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Alameda County Environmental Health

Declaration from the Responsible Party

Letter Report Groundwater Monitoring Conducted 3 March 2009 2440 East Eleventh Street Oakland CA RO No. 29

Prepared by Streamborn, Dated 20 March 2009

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

Jeffrey Eandi Vice President Eandi Metal Works 976 Twenty-Third Avenue Oakland CA 94606

Signed

Dated 23 March 2009



Jeffrey M. Eandi

Eandi Metal Works

976 Twenty-Third Avenue Oakland CA 94606 20 March 2009

Project No. P279

#### <u>Letter Report</u> <u>Groundwater Monitoring Conducted 3 March 2009</u> <u>2440 East Eleventh Street</u> <u>Oakland CA</u> <u>RO No. 29</u>

Dear Mr. Eandi (hardcopy):

This letter report documents the results of groundwater monitoring conducted 3 March 2009 for monitoring wells MW1, MW2, MW3, MW4, and MW5 at the subject property. The results of our work are summarized in the following:

- Table 1 provides a chronology of environmental activities.
- Table 2 provides a bibliography.
- Table 3 summarizes groundwater level and gradient data.
- Table 4 summarizes well purging and sampling information since 2001. Purge water generated during sampling was containerized in labeled drums and stored onsite.
- Table 5 summarizes groundwater analytical data from monitoring wells.
- Figure 1 provides a location map (USGS).
- Figure 2 provides a vicinity map.
- Figure 3 provides a site plan.
- Figure 4 shows the groundwater levels and gradient (3 March 2009).
- Figure 5 shows temporal concentrations of TPH-gasoline in the monitoring wells.
- Attachment 1 contains the groundwater sampling forms.
- Attachment 2 contains the laboratory reports and chain-of-custody forms.

The groundwater monitoring results for 3 March 2009 are consistent with historic results. The next groundwater-monitoring event is scheduled circa September/October 2009.

Please contact us with any questions or comments.

Sincerely,

**STREAMBORN** 

Jongh W Coral

Douglas W. Lovell, PE Geoenvironmental Engineer

Attachments



Electronic Submission: This report and the laboratory EDF were uploaded to Geotracker. This report was also uploaded to the Alameda County server.



# Table 1 (Page 1 of 2)Environmental Chronology2440 East Eleventh Street<br/>Oakland CA

Date	Performed By	Event
Unknown	Unknown	• 1,000-gallon underground leaded gasoline tank was installed.
15 August 1991	Eandi Metal Works	• The 1,000-gallon tank was emptied of product. Use of the tank was discontinued.
11 May 1992	Unknown	• The 1,000-gallon tank was removed and soil and groundwater contamination was discovered.
10 July 1995	AGI Technologies	• Five soil borings were drilled. Soil samples were collected and analyzed for TPH-gasoline, BTEX, MtBE, and total metals.
		• Three of the borings were completed as monitoring wells (MW1, MW2, and MW3). The other two borings (E1 and E2) were grouted.
		• Water levels were measured in monitoring wells MW1, MW2, and MW3.
		• Monitoring wells MW1, MW2, and MW3 were developed and groundwater samples were collected. Samples were analyzed for TPH-gasoline, BTEX, MtBE, and total lead.
		• An elevation survey was conducted for monitoring wells MW1, MW2, and MW3.
17 July 1995	AGI Technologies	• Groundwater levels were measured in monitoring wells MW1, MW2, and MW3.
		• Groundwater samples were collected from monitoring wells MW1, MW2, and MW3. Samples were analyzed for TPH-gasoline, BTEX, MtBE, and total lead.
20 October 1995	AGI Technologies	• Groundwater levels were measured in monitoring wells MW1, MW2, and MW3.
		• Groundwater samples were collected from monitoring wells MW1, MW2, and MW3. Samples were analyzed for TPH-gasoline, BTEX, and total lead.
25 January 1996	AGI Technologies	• Groundwater levels were measured in monitoring wells MW1, MW2, and MW3.
		• Groundwater samples were collected from monitoring wells MW1, MW2, and MW3. Samples were analyzed for TPH-gasoline, BTEX, MtBE, and total lead.
25 April 1996	AGI Technologies	• Groundwater levels were measured in monitoring wells MW1, MW2, and MW3.
		• Groundwater samples were collected from monitoring wells MW1, MW2, and MW3. Samples were analyzed for TPH-gasoline, BTEX, MtBE, and total lead.
11 - 12 June 2001	Kleinfelder	<ul> <li>Groundwater levels were measured in monitoring wells MW1, MW2, and MW3.</li> <li>Groundwater samples were collected from monitoring wells MW1, MW2, and MW3.</li> </ul>
5 February 2002	Kleinfelder	<ul> <li>Samples were analyzed for TPH-gasoline, BTEX, and total lead.</li> <li>Groundwater levels were measured in monitoring wells MW1, MW2, and MW3.</li> </ul>
5 rebruary 2002	Kielineldel	<ul> <li>Groundwater levels were measured in monitoring wens WW 1, WW 2, and WW 3.</li> <li>Groundwater samples were collected from monitoring wells MW1, MW2, and MW3.</li> </ul>
		Samples were analyzed for TPH-gasoline, BTEX, MtBE, and total lead.
9 June 2004	Streamborn	• Using a backhoe, the excavation for the former tank was partially re-excavated.
		• Soil samples were collected from the base (7.5-8 feet below ground surface) and each of the four sidewalls (5-5.5 feet below ground surface) by exposing native soil and driving a brass liner into the exposed soil.
		• Soil samples were analyzed for TPH-diesel/kerosene/stoddard solvent, TPH-gasoline, BTEX, fuel oxygenates, and total lead.
12 August 2004	Streamborn	• Groundwater levels were measured in monitoring wells MW1, MW2, and MW3.
		• Groundwater samples were collected from monitoring wells MW1, MW2, and MW3. Samples were analyzed for TPH-gasoline, BTEX, fuel oxygenates, and total lead.
		• Seven geoprobe borings (B1-B7) were drilled to depths between 20 and 32 feet. Soil samples were collected continuously in the borings.
		• Two soil samples were retained from each of the borings for chemical analysis. One soil sample approximately coincided with the depth of groundwater observed during drilling and the other soil sample coincided with the bottom of the boring. Soil samples were analyzed for TPH-gasoline, BTEX, fuel oxygenates, and total lead.
		• Temporary casings were installed in the borings and water levels allowed to stabilize for at least one hour. Water levels were measured.
		• Purged groundwater samples were collected from the temporary casings. Samples were analyzed for TPH-gasoline, BTEX, fuel oxygenates, and total lead.
		• The temporary casings were removed from the borings and the borings were grouted.
17-23 September 2004	Streamborn	• Using a backhoe, the excavation for the former tank was completely re-excavated. The excavated soil was air-dried and replaced in the excavation using ±2-foot lifts. Each lift was compacted using a whacker. 6 inches of imported Class II aggregate base was placed as the final lift of soil.
		<ul> <li>The pavement and sidewalk were repayed with reinforced concrete. The concrete thickness was 8 inches. The reinforcement was #5 rebar on 12-inch centers.</li> </ul>
2 March 2005	Streamborn	<ul> <li>Groundwater levels were measured in monitoring wells MW1, MW2, and MW3.</li> <li>Groundwater samples were collected from monitoring wells MW1, MW2, and MW3. Samples were analyzed for TPH-gasoline, BTEX, and fuel oxygenates.</li> </ul>



#### Table 1 (Page 2 of 2)

## Environmental Chronology 2440 East Eleventh Street

#### Oakland CA

Date	Performed By	Event
28 September 2006	Streamborn	• Two direct push borings were drilled to 17 feet. Soil samples were collected continuously during drilling and selected samples were analyzed for TPH-gasoline, BTEX, fuel oxygenates, total lead, and lead scavengers (1,2-dichloroethane and ethylene dibromide).
		• Each boring was subsequently overdrilled using a hollow-stem auger and completed as a two-inch diameter, 17-foot deep monitoring well (MW4 and MW5).
		• Monitoring wells MW4 and MW5 were elevation surveyed.
2 October 2006	Streamborn	• Monitoring wells MW4 and MW5 were developed.
		• Groundwater levels were measured in monitoring wells MW1, MW2, MW3, MW4, and MW5.
		• Groundwater samples were collected from monitoring wells MW1, MW2, MW3, MW4, and MW5. Samples were analyzed for TPH-gasoline/BTEX/fuel oxygenates (EPA Method 8260), total lead, and lead scavengers (1,2-dichloroethane and ethylene dibromide).
20 March 2007	Streamborn	• Groundwater levels were measured in monitoring wells MW1, MW2, MW3, MW4, and MW5.
		• Groundwater samples were collected from monitoring wells MW1, MW2, MW3, MW4, and MW5. Samples were analyzed for TPH-gasoline/BTEX/fuel oxygenates (EPA Method 8260).
10 September 2007	Streamborn	• Groundwater levels were measured in monitoring wells MW1, MW2, MW3, MW4, and MW5.
		• Groundwater samples were collected from monitoring wells MW1, MW2, MW3, MW4, and MW5. Samples were analyzed for TPH-gasoline/BTEX/fuel oxygenates (EPA Method 8260).
10 March 2008	Streamborn	• Groundwater levels were measured in monitoring wells MW1, MW2, MW3, MW4, and MW5.
		• Groundwater samples were collected from monitoring wells MW1, MW2, MW3, MW4, and MW5. Samples were analyzed for TPH-gasoline/BTEX/fuel oxygenates (EPA Method 8260).
8 September 2008	Streamborn	• Groundwater levels were measured in monitoring wells MW1, MW2, MW3, MW4, and MW5.
		• Groundwater samples were collected from monitoring wells MW1, MW2, MW3, MW4, and MW5. Samples were analyzed for TPH-gasoline/BTEX/fuel oxygenates (EPA Method 8260).
3 March 2009	Streamborn	• Groundwater levels were measured in monitoring wells MW1, MW2, MW3, MW4, and MW5.
		• Groundwater samples were collected from monitoring wells MW1, MW2, MW3, MW4, and MW5. Samples were analyzed for TPH-gasoline/BTEX/fuel oxygenates (EPA Method 8260).

General Notes

(a) TPH = total petroleum hydrocarbons.

(b) BTEX = benzene, toluene, xylenes, and total xylenes.

(c) MtBE = methyl tert-butyl ether.



#### Table 2 (Page 1 of 2) Bibliography 2440 East Eleventh Street Oakland CA

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Streamborn (2005b). Letter Report, Groundwater Monitoring Conducted 2 March 2005, 2440 East Eleventh Street, Oakland CA, RO No. 29. Prepared for Eandi Metal Works, Oakland CA. Prepared by Streamborn, Berkeley CA. 25 March 2005.

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## Table 2 (Page 2 of 2) Bibliography 2440 East Eleventh Street Oakland CA

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#### Table 3

#### Groundwater Level and Gradient Data 2440 East Eleventh Street Oakland CA

Location	M١	W1	M	W2	MV	W3	MV	W4	MV	W5		
Ground Surface Elevation	21.	68	21.	.36	20	.21	20	.27	19	.71		
Casing Diameter (inches)	22	2	2	2	2		2		2			
Measuring Point GPS Coordinates	N 37° 46.808' W 122° 14.135'		N 37° 4 W 122°		N 37° 46.799' W 122° 14.176'		N 37° 46.799' W 122° 14.170'			7° 46.812'         Groundwater           22° 14.181'         Gradient		
Measuring Point Elevation	TOC N 21.		TOC N 21.	Side = .06	TOC N 19.	Side = .82	TOC N 19.	Side = .58		Side = .06		
	Depth	Elev	Depth	Elev	Depth	Elev	Depth	Elev	Depth	Elev		
Intercepted Interval	9 to 20	1.7 to 12.7	9 to 20	1.4 to 12.4	9 to 20	0.2 to 11.2	6 to 17	3.3 to 14.3	6 to 17	2.7 to 13.7	Direction	Magnitude
14 July 1995	9.72	11.56	10.74	10.32	10.95	8.87						
17 July 1995	11.11	10.17	10.93	10.13	11.04	8.78						
20 October 1995	11.96	9.32	11.92	9.14	12.11	7.71						
25 January 1996	8.14	13.14	8.23	12.83	8.83	10.99						
11-12 June 2001	10.35	10.93	11.50	9.56	11.08	8.74						
5 February 2002	11.00	10.28	11.10	9.96	11.30	8.52						
12 August 2004	10.95	10.33	11.17	9.89	11.77	8.05					N 115° W	0.02
2 March 2005	8.25	13.03	8.44	12.62	9.36	10.46					N 120° W	0.03
2 October 2006	11.08	10.20	11.15	9.91	11.79	8.03	11.48	8.10	11.28	7.78	N 126° W	0.02
20 March 2007	10.96	10.32	10.78	10.28	10.91	8.91	10.57	9.01	10.41	8.65	N 127° W	0.01
10 September 2007	11.24	10.04	11.54	9.52	12.20	7.62	11.91	7.67	11.68	7.38	N 128° W	0.02
10 March 2008	10.74	10.54	10.89	10.17	10.60	9.22	10.28	9.30	10.16	8.90	N 114° W	0.01
8 September 2008	11.73	9.55	11.42	9.64	12.09	7.73	11.77	7.81	11.57	7.49	N 124° W	0.01
3 March 2009	8.31	12.97	8.22	12.84	9.30	10.52	8.98	10.60	8.93	10.13	N 117° W	0.02
Total Depth (Last Measurement)	19.7		19.8		19.6		17.2		17.2			

#### General Notes

(a) Measurements are cited in units of feet. Elevations are referenced to the NGVD29 - Mean Sea Level (MSL) datum.

(b) TOC = top of PVC casing. N = north. Measuring points were the top of the PVC casing, north side.

(c) Streamborn (Berkeley CA) measured GPS coordinates using a Garmin GPS II meter.

(d) HTT Engineering (Oakland CA) surveyed the elevation of MW1 to the NGVD29 - Mean Sea Level (MSL) datum on 6 September 2006.

(e) Streamborn (Berkeley CA) surveyed the elevations of the remaining wells on 28 September 2006.

(f) The intercepted intervals correspond to the sand pack interval. The depths of the intercepted intervals were measured relative to the adjacent pavement or ground surface.



#### Table 4

#### Well Purging and Sampling Information Since 2001

#### 2440 East Eleventh Street Oakland CA

Well No.	Sample Date	Sample Type	Purge Method	Purge Duration (minutes)	Approximate Volume Purged (gallons)	Volume Purged (static water casing volumes)	Purged Dry?	Dissolved Oxygen (mg/L)	рН	Specific Conductance (µS/cm)	Temp (°C)	ORP (mV)	Turbidity/ Color
MW1	11 Jun 01	Grab	SPP	NM	20	NC	no	NM	6.8	310	21.4	NM	NM
	5 Feb 02	Grab	SPP	NM	4	NC	no	NM	6.6	290	18.8	NM	NM
	12 Aug 04	Grab	SPP	4	5	±3	no	1.1	7.0	230	18.8	-130	Clear/none
	2 Mar 05	Grab	SPP	7	6	±3	no	2.2	6.9	230	17.1	-160	Clear/none
	2 Oct 06	Grab	SPP	7	5	±3	no	1.0	6.6	380	17.7	-130	Translucent/gray
	20 Mar 07	Grab	SPP	25	5	±3	no	0.8	6.8	410	16.1	-130	Clear/none
	10 Sep 07	Grab	SPP	8	5	±3	no	0.9	6.7	480	18.0	-100	Clear/none
	10 Mar 08	Grab	SPP	11	5	±3	no	0.7	6.9	410	16.6	-110	Clear/none
	8 Sep 08	Grab	SPP	6	4	±3	no	1.0	6.9	530	18.4	-80	Clear/none
	3 Mar 09	Grab	SPP	11	6	±3	no	0.8	6.8	480	15.8	-60	Clear/none
MW2	12 Jun 01	Grab	SPP	NM	15	NC	no	NM	7.1	430	17.2	NM	NM
	5 Feb 02	Grab	SPP	NM	4	NC	no	NM	6.6	400	16.8	NM	NM
	12 Aug 04	Grab	SPP	4	5	±3	no	2.0	6.8	510	18.9	-170	Turbid/gray
	2 Mar 05	Grab	SPP	7	6	±3	no	2.2	6.7	490	17.7	-220	Clear/none
	2 Oct 06	Grab	SPP	7	5	±3	no	1.0	6.7	490	18.0	-110	Clear/none
	20 Mar 07	Grab	SPP	20	5	±3	no	1.0	6.9	490	16.7	-170	Clear/none
	10 Sep 07	Grab	SPP	7	4	±3	no	0.7	6.8	560	19.6	-110	Clear/none
	10 Mar 08	Grab	SPP	11	5	±3	no	0.9	7.1	520	17.1	-90	Clear/none
	8 Sep 08	Grab	SPP	7	5	±3	no	1.5	7.5	670	19.0	-50	Clear/none
	3 Mar 09	Grab	SPP	11	6	±3	no	0.9	6.9	690	15.9	-50	Clear/none
MW3	12 Jun 01	Grab	SPP	NM	12	NC	no	NM	7.4	440	17.2	NM	NM
	5 Feb 02	Grab	SPP	NM	4	NC	no	NM	6.6	410	17.8	NM	NM
	12 Aug 04	Grab	SPP	8	4	±3	no	1.7	6.6	440	19.0	-150	Clear/none
	2 Mar 05	Grab	SPP	6	5	±3	no	2.3	6.8	500	18.1	-200	Clear/none
	2 Oct 06	Grab	SPP	6	4	±3	no	1.0	6.8	490	18.8	-60	Clear/none
	20 Mar 07	Grab	SPP	25	4	±3	no	1.6	6.7	540	16.8	-60	Clear/none
	10 Sep 07	Grab	SPP	7	4	±3	no	0.9	6.7	530	18.8	-120	Clear/none
	10 Mar 08	Grab	SPP	10	5	±3	no	0.7	7.1	510	17.5	-100	Clear/none
	8 Sep 08	Grab	SPP	6	4	±3	no	1.0	7.0	600	19.3	-50	Clear/none
	3 Mar 09	Grab	SPP	7	5	±3	no	0.9	6.8	620	16.7	-50	Clear/none
MW4	2 Oct 06	Grab	SPP	24	14	±16	no	4.6	7.1	630	18.5	180	Translucent/brown
	20 Mar 07	Grab	SPP	15	3	±3	no	1.2	6.5	470	15.7	170	Clear/none
	10 Sep 07	Grab	SPP	7	3	±3	no	1.4	6.4	490	18.1	120	Translucent/gray
	10 Mar 08	Grab	SPP	9	4	±3	no	1.4	6.6	480	15.9	120	Clear/none
	8 Sep 08	Grab	SPP	4	3	±3	no	1.3	6.6	560	18.1	140	Clear/none
	3 Mar 09	Grab	SPP	7	4	±3	no	2.0	6.6	590	15.8	280	Clear/none
MW5	2 Oct 06	Grab	SPP	35	22	±24	no	3.4	7.0	600	19.1	30	Translucent/brown
	20 Mar 07	Grab	SPP	23	3	±3	no	0.9	6.9	580	16.6	-70	Clear/none
	10 Sep 07	Grab	SPP	7	3	±3	no	0.8	6.8	630	19.5	-90	Clear/none
	10 Sep 07 10 Mar 08	Grab	SPP	11	4	±3	no	1.0	7.1	570	16.6	-100	Clear/none
	8 Sep 08	Grab	SPP	4	3	±3	no	1.0	7.1	730	20.4	-80	Clear/none
	3 Mar 09	Grab	SPP	8	4	±3	no	0.8	6.9	670	16.1	-80	Clear/none

#### General Notes

(a) NM = not measured.

- (b) NC = not calculated.
- (c) ORP = oxidation-reduction potential.
- (d) SPP = submersible purge pump.
- (d) Measurements cited in this table correspond to the end of purging (time of sampling).



#### Table 5

#### Groundwater Analytical Data from Monitoring Wells

2440 East Eleventh Street Oakland CA

1,2-TPH-Ethyl-Other Fuel Oxygenates Total Total Ethylene **MtBE** Sample Benzene Toluene Dichloro-Location Sample Date Lead Gasoline **Xylenes** Dibromide (EPA Method 8260) benzene Type  $(\mu g/L)$  $(\mu g/L)$ ethane  $(\mu g/L)$  $(\mu g/L)$ MW1 17 Jul 1995 <40 2,000 800 NM <125 NM Grab 22,000 390 5,300 NM 20 Oct 1995 Grab <40 14,000 270 540 360 1,800 NM NM NM NM 25 Jan 1996 Grab <40 16,000 740 1,300 490 2,700 NM NM < 500 NM 25 Apr 1996 Grab  $<\!\!40$ 4,600 180 450 190 1,000 NM NM <250 NM 11 Jun 2001 Grab 14 7,100 14 35 240 720 NM NM NM NM 5 Feb 2002 Grab 3.7 6.3 11 NM < 0.7 NM 9,300 230 560 NM 0.72 <0.5 to <5 12 Aug 2004 Grab <5 2,900 9.1 6.0 130 160 NM NM Grab 2 Mar 2005 NM 950 1.9 0.60 19 4.0 NM NM 0.80 <0.5 to <5 2 Oct 2006 0.80 < 0.5 < 0.5 <0.5 to <100 Grab <100 830 4.1 44 7.8 < 0.5 20 Mar 2007 470 2.1 < 0.5 8.5 1.8 < 0.5 NM 0.63 <0.5 to <100 Grab NM 10 Sep 2007 < 0.5 NM <0.5 to <100 Grab NM 3,400 18 6.4 170 43 1.1 10 Mar 2008 2.9 0.66 19 1.9 < 0.5 0.72 <0.5 to <100 Grab NM 950 NM 8 Sep 2008 Grab NM 3,600 14 200 19 < 0.5 NM 0.62 <0.5 to <100 6.5 3 Mar 2009 5.2 9.7 <0.5 to <5 Grab NM 1,600 2.1 68 NM NM 0.56 MW2 17 Jul 1995 21,000 370 1,700 930 5,100 NM NM <125 <0.5 to <5 Grab 56.4 20 Oct 1995 Grab <40 730 27 26 7.9 NM NM NM NM 18 25 Jan 1996 Grab <40 14,000 74 660 1,000 2,600 NM NM 670 NM 25 Apr 1996 <40 13,000 370 440 1,000 2,900 NM NM <500 NM Grab 12 Jun 2001 Grab 7.7 3,200 11 6.2 170 270 NM NM NM NM 5 Feb 2002 NM Grab 3.5 2,900 7.6 3.8 220 160 NM NM < 0.7 Grab 12 Aug 2004 <5 3,100 2.6 1.8 < 0.5 13 NM NM < 0.5 <0.5 to <5 <2.5 to <25 2 Mar 2005 NM 3,700 <5 <2.5 340 22 NM NM <2.5 Grab 2 Oct 2006 <2.5 <2.5 Grab <100 7,200 <2.5 3.0 380 30 <2.5 <2.5 to <500 20 Mar 2007 < 5.0 <5.0 to <1,000 Grab NM 7,000 < 5.0 < 5.0 370 34 < 5.0 NM <2.5 to <500 10 Sep 2007 9,300 <2.5 530 38 <2.5 NM <2.5 Grab NM 3.8 10 Mar 2008 <2.5 200 13 <2.5 NM <2.5 <2.5 to <500 Grab NM 6,500 <2.5 <2.5 to <500 8 Sep 2008 Grab NM 7,300 <2.5 <2.5 290 12 <2.5 NM <2.5 3 Mar 2009 < 0.5 4.7 NM <0.5 to <5 Grab NM 3,700 < 0.5 1.1 NM < 0.5 MW3 17 Jul 1995 1,000 1,700 Grab 153 8,400 1,200 150 NM NM <125 NM 20 Oct 1995 590 43 340 NM NM Grab  $<\!\!40$ 5,800 600 NM NM 25 Jan 1996 10,000 1,200 290 870 1,300 NM NM <250 NM Grab  $<\!\!40$ 25 Apr 1996 <40 8,900 140 1,000 1,000 NM NM 400 NM Grab 830 12 Jun 2001 7.4 1,800 4.5 98 NM NM NM NM Grab 37 19 5 Feb 2002 4.4 32 2.1 76 9.5 NM NM < 0.5 NM Grab 1,100 12 Aug 2004 1.4 <0.5 to <5 Grab <5 1,100 4.5 < 0.56.0 1.8 NM NM 2 Mar 2005 <2.5 <2.5 to <25 NM 3,000 27 3.0 76 22 NM NM Grab 2 Oct 2006 Grab <100 < 0.5 5.0 2.5 < 0.5 < 0.5 < 0.5 <0.5 to <100 1,500 6.6 20 Mar 2007 2,200 12 < 0.5 <0.5 to <100 Grab NM 15 1.6 14 NM 0.52 10 Sep 2007 Grab NM 1,000 4.2 < 0.5 < 0.5 0.82 < 0.5 NM 0.53 <0.5 to <100 10 Mar 2008 Grab NM 4,000 13 1.1 7.0 7.4 < 0.5 NM < 0.5 TAME = 0.53Others < 0.5 to < 100 <0.5 to <100 8 Sep 2008 Grab NM 1,100 9.7 0.75 7.7 5.9 < 0.5 NM 0.59 3 Mar 2009 NM 2,100 14 1.6 14 NM < 0.5 <0.5 to <5 Grab 16 NM MW4 2 Oct 2006 < 0.5 0.96 <0.5 to <100 Grab <100 < 50 < 0.5 < 0.5 < 0.5 < 0.5 < 0.520 Mar 2007 Grab NM <50 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 NM < 0.5 <0.5 to <100 10 Sep 2007 < 0.5 <0.5 to <100 Grab NM < 50 < 0.5 < 0.5 < 0.5 < 0.5 NM < 0.5 10 Mar 2008 NM <50 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 NM <0.5 to <100 Grab < 0.5 8 Sep 2008 Grab NM < 50 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 NM < 0.5 <0.5 to <100 3 Mar 2009

	3 Mar 2009	Grab	NM	<50	< 0.5	< 0.5	< 0.5	<1	NM	NM	< 0.5	<0.5 to <5
MW5	2 Oct 2006	Grab	<100	3,000	20	0.97	69	130	< 0.5	< 0.5	2.6	<0.5 to <100
	20 Mar 2007	Grab	NM	2,800	13	1.5	27	35	< 0.5	NM	1.6	<0.5 to <100
	10 Sep 2007	Grab	NM	1,900	11	0.78	10	9.2	< 0.5	NM	2.5	<0.5 to <100
	10 Mar 2008	Grab	NM	4,900	7.8	1.4	13	12	< 0.5	NM	1.2	<0.5 to <100
	8 Sep 2008	Grab	NM	2,300	9.7	0.75	7.7	5.9	< 0.5	NM	2.3	<0.5 to <100
	3 Mar 2009	Grab	NM	2,600	11	4	60	30	NM	NM	<2.5	<2.5 to <25

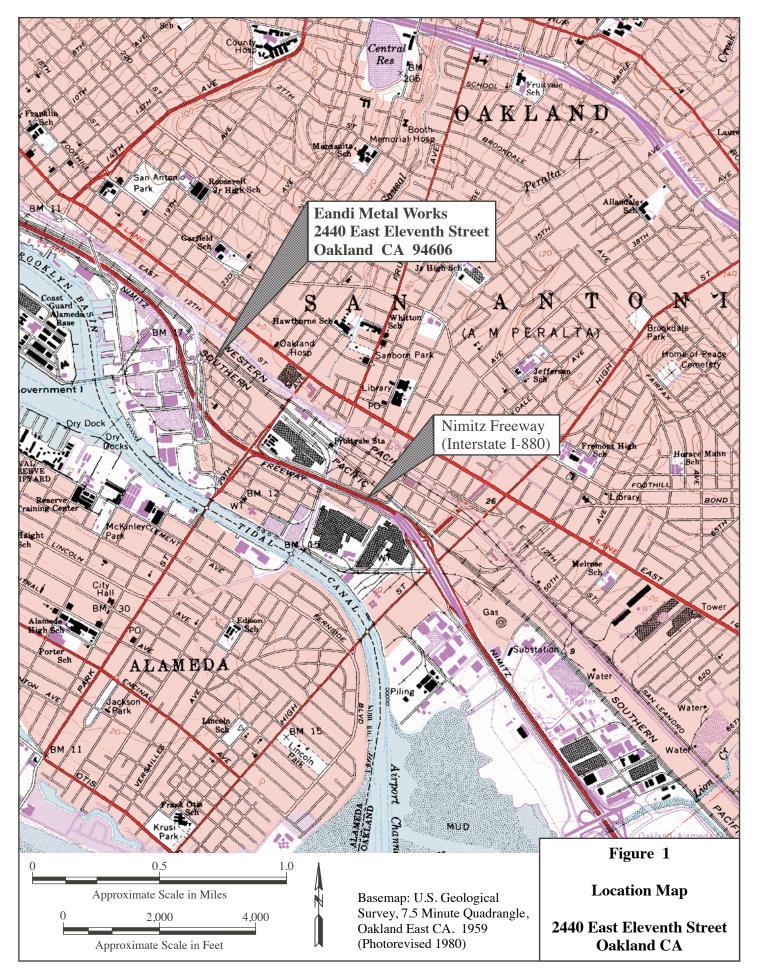
#### General Notes

(a) TPH = total petroleum hydrocarbons. MtBE = methyl tert-butyl ether. TAME = tert-amyl methyl ether.

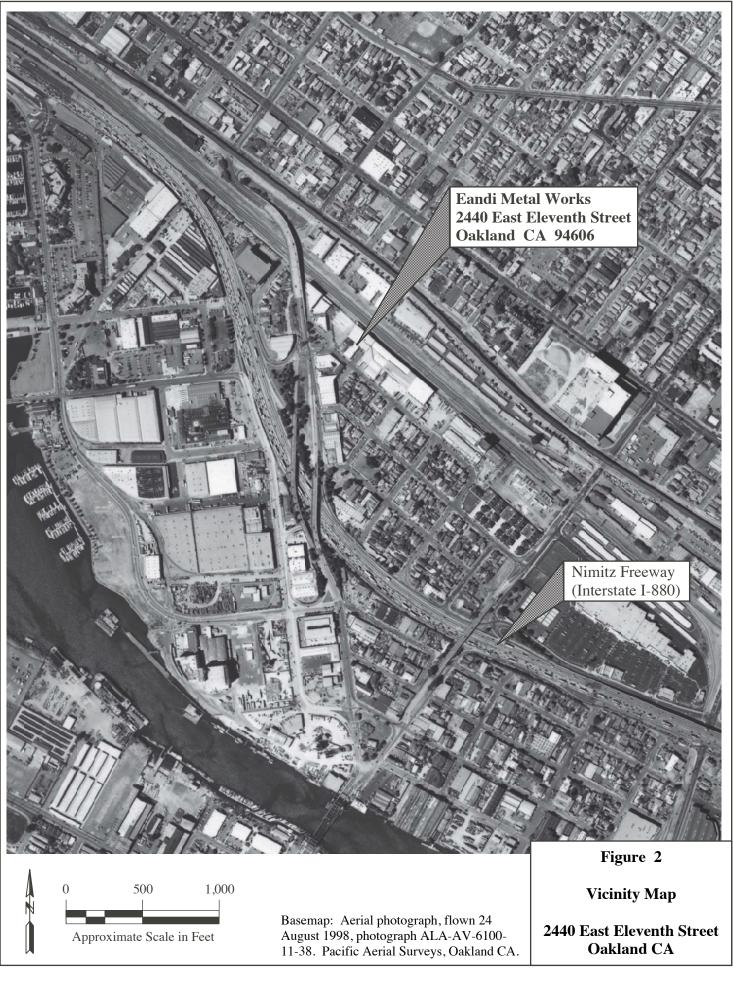
(b) NM = not measured.

(c) Samples were collected using a Teflon bailer fitted with a bottom-emptying device.

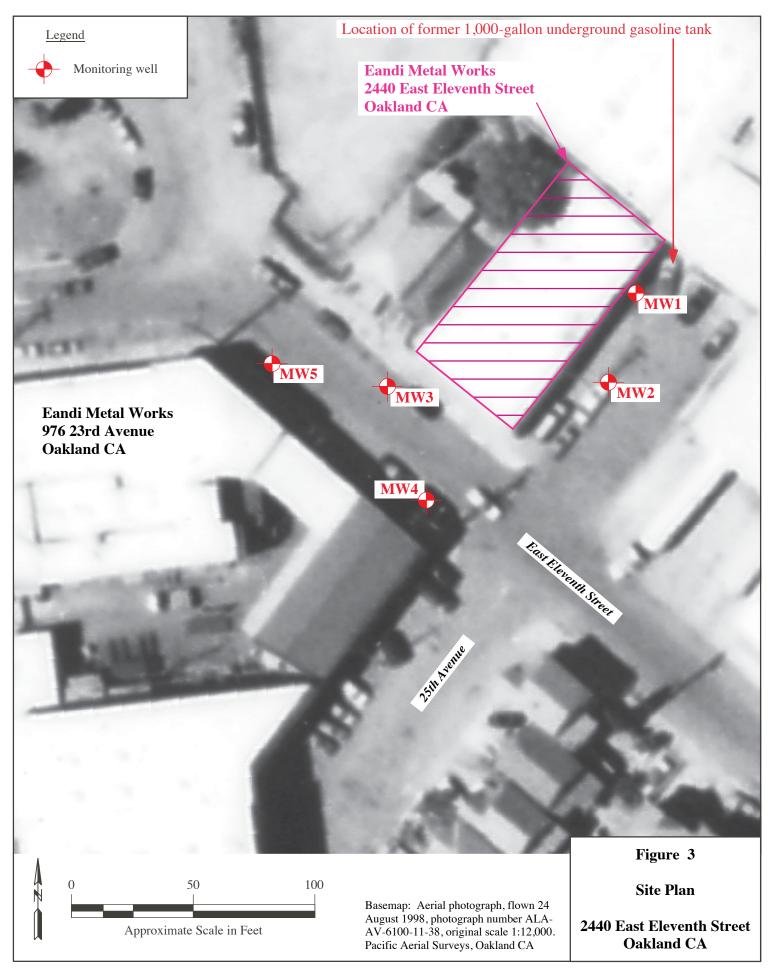




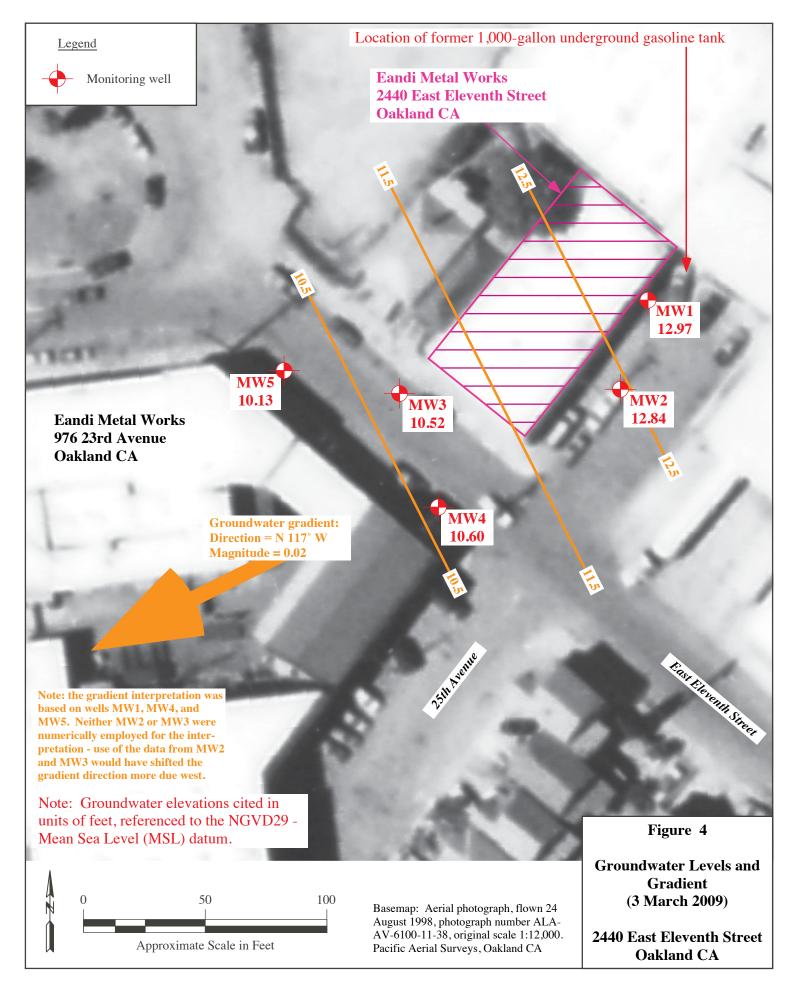












<u>Streamborn</u>

# ATTACHMENT 1

Groundwater Sampling Forms



Project Name/Number:	Eandi Metal Works / P279	Logged By: Darcy Hinkley
Property Location:	2440 East Eleventh Street, Oakland CA	Date: 3 March 2009
Well Number:	MW1	Casing Diameter (in): 2
Purging Equipment:	Submersible purge pump	Sample Type: Grab
Sampling Equipment:	Bailer equipped with bottom-emptying device	Depth to Water: 8.31
Measuring Point:	Top of casing, north side	Total Depth: 19.7
Free Product:	None	Odor: Yes - Stronge
Comments:		Sample Number: MW1

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)
19.7	1000	-	8:31	x	0.16	=	1.8	x 3	5.4

Purge Volume (gallons)	Time	Dissolved Oxygen (mg/L)	рН	Specific Conductivity (µS/cm)	Temp (°C)	ORP (mV)	Turbidity	Color	Purged Dry?	Comments
D	1014	1.03	6.78		14.9	-56.6	clear	None	20	Start purge
2	· 1017	0.76	6.78		15.5	-85.2	clear	None	らく	
4	1032	0.86	6.79		15.4	-66.5	cleas	None	. איז	
<u> </u>	1025	0.31	6.78	477	15.8	- 58.8	clear	None	20	
				- <u></u>	<u> </u>			<u> </u>	·	
								<u> </u>		Collect sample

Project Name/Number:	Eandi Metal Works / P279	Logged By: Darcy Hinkley
Property Location:	2440 East Eleventh Street, Oakland CA	Date: 3 March 2009
Well Number:	MW2	Casing Diameter (in): 2
Purging Equipment:	Submersible purge pump	Sample Type: Grab
Sampling Equipment:	Bailer equipped with bottom-emptying device	Depth to Water: 8.22
Measuring Point:	Top of casing, north side	Total Depth: 19.8
Free Product:	None	Odor: Yes - Strong
Comments:		Sample Number: MW2

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	1	Single Casing Volume (gallons)		Three Casing Volumes (gallons)
19.8	-	8.22	x	0.16	=	1.9	x 3	5.7

Purge Volume (gallons)	Time	Dissolved Oxygen (mg/L)	рН	Specific Conductivity (µS/cm)	Temp (°C)	ORP (mV)	Turbidity	Color	Purged Dry?	Comments
0	1203	0.60	6.82		14.6	-65.4	trans	gray	NO	Start purge
2	1212	0.68	6.79		15.5	-67.9	clear	Done	DO	
4	1215		6.82		15.9	-61,4	Clear	ivone	120	
6	1219	0.86	6.88	689	15.9	-46.5	clear	None	NO	
										Collect sample

Project Name/Number:	Eandi Metal Works / P279	Logged By: Darcy Hinkley	
Property Location:	2440 East Eleventh Street, Oakland CA	Date: 3 March 2009	
Well Number:	MW3	Casing Diameter (in): 2	
Purging Equipment:	Submersible purge pump	Sample Type: Grab	
Sampling Equipment:	Bailer equipped with bottom-emptying device	Depth to Water: 9.30	
Measuring Point:	Top of casing, north side	Total Depth: 19.4	
Free Product:	None	Odor: Nes	
Comments:		Sample Number: MW3	

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	II	Single Casing Volume (gallons)		Thre <mark>e Ca</mark> sing Volumes (gallons)
19-6	-	9.3	x	0.16	=	1.6	x 3	4.8

Purge Volume (gallons)	Time	Dissolved Oxygen (mg/L)	рН	Specific Conductivity (µS/cm)	Temp (°C)	ORP (mV)	Turbidity	Color	Purged Dry?	Comments
0	1057	1.07	6.81		14.Le	-29.3	clear	None	NO	Start purge
2	1059	0.97	6.80		15.9	-36.7	Clear	None	NO	
4	1102	0.75	6.81		16.5	-53.0	Clear	None	NO	
5	1104	0.84	6.81	618	16.7	-46.4	Clear	None	NO	
										Collect sample

Project Name/Number: Eandi Metal Works / P279	Logged By: Darcy Hinkley
Property Location: 2440 East Eleventh Street, Oakland CA	Date: 3 March 2009
Well Number: MW4	Casing Diameter (in): 2
Purging Equipment: Submersible purge pump	Sample Type: Grab
Sampling Equipment: Bailer equipped with bottom-emptying device	Depth to Water: <b>7.98</b>
Measuring Point: Top of casing, north side	Total Depth: パイ.み
Free Product: None	Odor: None
Comments:	Sample Number: MW4

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

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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)
17,2	-	8.98	x	0.16	=	1.3	x 3	3.9

Purge Volume (gallons)	Time	Dissolved Oxygen (mg/L)	pН	Specific Conductivity (µS/cm)	Temp (°C)	ORP (mV)	Turbidity	Color	Purged Dry?	Comments
0	941	2.40	6.59		14.8	263.3	Clear	Nore	60,	Start purge
1.5	944	2.09	6.60		15.1	273.7	Clear	None	04	
3	946	1.94	6.60		15.5	276.0	Clear	None	GU	
4	948	1.96	6.59	590	15.8	2763	Cleas	None	NQ	
						ļ				
									ļ	
							<u> </u>			Collect sample

Project Name/Number:	Eandi Metal Works / P279	Logged By: Darcy Hinkley
Property Location:	2440 East Eleventh Street, Oakland CA	Date: 3 March 2009
Well Number:	MW5	Casing Diameter (in): 2
Purging Equipment:	Submersible purge pump	Sample Type: Grab
Sampling Equipment:	Bailer equipped with bottom-emptying device	Depth to Water: 8.93
Measuring Point:	Top of casing, north side	Total Depth: 17,2
Free Product:	None	Odor: yes
Comments:		Sample Number: MW5

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

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Total Depth (feet)	-	Depth to Water (feet)		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)
17.2	-	8.93	x	0.16	=	1.3	x 3	3.9

Purge Volume (gallons)	Time	Dissolved Oxygen (mg/L)	рН	Specific Conductivity (µS/cm)	Temp (°C)	ORP (mV)	Turbidity	Color	Purged Dry?	Comments
٩	1129	0.90	6.87		15.3	-68.1	Clear	None	6~	Start purge
1.5	1132	0.75	6.88		15.9	-74.9	clear	None	ろつ	
3	1135	0.73	6.88		16.0	-77,2	Clear	None	NO	
4	1137	0.78	6.97	665	16.1	-77.5	Clear	None	NO	
		<u>_</u>							ļ	
						)				Collect sample

# ATTACHMENT 2

Laboratory Reports and Chain-of-Custody Forms





# ANALYTICAL REPORT

Job Number: 720-18374-1 Job Description: 2440 East Eleventh Street

> For: Streamborn 900 Santa Fe Avenue Albany, CA 94706 Attention: Mr. Douglas W Lovell

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Approved for release. Dimple Sharma Project Manager I 4/2/2009 3:25 PM

Designee for Tim Costello

04/02/2009 Revision: 1

#### Comments

No additional comments.

**Receipt** All samples were received in good condition within temperature requirements.

**GC/MS VOA** No analytical or quality issues were noted.

#### **EXECUTIVE SUMMARY - Detections**

Client: Streamborn

Job Number: 720-18374-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-18374-2	MW1				
Benzene		5.2	0.50	ug/L	8260B/CA_LUFTMS
Gasoline Range Or	ganics (GRO)-C5-C12	1600	50	ug/L	8260B/CA_LUFTMS
Toluene		2.1	0.50	ug/L	8260B/CA_LUFTMS
Xylenes, Total		9.7	1.0	ug/L	8260B/CA_LUFTMS
MTBE		0.56	0.50	ug/L	8260B/CA_LUFTMS
Ethylbenzene		68	0.50	ug/L	8260B/CA_LUFTMS
720-18374-3	MW3				
Benzene		14	0.50	ug/L	8260B/CA LUFTMS
	ganics (GRO)-C5-C12	2100	50	ug/L	8260B/CA_LUFTMS
Toluene	gu	1.6	0.50	ug/L	8260B/CA LUFTMS
Xylenes, Total		14	1.0	ug/L	8260B/CA LUFTMS
Ethylbenzene		16	0.50	ug/L	8260B/CA_LUFTMS
720-18374-4	MW5				
Benzene		11	2.5	ug/L	8260B/CA LUFTMS
	ganics (GRO)-C5-C12	2600	250	ug/L	8260B/CA_LUFTMS
Toluene		4.0	2.5	ug/L	8260B/CA LUFTMS
Xylenes, Total		30	5.0	ug/L	8260B/CA_LUFTMS
Ethylbenzene		60	2.5	ug/L	8260B/CA LUFTMS
				~ <u>-</u>	
720-18374-5	MW2				
Gasoline Range Or	ganics (GRO)-C5-C12	3700	50	ug/L	8260B/CA_LUFTMS
Toluene		1.1	0.50	ug/L	8260B/CA_LUFTMS
Xylenes, Total		4.7	1.0	ug/L	8260B/CA LUFTMS

#### **METHOD SUMMARY**

#### Client: Streamborn

#### Job Number: 720-18374-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds by GC/MS	TAL SF	SW846 8260	B/CA_LUFTMS
Purge and Trap	TAL SF		SW846 5030B
Lab References:			

TAL SF = TestAmerica San Francisco

#### **Method References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### SAMPLE SUMMARY

#### Client: Streamborn

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-18374-1	MW4	Water	03/03/2009 0948	03/04/2009 1800
720-18374-2	MW1	Water	03/03/2009 1025	03/04/2009 1800
720-18374-3	MW3	Water	03/03/2009 1104	03/04/2009 1800
720-18374-4	MW5	Water	03/03/2009 1137	03/04/2009 1800
720-18374-5	MW2	Water	03/03/2009 1219	03/04/2009 1800

Client: Stream	born	Job Number: 720-18374-1							
Client Sample ID	): MW4								
Lab Sample ID:	720-18374-1		Date Sampled: 03/03/2009 0948						
Client Matrix:	Water		Date Received: 03/04/2009 1800						
8260B/CA_LUFTMS Volatile Organic Compounds by GC/MS									
Method:	8260B/CA_LUFTMS	Analysis Batch: 720-47422	Instrument ID: Varian 3900A						
Preparation:	5030B		Lab File ID: e:\data\2009\200903\03060						
Dilution:	1.0		Initial Weight/Volume: 10 mL						
Date Analyzed:	03/06/2009 1621		Final Weight/Volume: 10 mL						
Date Prepared:	03/06/2009 1621								
Analyte		Result (ug/L)	Qualifier RL						
Benzene		ND	0.50						
Gasoline Range C	Drganics (GRO)-C5-C12	ND	50						
TAME		ND	0.50						
Ethyl tert-butyl eth	ier	ND	0.50						
Toluene		ND	0.50						
Xylenes, Total		ND	1.0						
MTBE		ND	0.50						
DIPE		ND	1.0						
TBA		ND	5.0						
Ethylbenzene		ND	0.50						
Surrogate		%Rec	Acceptance Limits						
Toluene-d8 (Surr)		93	78 - 112						
1,2-Dichloroethan	ie-d4 (Surr)	95	67 - 126						

Client: Stream	born		Job Number: 720-18374-1
Client Sample ID	: MW1		
Lab Sample ID:	720-18374-2		Date Sampled: 03/03/2009 1025
Client Matrix:	Water		Date Received: 03/04/2009 1800
	8260B/CA_I	_UFTMS Volatile Organic Con	npounds by GC/MS
Method: Preparation: Dilution: Date Analyzed: Date Prepared:	8260B/CA_LUFTMS 5030B 1.0 03/06/2009 1644 03/06/2009 1644	Analysis Batch: 720-47422	Instrument ID: Varian 3900A Lab File ID: e:\data\2009\200903\03060 Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL
Analyte		Result (ug/L)	Qualifier RL
Benzene		5.2	0.50
	Organics (GRO)-C5-C12	1600	50
TAME Ethyl tert-butyl eth	or	ND ND	0.50 0.50
Toluene		2.1	0.50
Xylenes, Total		9.7	1.0
MTBE		0.56	0.50
DIPE		ND	1.0
TBA		ND	5.0
Ethylbenzene		68	0.50
Surrogate		%Rec	Acceptance Limits
Toluene-d8 (Surr)		92	78 - 112
1,2-Dichloroethane-d4 (Surr)		91	67 - 126

## **Analytical Data**

Client: Streamborn Job Number: 720-18374-1					
Client Sample ID	: MW3				
Lab Sample ID: Client Matrix:	720-18374-3 Water		Date Sampled: 03/03/2009 1104 Date Received: 03/04/2009 1800		
	8260B/CA_I	LUFTMS Volatile Organic Con	npounds by GC/MS		
Method: Preparation: Dilution: Date Analyzed: Date Prepared:	8260B/CA_LUFTMS 5030B 1.0 03/06/2009 1706 03/06/2009 1706	Analysis Batch: 720-47422	Instrument ID: Varian 3900A Lab File ID: e:\data\2009\200903\03060 Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL		
Analyte		Result (ug/L)	Qualifier RL		
Benzene		14	0.50		
Gasoline Range O	organics (GRO)-C5-C12	2100	50		
TAME		ND	0.50		
Ethyl tert-butyl eth	er	ND	0.50		
Toluene		1.6	0.50		
Xylenes, Total		14	1.0		
MTBE		ND	0.50		
DIPE		ND	1.0		
TBA		ND	5.0		
Ethylbenzene		16	0.50		
Surrogate		%Rec	Acceptance Limits		
Toluene-d8 (Surr)		94	78 - 112		
1,2-Dichloroethane-d4 (Surr)		99	67 - 126		

Client: Stream	born		Job Number: 720-18374-1
Client Sample ID	): MW5		
Lab Sample ID: Client Matrix:	720-18374-4 Water		Date Sampled: 03/03/2009 1137 Date Received: 03/04/2009 1800
	8260B/CA_	LUFTMS Volatile Organic Con	npounds by GC/MS
Method: Preparation: Dilution: Date Analyzed: Date Prepared:	8260B/CA_LUFTMS 5030B 5.0 03/09/2009 1818 03/09/2009 1818	Analysis Batch: 720-47566	Instrument ID: Varian 3900C Lab File ID: e:\data\200903\030909\sa- Initial Weight/Volume: 40 mL Final Weight/Volume: 40 mL
Analyte		Result (ug/L)	Qualifier RL
Benzene		11	2.5
•	Organics (GRO)-C5-C12	2600	250
TAME		ND	2.5
Ethyl tert-butyl eth Toluene	ier	ND	2.5
Xylenes, Total		4.0 30	2.5 5.0
MTBE		ND	2.5
DIPE		ND	5.0
TBA		ND	25
Ethylbenzene		60	2.5
Surrogate		%Rec	Acceptance Limits
Toluene-d8 (Surr)		97	78 - 112
1,2-Dichloroethane-d4 (Surr)		102	67 - 126

## **Analytical Data**

Client: Stream	born		Job Number: 720-18374-1
Client Sample ID	): MW2		
Lab Sample ID:	720-18374-5		Date Sampled: 03/03/2009 1219
Client Matrix:	Water		Date Received: 03/04/2009 1800
	8260B/CA_I	_UFTMS Volatile Organic Con	npounds by GC/MS
Method: Preparation: Dilution: Date Analyzed: Date Prepared:	8260B/CA_LUFTMS 5030B 1.0 03/06/2009 1751 03/06/2009 1751	Analysis Batch: 720-47422	Instrument ID: Varian 3900A Lab File ID: e:\data\2009\200903\03060 Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL
Analyte		Result (ug/L)	Qualifier RL
Benzene		ND	0.50
•	Organics (GRO)-C5-C12	3700	50
TAME		ND	0.50
Ethyl tert-butyl eth	ier	ND	0.50
Toluene		1.1	0.50
Xylenes, Total		4.7	1.0
MTBE		ND	0.50
DIPE		ND	1.0
ТВА		ND	5.0
Ethylbenzene		ND	0.50
Surrogate		%Rec	Acceptance Limits
Toluene-d8 (Surr)	)	94	78 - 112
1,2-Dichloroethan	ie-d4 (Surr)	85	67 - 126

## **Analytical Data**

#### DATA REPORTING QUALIFIERS

Lab Section

Qualifier

Description

Job Number: 720-18374-1

#### Client: Streamborn

#### **QC Association Summary**

	-				
Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:720-4	7422				
LCS 720-47422/2	Lab Control Spike	Т	Water	8260B/CA_LUFT	
LCSD 720-47422/1	Lab Control Spike Duplicate	Т	Water	8260B/CA_LUFT	
MB 720-47422/3	Method Blank	Т	Water	8260B/CA_LUFT	
720-18374-1	MW4	Т	Water	8260B/CA_LUFT	
720-18374-2	MW1	Т	Water	8260B/CA_LUFT	
720-18374-3	MW3	Т	Water	8260B/CA_LUFT	
720-18374-5	MW2	Т	Water	8260B/CA_LUFT	
Analysis Batch:720-4	7566				
LCS 720-47566/2	Lab Control Spike	Т	Water	8260B/CA_LUFT	
LCSD 720-47566/1	Lab Control Spike Duplicate	Т	Water	8260B/CA_LUFT	
MB 720-47566/3	Method Blank	Т	Water	8260B/CA_LUFT	
720-18374-4	MW5	Т	Water	8260B/CA_LUFT	
720-18374-4MS	Matrix Spike	Т	Water	8260B/CA_LUFT	
720-18374-4MSD	Matrix Spike Duplicate	Т	Water	8260B/CA_LUFT	

Report Basis

T = Total

## **Quality Control Results**

Job Number: 720-18374-1

#### Method: 8260B/CA\_LUFTMS Preparation: 5030B

Instrument ID: Varian 3900A Lab File ID: e:\data\2009\200903\0306( Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Benzene	ND		0.50
Gasoline Range Organics (GRO)-C5-C12	ND		50
TAME	ND		0.50
Ethyl tert-butyl ether	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
MTBE	ND		0.50
DIPE	ND		1.0
ТВА	ND		5.0
Ethylbenzene	ND		0.50
Surrogate	% Rec	Acceptance Limi	ts
Toluene-d8 (Surr)	93	78 - 112	
1,2-Dichloroethane-d4 (Surr)	88	67 - 126	

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Analysis Batch: 720-47422

Prep Batch: N/A

Units: ug/L

#### Method Blank - Batch: 720-47422

Lab Sample ID: MB 720-47422/3

1.0 Date Analyzed: 03/06/2009 0943

Date Prepared: 03/06/2009 0943

Client: Streamborn

Client Matrix: Water

Dilution:

#### **Quality Control Results**

Job Number: 720-18374-1

## Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch:

Client: Streamborn

	Method: 8260B/CA_LUFTMS
Recovery Report - Batch: 720-47422	Preparation: 5030B

LCS Lab Sample I Client Matrix: Dilution: Date Analyzed: Date Prepared:	D: LCS 720-47422/2 Water 1.0 03/06/2009 1019 03/06/2009 1019	Analysis Prep Bat Units: u	ch: N/A	720-47422	Lab Initi		me: 10	200903\0306( mL mL
LCSD Lab Sample Client Matrix: Dilution: Date Analyzed: Date Prepared:	e ID: LCSD 720-47422/1 Water 1.0 03/06/2009 1042 03/06/2009 1042	Analysis Prep Bat Units: u	ch: N/A	720-47422	Lab		me: 10 m	00903\03060§ L
Analyte		<u>% R</u> LCS	<u>lec.</u> LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene		83	86	74 - 112	3	20		
		62 71	67 73	42 - 80 65 - 98	8 4	20 20		
IUIUEIIE		11	15	00 - 90	4	20		

MTBE	79	85	69 - 104 7	20
Surrogate		LCS % Rec	LCSD % Rec	Acceptance Limits
Toluene-d8 (Surr)		92	93	78 - 112
1,2-Dichloroethane-d4 (Surr)		89	96	67 - 126

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Job Number: 720-18374-1

#### Method: 8260B/CA\_LUFTMS Preparation: 5030B

Instrument ID: Varian 3900C Lab File ID: e:\data\200903\030909\mb Initial Weight/Volume: 40 mL Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Benzene	ND		0.50
Gasoline Range Organics (GRO)-C5-C12	ND		50
TAME	ND		0.50
Ethyl tert-butyl ether	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
MTBE	ND		0.50
DIPE	ND		1.0
ТВА	ND		5.0
Ethylbenzene	ND		0.50
Surrogate	% Rec	Acceptance Lin	nits
Toluene-d8 (Surr)	97	78 - 112	
1,2-Dichloroethane-d4 (Surr)	99	67 - 126	

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Analysis Batch: 720-47566

Prep Batch: N/A

Units: ug/L

Lab Sample ID: MB 720-47566/3

1.0 Date Analyzed: 03/09/2009 1013

Date Prepared: 03/09/2009 1013

Method Blank - Batch: 720-47566

#### Client: Streamborn

Client Matrix: Water

Dilution:

**Quality Control Results** 

#### **Quality Control Results**

Method: 8260B/CA\_LUFTMS

Preparation: 5030B

Instrument ID: Varian 3900C

Job Number: 720-18374-1

#### Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-47566

Client: Streamborn

LCS Lab Sample ID: LCS 720-47566/2

Client Matrix: Dilution: Date Analyzed: Date Prepared:	Water 1.0 03/09/2009 1114 03/09/2009 1114	Prep Batch: N/A Units: ug/L	Lab File ID: e:\data\200903\030909\ls-v Initial Weight/Volume: 40 mL Final Weight/Volume: 40 mL		
LCSD Lab Sample ID: LCSD 720-47566/1Client Matrix:WaterDilution:1.0Date Analyzed:03/09/2009 1140Date Prepared:03/09/2009 1140		Analysis Batch: 720-47566 Prep Batch: N/A Units: ug/L	Instrument ID: Varian 3900C Lab File ID: e:\data\200903\030909\ld-wa Initial Weight/Volume: 40 mL Final Weight/Volume: 40 mL		
Analyte		<u>% Rec.</u> LCS LCSD Limit	RPD RPD Limit LCS Qual LCSD Qual		

Analysis Batch: 720-47566

Analyte	LUS	LCSD	Limit	RPD	RPD LIMIC LCS QUAL LCSD QUAL
Benzene	87	84	74 - 112	3	20
Gasoline Range Organics (GRO)-C5-C12	58	61	42 - 80	6	20
Toluene	84	80	65 - 98	5	20
MTBE	83	81	69 - 104	3	20
Surrogate		LCS % Rec	LCSD %	Rec	Acceptance Limits
Toluene-d8 (Surr)		100	95		78 - 112
1,2-Dichloroethane-d4 (Surr)		93	98		67 - 126

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## **Quality Control Results**

Job Number: 720-18374-1

# Method: 8260B/CA\_LUFTMS Preparation: 5030B

MS Lab Sample ID: Client Matrix: Dilution: Date Analyzed: Date Prepared:	720-18374-4 Water 5.0 03/09/2009 1517 03/09/2009 1517	Analysis Batch: Prep Batch: N/A	Instrument ID: Varian 3900C Lab File ID: e:\data\200903\030909\sa Initial Weight/Volume: 40 mL Final Weight/Volume: 40 mL
MSD Lab Sample ID: Client Matrix: Dilution: Date Analyzed: Date Prepared:	720-18374-4 Water 5.0 03/09/2009 1451 03/09/2009 1451	Analysis Batch: Prep Batch: N/A	Instrument ID: Varian 3900C Lab File ID: e:\data\200903\030909\sa- Initial Weight/Volume: 40 mL Final Weight/Volume: 40 mL

	<u>%</u>	Rec.							
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual MSD Qual			
Benzene	98	88	58 - 134	7	20				
Gasoline Range Organics (GRO)-C5-C12	66	50	43 - 95	15	20				
Toluene	91	79	72 - 129	14	20				
МТВЕ	86	77	22 - 185	10	20				
Surrogate	MS % Rec	MSD 9	% Rec	Acceptance Limits					
Toluene-d8 (Surr)		106	98		78 - 112				
1,2-Dichloroethane-d4 (Surr)		94	96		67	7 - 126			

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#### Client: Streamborn

Matrix Spike Duplicate Recovery Report - Batch: 720-47566

Matrix Spike/

#### STREAMBORN.

720-18374

Chain-of-Custody Form

114885

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 Project Name: 2440 East Eleventh Street
 Project Location: 2440 East Eleventh Street, Oakland CA
 Project Number: P279

 Sampler, Darcy Hinkley
 Laboratory: TestAmerica
 Laboratory Number: 408-782-8126

	i		N	vlatr	ix	13	vpc		Containers			Tu	ការពា	яınd		Analy	ses			
Sample Designation	Date	lime	Soil	Water	Vapor	Grab	Composite	Quantity	Type	Preservative (in addition to ice)	Field Filtration	48-Hour	5- Working Days	10-Working Days		TPH-gasoline/ BTEX/fuel oxgenates (EPA 8260)			Sampler Comments	Laboratory Comments
		0/10															Ĺ			
MW4	3-Mar-09	948	-1	x		x		3	40 mL VOA	RCI	None		<u> </u>	x		x				
MWI	3. Mar-to)	1025		Ň		×		5	40 ml. ∀OA	lici	None		[ [	x						
MW3	<b>3</b> -Mar-09	1104		x		x		3	40 ml. VOA	HCI .	None			x		x		 		
MW5	3-Mar-09	1137		×		x		ż	40 ml. VOA	1101	None			x	,					
MW2	<b>3</b> -Mar-09	1219		x	···-+	N		3	40 mL VOA	BCI	None			x		x		 		
			_											_						

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

.1 Relinquished By: Received By: -.... Date:∠ Time: KJO 14. Relinquished By: ¢., Received By: Date: 1500 Time: 18:0

STREAMBORN Mail: PO Box 8330, Berkeley CA 94707-8330 Office: 900 Santa Fe Ave, Albany CA 94706 510-528-4234 Fax: 528-2613

Report results to information distreamborn.com

Prepare EDF for Geotracker Upload? Yes Streamborn Logcode: SBA Global ID: T0600100858

1.9%

#### Client: Streamborn

#### Login Number: 18374 Creator: Bullock, Tracy List Number: 1

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

Job Number: 720-18374-1

List Source: TestAmerica San Francisco