

Casimiro Damele  
3750 Victor Avenue  
Oakland CA 94619

22 December 2003

Project No. P257

Letter Report  
Groundwater Monitoring Conducted 29 September 2003  
4401 Market Street  
Oakland CA

Dear Mr. Damele:

This letter report documents the results of groundwater monitoring conducted 29 September 2003 for seven monitoring wells at/near the subject site. The results of our work are summarized in the following:

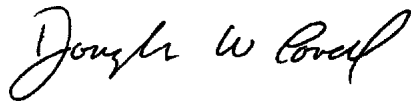
- Table 1 provides a chronology of environmental activities.
- Table 2 summarizes groundwater level and gradient data.
- Table 3 summarizes groundwater purging and sampling information. Purge water generated during sampling was containerized onsite in labeled drums.
- Table 4 summarizes the groundwater analytical data from the monitoring wells.
- Table 5 summarizes free product monitoring in selected monitoring wells. Free product has not been detected in the monitoring wells.
- Figure 1 provides a location map.
- Figure 2 shows the exploration locations.
- Figure 3 shows the groundwater levels and gradient (29 September 2003).
- Attachment 1 contains the groundwater sampling forms
- Attachment 2 contains the laboratory reports and chain-of-custody forms.

The monitoring results reveal continued natural attenuation via intrinsic biodegradation. With time, the groundwater concentrations will likely become nondetect.

Please contact us with any questions or comments.

Sincerely,

STREAMBORN



Douglas W. Lovell, PE  
Geoenvironmental Engineer



Attachments

cc: Don Hwang/Alameda County Health Care Services Agency, Alameda CA

**Table 1 (Page 1 of 2)**  
**Environmental Chronology**  
**4401 Market Street, Oakland CA**

Date	Activities Performed By	Description
Unknown	Unknown	<ul style="list-style-type: none"> <li>• Four underground gasoline tanks (one 1,000-gallon and three 500-gallon tanks) were installed.</li> <li>• W.A. Craig reported that the structure at 4401 Market Street was constructed in 1943 and used as a gasoline station until the 1970s.</li> </ul>
22 June 1990	Environmental Bio-Systems	<ul style="list-style-type: none"> <li>• The 4 underground gasoline tanks were removed. Removal of the fuel dispensers, product piping, and pump island was not documented. Soil excavated during tank removal was reused to backfill the excavations.</li> <li>• Soil samples were collected from below the tanks. Samples of the excavated soil were also collected. Soil samples were analyzed for TPH-gasoline and BTEX. Soil sampling indicated a release of gasoline.</li> </ul>
6 September 1990	W.A. Craig	<ul style="list-style-type: none"> <li>• Two trenches were excavated to depths of approximately 5 feet in the vicinity of the former dispenser island.</li> <li>• Contaminated soil was observed during excavation but no laboratory analyses were performed. The excavated soil was reused to backfill the trenches.</li> </ul>
27 and 28 October 1994	W.A. Craig	<ul style="list-style-type: none"> <li>• Seven borings were drilled to depths of approximately 25 feet at and near 4401 Market Street (SB1, SB2, SB3, SB4, MW1, MW2, and MW3); three of the borings were completed as monitoring wells (MW1, MW2, and MW3). Soil samples were collected during drilling.</li> <li>• Free product, presumably gasoline, was observed in boring SB2, located near the southwest corner of 4401 Market Street.</li> <li>• Soil samples were analyzed for TPH-gasoline and BTEX.</li> </ul>
8 November 1994	W.A. Craig	<ul style="list-style-type: none"> <li>• Groundwater monitoring was conducted for wells MW1, MW2, and MW3.</li> <li>• Samples were analyzed for TPH-gasoline and BTEX.</li> </ul>
14 February 1995	W.A. Craig	<ul style="list-style-type: none"> <li>• Groundwater monitoring was conducted for wells MW1, MW2, and MW3.</li> <li>• Samples were analyzed for TPH-gasoline and BTEX.</li> </ul>
7 June 1995	W.A. Craig	<ul style="list-style-type: none"> <li>• Groundwater monitoring was conducted for wells MW1, MW2, and MW3.</li> <li>• Samples were analyzed for TPH-gasoline and BTEX.</li> </ul>
29 August 1995	W.A. Craig	<ul style="list-style-type: none"> <li>• Groundwater monitoring was conducted for wells MW1, MW2, and MW3.</li> <li>• Samples were analyzed for TPH-gasoline and BTEX.</li> </ul>
8 December 1995	W.A. Craig	<ul style="list-style-type: none"> <li>• Groundwater monitoring was conducted for wells MW1, MW2, and MW3.</li> <li>• Samples were analyzed for TPH-gasoline and BTEX.</li> </ul>
7 March 1996	W.A. Craig	<ul style="list-style-type: none"> <li>• Groundwater monitoring was conducted for wells MW1, MW2, and MW3.</li> <li>• Samples were analyzed for TPH-gasoline, BTEX, and MtBE.</li> </ul>
19 June 1996	W.A. Craig	<ul style="list-style-type: none"> <li>• Groundwater monitoring was conducted for wells MW1, MW2, and MW3.</li> <li>• Samples were analyzed for TPH-gasoline, BTEX, and MtBE.</li> </ul>
20 December 1996	W.A. Craig	<ul style="list-style-type: none"> <li>• Groundwater monitoring was conducted for wells MW1, MW2, and MW3.</li> <li>• Samples were analyzed for TPH-gasoline, BTEX, and MtBE.</li> </ul>
12 June 1997	W.A. Craig	<ul style="list-style-type: none"> <li>• Groundwater monitoring was conducted for wells MW1, MW2, and MW3.</li> <li>• Samples were analyzed for TPH-gasoline, BTEX, and MtBE.</li> </ul>
31 March 1999	Streamborn	<ul style="list-style-type: none"> <li>• Groundwater levels measured in wells MW1, MW2, and MW3.</li> </ul>
April and July 1999	Streamborn	<ul style="list-style-type: none"> <li>• Nine borings were drilled to depths of approximately 20 feet near 4401 Market Street (B8 through B16). Free product, presumably gasoline, was observed in boring B10, located on the south side of 44th Street, adjacent to 903 44th Street. Soil samples were collected during drilling. Groundwater samples were collected from temporary casings installed in the borings. The borings were grouted upon completion of groundwater sampling.</li> <li>• Soil samples and groundwater samples were analyzed for TPH-gasoline, BTEX, and fuel oxygenates.</li> </ul>
4-5 January 2001	Streamborn	<ul style="list-style-type: none"> <li>• Four monitoring wells (MW4, MW5, MW6, and MW7) were installed to depths of approximately 25 feet near 4401 Market Street. Soil samples were collected during drilling.</li> <li>• Soil samples were analyzed for TPH-Gasoline, BTEX, and fuel oxygenates.</li> <li>• An elevation survey was performed for the newly-installed monitoring wells.</li> </ul>

**Table 1 (Page 2 of 2)**  
**Environmental Chronology**  
**4401 Market Street, Oakland CA**

Date	Activities Performed By	Description
1 February 2001	Streamborn	<ul style="list-style-type: none"> <li>• Wells MW4, MW5, MW6, and MW7 were developed.</li> <li>• Groundwater samples were collected from wells MW1, MW3, MW4, MW5, MW6, and MW7. Samples were analyzed for TPH-Gasoline, BTEX, and fuel oxygenates.</li> <li>• Water levels were measured in wells MW1, MW2, MW3, MW4, MW5, MW6, and MW7.</li> <li>• Wells MW4, MW5, and MW6 were monitored for free product; no free product was detected.</li> </ul>
9 March 2001	Streamborn	<ul style="list-style-type: none"> <li>• Water levels were measured in wells MW1, MW2, MW3, MW4, MW5, MW6, and MW7.</li> <li>• Wells MW4, MW5, and MW6 were monitored for free product; no free product was detected.</li> </ul>
23 April 2001	Streamborn	<ul style="list-style-type: none"> <li>• Water levels were measured in MW1, MW2, MW3, MW4, MW5, MW6, and MW7.</li> <li>• Wells MW4, MW5, and MW6 were monitored for free product; no free product was detected.</li> </ul>
30 May 2001	Streamborn	<ul style="list-style-type: none"> <li>• Groundwater samples were collected from wells MW1, MW3, MW4, MW5, MW6 and MW7. Samples were analyzed for TPH-Gasoline, BTEX, and fuel oxygenates.</li> <li>• Water levels were measured in wells MW1, MW2, MW3, MW4, MW5, MW6, and MW7.</li> <li>• Wells MW4, MW5, and MW6 were monitored for free product; no free product was detected.</li> </ul>
19 June 2001	Streamborn	<ul style="list-style-type: none"> <li>• Water levels were measured in MW1, MW2, MW3, MW4, MW5, MW6, and MW7.</li> <li>• Wells MW4, MW5, and MW6 were monitored for free product; no free product was detected.</li> </ul>
19 July 2001	Streamborn	<ul style="list-style-type: none"> <li>• Water levels were measured in MW1, MW2, MW3, MW4, MW5, MW6, and MW7.</li> <li>• Wells MW4, MW5, and MW6 were monitored for free product; no free product was detected.</li> </ul>
22 August 2001	Streamborn	<ul style="list-style-type: none"> <li>• Groundwater samples were collected from wells MW1, MW3, MW4, MW5, MW6 and MW7. Samples were analyzed for TPH-Gasoline, BTEX, and fuel oxygenates.</li> <li>• Water levels were measured in wells MW1, MW2, MW3, MW4, MW5, MW6, and MW7.</li> <li>• Wells MW4, MW5, and MW6 were monitored for free product; no free product was detected.</li> </ul>
29 November 2001	Streamborn	<ul style="list-style-type: none"> <li>• Groundwater samples were collected from wells MW1, MW3, MW4, MW5, MW6 and MW7. Samples were analyzed for TPH-Gasoline, BTEX, and fuel oxygenates.</li> <li>• Water levels were measured in wells MW1, MW2, MW3, MW4, MW5, MW6, and MW7.</li> </ul>
29 September 2003	Streamborn	<ul style="list-style-type: none"> <li>• Groundwater samples were collected from wells MW1, MW3, MW4, MW5, MW6 and MW7. Samples were analyzed for TPH-Gasoline, BTEX, and fuel oxygenates.</li> <li>• Water levels were measured in wells MW1, MW2, MW3, MW4, MW5, MW6, and MW7.</li> <li>• Wells MW4, MW5, and MW6 were monitored for free product; no free product was detected.</li> </ul>

General Note

(a) TPH = total petroleum hydrocarbons. BTEX = benzene, toluene, ethylbenzene, and xylenes. MtBE = methyl tert-butyl ether.

**Table 2**  
**Groundwater Levels and Gradient Data Since 2001**  
**4401 Market Street, Oakland CA**

Location	MW1		MW2		MW3		MW4		MW5		MW6		MW7		Groundwater Gradient	
Ground Surface	Elev = 998.74		Elev = 998.07		Elev = 999.64		Elev = 998.18		Elev = 997.78		Elev = 998.02		Elev = 999.12			
Measuring Point	TOC N Side, Elev = 998.22		TOC N Side, Elev = 997.73		TOC N Side, Elev = 998.90		TOC N Side, Elev = 997.87		TOC N Side, Elev = 997.33		TOC N Side, Elev = 997.50		TOC N Side, Elev = 998.69			
Intercepted Interval	Depth	Elev	Depth	Elev	Depth	Elev	Depth	Elev	Depth	Elev	Depth	Elev	Depth	Elev	Direction	Magnitude
	19 to 25.5	972.9 to 979.7	19 to 27.5	970.6 to 979.1	19 to 27.5	972.1 to 980.6	9 to 25	973.2 to 989.2	9 to 25	972.8 to 988.8	9 to 25	973.0 to 989.0	9 to 25	974.1 to 990.1		
1 February 2001	13.77	984.45	13.21	984.52	14.01	984.89	13.22	984.65	13.14	984.19	13.31	984.19	14.76	983.93		
9 March 2001	12.54	985.68	12.30	985.43	13.32	985.58	12.28	985.59	11.70	985.63	12.54	984.96	13.94	984.75	N 130° E	0.01
23 April 2001	14.01	984.21	13.36	984.37	14.15	984.75	13.05	984.82	13.30	984.03	13.39	984.11	14.63	984.06		
30 May 2001	14.74	983.48	NM	NM	14.67	984.23	13.93	983.94	14.14	983.19	14.17	983.33	15.79	982.90	N 222° E	0.01
19 June 2001	14.83	983.39	13.93	983.80	14.67	984.23	15.47	982.40	14.29	983.04	14.34	983.16	15.87	982.82		
19 July 2001	15.04	983.18	14.51	983.22	14.84	984.06	14.73	983.45	14.48	982.85	14.47	983.03	15.99	982.70		
22 August 2001	15.03	983.19	14.48	983.25	14.83	984.07	14.63	983.24	14.58	982.75	14.57	982.93	16.15	982.54	N 217° E	0.01
29 November 2001	12.59	985.63	12.01	985.72	12.66	986.24	12.78	985.09	11.05	986.28	11.42	986.08	12.94	985.75		
29 September 2003	15.05	983.17	14.50	983.23	14.94	983.96	14.53	983.34	14.53	982.80	14.52	982.98	16.19	982.50	N 229° E	0.009
Total Depth (last measurement)	24.7		24.6		24.7		24.7		24.7		24.8		24.6			

General Notes

- (a) Measurements are cited in units of feet, referenced to a site-specific datum (not Mean Sea Level).
- (b) TOC = top of PVC casing. N = north. Measuring points are the top of PVC casing, north side.
- (c) The depth to water and total depth were measured relative to the top of PVC casing.
- (d) The depth of the intercepted interval was measured relative to the ground surface, and corresponds to the sand pack interval.

**Table 3**  
**Groundwater Purging and Sampling Information Since 2001**  
**4401 Market Street, Oakland CA**

Location	Sample Date	Sample Type	Dissolved Oxygen (mg/L)	pH	Specific Conductance (µS/cm)	Temperature (°C)	ORP (mV)	Turbidity and Color	Purge Method	Purge Duration (minutes)	Volume Purged (gallons)	Purged Dry ?	Standing Water Casing Volumes Removed
MW1	1 Feb 2001	GB	3.1	6.7	530	18.3	-210	Clear, none	SP	9	±5	Yes	±3
	30 May 2001	GB	1.0	6.8	560	24.2	30	Clear, none	SP	40	±5	Yes	±3
	22 Aug 2001	GB	3.0	6.9	510	20.4	50	Clear, none	SP	8	±5	Yes	±3
	29 Nov 2001	GB	NM	6.7	480	20.9	-170	Clear, none	SP	15	±4	Yes	±2
	29 Sep 2003	GB	1.6	6.3	520	21.5	130	Clear, none	SP	15	±5	Yes	±3
MW2	29 Sep 2003	GB	1.6	6.6	560	21.9	-80	Clear, none	SP	20	±5	No	±3
MW3	1 Feb 2001	GB	5.0	6.7	370	17.4	-230	Clear, none	SP	4	±5	No	±3
	30 May 2001	GB	5.8	7.0	390	23.6	60	Clear, none	SP	26	±5	Yes	±3
	22 Aug 2001	GB	4.5	7.1	370	21.5	90	Cloudy, brown	SP	6	±5	Yes	±3
	29 Nov 2001	GB	NM	6.8	330	19.3	20	Clear, none	SP	10	±6	Yes	±3
	29 Sep 2003	GB	4.5	6.6	370	19.6	190	Clear, none	SP	10	±5	Yes	±3
MW4	1 Feb 2001	GB	5.2	6.8	580	18.2	-210	Cloudy, gray	SP	47	±15	Yes	±9
	30 May 2001	GB	1.5	6.8	700	22.8	20	Clear, none	SP	23	±6	Yes	±3
	22 Aug 2001	GB	2.1	6.9	540	21.2	-20	Clear, none	SP	5	±5	No	±3
	29 Nov 2001	GB	NM	6.7	550	19.5	-170	Clear, none	SP	16	±5	Yes	±3
	29 Sep 2003	GB	1.5	6.5	560	22.4	30	Clear, none	SP	10	±5	No	±3
MW5	1 Feb 2001	GB	0.8	6.7	640	18.1	-250	Turbid, brown	SP	18	±20	No	±10
	30 May 2001	GB	1.2	7.0	630	19.6	20	Clear, none	SP	4	±6	No	±3
	22 Aug 2001	GB	2.2	7.0	600	20.0	-40	Clear, none	SP	5	±5	No	±3
	29 Nov 2001	GB	NM	6.9	610	19.6	-170	Clear, none	SP	8	±7	No	±3
	29 Sep 2003	GB	1.6	6.7	560	21.9	-60	Clear, none	SP	10	±5	No	±3
MW6	1 Feb 2001	GB	2.8	6.7	510	18.7	-360	Opaque, brown	SP	23	±20	No	±11
	30 May 2001	GB	2.9	6.8	470	24.2	80	Turbid, brown	SP	5	±6	No	±3
	22 Aug 2001	GB	2.6	6.9	400	21.0	30	Turbid, green	SP	5	±5	No	±3
	29 Nov 2001	GB	NM	6.8	390	19.5	-160	Clear, none	SP	8	±7	No	±3
	29 Sep 2003	GB	2.1	6.6	470	25.5	180	Clear, none	SP	10	±5	No	±3
MW7	1 Feb 2001	GB	3.0	6.8	430	16.1	-200	Cloudy, brown	SP	25	±17	No	±11
	30 May 2001	GB	3.1	6.8	500	23.6	60	Clear, none	SP	5	±5	No	±3
	22 Aug 2001	GB	4.6	6.9	420	19.3	20	Turbid, gray	SP	5	±5	No	±3
	29 Nov 2001	GB	NM	6.7	400	19.2	-2	Clear, none	SP	6	±6	No	±3
	29 Sep 2003	GB	2.4	6.3	410	19.0	180	Clear, none	SP	10	±4	No	±3

General Notes

- (a) ORP = oxidation/reduction potential.
- (b) NM = not measured.
- (c) Entries in this table correspond to the end of purging (time of sampling).
- (d) SP = submersible purge pump.
- (e) GB = grab sample collected using a Teflon bailer fitted with a bottom-emptying device.

**Table 4**  
**Groundwater Analytical Data from Monitoring Wells**  
**4401 Market Street, Oakland CA**

Location	Sample Date	Sampled By	TPH-Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Methyl Tert-Butyl Ether (µg/L)	Tert-Butyl-Alcohol (µg/L)	Other Fuel Oxygenates (µg/L)
MW1	8 Nov 1994	W.A. Craig	54	<0.5	<0.5	<0.5	1.2	NA	NA	NA
	14 Feb 1995	W.A. Craig	71	<0.5	<0.5	<0.5	0.97	NA	NA	NA
	7 Jun 1995	W.A. Craig	540	0.6	<0.5	1.7	1.3	NA	NA	NA
	29 Aug 1995	W.A. Craig	440	<0.5	<0.5	1.3	1.1	NA	NA	NA
	8 Dec 1995	W.A. Craig	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA
	7 Mar 1996	W.A. Craig	77	<0.5	<0.5	<0.5	<0.5	44	NA	NA
	19 Jun 1996	W.A. Craig	500	<0.5	<0.5	0.85	0.36	84	NA	NA
	20 Dec 1996	W.A. Craig	<50	<0.5	<0.5	<0.5	<0.5	28	NA	NA
	12 Jun 1997	W.A. Craig	190	<0.5	<0.5	<0.5	<0.5	12	NA	NA
	1 Feb 2001	Streamborn	<50	<0.5	<0.5	<0.5	1.1	<5.0	<5.0	<5.0 to <10
	30 May 2001	Streamborn	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<5.0	<5.0
	22 Aug 2001	Streamborn	<50	<0.5	<0.5	<0.5	<0.5	<5.0	100	<5.0 to <10
	29 Nov 2001	Streamborn	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<5.0	<5.0 to <10
	29 Sep 2003	Streamborn	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5 to <1.0
MW2	8 Nov 1994	W.A. Craig	20,000	1,400	960	980	4,600	NA	NA	NA
	14 Feb 1995	W.A. Craig	8,600	380	210	410	2,000	NA	NA	NA
	7 Jun 1995	W.A. Craig	6,200	500	78	270	1,200	NA	NA	NA
	29 Aug 1995	W.A. Craig	4,100	330	61	210	980	NA	NA	NA
	8 Dec 1995	W.A. Craig	9,400	360	190	440	2,000	NA	NA	NA
	7 Mar 1996	W.A. Craig	12,000	790	170	440	2,000	18	NA	NA
	19 Jun 1996	W.A. Craig	9,000	520	82	350	1,500	<5.0	NA	NA
	20 Dec 1996	W.A. Craig	13,000	830	180	410	2,200	<16	NA	NA
	12 Jun 1997	W.A. Craig	5,100	320	32	190	880	<36	NA	NA
	29 Sep 2003	Streamborn	220	5.5	<0.5	2.1	9.1	<0.5	24	DIPE = 1.3 Others = <0.5
MW3	8 Nov 1994	W.A. Craig	<50	0.71	0.84	1.2	5.8	NA	NA	NA
	14 Feb 1995	W.A. Craig	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA
	7 Jun 1995	W.A. Craig	<50	<0.5	<0.5	<0.5	1.6	NA	NA	NA
	29 Aug 1995	W.A. Craig	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA
	8 Dec 1995	W.A. Craig	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA
	7 Mar 1996	W.A. Craig	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA
	19 Jun 1996	W.A. Craig	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA
	20 Dec 1996	W.A. Craig	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA
	12 Jun 1997	W.A. Craig	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA
	1 Feb 2001	Streamborn	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<5.0	<5.0 to <10
	30 May 2001	Streamborn	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<5.0	<5.0 to <10
	22 Aug 2001	Streamborn	<50	<0.5	<0.5	<0.5	<0.5	<5.0	14	<5.0 to <10
	29 Nov 2001	Streamborn	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<5.0	<5.0 to <10
	29 Sep 2003	Streamborn	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5 to <1.0
MW4	1 Feb 2001	Streamborn	1,500	58	1.3	83	320	<5.0	16	<5.0 to <10
	30 May 2001	Streamborn	1,000	19	<0.5	50	3.4	<5.0	23	<5.0 to <10
	22 Aug 2001	Streamborn	220	<0.5	<0.5	3.2	2.7	<5.0	8.8	<5.0 to <10
	29 Nov 2001	Streamborn	3,100	110	<5.0	120	410	<5.0	<5.0	<5.0 to <10
	29 Sep 2003	Streamborn	140	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5 to <1.0
MW5	1 Feb 2001	Streamborn	1,200	57	1.8	45	160	<5.0	<5.0	<5.0 to <10
	30 May 2001	Streamborn	570	20	<0.5	26	22	<5.0	<5.0	<5.0 to <10
	22 Aug 2001	Streamborn	380	19	0.67	31	17	<5.0	<5.0	<5.0 to <10
	29 Nov 2001	Streamborn	1,600	73	2.1	78	180	<5.0	<5.0	<5.0 to <10
	29 Sep 2003	Streamborn	460	2.6	<0.5	0.69	<1.0	<0.5	<5.0	<0.5 to <1.0
MW6	1 Feb 2001	Streamborn	260	8.0	<0.5	22	23	<5.0	<5.0	<5.0 to <10
	30 May 2001	Streamborn	53	<0.5	<0.5	<0.5	<0.5	<5.0	<5.0	<5.0 to <10
	22 Aug 2001	Streamborn	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<5.0	<5.0 to <10
	29 Nov 2001	Streamborn	130	5.7	<0.5	1.6	5.0	<5.0	<5.0	<5.0 to <10
	29 Sep 2003	Streamborn	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5 to <1.0
MW7	1 Feb 2001	Streamborn	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<5.0	<5.0 to <10
	30 May 2001	Streamborn	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<5.0	<5.0 to <10
	22 Aug 2001	Streamborn	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<5.0	<5.0 to <10
	29 Nov 2001	Streamborn	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<5.0	<5.0 to <10
	29 Sep 2003	Streamborn	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5 to <1.0

**General Notes**

- (a) TPH = total petroleum hydrocarbons. MtBE = methyl tert-butyl ether. DiPE = di-isopropyl ether.  
(b) NA = not analyzed.

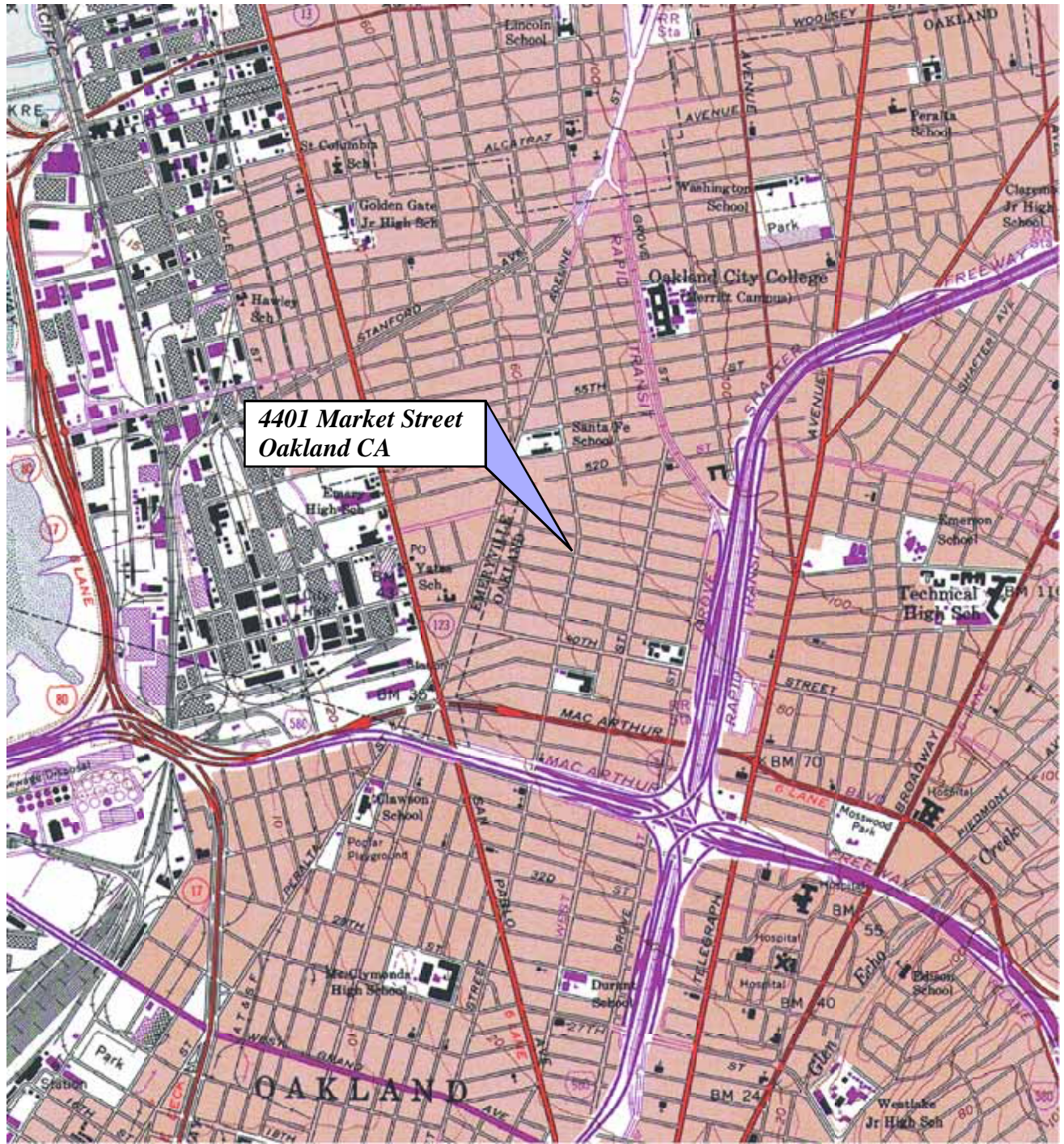
**Table 5**  
**Free Product Monitoring in Monitoring Wells MW4, MW5, and MW6**  
**4401 Market Street, Oakland CA**

Date	MW4 (feet)	MW5 (feet)	MW6 (feet)
1 February 2001	<0.005	<0.005	<0.005
9 March 2001	<0.005	<0.005	<0.005
23 April 2001	<0.005	<0.005	<0.005
30 May 2001	<0.005	<0.005	<0.005
19 June 2001	<0.005	<0.005	<0.005
19 July 2001	<0.005	<0.005	<0.005
22 August 2001	<0.005	<0.005	<0.005
29 November 2001	<0.005	<0.005	<0.005

General Note

(a) Free product monitoring was performed using a Water Mark Interface meter: Model H.OIL.



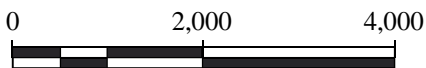


**4401 Market Street  
Oakland CA**

Basemap: U.S. Geological Survey, 7.5 Minute Quadrangle, Oakland West CA, 1959 (Photorevised 1980).



Approximate Scale in Miles



Approximate Scale in Feet

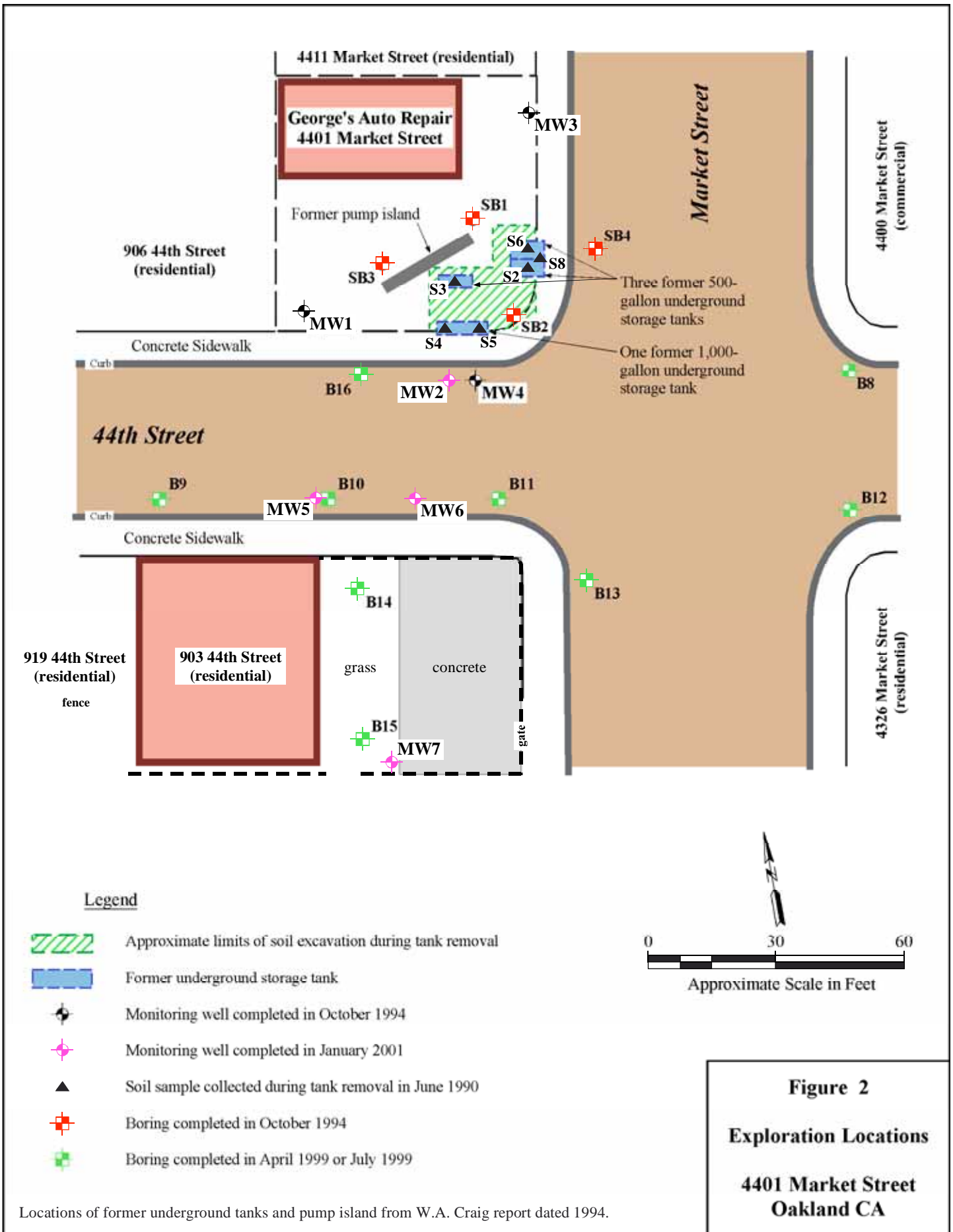


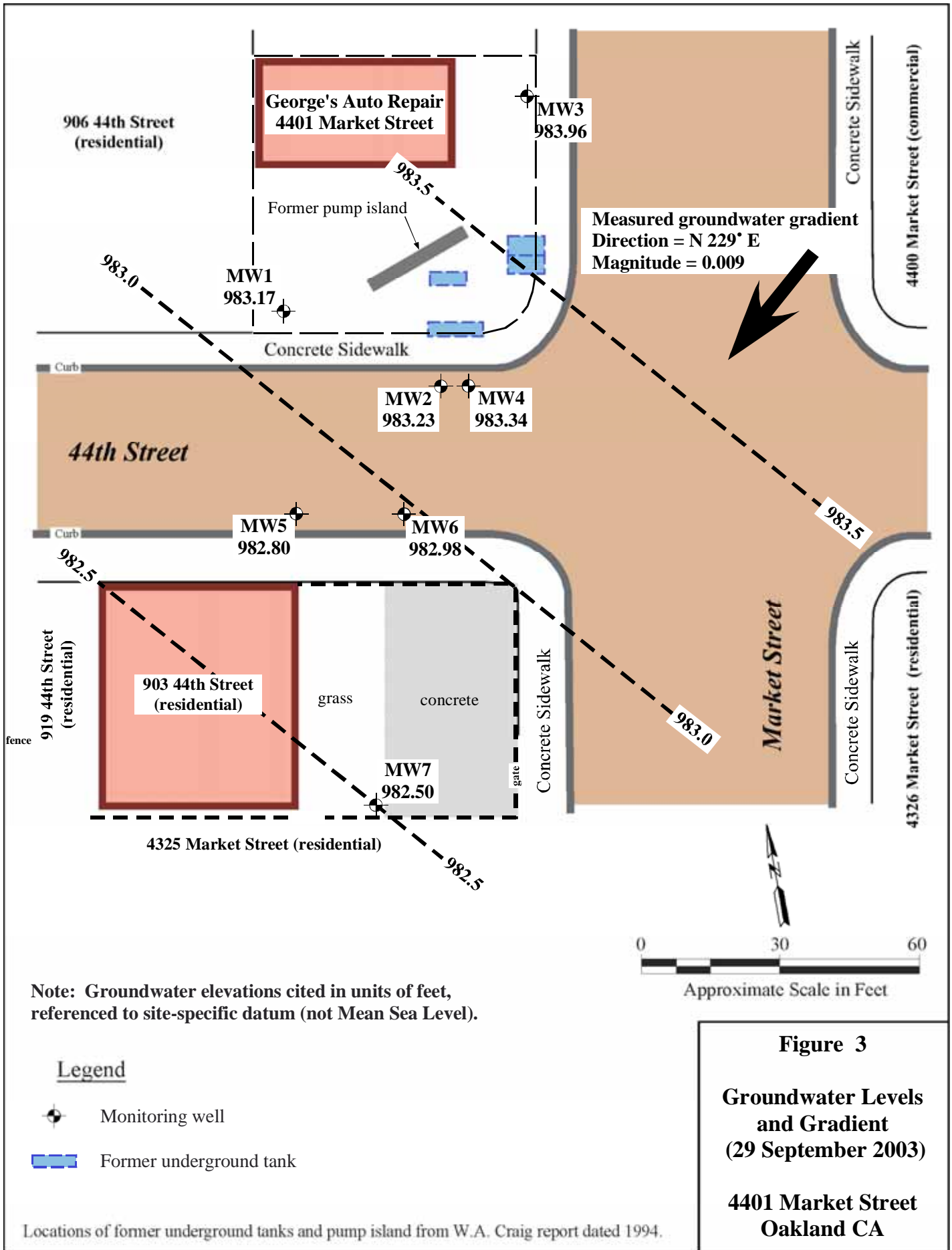
**Figure 1**

**Location Map**

**4401 Market Street  
Oakland CA**







# **ATTACHMENT 1**

Groundwater Sampling Forms

## MONITORING WELL PURGE DATA

Project Name/Number: 4401 Market Street / P257	Logged By: Paul Fairbairn
Property Location: Oakland CA	Date: 29 September 2003
Well Number: MW-1	Sample Type: Grab
Purging Equipment: Submersible Pump	Depth to Water: 15.05
Sampling Equipment: Bailer	Total Depth: 24.7
Measuring Point: Top of casing, north side	Odor: NO
Free Product: NO	Sample Number: MW1 (29 Sep 03)
Comments:	

Note obstructions, well damage, or other compromising features under comments. Record depth in feet.

Total Depth (feet)	-	Depth to Water (feet)	x	0.04 gallons/foot for 1-inch well 0.16 gallons/foot for 2-inch well 0.65 gallons/foot for 4-inch well 1.47 gallons/foot for 6-inch well	=	Single Casing Volume (gallons)		Three Casing Volumes (gallons)
24.7	-	15.05	x	0.16	=	1.5	x 3	4.5

Purge Volume (gallons)	Time	Dissolved Oxygen (mg/L)	pH	Specific Conductivity ( $\mu$ S/cm)	Temp ( $^{\circ}$ C)	ORP (mV)	Turbidity	Color	Purged Dry?	Comments
0	10:60	2.37	6.69	502	19.2	140.1	CLEAR	NO/UB	NO	Start purge
2.5	10:05	2.27	6.24	509	20.8	137.9	CLEAR	NO/UB	NO	
5.0	10:15	1.56	6.31	522	21.5	125.2	CLEAR	NO/UB	YES	
										Collect sample

Note observations of odor, sheen, and other signs of contamination under comments. Record turbidity as clear, translucent, opaque, cloudy, or turbid.

## MONITORING WELL PURGE DATA

Project Name/Number: 4401 Market Street / P257	Logged By: Paul Fairbairn
Property Location: Oakland CA	Date: 29 September 2003
Well Number: MW-2	Sample Type: Grab
Purging Equipment: Submersible Pump	Depth to Water: 14.50
Sampling Equipment: Bailer	Total Depth: 24.6
Measuring Point: Top of casing, north side	Odor: NO
Free Product:	Sample Number: MW2 (29 Sep 03)
Comments:	

Note obstructions, well damage, or other compromising features under comments. Record depth in feet.

Total Depth (feet)	-	Depth to Water (feet)	x	0.04 gallons/foot for 1-inch well 0.16 gallons/foot for 2-inch well 0.65 gallons/foot for 4-inch well 1.47 gallons/foot for 6-inch well	=	Single Casing Volume (gallons)		Three Casing Volumes (gallons)
14.50 24.6	-	14.50	x	0.16	=	1.6	x 3	4.8

Purge Volume (gallons)	Time	Dissolved Oxygen (mg/L)	pH	Specific Conductivity (µS/cm)	Temp (°C)	ORP (mV)	Turbidity	Color	Purged Dry?	Comments
0	330	2.03	6.76	600	21.0	-10	CLEAR	NONE	NO	Start purge
2.5	345	1.73	6.65	582	21.5	-50	CLEAR	NONE	NO	
5.0	350	1.56	6.62	555	21.9	-76.0	CLEAR	NONE	NO	
										Collect sample

Note observations of odor, sheen, and other signs of contamination under comments. Record turbidity as clear, translucent, opaque, cloudy, or turbid.

## MONITORING WELL PURGE DATA

Project Name/Number: 4401 Market Street / P257	Logged By: Paul Fairbairn
Property Location: Oakland CA	Date: 29 September 2003
Well Number: MW-3	Sample Type: Grab
Purging Equipment: Submersible Pump	Depth to Water: 14.94
Sampling Equipment: Bailer	Total Depth: 24.7
Measuring Point: Top of casing, north side	Odor: NONE
Free Product: NO	Sample Number: MW3 (29 Sep 03)
Comments:	

Note obstructions, well damage, or other compromising features under comments. Record depth in feet.

Total Depth (feet)	-	Depth to Water (feet)	x	0.04 gallons/foot for 1-inch well 0.16 gallons/foot for 2-inch well 0.65 gallons/foot for 4-inch well 1.47 gallons/foot for 6-inch well	=	Single Casing Volume (gallons)		Three Casing Volumes (gallons)
24.7	-	14.94	x	0.16	=	1.6	x 3	4.8

Purge Volume (gallons)	Time	Dissolved Oxygen (mg/L)	pH	Specific Conductivity ( $\mu$ S/cm)	Temp ( $^{\circ}$ C)	ORP (mV)	Turbidity	Color	Purged Dry?	Comments
0	1130	5.61	6.76	329	19.3	22.7	CLEAR	NONE	NO	Start purge
2.5	1135	4.97	7.05	167	19.7	171.1	CLEAR	NONE	NO	
5.0	1140	4.50	6.80	366	19.6	187.6	CLEAR	NONE	YES	
										Collect sample

Note observations of odor, sheen, and other signs of contamination under comments. Record turbidity as clear, translucent, opaque, cloudy, or turbid.

## MONITORING WELL PURGE DATA

Project Name/Number: 4401 Market Street / P257	Logged By: Paul Fairbairn
Property Location: Oakland CA	Date: 29 September 2003
Well Number: MW-4	Sample Type: Grab
Purging Equipment: Submersible Pump	Depth to Water: 14.53
Sampling Equipment: Bailer	Total Depth: 24.7
Measuring Point: Top of casing, north side	Odor: NONE
Free Product: NO	Sample Number: MW4 (29 Sep 03)
Comments:	

Note obstructions, well damage, or other compromising features under comments. Record depth in feet.

Total Depth (feet)	-	Depth to Water (feet)	x	0.04 gallons/foot for 1-inch well 0.16 gallons/foot for 2-inch well 0.65 gallons/foot for 4-inch well 1.47 gallons/foot for 6-inch well	=	Single Casing Volume (gallons)		Three Casing Volumes (gallons)
24.7	-	14.53	x	0.16	=	1.6	x 3	4.9

Purge Volume (gallons)	Time	Dissolved Oxygen (mg/L)	pH	Specific Conductivity ( $\mu$ S/cm)	Temp ( $^{\circ}$ C)	ORP (mV)	Turbidity	Color	Purged Dry?	Comments
0	2:00	1.34	6.49	511	22.6	22.8	CLEAR	NONE	NO	Start purge
2.5	2:05	1.45	6.47	529	21.7	29.1	CLEAR	NONE	NO	
5.0	2:10	1.50	6.54	555	22.8	29.4	CLEAR	NONE	NO	
										* Collect sample

Note observations of odor, sheen, and other signs of contamination under comments. Record turbidity as clear, translucent, opaque, cloudy, or turbid.



## MONITORING WELL PURGE DATA

Project Name/Number: 4401 Market Street / P257	Logged By: Paul Fairbairn
Property Location: Oakland CA	Date: 29 September 2003
Well Number: MW-5	Sample Type: Grab
Purging Equipment: Submersible Pump	Depth to Water: 14.53
Sampling Equipment: Bailer	Total Depth: 24.7
Measuring Point: Top of casing, north side	Odor: PETROLEUM (SLIGHT)
Free Product: WO	Sample Number: MW5 (29 Sep 03)
Comments:	

Note obstructions, well damage, or other compromising features under comments. Record depth in feet.

Total Depth (feet)	-	Depth to Water (feet)	x	0.04 gallons/foot for 1-inch well 0.16 gallons/foot for 2-inch well 0.65 gallons/foot for 4-inch well 1.47 gallons/foot for 6-inch well	=	Single Casing Volume (gallons)		Three Casing Volumes (gallons)
24.7	-	14.53	x	0.16	=	1.62	x 3	4.9

Purge Volume (gallons)	Time	Dissolved Oxygen (mg/L)	pH	Specific Conductivity ( $\mu$ S/cm)	Temp ( $^{\circ}$ C)	ORP (mV)	Turbidity	Color	Purged Dry?	Comments
0	1:36	1.05	6.70	579	22.6	-11.5	Clear	None	NO	Start purge
2.5	1:35	1.50	6.65	573	22.4	-64.4	Clear	None	NO	
5.6	1:40	1.58	6.68	562	21.9	-57.3	Clear	None	NO	
										Collect sample

Note observations of odor, sheen, and other signs of contamination under comments. Record turbidity as clear, translucent, opaque, cloudy, or turbid.

**MONITORING WELL PURGE DATA**

Project Name/Number: 4401 Market Street / P257	Logged By: Paul Fairbairn
Property Location: Oakland CA	Date: 29 September 2003
Well Number: MW-6	Sample Type: Grab
Purging Equipment: Submersible Pump	Depth to Water: 14.52
Sampling Equipment: Bailer	Total Depth: 24.8
Measuring Point: Top of casing, north side	Odor: NO
Free Product:	Sample Number: MW6 (29 Sep 03)
Comments:	

Note obstructions, well damage, or other compromising features under comments. Record depth in feet.

Total Depth (feet)	-	Depth to Water (feet)	x	0.04 gallons/foot for 1-inch well 0.16 gallons/foot for 2-inch well 0.65 gallons/foot for 4-inch well 1.47 gallons/foot for 6-inch well	=	Single Casing Volume (gallons)		Three Casing Volumes (gallons)
24.8	-	14.52	x	0.16	=	1.6	x 3	4.9

Purge Volume (gallons)	Time	Dissolved Oxygen (mg/L)	pH	Specific Conductivity (µS/cm)	Temp (°C)	ORP (mV)	Turbidity	Color	Purged Dry?	Comments
0	1210	1.88	6.64	454	22.0	179.3	clear	none	no	Start purge
2.5	1215	2.09	6.54	428	21.5	167.5	..	..	..	
5.0	1220	2.11	6.57	472	25.5	175.9	..	..	..	
										Collect sample

Note observations of odor, sheen, and other signs of contamination under comments. Record turbidity as clear, translucent, opaque, cloudy, or turbid.

## MONITORING WELL PURGE DATA

Project Name/Number: 4401 Market Street / P257	Logged By: Paul Fairbairn
Property Location: Oakland CA	Date: 29 September 2003
Well Number: MW-7	Sample Type: Grab
Purging Equipment: Submersible Pump	Depth to Water: 16.19
Sampling Equipment: Bailer	Total Depth: 24.6
Measuring Point: Top of casing, north side	Odor:
Free Product: NO	Sample Number: MW7 (29 Sep 03)
Comments: NO	

Note obstructions, well damage, or other compromising features under comments. Record depth in feet.

Total Depth (feet)	-	Depth to Water (feet)	x	0.04 gallons/foot for 1-inch well 0.16 gallons/foot for 2-inch well 0.65 gallons/foot for 4-inch well 1.47 gallons/foot for 6-inch well	=	Single Casing Volume (gallons)		Three Casing Volumes (gallons)
24.6	-	16.19	x	0.16	=	1.2	x 3	3.7

Purge Volume (gallons)	Time	Dissolved Oxygen (mg/L)	pH	Specific Conductivity ( $\mu$ S/cm)	Temp ( $^{\circ}$ C)	ORP (mV)	Turbidity	Color	Purged Dry?	Comments
0	0930	3.10	6.24	418	19.2	189.6	CLEAR	NO	NO	Start purge
2	0935	2.52	6.31	416	19.0	177.3	"	"	"	
4	0940	2.41	6.26	413	19.0	176.4	"	"	"	
										Collect sample

Note observations of odor, sheen, and other signs of contamination under comments. Record turbidity as clear, translucent, opaque, cloudy, or turbid.

## **ATTACHMENT 2**

Laboratory Reports and Chain-of-Custody  
Forms

**Streamborn Consulting Services**

October 14, 2003

900 Sante Fe Avenue

Albany, CA 94706

Attn.: Paul A. Fairbairn

Project#: P257

Project: 4401 Market Street

Site: 4401 Market St., Oakland, CA

Dear Mr. Fairbairn,

Attached is our report for your samples received on 09/30/2003 17:46

This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 11/14/2003 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

You can also contact me via email. My email address is: [vvancil@stl-inc.com](mailto:vvancil@stl-inc.com)

Sincerely,



Vincent Vancil  
Project Manager

**Fuel Oxygenates by 8260B**

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue

Albany, CA 94706

Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P257

4401 Market Street

Received: 09/30/2003 17:46

Site: 4401 Market St., Oakland, CA

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
MW1 (29 Sep 03)	09/29/2003 10:15	Water	1
MW2 (29 Sep 03)	09/29/2003 15:50	Water	2
MW3 (29 Sep 03)	09/29/2003 11:40	Water	3
MW4 (29 Sep 03)	09/29/2003 14:10	Water	4
MW5 (29 Sep 03)	09/29/2003 13:40	Water	5
MW6 (29 Sep 03)	09/29/2003 12:20	Water	6
MW7 (29 Sep 03)	09/29/2003 09:40	Water	7

Fuel Oxygenates by 8260B

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue

Albany, CA 94706

Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P257

4401 Market Street

Received: 09/30/2003 17:46

Site: 4401 Market St., Oakland, CA

Prep(s):	5030B	Test(s):	8260B
Sample ID:	<b>MW1 (29 Sep 03)</b>	Lab ID:	2003-10-0024 - 1
Sampled:	09/29/2003 10:15	Extracted:	10/6/2003 20:57
Matrix:	Water	QC Batch#:	2003/10/06-1B.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	10/06/2003 20:57	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	1.00	10/06/2003 20:57	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	10/06/2003 20:57	
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L	1.00	10/06/2003 20:57	
Ethyl tert-butyl ether (ETBE)	ND	0.50	ug/L	1.00	10/06/2003 20:57	
tert-Amyl methyl ether (TAME)	ND	0.50	ug/L	1.00	10/06/2003 20:57	
1,2-DCA	ND	0.50	ug/L	1.00	10/06/2003 20:57	
EDB	ND	0.50	ug/L	1.00	10/06/2003 20:57	
Benzene	ND	0.50	ug/L	1.00	10/06/2003 20:57	
Toluene	ND	0.50	ug/L	1.00	10/06/2003 20:57	
Ethylbenzene	ND	0.50	ug/L	1.00	10/06/2003 20:57	
Total xylenes	ND	1.0	ug/L	1.00	10/06/2003 20:57	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	100.3	76-114	%	1.00	10/06/2003 20:57	
Toluene-d8	103.0	88-110	%	1.00	10/06/2003 20:57	

Fuel Oxygenates by 8260B

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue

Albany, CA 94706

Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P257

4401 Market Street

Received: 09/30/2003 17:46

Site: 4401 Market St., Oakland, CA

Prep(s):	5030B	Test(s):	8260B
Sample ID:	<b>MW2 (29 Sep 03)</b>	Lab ID:	2003-10-0024 - 2
Sampled:	09/29/2003 15:50	Extracted:	10/6/2003 21:20
Matrix:	Water	QC Batch#:	2003/10/06-1B.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	220	50	ug/L	1.00	10/06/2003 21:20	
tert-Butyl alcohol (TBA)	24	5.0	ug/L	1.00	10/06/2003 21:20	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	10/06/2003 21:20	
Di-isopropyl Ether (DIPE)	1.3	1.0	ug/L	1.00	10/06/2003 21:20	
Ethyl tert-butyl ether (ETBE)	ND	0.50	ug/L	1.00	10/06/2003 21:20	
tert-Amyl methyl ether (TAME)	ND	0.50	ug/L	1.00	10/06/2003 21:20	
1,2-DCA	ND	0.50	ug/L	1.00	10/06/2003 21:20	
EDB	ND	0.50	ug/L	1.00	10/06/2003 21:20	
Benzene	5.5	0.50	ug/L	1.00	10/06/2003 21:20	
Toluene	ND	0.50	ug/L	1.00	10/06/2003 21:20	
Ethylbenzene	2.1	0.50	ug/L	1.00	10/06/2003 21:20	
Total xylenes	9.1	1.0	ug/L	1.00	10/06/2003 21:20	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	99.0	76-114	%	1.00	10/06/2003 21:20	
Toluene-d8	105.5	88-110	%	1.00	10/06/2003 21:20	



## Fuel Oxygenates by 8260B

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue

Albany, CA 94706

Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P257

4401 Market Street

Received: 09/30/2003 17:46

Site: 4401 Market St., Oakland, CA

Prep(s):	5030B	Test(s):	8260B
Sample ID:	<b>MW3 (29 Sep 03)</b>	Lab ID:	2003-10-0024 - 3
Sampled:	09/29/2003 11:40	Extracted:	10/6/2003 21:42
Matrix:	Water	QC Batch#:	2003/10/06-1B.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	10/06/2003 21:42	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	1.00	10/06/2003 21:42	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	10/06/2003 21:42	
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L	1.00	10/06/2003 21:42	
Ethyl tert-butyl ether (ETBE)	ND	0.50	ug/L	1.00	10/06/2003 21:42	
tert-Amyl methyl ether (TAME)	ND	0.50	ug/L	1.00	10/06/2003 21:42	
1,2-DCA	ND	0.50	ug/L	1.00	10/06/2003 21:42	
EDB	ND	0.50	ug/L	1.00	10/06/2003 21:42	
Benzene	ND	0.50	ug/L	1.00	10/06/2003 21:42	
Toluene	ND	0.50	ug/L	1.00	10/06/2003 21:42	
Ethylbenzene	ND	0.50	ug/L	1.00	10/06/2003 21:42	
Total xylenes	ND	1.0	ug/L	1.00	10/06/2003 21:42	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	98.7	76-114	%	1.00	10/06/2003 21:42	
Toluene-d8	106.6	88-110	%	1.00	10/06/2003 21:42	

## Fuel Oxygenates by 8260B

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue

Albany, CA 94706

Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P257

4401 Market Street

Received: 09/30/2003 17:46

Site: 4401 Market St., Oakland, CA

Prep(s):	5030B	Test(s):	8260B
Sample ID:	<b>MW4 (29 Sep 03)</b>	Lab ID:	2003-10-0024 - 4
Sampled:	09/29/2003 14:10	Extracted:	10/6/2003 22:04
Matrix:	Water	QC Batch#:	2003/10/06-1B.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	140	50	ug/L	1.00	10/06/2003 22:04	g
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	1.00	10/06/2003 22:04	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	10/06/2003 22:04	
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L	1.00	10/06/2003 22:04	
Ethyl tert-butyl ether (ETBE)	ND	0.50	ug/L	1.00	10/06/2003 22:04	
tert-Amyl methyl ether (TAME)	ND	0.50	ug/L	1.00	10/06/2003 22:04	
1,2-DCA	ND	0.50	ug/L	1.00	10/06/2003 22:04	
EDB	ND	0.50	ug/L	1.00	10/06/2003 22:04	
Benzene	ND	0.50	ug/L	1.00	10/06/2003 22:04	
Toluene	ND	0.50	ug/L	1.00	10/06/2003 22:04	
Ethylbenzene	ND	0.50	ug/L	1.00	10/06/2003 22:04	
Total xylenes	ND	1.0	ug/L	1.00	10/06/2003 22:04	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	96.1	76-114	%	1.00	10/06/2003 22:04	
Toluene-d8	106.0	88-110	%	1.00	10/06/2003 22:04	

Fuel Oxygenates by 8260B

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue

Albany, CA 94706

Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P257

4401 Market Street

Received: 09/30/2003 17:46

Site: 4401 Market St., Oakland, CA

Prep(s):	5030B	Test(s):	8260B
Sample ID:	<b>MW5 (29 Sep 03)</b>	Lab ID:	2003-10-0024 - 5
Sampled:	09/29/2003 13:40	Extracted:	10/6/2003 23:34
Matrix:	Water	QC Batch#:	2003/10/06-02.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	460	50	ug/L	1.00	10/06/2003 23:34	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	1.00	10/06/2003 23:34	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	10/06/2003 23:34	
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L	1.00	10/06/2003 23:34	
Ethyl tert-butyl ether (ETBE)	ND	0.50	ug/L	1.00	10/06/2003 23:34	
tert-Amyl methyl ether (TAME)	ND	0.50	ug/L	1.00	10/06/2003 23:34	
1,2-DCA	ND	0.50	ug/L	1.00	10/06/2003 23:34	
EDB	ND	0.50	ug/L	1.00	10/06/2003 23:34	
Benzene	2.6	0.50	ug/L	1.00	10/06/2003 23:34	
Toluene	ND	0.50	ug/L	1.00	10/06/2003 23:34	
Ethylbenzene	0.69	0.50	ug/L	1.00	10/06/2003 23:34	
Total xylenes	ND	1.0	ug/L	1.00	10/06/2003 23:34	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	99.1	76-114	%	1.00	10/06/2003 23:34	
Toluene-d8	102.4	88-110	%	1.00	10/06/2003 23:34	

## Fuel Oxygenates by 8260B

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue

Albany, CA 94706

Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P257

4401 Market Street

Received: 09/30/2003 17:46

Site: 4401 Market St., Oakland, CA

Prep(s):	5030B	Test(s):	8260B
Sample ID:	<b>MW6 (29 Sep 03)</b>	Lab ID:	2003-10-0024 - 6
Sampled:	09/29/2003 12:20	Extracted:	10/6/2003 23:56
Matrix:	Water	QC Batch#:	2003/10/06-02.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	10/06/2003 23:56	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	1.00	10/06/2003 23:56	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	10/06/2003 23:56	
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L	1.00	10/06/2003 23:56	
Ethyl tert-butyl ether (ETBE)	ND	0.50	ug/L	1.00	10/06/2003 23:56	
tert-Amyl methyl ether (TAME)	ND	0.50	ug/L	1.00	10/06/2003 23:56	
1,2-DCA	ND	0.50	ug/L	1.00	10/06/2003 23:56	
EDB	ND	0.50	ug/L	1.00	10/06/2003 23:56	
Benzene	ND	0.50	ug/L	1.00	10/06/2003 23:56	
Toluene	ND	0.50	ug/L	1.00	10/06/2003 23:56	
Ethylbenzene	ND	0.50	ug/L	1.00	10/06/2003 23:56	
Total xylenes	ND	1.0	ug/L	1.00	10/06/2003 23:56	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	102.4	76-114	%	1.00	10/06/2003 23:56	
Toluene-d8	101.5	88-110	%	1.00	10/06/2003 23:56	

## Fuel Oxygenates by 8260B

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Project: P257

4401 Market Street

Received: 09/30/2003 17:46

Site: 4401 Market St., Oakland, CA

Prep(s):	5030B	Test(s):	8260B
Sample ID:	<b>MW7 (29 Sep 03)</b>	Lab ID:	2003-10-0024 - 7
Sampled:	09/29/2003 09:40	Extracted:	10/7/2003 00:19
Matrix:	Water	QC Batch#:	2003/10/06-02.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	10/07/2003 00:19	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	1.00	10/07/2003 00:19	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	10/07/2003 00:19	
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L	1.00	10/07/2003 00:19	
Ethyl tert-butyl ether (ETBE)	ND	0.50	ug/L	1.00	10/07/2003 00:19	
tert-Amyl methyl ether (TAME)	ND	0.50	ug/L	1.00	10/07/2003 00:19	
1,2-DCA	ND	0.50	ug/L	1.00	10/07/2003 00:19	
EDB	ND	0.50	ug/L	1.00	10/07/2003 00:19	
Benzene	ND	0.50	ug/L	1.00	10/07/2003 00:19	
Toluene	ND	0.50	ug/L	1.00	10/07/2003 00:19	
Ethylbenzene	ND	0.50	ug/L	1.00	10/07/2003 00:19	
Total xylenes	ND	1.0	ug/L	1.00	10/07/2003 00:19	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	97.7	76-114	%	1.00	10/07/2003 00:19	
Toluene-d8	105.1	88-110	%	1.00	10/07/2003 00:19	

## Fuel Oxygenates by 8260B

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Albany, CA 94706

Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P257

4401 Market Street

Received: 09/30/2003 17:46

Site: 4401 Market St., Oakland, CA

## Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Method Blank

Water

QC Batch # 2003/10/06-02.62

MB: 2003/10/06-02.62-011

Date Extracted: 10/06/2003 23:11

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	10/06/2003 23:11	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	10/06/2003 23:11	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	10/06/2003 23:11	
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L	10/06/2003 23:11	
Ethyl tert-butyl ether (ETBE)	ND	0.5	ug/L	10/06/2003 23:11	
tert-Amyl methyl ether (TAME)	ND	0.5	ug/L	10/06/2003 23:11	
1,2-DCA	ND	0.5	ug/L	10/06/2003 23:11	
EDB	ND	0.5	ug/L	10/06/2003 23:11	
Benzene	ND	0.5	ug/L	10/06/2003 23:11	
Toluene	ND	0.5	ug/L	10/06/2003 23:11	
Ethylbenzene	ND	0.5	ug/L	10/06/2003 23:11	
Total xylenes	ND	1.0	ug/L	10/06/2003 23:11	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	91.3	76-114	%	10/06/2003 23:11	
Toluene-d8	100.0	88-110	%	10/06/2003 23:11	

## Fuel Oxygenates by 8260B

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Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P257

4401 Market Street

Received: 09/30/2003 17:46

Site: 4401 Market St., Oakland, CA

## Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Method Blank

Water

QC Batch # 2003/10/06-1B.62

MB: 2003/10/06-1B.62-047

Date Extracted: 10/06/2003 10:47

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	10/06/2003 10:47	
Benzene	ND	0.5	ug/L	10/06/2003 10:47	
Toluene	ND	0.5	ug/L	10/06/2003 10:47	
Ethylbenzene	ND	0.5	ug/L	10/06/2003 10:47	
Total xylenes	ND	1.0	ug/L	10/06/2003 10:47	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	10/06/2003 10:47	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	10/06/2003 10:47	
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L	10/06/2003 10:47	
Ethyl tert-butyl ether (ETBE)	ND	0.5	ug/L	10/06/2003 10:47	
tert-Amyl methyl ether (TAME)	ND	0.5	ug/L	10/06/2003 10:47	
1,2-DCA	ND	0.5	ug/L	10/06/2003 10:47	
EDB	ND	0.5	ug/L	10/06/2003 10:47	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	92.7	76-114	%	10/06/2003 10:47	
Toluene-d8	97.9	88-110	%	10/06/2003 10:47	

Fuel Oxygenates by 8260B

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Albany, CA 94706

Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P257

4401 Market Street

Received: 09/30/2003 17:46

Site: 4401 Market St., Oakland, CA

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike

Water

QC Batch # 2003/10/06-02.62

LCS 2003/10/06-02.62-027

Extracted: 10/06/2003

Analyzed: 10/06/2003 22:27

LCSD 2003/10/06-02.62-050

Extracted: 10/06/2003

Analyzed: 10/06/2003 22:49

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	31.0	27.7	25.0	124.0	110.8	11.2	65-165	20		
Benzene	31.9	28.8	25.0	127.6	115.2	10.2	69-129	20		
Toluene	30.6	26.3	25.0	122.4	105.2	15.1	70-130	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	462	471	500	92.4	94.2		76-114			
Toluene-d8	514	524	500	102.8	104.8		88-110			



**Fuel Oxygenates by 8260B**

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue

Albany, CA 94706

Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P257

4401 Market Street

Received: 09/30/2003 17:46

Site: 4401 Market St., Oakland, CA

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Laboratory Control Spike**

**Water**

**QC Batch # 2003/10/06-1B.62**

LCS 2003/10/06-1B.62-002

Extracted: 10/06/2003

Analyzed: 10/06/2003 10:02

LCSD 2003/10/06-1B.62-025

Extracted: 10/06/2003

Analyzed: 10/06/2003 10:25

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	26.5	29.0	25	106.0	116.0	9.0	69-129	20		
Toluene	26.4	28.5	25	105.6	114.0	7.7	70-130	20		
Methyl tert-butyl ether (MTBE)	29.5	29.4	25	118.0	117.6	0.3	65-165	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	467	455	500	93.4	91.0		76-114			
Toluene-d8	505	519	500	101.0	103.8		88-110			

**Fuel Oxygenates by 8260B**

Streamborn Consulting Services

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900 Sante Fe Avenue

Albany, CA 94706

Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P257

4401 Market Street

Received: 09/30/2003 17:46

Site: 4401 Market St., Oakland, CA

**Legend and Notes****Result Flag**

g

Hydrocarbon reported in the gasoline range does not match our gasoline standard.

**STL San Francisco**

### Sample Receipt Checklist

Submission #: 2003- 10 - 0024

Checklist completed by: (initials) DSH Date: 10 10 10 /03

Courier name:  STL San Francisco  Client \_\_\_\_\_

Custody seals intact on shipping container/samples Yes \_\_\_ No \_\_\_ Not Present

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 \_\_\_

Samples in proper container/bottle? Yes  No \_\_\_

Sample containers intact? Yes  No \_\_\_

Sufficient sample volume for indicated test? Yes  No \_\_\_

All samples received within holding time? Yes  No \_\_\_

Container/Temp Blank temperature in compliance ( $4^{\circ}C \pm 2$ )? Temp: 2.3 °C Yes  No \_\_\_

Ice Present Yes  No \_\_\_

Water - VOA vials have zero headspace? No VOA vials submitted \_\_\_ Yes  No \_\_\_

(if bubble is present, refer to approximate bubble size and itemize in comments as S (small ~O), M (medium ~ O) or L (large ~ O))

Water - pH acceptable upon receipt?  Yes  No

pH adjusted- Preservative used:  HNO<sub>3</sub>  HCl  H<sub>2</sub>SO<sub>4</sub>  NaOH  ZnOAc -Lot #(s) \_\_\_\_\_

For any item check-listed "No", provided detail of discrepancy in comment section below:

**Comments:**  
\_\_\_\_\_  
\_\_\_\_\_

#### Project Management [Routing for instruction of indicated discrepancy(ies)]

Project Manager: (initials) \_\_\_\_\_ Date: \_\_\_\_\_ / \_\_\_\_\_ /03

Client contacted:  Yes  No

Summary of discussion:  
\_\_\_\_\_  
\_\_\_\_\_

Corrective Action (per PM/Client):  
\_\_\_\_\_  
\_\_\_\_\_

79329

STREAMBORN  
CHAIN-OF-CUSTODY FORM

2003-10-0024

Project Name: 4401 Market Street	Project Location: 4401 Market Street, Oakland CA	Project Number: P257
Sampler: Paul Fairbairn	Laboratory: STL San Francisco	Laboratory Number:

Sample Designation	Date	Time	Matrix			Type	Containers		Preservative	Filtration	Turnaround			Analyses				Sampler Comments	Laboratory Comments		
			Soil	Water	Vapor	Grab	Composite	Quantity			Type	48-Hour	5- Working Days	10-Working Days	TPH-Gasoline/BTEX	Fuel Oxygenates (by 8260)					
MW1 (29 Sep 03)	29-Sep-03	1015		x		x		3	40 mL VOA	HCl, ice				x			x				
MW2 (29 Sep 03)	29-Sep-03	350		x		x		3	40 mL VOA	HCl, ice				x			x				
MW3 (29 Sep 03)	29-Sep-03	1140		x		x		3	40 mL VOA	HCl, ice				x			x				
MW4 (29 Sep 03)	29-Sep-03	2:10		x		x		3	40 mL VOA	HCl, ice				x			x				
MW5 (29 Sep 03)	29-Sep-03	1:40		x		x		3	40 mL VOA	HCl, ice				x			x				
MW6 (29 Sep 03)	29-Sep-03	1220		x		x		3	40 mL VOA	HCl, ice				x			x				
MW7 (29 Sep 03)	29-Sep-03	940		x		x		3	40 mL VOA	HCl, ice				x			x				

Note: Sampler and laboratory to observe preservative, condition, integrity, etc. of samples and record (under "Comments") any exceptions from standard protocols.

2.3

Relinquished By: <i>[Signature]</i>	Received By: <i>[Signature]</i>	Date: 9/30/03	Time: 1104
Relinquished By: <i>[Signature]</i> 9/30/03 1146	Received By: <i>[Signature]</i> STL SF	Date: 9/30/03	Time: 1746