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9:55 am, May 02, 2008

Alameda County  
Environmental Health



April 30, 2008

Mr. Jerry Wickham  
Hazardous Materials Specialist  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Re: **Groundwater Monitoring Report – First Quarter 2008**  
Former Shell Service Station  
1230 14<sup>th</sup> Street  
Oakland, California  
Fuel Leak Case No. RO0000433

Dear Mr. Wickham:

On behalf of property owner Andy Saberi, Pangea Environmental Services, Inc has prepared this *Groundwater Monitoring Report – First Quarter 2008*. The report describes groundwater monitoring, sampling, and other site activities.

Sincerely,  
**Pangea Environmental Services, Inc.**

A handwritten signature in blue ink that reads "Bob Clark-Riddell".

Bob Clark-Riddell, P.E.  
Principal Engineer

Attachment: *Groundwater Monitoring Report – First Quarter 2008*

cc: Andy Saberi, 1045 Airport Blvd., South San Francisco, California 94080  
Denis Brown, Shell Oil Products US, 20945 S. Wilmington Avenue, Carson, CA 90810-1039  
Som Gupta, c/o Carmerlengo & Johnson, 500 Airport Boulevard, Suite 230, Burlingame, CA 94010  
Ana Friel, Conestoga-Rovers & Associates, 19449 Riverside Drive, Suite 230, Sonoma, CA 95476  
SWRCB Geotracker (electronic copy)



## GROUNDWATER MONITORING REPORT – FIRST QUARTER 2008

Former Shell Service Station  
1230 14<sup>th</sup> Street  
Oakland, California  
Fuel Leak Case No. RO0000433

April 30, 2008

*Prepared for:*

Andy Saberi  
1045 Airport Boulevard  
South San Francisco, California 94080


*Prepared by:*

Pangea Environmental Services, Inc.  
1710 Franklin Street, Suite 200  
Oakland, California 94612

*Written by:*

  
Morgan Gillies  
Project Manager



  
Bob Clark-Riddell, P.E.  
Principal Engineer

**PANGEA Environmental Services, Inc.**

## **INTRODUCTION**

On behalf of Andy Saberi, Pangea Environmental Services, Inc. (Pangea) performed groundwater monitoring and sampling during the current quarter at the subject site. The purpose of the monitoring and sampling is to evaluate dissolved contaminant concentrations and groundwater flow direction. The site location is shown on Figure 1. Current groundwater analytical results and elevation data are shown on Figure 2. Current and historical data are summarized on Table 1.

## **SITE BACKGROUND**

The former Shell-branded service station is located at the northeast corner of 14<sup>th</sup> Street and Union Street in Oakland, California (Figure 1). Currently, an abandoned one-story station building and a pump-island canopy occupy the site, and much of the property is unpaved. Land use in the surrounding area is currently residential to the north, south, and east, and is commercial/industrial to the west and southwest. The site topography is essentially flat.

### **Site History**

According to prior reports, the current site building was constructed in 1958 and gas station operations at the site reportedly began in 1958 and ceased in 1993. Petroleum hydrocarbons were first discovered in site soil near the underground storage tanks (USTs) during the completion of three borings at the site in February 1991. Four gasoline USTs and one waste oil storage tank were removed from the site on August 24, 1993. The current property owner, Mr. Andy Saberi, purchased the property in the mid 1980s.

### **Previous Environmental Work**

Previous environmental work has included site assessment, a sensitive receptor evaluation/well survey, risk evaluation, two rounds of feasibility testing (in 2000 and 2006), and several remedial actions, including injection of oxygen releasing compound (ORC) into site wells in 1997, groundwater extraction (GWE) and dual-phase extraction (DPE) from 2002 to 2004, and hydrogen peroxide injection into site wells in 2003. Quarterly groundwater monitoring activities have been performed at the site since 1996.

As requested by the ACEH, Pangea submitted a *Draft Corrective Action Plan and Pilot Test Work Plan* (Draft CAP) dated January 18, 2008. The Draft CAP proposed additional feasibility testing and implementation of either soil vapor extraction and air sparging (SVE/AS), or dual-phase extraction and air sparging (DPE/AS), based on test results. A detailed summary of previous environmental work conducted at the site between 1991 and 2006 is presented in the Draft CAP. The Alameda County Environmental Health (ACEH) approved the Draft CAP/test work plan in a letter dated February 5, 2008, and is soliciting public

comments.

## **GROUNDWATER MONITORING AND SAMPLING**

On February 25, 2008, site monitoring wells were gauged for depth-to-water and inspected for separate-phase hydrocarbons (SPH) prior to collection of groundwater samples. Well caps were removed from all monitoring wells and technicians allowed at least 15 minutes for water level equilibration before measuring depth to water.

Prior to sample collection, approximately three casing volumes of water were purged using disposable bailers, an electric submersible pump, check valve with tubing, or a peristaltic pump. During well purging, field technicians measured pH, temperature and conductivity. A groundwater sample was collected from each well with a disposable bailer, and decanted into the appropriate containers supplied by the analytical laboratory. Groundwater samples were labeled, placed in protective plastic bags, and stored on crushed ice at or below 4°C. All samples were transported under chain-of-custody to the State-certified analytical laboratory. Purge water was stored onsite in DOT-approved 55-gallon drums. Groundwater monitoring field data sheets, including purge volumes and field parameter measurements, are presented as Appendix A.

## **MONITORING RESULTS**

Current and historical groundwater elevation data and analytical results are described below and summarized on Table 1. Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8015Cm/8021B. Samples were analyzed by McCampbell Analytical, Inc., of Pittsburg, California, a State-certified laboratory. The laboratory analytical report is included in Appendix B.

### **Groundwater Flow Direction**

Based on depth-to-water data collected on February 25, 2008, the groundwater flow direction at the site is approximately northeastwards to eastwards, as shown on Figure 2. The inferred groundwater flow direction is generally consistent with previous monitoring results. Depth-to-water and groundwater elevation data are presented in Table 1.

### **Hydrocarbon Distribution in Groundwater**

No SPH were observed in any of the site wells. Hydrocarbons were not detected in wells MW-1 through MW-4, MW-6, MW-7 and VW/AS-3. The maximum TPHg (47,000 µg/L) and benzene (3,500 µg/L) concentrations detected this quarter were in well VW/AS-1. Hydrocarbon concentrations in site wells are

generally within historic ranges, although concentrations declined significantly this quarter in many wells. The significant concentration decline may be due to the significant precipitation in the weeks preceding the late February sampling and the corresponding relatively shallow groundwater elevation. The elevated dissolved oxygen readings also suggest the rising groundwater elevations are due to rainwater infiltration. Groundwater analytical data are included in Table 1 and on Figure 2.

### **Fuel Oxygenate Distribution in Groundwater**

The maximum MTBE concentration detected was 20 µg/L in well MW-5. This detection using Method 8021B was not confirmed using Method 8260 analysis. Historically MTBE has been detected only sporadically. Since 2003, detected MTBE concentrations have been below the Maximum Contaminant Level (MCL) for drinking water of 13 µg/L, except for the 20 µg/L concentration this quarter. The MCL is the lowest possibly relevant Environmental Screening Level (ESL) established by the San Francisco Regional Water Quality Control Board. MTBE concentrations are shown in Table 1 and on Figure 2.

## **OTHER SITE ACTIVITIES**

### **Upcoming Monitoring**

Pangea will continue groundwater monitoring and sampling at the site on a quarterly basis. All site monitoring wells will be gauged for depth to water and inspected for SPH. Groundwater samples will be collected from wells not containing SPH, and will be analyzed for TPHg, BTEX and MTBE by EPA Method 8015Cm/8021B. Previous samples from all monitoring wells at the site have also been analyzed for MTBE by EPA Method 8260B but due to relatively low MTBE detection in recent years, Pangea has discontinued analysis by EPA method 8260B to control cost. Pangea will summarize groundwater monitoring activities and results in a groundwater monitoring report following completion of each future groundwater monitoring event.

### **Corrective Action**

Pangea recently submitted a *Draft Corrective Action Plan and Pilot Test Work Plan* (Draft CAP) dated January 18, 2008, as requested by the ACEH letter dated November 29, 2007. The ACEH approved the Draft CAP in a February 5, 2008 letter and is soliciting public comments. Pangea will conduct the pilot testing outlined in the Draft CAP upon completion of the public comment process and receipt of final ACEH approval.

## **ATTACHMENTS**

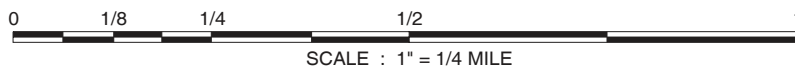
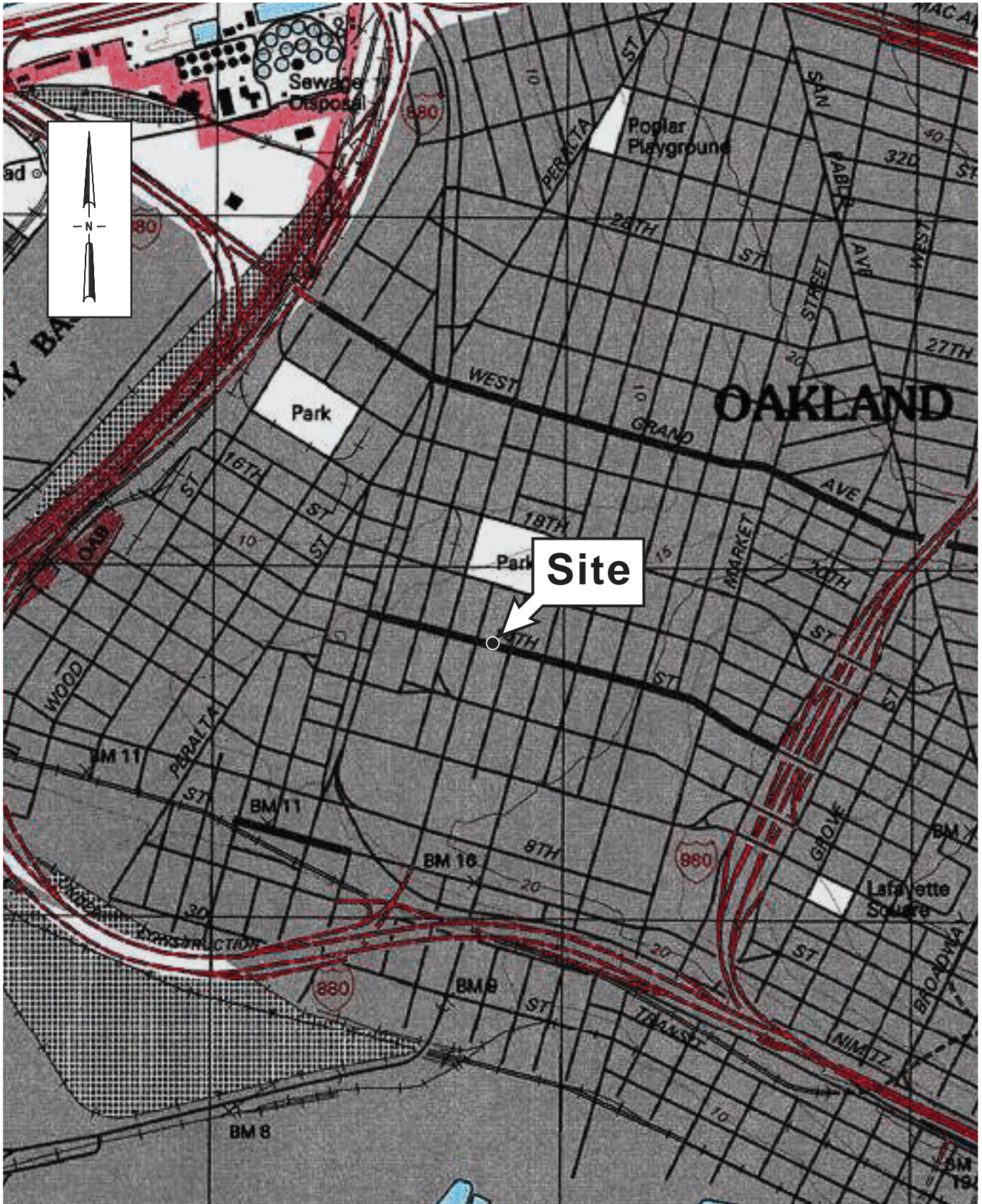
Figure 1 – Vicinity Map

Figure 2 – Groundwater Elevation and Hydrocarbon Concentration Map

Table 1 – Groundwater Elevation and Analytical Data

Appendix A – Groundwater Monitoring Field Data Sheets

Appendix B – Laboratory Analytical Results



Figure

**1**

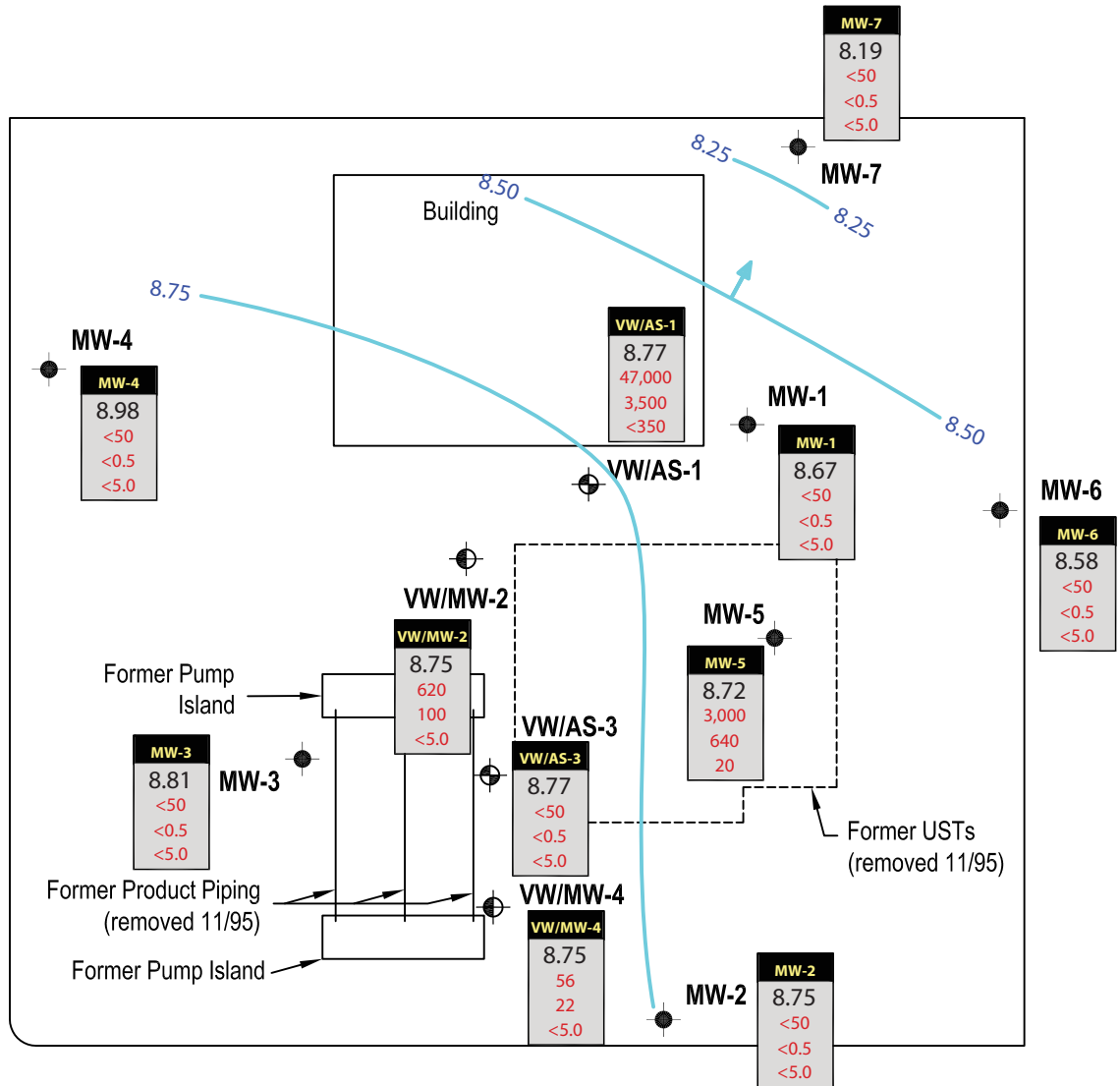
**Former Shell Service Station**

1230 14th Street  
Oakland, California



Vicinity Map

UNION STREET



**EXPLANATION**

- Groundwater monitoring well
- Combination air sparge/soil vapor extraction well
- Combination soil vapor extraction well/monitoring well
- Well ID** — Well designation
- ELEV** — Groundwater elevation
- TPHg**  
**Benzene**  
**MTBE** — Hydrocarbon concentrations in groundwater in micrograms per liter (ug/L)
- Groundwater elevation contour, in feet
- Approximate groundwater flow direction

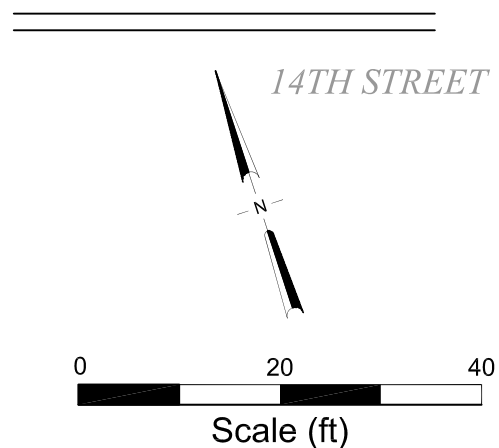


Figure  
**2**



# Pangea

**Table 1. Groundwater Elevation and Analytical Data - Saberi, 1230 14th Street, Oakland, CA**

Well ID	Date Measured	DTW (feet)	GWE (feet) (MSL)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Dissolved Oxygen (mg/L)
MW-1 18.58	03/25/96	9.53	9.05	37,000	7,400	1,500	720	3,300	<500	--
	06/21/96	10.72	7.86	35,000	9,900	460	340	3,500	890	--
	09/26/96	12.88	5.70	19,000	8,200	510	780	790	<250	--
	12/19/96	12.59	5.99	27,000	120	1,200	1,400	2,800	<100	--
	12/19/96	12.59	5.99	32,000	12,000	1,300	1,600	3,100	830	--
	03/25/97	11.10	7.48	39,000	13,000	1,600	840	3,100	730	1.2
	06/26/97	12.42	6.16	--	--	--	--	--	--	--
	09/26/97	13.31	5.27	--	--	--	--	--	--	0.8
	12/05/97	12.65	5.93	--	--	--	--	--	--	0.3
	02/19/98	6.46	12.12	16,000	5,500	450	500	800	<500	2.4
	06/08/98	6.62	11.96	--	--	--	--	--	--	1.2
	08/25/98	11.83	6.75	--	--	--	--	--	--	2.8
	12/28/98	12.01	6.57	--	--	--	--	--	--	2.6
	03/26/99	9.15	9.43	--	--	--	--	--	--	2.2
	06/30/99	11.22	7.36	--	--	--	--	--	--	3.8
	09/30/99	11.89	6.69	--	--	--	--	--	--	3.0
	12/27/99	13.55	5.03	34,800	8,660	953	956	2,770	<1,000	2.4/2.1
	01/21/00	13.42	5.16	40,600	14,700	1,850	1,210	3,670	<500	2.8
	03/07/00	8.11	10.47	--	--	--	--	--	--	0.4
	04/17/00	9.78	8.80	--	--	--	--	--	--	3.0/3.4
	04/18/00	--	--	18,300	8,060	543	528	872	<50.0	--
	09/21/00	13.11	5.47	--	--	--	--	--	--	5.2
	10/17/00	12.61	5.97	15,800	6,720	435	587	887	351(<66.7)	1.2/0.8
	01/09/01	12.94	5.64	--	--	--	--	--	--	0.3
	04/27/01	10.73	7.85	1,400	650	28	58	48	(<10)	1.8/2.1
	07/03/01	12.00	6.58	--	--	--	--	--	--	1.8
	12/06/01	10.53	8.05	4,500	1,500	85	160	210	(<50)	2.5/2.9
	01/23/02	9.33	9.25	--	--	--	--	--	--	0.1
	04/17/02	10.49	8.09	230	12	<0.50	4.6	2.5	(<5.0)	6.3/5.3
	07/18/02	11.98	6.60	--	--	--	--	--	--	1.2
	11/11/02	13.00	5.58	12,000	2,600	240	470	640	(-8.5)	0.2/0.2
	01/16/03	9.68	8.90	--	--	--	--	--	--	4.4
	03/13/03	10.45	8.13	820	340	2.7	<2.0	3.2	(<2.0)	2.8/0.9
	04/23/03	10.32	8.26	900	550	19	49	49	(<50)	0.9/0.1
	05/13/03	10.28	8.30	740	510	18	43	46	(<50)	0.1/0.2
	06/13/03	11.16	7.42	<5,000	1,500	82	180	250	(<500)	0.3/0.8
07/14/03	11.66	6.92	5,300	3,400	160	340	420	(<20)	0.6/0.3	
09/29/03	12.44	6.14	10,000	5,700	400	670	1,000	(<50)	0.6/0.7	
10/29/03	12.63	5.95	19,000	6,600	560	820	1,300	(26)	0.6/0.4	
01/05/04	10.17	8.41	380	140	7.1	6.2	16	(<1.0)	5.0/0.8	
04/01/04	9.57	9.01	79	0.59	<0.50	<0.50	<1.0	(<0.50)	4.6/1.2	
07/02/04	11.81	6.77	4,100	2,100	33	110	81	(<10)	0.6/0.5	
11/03/04	12.53	6.05	8,000	3,800	150	480	460	(<25)	1.45/2.1	
01/04/05	9.39	9.19	120	23	1.6	2.0	3.5	(<0.50)	4.21/2.82	
04/13/05	7.63	10.95	<50	<0.50	<0.50	<0.50	<0.50	(<0.50)	2.44/2.77	
07/13/05	10.85	7.73	930 e	400	6.1	<5.0	10	(<5.0)	0.84/0.66	
10/28/05	12.44	6.14	8,300	5,500	190	590	470	(<25)	0.2/0.2	
01/17/06	8.61	9.97	<50	2.2	1.1	1.4	4.8	(<0.50)	5.8/5.3	
02/23/06	9.60	8.98	--	18.1	2.22	1.89	4.50	--	--	
03/09/06	7.65	10.93	--	1.80	<0.500	<0.500	1.82	--	--	
04/21/06	6.35	12.23	<50.0	1.54	1.03	4.20	5.82	(<0.500)	--	
05/01/06	7.38	11.20	268	41.3	4.62	3.83	26.1	(<0.500)	0.27/0.36	
06/23/06	10.09	8.49	3,990	362	13.1	12.4	71.5	(<0.500)	--	
07/11/06	10.09	8.49	6,190	3,740	52.0	67.8	982	(<0.500)	--	
08/30/06	11.55	7.03	29,200	7,380	596	443	1,680	(4.45)	0.39/0.52	
09/29/06	11.97	6.61	76,100	9,300	859 i	1,290	2,820 i	(<5.00)	--	
10/13/06	12.08	6.50	49,500	7,580	770	1,030	2,860	(2.75)	--	
11/03/06	12.47	6.11	42,600	8,450	592	869	1,970	(2.69)	2.60/1.15	
12/26/06	11.80	6.78	19,000	4,600	360	640	1,300	(<5.0)	--	
01/11/07	11.84	6.74	23,000	6,000	320	780	1,100	(<25)	--	
01/30/07	12.18	6.40	3,700	890	74	170	220	(<25)	1.18/0.76	

# Pangea

**Table 1. Groundwater Elevation and Analytical Data - Saberi, 1230 14th Street, Oakland, CA**

Well ID	Date Measured	DTW (feet)	GWE (feet) (MSL)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Dissolved Oxygen (mg/L)	
<i>(MW- 1 cont'd)</i>	03/01/07	10.74	7.84	2,600	670	32	41	180	<(10)	--	
	04/26/07	10.90	7.68	12,000 k,l	2,800	220	400	560	<(20)	--	
	06/01/07	11.49	7.09	15,000 k	3,900	380	670	1,010	(1.8)	0.31/0.43	
	06/21/07	12.07	6.51	13,000 k	3,800	400	620	1,060	<(50)	--	
	07/03/07	12.00	6.58	21,000 k	6,100	510	960	1,760	<(50)	--	
	08/16/07	12.55	6.03	20,000 k	5,800	460	1,100	1,730	<(50)	0.3/0.2	
	12/06/07	13.00	5.58	53,000	9,400	560	1,400	3,000	<(25)	--	
	<b>02/25/08</b>	<b>9.91</b>	<b>8.67</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>3.74</b>	
	<b>MW-2</b> <i>17.90</i>	03/25/96	8.19	9.71	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
		06/21/96	9.94	7.96	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
09/26/96		12.15	5.75	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	
12/19/96		11.70	6.20	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	
03/25/97		9.25	8.65	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.8	
06/26/97		11.36	6.54	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.4	
09/26/97		12.56	5.34	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.1	
09/26/97		12.56	5.34	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.1	
12/05/97		11.15	6.75	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.7	
02/19/98		5.61	12.29	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.7	
06/08/98		5.58	12.32	<50	<0.30	<0.30	<0.30	<0.60	<10	3.2	
08/25/98		10.67	7.23	--	--	--	--	--	--	1.7	
12/28/98		11.65	6.25	<50.0	<0.500	<0.500	<0.500	<0.500	<2.00	0.4/0.8	
03/26/99		8.60	9.30	--	--	--	--	--	--	0.7	
06/30/99		10.30	7.60	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	2.3	
09/30/99		10.77	7.13	--	--	--	--	--	--	1.9	
12/27/99		12.21	5.69	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	0.7/0.7	
03/07/00		7.13	10.77	--	--	--	--	--	--	1.1	
04/17/00		8.35	9.55	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	1.8/1.8	
09/21/00		11.76	6.14	--	--	--	--	--	--	2.1	
10/17/00		11.80	6.10	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	0.9/0.6	
01/09/01		12.14	5.76	--	--	--	--	--	--	0.7	
04/27/01		9.85	8.05	<50	<0.50	<0.50	<0.50	<0.50	<(0.50)	1.1/0.9	
07/03/01		11.20	6.70	--	--	--	--	--	--	1.2	
12/06/01		10.77	7.13	<50	<0.50	<0.50	<0.50	<0.50	<(5.0)	3.9/2.1	
01/23/02		8.64	9.26	--	--	--	--	--	--	2.5	
04/17/02		9.61	8.29	<50	<0.50	<0.50	<0.50	<0.50	<(5.0)	3.5/5.2	
07/18/02		11.09	6.81	--	--	--	--	--	--	1.4	
11/11/02		12.16	5.74	<50	<0.50	<0.50	<0.50	<0.50	<(5.0)	0.2/0.3	
01/16/03		8.92	8.98	--	--	--	--	--	--	1.7	
03/13/03		9.60	8.30	--	--	--	--	--	--	1.1	
04/23/03		9.48	8.42	<50	<0.50	<0.50	<0.50	<1.0	<(5.0)	0.4/0.2	
05/13/03		9.45	8.45	<50	<0.50	<0.50	<0.50	<1.0	<(5.0)	0.5/0.3	
06/13/03		10.28	7.62	<50	<0.50	<0.50	<0.50	<1.0	<(5.0)	0.6/0.9	
07/14/03		10.67	7.23	<50	<0.50	<0.50	<0.50	<1.0	<(0.50)	0.5/0.09	
09/29/03		11.58	6.32	<50	<0.50	<0.50	<0.50	<1.0	<(0.50)	1.9/1.3	
10/29/03		11.76	6.14	<50	<0.50	<0.50	<0.50	<1.0	<(0.50)	4.3/0.5	
01/05/04		9.36	8.54	<50	<0.50	<0.50	<0.50	<1.0	<(0.50)	1.2/0.8	
04/01/04	8.77	9.13	<50	<0.50	<0.50	<0.50	<1.0	<(0.50)	4.0/0.3		
07/02/04	11.04	6.86	<50	<0.50	<0.50	<0.50	<1.0	<(0.50)	0.4/0.3		
11/03/04	11.71	6.19	<50	<0.50	<0.50	<0.50	<1.0	(0.54)	6.4/1.40		
01/04/05	8.68	9.22	<50	<0.50	<0.50	<0.50	<1.0	(0.62)	4.41/2.88		
04/13/05	7.13	10.77	<50	<0.50	<0.50	<0.50	<0.50	(1.7)	0.71/0.23		
07/13/05	10.30	7.60	<50	<0.50	<0.50	<0.50	<1.0	(2.3)	0.90/0.33		
10/28/05	11.61	6.29	<50	<0.50	<0.50	<0.50	<1.0	(4.2)	0.4/0.1		
01/17/06	8.21	9.69	<50	<0.50	<0.50	<0.50	<0.50	(5.0)	0.8/0.2		
03/09/06	7.70	10.20	--	--	--	--	--	--	--		
04/21/06	5.83	12.07	--	--	--	--	--	--	--		
05/01/06	6.34	11.56	<50.0	<0.500	<0.500	<0.500	<0.500	(4.33)	0.52/0.18		
08/30/06	10.71	7.19	<50.0	<0.500	<0.500	<0.500	<0.500	(1.98)	0.51/1.04		
09/29/06	11.03	6.87	--	--	--	--	--	--	--		
11/03/06	11.62	6.28	<50.0	<0.500	<0.500	<0.500	<0.500	(3.08)	0.44/0.40		
01/30/07	11.30	6.60	<50	<0.50	<0.50	<0.50	<1.0	(2.9)	0.92/0.63		

# Pangea

**Table 1. Groundwater Elevation and Analytical Data - Saberi, 1230 14th Street, Oakland, CA**

Well ID	Date Measured	DTW (feet)	GWE (feet) (MSL)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Dissolved Oxygen (mg/L)
<i>(MW-2 Cont'd)</i>	06/01/07	10.52	7.38	<50 k	0.71	<1.0	0.20 m	0.39 m	(1.7)	0.71/0.56
	08/16/07	11.60	6.30	<50 k	<0.50	<1.0	<1.0	<1.0	(1.3)	0.5/0.2
	12/06/07	12.39	5.51	<50	0.97	<0.5	0.56	1.5	(0.99)	--
	<b>02/25/08</b>	<b>9.15</b>	<b>8.75</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>2.82</b>
<b>MW-3</b> <i>18.18</i>	03/25/96	8.47	9.71	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
	06/21/96	10.40	7.78	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
	09/26/96	12.45	5.73	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
	12/19/96	12.14	6.04	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
	03/25/97	9.54	8.64	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.2
	06/26/97	11.66	6.52	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.6
	09/26/97	12.85	5.33	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.1
	12/05/97	11.44	6.74	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.6
	02/19/98	6.78	11.40	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.6
	06/08/98	6.82	11.36	<50	<0.30	<0.30	<0.30	<0.60	<10	3.8
	06/08/98	6.82	11.36	<50	<0.30	<0.30	<0.30	<0.60	<10	3.8
	08/25/98	11.09	7.09	--	--	--	--	--	--	1.2
	12/28/98	11.84	6.34	<50.0	<0.500	<0.500	<0.500	<0.500	<2.00	0.9/0.6
	03/26/99	8.57	9.61	--	--	--	--	--	--	0.8
	06/30/99	10.61	7.57	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	4.8
	09/30/99	11.53	6.65	--	--	--	--	--	--	1.4
	12/27/99	12.35	5.83	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	1.4/2.5
	03/07/00	7.36	10.82	--	--	--	--	--	--	5.8
	04/17/00	8.39	9.79	<50.0	<0.500	<0.500	<0.500	<0.500	19.3	6.5/5.1
	09/21/00	12.01	6.17	--	--	--	--	--	--	3.0
	10/17/00	12.10	6.08	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	2.0/1.0
	01/09/01	12.43	5.75	--	--	--	--	--	--	1.9
	04/27/01	10.10	8.08	<50	<0.50	<0.50	<0.50	<0.50	(<5.0)	2.3/2.4
	07/03/01	11.45	6.73	--	--	--	--	--	--	1.4
	12/06/01	11.07	7.11	<50	<0.50	<0.50	<0.50	<0.50	(<5.0)	2.8/3.9
	01/23/02	8.89	9.29	--	--	--	--	--	--	3.1
	04/17/02	9.92	8.26	<50	<0.50	<0.50	<0.50	<0.50	(<5.0)	3.7/3.2
	07/18/02	11.42	6.76	--	--	--	--	--	--	1.6
	11/11/02	12.44	5.74	<50	<0.50	<0.50	<0.50	<0.50	(<5.0)	0.3/0.4
	01/16/03	9.25	8.93	--	--	--	--	--	--	2.1
	03/13/03	9.84	8.34	--	--	--	--	--	--	1.2
	04/23/03	9.71	8.47	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	0.7/0.2
	05/13/03	9.70	8.48	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	0.6/0.2
	06/13/03	10.58	7.60	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	0.4/1.3
	07/14/03	10.98	7.20	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	0.4/0.3
	09/29/03	11.84	6.34	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	1.4/1.1
	10/29/03	12.05	6.13	58 b	<0.50	<0.50	<0.50	<1.0	(<5.0)	0.8/0.4
	01/05/04	9.70	8.48	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	1.3/0.7
	04/01/04	9.03	9.15	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	1.2/0.6
	07/02/04	11.15	7.03	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	0.7/0.5
11/03/04	11.98	6.20	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	1.65/2.75	
01/04/05	8.98	9.20	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	3.21/1.87	
04/13/05	7.22	10.96	<50	<0.50	<0.50	<0.50	<0.50	(<5.0)	4.92/5.28	
07/13/05	10.30	7.88	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	0.30/0.40	
10/28/05	11.81	6.37	<50 f	<0.50	<0.50	<0.50	<1.0	(<5.0)	0.8/0.2	
01/17/06	8.17	10.01	<50	<0.50	<0.50	<0.50	<0.50	(<5.0)	3.1/2.0	
03/09/06	6.45	11.73	--	--	--	--	--	--	--	
04/21/06	5.96	12.22	--	--	--	--	--	--	--	
05/01/06	6.40	11.78	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500(<0.500)	0.68/0.42	
08/30/06	10.95	7.23	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500(<0.500)	3.53/3.14	
09/29/06	11.40	6.78	--	--	--	--	--	--	--	
11/03/06	11.91	6.27	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500(<0.500)	7.0/6.8	
01/30/07	11.55	6.63	<50	<0.50	<0.50	<0.50	<1.0	<0.50(<0.50)	1.45/1.10	
06/01/07	10.86	7.32	<50 k	0.34 m	<1.0	<1.0	<1.0	<1.0(<1.0)	0.62/0.56	
08/16/07	11.87	6.31	<50 k	<0.50	<1.0	<1.0	<1.0	<1.0(<1.0)	0.2/0.2	
12/06/07	14.43	3.75	<50	1.8	1.0	0.90	4.4	(<0.5)	--	
<b>02/25/08</b>	<b>9.37</b>	<b>8.81</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>4.91</b>

# Pangea

**Table 1. Groundwater Elevation and Analytical Data - Saberi, 1230 14th Street, Oakland, CA**

Well ID	Date Measured	DTW (feet)	GWE (feet) (MSL)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Dissolved Oxygen (mg/L)
<b>MW-4</b> <i>18.01</i>	03/25/96	9.20	8.81	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
	06/21/96	10.25	7.76	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
	09/26/96	12.29	5.72	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
	12/19/96	12.47	5.54	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
	03/25/97	9.44	8.57	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.8
	06/26/97	11.57	6.44	<50	<0.50	<0.50	<0.50	<0.50	<2.5	6.2
	06/26/97	11.57	6.44	<50	<0.50	<0.50	<0.50	<0.50	<2.5	6.2
	09/26/97	12.75	5.26	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.1
	12/05/97	11.37	6.64	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.0
	12/05/97	11.37	6.64	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.0
	02/19/98	5.59	12.42	<50	<0.50	<0.50	<0.50	<0.50	<2.5	6.5
	06/08/98	5.65	12.36	<50	<0.30	<0.30	<0.30	<0.60	<10	2.6
	08/25/98	10.98	7.03	--	--	--	--	--	--	2.4
	12/28/98	11.83	6.18	<50.0	<0.500	<0.500	<0.500	<0.500	<2.00	1.3/1.2
	03/26/99	8.40	9.61	--	--	--	--	--	--	1.9
	06/30/99	10.53	7.48	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	7.6
	09/30/99	11.03	6.98	--	--	--	--	--	--	2.6
	12/27/99	12.53	5.48	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	1.9/0.8
	03/07/00	7.00	11.01	--	--	--	--	--	--	6.5
	04/17/00	8.57	9.44	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	5.1/5.1
	09/21/00	12.05	5.96	--	--	--	--	--	--	3.0
	10/17/00	11.96	6.05	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	5.5/1.2
	01/09/01	12.33	5.68	--	--	--	--	--	--	2.1
	04/27/01	9.96	8.05	<50	<0.50	<0.50	<0.50	<0.50	(<0.50)	5.3/3.8
	07/03/01	11.35	6.66	--	--	--	--	--	--	4.5
	12/06/01	10.99	7.02	<50	<0.50	<0.50	<0.50	<0.50	(<5.0)	10.23/6.5
	01/23/02	8.80	9.21	--	--	--	--	--	--	8.8
	04/17/02	9.75	8.26	<50	<0.50	<0.50	<0.50	<0.50	(<5.0)	7.0/5.1
	07/18/02	11.32	6.69	--	--	--	--	--	--	5.3
	11/11/02	12.36	5.65	<50	<0.50	<0.50	<0.50	<0.50	(<5.0)	3.6/2.0
	01/16/03	10.33	7.68	--	--	--	--	--	--	6.5
	03/13/03	10.06	7.95	--	--	--	--	--	--	6.5
	04/23/03	9.57	8.44	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	5.1/5.7
	05/13/03	9.55	8.46	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	2.0/2.5
	06/13/03	10.50	7.51	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	5.0/5.6
	07/14/03	10.86	7.15	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	3.9/4.2
	09/29/03	11.74	6.27	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	1.6/1.4
	10/29/03	11.95	6.06	58 b	<0.50	<0.50	<0.50	<1.0	(<0.50)	2.4/1.0
	01/05/04	10.35	7.66	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	7.4/7.5
	04/01/04	8.81	9.20	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	6.0/6.4
	07/02/04	11.10	6.91	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	0.8/0.6
11/03/04	11.85	6.16	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	1.3/2.84	
01/04/05	9.06	8.95	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	7.12/6.37	
04/13/05	6.84	11.17	<50	<0.50	<0.50	<0.50	<0.50	(<0.50)	5.81/5.66	
07/13/05	10.20	7.81	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	1.87/3.75	
10/28/05	11.75	6.26	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	1.4/0.8	
01/17/06	8.00	10.01	<50	<0.50	<0.50	<0.50	<0.50	(<0.50)	6.4/6.2	
03/09/06	6.55	11.46	--	--	--	--	--	--	--	
04/21/06	5.45	12.56	--	--	--	--	--	--	--	
05/01/06	6.14	11.87	<50.0	<0.500	<0.500	<0.500	<0.500	(<0.50)	1.09/0.72	
08/30/06	10.82	7.19	<50.0	<0.500	<0.500	<0.500	<0.500	(<0.50)	4.31/4.35	
09/29/06	11.29	6.72	--	--	--	--	--	--	--	
11/03/06	11.81	6.20	<50.0	<0.500	<0.500	<0.500	<0.500	(<0.50)	3.30/2.40	
01/30/07	11.45	6.56	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	1.67/0.94	
06/01/07	10.72	7.29	67 k	<0.50	<1.0	<1.0	<1.0	(<1.0)	0.93/0.81	
08/16/07	11.81	6.20	<50 k	<0.50	<1.0	<1.0	<1.0	(<1.0)	0.5/1.3	
12/06/07	12.34	5.67	<50	<0.5	<0.5	<0.5	<0.5	(<0.5)	--	
<b>02/25/08</b>	<b>9.03</b>	<b>8.98</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>6.84</b>	
<b>MW-5</b> <i>18.47</i>	12/03/01	11.86	6.61	--	--	--	--	--	--	--
	12/06/01	11.40	7.07	31,000	3,000	2,000	1,100	3,000	(<50)	3.1/3.2
	01/23/02	9.24	9.23	--	--	--	--	--	--	0.9
	04/17/02	10.35	8.12	33,000	3,800	2,400	1,300	4,400	(<200)	5.3/3.8

# Pangea

**Table 1. Groundwater Elevation and Analytical Data - Saberi, 1230 14th Street, Oakland, CA**

Well ID	Date Measured	DTW (feet)	GWE (feet) (MSL)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Dissolved Oxygen (mg/L)	
MW-5 (cont'd)	07/18/02	11.82	6.65	--	--	--	--	--	--	0.8	
	11/11/02	12.86	5.61	100,000	7,100	12,000	3,000	17,000	(5.10)	1.2/1.4	
	01/16/03	9.57	8.90	--	--	--	--	--	--	0.0	
	03/13/03	10.30	8.17	33,000	2,800	2,200	980	4,600	(<100)	0.5/0.3	
	04/07/03	10.29	8.18	--	--	--	--	--	--	--	
	04/23/03	10.15	8.32	33,000	2,900	3,100	960	5,800	(<250)	0.1/0.1	
	05/13/03	10.12	8.35	30,000	2,600	1,500	850	4,500	(<250)	0.4/0.3	
	06/13/03	11.00	7.47	33,000	3,400	2,300	1,000	4,400	(<500)	0.3/0.3	
	07/14/03	11.39	7.08	41,000	5,100	3,500	1,400	5,100	(<50)	0.5/0.5	
	09/29/03	12.24	6.23	59,000	6,600	4,200	1,500	6,500	(<50)	0.6/0.5	
	10/29/03	12.45	6.02	45,000	6,800	3,500	1,500	6,400	(21)	0.5/0.3	
	01/05/04	9.97	8.50	26,000	4,900	1,700	1,100	3,300	(<50)	0.9/1.2	
	04/01/04	9.43	9.04	29,000	5,300	2,700	880	2,900	(<50)	0.3/1.0	
	07/02/04	11.62	6.85	19,000	5,300	740	1,100	1,400	(<50)	0.4/0.5	
	11/03/04	12.26	6.21	31,000	7,500	2,300	1,400	4,400	(<50)	2.5/1.9	
	01/04/05	9.13	9.34	18,000	3,500	1,200	730	2,300	(<25)	0.44/1.64	
	04/13/05	7.60	10.87	7,000	100	460	180	880	(<1.0)	0.17/0.45	
	07/13/05	10.63	7.84	9,400	2,400	840	440	1,100	(<13)	0.13/0.27	
	10/28/05	12.14	6.33	28,000	16,000	2,900	1,400	3,100	(<50)	0.3/1.3	
	01/17/06	8.52	9.95	6,700	1,200	720	400	1,500	(1.3)	0.6/2.6	
	02/23/06	9.22	9.25	--	4,630	1,470	709	2,310	--	--	
	03/09/06	7.15	11.32	--	474	90.3	63.3	169	--	--	
	04/21/06	5.82	12.65	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	(<0.500)	--
	05/01/06	7.23	11.24	779	6.77	41.1	20.0	130	(<0.500)	0.39/1.52	
	06/23/06	10.06	8.41	22,600	2,830	557	469	1,210	(<0.500)	--	
	07/11/06	10.06	8.41	31,100	3,880	2,080	857	3,700	(<0.500)	--	
	08/30/06	11.32	7.15	28,200	4,840	1,320	705	2,430	(5.35)	0.47/3.64	
	09/29/06	11.81	6.66	94,900	10,100	2,960	1,810	5,310	(7.20)	--	
	10/13/06	12.01	6.46	48,200	7,710	1,360	1,250	3,460	(5.64)	--	
	11/03/06	12.31	6.16	50,600	11,300	1,730	1,250	3,840	(<0.500)	0.60/4.10	
	12/26/06	11.58	6.89	32,000	11,000	780	1,200	2,800	(<10)	--	
	01/11/07	11.61	6.86	35,000	11,000	1,100	1,200	3,100	(<50)	--	
01/30/07	11.95	6.52	27,000	9,800	610	860	2,400	(<50)	0.87/0.62		
03/01/07	10.95	7.52	23,000	9,400	640	1,200	3,100	(<50)	--		
04/26/07	10.69	7.78	48,000 k,l	14,000	1,300	1,600	3,600	(<100)	--		
06/01/07	11.25	7.22	54,000 k	15,000	2,800	2,200	6,100	(<100)	0.44/0.87		
06/21/07	11.96	6.51	32,000 k	12,000	1,200	1,400	2,780	(<100)	--		
07/03/07	11.81	6.66	41,000 k	15,000	1,800	1,900	4,050	(<100)	--		
08/16/07	12.36	6.11	43,000 k,l	13,000	2,000	2,000	4,150	(<100)	0.6/0.1		
12/06/07	12.81	5.66	37,000	7,900	640	1,100	1,500	(<17)	--		
	<b>02/25/08</b>	<b>9.75</b>	<b>8.72</b>	<b>3,000</b>	<b>640</b>	<b>9.7</b>	<b>52</b>	<b>77</b>	<b>20</b>	<b>2.19</b>	
MW-6 18.84	12/03/01	12.19	6.65	--	--	--	--	--	--	--	
	12/06/01	11.70	7.14	76	5.7	3.8	1.4	7.0	(<5.0)	6.3/6.1	
	01/23/02	9.57	9.27	--	--	--	--	--	--	8.7	
	04/17/02	10.73	8.11	<50	<0.50	<0.50	<0.50	<0.50	(<5.0)	9.8/9.1	
	07/18/02	12.27	6.57	--	--	--	--	--	--	1.7	
	11/11/02	13.24	5.60	580	55	<0.50	<0.50	2.8	(<5.0)	0.3/0.6	
	01/16/03	9.89	8.95	--	--	--	--	--	--	6.4	
	03/13/03	10.66	8.18	--	--	--	--	--	--	5.5	
	04/23/03	10.57	8.27	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	3.7/4.4	
	05/13/03	10.56	8.28	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	3.5/3.0	
	06/13/03	11.48	7.36	<50	<0.50	<0.50	<0.50	<1.0	(<5.0)	2.7/3.1	
	07/14/03	11.83	7.01	230 b	3.4	<0.50	<0.50	<1.0	(<0.50)	1.8/1.3	
	09/29/03	12.70	6.14	910 b	46	<2.5	<2.5	<5.0	(<2.5)	1.1/1.0	
	10/29/03	12.91	5.93	830	38	0.53	<0.50	3.3	(0.60)	1.2/0.9	
	01/05/04	10.35	8.49	93	0.92	<0.50	<0.50	<1.0	(<0.50)	6.2/4.3	
	04/01/04	9.80	9.04	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	3.5/3.4	
	07/02/04	12.09	6.75	370	3.0	<0.50	<0.50	<1.0	(<0.50)	0.6/1.0	
11/03/04	12.84	6.00	540	22	0.73	<0.50	1.5	(0.82)	2.28/0.84		
01/04/05	9.55	9.29	<50	<0.50	<0.50	<0.50	<1.0	(<0.50)	6.71/5.16		

# Pangea

**Table 1. Groundwater Elevation and Analytical Data - Saberi, 1230 14th Street, Oakland, CA**

Well ID	Date Measured	DTW (feet)	GWE (feet) (MSL)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Dissolved Oxygen (mg/L)
<i>(MW-6 cont'd)</i>	04/13/05	7.89	10.95	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.99/2.87
	07/13/05	11.13	7.71	170	6.2	1.1	<0.50	<1.0	(0.71)	0.10/1.32
	10/28/05	12.74	6.10	490	22	<0.50	<0.50	<1.0	<0.50	0.6/0.3
	01/17/06	8.80	10.04	<50	<0.50	<0.50	<0.50	<0.50	<0.50	5.3/4.9
	02/23/06	9.54	9.30	--	<0.500	<0.500	<0.500	<0.500	--	--
	03/09/06	7.25	11.59	--	<0.500	<0.500	<0.500	<0.500	--	--
	04/21/06	6.34	12.50	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	--
	05/01/06	7.32	11.52	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	0.72/0.63
	06/23/06	10.12	8.72	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	--
	07/11/06	10.12	8.72	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	--
	08/30/06	11.79	7.05	<50.0	3.32	<0.500	<0.500	<0.500	<0.500	0.80/0.86
	09/29/06	12.32	6.52	<50.0	1.59	<0.500	<0.500	<0.500	<0.500	--
	10/13/06	12.38	6.46	934	3.14	<0.500	<0.500	<0.500	<0.500	--
	11/03/06	12.77	6.07	112	10.6	<0.500	<0.500	<0.500	<0.500	3.80/1.10
	12/26/06	12.05	6.79	690	62	<0.50	<0.50	4.5	<0.50	--
	01/11/07	12.12	6.72	660	11	<0.50	<0.50	2.3	<0.50	--
	01/30/07	12.44	6.40	310	1.5	<0.50	<0.50	<1.0	<0.50	1.47/0.81
	03/01/07	10.97	7.87	360	3.6	<0.50	<0.50	0.87	<0.50	--
	04/26/07	11.18	7.66	210 k	0.72	<1.0	<1.0	<1.0	<1.0	--
	06/01/07	11.72	7.12	640 k	3.1	<1.0	<1.0	0.27 m	<1.0	0.69/0.50
	06/21/07	12.22	6.62	390 k	3.0	<1.0	<1.0	0.17 m	<1.0	--
	07/03/07	12.22	6.62	360 k	3.0	<1.0	0.36 m	1.2	<1.0	--
	08/16/07	12.74	6.10	400 k,l	2.8	<1.0	<1.0	<1.0	<1.0	0.4/0.1
	12/06/07	13.24	5.60	130	<0.5	1.6	<0.5	<0.5	<0.5	--
	<b>02/25/08</b>	<b>10.26</b>	<b>8.58</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>1.81</b>
	<b>MW-7</b> <i>19.20</i>	12/03/01	12.66	6.18	--	--	--	--	--	--
12/06/01		12.20	6.64	1,800	390	<2.0	6.2	<2.0	<20	3.9/3.8
01/23/02		10.00	8.84	--	--	--	--	--	--	9.4
04/17/02		11.21	7.63	<50	<0.50	<0.50	<0.50	<0.50	<5.0	8.8/7.3
07/18/02		12.69	6.15	--	--	--	--	--	--	0.8
11/11/02		13.69	5.15	3,000	190	<0.50	<0.50	4.3	(5.2)	0.4/0.8
01/16/03		10.36	8.48	--	--	--	--	--	--	7.9
03/13/03		11.16	7.68	--	--	--	--	--	--	5.2
04/23/03		11.02	7.82	250	48	<0.50	<0.50	<1.0	<5.0	3.2/1.3
05/13/03		11.00	7.84	1,700	550	<2.5	<2.5	<5.0	<25	2.0/1.5
06/13/03		11.90	6.94	1,500 b	470	<2.5	<2.5	<5.0	<25	1.8/1.6
07/14/03		12.29	6.55	1,300 b	1,200	<10	<10	<20	<10	0.4/0.2
09/29/03		13.12	5.72	5,200	1,200	<10	<10	<20	<10	0.9/0.9
10/29/03		13.34	5.50	4,800	1,100	<5.0	<5.0	<10	(8.9)	0.4/0.3
01/05/04		10.85	7.99	53	6.7	<0.50	<0.50	<1.0	<0.50	1.4/2.3
04/01/04		10.28	8.56	<50	<0.50	<0.50	<0.50	<1.0	<0.50	5.5/6.2
07/02/04		12.48	6.36	8,100 d	3,400	<25	<25	<50	<25	0.8/0.8
11/03/04		13.25	5.59	3,700	1,200	<5.0	<5.0	<10	<5.0	1.9/0.8
01/04/05		10.02	8.82	<50	2.0	<0.50	<0.50	<1.0	<0.50	6.31/5.71
04/13/05		8.46	10.38	<50	<0.50	<0.50	<0.50	<0.50	<0.50	5.87/5.89
07/13/05		11.57	7.27	1,100	380	9.2	<2.5	37	<2.5	0.30/0.33
10/28/05		13.15	5.69	5,100	2,900	<13	<13	<25	<13	0.6/0.9
01/17/06		9.30	9.54	<50	<0.50	<0.50	<0.50	<0.50	<0.50	6.4/7.4
02/23/06		10.03	8.81	--	<0.500	<0.500	<0.500	<0.500	--	--
03/09/06		7.70	11.14	--	<0.500	<0.500	<0.500	<0.500	--	--
04/21/06		6.66	12.18	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	--
05/01/06	7.72	11.12	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	0.67/0.98	
06/23/06	10.55	8.29	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	--	
07/11/06	10.55	8.29	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	--	
08/30/06	12.35	6.49	1,520	150	13.3	5.78	53.0	(0.640)	0.52/0.79	
09/29/06	12.66	6.18	2,420	384	1.80	<0.500	5.44	(0.850)	--	
10/13/06	12.85	5.99	5,980	549	0.540	0.680	11.7	(0.930)	--	
11/03/06	13.73	5.11	3,190	501	<0.500	<0.500	5.38	(0.560)	2.2/1.4	
12/26/06	12.51	6.33	4,600	570	<0.50	44	2.1	<0.50	--	
01/11/07	12.55	6.29	3,900	490	<2.5	46	<5.0	<2.5	--	
01/30/07	12.89	5.95	2,500	380	<2.5	40	<5.0	<2.5	1.37/0.90	

# Pangea

**Table 1. Groundwater Elevation and Analytical Data - Saberi, 1230 14th Street, Oakland, CA**

Well ID	Date Measured	DTW (feet)	GWE (feet) (MSL)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Dissolved Oxygen (mg/L)
<i>(MW-7 cont'd)</i>	03/01/07	11.45	7.39	2,600	350	<2.5	35	3.5	<(2.5)	--
	04/26/07	11.62	7.22	2,300 k	290	<5.0	31	1.3 m	<(5.0)	--
	06/01/07	12.23	6.61	4,400 k	350	<2.0	19	<2.0	(1.1 m)	0.04/0.71
	06/21/07	12.67	6.17	2,600 k	260	<2.0	12	<2.0	(1.4 m)	--
	07/03/07	12.76	6.08	1,700 k	170	<1.0	7.7	0.86 m	<(1.0)	--
	08/16/07	13.20	5.64	1,900 k	44	<1.0	<1.0	<1.0	<(1.0)	0.5/1.1
	12/06/07	13.73	5.11	510	21	3.1	5.8	14	(1.2)	--
	<b>02/25/08</b>	<b>10.65</b>	<b>8.19</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>1.11</b>
	<b>VW/MW-2</b>	03/25/96	9.04	9.26	13,000	900	920	180	1,500	<250
<i>18.30</i>	06/21/96	10.48	7.82	27,000	4,100	1,100	1,400	3,200	700	--
	09/26/96	12.52	5.78	27,000	5,300	1,900	980	2,200	<500	--
	09/26/96	12.52	5.78	29,000	5,800	2,200	1,100	2,500	<250	--
	12/19/96	12.42	5.88	50,000	6,200	5,100	1,700	5,600	590	--
	03/25/97	9.83	8.47	210	5.6	<0.50	0.52	<0.50	14	2.0
	03/25/97	9.83	8.47	250	1.7	0.58	0.51	<0.50	4.7	2.0
	06/26/97	12.43	5.87	--	--	--	--	--	--	--
	09/26/97	12.98	5.32	--	--	--	--	--	--	0.9
	12/05/97	12.20	6.10	--	--	--	--	--	--	0.4
	02/19/98	5.83	12.47	<50	1.5	<0.50	<0.50	0.71	<2.5	3.6
	06/08/98	5.80	12.50	--	--	--	--	--	--	1.0
	08/25/98	11.72	6.58	--	--	--	--	--	--	4.8
	12/28/98	11.69	6.61	--	--	--	--	--	--	2.7
	03/26/99	8.75	9.55	--	--	--	--	--	--	2.8
	06/30/99	10.72	7.58	--	--	--	--	--	--	4.7
	09/30/99	12.24	6.06	--	--	--	--	--	--	4.9
	12/27/99	13.92	4.38	13,500	1,330	1,310	490	1,400	<250	2.1/1.9
	01/21/00	13.26	5.04	12,100	2,200	1,080	429	1,120	<250	2.8
	03/07/00	7.87	10.43	--	--	--	--	--	--	3.7
	04/17/00	9.65	8.65	--	--	--	--	--	--	3.7/4.1
	04/18/00	--	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	--
	09/21/00	12.75	5.55	--	--	--	--	--	--	6.2
	10/17/00	12.21	6.09	4,070	763	589	214	501	<50.0	0.8/0.7
	01/09/01	12.51	5.79	--	--	--	--	--	--	0.7
	04/27/01	10.21	8.09	80	5.7	<0.50	2.7	4.9	<(0.50)	2.3/2.8
	07/03/01	11.60	6.70	--	--	--	--	--	--	0.6
	12/06/01	11.15	7.15	160	1.7	1.0	1.8	4.6	<(5.0)	3.7/2.3
	01/23/02	9.07	9.23	--	--	--	--	--	--	0.5
	04/17/02	10.11	8.19	<50	2.1	<0.50	<0.50	<0.50	<(5.0)	4.9/4.4
	07/18/02	11.61	6.69	--	--	--	--	--	--	0.9
	11/11/02	12.63	5.67	15,000	1,300	1,300	680	1,800	<(5.0)	0.2/0.2
	01/16/03	9.35	8.95	--	--	--	--	--	--	0.4
	03/13/03	10.09	8.21	--	--	--	--	--	--	0.8
	04/07/03	10.09	8.21	--	--	--	--	--	--	--
	04/23/03	9.95	8.35	1,100	76	29	45	66	<(5.0)	0.8/0.3
	05/13/03	9.90	8.40	1,200	38	16	16	24	<(5.0)	0.2/0.2
	06/13/03	10.80	7.50	9,600	1,300	1,100	440	890	<(250)	0.2/0.5
	07/14/03	11.20	7.10	11,000	1,300	1,800	430	1,500	<(5.0)	0.5/0.5
09/29/03	12.05	6.25	12,000	860	980	410	1,100	<(10)	0.4/0.4	
10/29/03	12.29	6.01	12,000	1,100	940	530	1,200	<(10)	0.7/0.3	
01/05/04	9.82	8.48	190 b	<0.50	<0.50	<0.50	<1.0	<(0.50)	2.8/1.8	
04/01/04	9.24	9.06	410	1.4	0.54	1.6	1.0	<(0.50)	1.7/0.1	
07/02/04	11.33	6.97	5,500	440	370	170	410	<(2.5)	0.5/0.4	
11/03/04	12.14	6.16	3,800	260	210	150	600	<(2.5)	0.9/1.4	
01/04/05	9.03	9.27	280	5.8	20	7.8	26	<(0.50)	1.66/2.66	
04/13/05	7.38	10.92	<50	<0.50	<0.50	<0.50	<0.50	<(0.50)	0.79/0.58	
07/13/05	10.45	7.85	350	19	9.3	9.8	14	<(0.50)	0.10/0.08	
10/28/05	11.98	6.32	3,400	440	350	150	320	<(2.5)	0.4/0.1	
01/17/06	8.34	9.96	700	3.1	5.1	7.7	66	<(0.50)	2.7/1.6	
02/23/06	9.42	8.88	--	97.9	17.2	40.0	80.6	--	--	
03/09/06	7.35	10.95	--	<0.500	29.2	57.8	486	--	--	
04/21/06	5.99	12.31	<50.0	<0.500	0.960	<0.500	2.71	<(0.500)	--	

# Pangea

**Table 1. Groundwater Elevation and Analytical Data - Saberi, 1230 14th Street, Oakland, CA**

Well ID	Date Measured	DTW (feet)	GWE (feet) (MSL)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Dissolved Oxygen (mg/L)
<i>(VW/MW-2 cont'd)</i>	05/01/06	7.25	11.05	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	0.43/0.10
	06/23/06	10.05	8.25	3,150	35.6	9.24	20.7	113	<0.500	--
	07/11/06	10.05	8.25	9,270	413	78.2	91.5	341	(2.40)	--
	08/30/06	11.12	7.18	4,900	135	45.5	73.3	180	(2.40)	0.37/0.62
	09/29/06	11.61	6.69	12,300	243	142	290	634	(2.50)	--
	10/13/06	12.01	6.29	19,300	292	169	384	1,080	(1.84)	--
	11/03/06	12.12	6.18	9,300	655	233	366	729	(4.15)	2.0/1.05
	12/26/06	11.41	6.89	2,600	61	50	74	250	<0.50	--
	01/11/07	11.45	6.85	5,200	160	190	170	570	<0.50	--
	01/30/07	12.21	6.09	2,200	160	20	84	200	<2.5	1.37/0.79
	03/01/07	10.40	7.90	520	0.50	0.53	3.3	15	<0.50	--
	04/26/07	10.51	7.79	5,700 k	220	140	170	420	<2.0	--
	06/01/07	11.00	7.30	4,300 k	150	150	140	380	<2.0	0.36/0.23
	06/21/07	11.78	6.52	9,000 k	540	500	350	870	(1.8 m)	--
	07/03/07	11.64	6.66	4,500 k	230	160	160	440	<5.0	--
	08/16/07	12.12	6.18	8,800 k	550	520	430	1,020	<5.0	0.3/0.1
12/06/07	12.43	5.87	2,600	110	84	64	180	(2.4)	--	
<b>02/25/08</b>	<b>9.55</b>	<b>8.75</b>	<b>620</b>	<b>100</b>	<b>4.1</b>	<b>4.9</b>	<b>2.0</b>	<b>&lt;5.0</b>	<b>2.48</b>	
<b>VW/MW-4</b> <i>18.14</i>	03/25/96	8.45	9.69	83,000	6,500	7,000	2,000	11,000	<250	'--
	03/25/96	8.45	9.69	84,000	6,400	7,000	2,100	12,000	<250	'--
	06/21/96	10.38	7.76	110,000	14,000	15,000	3,700	17,000	1,700	'--
	06/21/96	10.38	7.76	100,000	12,000	12,000	2,900	13,000	<1,000	'--
	09/26/96	12.43	5.71	52,000	13,000	2,700	2,100	3,200	<500	'--
	12/19/96	11.87	6.27	75,000	15,000	6,600	3,000	7,600	<1,250	'--
	03/25/97	9.60	8.54	56,000	4,700	1,500	2,500	6,300	580	2.4
	06/26/97	12.36	5.78	--	--	--	--	--	--	--
	09/26/97	12.82	5.32	--	--	--	--	--	--	0.4
	12/05/97	12.15	5.99	--	--	--	--	--	--	0.3
	02/19/98	5.85	12.29	4,100	320	40	44	520	<50	1.8
	02/19/98	5.85	12.29	4,300	340	44	47	540	<50	1.8
	06/08/98	5.87	12.27	--	--	--	--	--	--	1.8
	08/25/98	10.96	7.18	--	--	--	--	--	--	2.5
	12/28/98	11.28	6.86	--	--	--	--	--	--	0.9
	03/26/99	8.45	9.69	--	--	--	--	--	--	1.9
	06/30/99	9.70	8.44	--	--	--	--	--	--	3.6
	09/30/99	11.78	6.36	--	--	--	--	--	--	2.6
	12/27/99	12.63	5.51	33,900	3,740	2,000	1,130	5,090	587	0.4/0.2
	01/21/00	13.07	5.07	13,900	1,560	568	227	1,990	<500(21.0a)	1.0
	03/07/00	7.82	10.32	--	--	--	--	--	--	0.9
	04/17/00	9.18	8.96	--	--	--	--	--	--	1.4/1.9
	04/18/00	--	--	757	103	8.59	30.8	84.2	<25.0	--
	09/21/00	12.18	5.96	--	--	--	--	--	--	5.0
	10/17/00	12.03	6.11	8,360	2,060	391	468	1,170	147	0.7/0.8
	01/09/01	12.42	5.72	--	--	--	--	--	--	0.9
	04/27/01	10.13	8.01	7,100	2,300	50	460	250	<10	1.0/1.4
	07/03/01	11.42	6.72	--	--	--	--	--	--	1.2
	12/06/01	11.02	7.12	7,700	750	90	300	350	<25	2.5/1.9
	01/23/02	8.89	9.25	--	--	--	--	--	--	0.4
	04/17/02	9.89	8.25	4,800	760	27	240	150	<25	4.7/5.1
	07/18/02	11.37	6.77	--	--	--	--	--	--	0.6
	11/11/02	12.41	5.73	14,000	2,800	480	700	1,300	<100	0.3/0.3
01/16/03	9.17	8.97	--	--	--	--	--	--	0.8	
03/13/03	9.85	8.29	--	--	--	--	--	--	1.1	
04/23/03	9.74	8.40	2,400	710	28	160	100	<50	0.2/0.05	
05/13/03	9.70	8.44	3,300	720	35	170	160	<50	0.2/0.2	
06/13/03	10.55	7.59	8,200	1,700	220	460	790	<250	0.3/0.3	
07/14/03	10.90	7.24	3,700	900	190	220	540	<10	0.5/0.4	
09/29/03	11.83	6.31	7,500	1,800	300	390	860	<20	0.5/0.6	
10/29/03	12.03	6.11	10,000	2,600	400	510	1,200	<13	0.5/0.4	
01/05/04	9.60	8.54	1,000	70	12	30	56	<1.0	1.7/1.2	
04/01/04	9.00	9.14	1,000	64	7.0	22	18	<1.0	0.6/0.1	



# Pangea

**Table 1. Groundwater Elevation and Analytical Data - Saberi, 1230 14th Street, Oakland, CA**

Well ID	Date Measured	DTW (feet)	GWE (feet) (MSL)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Dissolved Oxygen (mg/L)
<i>(VW/MW-4 cont'd)</i>	07/02/04	11.00	7.14	5,600	1,500	57	380	180	<(10)	0.4/0.4
	11/03/04	11.85	6.29	9,400	2,400	210	560	890	<(10)	1.5/2.1
	01/04/05	8.89	9.25	110	12	<0.50	2.3	<1.0	<(0.50)	2.40/1.05
	04/13/05	7.25	10.89	<50	<0.50	<0.50	<0.50	<0.50	<(0.50)	1.55/0.52
	07/13/05	10.20	7.94	1,300	520	5.1	100	17	<(2.5)	0.08/0.08
	10/28/05	11.84	6.30	2,500	830	44	170	140	(5.4)	0.6/0.2
	01/17/06	8.05	10.09	<50	<0.50	<0.50	0.56	<0.50	<(0.50)	2.7/0.6
	02/23/06	8.77	9.37	--	1.42	0.930	0.580	<0.500	--	--
	03/09/06	6.75	11.39	--	<0.500	<0.500	<0.500	0.680	--	--
	04/21/06	5.69	12.45	<50.0	<0.500	<0.500	<0.500	<0.500	<(0.500)	--
	05/01/06	6.65	11.49	<50.0	<0.500	<0.500	<0.500	<0.500	<(0.500)	0.51/0.37
	06/23/06	9.22	8.92	920	8.69	1.32	5.63	9.68	<(0.500)	--
	07/11/06	9.22	8.92	<50.0	109	<0.500	3.91	<0.500	<(0.500)	--
	08/30/06	10.87	7.27	2,360	331	12.8	65.4	29.3	(2.64)	0.24/0.56
	09/29/06	11.40	6.74	5,920	327	23.2 i	146	112 i	(2.63)	--
	10/13/06	11.53	6.61	6,560	299	16.6	134	90.4	(3.58)	--
	11/03/06	11.87	6.27	3,530	212	9.14	87.8	52.8	(5.11)	2.60/4.0
	12/26/06	11.17	6.97	960	43	1.0	17	2.7	<(0.50)	--
	01/11/07	11.18	6.96	830	86	1.8	41	3.9	(1.40)	--
	01/30/07	11.53	6.61	2,100	450	15	99	46	(3.0)	1.13/0.91
	03/01/07	10.00	8.14	700	4.8	<0.50	1.8	0.77	<(0.50)	--
	04/26/07	10.26	7.88	930 k	84	5.2	21	9.5	<(1.0)	--
	06/01/07	10.80	7.34	2,000 k	340	7.6	58	17.6	(1.7 m)	0.46/0.42
	06/21/07	11.32	6.82	1,400 k	360	9.7	46	26.1	(2.2)	--
	07/03/07	11.39	6.75	2,700 k	650	24	91	65	<(2.0)	--
	08/16/07	11.87	6.27	1,400 k	240	8.8	32	42.3	<(5.0)	0.3/0.1
	12/06/07	12.40	5.74	3,600	480	16	39	29	(3.5)	--
<b>02/25/08</b>	<b>9.39</b>	<b>8.75</b>	<b>56</b>	<b>22</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>0.50</b>	<b>&lt;5.0</b>	<b>4.61</b>	
<b>VW/AS-1</b> <i>18.60</i>	03/25/96	8.98	9.62	--	--	--	--	--	--	--
	06/21/96	10.95	7.65	--	--	--	--	--	--	--
	09/26/96	12.98	5.62	--	--	--	--	--	--	--
	12/19/96	12.67	5.93	--	--	--	--	--	--	--
	03/25/97	10.12	8.48	--	--	--	--	--	--	--
	06/26/97	12.34	6.26	--	--	--	--	--	--	--
	09/26/97	13.40	5.20	--	--	--	--	--	--	--
	12/05/97	11.96	6.64	--	--	--	--	--	--	5.2
	02/19/98	6.22	12.38	--	--	--	--	--	--	1.3
	06/08/98	6.20	12.40	--	--	--	--	--	--	1.0
	08/25/98	11.59	7.01	--	--	--	--	--	--	1.6
	12/28/98	11.74	6.86	--	--	--	--	--	--	1.3
	03/26/99	9.20	9.40	--	--	--	--	--	--	1.3
	06/30/99	11.08	7.52	--	--	--	--	--	--	2.1
	09/30/99	11.94	6.66	--	--	--	--	--	--	1.9
	12/27/99	11.01	7.59	8,940	2,000	95.7	1,200	570	606	1.6/1.8
	03/07/00	7.35	11.25	--	--	--	--	--	--	--
	04/17/00	9.08	9.52	--	--	--	--	--	--	1.9/2.0
	04/18/00	--	--	20,800	6,550	1,220	2,270	1,720	<250	--
	09/21/00	11.98	6.62	--	--	--	--	--	--	2.1
	10/17/00	12.62	5.98	38,400	7,240	5,980	1,960	5,730	534(72.4)	2.5/1.0
	01/09/01	13.03	5.57	--	--	--	--	--	--	1.9
	04/27/01	10.71	7.89	34,000	8,000	2,100	2,500	2,000	<(25)	2.9/2.1
	07/03/01	12.03	6.57	--	--	--	--	--	--	2.0
	12/06/01	11.63	6.97	6,000	990	35	820	59	<(25)	1.2/0.8
	01/23/02	9.34	9.26	--	--	--	--	--	--	0.9
	04/17/02	10.41	8.19	12,000	2,900	57	1,400	98	<(200)	3.3/2.9
07/18/02	12.13	6.47	--	--	--	--	--	--	0.3	
11/11/02	13.15	5.45	2,200	340	7.3	250	24	<(20)	1.2/1.3	
01/16/03	9.73	8.87	--	--	--	--	--	--	2.3	
03/13/03	10.45	8.15	11,000	2,500	55	1,800	170	<(100)	2.1/1.9	
04/07/03	10.40	8.20	--	--	--	--	--	--	--	
04/23/03	10.28	8.32	9,500	4,100	200	1,400	200	<(250)	1.2/0.4	
05/13/03	10.26	8.34	9,700	2,300	110	1,100	140	<(250)	0.5/2.0	
06/13/03	11.15	7.45	9,300	2,300	77	820	<100	<(500)	1.0/0.5	
07/15/03	11.62	6.98	5,500	2,000	230	620	360	(20)	1.8/1.9	

# Pangea

**Table 1. Groundwater Elevation and Analytical Data - Saberi, 1230 14th Street, Oakland, CA**

Well ID	Date Measured	DTW (feet)	GWE (feet) (MSL)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Dissolved Oxygen (mg/L)
<i>(VW/AS-1 cont'd)</i>	09/29/03	12.48	6.12	9,600	2,300	100	1,200	670	<20	2.3/3.6
	10/29/03	12.73	5.87	10,000	2,000	39	1,000	370	(16)	3.3/3.6
	01/05/04	10.25	8.35	2,000	710	18	410	18	(13)	3.0/2.8
	04/01/04	9.60	9.00	27,000	9,100	1,200	2,200	1,400	<50	1.0/1.4
	07/02/04	11.80	6.80	18,000	6,500	170	1,200	1,200	<50	3.2/0.8
	11/03/04	12.56	6.04	4,500	1,700	23	280	55	(9.8)	1.7/1.9
	01/04/05	9.50	9.10	7,500	2,500	74	540	110	<13	1.19/0.53
	04/13/05	7.84	10.76	34,000	6,600	290	930	2,100	<15	1.60/1.88
	07/13/05	10.90	7.70	--	--	--	--	--	--	--
	07/22/05	10.96	7.64	8,200	5,900	86	340	320	<25	1.7/1.0
	10/28/05	12.30	6.30	2,100	1,300	18	63	21	<5.0	0.5/1.6
	01/17/06	8.65	9.95	6,200 g	2,900	190	400	600	(4.70)	1.4/1.0
	02/23/06	9.33	9.27	--	3,080	222	414	778	--	--
	03/09/06	7.40	11.20	--	1,350	88.5	128	164	--	--
	04/21/06	6.44	12.16	18,200	4,460	167	419	717	(2.79)	--
	05/01/06	7.22	11.38	19,700	5,300	261	664	1,050	<0.500	0.71/1.23
	06/23/06	9.73	8.87	20,600	3,820	305	259	435	(3.31 h)	--
	07/11/06	9.73	8.87	9,130	6,200	108	232	254	<0.500	--
	08/30/06	11.60	7.00	164,000	3,190	6,240	3,780	17,900	<10.0	0.4
	09/29/06	11.97	6.63	130,000	6,160	6,370 i	2,910	11,600 i	<25.0	--
	10/13/06	12.18	6.42	144,000	6,320	5,710	2,930	13,100	(1.03)	--
	11/03/06	12.21	6.39	112,000	8,290	5,670	2,760	12,100	<0.500	0.80
	12/26/06	11.74	6.86	94,000	6,900	5,100	3,100	13,000	<50	--
	01/11/07	11.83	6.77	73,000	6,600	5,500	3,000	12,000	<50	--
	01/30/07	12.12	6.48	54,000	6,800	4,500	2,200	8,800	<50	1.16/1.16
	03/01/07	10.71	7.89	52,000	6,300	3,700	3,400	12,000	<50	--
	04/26/07	10.84	7.76	72,000 k	7,200	4,500	3,000	10,900	<50	--
	06/01/07	11.40	7.20	70,000 k	7,600	4,900	3,200	12,100	<50	0.60/1.09
	06/21/07	11.92	6.68	59,000 k	7,300	3,700	3,200	12,100	<50	--
	07/03/07	11.98	6.62	70,000 k	8,800	4,700	3,500	13,500	<50	--
08/16/07	12.53	6.07	67,000 k	9,000	5,500	3,900	14,200	<50	0.2/0.1	
12/06/07	12.97	5.63	180,000	9,500	5,000	4,100	16,000	<17	--	
	<b>02/25/08</b>	<b>9.84</b>	<b>8.76</b>	<b>47,000</b>	<b>3,500</b>	<b>1,200</b>	<b>1,500</b>	<b>4,400</b>	<b>&lt;350</b>	<b>2.39</b>
<b>VW/AS-2</b>	03/09/06	6.95	--	--	--	--	--	--	--	--
<b>VW/AS-3</b> <i>18.17</i>	03/25/96	8.50	9.67	--	--	--	--	--	--	--
	06/21/96	10.42	7.75	--	--	--	--	--	--	--
	09/26/96	12.49	5.68	--	--	--	--	--	--	--
	12/19/96	12.28	5.89	--	--	--	--	--	--	--
	03/25/97	9.61	8.56	--	--	--	--	--	--	--
	06/26/97	11.80	6.37	--	--	--	--	--	--	--
	09/26/97	12.89	5.28	--	--	--	--	--	--	--
	12/05/97	11.38	6.79	--	--	--	--	--	--	1.8
	02/19/98	6.24	11.93	--	--	--	--	--	--	1.3
	06/08/98	6.25	11.92	--	--	--	--	--	--	1.2
	08/25/98	11.43	6.74	--	--	--	--	--	--	1.3
	12/28/98	11.63	6.54	--	--	--	--	--	--	1.7
	03/26/99	8.92	9.25	--	--	--	--	--	--	1.5
	06/30/99	10.71	7.46	--	--	--	--	--	--	2.5
	09/30/99	11.78	6.39	--	--	--	--	--	--	1.5
	12/27/99	12.57	5.60	488	47.9	2.60	16.9	8.50	35.4	1.5/2.1
	03/07/00	4.82	13.35	--	--	--	--	--	--	--
	04/17/00	8.69	9.48	--	--	--	--	--	--	2.0/2.4
04/18/00	--	--	3,110	871	<5.00	141	56.8	78.2	--	
09/21/00	11.65	6.52	--	--	--	--	--	--	2.5	
10/17/00	12.13	6.04	7,730	2,700	<50.0	542	344	<250(42.1)	1.6/1.0	
01/09/01	12.51	5.66	--	--	--	--	--	--	2.2	
04/27/01	10.20	7.97	14,000	3,900	62	690	560	(46)	2.8/1.6	

# Pangea

**Table 1. Groundwater Elevation and Analytical Data - Saberi, 1230 14th Street, Oakland, CA**

Well ID	Date Measured	DTW (feet)	GWE (feet) (MSL)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Dissolved Oxygen (mg/L)
(VW/AS-3 cont'd)	07/03/01	11.55	6.62	--	--	--	--	--	--	2.6
	12/06/01	11.10	7.07	5,000	1,200	19	380	320	(<50)	0.9/1.1
	01/23/02	8.93	9.24	--	--	--	--	--	--	1.1
	04/17/02	10.00	8.17	17,000	5,000	<25	1,100	390	(<250)	3.2/3.2
	07/18/02	11.49	6.68	--	--	--	--	--	--	0.4
	11/11/02	12.43	5.74	1,700	290	1.5	150	2.8	(<10)	1.0/1.1
	01/16/03	9.32	8.85	--	--	--	--	--	--	4.7
	03/13/03	9.88	8.29	--	--	--	--	--	--	2.7
	04/23/03	9.85	8.32	150	47	0.67	8.5	3.2	(<5.0)	2.1/0.7
	05/13/03	9.81	8.36	440	35	<0.50	1.7	<1.0	(<5.0)	1.4/1.8
	06/13/03	10.77	7.40	580	71	<2.5	40	<5.0	(<25)	1.1/0.6
	07/14/03	11.12	7.05	1,100	120	4.9	63	9.3	(16)	2.0/2.2
	09/29/03	12.02	6.15	160	54	2.2	6.9	8.7	(1.1)	4.1/1.6
	10/29/03	12.25	5.92	350	16	<0.50	1.1	<1.0	(6.3)	3.2/1.6
	01/05/04	9.74	8.43	2,700	870	39	130	250	(5.5)	3.6/2.8
	04/01/04	9.06	9.11	1,300	240	4.1	36	45	(12.0)	1.1/1.0
	07/02/04	11.29	6.88	610	59	<1.0	3.6	<2.0	(10.0)	2.0/2.2
	11/03/04	12.02	6.15	200	<0.50	<0.50	<0.50	<1.0	(10.0)	2.1/2.3
	01/04/05	8.99	9.18	2,500	730	42	36	190	(<10)	1.72/1.36
	04/13/05	7.25	10.92	<50	1.6	<0.50	<0.50	<0.50	(0.61)	2.85/3.04
	07/13/05	10.30	7.87	--	--	--	--	--	--	--
	07/22/05	10.51	7.66	160	36	0.65	<0.50	2.5	(2.60)	1.4/1.3
	10/28/05	11.93	6.24	100	<0.50	<0.50	<0.50	<1.0	(1.70)	1.6/0.9
	01/17/06	8.25	9.92	1,400	510	29	16	47	(5.40)	1.9/0.8
	04/21/06	6.06	12.11	--	--	--	--	--	--	--
	05/01/06	6.83	11.34	1,350	74.4	<0.500	12.5	0.520	(3.30)	1.35/0.78
	08/30/06	11.00	7.17	940	77.7	2.67	2.94	5.57	(3.45)	0.80/0.98
	09/29/06	11.30	6.87	--	--	--	--	--	--	--
	11/03/06	12.29	5.88	346 j	83.6 j	5.17 j	2.34 j	13.5 j	(3.47 j)	1.10/0.80
	01/30/07	12.59	5.58	130	13	0.64	<0.50	7.2	(3.4)	0.76/0.64
	06/01/07	10.82	7.35	2,200 k	650	13	3.2 m	143	(7.8)	1.21/0.93
	08/16/07	11.95	6.22	1,000 k	200	4.0	1.1	47.7	(3.3)	0.8/0.2
	12/06/07	12.43	5.74	<50	<0.5	<0.5	<0.5	<0.5	(<0.5)	--
	<b>02/25/08</b>	<b>9.40</b>	<b>8.77</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>3.14</b>


Notes:

- a = Sample was analyzed outside of the EPA recommended holding time.
  - b = Hydrocarbon reported does not match the pattern of the laboratory's standard.
  - c = Top of casing change due to maintenance.
  - d = Sample contains discrete peak in addition to gasoline.
  - e = Quantity of unknown hydrocarbon(s) in sample based on gasoline.
  - f = The concentration reported reflects individual or discrete unidentified peaks not matching a typical fuel pattern.
  - g = The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
  - h = Secondary ion abundances were outside method requirements. Identification based on analytical judgement.
  - i = Analyte was detected in the associated Method Blank.
  - j = pH>2
  - k = Analyzed by EPA Method 8015B (M).
  - l = The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard. Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.
  - m = Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
- Site surveyed November 1, 2001 by Virgil Chavez Land Surveying of Vallejo, CA.
- TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015C.
- Benzene, Toluene, Ethylbenzene, and Xylenes by EPA Method 8260B from April 27, 2001 through August 16, 2007. Concentrations prior to April 27, 2001 and after August 16, 2007 by EPA Method 8021B.
- MTBE = Methyl tert-butyl ether by EPA Method 8021B, concentrations in parentheses by EPA Method 8260B
- = Not applicable
- ug/L = micrograms per liter (Parts per billion)
- mg/L = milligrams per liter (Parts per million)
- MSL = Mean sea level
- ft. = Feet
- <n = Below detection limit
- (D) = Duplicate sample
- n/n = Pre-purge/Post-purge DO Readings

## **APPENDIX A**

Groundwater Monitoring Field Data Sheets

Well Gauging Data Sheet

Project.Task #: 1150.001 (214)			Project Name: 214 Saberi				
Address 1230 E14						Date: 2/25/8	
Name: Stewart Dalie				Signature: 			
Well ID	Well Size (in.)	Time	Depth to Immiscible Liquid (ft)	Thickness of Immiscible Liquid (ft)	Depth to Water (ft)	Total Depth (ft)	Measuring Point
MW4	2"	9	N/A	N/A	9.03	19.60	NTOC
VW-153	24 3/4" string	910			9.40	16.35	
MW2	2"	920			9.15	21.85	
MW3	2"	930			9.37	18.40	
MW6	4"	940			10.26	19.49	
MW7	4"	950			10.65	19.40	
VW-MW2	2"	10			9.55	21.70	
VW-MW4	2"	1010			9.39	18.08	
MW5	4"	1020			9.75	19.59	
MW1	2"	1030			9.91	21.10	
VW-151	2"	1040	V	V	9.84	14.38	V

Comments:

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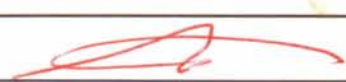
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## WELL DEVELOPMENT FIELD DATA SHEET

Well ID: MW4

Project.Task #: 1150.001 (214)		Project Name: Saberi						
Address: E 14th, Oak, CA								
Date: 2/25/8		Weather: clear						
Well Diameter: 2"		Volume/ft: 1" = 0.04, 2" = 0.16, 3" = 0.37, 4" = 0.65, 6" = 1.47, radius <sup>2</sup> * 0.163						
Total Depth (TD): 19.60		Depth to Product: /						
Depth to Water (DTW): 9.03		Product Thickness: /						
Water Column Height: 10.57		1 Casing Volume: 1.69 gallons						
Reference Point: NTOC		3 Casing Volumes: 5.07 gallons						
Purging Device: Per pump								
Sampling Device: disp bottle								
Time	Temp (°C)	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
1040	17.1	7.06	517.1		1.3107		1.5	
1045	17.6	7.04	201.1		6.29		2.75	
1050	17.5	6.64	170.7		7.07		4	
1055	17.9	6.65	168.6		7.04		5	
post purge	18.1	6.66	161.1		6.84		/	

Comments: Brown turbid water


Sample ID: MW4	Sample Time: 11
Laboratory: Melaphell	Sample Date: 2/25/8
Containers/Preservative: 3V HCl	
Analyzed for: g/btex/mtbe	
Sampler Name: SDV	Signature: 

## WELL DEVELOPMENT FIELD DATA SHEET

Well ID: **VWAS3**

Project.Task #: <b>1150.001 (214)</b>		Project Name: <b>Sateri</b>						
Address: <b>814 1230 Oak, CA</b>								
Date: <b>2/20/18</b>		Weather: <b>clear</b>						
Well Diameter: <b>2" / 3/4" pipe</b>		Volume/ft. 1" = 0.04    3" = 0.37    6" = 1.47 2" = 0.16    4" = 0.65    radius <sup>2</sup> * 0.163						
Total Depth (TD): <b>16.36</b>		Depth to Product: <b>/</b>						
Depth to Water (DTW): <b>9.40</b>		Product Thickness: <b>/</b>						
Water Column Height: <b>6.96</b>		1 Casing Volume: <b>1.11</b> gallons						
Reference Point: <b>NJOC</b>		3 Casing Volumes: <b>3.34</b> gallons						
Purging Device: <b>Peri pump</b>								
Sampling Device: <b>chop beaker</b>								
Time	Temp (°C)	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<b>1110</b>	<b>17.1</b>	<b>7.91</b>	<b>548.9</b>		<b>2.14</b>		<b>1.75</b>	
<b>1115</b>	<b>17.6</b>	<b>6.89</b>	<b>533.7</b>		<b>1.43</b>		<b>1.5</b>	
<b>1120</b>	<b>18.3</b>	<b>6.88</b>	<b>533.2</b>		<b>2.75</b>		<b>2.75</b>	
<b>1125</b>	<b>18.1</b>	<b>6.84</b>	<b>531.1</b>		<b>2.76</b>		<b>3</b>	
<b>post pump</b>	<b>18.0</b>	<b>6.81</b>	<b>601.1</b>		<b>3.14</b>		<b>/</b>	

Comments: **Small beaker / brown turbid**


Sample ID: <b>VWAS3</b>	Sample Time: <b>1130</b>
Laboratory: <b>McCaphell</b>	Sample Date: <b>2/22/18</b>
Containers/Preservative: <b>3 vials</b>	
Analyzed for: <b>g/b test / nitrate</b>	
Sampler Name: <b>Stu</b>	Signature: 

## WELL DEVELOPMENT FIELD DATA SHEET

Well ID: **MW2**

Project.Task #: <b>1150,001 (214)</b>		Project Name: <b>Sateri</b>						
Address: <b>1230 E14 Oak CA</b>								
Date: <b>2/25/8</b>		Weather: <b>cler</b>						
Well Diameter: <b>21.85 TS</b>		Volume/ft. 1" = 0.04    3" = 0.37    6" = 1.47 2" = 0.16    4" = 0.65    radius <sup>2</sup> * 0.163						
Total Depth (TD): <b>2" ✓</b>		Depth to Product: <b>/</b>						
Depth to Water (DTW): <b>9.15</b>		Product Thickness: <b>/</b>						
Water Column Height: <b>12.70</b>		1 Casing Volume: <b>2.03</b> gallons						
Reference Point: <b>NJOC</b>		<b>3</b> Casing Volumes: <b>6.09</b> gallons						
Purging Device: <b>PP</b>								
Sampling Device: <b>DB</b>								
Time	Temp (°C)	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<b>1135</b>	<b>16.3</b>	<b>7.02</b>	<b>587.1</b>		<b>3.87</b>		<b>1</b>	
<b>1138</b>	<b>17.1</b>	<b>6.84</b>	<b>588.7</b>		<b>3.19</b>		<b>2.75</b>	
<b>1140</b>	<b>17.4</b>	<b>6.76</b>	<b>590.6</b>		<b>3.21</b>		<b>3.5</b>	
<b>1145</b>	<b>17.6</b>	<b>6.70</b>	<b>589.8</b>		<b>3.11</b>		<b>4.25</b>	
<b>1150</b>	<b>17.5</b>	<b>6.66</b>	<b>588.2</b>		<b>3.14</b>		<b>6</b>	
<b>post purge</b>	<b>17.8</b>	<b>6.84</b>	<b>600.0</b>		<b>2.82</b>		<b>/</b>	

Comments:

Sample ID: <b>MW2</b>	Sample Time: <b>12</b>
Laboratory: <b>McBeybell</b>	Sample Date: <b>2/25/8</b>
Containers/Preservative: <b>3 vials</b>	
Analyzed for: <b>gl blue/ wtbe</b>	
Sampler Name: <b>sh</b>	Signature: 



## WELL DEVELOPMENT FIELD DATA SHEET

Well ID: **MW3**


Project.Task #: <b>1150.001(214)</b>		Project Name: <b>Seberri</b>						
Address: <b>1730 E14 Oak CA</b>								
Date: <b>2/25/8</b>		Weather: <b>clear</b>						
Well Diameter: <b>2"</b>		Volume/ft: <b>1" = 0.04</b> <b>3" = 0.37</b> <b>6" = 1.47</b> <b>2" = 0.16</b> <b>4" = 0.65</b> <b>radius<sup>2</sup> * 0.163</b>						
Total Depth (TD): <b>18.40</b>		Depth to Product: <b>/</b>						
Depth to Water (DTW): <b>9.37</b>		Product Thickness: <b>/</b>						
Water Column Height: <b>9.03</b>		1 Casing Volume: <b>1.90</b> gallons						
Reference Point: <b>NTOC</b>		<b>3</b> Casing Volumes: <b>2.70</b> gallons						
Purging Device: <b>db</b>								
Sampling Device: <b>db</b>								
Time	Temp (°C)	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<b>1205</b>	<b>17.4</b>	<b>6.60</b>	<b>663.3</b>		<b>5.51</b>	<del><b>5.51</b></del>	<b>1</b>	
<b>1210</b>	<b>17.1</b>	<b>6.60</b>	<b>699.8</b>		<b>5.47</b>		<b>2</b>	
<b>1215</b>	<b>17.2</b>	<b>6.58</b>	<b>703.2</b>		<b>5.43</b>		<b>3</b>	
<b>post purge</b>	<b>17.4</b>	<b>6.75</b>	<b>732.8</b>		<b>4.91</b>		<b>/</b>	

Comments:

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Sample ID: <b>MW3</b>	Sample Time: <b>1220</b>
Laboratory: <b>McLennan</b>	Sample Date: <b>2/25/8</b>
Containers/Preservative: <b>3 vials</b>	
Analyzed for: <b>TPHS (5hr) / nitrate</b>	
Sampler Name: <b>SDU</b>	Signature: 

## WELL DEVELOPMENT FIELD DATA SHEET

Well ID: **MW6**


Project.Task #: <b>1150.001 (214)</b>		Project Name: <b>Seheri</b>						
Address: <b>1230 E14 Ave CA</b>								
Date: <b>2/25/18</b>		Weather: <b>clr</b>						
Well Diameter: <b>4"</b>		Volume/ft. 1" = 0.04   3" = 0.37   6" = 1.47 2" = 0.16   4" = 0.65   radius <sup>2</sup> * 0.163						
Total Depth (TD): <b>19.49</b>		Depth to Product: <b>—</b>						
Depth to Water (DTW): <b>10.26</b>		Product Thickness: <b>—</b>						
Water Column Height: <b>9.23</b>		1 Casing Volume: <b>5.99</b> gallons						
Reference Point: <b>NTOC</b>		3 Casing Volumes: <b>17.99</b> gallons						
Purging Device: <b>SP</b>								
Sampling Device: <b>db</b>								
Time	Temp (°C)	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<b>1230</b>	<b>14.1</b>	<b>7.23</b>	<b>608.8</b>		<b>4.31</b>		<b>1</b>	
<b>1235</b>	<b>14.5</b>	<b>6.89</b>	<b>605.1</b>		<b>2.18</b>		<b>7</b>	
<b>1240</b>	<b>14.6</b>	<b>6.84</b>	<b>605.3</b>		<b>1.81</b>		<b>11</b>	
<b>1245</b>	<b>14.6</b>	<b>6.82</b>	<b>605.5</b>		<b>1.81</b>		<b>18</b>	

Comments:

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Sample ID: <b>MW6</b>	Sample Time: <b>1250</b>
Laboratory: <b>McAphell</b>	Sample Date: <b>2/25/18</b>
Containers/Preservative: <b>30 HCl</b>	
Analyzed for: <b>g / br / ur / he</b>	
Sampler Name: <b>STW</b>	Signature: 

## WELL DEVELOPMENT FIELD DATA SHEET

Well ID: **MW7**

Project.Task #: <b>1100.001 (214)</b>		Project Name: <b>Sateri</b>						
Address: <b>17305 Elm Oak CA</b>								
Date: <b>2/25/8</b>		Weather: <b>clear</b>						
Well Diameter: <b>4"</b>		Volume/ft. 1" = 0.04   3" = 0.37   6" = 1.47 2" = 0.16   4" = 0.65   radius <sup>2</sup> * 0.163						
Total Depth (TD): <b>19.40</b>		Depth to Product: <b>—</b>						
Depth to Water (DTW): <b>10.65</b>		Product Thickness: <b>—</b>						
Water Column Height: <b>8.75</b>		1 Casing Volume: <b>5.68</b> gallons						
Reference Point: <b>NTOC</b>		<b>3</b> Casing Volumes: <b>17.06</b> gallons						
Purging Device: <b>SP</b>								
Sampling Device: <b>db</b>								
Time	Temp (°C)	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<b>7:55</b>	<b>14.5</b>	<b>7.09</b>	<b>853.4</b>		<b>3.45</b>		<b>2</b>	
<b>1</b>	<b>15.1</b>	<b>7.01</b>	<b>894.1</b>		<b>2.30</b>		<b>8</b>	
<b>1:05</b>	<b>15.4</b>	<b>6.99</b>	<b>896.9</b>		<b>1.21</b>		<b>14</b>	
<b>1:10</b>	<b>15.6</b>	<b>7.02</b>	<b>899.9</b>		<b>1.18</b>		<b>17</b>	
<b>rest</b>	<b>15.4</b>	<b>7.00</b>	<b>879.16</b>		<b>1.11</b>		<b>—</b>	

Comments:

Sample ID: <b>MW7</b>	Sample Time: <b>1:05</b>
Laboratory: <b>Malaykell</b>	Sample Date: <b>2/25/8</b>
Containers/Preservative: <b>30 rci</b>	
Analyzed for: <b>phs / blue / nitro</b>	
Sampler Name: <b>sh</b>	Signature: 

## WELL DEVELOPMENT FIELD DATA SHEET

Well ID: VWMW2

Project.Task #: <u>1150.001(214)</u>		Project Name: <u>Scheri</u>						
Address: <u>1230 E14 Oak CA</u>								
Date: <u>2/25/8</u>		Weather: <u>clear</u>						
Well Diameter: <u>2"</u>		Volume/ft. <u>2"</u> = 0.16						
		1" = 0.04    3" = 0.37    6" = 1.47 4" = 0.65    radius <sup>2</sup> * 0.163						
Total Depth (TD): <u>21.70</u>		Depth to Product: <u>—</u>						
Depth to Water (DTW): <u>9.55</u>		Product Thickness: <u>—</u>						
Water Column Height: <u>12.15</u>		1 Casing Volume: <u>1.94</u> gallons						
Reference Point: <u>NJC</u>		<u>3</u> Casing Volumes: <u>5.83</u> gallons						
Purging Device: <u>db</u>								
Sampling Device: <u>db</u>								
Time	Temp (°C)	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<u>120</u>	<u>16.6</u>	<u>6.97</u>	<u>916.1</u>		<u>3.59</u>		<u>1</u>	
<u>125</u>	<u>17.0</u>	<u>6.85</u>	<u>970.6</u>		<u>3.38</u>		<u>3</u>	
<u>130</u>	<u>17.1</u>	<u>6.81</u>	<u>968.8</u>		<u>3.16</u>		<u>4</u>	
<u>135</u>	<u>17.1</u>	<u>6.81</u>	<u>959.1</u>		<u>3.11</u>		<u>6</u>	
<u>pp</u>	<u>16.2</u>	<u>7.05</u>	<u>928.4</u>		<u>2.48</u>		<u>✓</u>	

Comments: n/c odor gny for bid

Sample ID: <u>VWMW2</u>	Sample Time: <u>140</u>
Laboratory: <u>Nickell</u>	Sample Date: <u>2/25/8</u>
Containers/Preservative: <u>30 Hel</u>	
Analyzed for: <u>gl/step/whe</u>	
Sampler Name: <u>SW</u>	Signature: <u>[Signature]</u>

## WELL DEVELOPMENT FIELD DATA SHEET

Well ID: VW1104

Project.Task #: <u>1150.001 (214)</u>		Project Name: <u>Saderi</u>						
Address: <u>1230 E14 Oak, CA</u>								
Date: <u>2/25/8</u>		Weather: <u>chm</u>						
Well Diameter: <u>2"</u>		Volume/ft. <u>2"</u> = 0.16						
		1" = 0.04						
		3" = 0.37						
		6" = 1.47						
		4" = 0.65						
		radius <sup>2</sup> * 0.163						
Total Depth (TD): <u>18.08</u>		Depth to Product: <u>-</u>						
Depth to Water (DTW): <u>9.39</u>		Product Thickness: <u>-</u>						
Water Column Height: <u>8.69</u>		1 Casing Volume: <u>1.39</u> gallons						
Reference Point: <u>NTOE</u>		3 Casing Volumes: <u>4.17</u> gallons						
Purging Device: <u>db</u>								
Sampling Device: <u>db</u>								
Time	Temp (°C)	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<u>145</u>	<u>15.5</u>	<u>7.74</u>	<u>738.2</u>		<u>6.48</u>		<u>1</u>	
<u>150</u>	<u>15.4</u>	<u>7.53</u>	<u>522.8</u>		<u>4.72</u>		<u>2</u>	
<u>155</u>	<u>16.1</u>	<u>7.27</u>	<u>513.4</u>		<u>4.65</u>		<u>3</u>	
<u>2</u>	<u>16.4</u>	<u>7.22</u>	<u>511.1</u>		<u>4.61</u>		<u>4</u>	

Comments:

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Sample ID: <u>VW1104</u>	Sample Time: <u>205</u>
Laboratory: <u>McCampbell</u>	Sample Date: <u>2/25/8</u>
Containers/Preservative: <u>3V HCl</u>	
Analyzed for: <u>S (bhr/wt)</u>	
Sampler Name: <u>SW</u>	Signature: <u>[Signature]</u>

## WELL DEVELOPMENT FIELD DATA SHEET

Well ID: **MWS**

Project.Task #: <b>1150,001 (214)</b>		Project Name: <b>Suteri</b>						
Address: <b>1230 E14 Oak CA</b>								
Date: <b>2/25/18</b>		Weather:						
Well Diameter: <b>4"</b>		Volume/ft. 1" = 0.04    3" = 0.37    6" = 1.47 2" = 0.16    4" = 0.65    radius <sup>2</sup> * 0.163						
Total Depth (TD): <b>19.59</b>		Depth to Product: <b>-</b>						
Depth to Water (DTW): <b>9.75</b>		Product Thickness: <b>-</b>						
Water Column Height: <b>9.84</b>		1 Casing Volume: <b>6.39</b> gallons						
Reference Point: <b>N50E</b>		3 Casing Volumes: <b>19.18</b> gallons						
Purging Device: <b>sub pump</b>								
Sampling Device: <b>plb</b>								
Time	Temp (°C)	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<b>2:10</b>	<b>15.4</b>	<b>6.78</b>	<b>1171</b>		<b>3.87</b>		<b>4</b>	
<b>2:15</b>	<b>16.3</b>	<b>6.77</b>	<b>1455</b>		<b>2.67</b>		<b>9</b>	
<b>2:20</b>	<b>16.5</b>	<b>6.75</b>	<b>1470</b>		<b>2.26</b>		<b>15</b>	
<b>2:25</b>	<b>16.19</b>	<b>6.74</b>	<b>1473</b>		<b>2.19</b>		<b>19</b>	

Comments: **h/c odor**

Sample ID: <b>MWS</b>	Sample Time: <b>2:30</b>
Laboratory: <b>Welaywell</b>	Sample Date: <b>2/25/18</b>
Containers/Preservative: <b>30 Aes</b>	
Analyzed for: <b>TPH, Star Int an</b>	
Sampler Name: <b>STO</b>	Signature: 

## WELL DEVELOPMENT FIELD DATA SHEET

Well ID: mw1

Project.Task #: <u>11501001(24)</u>		Project Name: <u>Sateri</u>						
Address: <u>1230 E14 Oak CA</u>								
Date: <u>2/25/18</u>		Weather: <u>Clear</u>						
Well Diameter: <u>2"</u>		Volume/ft. <u>2"</u> = 0.16						
		1" = 0.04						
		3" = 0.37						
		6" = 1.47						
		4" = 0.65						
		radius <sup>2</sup> * 0.163						
Total Depth (TD): <u>21.10</u>		Depth to Product: <u>—</u>						
Depth to Water (DTW): <u>9.91</u>		Product Thickness: <u>—</u>						
Water Column Height: <u>11.19</u>		1 Casing Volume: <u>1.79</u> gallons						
Reference Point: <u>NTOE</u>		3 Casing Volumes: <u>5.37</u> gallons						
Purging Device: <u>db</u>								
Sampling Device: <u>db</u>								
Time	Temp (°C)	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<u>235</u>	<u>14.0</u>	<u>7.01</u>	<u>768.4</u>		<u>4.14</u>		<u>1</u>	
<u>340</u>	<u>14.3</u>	<u>7.01</u>	<u>759.7</u>		<u>3.66</u>		<u>3</u>	
<u>245</u>	<u>14.16</u>	<u>6.87</u>	<u>881.1</u>		<u>3.59</u>		<u>4</u>	
<u>250</u>	<u>15.1</u>	<u>6.94</u>	<u>679.9</u>		<u>3.61</u>		<u>5</u>	
<u>ap</u>	<u>15.5</u>		<u>799.8</u>		<u>3.74</u>		<u>—</u>	

Comments:

Sample ID: <u>mw1</u>	Sample Time: <u>235</u>
Laboratory: <u>Nclaytall</u>	Sample Date: <u>2/25/18</u>
Containers/Preservative: <u>30 ltr</u>	
Analyzed for: <u>TPH, bke, mbe</u>	
Sampler Name: <u>SK</u>	Signature: <u>[Signature]</u>

## WELL DEVELOPMENT FIELD DATA SHEET

Well ID: VWASI

Project Task #: <u>1150.001 (714)</u>				Project Name: <u>Suteri</u>				
Address: <u>1230 9th, Oak, CA</u>								
Date: <u>2/25/8</u>				Weather: <u>clear</u>				
Well Diameter: <u>2 1/2"</u>				Volume/ft. <u>2"</u> = 0.16				
				1" = 0.04		3" = 0.37		
				6" = 1.47		radius <sup>2</sup> * 0.163		
Total Depth (TD): <u>14.38</u>				Depth to Product: <u>—</u>				
Depth to Water (DTW): <u>9.84</u>				Product Thickness: <u>—</u>				
Water Column Height: <u>4.54</u>				1 Casing Volume: <u>1.72</u> gallons				
Reference Point: <u>NTOC</u>				3 Casing Volumes: <u>2.17</u> gallons				
Purging Device: <u>peris pump</u>								
Sampling Device: <u>db</u>								
Time	Temp (°C)	pH	Cond (µs)	NTU	DO (mg/L)	ORP (mV)	Vol (gal)	DTW
<u>3</u>	<u>18.10</u>	<u>7.01</u>	<u>1314</u>		<u>3.14</u>		<u>1</u>	
<u>3:05</u>	<u>18.6</u>	<u>6.69</u>	<u>1311</u>		<u>2.87</u>		<u>2</u>	
<u>3:10</u>	<u>18.65</u>	<u>7.04</u>	<u>1329</u>		<u>2.42</u>		<u>3</u>	
<u>3:15</u>	<u>18.66</u>	<u>6.91</u>	<u>1330</u>		<u>7.39</u>		<u>4</u>	

Comments: h/c odor Inhibitor

Sample ID: <u>VWASI</u>	Sample Time: <u>3:30</u>
Laboratory: <u>Melaphell</u>	Sample Date: <u>2/25/8</u>
Containers/Preservative: <u>3 vials</u>	
Analyzed for: <u>g/blex/wtbe</u>	
Sampler Name: <u>SW</u>	Signature: <u>[Signature]</u>



## **APPENDIX B**

### Laboratory Analytical Results



**McC Campbell Analytical, Inc.**

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: www.mccampbell.com E-mail: main@mccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

Pangea Environmental Svcs., Inc.  1710 Franklin Street, Ste. 200  Oakland, CA 94612	Client Project ID: # 1150.001 (714); Sateri	Date Sampled: 02/15/08
		Date Received: 02/26/08
	Client Contact: Morgan Gillies	Date Reported: 03/04/08
	Client P.O.:	Date Completed: 03/04/08

**WorkOrder: 0802615**

March 04, 2008

Dear Morgan:

Enclosed within are:

- 1) The results of the **11** analyzed samples from your project: **# 1150.001 (714); Sateri,**
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.

0802615

**Pangea Environmental Services, Inc.**

1710 Franklin Street  
Oakland, CA 94612

Website: [www.pangeaenv.com](http://www.pangeaenv.com)

Telephone: (510) 836-3700

Fax: (510) 836-3709

**CHAIN OF CUSTODY RECORD**

**TURN AROUND TIME**

RUSH  
 24 HR  
 48 HR  
 72 HR  
 5 DAY

EDF Required? yes Coelt (Normal) No

Write On (DW) No

Report To: ~~Stewart Date~~ Morgan Gilles Bill To: Pangea  
 Company: Pangea Environmental Technology, Inc. mgilles  
 1710 Franklin Street, Suite 200, Oakland, CA 94612  
 E-Mail: ~~\_\_\_\_\_~~@pangeaenv.com  
 Tele: (510) ~~708-1751~~ 836-3700 Fax: (510) 836-3709  
 Project #: 1150,001 (714) Project Name: Saberri  
 Project Location: 1230 914 Oak, CA  
 Sampler Signature: [Signature]

Analysis Request

Other

Comments

SAMPLE ID (Field Point Name)	LOCATION <u>1230 914</u>	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				Filter Samples for Metals analysis: Yes / No			
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO <sub>3</sub>	Other				
<u>MW4</u>	↓	<u>2/15/08</u>	<u>11</u>	<u>3</u>	<u>VOAS</u>						<u>XX</u>	<u>XX</u>						
<u>VWAS3</u>		<u>1130</u>																
<u>MW2</u>		<u>12</u>																
<u>MW3</u>		<u>1220</u>																
<u>MW6</u>		<u>1250</u>																
<u>MW7</u>		<u>115</u>																
<u>VW MW2</u>		<u>140</u>																
<u>VW MW4</u>		<u>205</u>																
<u>MW5</u>		<u>230</u>																
<u>MW1</u>		<u>255</u>																
<u>VWAS1</u>	↓	↓	<u>330</u>	↓	↓													

Relinquished By: [Signature] Date: 2/15/08 Time: 5:00 Received By: [Signature]

Relinquished By: [Signature] Date: 2/26/08 Time: 152C Received By: [Signature]

Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

ICE# 12.3  
 GOOD CONDITION ✓  
 HEAD SPACE ABSENT ✓  
 DECHLORINATED IN LAB ✓  
 APPROPRIATE CONTAINERS ✓  
 PRESERVED IN LAB ✓  
 COMMENTS:  
 VOAS O&G METALS OTHER  
 PRESERVATION pH<2

# McC Campbell Analytical, Inc.



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

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 0802615

ClientCode: PEO

WriteOn   
  EDF   
  Excel   
  Fax   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

Report to:	Morgan Gillies	Email: mgillies@pangeaenv.com	Bill to:	Bob Clark-Riddell	Requested TAT: 5 days
	Pangea Environmental Svcs., Inc.	TEL: (510) 836-3700 FAX: (510) 836-3709		Pangea Environmental Svcs., Inc.	Date Received: 02/26/2008
	1710 Franklin Street, Ste. 200	PO:		1710 Franklin Street, Ste. 200	Date Printed: 02/26/2008
	Oakland, CA 94612	ProjectNo: # 1150.001 (714); Sateri		Oakland, CA 94612	

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	
0802615-001	MW4	Water	2/15/2008 11:00	<input type="checkbox"/>	A	A											
0802615-002	VWAS 3	Water	2/15/2008 11:30	<input type="checkbox"/>	A												
0802615-003	MW 2	Water	2/15/2008 12:00	<input type="checkbox"/>	A												
0802615-004	MW 3	Water	2/15/2008 12:20	<input type="checkbox"/>	A												
0802615-005	MW 6	Water	2/15/2008 12:50	<input type="checkbox"/>	A												
0802615-006	MW 7	Water	2/15/2008 1:15	<input type="checkbox"/>	A												
0802615-007	VWMW 2	Water	2/15/2008 1:40	<input type="checkbox"/>	A												
0802615-008	VWMW 4	Water	2/15/2008 2:05	<input type="checkbox"/>	A												
0802615-009	MW 5	Water	2/15/2008 2:30	<input type="checkbox"/>	A												
0802615-010	MW 1	Water	2/15/2008 2:55	<input type="checkbox"/>	A												
0802615-011	VWAS 1	Water	2/15/2008 3:30	<input type="checkbox"/>	A												

**Test Legend:**

1	G-MBTX W	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Kimberly Burks

**Comments:**

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



**Sample Receipt Checklist**

Client Name: **Pangea Environmental Svcs., Inc.**

Date and Time Received: **2/26/2008 6:12:56 PM**

Project Name: **# 1150.001 (714); Sateri**

Checklist completed and reviewed by: **Kimberly Burks**

WorkOrder N°: **0802615** Matrix Water

Carrier: Derik Cartan (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
- Container/Temp Blank temperature Cooler Temp: 12.3°C NA
- Water - VOA vials have zero headspace / no bubbles? Yes  No  No VOA vials submitted
- Sample labels checked for correct preservation? Yes  No
- TTLC Metal - pH acceptable upon receipt (pH<2)? Yes  No  NA

Client contacted:

Date contacted:

Contacted by:

Comments:



# McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

Pangea Environmental Svcs., Inc.  1710 Franklin Street, Ste. 200  Oakland, CA 94612	Client Project ID: # 1150.001 (714); Sateri	Date Sampled: 02/15/08
		Date Received: 02/26/08
	Client Contact: Morgan Gillies	Date Extracted: 02/28/08-02/29/08
	Client P.O.:	Date Analyzed 02/28/08-02/29/08

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

Extraction method SW5030B

Analytical methods SW8021B/8015Cm

Work Order: 0802615

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW4	W	ND	ND	ND	ND	ND	ND	1	90
002A	VWAS3	W	ND	ND	ND	ND	ND	ND	1	90
003A	MW2	W	ND	ND	ND	ND	ND	ND	1	89
004A	MW3	W	ND	ND	ND	ND	ND	ND	1	90
005A	MW6	W	ND	ND	ND	ND	ND	ND	1	88
006A	MW7	W	ND	ND	ND	ND	ND	ND	1	93
007A	VWMW2	W	620,a	ND	100	4.1	4.9	2.0	1	110
008A	VWMW4	W	56,a	ND	22	ND	ND	0.50	1	91
009A	MW5	W	3000,a	20	640	9.7	52	77	1	98
010A	MW1	W	ND	ND	ND	ND	ND	ND	1	104
011A	VWAS1	W	47,000,a	ND<350	3500	1200	1500	4400	20	112

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

\* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.



### QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 0802615

Analyte	EPA Method SW8021B/8015Cm		Extraction SW5030B			BatchID: 33999			Spiked Sample ID: 0802610-013A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) <sup>£</sup>	ND	60	99.5	102	2.04	112	106	6.12	70 - 130	30	70 - 130	30
MTBE	ND	10	89.6	87.5	2.41	88.4	86.7	2.01	70 - 130	30	70 - 130	30
Benzene	ND	10	98.8	101	1.80	106	102	3.75	70 - 130	30	70 - 130	30
Toluene	ND	10	109	111	1.82	116	113	2.93	70 - 130	30	70 - 130	30
Ethylbenzene	ND	10	106	108	2.38	112	110	1.50	70 - 130	30	70 - 130	30
Xylenes	ND	30	115	116	1.19	121	119	2.02	70 - 130	30	70 - 130	30
%SS:	91	10	96	97	1.38	99	98	0.458	70 - 130	30	70 - 130	30

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

#### BATCH 33999 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0802615-001A	02/15/08 11:00 AM	02/28/08	02/28/08 5:39 AM	0802615-002A	02/15/08 11:30 AM	02/29/08	02/29/08 12:54 AM
0802615-003A	02/15/08 12:00 PM	02/28/08	02/28/08 6:46 AM	0802615-004A	02/15/08 12:20 PM	02/28/08	02/28/08 7:19 AM
0802615-005A	02/15/08 12:50 PM	02/28/08	02/28/08 7:52 AM	0802615-006A	02/15/08 1:15 AM	02/28/08	02/28/08 11:47 AM
0802615-007A	02/15/08 1:40 AM	02/29/08	02/29/08 1:27 AM	0802615-008A	02/15/08 2:05 AM	02/28/08	02/28/08 4:33 AM
0802615-009A	02/15/08 2:30 AM	02/29/08	02/29/08 12:21 AM	0802615-010A	02/15/08 2:55 AM	02/28/08	02/28/08 2:54 AM
0802615-011A	02/15/08 3:30 AM	02/28/08	02/28/08 3:53 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.