500
*	12-17-02		66,000	2,400	340	4,600	13,000	1,900
*	4-2-03		29,000	1,000	130	2,300	5,100	2,000
*	6-12-03		8,700	380	52	790	2,000	2,200
*	9-29-03		52,000	1,700	200	4,500	9,800	2,300
*	12-04-03		66,000	1,500	210	4,500	9,200	1,900
*	03-09-04		61,000	1,500	2,000	4,200	8,500	2,200
*	6-24-04		29,000	1,200	72	3,100	6,000	2,100
*	9-09-04		37,000	1,600	110	4,000	8,500	3,100
*	12-21-04		27,000	1,400	84	3,100	5,400	3,200
*	3-16-05		54,000	1,700	140	4,500	8,900	4,000
*	6-09-05		2,800	420	ND ³	180	51	930
*	9-22-05		33,000	1,400	ND	3,400	5,700	2,200
*	12-7-05		20,000	1,600	130	3,400	6,000	3,000
*	3-10-06		34,000	2,100	170	4,200	7,500	4,400
*	6-07-06		29,000	2,400	250	3,600	5,100	3,200
*	9-11-06		32,000	1,100	140	2,400	3,500	1,600
*	12-13-06		36,000	1,400	220	3,400	4,900	1,900
*	3-12-07		36,000	1,200	250	3,800	5,700	1,800
*	6-6-07		24,000	1,100	170	3,000	4,200	1,400
*	9-6-07		44,000	1,600	290	5,700	6,800	1,900
*	12-14-07		28,000	1,200	160	3,600	3,700	1,500
*	3-13-08		47,000	1,100	190	5,800	7,500	1,200

**TABLE II
ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES
(CONTINUED)**

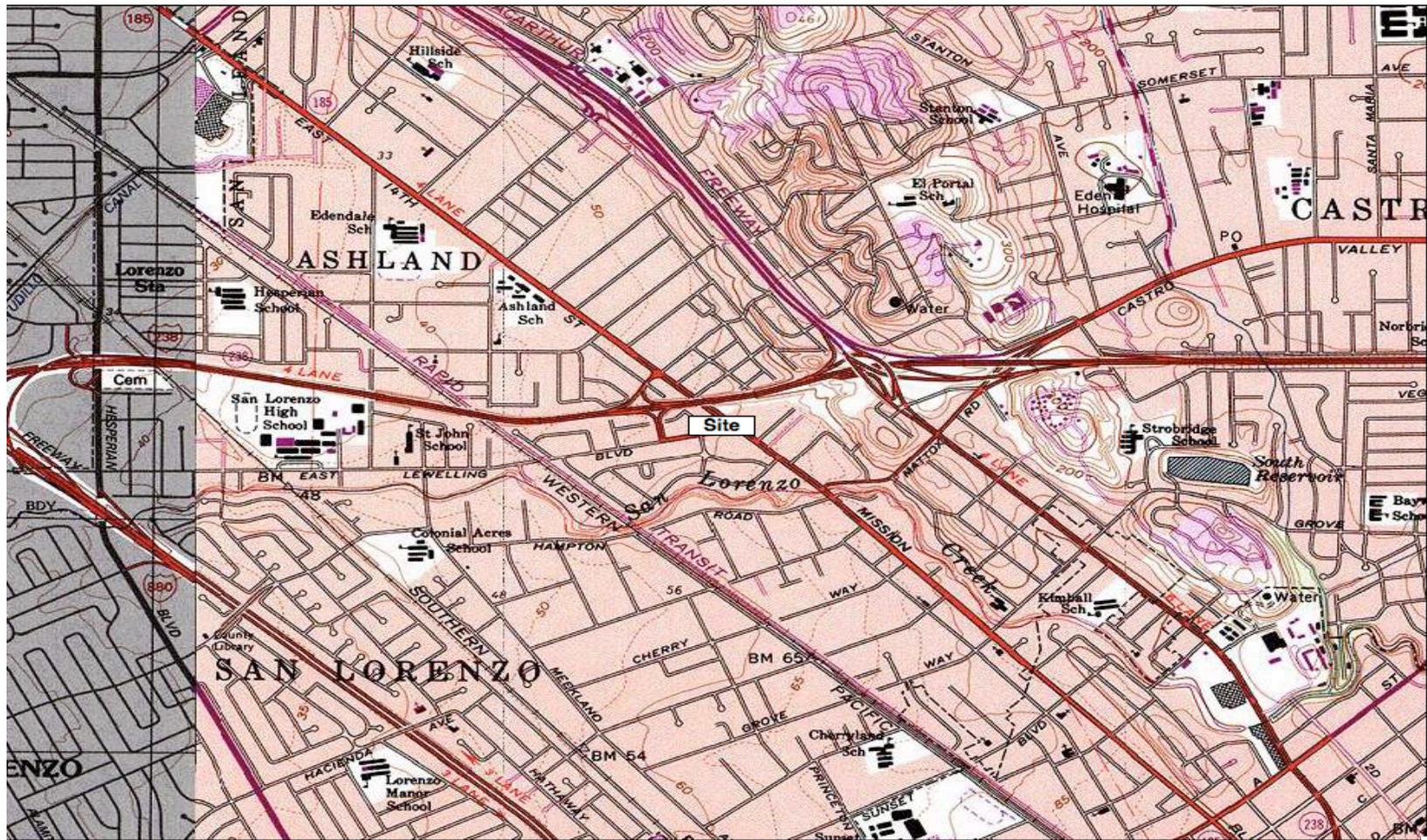
Sample ID	Sample Date	Sample Location	TPHG µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MTBE µg/L
MW-3	8-18-00	MW3	46,000	3,200	550	3,700	14,000	2,200
*	3-30-01		30,000	3,300	340	2,800	9,100	4,700
*	6-22-01		35,000	4,000	340	2,900	7,600	4,100
*	9-20-01		30,000	3,800	260	2,500	6,600	5,300
*	12-27-01		39,000	4,400	340	3,000	6,700	5,500
*	9-24-02		53,000	4,100	270	3,100	6,600	6,400
*	12-17-02		40,000	3,600	240	2,200	5,700	5,200
*	4-2-03		24,000	2,000	130	1,800	3,300	3,000
*	6-12-03		26,000	2,700	180	2,000	4,200	5,500
*	9-29-03		39,000	4,000	220	3,200	5,300	4,800
*	12-04-03		40,000	3,200	180	2,200	4,300	4,400
*	03-09-04		39,000	3,100	160	2,100	4,400	4,000
*	6-24-04		21,000	3,000	110	2,300	3,800	3,400
*	9-09-04		26,000	4,100	140	2,200	4,300	6,000
*	12-21-04		20,000	3,400	99	1,700	2,900	6,400
*	3-16-05		35,000	1,800	78	1,900	2,600	4,000
*	6-09-05		2,000	55	ND	120	30	150
*	9-22-05		17,000	2,000	69	1,500	1,900	3,500
*	12-7-05		11,000	1,800	62	1,500	1,700	2,300
*	3-10-06		9,100	1,100	24	990	810	1,300
*	6-07-06		3,000	440	16	180	450	320
*	9-11-06		17,000	1,300	38	1,000	1,600	690
*	12-13-06		13,000	1,200	ND	1,000	1,300	520
*	3-12-07		120,000	10,000	210	11,000	11,000	ND
*	6-6-07		13,000	1,200	19	1,100	1,100	590
*	9-6-07		22,000	1,900	32	2,000	1,600	1,000
*	12-14-07		16,000	1,400	23	1,200	1,300	600
*	3-13-08		10,000	870	ND	1,000	670	420

**TABLE II
ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES
(CONTINUED)**

Sample ID	Sample Date	Sample Location	TPHG µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MTBE µg/L
MW-4 * * * *	6-7-06	MW4	<25	<0.5	<0.5	<0.5	<0.5	<1
	9-11-06		<25	<0.5	<0.5	<0.5	<0.5	<1
	12-13-06		<25	<0.5	<0.5	<0.5	<0.5	<1
	3-12-07		<25	<0.5	<0.5	<0.5	<0.5	<1
	6-6-07		NS ³	NS	NS	NS	NS	NS
	9-6-07		NS	NS	NS	NS	NS	NS
	12-14-07		NS	NS	NS	NS	NS	NS
	3-13-08		NS	NS	NS	NS	NS	NS
MW-5 * * * *	6-7-06	MW5	<25	<0.5	<0.5	<0.5	<0.5	<1
	9-11-06		<25	<0.5	<0.5	<0.5	<0.5	<1
	12-13-06		<25	<0.5	<0.5	<0.5	<0.5	<1
	3-12-07		<25	<0.5	<0.5	<0.5	<0.5	<1
	6-6-07		NS	NS	NS	NS	NS	NS
	9-6-07		NS	NS	NS	NS	NS	NS
	12-14-07		NS	NS	NS	NS	NS	NS
	3-13-08		NS	NS	NS	NS	NS	NS
MW-6 * * * * * * *	6-7-06	MW6	<25	<0.5	<0.5	<0.5	<0.5	<1
	9-11-06		<25	<0.5	<0.5	<0.5	<0.5	<1
	12-13-06		<25	<0.5	<0.5	<0.5	<0.5	<1
	3-12-07		<25	<0.5	<0.5	<0.5	<0.5	<1
	6-6-07		<25	<0.5	<0.5	<0.5	<0.5	<1
	9-6-07		<25	<0.5	<0.5	<0.5	<0.5	<1
	12-14-07		<25	<0.5	<0.5	<0.5	<0.5	<1
	3-13-08		<25	<0.5	<0.5	<0.5	<0.5	<1
MW-7 * * * * * * *	6-7-06	MW7	<25	<0.5	<0.5	<0.5	<0.5	<1
	9-11-06		<25	<0.5	<0.5	<0.5	<0.5	<1
	12-13-06		<25	<0.5	<0.5	<0.5	<0.5	<1
	3-12-07		27	<0.5	<0.5	<0.5	<0.5	<1
	6-6-07		<25	<0.5	<0.5	<0.5	<0.5	<1
	9-6-07		<25	<0.5	<0.5	<0.5	<0.5	<1
	12-14-07		<25	<0.5	<0.5	<0.5	<0.5	<1
	3-13-08		<25	<0.5	<0.5	<0.5	<0.5	<1

NOTE: 830 µg/L tert-Butanol (TBA) was also detected in sample MW-3.

1. TPHG = Total Petroleum Hydrocarbons as Gasoline
 2. MTBE = Methyl Tertiary Butyl Ether
 3. NS = Not Sampled
- * The Sample was analyzed for Fuel Oxygenates using EPA Method 8260B. Analytical result is for MTBE



TN \star MN
15°

0 1000 FEET 0 500 1000 METERS
0 5 1 MILE

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



SIERRA ENVIRONMENTAL, INC.
Environmental Consultants

980 W. Taylor Street, San Jose, CA 95126
Phone [408] 971-6758 • Fax [408] 971-6759

SITE LOCATION MAP

**First Quarter 2008 Groundwater Monitoring Report
ABE Petroleum LLC**

17715 Mission Boulevard • Hayward • California

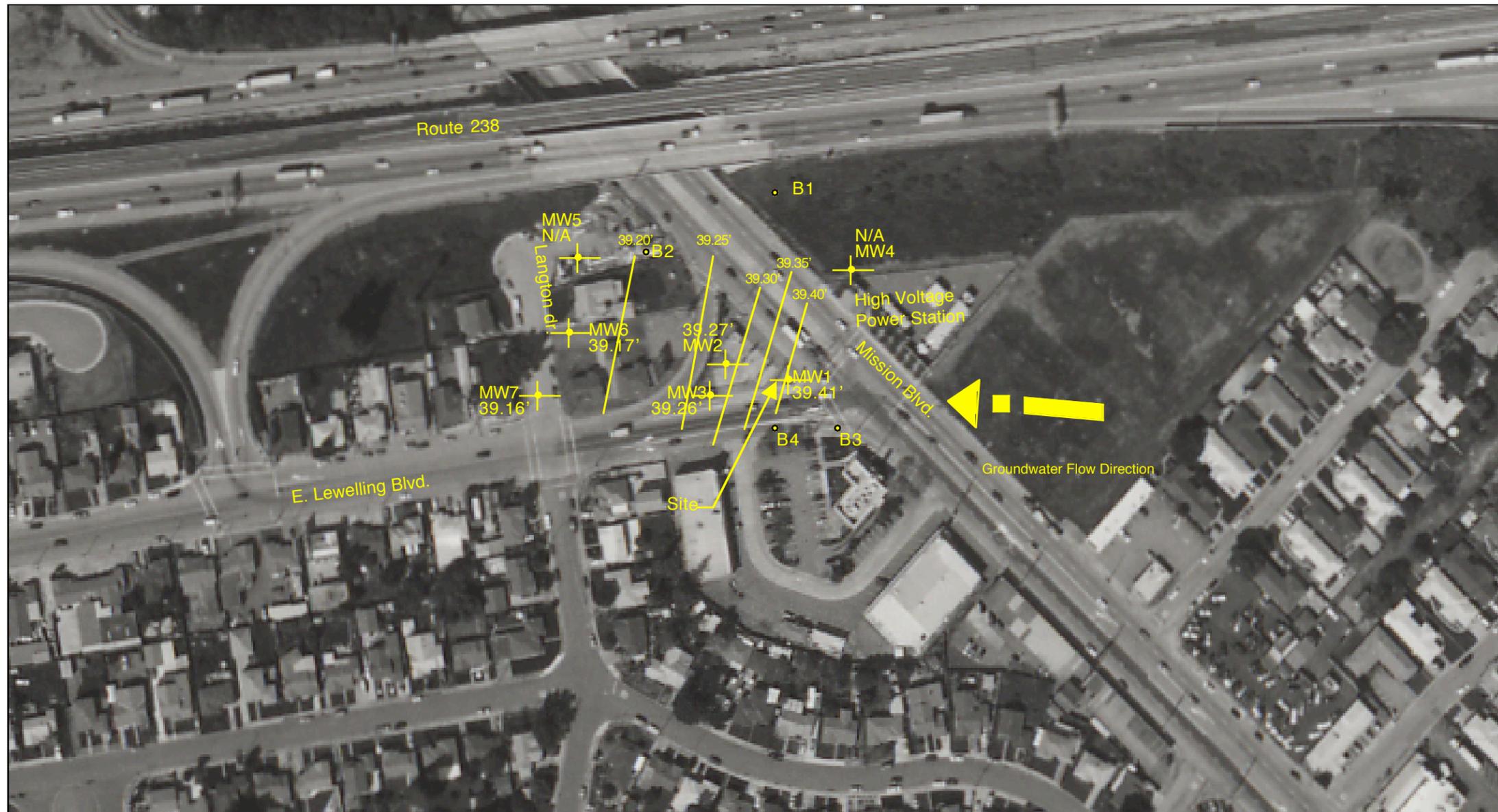
FIGURE

1

April 2, 2008
Project 03-103.00

LEGEND

- B1 Historical Soil Boring Location And Designation
- ✦ MW4 Groundwater Monitoring Well Location And Designation
- N/A Not Accessible



Source: Pacific Aerial Surveys 3-11-05

Approximate 0' 150' 300'



SIERRA ENVIRONMENTAL, INC.

Environmental Consultants

980 W. Taylor Street, San Jose, CA 95126
Phone [408]971-6758 • Fax [408]971-6759

On-Site & Off-Site Monitoring Well and Boring Locations

**First Quarter 2008 Groundwater Monitoring
ABE PETROLEUM LLC**

17715 Mission Boulevard - Hayward - California

FIGURE

2

April 2, 2008
Project 03-103.00

Appendix A
BACKGROUND INFORMATION

BACKGROUND

On September 16, 1997, Balch Petroleum Contractors & Builders, Inc. (Balch) of Milpitas, California, removed one 2,000-gallon, two 6,000-gallon, one 10,000-gallon single-wall steel gasoline, and one 500-gallon single-wall steel waste oil USTs from the Site. Former UST locations are shown in Figure A of this appendix.

No hole or damage was observed in the tanks. No groundwater was encountered in the tank excavations. After UST removal, Sierra collected soil samples from the tank excavations for chemical analysis.

Up to 2,300 parts per million (ppm) total petroleum hydrocarbons as gasoline (TPHG) was detected in the soil samples collected from beneath the tanks at approximately 14 feet below ground surface (bgs). The soil sample locations are shown in Figure A.

On August 14, 2000, Sierra drilled three exploratory soil borings and converted them to groundwater monitoring well MW1 through MW3. The wells are approximately 35 feet deep. Sierra collected soil and groundwater samples from the borings/wells for chemical analysis. The analytical results showed up to 720 ppm TPHG, 2.2 ppm benzene, and 3.4 ppm methyl tertiary butyl ether (MTBE) in the soil samples. Up to 290000 ppb TPHG, 10000 ppb benzene, and 4300 ppb MTBE were detected in the groundwater samples. Gasoline constituents were detected in groundwater samples collected from all three monitoring wells. Groundwater monitoring well locations are shown on Figure 2.

Starting March 30, 2001, Sierra performed quarterly groundwater monitoring at the Site. The field and analytical results are presented in Table I and II.

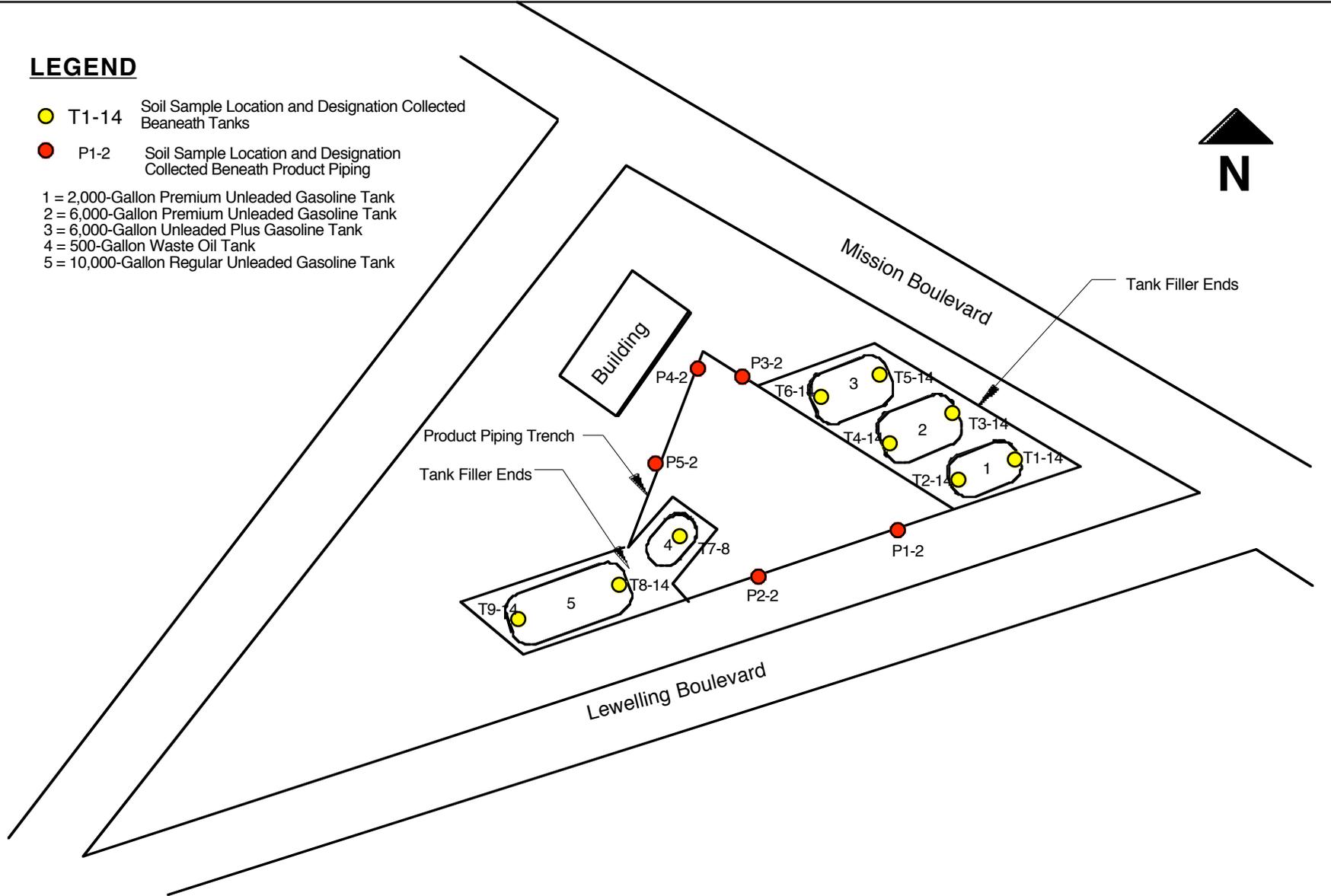
On May 4, 2006, Sierra retained services of Vironex Environmental Services (Vironex) to drill soil boring B1 through B4 at the Jack In The Box and Cal/Trans properties. Sierra collected grab groundwater samples from the borings for chemical analysis. Up to 370 $\mu\text{g/l}$ total petroleum hydrocarbons as gasoline (TPHG), 16 $\mu\text{g/l}$ toluene, 15 $\mu\text{g/l}$ ethylbenzene, and 100 $\mu\text{g/l}$ xylenes were detected in the water sample collected from the borings (B3 and B4) advanced at the Jack In The Box property. No benzene or MTBE was detected in water samples collected at this property. 3.2 $\mu\text{g/l}$ MTBE was detected in the water samples collected from the borings advanced at the Cal/Trans properties. The MTBE was detected in boring B2 located within 300 feet northwest at hydraulic down gradient of the Site. On May 10 and 11, 2006, Sierra retained services of Hew Drilling Company, Inc. (Hew) to construct 4 groundwater monitoring wells (MW4 through MW7) at the CalTrans properties, and Langton Drive. After the well construction, Sierra had the wellheads surveyed, developed the wells, and collected groundwater samples from the wells for chemical analysis. No gasoline constituents were detected in the groundwater samples collected from the wells. The analytical results for the soil and groundwater samples collected from the boring and the wells suggest the tip of the dissolved MTBE plume in the groundwater is confined within 300 feet northwest of the Site. The length of the dissolved plume of other gasoline

constituents in groundwater is shorter than the MTBE plume. Figure 2 shows the groundwater monitoring well locations.

On September 11, 2006, Sierra started quarterly groundwater monitoring of MW1 through MW7. Table I and II presents the groundwater measurement and analytical data.

LEGEND

- T1-14 Soil Sample Location and Designation Collected Beneath Tanks
 - P1-2 Soil Sample Location and Designation Collected Beneath Product Piping
- 1 = 2,000-Gallon Premium Unleaded Gasoline Tank
 2 = 6,000-Gallon Premium Unleaded Gasoline Tank
 3 = 6,000-Gallon Unleaded Plus Gasoline Tank
 4 = 500-Gallon Waste Oil Tank
 5 = 10,000-Gallon Regular Unleaded Gasoline Tank



Approximate Scale: 1" = 30'



SIERRA ENVIRONMENTAL, INC.
Environmental Consultants

980 W. Taylor St., San Jose, CA 95126
 Phone [408]971-6758 • Fax [408] 971-6759

Former UST and Soil Sample Locations

**First Quarter 2008 Groundwater Monitoring
 ABE Petroleum LLC**

17715 Mission Boulevard • Hayward • California

FIGURE

A

April 2, 2008
 Project 03-103.00

Appendix B
QA/QC PROTOCOL

QA/QC PROTOCOL

Groundwater Level and Well Depth Measurements

Groundwater level and well depths are measured using electrical sounder. An electrical sounder consists of a reel, two-conductor cable, a water sensor, and a control panel with a buzzer. To measure groundwater level, the sensor is lowered into a well. A low current circuit is completed when the sensor makes contact with water. The current in the circuit is then amplified and activates a buzzer which produce an audible signal. Cable markings are divided at 0.05-foot increments. Well depths are measured to the nearest 0.01 foot. Groundwater levels are measured before and after sample collection to ensure data accuracy.

Well Purging

Low flow submersible electrical pumps or bailers are used to purge groundwater monitoring wells. Approximately 3 to 5 well casing volume of water is removed from the well as a measure to stabilize natural, and representative groundwater in each well. pH, electrical conductivity, and temperature of the purged water is measured and recorded at approximately each casing volume interval. Purge water is stabilized when pH is recorded within 0.5 unit, electrical conductivity is within 5 percent, and temperature is within 1.0 degree Celsius.

Groundwater Sampling

Groundwater samples are transferred into appropriate containers provided by certified analytical laboratories. The containers include proper preservatives, and labels with appropriate project information. Groundwater is transferred into the containers with as little agitation as possible. After collection, containers are sealed and checked to ensure that no head space or air bubbles are present in the sample.

After collection, if required, samples are kept in a cooler to be delivered to analytical laboratory with chain-of-custody documentation.

Equipment Decontamination

All sampling equipment are washed with Liqui-Nox[®] (a phosphate free laboratory detergent), and rinsed with tap water before each sampling event, and at each sampling interval. To reduce the risk of cross contamination, wells which have shown lower levels of contamination historically are purged and sampled first.

Analytical Procedures

Samples are analyzed by an accredited State-certified analytical laboratory using procedures prescribed by United State Environmental Protection Agency (EPA) and other Federal, State, and Local agencies. At minimum a field blank is analyzed with each group of samples for quality assurance measures. At minimum two qualified personnel review analytical results and compare them with historical data for consistency and accuracy.

Field Reports

All field observations are documented in field reports. A field report contain project information, climatic condition, contractor/subcontractor information, field observation, discussions and communications during each particular field activity. Field reports are stored in appropriate project files. Project managers review field reports to obtain necessary information regarding the status of each project on daily basis.

Appendix C
CERTIFIED ANALYTICAL REPORTS AND
CHAIN-OF-CUSTODY DOCUMENTATION

Mitch Hajiaghai
Sierra Environmental, Inc.
980 West Taylor Street
San Jose, CA 95126

Lab Order Number: C0189
Issued: 03/27/2008

Project Number: 03-103.00
Project Name: ABE Petroleum
Project Location: 17715 Mission Blvd

Global ID: T0600102154

Certificate of Analysis - Final Report

On March 13, 2008, samples were received under chain of custody for analysis.
Entech analyzes samples "as received" unless otherwise noted. The following results are included:

<u>Matrix</u>	<u>Test / Comments</u>
Liquid	VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater Electronic Deliverables for Geotracker TPH-Purgeable - GC/MS: EPA 5030B / GC/MS

Entech Analytical Labs, Inc. is certified for environmental analyses by the State of California (#2346).
Subcontracted work is the responsibility of the subcontract laboratory, this includes turn-around-time and data quality.
If you have any questions regarding this report, please call us at 408-588-0200 ext. 225.

Sincerely,



Laurie Glantz-Murphy
Laboratory Director



Northern California

3334 Victor Court, Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Sierra Environmental, Inc.
 980 West Taylor Street
 San Jose, CA 95126
 Attn: Mitch Hajiaghai

Project Number: 03-103.00
 Project Name: ABE Petroleum
 Project Location: 17715 Mission Blvd
 GlobalID: T0600102154

Certificate of Analysis - Data Report

Samples Received: 03/13/2008
 Sample Collected by: Client

Lab #: C0189-001 Sample ID: MW-1 Matrix: Liquid Sample Date: 3/13/2008 12:40 PM

VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	2400		200	100	µg/L	N/A	N/A	3/26/2008	WM7080326
Toluene	5400		200	100	µg/L	N/A	N/A	3/26/2008	WM7080326
Ethyl Benzene	4700		200	100	µg/L	N/A	N/A	3/26/2008	WM7080326
Xylenes, Total	22000		200	100	µg/L	N/A	N/A	3/26/2008	WM7080326
Methyl-t-butyl Ether	2000		200	200	µg/L	N/A	N/A	3/26/2008	WM7080326
tert-Butyl Ethyl Ether	ND		200	1000	µg/L	N/A	N/A	3/26/2008	WM7080326
tert-Butanol (TBA)	ND		200	2000	µg/L	N/A	N/A	3/26/2008	WM7080326
Diisopropyl Ether	ND		200	1000	µg/L	N/A	N/A	3/26/2008	WM7080326
tert-Amyl Methyl Ether	ND		200	1000	µg/L	N/A	N/A	3/26/2008	WM7080326

Surrogate	Surrogate Recovery	Control Limits (%)	
4-Bromofluorobenzene	96.7	60	- 130
Dibromofluoromethane	97.4	60	- 130
Toluene-d8	101	60	- 130

Analyzed by: Bela
 Reviewed by: MaiChiTu

TPH-Purgeable - GC/MS: EPA 5030B / GC/MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	80000		200	5000	µg/L	N/A	N/A	3/26/2008	WM7080326

Surrogate	Surrogate Recovery	Control Limits (%)	
4-Bromofluorobenzene	101	60	- 130
Dibromofluoromethane	102	60	- 130
Toluene-d8	102	60	- 130

Analyzed by: Bela
 Reviewed by: MaiChiTu



Northern California

3334 Victor Court, Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Sierra Environmental, Inc.
 980 West Taylor Street
 San Jose, CA 95126
 Attn: Mitch Hajiaghai

Project Number: 03-103.00
 Project Name: ABE Petroleum
 Project Location: 17715 Mission Blvd
 GlobalID: T0600102154

Certificate of Analysis - Data Report

Samples Received: 03/13/2008
 Sample Collected by: Client

Lab #: C0189-002 Sample ID: MW-2 Matrix: Liquid Sample Date: 3/13/2008 12:20 PM

VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	1100		100	50	µg/L	N/A	N/A	3/26/2008	WM7080326
Toluene	190		100	50	µg/L	N/A	N/A	3/26/2008	WM7080326
Ethyl Benzene	5800		100	50	µg/L	N/A	N/A	3/26/2008	WM7080326
Xylenes, Total	7500		100	50	µg/L	N/A	N/A	3/26/2008	WM7080326
Methyl-t-butyl Ether	1200		100	100	µg/L	N/A	N/A	3/26/2008	WM7080326
tert-Butyl Ethyl Ether	ND		100	500	µg/L	N/A	N/A	3/26/2008	WM7080326
tert-Butanol (TBA)	ND		100	1000	µg/L	N/A	N/A	3/26/2008	WM7080326
Diisopropyl Ether	ND		100	500	µg/L	N/A	N/A	3/26/2008	WM7080326
tert-Amyl Methyl Ether	ND		100	500	µg/L	N/A	N/A	3/26/2008	WM7080326

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	95.3	60 - 130
Dibromofluoromethane	93.3	60 - 130
Toluene-d8	98.6	60 - 130

Analyzed by: Bela
 Reviewed by: MaiChiTu

TPH-Purgeable - GC/MS: EPA 5030B / GC/MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	47000		100	2500	µg/L	N/A	N/A	3/26/2008	WM7080326

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	99.2	60 - 130
Dibromofluoromethane	96.0	60 - 130
Toluene-d8	99.0	60 - 130

Analyzed by: Bela
 Reviewed by: MaiChiTu



Northern California

3334 Victor Court, Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Sierra Environmental, Inc.
 980 West Taylor Street
 San Jose, CA 95126
 Attn: Mitch Hajiaghai

Project Number: 03-103.00
 Project Name: ABE Petroleum
 Project Location: 17715 Mission Blvd
 GlobalID: T0600102154

Certificate of Analysis - Data Report

Samples Received: 03/13/2008
 Sample Collected by: Client

Lab #: C0189-003 Sample ID: MW-3 Matrix: Liquid Sample Date: 3/13/2008 11:40 AM

VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	870		20	10	µg/L	N/A	N/A	3/26/2008	WM7080326
Toluene	ND		20	10	µg/L	N/A	N/A	3/26/2008	WM7080326
Ethyl Benzene	1000		20	10	µg/L	N/A	N/A	3/26/2008	WM7080326
Xylenes, Total	670		20	10	µg/L	N/A	N/A	3/26/2008	WM7080326
Methyl-t-butyl Ether	420		20	20	µg/L	N/A	N/A	3/26/2008	WM7080326
tert-Butyl Ethyl Ether	ND		20	100	µg/L	N/A	N/A	3/26/2008	WM7080326
tert-Butanol (TBA)	830		20	200	µg/L	N/A	N/A	3/26/2008	WM7080326
Diisopropyl Ether	ND		20	100	µg/L	N/A	N/A	3/26/2008	WM7080326
tert-Amyl Methyl Ether	ND		20	100	µg/L	N/A	N/A	3/26/2008	WM7080326

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	93.2	60 - 130
Dibromofluoromethane	94.4	60 - 130
Toluene-d8	96.1	60 - 130

Analyzed by: Bela
 Reviewed by: MaiChiTu

TPH-Purgeable - GC/MS: EPA 5030B / GC/MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	10000		20	500	µg/L	N/A	N/A	3/26/2008	WM7080326

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	97.0	60 - 130
Dibromofluoromethane	98.9	60 - 130
Toluene-d8	96.4	60 - 130

Analyzed by: Bela
 Reviewed by: MaiChiTu



Northern California

3334 Victor Court, Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Sierra Environmental, Inc.
 980 West Taylor Street
 San Jose, CA 95126
 Attn: Mitch Hajiaghai

Project Number: 03-103.00
 Project Name: ABE Petroleum
 Project Location: 17715 Mission Blvd
 GlobalID: T0600102154

Certificate of Analysis - Data Report

Samples Received: 03/13/2008
 Sample Collected by: Client

Lab #: C0189-004 Sample ID: MW-6 Matrix: Liquid Sample Date: 3/13/2008 11:20 AM

VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		1.0	0.50	µg/L	N/A	N/A	3/26/2008	WM7080326
Toluene	ND		1.0	0.50	µg/L	N/A	N/A	3/26/2008	WM7080326
Ethyl Benzene	ND		1.0	0.50	µg/L	N/A	N/A	3/26/2008	WM7080326
Xylenes, Total	ND		1.0	0.50	µg/L	N/A	N/A	3/26/2008	WM7080326
Methyl-t-butyl Ether	ND		1.0	1.0	µg/L	N/A	N/A	3/26/2008	WM7080326
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	3/26/2008	WM7080326
tert-Butanol (TBA)	ND		1.0	10	µg/L	N/A	N/A	3/26/2008	WM7080326
Diisopropyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	3/26/2008	WM7080326
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	3/26/2008	WM7080326

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	94.9	60 - 130
Dibromofluoromethane	91.5	60 - 130
Toluene-d8	99.1	60 - 130

Analyzed by: Bela
 Reviewed by: MaiChiTu

TPH-Purgeable - GC/MS: EPA 5030B / GC/MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		1.0	25	µg/L	N/A	N/A	3/26/2008	WM7080326

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	98.8	60 - 130
Dibromofluoromethane	96.0	60 - 130
Toluene-d8	99.4	60 - 130

Analyzed by: Bela
 Reviewed by: MaiChiTu



Northern California

3334 Victor Court, Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Sierra Environmental, Inc.
 980 West Taylor Street
 San Jose, CA 95126
 Attn: Mitch Hajiaghai

Project Number: 03-103.00
 Project Name: ABE Petroleum
 Project Location: 17715 Mission Blvd
 GlobalID: T0600102154

Certificate of Analysis - Data Report

Samples Received: 03/13/2008
 Sample Collected by: Client

Lab #: C0189-005 Sample ID: MW-7 Matrix: Liquid Sample Date: 3/13/2008 11:00 AM

VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		1.0	0.50	µg/L	N/A	N/A	3/26/2008	WM7080326
Toluene	ND		1.0	0.50	µg/L	N/A	N/A	3/26/2008	WM7080326
Ethyl Benzene	ND		1.0	0.50	µg/L	N/A	N/A	3/26/2008	WM7080326
Xylenes, Total	ND		1.0	0.50	µg/L	N/A	N/A	3/26/2008	WM7080326
Methyl-t-butyl Ether	ND		1.0	1.0	µg/L	N/A	N/A	3/26/2008	WM7080326
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	3/26/2008	WM7080326
tert-Butanol (TBA)	ND		1.0	10	µg/L	N/A	N/A	3/26/2008	WM7080326
Diisopropyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	3/26/2008	WM7080326
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	3/26/2008	WM7080326

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	93.0	60 - 130
Dibromofluoromethane	93.1	60 - 130
Toluene-d8	99.9	60 - 130

Analyzed by: Bela
 Reviewed by: MaiChiTu

TPH-Purgeable - GC/MS: EPA 5030B / GC/MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		1.0	25	µg/L	N/A	N/A	3/26/2008	WM7080326

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	96.8	60 - 130
Dibromofluoromethane	95.1	60 - 130
Toluene-d8	100	60 - 130

Analyzed by: Bela
 Reviewed by: MaiChiTu



Northern California 3334 Victor Court, Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Method Blank - Liquid - VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

QC Batch ID: WM7080326

Validated by: MaiChiTu - 03/26/08

QC Batch Analysis Date: 3/26/2008

Parameter	Result	DF	PQLR	Units
Benzene	ND	1	0.50	µg/L
Diisopropyl Ether	ND	1	5.0	µg/L
Ethyl Benzene	ND	1	0.50	µg/L
Methyl-t-butyl Ether	ND	1	1.0	µg/L
tert-Amyl Methyl Ether	ND	1	5.0	µg/L
tert-Butanol (TBA)	ND	1	10	µg/L
tert-Butyl Ethyl Ether	ND	1	5.0	µg/L
Toluene	ND	1	0.50	µg/L
Xylenes, Total	ND	1	0.50	µg/L

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	94.9	60 - 130
Dibromofluoromethane	92.4	60 - 130
Toluene-d8	100	60 - 130

Method Blank - Liquid - TPH-Purgeable - GC/MS: EPA 5030B / GC/MS

QC Batch ID: WM7080326

Validated by: MaiChiTu - 03/26/08

QC Batch Analysis Date: 3/26/2008

Parameter	Result	DF	PQLR	Units
TPH as Gasoline	ND	1	25	µg/L

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	98.8	60 - 130
Dibromofluoromethane	96.3	60 - 130
Toluene-d8	100	60 - 130



Northern California 3334 Victor Court, Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

LCS / LCSD - Liquid - VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

QC Batch ID: WM7080326

Reviewed by: MaiChiTu - 03/26/08

QC Batch ID Analysis Date: 3/26/2008

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
1,1-Dichloroethene	0.0	20	23.2	µg/L	116	70 - 130
Benzene	<0.50	20	22.7	µg/L	114	70 - 130
Chlorobenzene	0.0	20	22.5	µg/L	113	70 - 130
Methyl-t-butyl Ether	<1.0	20	17.8	µg/L	88.8	70 - 130
Toluene	<0.50	20	23.9	µg/L	120	70 - 130
Trichloroethene	0.0	20	23.4	µg/L	117	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	96.2	60 - 130
Dibromofluoromethane	97.1	60 - 130
Toluene-d8	98.5	60 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethene	0.0	20	20.5	µg/L	102	12	25.0	70 - 130
Benzene	<0.50	20	19.9	µg/L	99.4	13	25.0	70 - 130
Chlorobenzene	0.0	20	19.8	µg/L	99.1	13	25.0	70 - 130
Methyl-t-butyl Ether	<1.0	20	17.4	µg/L	87.2	1.8	25.0	70 - 130
Toluene	<0.50	20	20.5	µg/L	102	15	25.0	70 - 130
Trichloroethene	0.0	20	20.0	µg/L	100	16	25.0	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	94.1	60 - 130
Dibromofluoromethane	102.0	60 - 130
Toluene-d8	97.6	60 - 130

LCS / LCSD - Liquid - TPH-Purgeable - GC/MS: EPA 5030B / GC/MS

QC Batch ID: WM7080326

Reviewed by: MaiChiTu - 03/26/08

QC Batch ID Analysis Date: 3/26/2008

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Gasoline	<25	120	128	µg/L	102	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	99.5	60 - 130
Dibromofluoromethane	101.0	60 - 130
Toluene-d8	102.0	60 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Gasoline	<25	120	120	µg/L	95.6	6.6	25.0	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	98.3	60 - 130
Dibromofluoromethane	99.9	60 - 130
Toluene-d8	98.5	60 - 130



SIERRA ENVIRONMENTAL, INC.
Environmental Consultants

CHAIN OF CUSTODY

Project Name: ABE Project No: 03-103.00 Date: 3-13-08
Project Location: 17715 Mission Boulevard Client: Paul Garg Sampler: Mike Hagi

Sample ID	Date Sampled	Sampling Time	Matrix	N° of Containers	Analysis Requested					Turnaround Time			
					8015/8020 TPHG BTEX, MTBE	8015 TPHD	418.1 TRPH	BTEX 8020	TPHG&BTEX Fuel Oxygenates 8260B			24-hour Other	
@0189													
MW-1	3/13/08	12:40	Water	3	001				X			24-hour Other	Normal
MW-2		12:20			002				X			24-hour Other	Normal
MW-3		11:40			003				X			24-hour Other	Normal
MW-6		11:20			004				X			24-hour Other	Normal
MW-7	✓	11:00	✓	✓	005				X			24-hour Other	Normal
Rec'd 3 VOA's HCC each												24-hour Other	Normal
w/ 9-8° Temp.												24-hour Other	Normal

Remarks: Samples contain preservative. Please email the results in EDF format for Geotracker ID# T0600102154 to maz.sierra@sbglobal.net

Relinquished by <u>[Signature]</u>	Date <u>3/13/08</u>	Time <u>1:00</u>	Received by <u>[Signature]</u>	Date <u>03/13/08</u>	Time <u>13:20</u>
Relinquished by	Date	Time	Received by	Date	Time

980 W. Taylor Street • San Jose • California • 95126
Phone (408) 971-6758 • Fax (408) 9716759

Appendix D
FIELD NOTES



GROUNDWATER MONITORING DATA FORM

Project No: 03-103.00 Date: 3-13-08
 Project Name: ABE Well N°: MW1
 Field Personnel: Mike & Maz Weather: cloudy
 Project Location: 17715 Mission Boulevard

PURGE WATER VOLUME CALCULATION	Total Well Depth (ft)	Depth to Water (ft)	Water Column (ft)	Multiplier Casing Diameter			Casing Volume (gal)	Purged Volume (gal)
				2"	4"	6"		
	33.25	20.09	13.16	0.16	0.64	1.44	2.1	≈ 6.0

Purge Method: Bailer Measuring Reference: TOC

Time						
Volume Purged (gal)		0	2	4	6	
Temperature (° F)		67.93	68.07	68.31	68.35	
pH		6.31	6.29	6.30	6.35	
Specific Conductivity (umhos/cm)		1400	1400	1408	1410	
Turbidity/Color		light gray	→	→	→	
Odor		yes	→	→	→	

Comments: He odor and sheen



GROUNDWATER MONITORING DATA FORM

Project No: 03-103.00

Date: 3-13-08

Project Name: ABE

Well N°: MW2

Field Personnel: Mike & Maz

Weather: cloudy

Project Location: 17715 Mission Boulevard

PURGE WATER VOLUME CALCULATION	Total Well Depth (ft)	Depth to Water (ft)	Water Column (ft)	Multiplier Casing Diameter			Casing Volume (gal)	Purged Volume (gal)
				2"	4"	6"		
	33.75	21.34	12.41	0.16	0.64	1.44	1.98	46.0

Purge Method: Bailer Measuring Reference: TOC

Time						
Volume Purged (gal)	0	2	4	6		
Temperature (° F)	69.0	68.92	69.68	69.10		
pH	6.22	6.18	6.23	6.25		
Specific Conductivity (umhos/cm)	1500	1500	1490	1470		
Turbidity/Color	light gray	→	→	→		
Odor	yes	→	→	→		

Comments: HC odor and shunt



GROUNDWATER MONITORING DATA FORM

Project No: 03-103.00

Date: 3-13-08

Project Name: ABE

Well N°: MW3

Field Personnel: Mike & Maz

Weather: cloudy

Project Location: 17715 Mission Boulevard

PURGE WATER VOLUME CALCULATION	Total Well Depth (ft)	Depth to Water (ft)	Water Column (ft)	Multiplier Casing Diameter			Casing Volume (gal)	Purged Volume (gal)
	33.75	20.47	13.28	2"	4"	6"		
				0.16	0.64	1.44		
							2.1	≈ 6.0

Purge Method: Bailer Measuring Reference: TOC

Time						
Volume Purged (gal)		0	2	4	6	
Temperature (° F)		70.01	69.80	69.55	69.61	
pH		6.20	6.17	6.13	6.19	
Specific Conductivity (umhos/cm)		1470	1450	1400	1400	
Turbidity/Color		light gray	→	→	→	
Odor		yes	→	→	→	

Comments: HC odor and shuns



GROUNDWATER MONITORING DATA FORM

Project No: 03-103.00

Date: 3-13-08

Project Name: ABE

Well N°: MW6

Field Personnel: Mike & Maz

Weather: Cloudy

Project Location: 17715 Mission Boulevard

PURGE WATER VOLUME CALCULATION	Total Well Depth (ft)	Depth to Water (ft)	Water Column (ft)	Multiplier Casing Diameter			Casing Volume (gal)	Purged Volume (gal)
	25	17.46	7.54	2"	4"	6"		
				0.16	0.64	1.44	1.20	≈ 4.0

Purge Method: Bailer Measuring Reference: TOC

Time						
Volume Purged (gal)	0	1.5	3.0	4.0		
Temperature (° F)	70.01	69.72	69.78	69.73		
pH	6.30	6.30	6.27	6.25		
Specific Conductivity (umhos/cm)	1400	1400	1403	1409		
Turbidity/Color	light brown	→	→	→		
Odor	No	→	→	→		

Comments: _____



GROUNDWATER MONITORING DATA FORM

Project No: 03-103.00

Date: 3-13-08

Project Name: ABE

Well N°: MW7

Field Personnel: Mike & Maz

Weather: cloudy

Project Location: 17715 Mission Boulevard

PURGE WATER VOLUME CALCULATION	Total Well Depth (ft)	Depth to Water (ft)	Water Column (ft)	Multiplier Casing Diameter			Casing Volume (gal)	Purged Volume (gal)
	25	18.34	6.66	2"	4"	6"		
				0.16	0.64	1.44		
							1.06	≈ 3.0

Purge Method: Bailer Measuring Reference: TOC

Time						
Volume Purged (gal)		0	1	2	3	
Temperature (° F)		69.88	69.80	69.85	69.78	
pH		6.39	6.40	6.37	6.30	
Specific Conductivity (umhos/cm)		1503	1500	1501	1500	
Turbidity/Color		1.8 Brown	→	→	→	
Odor		No	→	→	→	

Comments: _____
