

RECEIVED

By dehloptoxic at 1:52 pm, Jan 03, 2007

November 9, 2006

Mr. Don Hwang
Alameda County Health Care Services Agency (ACHCSA)
Environmental Health Services
Environmental Protection (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Former Exxon Station

5175 Broadway
Oakland, California
ACHCSA Fuel Leak Case No. RO0000139
SFRWQCB Site No. 01-0958
UST Fund Claim No. 003406

Dear Mr. Hwang:

I, Mr. Gary Feiner of Rockridge Heights, LLC, have retained Pangea Environmental Services, Inc. (Pangea) as the environmental consultant for the project referenced above. Pangea is submitting the *Groundwater Monitoring Report-Third Quarter 2006* dated November 9, 2006, on my behalf.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached report is true and correct to the best of my knowledge.

Sincerely,



Gary Feiner
Rockridge Heights, LLC



November 9, 2006

Mr. Don Hwang
Alameda County Health Services –
Environmental Health Services
1331 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Re: **Groundwater Monitoring Report – Third Quarter 2006**
5175 Broadway
Oakland, California

Dear Mr. Hwang:

On behalf of Rockridge Heights LLC, Pangea Environmental Services, Inc., has prepared this *Groundwater Monitoring Report – Third Quarter 2006*. The report describes groundwater monitoring, sampling, and other site activities.

If you have any questions or comments, please call me at (510) 435-8664.

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 – Third Quarter 2006*

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

PANGEA Environmental Services, Inc.



GROUNDWATER MONITORING REPORT – THIRD QUARTER 2006

5175 Broadway
Oakland, California

November 9, 2006

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

PANGEA Environmental Services, Inc.

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 Figure 2. Current and historical data are summarized on Table 1.

SITE BACKGROUND

The site is a former Exxon gas station located at the southwest corner of Broadway and Coronado Avenue in Oakland, California (Figure 1), and is situated on top of a ridge extending from the base of the East Bay Berkeley Hills into the East Bay Plain. The topography slopes gently away from the site in all directions except northeast. The site has not been operated as a gas station since at least 1979 and is currently vacant and surrounded by a locked fence. Surrounding land use is mixed residential and light commercial.

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 the Rockridge Heights, LLC. Pangea commenced quarterly groundwater monitoring at the site in July 2006.

GROUNDWATER MONITORING AND SAMPLING

On July 28, 2006, Pangea conducted groundwater monitoring and sampling at the site. Site monitoring wells were gauged for depth to water and total well depth. Groundwater samples were obtained from four of the five site monitoring wells. Pangea attempted to locate well MW-3 by digging and scanning the presumed well location area using a metal detector, but the well was not located. Pangea later learned that GGTR could not locate the well with a magnetometer.

Before well purging, the dissolved oxygen (DO) concentration was measured in each well. DO was measured by lowering a downwell sensor to the approximate middle of the water column, and allowing the reading to stabilize during gentle height adjustment. Prior to sample collection approximately three casing volumes of water were purged using disposable bailers, an electric submersible pump, or a clean PVC bailer. During well purging field technicians measured the 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. Field data sheets are presented as Appendix A.

MONITORING RESULTS

Groundwater elevation and analytical data are described below and summarized on Table 1 and Figure 2. Groundwater samples were analyzed for total petroleum hydrocarbons as diesel (TPHd) by EPA Method 8015C with silica gel clean-up; total petroleum hydrocarbons as gasoline (TPHg) by modified EPA Method 8015C; and benzene, toluene, ethylene, xylenes (BTEX) by EPA Method 8021B; tert-amyl methyl ether (TAME), t-butyl alcohol (TBA), 1,2-dibromoethane (EDB), 1,2-dichloroethane (1,2-DCA), diisopropyl ether (DIPE), ethanol, ethyl tert-butyl ether (ETBE), methanol, and methyl tertiary butyl ether (MTBE) by EPA Method 8260B. Samples were analyzed by McCampbell Analytical, Inc. of Pacheco, California, a State-certified laboratory. The laboratory analytical report is included in Appendix B. Dissolved oxygen concentrations ranged from 0.17 to 0.24 mg/L.

Groundwater Flow Direction

Based on depth-to-water measurements collected on July 28, 2006, the inferred groundwater flow direction was toward the southwest at a gradient of approximately 0.035 ft/ft (Figure 2). The current inferred flow direction is generally consistent with previous quarterly monitoring events.

Hydrocarbon and Fuel Oxygenate Distribution in Groundwater

After removing approximately 4 gallons of groundwater from well STMW-4, SPH were observed on the bailer. Purging was stopped, SPH were measured at a thickness of 0.04 ft, and a groundwater sample was collected. TPHg, TPHd and BTEX concentrations were detected in all four of the sampled wells (MW-1, MW-2, STMW-4 and STMW-5), as shown on Table 1 and Figure 2. Detected TPHg concentrations ranged from 250 µg/L (MW-1) to 25,000 ug/L (STMW-4), while TPHd concentrations ranged from 86 µg/L (MW-1) to 39,000 µg/L (STMW-4) and benzene concentrations ranged from 22 µg/L (STMW-5) to 960 µg/L (STMW-4). The

laboratory noted that gasoline range compounds were significant in the quantification of diesel range hydrocarbons in wells MW-1 and MW-2. No MTBE was detected in sampled groundwater. The only fuel oxygenate detected in site groundwater was diisopropyl ether (DIPE), at concentrations ranging from 3.6 µg/L (MW-2) to 65 µg/L (STMW-4). The lead scavenger 1,2-dichloroethane (1,2-DCA) was detected at 1.5 µg/L in well MW-1.

OTHER SITE ACTIVITIES

Groundwater Monitoring

Groundwater monitoring and sampling will be conducted at the subject site on a quarterly basis. During the next quarter Pangea will conduct gauging and sampling of all site groundwater monitoring wells (except well MW-3 which was apparently removed or abandoned). Groundwater samples will be analyzed for TPHg/BTEX/MTBE by EPA Method 8015Cm/8021B, and TPHd by EPA Method 8015C with silica gel cleanup. Pangea will also measure dissolved oxygen concentrations in site wells. Pangea will summarize groundwater monitoring activities and results in a groundwater monitoring report.

Site Assessment

On May 8, 2006, Golden Gate Tank Removal (GGTR) submitted the report *Preliminary Results of Site Characterization: Proposed Additional Activities-Former Exxon Station, 5175 Broadway, Oakland, California* to Alameda County Environmental Health on behalf of the prior site owner. The GGTR report does not address several specific requirements of the December 22, 2005 ACEH letter that approved the investigation workplan. To address regulatory concerns regarding subsurface conditions, Pangea prepared *Addendum to Preliminary Results of Site Characterization: Proposed Additional Activities* dated November 8, 2006. The Addendum proposes soil and groundwater grab sampling, well installation, shallow soil gas sampling, and feasibility testing to further define site conditions and facilitate corrective action at the site.

ATTACHMENTS

Figure 1 – Site Vicinity Map

Figure 2 – Groundwater Elevation Contour and Hydrocarbon Concentration Map

Table 1 – Groundwater Elevation and Analytical Data

Appendix A – Groundwater Monitoring Field Data Sheets

Appendix B – Laboratory Analytical Report

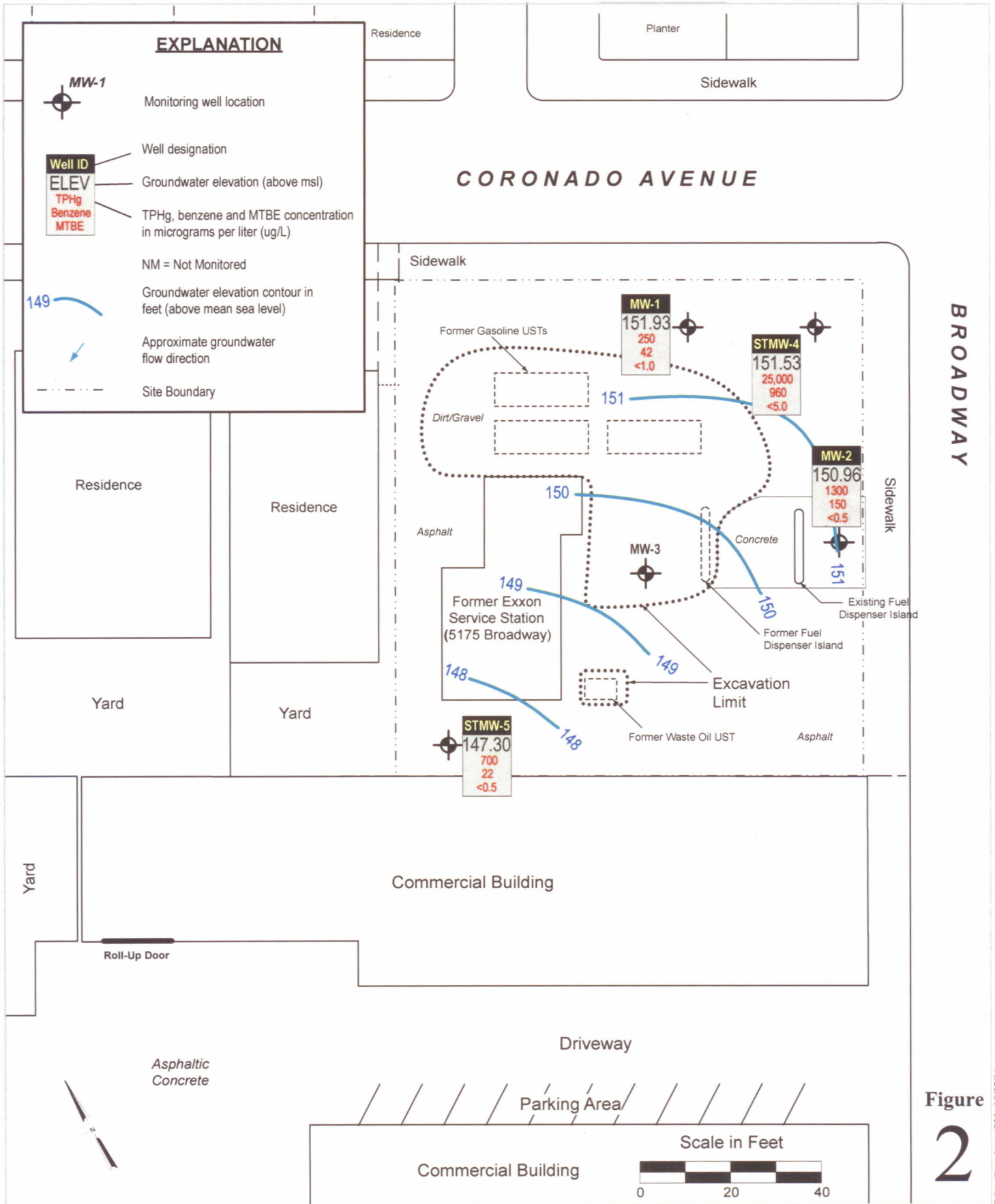


Figure
2

Feiner/Broadway QM.ai 8/25/06

Former Exxon Station
5175 Broadway
Oakland, California



**Groundwater Elevation Contour and
Hydrocarbon Concentration Map**
July 28, 2006

Pangea

Table 1. Groundwater Analytical Data: Feiner, 5175 Broadway, Oakland, CA

Well ID	Date	SPH (ft)	Groundwater Elevation (ft)	Depth to Water (ft)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	1,2-DCA	Dissolved Oxygen mg/L
TOC Elev (ft)	Sampled													
MW-1	4/30/89	--	--	--	--	200	18	5	2	12	--	--	--	--
(97.71)	5/17/90	--	88.45	9.26	--	--	--	--	--	--	--	--	--	--
	9/26/90	--	87.79	9.92	--	1,300	55	31	120	100	--	--	--	--
(102.04)	1/14/91	--	88.17	9.54	--	3,100	350	83	86	130	--	--	--	--
	7/3/91	--	92.62	9.42	--	580	32	41	40	55	--	--	--	--
(101.83)	11/11/91	--	92.59	9.45	--	330	20	2	2	11	--	--	--	--
	3/4/92	--	93.90	7.93	--	810	11	5	10	23	--	--	--	--
	6/2/92	--	92.85	8.98	--	2,200	93	32	40	120	--	--	--	--
	9/28/92	--	92.54	9.29	--	2,900	24	78	19	37	--	--	--	--
	1/11/93	--	94.27	7.56	--	1,700	5.7	6	11	28	--	--	--	--
(97.50)	8/15/94	--	92.64	9.19	--	2,000	120	3	6	16	--	--	--	--
	11/7/96	--	88.77	8.73	270	1,200	3	1.1	1.5	3.8	<0.5	--	--	--
	2/12/97	--	89.58	7.92	<50	1,800	13	5.7	4.8	17	<0.5	--	--	--
	6/16/97	--	88.46	9.04	<50	330	27	<0.5	<0.5	1.2	<0.5	--	--	--
(97.50)	9/30/97	--	89.94	7.56	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
	1/27/98	--	89.54	7.96	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
	4/24/98	--	89.52	7.98	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
	8/17/98	--	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	--	--	--
	2/16/99	--	88.86	8.64	<50	110	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--
	5/17/99	--	89.00	8.50	--	280	1.1	0.6	<0.5	<0.5	<0.5	--	--	--
	8/17/99	--	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	--	--	--
	2/17/00	--	89.02	8.48	--	580	1.1	2.3	3.6	4.9	<5.0	--	--	--
	5/17/00	--	89.26	8.24	--	1,500	130	6.8	6.1	<5.0	<5.0	--	--	--
	8/17/00	--	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	--	--	--
	2/16/01	--	89.90	7.60	--	400	26	<5.0	<5.0	<5.0	<5.0	--	--	--
	1/11/02	--	89.42	8.08	160	600	74	53	14	52	110	--	--	--
(161.03)	7/1/02	--	152.01	9.02	280	670	25	<5.0	<5.0	<5.0	<5.0	--	--	--
	10/4/02	--	151.29	9.74	520	1,800	130	7.8	8.1	14	<5.0	--	--	--
	7/28/06	--	151.93	9.10	86	250	42	1.7	1.4	3.1	<1.0	51	1.5	0.21
MW-2	4/30/89	--	--	--	--	230	39	18	5	23	--	--	--	--
(97.78)	5/17/90	--	87.78	10.00	--	--	--	--	--	--	--	--	--	--
	9/29/90	--	86.95	10.83	--	850	970	5	25	47	--	--	--	--
(102.02)	1/14/91	--	87.15	10.63	--	3,100	30	52	24	34	--	--	--	--
	7/3/91	--	91.94	10.08	--	1,590	30	52	24	34	--	--	--	--
	11/11/91	--	91.81	10.21	--	960	320	15	4	29	--	--	--	--
	3/4/92	--	93.32	8.70	--	1,500	9.5	8.4	9.8	22	--	--	--	--
	6/2/92	--	92.50	9.52	--	2,800	84	41	59	95	--	--	--	--
	9/28/92	--	91.93	10.09	--	1,600	47	20	47	97	--	--	--	--
	1/11/93	--	93.50	8.52	--	2,500	8.6	10	17	32	--	--	--	--
(97.49)	8/15/94	--	87.58	9.91	--	6,000	450	60	100	95	--	--	--	--

Pangea

Table 1. Groundwater Analytical Data: Feiner, 5175 Broadway, Oakland, CA

Well ID	Date	Groundwater	Depth	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	1,2-DCA	Dissolved	
TOC Elev (ft)	Sampled	SPH (ft)	Elevation (ft)	to Water (ft)	←----- μg/L ----->									Oxygen mg/L
MW-2	11/7/96	--	87.47	10.02	780	4,200	25	4.9	8.1	14	<0.5	--	--	
<i>(continued)</i>	2/12/97	--	88.58	8.91	5,700	1,800	16	3.1	3.4	8.8	<0.5	--	--	
	6/16/97	--	87.74	9.75	<50	2,500	22	5.1	7.8	11	<0.5	--	--	
	9/30/97	--	89.60	7.89	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	
	1/27/98	--	89.11	8.38	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	
	4/24/98	--	88.81	8.68	1,400	2,100	18	6.5	4.8	21	<0.5	--	--	
	8/17/98	--	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	--	--	
	2/16/99	--	88.57	8.92	<50	1,600	82	16	<2.5	40	59	--	--	
	5/17/99	--	88.23	9.26	--	8,200	43	73	140	100	<250	--	--	
	8/17/99	--	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	--	--	
	2/17/00	--	87.99	9.50	--	1,700	3.2	6.8	11	12.3	<5.0	--	--	
	5/17/00	--	88.65	8.84	--	3,800	450	65	110	80	<25	--	--	
	8/17/00	--	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	--	--	
	2/16/01	--	88.97	8.52	--	2,200	110	20	38	33	<5.0	--	--	
<i>(160.98)</i>	1/11/02	--	88.67	8.82	620	3,100	280	86	84	110	<50	--	--	
	7/1/02	--	151.34	9.64	940	2,600	300	29	45	27	<10	--	--	
	10/4/02	--	150.46	10.52	390	4,000	440	66	140	120	<25	--	--	
	7/28/06	--	150.96	10.02	340	1,300	150	9.9	6	18	<0.5	3.6	<0.5	0.17
MW-3	4/30/90	--	--	--	--	56,000	3,600	8,600	1,300	7,200	--	--	--	
<i>(98.14)</i>	5/17/90	--	85.72	12.42	--	--	--	--	--	--	--	--	--	
	9/26/90	--	84.64	13.50	--	54,000	5,100	420	1,600	8,000	--	--	--	
	1/14/91	--	85.56	12.58	--	35,000	2,600	6,600	1,500	5,700	--	--	--	
<i>(102.46)</i>	7/3/91	--	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	--	--	--	
<i>(102.18)</i>	3/4/92	--	91.92	10.26	--	57,000	720	870	81	3,100	--	--	--	
<i>(97.94)</i>	6/2/92	--	86.54	11.40	--	50,000	240	240	220	740	--	--	--	
	9/28/92	--	85.30	12.64	--	64,000	110	93	97	250	--	--	--	
	1/11/93	--	87.84	10.10	--	68,000	210	280	360	990	--	--	--	
	8/15/94	--	85.74	12.20	--	50,000	870	1,200	1,300	3,000	--	--	--	
	11/7/96	--	85.54	12.40	470	68,000	33	27	63	120	<0.5	--	--	
	2/12/97	--	87.71	10.23	3,500	25,000	39	43	15	91	<0.5	--	--	
	6/16/97	--	86.15	11.79	<50	9,700	26	29	45	81	<0.5	--	--	
	9/30/97	--	88.54	9.40	1,600	6,000	43	36	12	11	<0.5	--	--	
	1/27/98	--	88.14	9.80	560	380	5.7	4.1	1.7	9.1	<0.5	--	--	
	4/24/98	--	88.04	9.90	680	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	
	8/17/98	--	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	--	--	
	2/16/99	--	87.22	10.72	<50	33,000	270	110	<5.0	770	170	--	--	
	5/17/99	--	87.40	10.54	--	72,000	280	230	320	890	<250	--	--	
	8/17/99	--	85.99	11.95	1,800	20,000	51	41	61	130	<5.0	--	--	

Pangea


Table 1. Groundwater Analytical Data: Feiner, 5175 Broadway, Oakland, CA

Well ID	Date	Groundwater	Depth	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	1,2-DCA	Dissolved	
<i>TOC Elev</i>	Sampled	SPH	Elevation	to Water									Oxygen	
(ft)	(ft)	(ft)	(ft)	(ft)	←----- μg/L ----->									(mg/L)
MW-3	11/17/99	--	84.34	13.60	--	1,700	39	22	31	84	<1.0	--	--	
<i>(continued)</i>	2/17/00	--	87.26	10.68	--	8,800	16	39	74	90	<5.0	--	--	
	5/17/00	--	87.69	10.25	--	22,000	300	260	410	940	<5.0	--	--	
	8/17/00	--	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	--	--	
	2/16/01	--	88.26	9.68	--	7,400	40	72	700	250	<25	--	--	
	1/11/02	--	88.36	9.58	1,900	9,300	230	200	290	580	<25	--	--	
<i>(161.43)</i>	7/1/02	--	150.29	11.14	5,200	13,000	230	220	450	890	<13	--	--	
	10/4/02	--	148.61	12.82	4,900	11,000	280	170	450	730	<25	--	--	
	7/28/06	--	Not Sampled - Unable to locate well											
STMW-4	7/3/91	--	92.58	11.00	--	3,100	610	62	39	150	--	--	--	
<i>(103.58)</i>	11/11/91	--	92.50	11.08	--	3,600	990	15	2.6	180	--	--	--	
<i>(101.08)</i>	3/4/92	--	91.64	9.44	--	5,000	35	20	22	71	--	--	--	
<i>(98.80)</i>	6/2/92	--	88.48	10.32	--	13,000	140	45	63	210	--	--	--	
	9/28/92	--	88.04	10.76	--	40,000	35	20	48	110	--	--	--	
	1/11/93	--	89.52	9.28	--	24,000	26	88	92	280	--	--	--	
	8/15/94	--	88.26	10.54	--	9,000	500	34	46	130	--	--	--	
	11/7/96	--	88.43	10.37	180	13,000	40	2.9	7.8	19	<0.5	--	--	
	2/12/97	--	89.44	9.36	5,700	5,300	95	5.3	5.9	18	<0.5	--	--	
	6/16/97	--	88.40	10.40	<50	5,300	37	6.2	1.7	11	<0.5	--	--	
	9/30/97	--	90.30	8.50	<50	2,700	42	7.7	5.7	26	<0.5	--	--	
	1/27/98	--	89.90	8.90	300	3,000	60	17	12	49	<0.5	--	--	
	4/24/98	--	89.30	9.50	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
	8/17/98	--	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	--	--	--	
	2/16/99	--	89.16	9.64	<50	32,000	660	16	16	150	<100	--	--	
	5/17/99	--	88.84	9.96	--	13,000	1600	30	45	78	<250	--	--	
	8/17/99	--	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	--	--	
	2/17/00	--	89.48	9.32	--	4,900	8.9	21	38	50	<5.0	--	--	
	5/17/00	--	89.15	9.65	--	9,600	840	<50	61	<50	<50	--	--	
	8/17/00	--	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	--	--	
	2/16/01	--	89.60	9.20	--	5,700	560	<25	<25	<25	<25	--	--	
	1/11/02	--	89.22	9.58	930	4,900	560	59	25	<25	<250	--	--	
<i>(162.13)</i>	7/1/02	--	151.85	10.28	6,700	6,700	470	18	32	45	<13	--	--	
	10/4/02	--	151.05	11.08	2,900	13,000	590	26	65	110	<25	--	--	
	7/28/06	0.04	151.56	10.60	39,000	25,000	960	21	73	130	<5.0	65	<5.0	0.22

APPENDIX A

Groundwater Monitoring Field Data Sheets

Well Gauging Data Sheet

Project Task #: 1145.001 208			Project Name: Feiner				
Address: 5175 Broadway Oakland, CA						Date: 7-28-06	
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"	1:23			9.10	23.00	TOC
MW-2	4"	1:25			10.02	22.90	
MW-3		unable to locate					
STMW-4	4"	1:27			10.60	19.00	TOC
STMW-5	2"	1:20			13.35	23.97	
							*

Comments:

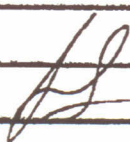
MONITORING FIELD DATA SHEET

Well ID: MN-1

Project Task #: <u>1145.001 208</u>		Project Name: <u>Feiner</u>							
Address: <u>5175 Broadway Oakland, CA</u>									
Date: <u>7-28-06</u>		Weather: <u>Cloudy</u>							
Well Diameter: <u>4"</u>		Volume/ft. <table border="1" style="font-size: small; border-collapse: collapse;"> <tr> <td>1" = 0.04</td> <td>3" = 0.37</td> <td>6" = 1.47</td> </tr> <tr> <td>2" = 0.16</td> <td>4" = 0.65</td> <td>radius = 0.163</td> </tr> </table>		1" = 0.04	3" = 0.37	6" = 1.47	2" = 0.16	4" = 0.65	radius = 0.163
1" = 0.04	3" = 0.37	6" = 1.47							
2" = 0.16	4" = 0.65	radius = 0.163							
Total Depth (TD): <u>23.00</u>		Depth to Product:							
Depth to Water (DTW): <u>9.10</u>		Product Thickness:							
Water Column Height: <u>13.90</u>		1 Casing Volume: <u>9.03</u> gallons							
Reference Point: TOC		3 Casing Volumes: <u>27.09</u> gallons							
Purging Device: Disposable Bailer / <u>3" PVC Bailer</u> , Whal Pump									
Sampling Device: Disposable Bailer									
Time	Temp (°C)	pH	Cond (µs)	NTU	DO (mg/L)	ORP (mV)	Vol (gal)	DTW	
<u>2:15</u>	<u>19.5</u>	<u>7.72</u>	<u>684</u>				<u>9</u>		
<u>2:20</u>	<u>18.8</u>	<u>7.80</u>	<u>609</u>				<u>18</u>		
<u>2:25</u>	<u>18.9</u>	<u>7.88</u>	<u>615</u>				<u>27</u>		

Comments: Oakton DO meter pre purge DO = 0.21 mg/l
post purge DO = mg/l

very turbid, silty, odor


Sample ID: <u>MN-1</u>	Sample Time: <u>2:30</u>
Laboratory: <u>McCampbell Analytical, INC.</u>	Sample Date: <u>7-28-00</u>
Containers/Preservative: <u>Voal/HCl, Amb/HCl</u>	
Analyzed for: <u>8015, 8021, 8260</u>	
Sampler Name: <u>Sanjiv Gill</u>	Signature: 

MONITORING FIELD DATA SHEET

Well ID: MU-2

Project Task #: <u>1145-001 208</u>		Project Name: <u>Feiner</u>							
Address: <u>5175 Broadway Oakland, CA</u>									
Date: <u>7-28-06</u>		Weather: <u>cloudy</u>							
Well Diameter: <u>4"</u>		Volume/ft. <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td>1" = 0.04</td><td>3" = 0.37</td><td>6" = 1.47</td></tr><tr><td>2" = 0.16</td><td>4" = 0.65</td><td>radius = 0.163</td></tr></table>		1" = 0.04	3" = 0.37	6" = 1.47	2" = 0.16	4" = 0.65	radius = 0.163
1" = 0.04	3" = 0.37	6" = 1.47							
2" = 0.16	4" = 0.65	radius = 0.163							
Total Depth (TD): <u>22.90</u>		Depth to Product:							
Depth to Water (DTW): <u>10.02</u>		Product Thickness:							
Water Column Height: <u>8.37</u>		1 Casing Volume: <u>5.44</u> gallons							
Reference Point: <u>TOC</u>		3 Casing Volumes: <u>16.32</u> gallons							
Purging Device: <u>Disposable Bailer (3" PVC Bailer, Whal Pump)</u>									
Sampling Device: <u>Disposable Bailer</u>									
Time	Temp (°C)	pH	Cond (µe)	NTU	DO (mg/L)	ORP (mV)	Vol (gal)	DTW	
<u>3:00</u>	<u>20.4</u>	<u>7.43</u>	<u>722</u>				<u>5.5</u>		
<u>3:05</u>	<u>19.6</u>	<u>7.47</u>	<u>722</u>				<u>11</u>		
<u>3:10</u>	<u>19.1</u>	<u>7.50</u>	<u>752</u>				<u>16</u>		

Comments: Oakton DO meter pre purge DO = 0.17 mg/l
 post purge DO = mg/l
Very turbid, silty

Sample ID: <u>MU-2</u>	Sample Time: <u>3:15</u>
Laboratory: <u>McCampbell Analytical, INC.</u>	Sample Date: <u>7-28-06</u>
Containers/Preservative: <u>Voa/HCl, Amb/HCl</u>	
Analyzed for: <u>8015, 8021, 8260</u>	
Sampler Name: <u>Sanjiv Gill</u>	Signature: 

MONITORING FIELD DATA SHEET

Well ID: STMV-4

Project.Task #: 1145.001 208		Project Name: Feiner						
Address: 5175 Broadway Oakland CA								
Date: 7-28-06		Weather: Cloudy						
Well Diameter: 4"		Volume/ft. 1" = 0.04 3" = 0.37 6" = 1.47 2" = 0.16 4" = 0.65 radius = 0.163						
Total Depth (TD): 19.00		Depth to Product:						
Depth to Water (DTW): 10.60		Product Thickness:						
Water Column Height: 8.40		1 Casing Volume: 5.46 gallons						
Reference Point: TOC		3 Casing Volumes: 16.38 gallons						
Purging Device: Disposable Bailor, 3" PVC Bailor, Whal Pump								
Sampling Device: Disposable Bailor								
Time	Temp (°C)	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
3:25							5.5	
3:30							11	
3:35							16	

Comments: Oakton DO meter pro purge DO = 0.22 mg/l

post purge DO = mg/l

after purging 4 gallons SPH SPH 14.50, DTW 5.5
MCA asked to take a sample, purge stopped


Sample ID: STMV-4	Sample Time: 3:40
Laboratory: McCampbell Analytical, INC.	Sample Date: 7-28-06
Containers/Preservative: Voal/HCl, Amb/HCl	
Analyzed for: 8015, 8021, 82.60	
Sampler Name: Sanjiv Gill	Signature:

MONITORING FIELD DATA SHEET

Well ID: STMW-5

Project Task #: 1145.001 208		Project Name: Feiner						
Address: 5175 Broadway Oakland, CA								
Date: 7-28-06		Weather: Cloudy						
Well Diameter: 2"		Volume/ft. 1" = 0.04 3" = 0.37 6" = 1.47 2" = 0.16 4" = 0.65 radius = 0.163						
Total Depth (TD): 23.97		Depth to Product:						
Depth to Water (DTW): 13.35		Product Thickness:						
Water Column Height: 10.62		1 Casing Volume: 1.69 gallons						
Reference Point: TOC		3 Casing Volumes: 5.09 gallons						
Purging Device: Disposable Bailor, 3" PVC Bailor, Whal Pump								
Sampling Device: Disposable Bailor								
Time	Temp @	pH	Cond (µs)	MLL	DO (mg/l)	ORP (mv)	Vol (gal)	DTW
1:45	15.8	6.98	1496				1.5	
1:50	17.9	7.13	1168				3	
1:55	17.5	7.19	1149				5	

Comments: Oakton DO meter pre purge DO = 0.24 mg/l
 post purge DO = mg/l
 very turbid, silty, odor

Sample ID: STMW-5	Sample Time: 2:00
Laboratory: McCampbell Analytical, INC.	Sample Date: 7-28-06
Containers/Preservative: Voa/HCl, Amb/HCl	
Analyzed for: 8015, 8021, 8260	
Sampler Name: Sanjiv Gill	Signature: 

APPENDIX B

Laboratory Analytical Report



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: #1145.001; Feiner	Date Sampled: 07/28/06
		Date Received: 07/28/06
	Client Contact: Bob Clark-Riddel	Date Reported: 08/04/06
	Client P.O.:	Date Completed: 08/04/06

WorkOrder: 0607523

August 04, 2006

Dear Bob:

Enclosed are:

- 1). the results of **4** analyzed samples from your **#1145.001; Feiner project**,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill 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 please contact me. McC Campbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager



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: #1145.001; Feiner	Date Sampled: 07/28/06
		Date Received: 07/28/06
	Client Contact: Bob Clark-Riddell	Date Extracted 07/31/06-08/01/06
	Client P.O.:	Date Analyzed: 07/31/06-08/01/06

Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0607523

Lab ID	0607523-001B	0607523-002B	0607523-003B	0607523-004B	Reporting Limit for DF =1	
Client ID	MW-1	MW-2	STMW-4	STMW-5		
Matrix	W	W	W	W		
DF	2	1	10	1		

Compound	Concentration				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND<1.0	ND	ND<5.0	ND	NA	0.5
t-Butyl alcohol (TBA)	ND<10	ND	ND<50	ND	NA	5.0
1,2-Dibromoethane (EDB)	ND<1.0	ND	ND<5.0	ND	NA	0.5
1,2-Dichloroethane (1,2-DCA)	1.5	ND	ND<5.0	ND	NA	0.5
Diisopropyl ether (DIPE)	51	3.6	65	ND	NA	0.5
Ethanol	ND<100	ND	ND<500	ND	NA	50
Ethyl tert-butyl ether (ETBE)	ND<1.0	ND	ND<5.0	ND	NA	0.5
Methanol	ND<1000	ND	ND<5000	ND	NA	500
Methyl-t-butyl ether (MTBE)	ND<1.0	ND	ND<5.0	ND	NA	0.5

Surrogate Recoveries (%)

%SS1:	106	97	101	105		
-------	-----	----	-----	-----	--	--

Comments

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

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

 Angela Rydelius, Lab Manager



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0607523

EPA Method: SW8021B/8015Cm		Extraction: SW5030B			BatchID: 22903			Spiked Sample ID: 0607515-102A		
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	LCS / LCSD
TPH(btex) [£]	ND	60	106	105	1.20	116	110	5.95	70 - 130	70 - 130
MTBE	ND	10	103	101	2.82	87.5	87.8	0.323	70 - 130	70 - 130
Benzene	ND	10	95.5	91.7	4.05	96	97.5	1.58	70 - 130	70 - 130
Toluene	ND	10	92.1	93.3	1.29	95.4	97.9	2.62	70 - 130	70 - 130
Ethylbenzene	ND	10	104	100	3.33	102	105	3.53	70 - 130	70 - 130
Xylenes	ND	30	96	95	1.05	91.3	96	4.98	70 - 130	70 - 130
%SS:	108	10	104	99	4.59	104	102	1.88	70 - 130	70 - 130

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

BATCH 22903 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0607523-001A	7/28/06 2:30 PM	8/02/06	8/02/06 10:02 AM	0607523-002A	7/28/06 3:15 PM	8/02/06	8/02/06 9:29 AM
0607523-003A	7/28/06 3:40 PM	8/02/06	8/02/06 10:35 AM	0607523-004A	7/28/06 2:00 PM	8/02/06	8/02/06 11:09 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 applicable or 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.

QA/QC Officer



QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0607523

EPA Method: SW8015C		Extraction: SW3510C/3630C				BatchID: 22834		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	LCS / LCSD
TPH(d)	N/A	1000	N/A	N/A	N/A	108	107	0.626	N/A	70 - 130
%SS:	N/A	2500	N/A	N/A	N/A	103	100	2.93	N/A	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 22834 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0607523-001C	7/28/06 2:30 PM	7/28/06	8/01/06 6:13 AM	0607523-002C	7/28/06 3:15 PM	7/28/06	8/01/06 7:19 AM
0607523-003C	7/28/06 3:40 PM	7/28/06	8/03/06 10:25 PM	0607523-004C	7/28/06 2:00 PM	7/28/06	8/01/06 4:02 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.

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.

 QA/QC Officer



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0607523

Table with columns: EPA Method: SW8260B, Extraction: SW5030B, BatchID: 22904, Spiked Sample ID: 0607525-002B. Rows include analytes like tert-Amyl methyl ether (TAME), t-Butyl alcohol (TBA), 1,2-Dibromoethane (EDB), etc., with columns for Sample, Spiked, MS, MSD, MS-MSD, LCS, LCSD, LCS-LCSD, and Acceptance Criteria.

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

BATCH 22904 SUMMARY

Summary table with columns: Sample ID, Date Sampled, Date Extracted, Date Analyzed. Contains three rows of sample data.

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.
Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

Handwritten signature and text: QA/QC Officer

