October 22, 2009

VIA ALAMEDA COUNTY FTP SITE

Mr. Paresh Khatri
Alameda County Environmental Health
1331 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Re: **Groundwater Monitoring Report – Second Half 2009**
5175 Broadway Street
Oakland, California
ACEH Fuel Leak Case No. RO#0000139

Dear Mr. Khatri:

On behalf of Rockridge Heights LLC, Pangea Environmental Services, Inc., has prepared this *Groundwater Monitoring Report —Second Half 2009.* The report describes groundwater monitoring, sampling, and other site activities. Site groundwater monitoring is currently performed during the first and third quarters each year.

The report will be uploaded to the Alameda County FTP site. As requested, Pangea will not submit a hard copy of this report to Alameda County Environmental Health. If you have any questions or comments, please call me at (510) 435-8664.

Sincerely,
Pangea Environmental Services, Inc.

Bob Clark-Riddell, P.E.
Principal Engineer

Attachment: *Groundwater Monitoring Report – Second Half 2009*

cc: Rockridge Heights, LLC, C/O Gary Feiner, 34 Schooner Hill, Oakland, California 94618
SWRCB Geotracker (Electronic copy)

GROUNDWATER MONITORING REPORT – SECOND HALF 2009

5175 Broadway
Oakland, California

October 22, 2009

Prepared for:

Rockridge Heights, LLC
C/O Gary Feiner
34 Schooner Hill
Oakland, California 94618

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

INTRODUCTION

On behalf of Rockridge Heights, LLC, Pangea Environmental Services, Inc. (Pangea) conducted groundwater monitoring and sampling at the subject site (Figure 1). The purpose of the monitoring and sampling is to evaluate dissolved contaminant concentrations, determine the groundwater flow direction, and inspect site wells for separate-phase hydrocarbons (SPH). Current groundwater analytical results and elevation data are shown on Figures 2 and 3. Current and historical data are summarized on Table 1.

SITE BACKGROUND

The subject property is located at 5175 Broadway Street, at the southwest corner of the intersection of Broadway and Coronado Avenue in Oakland, California in Alameda County (Figure 1). The site is approximately 0.6 miles south-southeast of Highway 24 and approximately 2.3 miles east of Interstate 80 and the San Francisco Bay. The property is relatively flat lying, with a slight slope to the south-southwest, and lies at an elevation of approximately 160 feet above mean sea level. Topographic relief in the area surrounding the site also slopes generally towards the south-southwest. The western site boundary is the top of an approximately 10 foot high retaining wall that separates the site from an adjacent apartment complex.

The property has been vacant since 1979 and was formerly occupied by an Exxon Service Station used for fuel sales and automobile repair. The site is approximately 13,200 square feet in area and the majority of the ground surface is paved with concrete and/or asphalt, although the former tank location is not paved. Land use to the west and northwest is residential, including apartment buildings and single family homes. Properties to the northeast, east and south of the site are commercial. The site and adjacent properties are shown on Figure 2.

Environmental compliance work commenced when the site USTs were removed in January 1990. Three 8,000-gallon steel single-walled USTs, associated piping, and a 500-gallon steel single-walled waste oil tank were removed. Tank Project Engineering, Inc. (TPE) conducted the tank removal and observed holes in all four tanks. Approximately 700 tons of contaminated soil was excavated during tank removal and was subsequently remediated and reused for onsite backfill by TPE. In April 1990, TPE installed and sampled monitoring wells MW-1, MW-2 and MW-3. In June 1991, Soil Tech Engineering (STE), subsequently renamed Environmental Soil Tech Consultants (ESTC), installed monitoring wells STMW-4 and STMW-5. Groundwater monitoring was conducted on the site intermittently until October 2002. Golden Gate Tank Removal (GGTR) performed additional assessment in January and February 2006. In June 2006, the property was purchased by Rockridge Heights, LLC. Pangea commenced quarterly groundwater monitoring at the site in July 2006. MTBE is not considered to be a contaminant of concern because use of the site for fuel sales

predates widespread use of MTBE in gasoline and because analytical results have not shown significant detections of MTBE.

In January and March 2007, Pangea installed twelve wells (MW-2C, MW-3A, MW-3C, MW-4A, MW-5A, MW-5B, MW-5C, MW-6A, MW-7B, MW-7C, MW-8A and MW-8C) and three offsite soil borings to help define the vertical and lateral extent of groundwater contamination. Pangea also abandoned four monitoring wells (MW-2, MW-3, STMW-4 and STMW-5) to reduce the risk of vertical contaminant migration and improve the quality of monitoring data. New wells installed at the site were categorized according to the depths of their screen intervals. Shallow (A-zone) wells have screen intervals of approximately 10 to 15 feet bgs, which generally straddle the top of the water table and are generally screened in surficial fill and alluvium. Intermediate-depth (B-zone) wells are screened at approximately 15 to 20 feet bgs, either in surficial strata or underlying fractured bedrock, while deep (C-zone) wells are generally screened at approximately 20 to 25 feet bgs and into fractured bedrock. Well MW-1 is screened across both the A-zone and B-zone.

In April 2007, Pangea performed a dual-phase extraction (DPE) pilot test to evaluate whether DPE is an appropriate remedial technology to remove residual hydrocarbons from beneath the site. In July 2007, Pangea submitted an Interim Remedial Action Plan for site corrective action.

In August 2007, Pangea installed three offsite monitoring wells (MW-9A, MW-9C and MW-10A) and conducted subslab vapor sampling in the commercial building located immediately south of the site. The purpose of the offsite well installation was to determine the downgradient extent of contaminant migration, and to help evaluate downgradient effects of any future remediation conducted onsite. The purpose of the subslab vapor sampling was to determine whether vapor migrating from underlying groundwater had impacted soil vapor. Soil gas sampling was also conducted near the southern and western edge of the property. Soil gas sampling and offsite monitoring well installation is described in Pangea's *Soil Gas Sampling and Well Installation Report* dated October 23, 2007. Further subslab/soil gas sampling was conducted at the two adjacent properties in June 2008 and reported in Pangea's *Additional Soil Gas Sampling Report* dated July 14, 2008.

In response to a letter from ACEH dated June 10, 2008, Pangea submitted a *Revised Site Conceptual Model and Corrective Action Plan* (Revised CAP) dated July 23, 2008. ACEH commented on the Revised CAP in a letter dated July 31, 2008 and Pangea prepared a *Corrective Action Plan Addendum* dated August 11, 2008 to address ACEH comments. In a letter dated August 22, 2008, ACEH approved the CAP and Addendum as a 'Draft CAP' and initiated the public-participation process. The *Final Corrective Action Plan* dated March 25, 2009 recommended remediation via DPE and air sparging. In response to an ACEH letter dated April 16, 2009, Pangea submitted a *Final Corrective Action Plan – Addendum* dated May 18, 2009, which provided justification for the recommended remedial action. ACEH approved the *Final CAP Addendum* in a letter dated

June 18, 2009. On August 19, 2009, Pangea oversaw installation of six dual-phase extraction (DPE) wells and one air sparging (AS) well to facilitate implementation of the approved corrective action plan, and Pangea is in the process of preparing a *Remediation Well Installation Report*.

GROUNDWATER MONITORING AND SAMPLING

On September 17 and 18, 2009, Pangea conducted groundwater monitoring and sampling at the site in accordance with the groundwater monitoring program in Appendix A. The site monitoring program involves semi-annual monitoring of all wells during the first and third quarters.

Site monitoring wells were gauged for depth-to-water and inspected for separate-phase hydrocarbons (SPH). To obtain water levels representative of the piezometric surface, technicians removed all well caps (allowing water levels to equilibrate) the day prior to sampling. Groundwater samples were collected from all site monitoring wells this quarter with the exception of well MW-5A, which had an insufficient amount of water.

Prior to sample collection, approximately three casing volumes of water were purged using disposable bailers, an electric submersible pump, or a clean PVC bailer (although fewer casing volumes were purged if the well dewatered). During well purging, field technicians measured the pH, temperature and conductivity of the water. 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 in Appendix B.

MONITORING RESULTS

Current and historical groundwater elevation and analytical data are described below and summarized on Table 1, Figure 2 and Figure 3. To facilitate data evaluation, well construction details are summarized on Table 2. Groundwater samples were analyzed for total petroleum hydrocarbons as diesel (TPHd) by EPA Method 8015C with silica gel cleanup; total petroleum hydrocarbons as gasoline (TPHg) by modified EPA Method 8015C; and benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8021B. Samples were analyzed by McCampbell Analytical, Inc., of Pittsburg, California, a State-certified laboratory. The laboratory analytical report is included in Appendix C.

Groundwater Flow Direction

Based on depth-to-water data collected on September 17, 2009, shallow groundwater (A-zone) flows generally southwards to southwestwards throughout most of the site and in the area downgradient from the site, as shown on Figure 2. The relatively high groundwater elevation measured in well MW-6A suggests that shallow groundwater is mounded in the former UST excavation and that the local flow direction radiates outwards away from the former excavation area towards the northeast corner of the site in the direction of MW-4A. These observations are interpreted as indicating that the unpaved former UST excavation has acted as a collector for rainwater and that the asphalt pavement covering the remainder of the site serves to reduce infiltration elsewhere while directing rainwater to the unpaved UST excavation area. The current inferred flow direction in shallow groundwater is generally consistent with previous monitoring results.

Groundwater flow in deep groundwater (C-zone) is generally southeastward across the site and turns toward the south beneath the adjacent commercial property, as shown on Figure 3. Generally, the elevation of the piezometric surface for C-zone wells is lower than elevations for A-zone wells, indicating that a downward gradient is present. The inferred flow direction is generally consistent with previous monitoring results.

Hydrocarbon Distribution in Groundwater

No measurable thickness of separate-phase hydrocarbons (SPH) was observed in any monitoring wells this quarter, although an immeasurable sheen was observed by the field technician in monitoring wells MW-1, MW-7B and MW-7C. During previous quarterly monitoring, a thin layer of SPH had been measured in well STMW-4, but no measurable SPH were detected this quarter in well MW-4A, which was installed in the drilled out borehole of STMW-4 but screened over a shallower depth interval than STMW-4.

The maximum TPHg concentration detected this quarter was 37,000 µg/L (deep well MW-3C) and the maximum TPHd concentration was 25,000 µg/L (shallow well MW-4A). The maximum benzene concentration was 2,700 µg/L in shallow well MW-3A. No hydrocarbons were detected in the three downgradient offsite monitoring wells (MW-9A, MW-9C and MW-10A). Historic low concentrations of TPHg were detected in wells MW-2C (64 µg/L) and MW-3A (19,000 µg/L), and a historic low concentration of benzene was detected in well MW-2C (4.3 µg/L). Hydrocarbon concentrations were generally within historic ranges and trends in all site wells.

Shallow (A-zone) groundwater contains petroleum hydrocarbons at elevated concentrations in two primary areas near the former UST excavation: a northern area in the vicinity of well MW-4A, and a southwestern area in the vicinity of wells MW-3A and MW-8A. Prior shallow grab groundwater sampling data also indicates that the southern area of contamination extends to the southern site boundary in the vicinity of wells MW-7B and

MW-7C (where *benzene* concentrations are apparently biodegrading in these deeper wells). The non-detect concentrations of hydrocarbons in wells MW-9A and MW-10A indicate that offsite migration of petroleum hydrocarbons in shallow groundwater is minimal. The observed distribution of hydrocarbons in A-zone groundwater is presumably due to plume migration radially away from the excavation area, likely caused by mounding of groundwater within the uncapped former UST excavation during the rainy season.

Contaminant distribution in deeper groundwater differs significantly from the distribution of hydrocarbons in shallow groundwater. Elevated contaminant concentrations within deeper groundwater (B-zone and C-zone) are apparently present in the vicinity of wells MW-3C, MW-7B and MW-7C in the central and southern portions of the site. Again, the apparent biodegradation of benzene and select other compounds in wells MW-7B and MW-7C suggests that deeper hydrocarbons are attenuating. In addition, the very low to non-detect concentrations of petroleum hydrocarbons detected in newly installed offsite well MW-9C over the last few quarters indicates that offsite plume migration is minimal. Well screen intervals for shallow and deep wells are summarized on Table 2.

Fuel Oxygenate Distribution in Groundwater

No MTBE was detected above reporting limits in any samples obtained from site monitoring wells this quarter. MTBE is not a contaminant of concern at this site both due to the lack of detections, and because the USTs were removed in 1990 prior to widespread use of MTBE as a fuel oxygenate.

OTHER SITE ACTIVITIES

Site Remediation

In a letter dated August 22, 2008, ACEH provided initial approval of the corrective action plan (CAP) presented in the July 23, 2008 CAP and August 11, 2008 CAP Addendum as a 'Draft CAP'. Following the public participation comment period, Pangea presented a 'Final CAP' dated March 25, 2009 to comply with the August 22, 2008 directive.

Due to cost control efforts requested by the California UST Cleanup Fund and due to the lack of any planned site development, the Final CAP proposed to use many existing site wells for site remediation and to reduce the quantity of new remediation wells. In a letter dated April 16, 2009, ACEH requested implementation of the Draft CAP work scope, but also requested additional technical information to justify the reduced remediation well quantity proposed in the Final CAP. Pangea presented the requested technical information and justification for the proposed remedial action in the *Final Corrective Action Plan – Addendum*, dated May 18, 2009. ACEH approved the *Final CAP Addendum* in a letter dated June 18, 2009. On August 19, 2009,

Pangea oversaw installation of six dual-phase extraction (DPE) wells and one air sparging (AS) well to facilitate implementation of the approved corrective action plan.

Groundwater Monitoring

In response to State Water Resources Control Board Resolution No. 2009-0042, ACEH requested that the monitoring frequency at the site be reduced from quarterly to *semi-annually* (during the first and third quarters) in a letter dated July 24, 2009. Pangea will conduct semi-annual groundwater monitoring and sampling at the site in accordance with the monitoring program shown in Appendix A. Pangea anticipates resuming quarterly groundwater monitoring during and after completion of initial site remediation to facilitate evaluation of remedial effectiveness on site conditions.

The next monitoring event is scheduled for March 2010. Pangea will conduct gauging and sampling of all onsite and offsite groundwater monitoring wells. Groundwater samples will be analyzed for TPHg/BTEX/MTBE by EPA Method 8015Cm/8021B, and for TPHd by EPA Method 8015C with silica gel cleanup. Pangea will summarize groundwater monitoring activities and results in a groundwater monitoring report.

Electronic Reporting

This report will be uploaded to the Alameda County ftp site. The report, laboratory data, and other applicable information will also be uploaded to the State Water Resource Control Board's Geotracker database. As requested, report hard copies will no longer be provided to the local agencies.

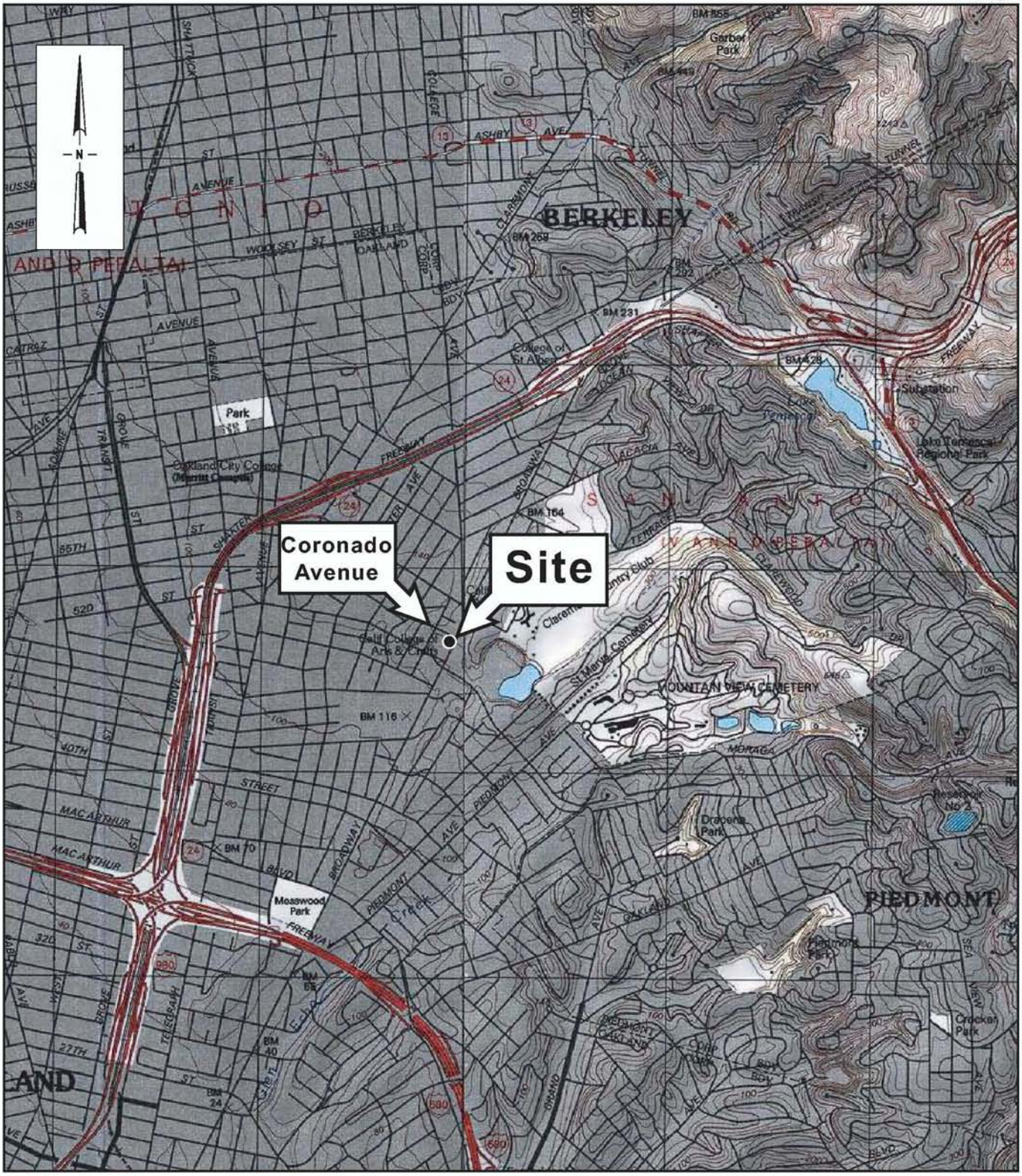
ATTACHMENTS

Figure 1 – Site Location Map
Figure 2 – Groundwater Elevation Contour and Hydrocarbon Concentration Map (Shallow)
Figure 3 – Groundwater Elevation Contour and Hydrocarbon Concentration Map (Deep)

Table 1 – Groundwater Analytical Data
Table 2 – Well Construction Details

Appendix A – Groundwater Monitoring Program
Appendix B – Groundwater Monitoring Field Data Sheets
Appendix C – Laboratory Analytical Reports

7/16/2007



SOURCE: TOPO! MAPS

0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

Figure 1

Former Exxon Station
5175 Broadway
Oakland, California

PANGEA

Site Location Map

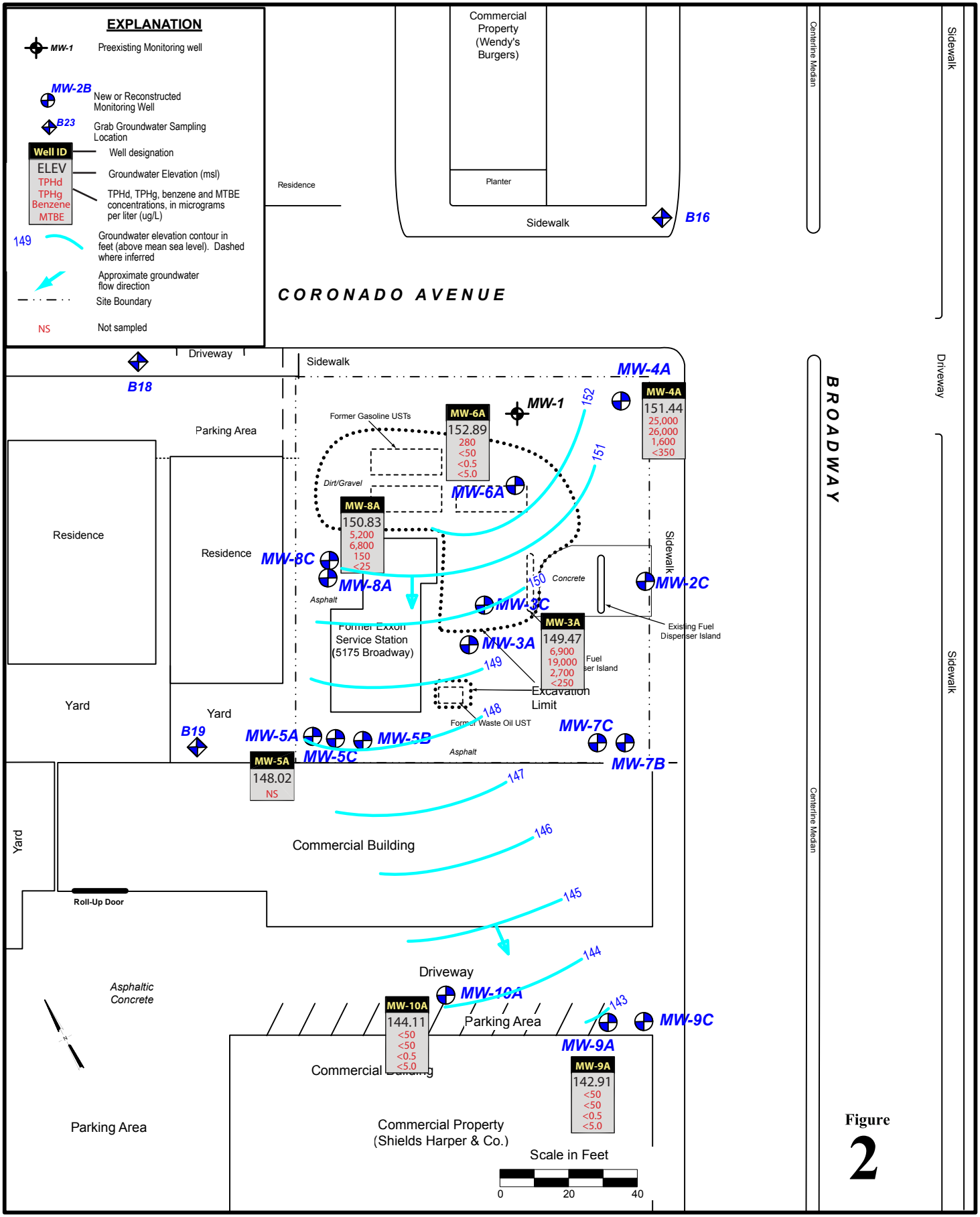


Figure 2

Former Exxon Station
5175 Broadway
Oakland, California

Groundwater Elevation Contour and Hydrocarbon Concentration Map (Shallow)
September 17, 2009

PANGEA

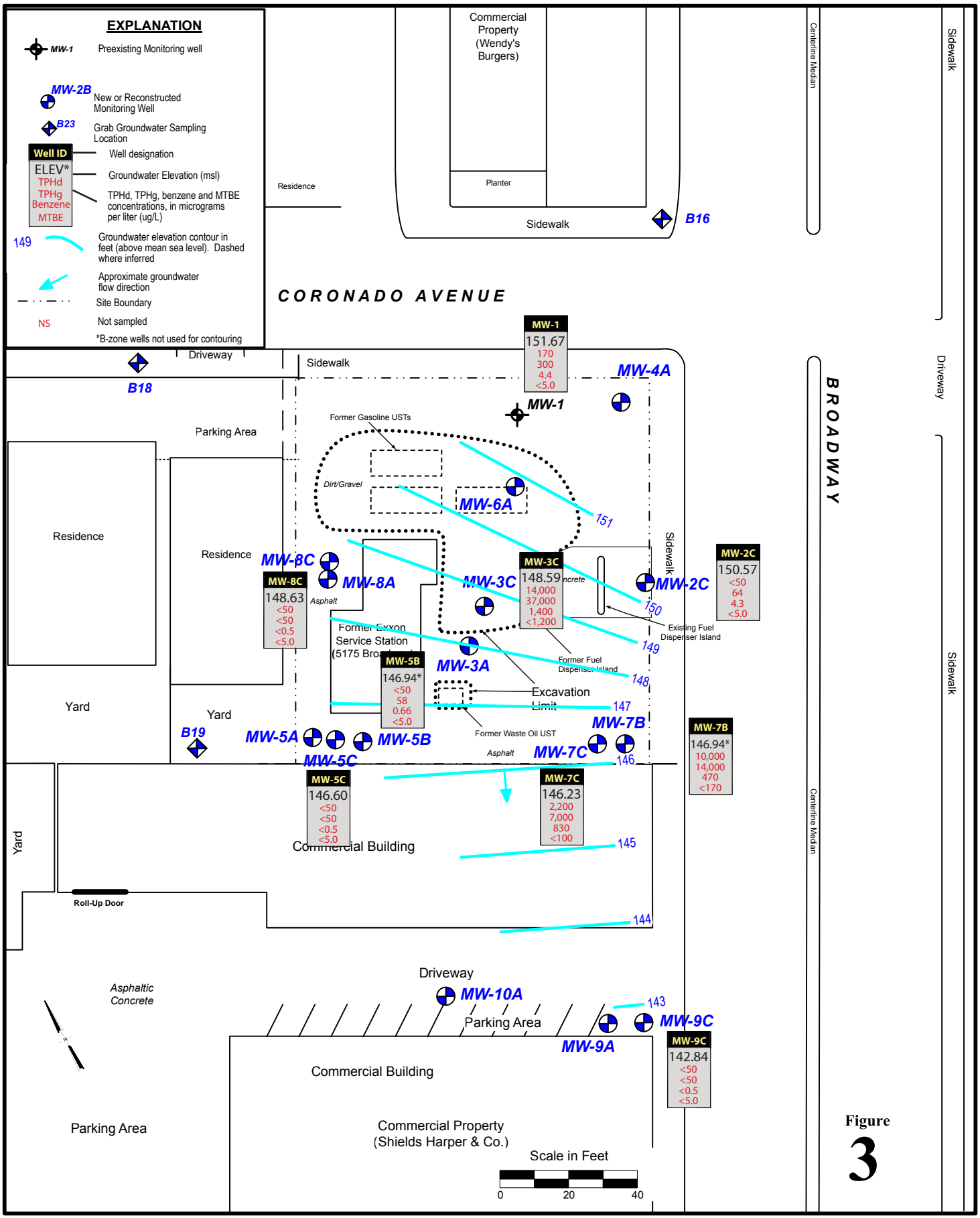


Figure 3

Former Exxon Station
5175 Broadway
Oakland, California

Groundwater Elevation Contour and Hydrocarbon Concentration Map (Deep)
September 17, 2009

PANGEA

Table 1. Groundwater Analytical Data - Former Exxon Station, 5175 Broadway, Oakland, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	SPH (ft)	Groundwater Elevation (ft)	Depth to Water (ft)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	1,2-DCA	Dissolved Oxygen mg/L
					←				µg/L				→	
MW-1	04/30/89	--	--	--	--	200	18	5	2	12	--	--	--	--
(97.71)	05/17/90	--	88.45	9.26	--	--	--	--	--	--	--	--	--	--
	09/26/90	--	87.79	9.92	--	1,300	55	31	120	100	--	--	--	--
	01/14/91	--	88.17	9.54	--	3,100	350	83	86	130	--	--	--	--
(102.04)	07/03/91	--	92.62	9.42	--	580	32	41	40	55	--	--	--	--
	11/11/91	--	92.59	9.45	--	330	20	2	2	11	--	--	--	--
(101.83)	03/04/92	--	93.90	7.93	--	810	11	5	10	23	--	--	--	--
	06/02/92	--	92.85	8.98	--	2,200	93	32	40	120	--	--	--	--
	09/28/92	--	92.54	9.29	--	2,900	24	78	19	37	--	--	--	--
	01/11/93	--	94.27	7.56	--	1,700	5.7	6	11	28	--	--	--	--
	08/15/94	--	92.64	9.19	--	2,000	120	3	6	16	--	--	--	--
(97.50)	11/07/96	--	88.77	8.73	270	1,200	3	1.1	1.5	3.8	<0.5	--	--	--
	02/12/97	--	89.58	7.92	<50	1,800	13	5.7	4.8	17	<0.5	--	--	--
	06/16/97	--	88.46	9.04	<50	330	27	<0.5	<0.5	1.2	<0.5	--	--	--
	09/30/97	--	89.94	7.56	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
(97.50)	01/27/98	--	89.54	7.96	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
	04/24/98	--	89.52	7.98	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
	08/17/98	--	88.52	8.98	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
	11/16/98	--	88.60	8.90	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
	02/16/99	--	88.86	8.64	<50	110	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
	05/17/99	--	89.00	8.50	--	280	1.1	0.6	<0.5	<0.5	<0.5	--	--	--
	08/17/99	--	88.26	9.24	86	790	5.6	4.3	4.5	11	<5.0	--	--	--
	11/17/99	--	87.06	10.44	--	1,300	3.6	1.9	2.7	6.6	<1.0	--	--	--
	02/17/00	--	89.02	8.48	--	580	1.1	2.3	3.6	4.9	<5.0	--	--	--
	05/17/00	--	89.26	8.24	--	1,500	130	6.8	6.1	<5.0	<5.0	--	--	--
	08/17/00	--	88.73	8.77	--	550	160	<25	<25	<25	<25	--	--	--
	11/15/00	--	88.46	9.04	--	130	<5.0	<5.0	<5.0	<5.0	<5.0	--	--	--
	02/16/01	--	89.90	7.60	--	400	26	<5.0	<5.0	<5.0	<5.0	--	--	--
	01/11/02	--	89.42	8.08	160	600	74	53	14	52	110	--	--	--
(161.03)	07/01/02	--	152.01	9.02	280	670	25	<5.0	<5.0	<5.0	<5.0	--	--	--
	10/04/02	--	151.29	9.74	520	1,800	130	7.8	8.1	14	<5.0	--	--	--
	07/28/06	--	151.93	9.10	86	250	42	1.7	1.4	3.1	<1.0	51	1.5	0.21
	10/16/06	--	151.98	9.05	110	390	16	<0.5	1.5	2.2	<0.5	41	1.6	0.17
(161.10)	01/09/07	--	152.90	8.20	160	530	21	1.7	2.8	5.1	--	--	--	0.22
	03/26/07	--	152.84	8.26	--	--	--	--	--	--	--	--	--	--
	06/24/07	--	152.12	8.98	220	500	24	1.1	2.2	4.2	<5.0	--	--	--
	09/29/07	--	151.44	9.66	180	540	19	1.2	2.3	5.3	<5.0	--	--	--
	12/27/07	--	152.60	8.50	200	290	10	0.65	1.2	3.0	<5.0	--	--	--
	03/15/08	--	152.72	8.38	340	680	24	1.1	1.9	2.9	<10	--	--	--
	09/12/08	--	151.86	9.24	320	1,000	13	<0.5	0.61	1.4	<5.0	--	--	--
	03/06/09	--	154.40	6.70	2,700	2,500	28	3.2	4.8	10	<17	--	--	--
	09/17/09	--	**151.67**	**9.43**	**170**	**300**	**4.4**	**<0.5**	**<0.5**	**2.3**	**<5.0**	--	--	--

Table 1. Groundwater Analytical Data - Former Exxon Station, 5175 Broadway, Oakland, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	SPH (ft)	Groundwater Elevation (ft)	Depth to Water (ft)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	1,2-DCA	Dissolved Oxygen mg/L
					←				µg/L				→	
MW-2	04/30/89	--	--	--	--	230	39	18	5	23	--	--	--	--
(97.78)	05/17/90	--	87.78	10.00	--	--	--	--	--	--	--	--	--	--
	09/29/90	--	86.95	10.83	--	850	970	5	25	47	--	--	--	--
	01/14/91	--	87.15	10.63	--	3,100	30	52	24	34	--	--	--	--
(102.02)	07/03/91	--	91.94	10.08	--	1,590	30	52	24	34	--	--	--	--
	11/11/91	--	91.81	10.21	--	960	320	15	4	29	--	--	--	--
	03/04/92	--	93.32	8.70	--	1,500	9.5	8.4	9.8	22	--	--	--	--
	06/02/92	--	92.50	9.52	--	2,800	84	41	59	95	--	--	--	--
	09/28/92	--	91.93	10.09	--	1,600	47	20	47	97	--	--	--	--
	01/11/93	--	93.50	8.52	--	2,500	8.6	10	17	32	--	--	--	--
(97.49)	08/15/94	--	87.58	9.91	--	6,000	450	60	100	95	--	--	--	--
	11/07/96	--	87.47	10.02	780	4,200	25	4.9	8.1	14	<0.5	--	--	--
	02/12/97	--	88.58	8.91	5,700	1,800	16	3.1	3.4	8.8	<0.5	--	--	--
	06/16/97	--	87.74	9.75	<50	2,500	22	5.1	7.8	11	<0.5	--	--	--
	09/30/97	--	89.60	7.89	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
	01/27/98	--	89.11	8.38	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
	04/24/98	--	88.81	8.68	1,400	2,100	18	6.5	4.8	21	<0.5	--	--	--
	08/17/98	--	87.75	9.74	<50	2,900	5.1	4.5	5.8	17	<0.5	--	--	--
	11/16/98	--	87.35	10.14	<50	1,400	2.1	1.9	2.3	4.8	<0.5	--	--	--
	02/16/99	--	88.57	8.92	<50	1,600	82	16	<2.5	40	59	--	--	--
	05/17/99	--	88.23	9.26	--	8,200	43	73	140	100	<250	--	--	--
	08/17/99	--	87.45	10.04	260	2,900	20	81	17	38	<5.0	--	--	--
	11/17/99	--	85.97	11.52	<50	2,600	7	3.7	5.3	12.9	<1.0	--	--	--
	02/17/00	--	87.99	9.50	--	1,700	3.2	6.8	11	12.3	<5.0	--	--	--
	05/17/00	--	88.65	8.84	--	3,800	450	65	110	80	<25	--	--	--
	08/17/00	--	88.99	8.50	--	4,300	440	<50	78	<50	<50	--	--	--
	11/15/00	--	87.55	9.94	--	5,800	320	41	78	64	<25	--	--	--
	02/16/01	--	88.97	8.52	--	2,200	110	20	38	33	<5.0	--	--	--
	01/11/02	--	88.67	8.82	620	3,100	280	86	84	110	<50	--	--	--
(160.98)	07/01/02	--	151.34	9.64	940	2,600	300	29	45	27	<10	--	--	--
	10/04/02	--	150.46	10.52	390	4,000	440	66	140	120	<25	--	--	--
	07/28/06	--	150.96	10.02	340	1,300	150	9.9	6	18	<0.5	3.6	<0.5	0.17
	10/16/06	--	150.45	10.53	76	150	16	1.0	3.5	2.2	<0.5	1.2	<0.5	0.19
	01/09/07	--	151.65	9.33	84	210	27	2.6	8.1	6.8	--	--	--	0.14
	01/25/07	--				Well Abandoned								
MW-3	04/30/90	--	--	--	--	56,000	3,600	8,600	1,300	7,200	--	--	--	--
(98.14)	05/17/90	--	85.72	12.42	--	--	--	--	--	--	--	--	--	--
	09/26/90	--	84.64	13.50	--	54,000	5,100	420	1,600	8,000	--	--	--	--
	01/14/91	--	85.56	12.58	--	35,000	2,600	6,600	1,500	5,700	--	--	--	--
(102.46)	07/03/91	--	90.38	12.08	--	33,000	4,120	4,300	1,400	4,800	--	--	--	--
	11/11/91	--	90.17	12.29	--	57,000	3,900	8,400	2,100	14,000	--	--	--	--
(102.18)	03/04/92	--	91.92	10.26	--	57,000	720	870	81	3,100	--	--	--	--
(97.94)	06/02/92	--	86.54	11.40	--	50,000	240	240	220	740	--	--	--	--
	09/28/92	--	85.30	12.64	--	64,000	110	93	97	250	--	--	--	--
	01/11/93	--	87.84	10.10	--	68,000	210	280	360	990	--	--	--	--
	08/15/94	--	85.74	12.20	--	50,000	870	1,200	1,300	3,000	--	--	--	--
	11/07/96	--	85.54	12.40	470	68,000	33	27	63	120	<0.5	--	--	--
	02/12/97	--	87.71	10.23	3,500	25,000	39	43	15	91	<0.5	--	--	--
	06/16/97	--	86.15	11.79	<50	9,700	26	29	45	81	<0.5	--	--	--

Table 1. Groundwater Analytical Data - Former Exxon Station, 5175 Broadway, Oakland, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	SPH (ft)	Groundwater Elevation (ft)	Depth to Water (ft)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	1,2-DCA	Dissolved Oxygen mg/L
					←				µg/L				→	
MW-3	09/30/97	--	88.54	9.40	1,600	6,000	43	36	12	11	<0.5	--	--	--
(cont.)	01/27/98	--	88.14	9.80	560	380	5.7	4.1	1.7	9.1	<0.5	--	--	--
	04/24/98	--	88.04	9.90	680	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
	08/17/98	--	86.48	11.46	<50	16,000	200	18	31	82	<0.5	--	--	--
	11/16/98	--	85.54	12.40	<50	68,000	86	54	69	130	<0.5	--	--	--
	02/16/99	--	87.22	10.72	<50	33,000	270	110	<5.0	770	170	--	--	--
	05/17/99	--	87.40	10.54	--	72,000	280	230	320	890	<250	--	--	--
	08/17/99	--	85.99	11.95	1,800	20,000	51	41	61	130	<5.0	--	--	--
	11/17/99	--	84.34	13.60	--	1,700	39	22	31	84	<1.0	--	--	--
	02/17/00	--	87.26	10.68	--	8,800	16	39	74	90	<5.0	--	--	--
	05/17/00	--	87.69	10.25	--	22,000	300	260	410	940	<5.0	--	--	--
	08/17/00	--	86.10	11.84	--	15,000	230	140	470	750	<50	--	--	--
	11/15/00	--	86.12	11.82	--	12,000	250	210	390	700	<25	--	--	--
	02/16/01	--	88.26	9.68	--	7,400	40	72	700	250	<25	--	--	--
	01/11/02	--	88.36	9.58	1,900	9,300	230	200	290	580	<25	--	--	--
(161.43)	07/01/02	--	150.29	11.14	5,200	13,000	230	220	450	890	<13	--	--	--
	10/04/02	--	148.61	12.82	4,900	11,000	280	170	450	730	<25	--	--	--
	07/28/06	--			Not Sampled - Unable to locate well									
	10/16/06	--			Not Sampled - Unable to locate well									
	01/09/07	--			Not Sampled - Unable to locate well									
	01/22/07	--	149.81	11.62	93,000	34,000	770	250	760	2,000	<1,000	--	--	--
	03/16/07	--					Well Abandoned							
STMW-4	07/03/91	--	92.58	11.00	--	3,100	610	62	39	150	--	--	--	--
(103.58)	11/11/91	--	92.50	11.08	--	3,600	990	15	2.6	180	--	--	--	--
(101.08)	03/04/92	--	91.64	9.44	--	5,000	35	20	22	71	--	--	--	--
(98.80)	06/02/92	--	88.48	10.32	--	13,000	140	45	63	210	--	--	--	--
	09/28/92	--	88.04	10.76	--	40,000	35	20	48	110	--	--	--	--
	01/11/93	--	89.52	9.28	--	24,000	26	88	92	280	--	--	--	--
	08/15/94	--	88.26	10.54	--	9,000	500	34	46	130	--	--	--	--
	11/07/96	--	88.43	10.37	180	13,000	40	2.9	7.8	19	<0.5	--	--	--
	02/12/97	--	89.44	9.36	5,700	5,300	95	5.3	5.9	18	<0.5	--	--	--
	06/16/97	--	88.40	10.40	<50	5,300	37	6.2	1.7	11	<0.5	--	--	--
	09/30/97	--	90.30	8.50	<50	2,700	42	7.7	5.7	26	<0.5	--	--	--
	01/27/98	--	89.90	8.90	300	3,000	60	17	12	49	<0.5	--	--	--
	04/24/98	--	89.30	9.50	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
	08/17/98	--	88.44	10.36	<50	29,000	36	24	59	160	<0.5	--	--	--
	11/16/98	--	88.24	10.56	<50	13,000	26	21	20	41	--	--	--	--
	02/16/99	--	89.16	9.64	<50	32,000	660	16	16	150	<100	--	--	--
	05/17/99	--	88.84	9.96	--	13,000	1600	30	45	78	<250	--	--	--
	08/17/99	--	88.16	10.64	990	12,000	260	22	33	72	<5.0	--	--	--
	11/17/99	--	86.78	12.02	--	7,900	21	12	17	40	<1.0	--	--	--
	02/17/00	--	89.48	9.32	--	4,900	8.9	21	38	50	<5.0	--	--	--
	05/17/00	--	89.15	9.65	--	9,600	840	<50	61	<50	<50	--	--	--
	08/17/00	--	88.46	10.34	--	5,100	680	<50	62	<50	<50	--	--	--
	11/15/00	--	88.28	10.52	--	3,900	640	<25	26	27	<25	--	--	--
	02/16/01	--	89.60	9.20	--	5,700	560	<25	<25	<25	<25	--	--	--
	01/11/02	--	89.22	9.58	930	4,900	560	59	25	<25	<250	--	--	--
(162.13)	07/01/02	--	151.85	10.28	6,700	6,700	470	18	32	45	<13	--	--	--
	10/04/02	--	151.05	11.08	2,900	13,000	590	26	65	110	<25	--	--	--

Table 1. Groundwater Analytical Data - Former Exxon Station, 5175 Broadway, Oakland, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	SPH (ft)	Groundwater Elevation (ft)	Depth to Water (ft)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	1,2-DCA	Dissolved Oxygen mg/L
					←				µg/L				→	
STMW-4	07/28/06	0.04	151.53	10.60	39,000	25,000	960	21	73	130	<5.0	65	<5.0	0.22
(cont.)	10/16/06	0.06	151.30	10.83	14,000	14,000	790	28	81	130	<5.0	30	<5.0	0.26
	01/09/07	0.03	152.20	9.93			Not Sampled - SPH							0.24
	01/26/07						Well Abandoned							0.24
STMW-5	07/03/91	--	88.70	13.29	--	690	99	81	19	98	--	--	--	--
(101.99)	11/11/91	--	87.99	14.00	--	410	61	2.4	1.4	20	--	--	--	--
(101.36)	03/04/92	--	89.56	11.80	--	460	13	6.5	11	18	--	--	--	--
	06/02/92	--	88.30	13.06	--	1,800	27	20	21	43	--	--	--	--
	09/28/92	--	87.32	14.04	--	1,500	14	6.1	18	22	--	--	--	--
	01/11/93	--	89.75	11.61	--	800	1.8	3	3.1	9.4	--	--	--	--
	08/15/94	--	87.51	13.85	--	3,000	320	62	34	220	--	--	--	--
(97.14)	11/07/96	--	83.47	13.67	330	1,200	11	1.7	4.4	13	<0.5	--	--	--
	02/17/97	--	85.07	12.07	3,700	1,000	11	17	1.7	9.7	<0.5	--	--	--
	06/19/97	--	83.81	13.33	2,300	950	7.4	1	1	7.2	<0.5	--	--	--
	09/30/97	--	85.90	11.24	1,100	710	5.8	4	1	1	<0.5	--	--	--
	01/27/98	--	85.50	11.64	1,100	340	2	1.8	1.6	8.2	<0.5	--	--	--
	04/24/98	--	85.30	11.84	<50	3,300	12	9.4	8.5	37	<0.5	--	--	--
	08/17/98	--	83.94	13.20	<50	5,300	26	17	14	39	<0.5	--	--	--
	11/16/98	--	83.40	13.74	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
	02/16/99	--	84.92	12.22	<50	950	150	3.8	1.4	14	11	--	--	--
	05/17/99	--	84.56	12.58	--	2,800	67	9.4	<2.5	16	30	--	--	--
	08/17/99	--	83.66	13.48	230	2,800	18	17	18	36	<5.0	--	--	--
	11/17/99	--	82.26	14.88	--	1,600	3.9	2.3	3.2	7.5	<1.0	--	--	--
	02/17/00	--	84.58	12.56	--	770	1.5	3.2	5.8	7	<5.0	--	--	--
	05/17/00	--	85.06	12.08	--	4,500	<25	<25	<25	<25	<25	--	--	--
	08/17/00	--	83.58	13.56	--	2,900	170	64	100	250	<10	--	--	--
	11/15/00	--	83.86	13.28	--	2,100	120	24	40	54	<5.0	--	--	--
	02/16/01	--	85.54	11.60	--	850	58	9.8	9.4	18	<5.0	--	--	--
	01/11/02	--	85.42	11.72	<50	920	76	16	16	28	13	--	--	--
(160.65)	07/01/02	--	147.51	13.14	1,500	4,300	71	14	14	36	<5.0	--	--	--
	10/04/02	--	146.13	14.52	60	1,400	71	17	26	35	<5.0	--	--	--
	07/28/06	--	147.30	13.35	370	700	22	4.3	1.2	6.6	<0.5	<0.5	<0.5	0.24
	10/16/06	--	146.91	13.74	240	590	14	1.6	1.3	3.2	<0.5	<0.5	<0.5	0.21
	01/09/07	--	148.19	12.46	180	390	30	3.2	1.8	3.2	--	--	--	0.17
	01/18/07						Well Abandoned							
MW-2C	03/09/07	--	152.24	8.41	140	450	40	9.3	2.9	16	<10	--	--	--
(160.65)	03/26/07	--	151.93	8.72	--	--	--	--	--	--	--	--	--	--
	06/24/07	--	151.21	9.44	160	440	30	1.8	5.9	7.4	<5.0	--	--	--
	09/29/07	--	150.45	10.20	120	200	13	<0.5	<0.5	2.0	<5.0	--	--	--
	12/27/07	--	151.42	9.23	83	190	13	0.83	<0.5	1.9	<5.0	--	--	--
	03/15/08	--	151.83	8.82	120	250	24	2.2	5.2	4.5	<5.0	--	--	--
	09/12/08	--	150.73	9.92	<50	130	7.1	<0.5	1.2	0.83	<5.0	--	--	--
	03/06/09	--	153.21	7.44	95	180	8.0	1.1	1.5	2.8	<5.0	--	--	--
	09/17/09	**--**	**150.57**	**10.08**	**<50**	**64**	**4.3**	**<0.5**	**0.62**	**0.88**	**<5.0**	**--**	**--**	**--**

Table 1. Groundwater Analytical Data - Former Exxon Station, 5175 Broadway, Oakland, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	SPH (ft)	Groundwater Elevation (ft)	Depth to Water (ft)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	1,2-DCA	Dissolved Oxygen mg/L
					←				µg/L				→	
MW-3A	03/09/07	--	152.20	9.35	4,500	39,000	3,800	220	830	2,800	<500	--	--	--
(161.55)	03/26/07	--	152.33	9.22	--	--	--	--	--	--	--	--	--	--
(161.57)	06/24/07	--	151.61	9.94	11,000	34,000	3,200	330	990	3,200	<250	--	--	--
	09/29/07	--	150.21	11.36	11,000	43,000	3,500	150	730	2,200	<1,000	--	--	--
	12/27/07	--	150.20	11.37	8,700	30,000	2,500	24	520	930	<100	--	--	--
	03/15/08	--	152.27	9.30	10,000	26,000	2,400	110	700	1,200	<250	--	--	--
	09/12/08	--	149.57	12.00	9,000	26,000	2,100	29	560	280	<100	--	--	--
	03/06/09	--	152.66	8.91	6,500	20,000	2,300	59	740	410	<180	--	--	--
	09/17/09	**--**	**149.47**	**12.10**	**6,900**	**19,000**	**2,700**	**33**	**660**	**110**	**<250**	**--**	**--**	**--**
MW-3C	03/26/07	--	151.15	10.64	--	--	--	--	--	--	--	--	--	--
(161.79)	04/16/07	--	150.87	10.92	36,000	32,000	1,200	710	600	1,900	<500	--	--	--
	06/24/07	--	149.43	12.36	200,000	50,000	2,200	4,100	860	6,100	<500	--	--	--
	09/29/07	--	148.33	13.46	48,000	37,000	1,700	3,300	830	4,800	<1,000	--	--	--
	12/27/07	--	149.79	12.00	29,000	28,000	590	900	630	2,000	<500	--	--	--
	03/15/08	--	150.70	11.09	21,000	36,000	1,500	2,400	570	3,700	<500	--	--	--
	09/12/08	--	148.37	13.42	11,000	40,000	1,100	1,200	600	3,000	<500	--	--	--
	03/06/09	--	152.04	9.75	13,000	31,000	860	420	540	2,200	<500	--	--	--
	09/17/09	**--**	**148.59**	**13.20**	**14,000**	**37,000**	**1,400**	**690**	**400**	**4,300**	**<1,200**	**--**	**--**	**--**
MW-4A	03/09/07	--	152.88	9.56	3,600	16,000	1,600	36	37	150	<250	--	--	--
(162.44)	03/26/07	--	152.56	9.88	--	--	--	--	--	--	--	--	--	--
	06/24/07	--	152.02	10.42	110,000	87,000	1,500	59	290	800	<500	--	--	--
	09/29/07	--	151.33	11.11	170,000	130,000	2,700	69	400	1,400	<240	--	--	--
	12/27/07	--	152.33	10.11	19,000	27,000	1,600	31	100	320	<90	--	--	--
	03/15/08	--	152.51	9.93	38,000	17,000	1,300	<50	120	380	<500	--	--	--
	09/12/08	--	151.72	10.72	120,000	110,000	1,400	<50	210	660	<500	--	--	--
	03/06/09	--	153.84	8.60	32,000	17,000	1,100	15	<10	190	<100	--	--	--
	09/17/09	**--**	**151.44**	**11.00**	**25,000**	**26,000**	**1,600**	**63**	**140**	**320**	**<350**	**--**	**--**	**--**
MW-5A	03/09/07	--	150.40	10.42	56	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
(160.82)	03/26/07	--	150.00	10.82	--	--	--	--	--	--	--	--	--	--
	06/24/07	--	148.94	11.88	<50	180	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/29/07	--	147.86	12.96	--	--	--	--	--	--	--	--	--	--
	12/27/07	--	148.40	12.42	--	--	--	--	--	--	--	--	--	--
	03/15/08	--	149.96	10.86	<50	180	0.91	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/12/08	--	147.50	13.32					Insufficent water to sample					
	03/06/09	--	151.33	9.49	230	460	2.0	3.0	0.68	1.9	<5.0	--	--	--
	09/17/09	**--**	**148.02**	**12.80**					**Insufficent water to sample**					
MW-5B	03/09/07	--	146.42	15.08	59	140	1.3	0.77	<0.5	1.6	<5.0	--	--	--
(161.50)	03/26/07	--	148.88	12.62	--	--	--	--	--	--	--	--	--	--
	06/24/07	--	147.98	13.52	53	52	1.1	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/29/07	--	146.60	14.90	<50	<50	0.95	<0.5	<0.5	<0.5	<5.0	--	--	--
	12/27/07	--	148.41	13.09	<50	58	1.4	<0.5	0.60	<0.5	<5.0	--	--	--
	03/15/08	--	148.95	12.55	<50	61	2.6	1.1	1.1	3.0	<5.0	--	--	--
	09/12/08	--	146.35	15.15	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/06/09	--	150.36	11.14	<50	67	2.0	1.4	1.3	3.3	<5.0	--	--	--
	09/17/09	**--**	**146.94**	**14.56**	**<50**	**58**	**0.66**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**--**	**--**	**--**

Table 1. Groundwater Analytical Data - Former Exxon Station, 5175 Broadway, Oakland, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	SPH (ft)	Groundwater Elevation (ft)	Depth to Water (ft)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	1,2-DCA	Dissolved Oxygen mg/L
					←				µg/L				→	
MW-5C	03/09/07	--	148.12	12.91	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
(161.03)	03/26/07	--	148.41	12.62	--	--	--	--	--	--	--	--	--	--
	06/24/07	--	147.58	13.45	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/29/07	--	146.41	14.62	66	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	12/27/07	--	148.10	12.93	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/15/08	--	148.48	12.55	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/12/08	--	146.04	14.99	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/06/09	--	149.73	11.30	<50	<50	0.52	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/17/09	**--**	**146.60**	**14.43**	**<50**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**--**	**--**	**--**
MW-6A	03/09/07	--	154.91	6.67	380	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
(161.58)	03/26/07	--	154.41	7.17	--	--	--	--	--	--	--	--	--	--
	06/24/07	--	153.79	7.79	590	140	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/29/07	--	152.84	8.74	540	52	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	12/27/07	--	154.27	7.31	170	94	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/15/08	--	154.42	7.16	150	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/12/08	--	152.92	8.66	510	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/06/09	--	155.76	5.82	110	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/17/09	**--**	**152.89**	**8.69**	**280**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**--**	**--**	**--**
MW-7B	03/09/07	--	147.97	11.18	930	18,000	1,500	1,600	140	1,800	<600	--	--	--
(159.15)	03/26/07	--	148.10	11.05	--	--	--	--	--	--	--	--	--	--
	06/24/07	--	147.54	11.61	40,000	30,000	1,800	2,400	240	2,800	<700	--	--	--
(159.02)	09/29/07	--	146.91	12.11	16,000	37,000	1,300	1,500	180	2,700	<500	--	--	--
	12/27/07	--	147.37	11.65	7,700	18,000	810	880	38	1,600	<50	--	--	--
	03/15/08	--	147.66	11.36	7,900	14,000	730	820	110	1,200	<250	--	--	--
	09/12/08	--	146.87	12.15	27,000	16,000	450	340	19	1,300	<120	--	--	--
	03/06/09	--	147.90	11.12	15,000	15,000	370	270	13	1,000	<150	--	--	--
	09/17/09	**--**	**146.94**	**12.08**	**10,000**	**14,000**	**470**	**330**	**44**	**1,100**	**<170**	**--**	**--**	**--**
MW-7C	03/09/07	--	145.44	13.09	190	3,600	970	100	12	90	<120	--	--	--
(158.53)	03/26/07	--	147.53	11.00	--	--	--	--	--	--	--	--	--	--
	06/24/07	--	146.65	11.88	7,100	16,000	510	520	190	1,300	<100	--	--	--
	09/29/07	--	146.21	12.32	11,000	29,000	580	1,400	600	4,800	<1,000	--	--	--
	12/27/07	--	146.74	11.79	56,000	29,000	250	410	430	3,300	<50	--	--	--
	03/15/08	--	147.45	11.08	7,000	13,000	170	58	170	1,300	<100	--	--	--
	09/12/08	--	146.02	12.51	2,600	7,600	260	38	76	330	<50	--	--	--
	03/06/09	--	147.65	10.88	1,900	4,600	140	21	15	93	<15	--	--	--
	09/17/09	**--**	**146.23**	**12.30**	**2,200**	**7,000**	**830**	**38**	**23**	**90**	**<100**	**--**	**--**	**--**
MW-8A	03/09/07	--	152.05	9.52	4,200	10,000	430	18	<10	88	<100	--	--	--
(161.57)	03/26/07	--	151.74	9.83	--	--	--	--	--	--	--	--	--	--
	06/24/07	--	151.40	10.17	17,000	12,000	720	500	230	880	<300	--	--	--
	09/29/07	--	150.64	10.95	5,300	7,500	440	67	26	240	<90	--	--	--
(161.59)	12/27/07	--	152.00	9.59	13,000	9,600	290	100	90	360	<100	--	--	--
	03/15/08	--	152.00	9.59	7,500	7,200	170	28	270	110	<100	--	--	--
	09/12/08	--	150.27	11.32	9,900	11,000	220	31	110	180	<50	--	--	--
	03/06/09	--	153.01	8.58	5,500	6,700	98	17	57	63	<50	--	--	--
	09/17/09	**--**	**150.83**	**10.76**	**5,200**	**6,800**	**150**	**19**	**10**	**35**	**<25**	**--**	**--**	**--**

Table 1. Groundwater Analytical Data - Former Exxon Station, 5175 Broadway, Oakland, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	SPH (ft)	Groundwater Elevation (ft)	Depth to Water (ft)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	1,2-DCA	Dissolved Oxygen mg/L
					←				µg/L				→	
MW-8C	03/09/07	--	149.18	12.15	<50	150	9.8	1.3	2.0	3.9	<5.0	--	--	--
(161.33)	03/26/07	--	149.56	11.77	--	--	--	--	--	--	--	--	--	--
	06/24/07	--	148.96	12.37	<50	<50	0.57	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/29/07	--	148.35	12.98	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	12/27/07	--	149.84	11.49	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/15/08	--	149.94	11.39	<50	110	6.0	1.7	2.4	2.4	<5.0	--	--	--
	09/12/08	--	148.18	13.15	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/06/09	--	151.25	10.08	<50	<50	2.1	<0.5	0.87	0.76	<5.0	--	--	--
	09/17/09	**--**	**148.63**	**12.70**	**<50**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**--**	**--**	**--**
MW-9A	09/29/07	--	142.76	12.61	86	<50	2.6	<0.5	<0.5	<0.5	<5.0	--	--	--
(155.37)	12/27/07	--	143.51	11.86	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/15/08	--	143.35	12.02	<50	<50	0.85	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/12/08	--	142.60	12.77	<50	<50	1.2	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/06/09	--	144.18	11.19	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/17/09	**--**	**142.91**	**12.46**	**<50**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**--**	**--**	**--**
MW-9C	09/29/07	--	142.67	12.27	390	68	2.2	0.88	<0.5	<0.5	<5.0	--	--	--
(154.94)	12/27/07	--	143.40	11.54	<50	<50	0.84	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/15/08	--	143.98	10.96	<50	<50	0.55	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/12/08	--	142.53	12.41	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/06/09	--	144.09	10.85	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/17/09	**--**	**142.84**	**12.10**	**<50**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**--**	**--**	**--**
MW-10A	09/29/07	--	144.35	10.53	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
(154.88)	12/27/07	--	145.50	9.38	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/15/08	--	145.96	8.92	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/12/08	--	143.82	11.06	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	03/06/09	--	147.45	7.43	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
	09/17/09	**--**	**144.11**	**10.77**	**<50**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**--**	**--**	**--**

Abbreviations:

µg/L = Micrograms per liter - approximately equal to parts per billion = ppb.

mg/L = Milligrams per liter - approximately equal to parts per million = ppm.

SPH = Separate-phase hydrocarbons encountered in well (value in parentheses is thickness in feet).

Groundwater elevation is calculated according to the relationship: groundwater elevation = TOC (elevation) - (depth to water) + (0.8)(SPH thickness).

TPHg = Total petroleum hydrocarbons as gasoline by EPA Method 8015Cm.

TPHd = Total petroleum hydrocarbons as diesel by EPA Method 8015C.

BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8021B.

MTBE = Methyl tertiary-butyl ether by EPA Method 8021B. (Concentrations in parentheses are by EPA Method 8260B).

DIPE = Diisopropyl ether by EPA Method 8260B.

1,2-DCA = 1,2-Dichloroethane by EPA Method 8260B.

Table 2 – Well Use and Construction Details–5175 Broadway, Oakland, CA

Well ID	Total Depth of Well (feet bgs)	Screened Interval (ft bgs)	Well Casing Nominal Diameter (inches)	Sand & Slot Size
DPE – Existing Wells				
MW-3A (DPE)	14	9-14	2	#2/12 – 0.01 Slot
MW-4A (DPE)	15	8-15	2	#2/12 – 0.01 Slot
MW-6A (DPE)	17	8-17	2	#2/12 – 0.01 Slot
MW-7B (DPE)	18.5	15.5-18.5	2	#2/12 – 0.01 Slot
MW-8A (DPE)	15	8-15	2	#2/12 – 0.01 Slot
DPE – New Wells				
DPE 1 – DPE 6	19 – 20	10-13/19-20	2	#2/12 – 0.01 Slot
AIR SPARGING – Existing Wells				
MW-1 (AS)	23	13-23	4	8x20 – 0.02 Slot
MW-2C (AS)	23	18-23	2	#2/12 – 0.01 Slot
MW-3C (AS)	27	22-27	2	#2/12 – 0.01 Slot
MW-5B (AS)	20	17-20	2	#2/12 – 0.01 Slot
MW-7C (AS)	25	20-25	2	#2/12 – 0.01 Slot
MW-8C (AS)	25	20-25	2	#2/12 – 0.01 Slot
AIR SPARGING –New Well				
AS-1	20	16-20	1	#2/12 – 0.01 Slot
GROUNDWATER MONITORING ONLY				
MW-5A	14	10-14	2	#2/12 – 0.01 Slot
MW-5C	27	22-27	2	#2/12 – 0.01 Slot
MW-9A	15.5	7.5-15.5	2	#2/12 – 0.01 Slot
MW-9C	21	17-21	2	#2/12 – 0.01 Slot
MW-10A	18	8-18	2	#2/12 – 0.01 Slot

bgs = below ground surface

APPENDIX A

Groundwater Monitoring Program

Table A. Groundwater Monitoring Program - Rockridge Heights, 5175 Broadway Street, Oakland, CA

Well ID	Well Type	Screened Interval (ft bgs)	Well Location for Monitoring	Casing Diam. (in)	Gauge Frequency	Sample Frequency[1]
Shallow Wells						
MW-3A	Mon	9-14	Downgradient (Onsite)	2	1st, 3rd	1st, 3rd
MW-4A	Mon	8-15	NE Corner, Upgradient (Onsite)	2	1st, 3rd	1st, 3rd
MW-5A	Mon	10-14	SW Corner, Downgradient (Onsite)	2	1st, 3rd	1st, 3rd
MW-6A	Mon	8-17	Source Area, Upgradient (Onsite)	2	1st, 3rd	1st, 3rd
MW-8A	Mon	8-15	W Boundary, Downgradient (Onsite)	2	1st, 3rd	1st, 3rd
MW-9A	Mon	7.5-15.5	Downgradient (Offsite)	2	1st, 3rd	1st, 3rd
MW-10A	Mon	7.5-15.5	Downgradient (Offsite)	2	1st, 3rd	1st, 3rd
Deep Wells						
MW-1	Mon	13-23	N Boundary, Upgradient (Onsite)	2	1st, 3rd	1st, 3rd
MW-2C	Mon	18-23	E Boundary, Downgradient (Onsite)	2	1st, 3rd	1st, 3rd
MW-3C	Mon	22-27	Source Area, Downgradient (Onsite)	2	1st, 3rd	1st, 3rd
MW-5B	Mon	17-20	SW Corner, Downgradient (Onsite)	2	1st, 3rd	1st, 3rd
MW-5C	Mon	22-27	SW Corner, Downgradient (Onsite)	2	1st, 3rd	1st, 3rd
MW-7B	Mon	15.5-18.5	SE Corner, Downgradient (Onsite)	2	1st, 3rd	1st, 3rd
MW-7C	Mon	20-25	SE Corner, Downgradient (Onsite)	2	1st, 3rd	1st, 3rd
MW-8C	Mon	20-25	W Boundary, Crossgradient (Onsite)	2	1st, 3rd	1st, 3rd
MW-9C	Mon	17-21	Downgradient (Offsite)	2	1st, 3rd	1st, 3rd

Notes and Abbreviations:

1= Sample Analytes: Total Petroleum Hydrocarbons as Gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8015Cm/8021B and Total Petroleum Hydrocarbons as Diesel (TPHd) by EPA Method 8015C with silica gel clean-up.

1st, 3rd= Semi-Annually during 1st and 3rd quarters (Typically March and September)

Mon = Groundwater Monitoring Well

N, S, W, E = Cardinal directions North, South, West, East and other directions (e.g., Northeast = NE)

APPENDIX B

Groundwater Monitoring Field Data Sheets

Pangea
ENVIRONMENTAL SERVICES, INC.

Well Gauging Data Sheet

Project.Task #:1145.001 220				Project Name: Feiner - 5175 Broadway			
Address: 5175 Broadway, Oakland, CA						Date:9/17/09	
Name: Sanjiv Gill				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
MW-1	4"	6:24			9.43	22.97	TOC
MW-2C	2"	6:30			10.08	23.03	
MW-3A	2"	6:45			12.10	13.83	
MW-3C	2"	6:43			13.20	26.75	
MW-4A	2"	6:38			11.00	14.73	
MW-5A	2"	6:15			12.80	13.52	
MW-5B	2"	6:13			14.56	19.23	
MW-5C	2"	6:10			14.43	26.70	
MW-6A	2"	6:27			8.69	14.92	
MW-7B	2"	6:35			12.08	18.55	
MW-7C	2"	6:33			12.30	24.42	

Comments:

Pangea
ENVIRONMENTAL SERVICES, INC.

Well Gauging Data Sheet

Project.Task #:1145.001 220				Project Name: Feiner - 5175 Broadway			
Address: 5175 Broadway, Oakland, CA						Date:9/17/09	
Name: Sanjiv Gill				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
MW-8A	2"	6:20			10.76	14.90	TOC
MW-8C	2"	6:18			12.70	24.89	
MW-9A	2"	6:02			12.46	15.19	
MW-9C	2"	6:00			12.10	20.45	
MW-10A	2"	6:04			10.77	17.96	

Comments:

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ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-1

Project.Task #: 1145.001 220	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway Oakland, CA	
Date: 9/17/09	Weather: Sunny
Well Diameter: 4"	Volume/ft. 1" = 0.04, 2" = 0.16, 3" = 0.37, 4" = 0.65, 6" = 1.47, radius² * 0.163
Total Depth (TD): 22.97	Depth to Product:
Depth to Water (DTW): 9.43	Product Thickness:
Water Column Height: 13.54	1 Casing Volume: 8.80 gallons
Reference Point: TOC	3 Casing Volumes: 26.4 gallons

Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump

Sampling Device: Disposable Bailer

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
10:55	21.6	7.31	999				9.0	
11:00	21.2	7.37	992				18.0	
11:15	21.0	7.35	918				26.5	

Comments: YSI 550A DO meter

pre purge DO = mg/l

post purge DO = mg/l

very turbid, silty, odor, light sheen

Sample ID: MW-1	Sample Time: 11:25
Laboratory: McCampbell Analytical, INC.	Sample Date: 9/17/09
Containers/Preservative: Voa/HCl, Amber Liter/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-2C

Project.Task #: 1145.001 220	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway Oakland, CA	
Date: 9/17/09	Weather: Sunny
Well Diameter: 2"	Volume/ft. 1" = 0.04, 2" = 0.16, 3" = 0.37, 4" = 0.65, 6" = 1.47, radius^2 * 0.163
Total Depth (TD): 23.03	Depth to Product:
Depth to Water (DTW): 10.08	Product Thickness:
Water Column Height: 12.95	1 Casing Volume: 2.07 gallons
Reference Point: TOC	3 Casing Volumes: 6.21 gallons

Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump

Sampling Device: Disposable Bailer

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
10:00	20.2	7.74	956				2.0	
10:05	21.1	7.68	899				4.0	
10:10	21.0	7.68	904				6.0	

Comments: YSI 550A DO meter

pre purge DO = mg/l

post purge DO = mg/l

dup bid

Sample ID: MW-2C	Sample Time: 10:15
Laboratory: McCampbell Analytical, INC.	Sample Date: 9/17/09
Containers/Preservative: Voa/HCl, Amber Liter/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-3A

Project.Task #: 1145.001 220	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway Oakland, CA	
Date: 9/17/09	Weather: Sunny
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 13.83	Depth to Product:
Depth to Water (DTW): 12.10	Product Thickness:
Water Column Height: 1.73	1 Casing Volume: 0.27 gallons
Reference Point: TOC	3 Casing Volumes: 0.81 gallons

Purging Device: ~~Disposable Bailer~~, 3" PVC Bailer, Parastaltic Pump, Whal Pump

Sampling Device: Disposable Bailer

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
12:25	Dewatered						.2	
							~~.4~~	
							~~.6~~	

Comments: YSI 550A DO meter

pre purge DO = mg/l

post purge DO = mg/l

Sample ID: MW-3A	Sample Time: 8:45
Laboratory: McCampbell Analytical, INC.	Sample Date: 9/18 /09
Containers/Preservative: Voa/HCl, Amber Liter/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

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ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-3C

Project.Task #: 1145.001 220	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway Oakland, CA	
Date: 9/17/09	Weather: Sunny
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius² * 0.163
Total Depth (TD): 26.75	Depth to Product:
Depth to Water (DTW): 13.20	Product Thickness:
Water Column Height: 13.55	1 Casing Volume: 2.16 gallons
Reference Point: TOC	3 Casing Volumes: 6.48 gallons

Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump

Sampling Device: Disposable Bailer

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
12:00	19.7	7.41	1210				2.0	
12:10	Dewatered		purged 3gallons				4.0	
							6.5	

Comments: YSI 550A DO meter

pre purge DO = mg/l

post purge DO = mg/l

Sample ID: MW-3C	Sample Time: 8:30
Laboratory: McCampbell Analytical, INC.	Sample Date: 9/18/09
Containers/Preservative: Voa/HCl, Amber Liter/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-4A

Project.Task #: 1145.001 220	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway Oakland, CA	
Date: 9/17/09	Weather: Sunny
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 14.73	Depth to Product:
Depth to Water (DTW): 11.00	Product Thickness:
Water Column Height: 3.73	1 Casing Volume: 0.59 gallons
Reference Point: TOC	3 Casing Volumes: 1.77 gallons

Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump

Sampling Device: Disposable Bailer

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
11:35	22.4	7.27	1260				0.5	
11:37	21.9	7.28	1251				1.0	
11:40	22.1	7.34	1290				1.5	

Comments: YSI 550A DO meter

pre purge DO = mg/l

post purge DO = mg/l

turbid, odor

Sample ID: MW-4A	Sample Time: 11:45
Laboratory: McCampbell Analytical, INC.	Sample Date: 9/17/09
Containers/Preservative: Voa/HCl, Amber Liter/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-5A

Project.Task #: 1145.001 220	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway Oakland, CA	
Date: 9/17/09	Weather: Sunny
Well Diameter: 2"	Volume/ft. 1" = 0.04, 2" = 0.16, 3" = 0.37, 4" = 0.65, 6" = 1.47, radius^2 * 0.163
Total Depth (TD): 13.52	Depth to Product:
Depth to Water (DTW): 12.80	Product Thickness:
Water Column Height: 0.72	1 Casing Volume: 0.11 gallons
Reference Point: TOC	3 Casing Volumes: 0.33 gallons
Purging Device: (Disposable Bailer), 3" PVC Bailer, Parastaltic Pump, Whal Pump	
Sampling Device: Disposable Bailer	

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
		Insufficent Water						

Comments: YSI 550A DO meter

pre purge DO = mg/l

post purge DO = mg/l

Sample ID:	Sample Time:
Laboratory: McCampbell Analytical, INC.	Sample Date: 9/ /09
Containers/Preservative: Voa/HCl, Amber Liter/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-5B

Project.Task #: 1145.001 220	Project Name: Feiner - 5175 Broadway			
Address: 5175 Broadway Oakland, CA				
Date: 9/17/09	Weather: Cloudy			
Well Diameter: 2"	Volume/ft.	1" = 0.04	3" = 0.37	6" = 1.47
		2" = 0.16	4" = 0.65	radius^2 * 0.163
Total Depth (TD): 19.23	Depth to Product:			
Depth to Water (DTW): 14.56	Product Thickness:			
Water Column Height: 4.67	1 Casing Volume: 0.74 gallons			
Reference Point: TOC	3 Casing Volumes: 2.22 gallons			

Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump

Sampling Device: Disposable Bailer

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
8:30	18.4	7.09	1344				1.0	
8:33	Dewatered after purging 1.0 gallon						~~1.5~~	
							~~2.0~~	

Comments: YSI 550A DO meter

pre purge DO = mg/l

post purge DO = mg/l

very turbid

Sample ID: MW-5B	Sample Time: 7:05
Laboratory: McCampbell Analytical, INC.	Sample Date: 9/18/09
Containers/Preservative: Voa/HCl, Amber Liter/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-5C

Project.Task #: 1145.001 220	Project Name: Feiner - 5175 Broadway			
Address: 5175 Broadway Oakland, CA				
Date: 9/17/09	Weather: Cloudy			
Well Diameter: 2"	Volume/ft.	1" = 0.04	3" = 0.37	6" = 1.47
		2" = 0.16	4" = 0.65	radius^2 * 0.163
Total Depth (TD): 26.70	Depth to Product:			
Depth to Water (DTW): 14.43	Product Thickness:			
Water Column Height: 12.27	1 Casing Volume: 1.96 gallons			
Reference Point: TOC	3 Casing Volumes: 5.88 gallons			

Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump

Sampling Device: Disposable Bailer

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
8:05	18.3	6.90	1683				2.0	
8:07	18.1	6.84	1699				4.0	
8:10	18.0	6.92	1680				6.0	

Comments: YSI 550A DO meter

pre purge DO = mg/l

post purge DO = mg/l

very turbid

Sample ID: MW-5C	Sample Time: 8:13
Laboratory: McCampbell Analytical, INC.	Sample Date: 9/17/09
Containers/Preservative: Voa/HCl, Amber Liter/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-6A

Project.Task #: 1145.001 220	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway Oakland, CA	
Date: 9/17/09	Weather: Sunny
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius² * 0.163
Total Depth (TD): 14.92	Depth to Product:
Depth to Water (DTW): 8.69	Product Thickness:
Water Column Height: 6.23	1 Casing Volume: 0.99 gallons
Reference Point: TOC	3 Casing Volumes: 2.97 gallons
Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump	
Sampling Device: Disposable Bailer	

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
10:30	22.6	7.54	1060				1.0	
10:33	22.0	7.48	1051				2.0	
10:35	22.1	7.47	1011				3.0	

Comments: YSI 550A DO meter

pre purge DO = mg/l

post purge DO = mg/l

very turbid, silty

Sample ID: MW-6A	Sample Time: 10:40
Laboratory: McCampbell Analytical, INC.	Sample Date: 9/17/09
Containers/Preservative: Voa/HCl, Amber Liter/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-7B

Project.Task #: 1145.001 220	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway Oakland, CA	
Date: 9/17/09	Weather: Cloudy
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 18.55	Depth to Product:
Depth to Water (DTW): 12.08	Product Thickness:
Water Column Height: 6.47	1 Casing Volume: 1.03 gallons
Reference Point: TOC	3 Casing Volumes: 3.09 gallons
Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump	
Sampling Device: Disposable Bailer	

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
9:05	19.3	7.45	1471				1.0	
9:07	Dewatered purge 1.5 gallons						~~2.0~~	
							~~3.0~~	

Comments: YSI 550A DO meter

pre purge DO = mg/l

post purge DO = mg/l

very turbid, silty, odor, sheen

Sample ID: MW-7B	Sample Time: 7:35
Laboratory: McCampbell Analytical, INC.	Sample Date: 9/18/09
Containers/Preservative: Voa/HCl, Amber Liter/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-7C

Project.Task #: 1145.001 220	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway Oakland, CA	
Date: 9/17/09	Weather: Cloudy
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 24.42	Depth to Product:
Depth to Water (DTW): 12.30	Product Thickness:
Water Column Height: 12.12	1 Casing Volume: 1.93 gallons
Reference Point: TOC	3 Casing Volumes: 5.79 gallons
Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump	
Sampling Device: Disposable Bailer	

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
8:45	18.8	7.43	1526				2.0	
8:50	Dewatered		3.0 gallons purged				~~4.0~~	
							6.0	

Comments: YSI 550A DO meter

pre purge DO = mg/l

post purge DO = mg/l

very turbid, silty, odor, sheen

Sample ID: MW-7C	Sample Time: 7:20
Laboratory: McCampbell Analytical, INC.	Sample Date: 9/18/09
Containers/Preservative: Voa/HCl, Amber Liter/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-8A

Project.Task #: 1145.001 220	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway Oakland, CA	
Date: 9/17/09	Weather: Cloudy
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 14.90	Depth to Product:
Depth to Water (DTW): 10.76	Product Thickness:
Water Column Height: 4.14	1 Casing Volume: 0.66 gallons
Reference Point: TOC	3 Casing Volumes: 1.98 gallons
Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump	
Sampling Device: Disposable Bailer	

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
9:45	20.4	7.24	1381				1.0	
9:47	Dewatered after purging 1.0 gallons						~~1.5~~	
							~~2.0~~	

Comments: YSI 550A DO meter

pre purge DO = mg/l

post purge DO = mg/l

very turbid, silty

Sample ID: MW-8A	Sample Time: 8:10
Laboratory: McCampbell Analytical, INC.	Sample Date: 9/18/09
Containers/Preservative: Voa/HCl, Amber Liter/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-8C

Project.Task #: 1145.001 220	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway Oakland, CA	
Date: 9/17/09	Weather: Cloudy
Well Diameter: 2"	Volume/ft. 1" = 0.04, 2" = 0.16, 3" = 0.37, 4" = 0.65, 6" = 1.47, radius^2 * 0.163
Total Depth (TD): 24.89	Depth to Product:
Depth to Water (DTW): 12.70	Product Thickness:
Water Column Height: 12.19	1 Casing Volume: 1.95 gallons
Reference Point: TOC	3 Casing Volumes: 5.85 gallons

Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump

Sampling Device: Disposable Bailer

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
9:30	18.8	7.61	1448				2.0	
9:35	18.7	7.59	1436				4.0	
9:36	Dewatered purged 4.0 gallons						~~6.0~~	

Comments: YSI 550A DO meter

pre purge DO = mg/l

post purge DO = mg/l

very turbid, silty

Sample ID: MW-8C	Sample Time: 7:55
Laboratory: McCampbell Analytical, INC.	Sample Date: 9/18/09
Containers/Preservative: Voa/HCl, Amber Liter/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-9A

Project.Task #: 1145.001 220	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway Oakland, CA	
Date: 9/17/09	Weather: Clear
Well Diameter: 2"	Volume/ft. 1" = 0.04, 2" = 0.16, 3" = 0.37, 4" = 0.65, 6" = 1.47, radius^2 * 0.163
Total Depth (TD): 15.19	Depth to Product:
Depth to Water (DTW): 12.46	Product Thickness:
Water Column Height: 2.73	1 Casing Volume: 0.43 gallons
Reference Point: TOC	3 Casing Volumes: 1.29 gallons

Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump

Sampling Device: Disposable Bailer

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
5:35	20.4	7.60	913				0.5	
5:40	20.1	7.62	928				1.0	
5:50	20.3	7.60	946				1.5	

Comments: YSI 550A DO meter

pre purge DO = mg/l

post purge DO = mg/l

very turbid, silty

Sample ID: MW-9A	Sample Time: 6:05
Laboratory: McCampbell Analytical, INC.	Sample Date: 9/18 /09
Containers/Preservative: Voa/HCl, Amber Liter/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-9C

Project.Task #: 1145.001 220	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway Oakland, CA	
Date: 9/17/09	Weather: Clear
Well Diameter: 2"	Volume/ft. 1" = 0.04, 2" = 0.16, 3" = 0.37, 4" = 0.65, 6" = 1.47, radius² * 0.163
Total Depth (TD): 20.45	Depth to Product:
Depth to Water (DTW): 12.10	Product Thickness:
Water Column Height: 8.35	1 Casing Volume: 1.33 gallons
Reference Point: TOC	3 Casing Volumes: 3.99 gallons
Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump	
Sampling Device: Disposable Bailer	

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
5:05	21.0	7.54	592				1.5	
5:07	21.6	7.51	587				3.0	
5:10	21.6	7.55	592				4.0	

Comments: YSI 550A DO meter — pre purge DO = mg/l; post purge DO = mg/l

very turbid, silty

Sample ID: MW-9C	Sample Time: 5:15
Laboratory: McCampbell Analytical, INC.	Sample Date: 9/18 /09
Containers/Preservative: Voa/HCl, Amber Liter/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-10A

Project.Task #: 1145.001 220	Project Name: Feiner - 5175 Broadway
Address: 5175 Broadway Oakland, CA	
Date: 9/17/09	Weather: Clear
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 17.96	Depth to Product:
Depth to Water (DTW): 10.77	Product Thickness:
Water Column Height: 7.19	1 Casing Volume: 1.15 gallons
Reference Point: TOC	3 Casing Volumes: 3.45 gallons
Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump	
Sampling Device: Disposable Bailer	

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
6:10	20.7	7.58	568				1.5	
6:15	20.5	7.60	571				2.5	
6:25	20.6	7.66	590				3.5	

Comments: YSI 550A DO meter

pre purge DO = mg/l

post purge DO = mg/l

very turbid, silty

Sample ID: MW-10A	Sample Time: 6:35
Laboratory: McCampbell Analytical, INC.	Sample Date: 9/18/09
Containers/Preservative: Voa/HCl, Amber Liter/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

APPENDIX C

Laboratory Analytical Report

McCampbell 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: #1145.001; Feiner-5175 Broadway	Date Sampled: 09/17/09-09/18/09
		Date Received: 09/18/09
	Client Contact: Erica Ray	Date Reported: 09/25/09
	Client P.O.:	Date Completed: 09/22/09

WorkOrder: 0909529

September 25, 2009

Dear Erica:

Enclosed within are:

1) The results of the **15** analyzed samples from your project: **#1145.001; Feiner-5175 Broadway,**
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

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

0909529

McCAMPBELL ANALYTICAL, INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (925) 798-1620 Fax: (925) 798-1622

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: Erica Ray Bill To: Pangea Environmental

Company: Pangea Environmental Services, Inc.

1710 Franklin Street, Suite 200

Oakland, CA 94612 E-Mail: cray@pangeaenv.com

Tele: 510-836-3702 Fax: (510) 836-3709

Project #: 1145.001 Project Name: Feirer - 5175 Broadway

Project Location: 5175 Broadway, Oakland, CA

Sampler Signature: Muskan Environmental Sampling

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015 with silica gel cleanup)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010 / 8021	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8081	EPA 608 / 8082 PCB's ONLY	EPA 8140 / 8141	EPA 8150 / 8151	EPA 524.2 / 624 / 8260	EPA 525 / 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals (6010 / 6020)	LUFT 5 Metals (6010 / 6020)	Lead (200.8 / 200.9 / 6010)	Other	Comments
MW-1		9/17/09	11:25	3	VOA Amb	X					X	X			X	X																
MW-2C		9/17/09	10:15	2																												
MW-3A		9/18/09	8:45																													
MW-3C		9/18/09	8:30																													
MW-4A		9/17/09	11:45																													
MW-5B		9/18/09	7:05																													
MW-5C		9/17/09	8:13																													
MW-6A		9/17/09	10:40																													
MW-7B		9/18/09	7:35																													
MW-7C		9/18/09	7:20																													
MW-8A		9/18/09	8:10																													
MW-8C		9/18/09	7:55																													
MW-9A		9/18/09	6:00																													
MW-9C		9/18/09	5:15																													

Relinquished By:	Date:	Time:	Received By:
	9/18/09	1157	Marisa V
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 2.6

GOOD CONDITION ✓

HEAD SPACE ABSENT

DECHLORINATED IN LAB

APPROPRIATE CONTAINERS ✓

PRESERVED IN LAB

PRESERVATION: VOAs ✓ | O&G | METALS pH<2 | OTHER

COMMENTS:

Filter Samples for Metals analysis: Yes / No

pg 2 of 2

McCAMPBELL ANALYTICAL, INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (925) 798-1620 Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

EDF Required? XG Coelt (Normal) No Write On (WW) No

Report To: Erica Ray	Bill To: Pangea Environmental
Company: Pangea Environmental Services, Inc.	
1710 Franklin Street, Suite 200	
Oakland, CA 94612	E-Mail: eray@pangeaenv.com
Tele: 510-836-3702	Fax: (510) 836-3709
Project #: 1145.001	Project Name: Feiner-5175 Broadway
Project Location: 5175 Broadway Oakland, CA	
Sampler Signature: MuirKan Environmental Sampling LL	

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX: Water	Soil	Air	Sludge	Other	METHOD PRESERVED: ICE	HCL	HNO_3	Other	Analysis Request: BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015) with silica gel cleanup	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010 / 8021	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8081	EPA 608 / 8082 PCB's ONLY	EPA 8140 / 8141	EPA 8150 / 8151	EPA 5242 / 624 / 8260	EPA 525 / 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals (6010 / 6020)	LUFT 5 Metals (6010 / 6020)	Lead (200.8 / 200.9 / 6010)	Other	Comments
1 MW-10A		9/18/09	6:35	3 2	VOA Amb	X					X	X			X	X																Filter Samples for Metals analysis: Yes / No

Relinquished By:	Date: 9/18/09	Time: 1157	Received By:
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t°_____
GOOD CONDITION_____
HEAD SPACE ABSENT_____
DECHLORINATED IN LAB_____
APPROPRIATE CONTAINERS_____
PRESERVED IN LAB_____

COMMENTS:

PRESERVATION	VOAS	O&G	METALS	OTHER
			pH<2	

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0909529 **ClientCode: PEO**

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Erica Ray
Pangea Environmental Svcs., Inc.
1710 Franklin Street, Ste. 200
Oakland, CA 94612
(510) 836-3700 FAX (510) 836-3709

Email: eray@pangeaenv.com
cc:
PO:
ProjectNo: #1145.001; Feiner-5175 Broadway

Bill to:
Bob Clark-Riddell
Pangea Environmental Svcs., Inc.
1710 Franklin Street, Ste. 200
Oakland, CA 94612

Requested TAT: 5 days

Date Received: **09/18/2009**
Date Printed: **09/18/2009**

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
0909529-001	MW-1	Water	9/17/2009 11:25	☐	A	A	B									
0909529-002	MW-2C	Water	9/17/2009 10:15	☐	A		B									
0909529-003	MW-3A	Water	9/18/2009 8:45	☐	A		B									
0909529-004	MW-3C	Water	9/18/2009 8:30	☐	A		B									
0909529-005	MW-4A	Water	9/17/2009 11:45	☐	A		B									
0909529-006	MW-5B	Water	9/18/2009 7:05	☐	A		B									
0909529-007	MW-5C	Water	9/17/2009 8:13	☐	A		B									
0909529-008	MW-6A	Water	9/17/2009 10:40	☐	A		B									
0909529-009	MW-7B	Water	9/18/2009 7:35	☐	A		B									
0909529-010	MW-7C	Water	9/18/2009 7:20	☐	A		B									
0909529-011	MW-8A	Water	9/18/2009 8:10	☐	A		B									
0909529-012	MW-8C	Water	9/18/2009 7:55	☐	A		B									
0909529-013	MW-9A	Water	9/18/2009 6:00	☐	A		B									
0909529-014	MW-9C	Water	9/18/2009 5:15	☐	A		B									

Test Legend:

1	G-MBTEX_W	2	PREDF REPORT	3	TPH(D)WSG_W	4		5	
6		7		8		9		10	
11		12							

Prepared by: Maria Venegas

Comments:

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

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0909529 **ClientCode: PEO**

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Erica Ray
Pangea Environmental Svcs., Inc.
1710 Franklin Street, Ste. 200
Oakland, CA 94612
(510) 836-3700 FAX (510) 836-3709

Email: eray@pangeaenv.com
cc:
PO:
ProjectNo: #1145.001; Feiner-5175 Broadway

Bill to:
Bob Clark-Riddell
Pangea Environmental Svcs., Inc.
1710 Franklin Street, Ste. 200
Oakland, CA 94612

Requested TAT: 5 days

Date Received: **09/18/2009**
Date Printed: **09/18/2009**

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
0909529-015	MW-10A	Water	9/18/2009 6:35	☐	A		B									

Test Legend:

1	G-MBTEX_W	2	PREDF REPORT	3	TPH(D)WSG_W	4		5	
6		7		8		9		10	
11		12							

Prepared by: Maria Venegas

Comments:

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

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Telephone: 877-252-9262 Fax: 925-252-9269

Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.**
Date and Time Received: **9/18/2009 12:39:28 PM**

Project Name: **#1145.001; Feiner-5175 Broadway**
Checklist completed and reviewed by: Maria Venegas

WorkOrder N°: **0909529** Matrix Water
Carrier: Client Drop-In

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: 2.6°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 ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

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

Client contacted: Date contacted: Contacted by:

Comments:

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Pangea Environmental Svcs., Inc.	Client Project ID: #1145.001; Feiner-5175 Broadway	Date Sampled: 09/17/09-09/18/09
		Date Received: 09/18/09
1710 Franklin Street, Ste. 200	Client Contact: Erica Ray	Date Extracted: 09/19/09-09/24/09
Oakland, CA 94612	Client P.O.:	Date Analyzed: 09/19/09-09/24/09

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 0909529

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-1	W	300	ND	4.4	ND	ND	2.3	1	108	d1
002A	MW-2C	W	64	ND	4.3	ND	0.62	0.88	1	99	d1,b1
003A	MW-3A	W	19,000	ND<250	2700	33	660	110	50	107	d1
004A	MW-3C	W	37,000	ND<1200	1400	690	400	4300	50	112	d1,b6
005A	MW-4A	W	26,000	ND<350	1600	63	140	320	33	115	d1,b6
006A	MW-5B	W	58	ND	0.66	ND	ND	ND	1	101	d1,b1
007A	MW-5C	W	ND	ND	ND	ND	ND	ND	1	97	b1
008A	MW-6A	W	ND	ND	ND	ND	ND	ND	1	101	b1
009A	MW-7B	W	14,000	ND<170	470	330	44	1100	33	107	d1,b6
010A	MW-7C	W	7000	ND<100	830	38	23	90	20	116	d1
011A	MW-8A	W	6800	ND<25	150	19	10	35	5	103	d1
012A	MW-8C	W	ND	ND	ND	ND	ND	ND	1	98	
013A	MW-9A	W	ND	ND	ND	ND	ND	ND	1	100	
014A	MW-9C	W	ND	ND	ND	ND	ND	ND	1	102	
015A	MW-10A	W	ND	ND	ND	ND	ND	ND	1	99	
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	µg/L		
		S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg		

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

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment
b6) lighter than water immiscible sheen/product is present
d1) weakly modified or unmodified gasoline is significant

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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Pangea Environmental Svcs., Inc.	Client Project ID: #1145.001; Feiner-5175 Broadway	Date Sampled: 09/17/09-09/18/09
		Date Received: 09/18/09
1710 Franklin Street, Ste. 200	Client Contact: Erica Ray	Date Extracted: 09/18/09
Oakland, CA 94612	Client P.O.:	Date Analyzed 09/19/09-09/22/09

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up*

Extraction method: SW3510C/3630C Analytical methods: SW8015B Work Order: 0909529

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	DF	% SS	Comments
0909529-001B	MW-1	W	170	1	81	e11
0909529-002B	MW-2C	W	ND	1	80	
0909529-003B	MW-3A	W	6900	1	84	e4
0909529-004B	MW-3C	W	14,000	20	84	e11,b6
0909529-005B	MW-4A	W	25,000	20	73	e11,b6
0909529-006B	MW-5B	W	ND	1	80	
0909529-007B	MW-5C	W	ND	1	80	b1
0909529-008B	MW-6A	W	280	1	106	e7,e11,e2,b1
0909529-009B	MW-7B	W	10,000	20	87	e11,b6
0909529-010B	MW-7C	W	2200	1	82	e4
0909529-011B	MW-8A	W	5200	1	97	e11,e2
0909529-012B	MW-8C	W	ND	1	95	
0909529-013B	MW-9A	W	ND	1	97	
0909529-014B	MW-9C	W	ND	1	96	
0909529-015B	MW-10A	W	ND	1	95	
Reporting Limit for DF =1; ND means not detected at or above the reporting limit		W	50	µg/L		
		S	NA	NA		

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

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract/matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment
b6) lighter than water immiscible sheen/product is present
e2) diesel range compounds are significant; no recognizable pattern
e4) gasoline range compounds are significant.
e7) oil range compounds are significant
e11) stoddard solvent/mineral spirit (?)

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 45925 WorkOrder 0909529

EPA Method SW8021B/8015Bm **Extraction SW5030B** **Spiked Sample ID: 0909529-015A**

Analyte	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)£	ND	60	89	98.1	9.66	98.5	101	2.47	70 - 130	20	70 - 130	20
MTBE	ND	10	106	103	2.80	95.6	92	3.78	70 - 130	20	70 - 130	20
Benzene	ND	10	88.7	94.7	6.48	93	93.6	0.661	70 - 130	20	70 - 130	20
Toluene	ND	10	90.9	95.7	5.17	94.2	94.6	0.451	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	91	94.3	3.62	92.8	93.9	1.20	70 - 130	20	70 - 130	20
Xylenes	ND	30	95.2	95.4	0.253	101	99.9	0.916	70 - 130	20	70 - 130	20
%SS:	99	10	85	93	8.79	91	92	0.731	70 - 130	20	70 - 130	20

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

BATCH 45925 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909529-001A	09/17/09 11:25 AM	09/20/09	09/20/09 1:39 AM	0909529-002A	09/17/09 10:15 AM	09/20/09	09/20/09 2:09 AM
0909529-003A	09/18/09 8:45 AM	09/20/09	09/20/09 4:37 AM	0909529-004A	09/18/09 8:30 AM	09/19/09	09/19/09 9:39 PM
0909529-005A	09/17/09 11:45 AM	09/22/09	09/22/09 4:31 AM	0909529-006A	09/18/09 7:05 AM	09/23/09	09/23/09 2:01 AM
0909529-007A	09/17/09 8:13 AM	09/20/09	09/20/09 3:08 AM	0909529-008A	09/17/09 10:40 AM	09/20/09	09/20/09 3:38 AM
0909529-009A	09/18/09 7:35 AM	09/21/09	09/21/09 8:24 PM	0909529-010A	09/18/09 7:20 AM	09/19/09	09/19/09 10:39 PM
0909529-011A	09/18/09 8:10 AM	09/21/09	09/21/09 9:24 PM	0909529-013A	09/18/09 6:00 AM	09/24/09	09/24/09 8:34 AM
0909529-014A	09/18/09 5:15 AM	09/21/09	09/21/09 11:58 PM	0909529-015A	09/18/09 6:35 AM	09/22/09	09/22/09 12:34 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.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.

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QA/QC Officer

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 45936 WorkOrder 0909529

EPA Method SW8021B/8015Bm **Extraction SW5030B** **Spiked Sample ID: 0909529-012A**

Analyte	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)£	ND	60	104	107	3.10	107	104	2.47	70 - 130	20	70 - 130	20
MTBE	ND	10	93	91	2.22	93.9	103	9.05	70 - 130	20	70 - 130	20
Benzene	ND	10	84.3	90.4	6.87	88.8	92.1	3.63	70 - 130	20	70 - 130	20
Toluene	ND	10	86.1	91.4	5.93	87.2	90.7	3.98	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	85.6	90.8	5.88	87.1	90	3.27	70 - 130	20	70 - 130	20
Xylenes	ND	30	87.1	92.1	5.50	88.4	91.4	3.24	70 - 130	20	70 - 130	20
%SS:	98	10	94	98	4.68	95	95	0	70 - 130	20	70 - 130	20

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

BATCH 45936 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909529-012A	09/18/09 7:55 AM	09/20/09	09/20/09 4:08 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.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.

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QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 45917 WorkOrder: 0909529

EPA Method SW8015B **Extraction SW3510C/3630C** **Spiked Sample ID: N/A**

Analyte	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-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	85.7	84.2	1.77	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	82	81	0.517	N/A	N/A	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 45917 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909529-001B	09/17/09 11:25 AM	09/18/09	09/19/09 2:16 AM	0909529-002B	09/17/09 10:15 AM	09/18/09	09/19/09 3:27 AM
0909529-003B	09/18/09 8:45 AM	09/18/09	09/19/09 4:37 AM	0909529-004B	09/18/09 8:30 AM	09/18/09	09/19/09 5:46 AM
0909529-005B	09/17/09 11:45 AM	09/18/09	09/19/09 8:04 AM	0909529-006B	09/18/09 7:05 AM	09/18/09	09/19/09 10:24 AM
0909529-007B	09/17/09 8:13 AM	09/18/09	09/19/09 11:33 AM	0909529-008B	09/17/09 10:40 AM	09/18/09	09/22/09 7:04 AM
0909529-009B	09/18/09 7:35 AM	09/18/09	09/19/09 3:04 PM	0909529-010B	09/18/09 7:20 AM	09/18/09	09/19/09 5:26 PM
0909529-011B	09/18/09 8:10 AM	09/18/09	09/21/09 8:48 PM	0909529-012B	09/18/09 7:55 AM	09/18/09	09/21/09 9:58 PM
0909529-013B	09/18/09 6:00 AM	09/18/09	09/22/09 1:23 AM	0909529-014B	09/18/09 5:15 AM	09/18/09	09/21/09 7:40 PM
0909529-015B	09/18/09 6:35 AM	09/18/09	09/21/09 6:32 PM				

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.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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QA/QC Officer