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By Alameda County Environmental Health at 1:30 pm, Apr 01, 2013



29 March 2013

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

Tesoro Environmental Resource Company  
3450 South 344th Way, Suite 201  
Auburn, WA 98001-5931  
253 896 8700 Phone  
253 896 8863 Fax

**Subject:** Report Submittal  
**44 Lewelling Boulevard, San Lorenzo, California**  
**Tesoro No. 67107 (Former Beacon 3721); ACEH Case No. RO0498**

Dear Mr. Wickham:

Enclosed please find a copy of the requested reports requested in your letter dated 31 December 2012 for the subject site located at 44 Lewelling Boulevard in San Lorenzo, California. The following reports are being submitted by Arctos Environmental on behalf of Tesoro Environmental Resources Company:

- Second Quarter 2011 Semiannual Groundwater Monitoring Report
- Fourth Quarter 2011 Semiannual Groundwater Monitoring Report
- Second Quarter 2012 Semiannual Groundwater Monitoring Report
- Request for Closure and Fourth Quarter 2012 Groundwater Monitoring Report

Based on my inquiry of the person or persons directly responsible for gathering the information contained in this report, I believe the information was prepared by qualified personnel who properly gathered and evaluated the information, and that the information submitted is, to the best of my knowledge and belief, true, correct, and complete. Please feel free to call me at 253/896-8700 or Michael Purchase of Arctos Environmental at 510/525-2180 with questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jeffrey M. Baker".

Jeffrey M. Baker, P.E.  
Supervisor, Environmental  
Compliance & Remediation  
Tesoro Companies, Inc.

Attachments

CC: Arctos – Michael Purchase



Arctos Environmental  
 1332 Peralta Avenue                    510 525-2180 PHONE  
Berkeley, CA 94702                    510 525-2392 FAX

*Main Office*  
 3450 E. Spring St., Suite 212            562 988-2755 PHONE  
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15 July 2011  
Project No. 01ZO

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

**Subject: Second Quarter 2011 Semiannual Groundwater Monitoring Report  
44 Lewelling Boulevard, San Lorenzo, California  
Tesoro No. 67107 (Former Beacon 3721); ACEH Case No. RO0498**

Dear Mr. Wickham:

Arctos Environmental (Arctos), on behalf of Tesoro Environmental Resources Company (Tesoro), has prepared this letter report summarizing project activities for the second quarter 2011 at the subject site (Figure 1).

### **Executive Summary**

Arctos conducted semiannual groundwater monitoring on 4 and 5 April 2011 as approved by Alameda County Environmental Health (ACEH) in a letter dated 28 April 2011. Total petroleum hydrocarbons as gasoline (TPHg), benzene, and methyl tert-butyl ether (MTBE) concentrations continue to show decreasing concentrations for both onsite and offsite wells. Offsite benzene and MTBE concentrations have remained below the Environmental Screening Levels (ESLs) during the last 6 quarters of monitoring. A comparison of current and historical maximum hydrocarbon concentrations show a decrease of 95 to 100 percent on site and 86 to 100 percent off site.

Based on the monitoring results and significant concentration decreases, Arctos stopped oxygen injection on 15 May 2011. The ACEH approved stopping injection in the letter dated 28 April 2011.

### **Site Background**

A site background, which summarizes regional and site geology and hydrogeology and previous investigation and remediation, can be viewed at the project internet web site at

[https://portal.haleyaldrich.com/sites/ext/San\\_Lorenzo](https://portal.haleyaldrich.com/sites/ext/San_Lorenzo) with a username and password provided by Tesoro.

## Field Activities

Arctos's subcontractor, Confluence Environmental, Inc. (Confluence), of Sacramento, California, performed the annual groundwater monitoring event on 4 and 5 April 2011. Samples were collected from wells MW-1, MW-2, MW-3R, MW-4, MW-6, MW-7, MW-10 through MW-12, RW-1, RW-2, and PT-1 (Figure 2). Groundwater monitoring was performed in accordance with the approved monitoring plan, Regional Water Quality Control Board guidelines, and the quality assurance/quality control (QA/QC) procedures in Attachment A. Field data sheets are in Attachment B.

## Analytical Program

The groundwater samples were analyzed in accordance with the analytical plan in Attachment A.

## Groundwater Results

Groundwater elevations were recorded at approximately 31.0 to 32.9 feet above mean sea level (12.0 to 16.7 feet below ground surface; Table 1). Water elevations increased between 1.3 and 2.1 feet since January 2011. Water elevations were at their seasonally high levels in April 2011 and the highest reported in 5 years. Seasonally high water levels were last recorded at the current high elevations in April 2006.

Water level data indicated that the general direction of water flow was toward the southwest with an estimated gradient of 0.007 (1 foot/140 feet; Figure 2). April 2011 groundwater elevations and gradient were generally consistent with historical data (Attachment C).

The highest TPHg concentration of 4,000 micrograms per liter ( $\mu\text{g/l}$ ) was at offsite well MW-10. Well MW-3R had the highest onsite TPHg and MTBE concentrations of 980 and 14  $\mu\text{g/l}$ , respectively. Only onsite wells MW-3R and RW-1 had benzene concentrations (71 and 26  $\mu\text{g/l}$ , respectively) above the ESL of 1  $\mu\text{g/l}$ . Benzene, MTBE, and tert-butyl alcohol (TBA) were below the ESLs for offsite wells during the semiannual monitoring event and have been since July 2009.

The following table summarizes TPHg, benzene, and MTBE concentrations for onsite well MW-3R and offsite well MW-10 for the current period and previous monitoring period when water elevations were at their current levels (April 2006).

Well	Sample Date	TPHg ( $\mu\text{g/l}$ )	Benzene ( $\mu\text{g/l}$ )	MTBE ( $\mu\text{g/l}$ )
MW-3R	4/28/06	8,200	510	81
	4/6/11	980	71	14
MW-10	4/28/06	5,800	3.1	38
	4/5/11	4,000	ND <sup>(a)</sup>	1.7

(a) Not detected

Groundwater analytical results are summarized in Table 2. Figures 3, 4, and 5 show isoconcentration contours for TPHg, benzene, and MTBE, respectively. Figures 6A through 6G illustrate the change in groundwater quality with time for TPHg, benzene, and MTBE at wells MW-1, MW-3R, RW-1, RW-2, PT-1, MW-10, and MW-11. Historical analytical results are in Attachment D and the laboratory reports and chain-of-custody forms are in Attachment E.

#### Trend Analysis

Trend analysis results show decreasing trends for TPHg, benzene, and MTBE for the seven wells with concentrations above the ESLs, except for MTBE at well PT-1. PT-1 shows a stable trend for MTBE over the past 12 monitoring events (since September 2008) with concentrations steadily decreasing since February 2010. Both offsite wells MW-10 and MW-11 show decreasing trends for TPHg, the only petroleum hydrocarbon above the ESL off site. Trend analysis procedures and results are summarized in Attachment F.

#### **Oxygen Injection Status**

The operation of the oxygen injection system was stopped on 15 May 2011 after approval from ACEH in a letter dated 28 April 2011. Arctos recommended stopping oxygen injection in the first quarter 2011 status report based on (1) significantly reduced concentrations at and downgradient of the site, (2) decreasing concentrations trends, and (3) limited effectiveness of oxygen injection.

#### **Conclusions and Recommendations**

Results of the groundwater sampling indicate the following conclusions:

- Offsite benzene and MTBE concentrations have remained below ESLs since the third quarter 2006 and second quarter 2009 sampling events, respectively

Jerry Wickham  
Alameda County Environmental Health  
15 July 2011  
Page 4

ARCTOS

- Petroleum hydrocarbon compounds show statistically decreasing or stable trends for wells above the ESLs with reductions from 95 to 100 percent on site and 86 to 100 percent off site

Arctos recommends continuing semiannual groundwater sampling to confirm decreasing groundwater concentrations before evaluating the site for closure.

If you have questions or comments, please call Mike Purchase at 510/525-2180 or Jeff Gwinn at 562/988-2755.

Very truly yours,

**ARCTOS ENVIRONMENTAL**



Michael P. Purchase, P.E.  
Senior Project Manager



Jeffrey P. Gwinn, P.E.  
Vice President

Copy: Jeffrey M. Baker – Tesoro Companies, Inc.

Attachments: Table 1 – Well and Groundwater Elevations  
Table 2 – Groundwater Monitoring Analytical Results  
Figure 1 – Site Location Map  
Figure 2 – Site Plan  
Figure 3 – TPHg Concentration Contours in Groundwater  
Figure 4 – Benzene Concentration Contours in Groundwater  
Figure 5 – MTBE Concentration Contour in Groundwater  
Figures 6A through 6G – TPHg, Benzene, and MTBE Concentrations with Groundwater Elevations for Wells MW-1, MW-3R, RW-1, RW-2, PT-1, MW-10, and MW-11  
Attachment A – Groundwater Sampling QA/QC Procedures  
Attachment B – Field Data Sheets  
Attachment C – Historical Groundwater Elevations  
Attachment D – Historical Groundwater Analytical Results  
Attachment E – Laboratory Analytical Report and Chain-of-Custody Form  
Attachment F – Trend Analysis  
Attachment G – Waste Manifests

**TABLE 1**  
**WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-1	4/13/10	14.68	46.36	31.68
	7/6/10	15.82		30.54
	10/27/10	17.03		29.33
	1/25/11	15.61		30.75
	4/5/11	13.96		32.40
MW-2	4/13/10	13.55	45.61	32.06
	7/6/10	14.96		30.65
	10/27/10	16.18		29.43
	1/25/11	14.73		30.88
	4/5/11	12.85		32.76
MW-3R	4/13/10	13.50	45.16	31.66
	7/6/10	14.70		30.46
	10/27/10	15.90		29.26
	1/25/11	14.50		30.66
	4/5/11	12.72		32.44
MW-4	4/13/10	15.80	47.36	31.56
	7/6/10	16.82		30.54
	10/27/10	18.02		29.34
	1/25/11	16.64		30.72
	4/5/11	14.95		32.41
MW-5	4/13/10	14.60	46.50	31.90
	7/6/10	15.83		30.67
	10/27/10	17.08		29.42
	1/25/11	15.56		30.94
	4/5/11	13.84		32.66
MW-6	4/13/10	9.57	45.17	35.60
	7/6/10	14.50		30.67
	10/27/10	15.78		29.39
	1/25/11	14.19		30.98
	4/5/11	12.25		32.92

**TABLE 1**  
**WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-7	4/13/10	17.70	44.24	26.54
	7/6/10	14.00		30.24
	10/27/10	15.21		29.03
	1/25/11	13.81		30.43
	4/5/11	11.96		32.28
MW-8	4/13/10	13.87	44.95	31.08
	7/6/10	15.00		29.95
	10/27/10	16.20		28.75
	1/25/11	15.15		29.80
	4/5/11	13.02		31.93
MW-9	4/13/10	16.20	47.65	31.45
	7/6/10	17.20		30.45
	10/27/10	18.40		29.25
	1/25/11	17.00		30.65
	4/5/11	15.50		32.15
MW-10	4/13/10	14.08	45.04	30.96
	7/6/10	15.05		29.99
	10/27/10	16.20		28.84
	1/25/11	14.90		30.14
	4/5/11	13.40		31.64
MW-11	4/13/10	17.24	47.69	30.45
	7/6/10	18.05		29.64
	10/27/10	19.10		28.59
	1/25/11	17.92		29.77
	4/5/11	16.67		31.02
MW-12	4/13/10	16.28	47.27	30.99
	7/6/10	17.19		30.08
	10/27/10	18.30		28.97
	1/25/11	17.05		30.22
	4/5/11	15.60		31.67
RW-1	4/13/10	14.30	45.86	31.56
	7/6/10	15.48		30.38
	10/27/10	16.70		29.16

**TABLE 1**  
**WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
RW-1	1/25/11	15.25	45.86	30.61
(cont.)	4/5/11	13.43		32.43
RW-2	4/13/10	14.90	46.40	31.50
	7/6/10	15.95		30.45
	10/27/10	17.17		29.23
	1/25/11	15.74		30.66
	4/5/11	14.13		32.27
OS-1	1/25/11	16.53	47.19	30.66
OS-2	1/25/11	16.15	46.79	30.64
OS-3	1/25/11	14.94	45.68	30.74
OS-4	1/25/11	15.34	46.02	30.68
PT-1	7/6/10	16.10	46.48	30.38
	10/27/10	17.27		29.21
	1/25/11	15.85		30.63
	4/5/11	14.20		32.28

(a) Elevation of PVC well casting (north edge) surveyed relative to mean sea level (MSL).

Wells were surveyed by Cross Land Surveying, Inc., per AB 2886 requirements on 26 September 2008.

(b) Difference between "PVC Casing Elevation" and "Depth to Water."

**TABLE 2**  
**GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> ( $\mu\text{g/l}$ )	Benzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Toluene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Ethylbenzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Total Xylenes <sup>(b)</sup> ( $\mu\text{g/l}$ )	MTBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	DIPE <sup>(b)</sup> ( $\mu\text{g/l}$ )	ETBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	TAME <sup>(b)</sup> ( $\mu\text{g/l}$ )	TBA <sup>(b)</sup> ( $\mu\text{g/l}$ )
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-1	4/13/10	ND<50 <sup>(e)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4.9	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/6/10	160	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.1	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/27/10	200	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4.7	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/25/11	140	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.8	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/5/11	63	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.59	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-2	4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/6/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/27/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/25/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/5/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-3R	4/14/10	840	81	1.4	62	22	16	ND<0.5	ND<0.5	ND<0.5	16
	7/7/10	570	59	0.94	21	6.0	13	ND<0.5	ND<0.5	ND<0.5	16
	10/27/10	420	24	0.56	2.1	0.83	12	ND<0.5	ND<0.5	ND<0.5	14
	1/25/11	1,100	64	1.1	40	9.4	9.8	ND<0.5	ND<0.5	ND<0.5	14
	4/6/11	980	71	1.2	43	14	14	ND<0.5	ND<0.5	ND<0.5	11
MW-4	4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/6/10	ND<50	ND<0.5	ND<0.5	0.62	0.83	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/27/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.65	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/25/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/5/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-5	4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/27/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-6	4/14/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/6/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/27/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.64	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/25/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/6/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-7	4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/27/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/5/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-8	4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/27/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-9	4/14/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/27/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/25/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-10	4/14/10	4,300	ND<0.5	ND<0.5	24	6.9	0.80	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/7/10	3,600	ND<0.5	ND<0.5	2.0	9.1	1.8	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/27/10	2,900	ND<0.5	ND<0.5	ND<0.5	2.0	0.88	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/25/11	3,500	ND<0.5	ND<0.5	1.6	2.1	0.59	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/5/11	4,000	ND<0.5	0.55	34	11	1.7	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-11	4/14/10	260	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.77	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/7/10	400	ND<0.5	ND<0.5	ND<0.5	0.80	1.9	ND<0.5	ND<0.5	ND<0.5	ND<5

**TABLE 2**  
**GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> ( $\mu\text{g/l}$ )	Benzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Toluene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Ethylbenzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Total Xylenes <sup>(b)</sup> ( $\mu\text{g/l}$ )	MTBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	DIPE <sup>(b)</sup> ( $\mu\text{g/l}$ )	ETBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	TAME <sup>(b)</sup> ( $\mu\text{g/l}$ )	TBA <sup>(b)</sup> ( $\mu\text{g/l}$ )
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-11 (cont.)	10/27/10	130	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.74	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/25/11	240	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.77	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/5/11	250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.2	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-12	4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/27/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/25/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/5/11	53	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
RW-1	4/13/10	ND<50	4.2	ND<0.5	4.8	1.1	9.7	ND<0.5	ND<0.5	ND<0.5	7.5
	7/6/10	ND<50	0.82	ND<0.5	ND<0.5	ND<0.5	8.0	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/28/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.4	ND<0.5	ND<0.5	ND<0.5	6.6
	1/25/11	230	17	ND<0.5	1.2	ND<0.5	9.6	ND<0.5	ND<0.5	ND<0.5	9.3
	4/5/11	410	26	0.52	7.6	3.9	8.3	ND<0.5	ND<0.5	ND<0.5	8.1
RW-2	4/14/10	390	ND<0.5	ND<0.5	ND<0.5	1.1	0.97	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/7/10	380	ND<0.5	ND<0.5	ND<0.5	0.79	0.82	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/28/10	220	ND<0.5	ND<0.5	ND<0.5	0.67	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/25/11	460	ND<0.5	ND<0.5	ND<0.5	0.70	0.52	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/6/11	280	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
OS-1	1/25/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
OS-2	1/25/11	1,200	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.2	ND<0.5	ND<0.5	ND<0.5	ND<5
OS-3	1/25/11	140	13	ND<0.5	3.1	0.64	25	ND<0.5	ND<0.5	ND<0.5	6.7
OS-4	1/25/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.8	ND<0.5	ND<0.5	ND<0.5	ND<5
PT-1	4/14/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	13	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/6/10	61	ND<0.5	ND<0.5	ND<0.5	ND<0.5	8.2	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/28/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	9.4	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/25/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.3	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/6/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.4	ND<0.5	ND<0.5	ND<0.5	ND<5

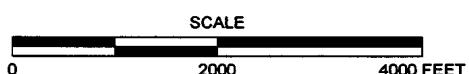
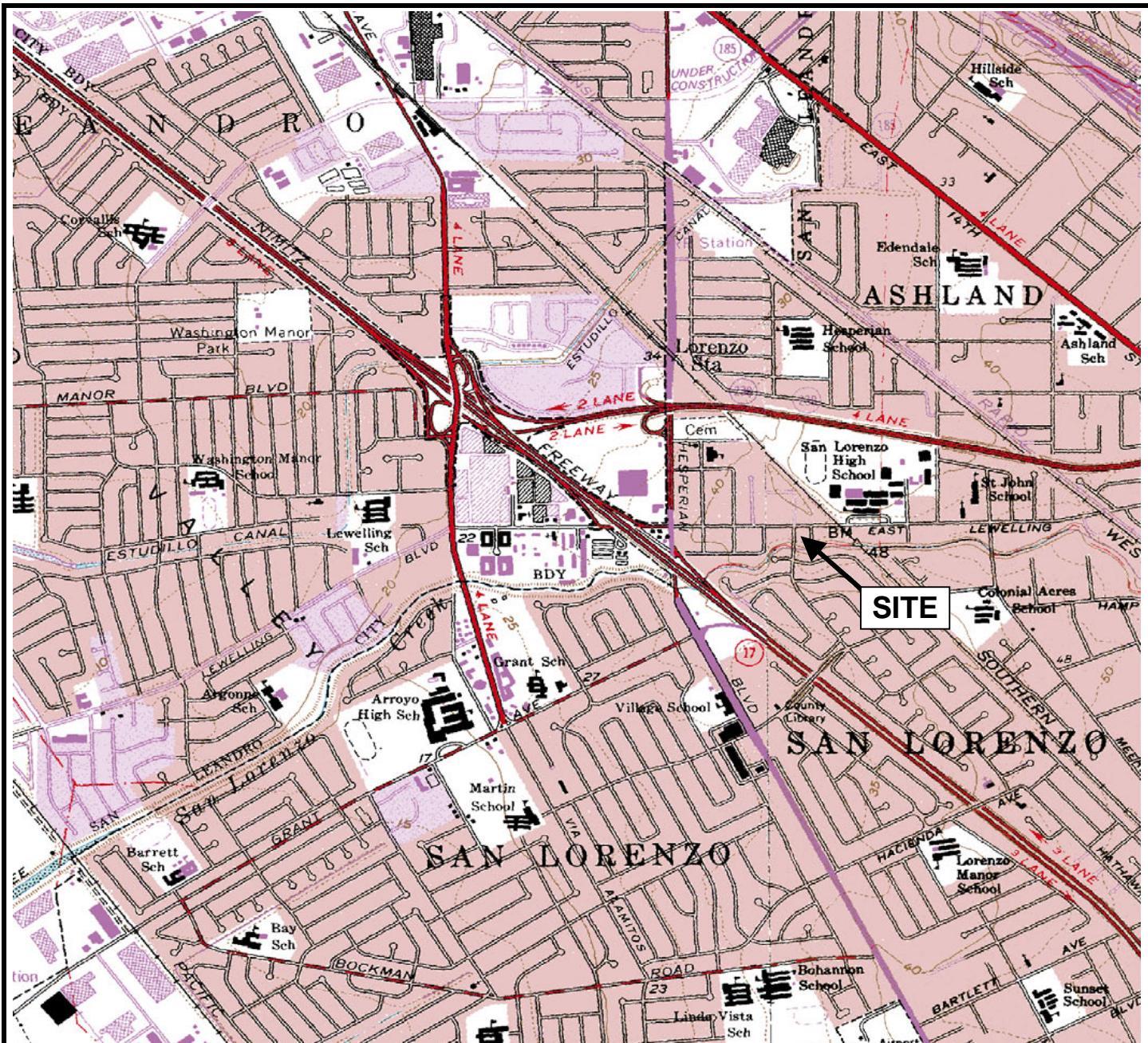
(a) Samples collected before January 2008 reported by others; data provided by RDM Environmental, Inc. (RDM), Fourth Quarter 2007 Groundwater Monitoring Report.

(b) Total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes, methyl tert-butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), tert-amyl methyl ether (TAME), tert-butyl alcohol (TBA), analyzed by EPA Method 8260; reported in micrograms per liter ( $\mu\text{g/l}$ ).

(c) Environmental Screening Levels (ESLs) taken from Regional Water Quality Control Board, San Francisco Bay Region, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Volume 1: Summary Tier 1 Lookup tables dated November 2007.

(d) NE - Not established.

(e) ND - Not detected at the reporting limit listed.



#### REFERENCE

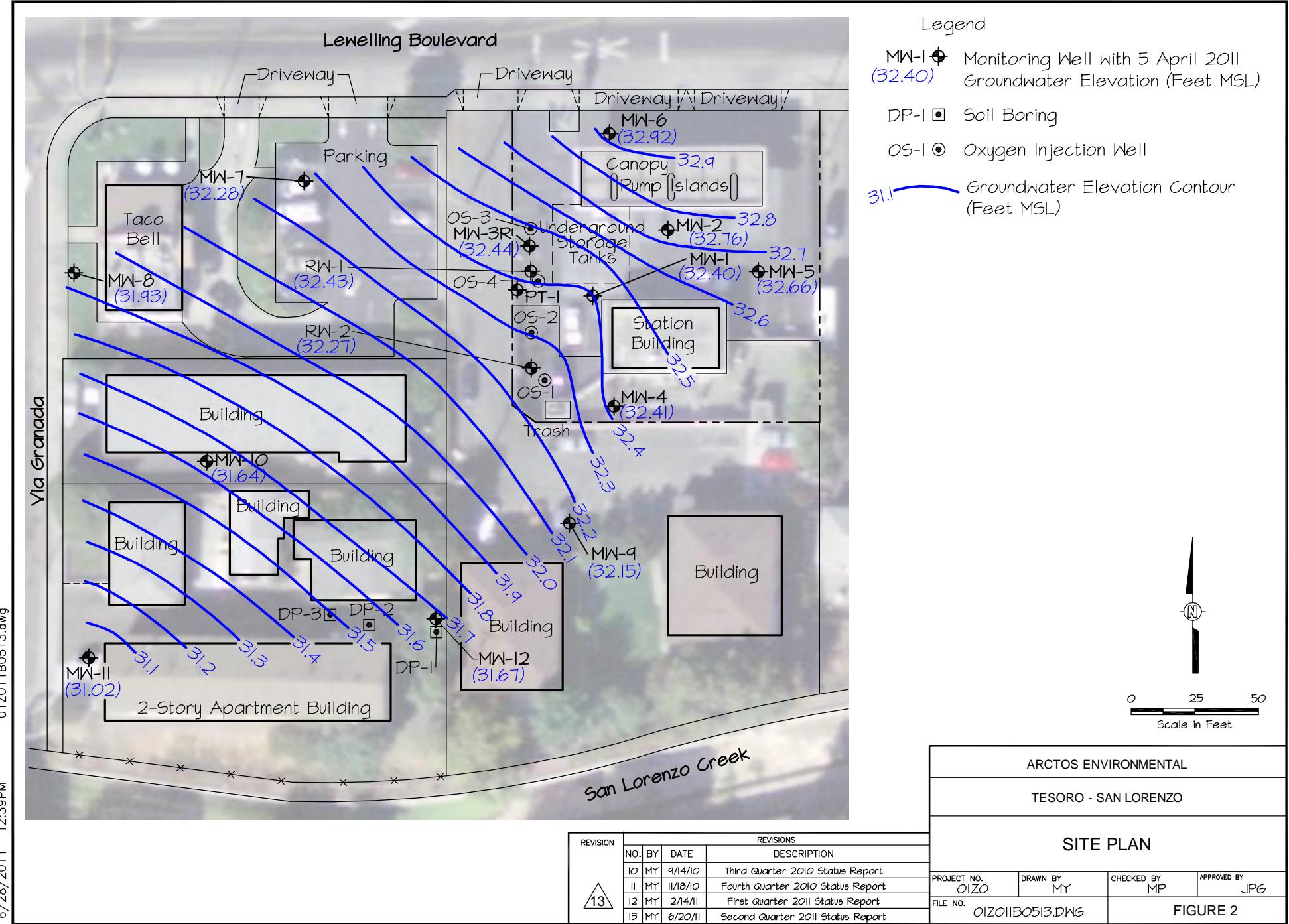
7.5 MINUTE USGS TOPOGRAPHIC MAPS OF  
SAN LEANDRO AND HAYWARD, CALIFORNIA QUADRANGLES  
DATE: 1959, PHOTOREVISED 1980  
SCALE = 1:24,000

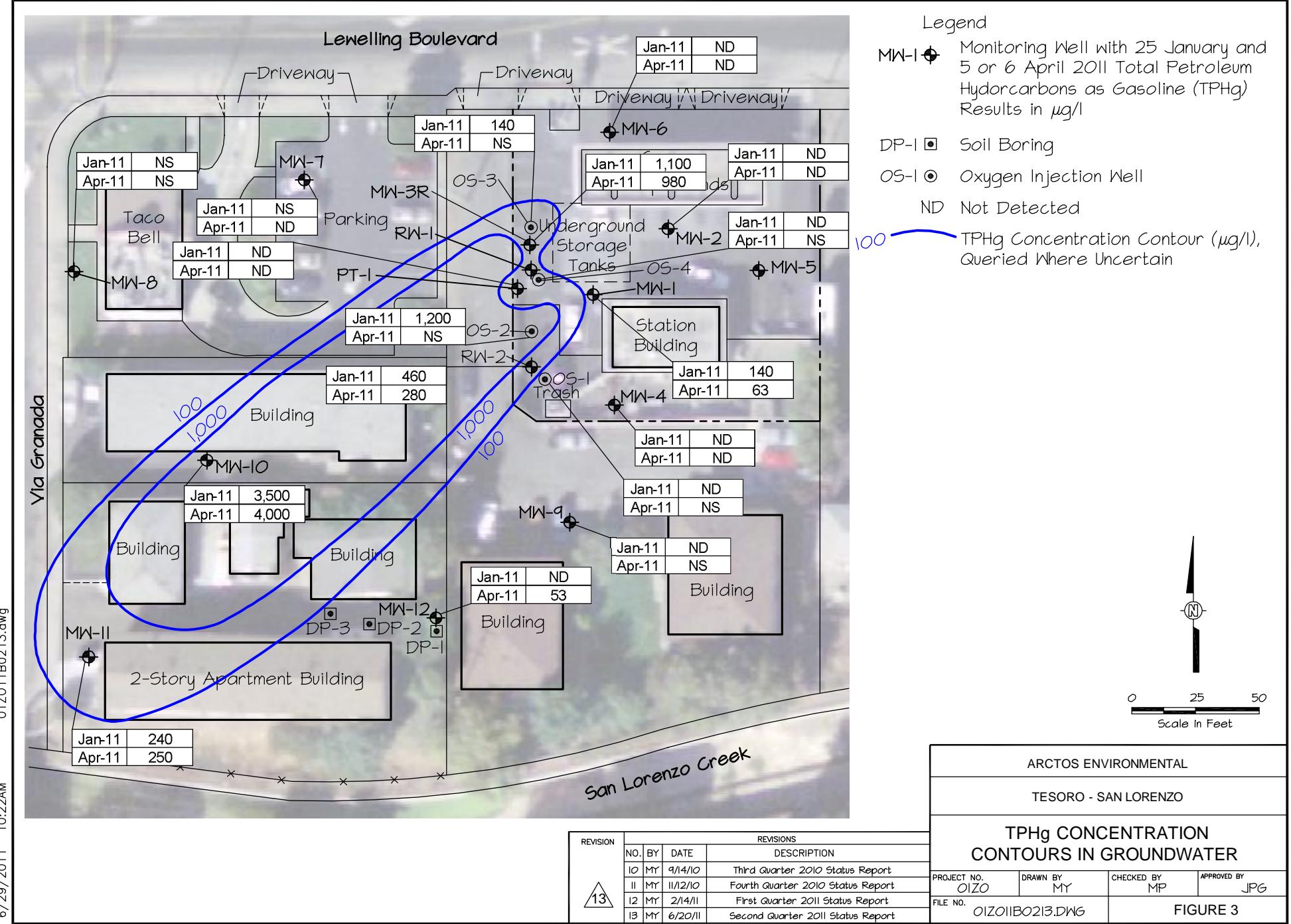
ARCTOS ENVIRONMENTAL

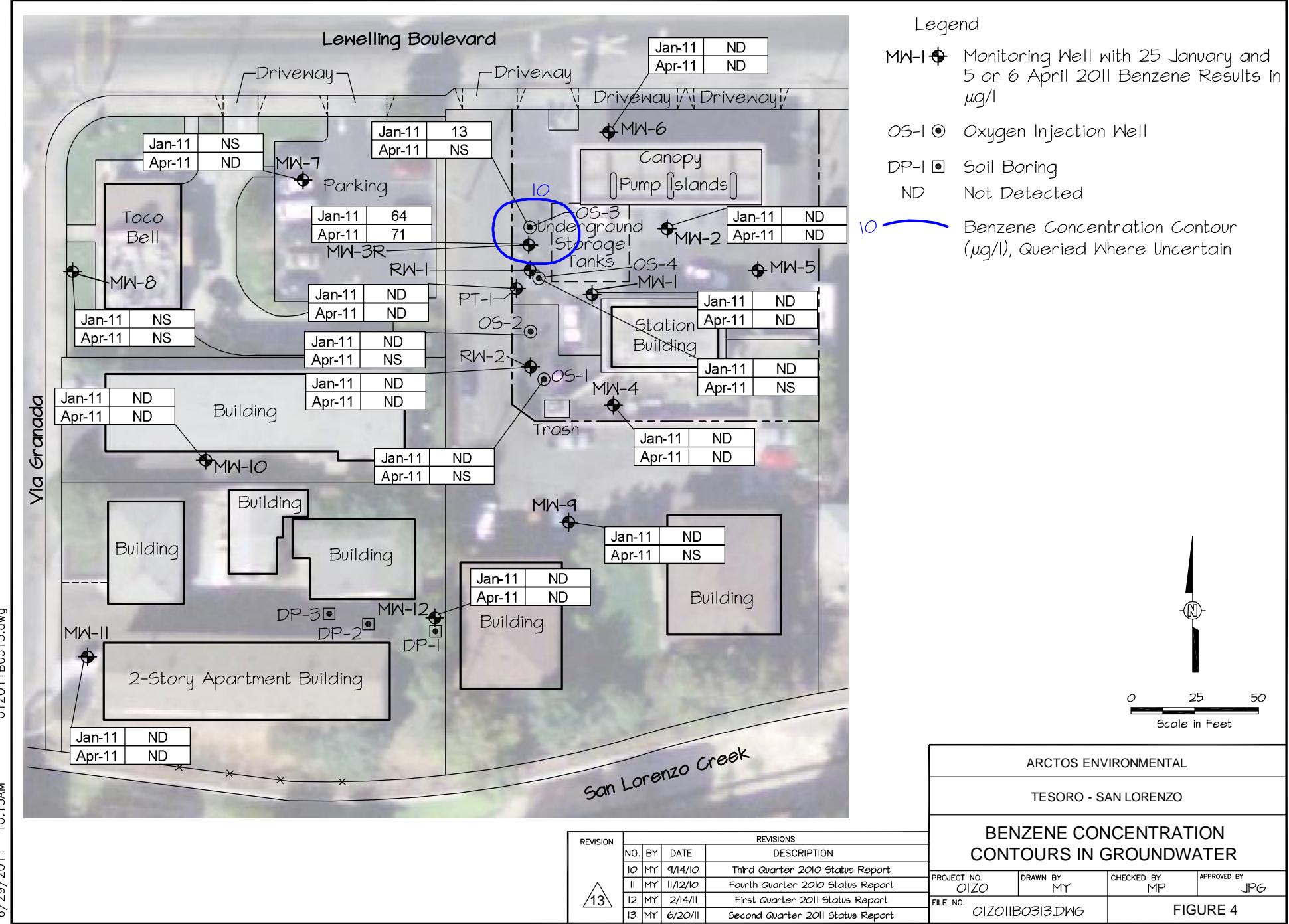
TESORO - SAN LORENZO, 67107

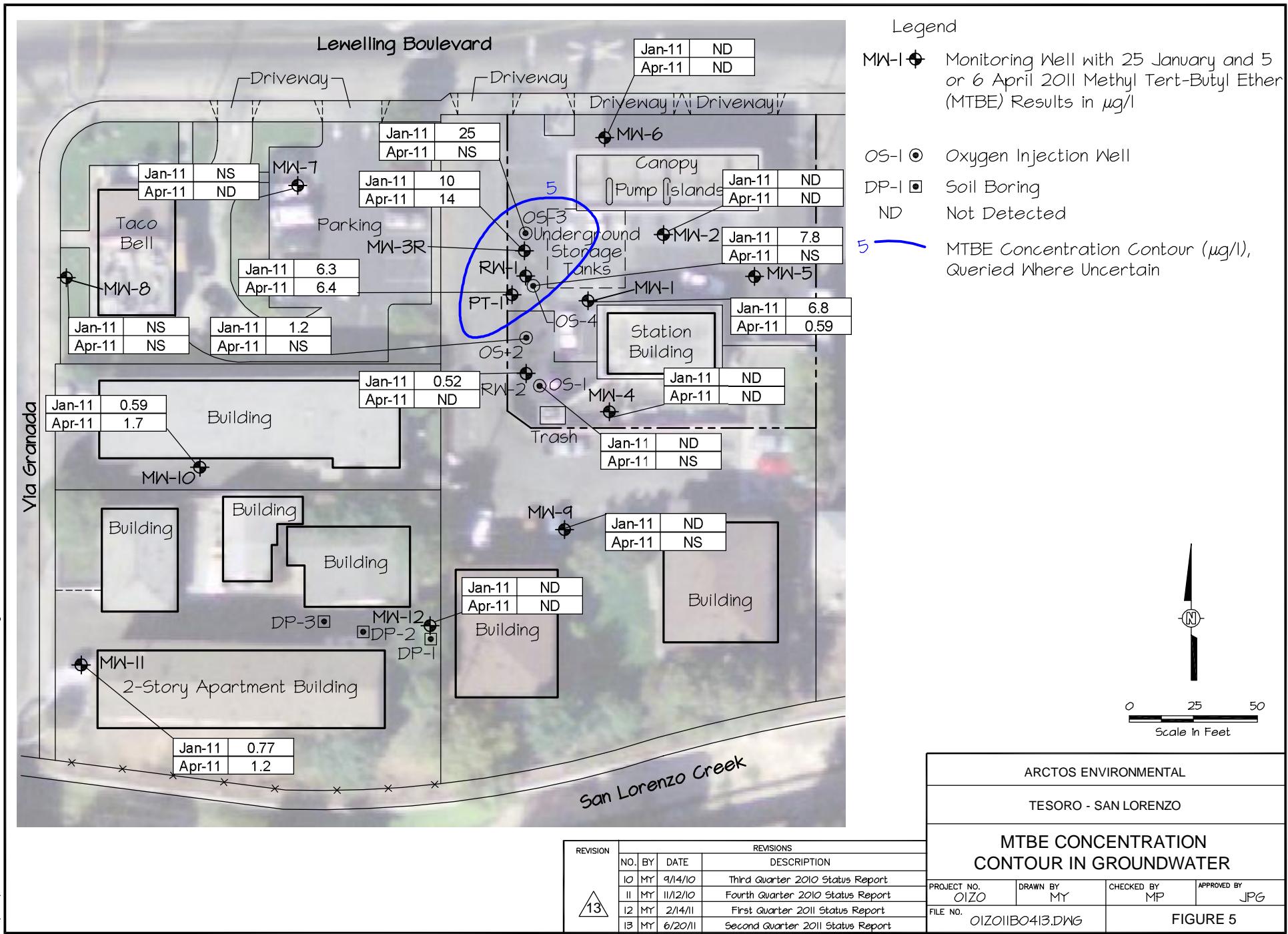
#### SITE LOCATION MAP

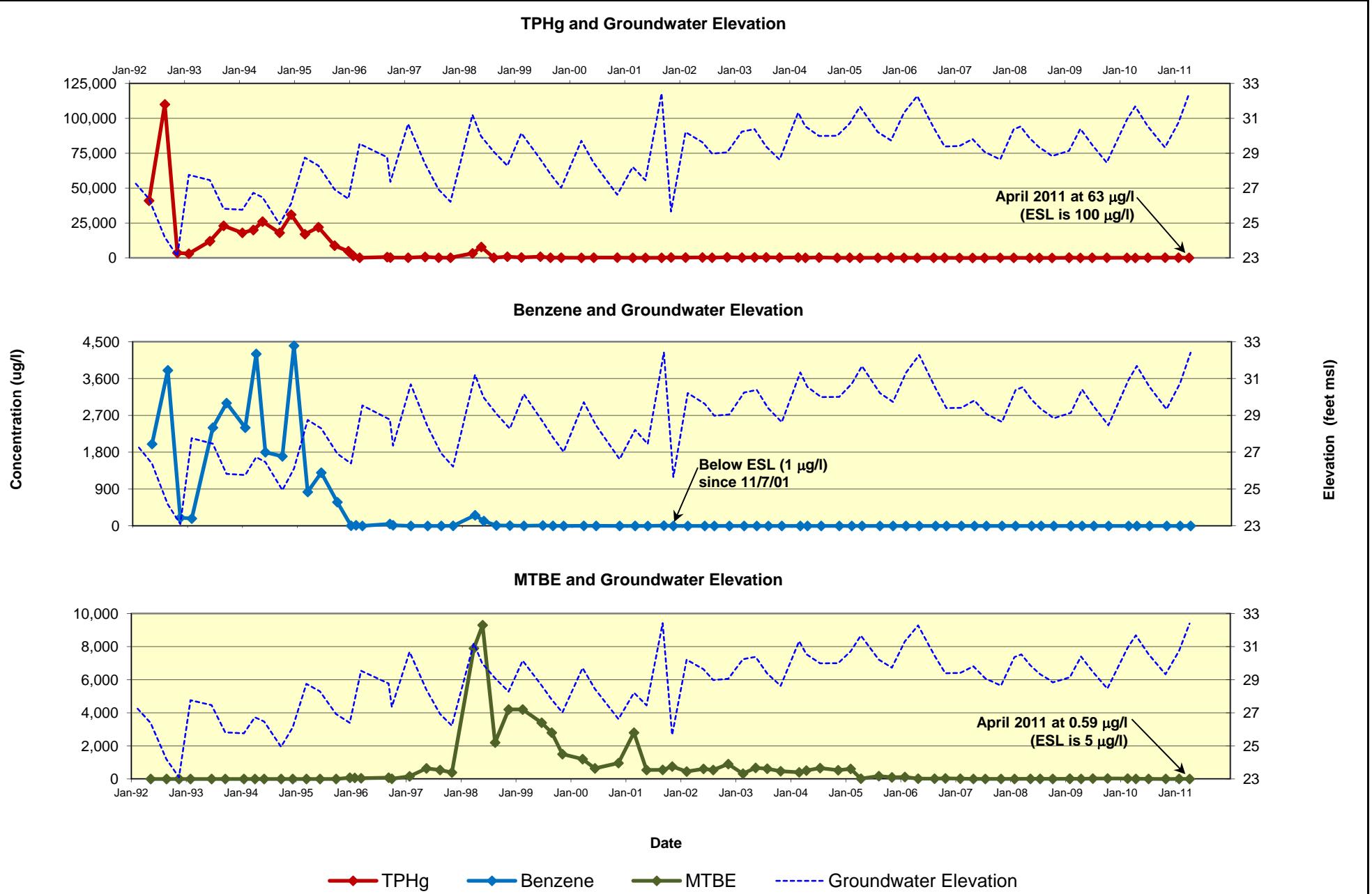
PROJECT NO. 01ZO	DRAWN BY MP	CHECKED BY MP	APPROVED BY JG
FILE NO. Site Map.xls			<b>FIGURE 1</b>

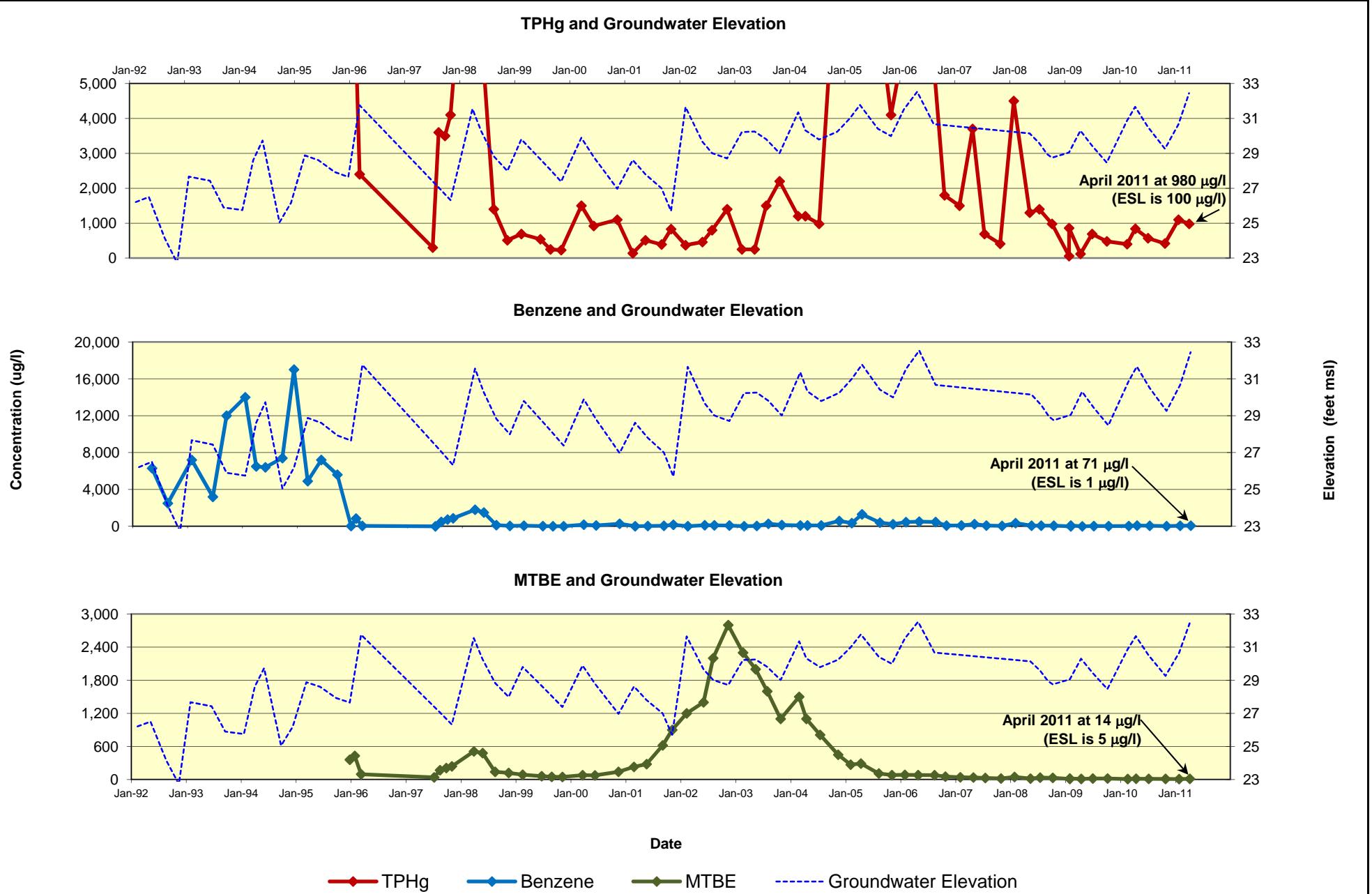


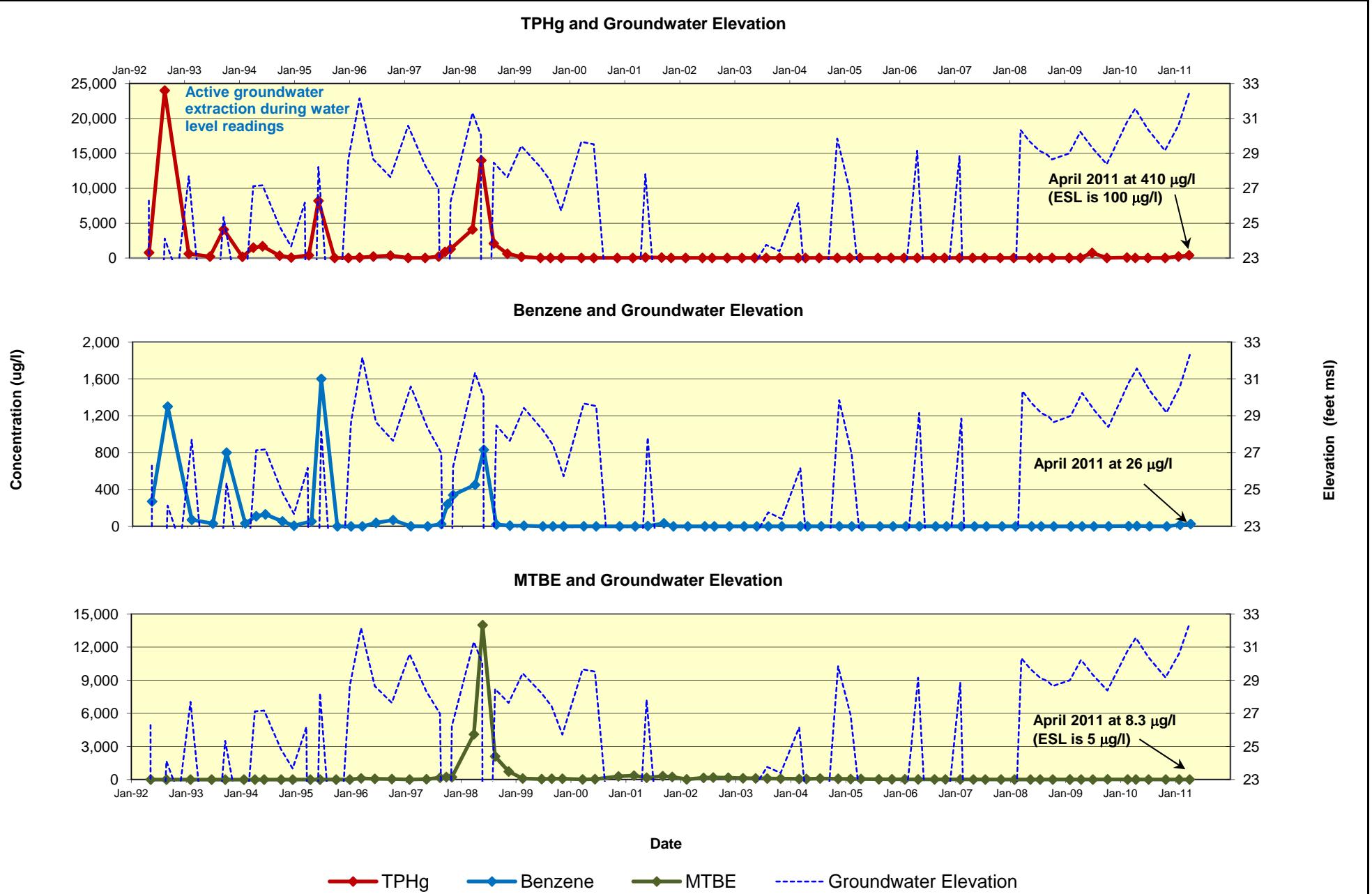




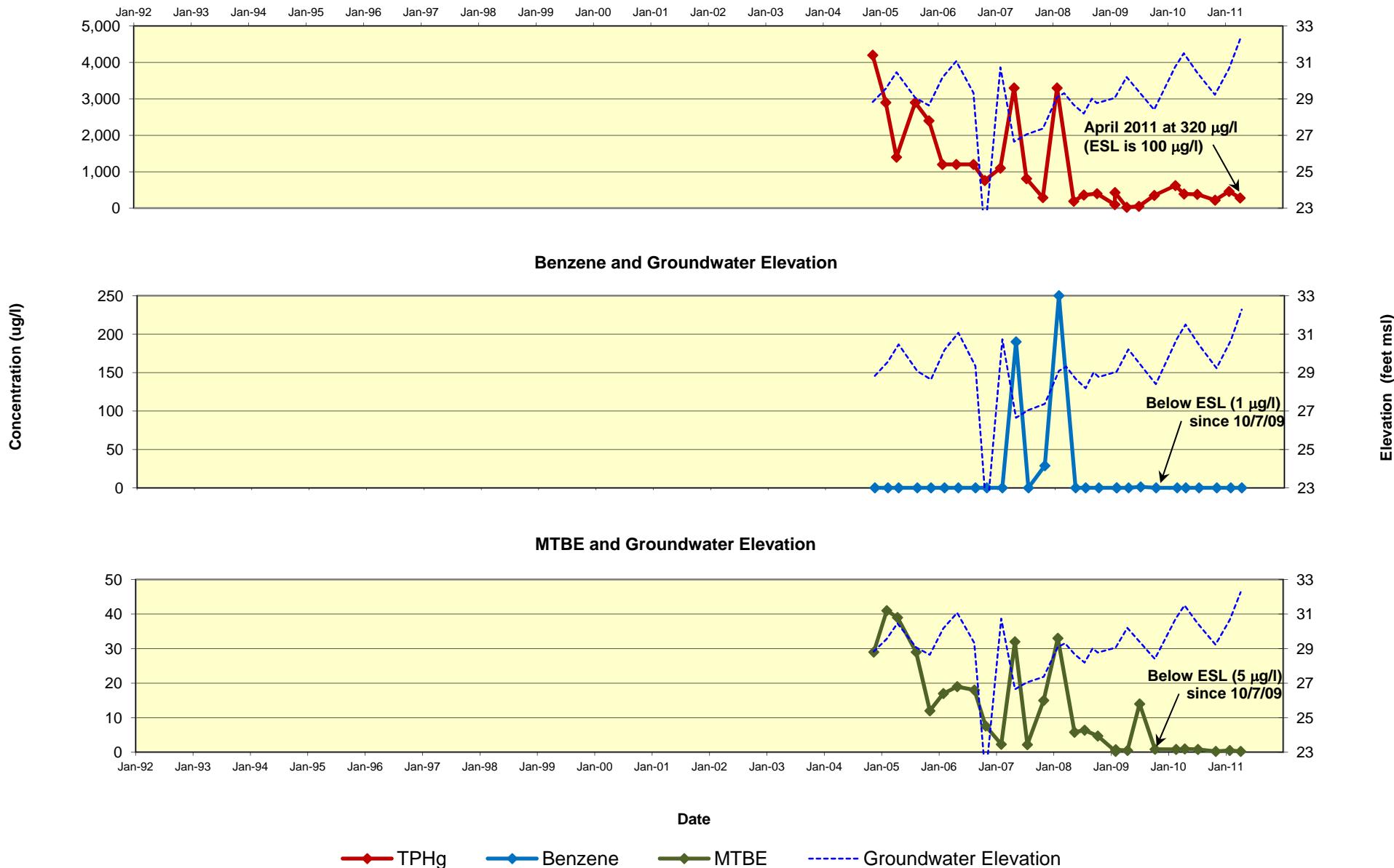




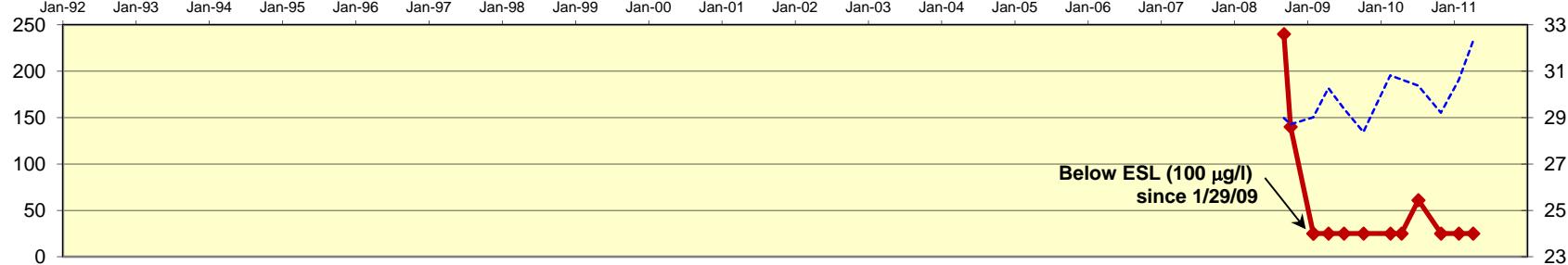




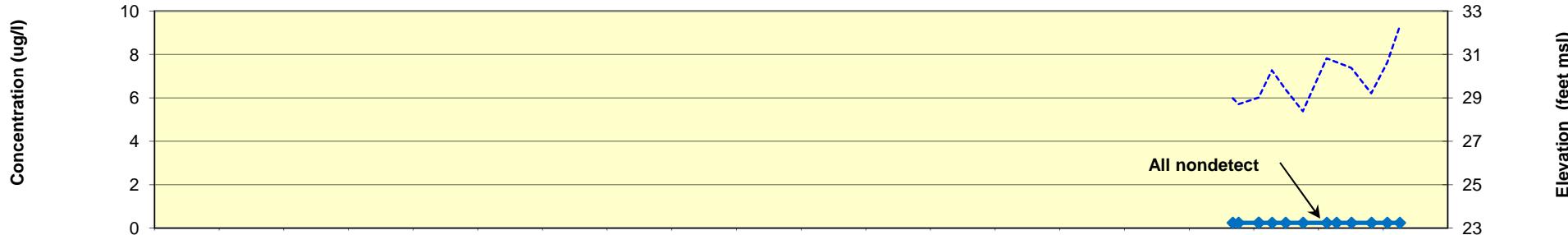
### TPHg and Groundwater Elevation



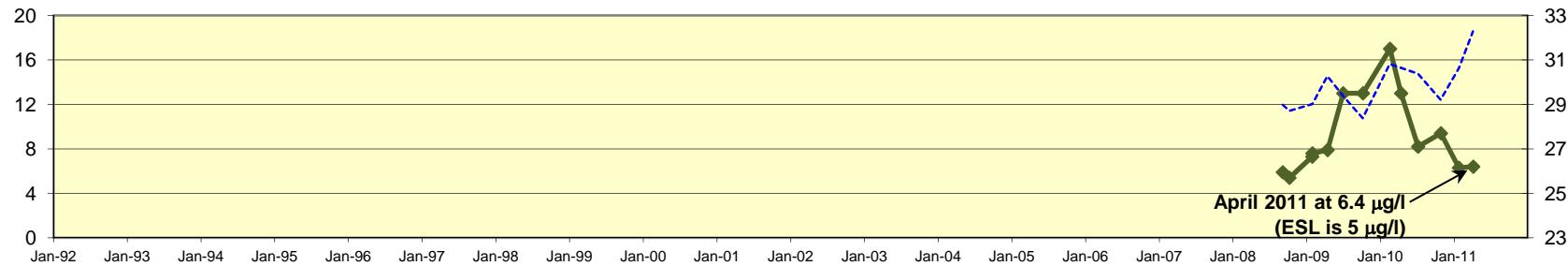
### TPHg and Groundwater Elevation



### Benzene and Groundwater Elevation



### MTBE and Groundwater Elevation



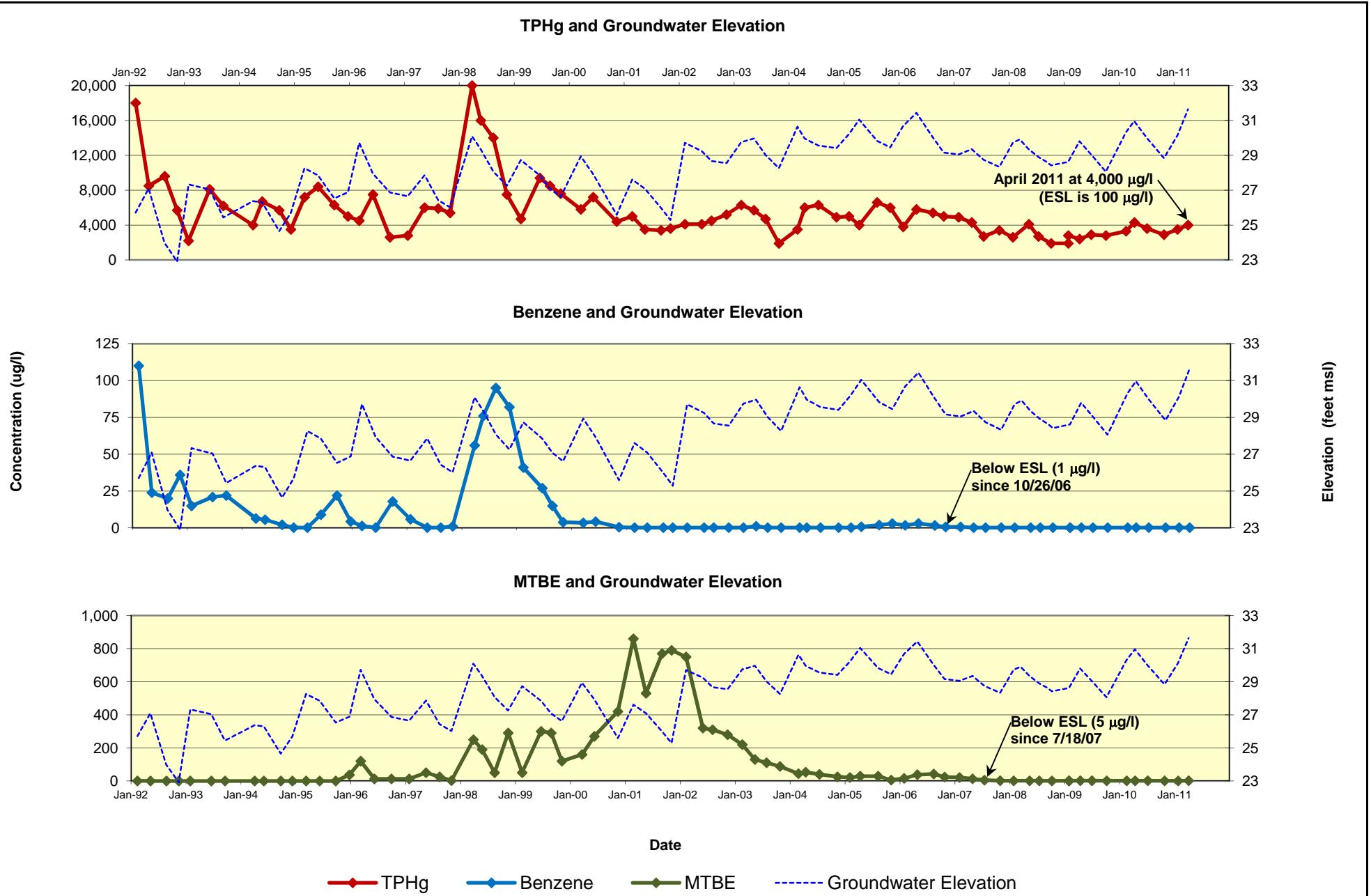
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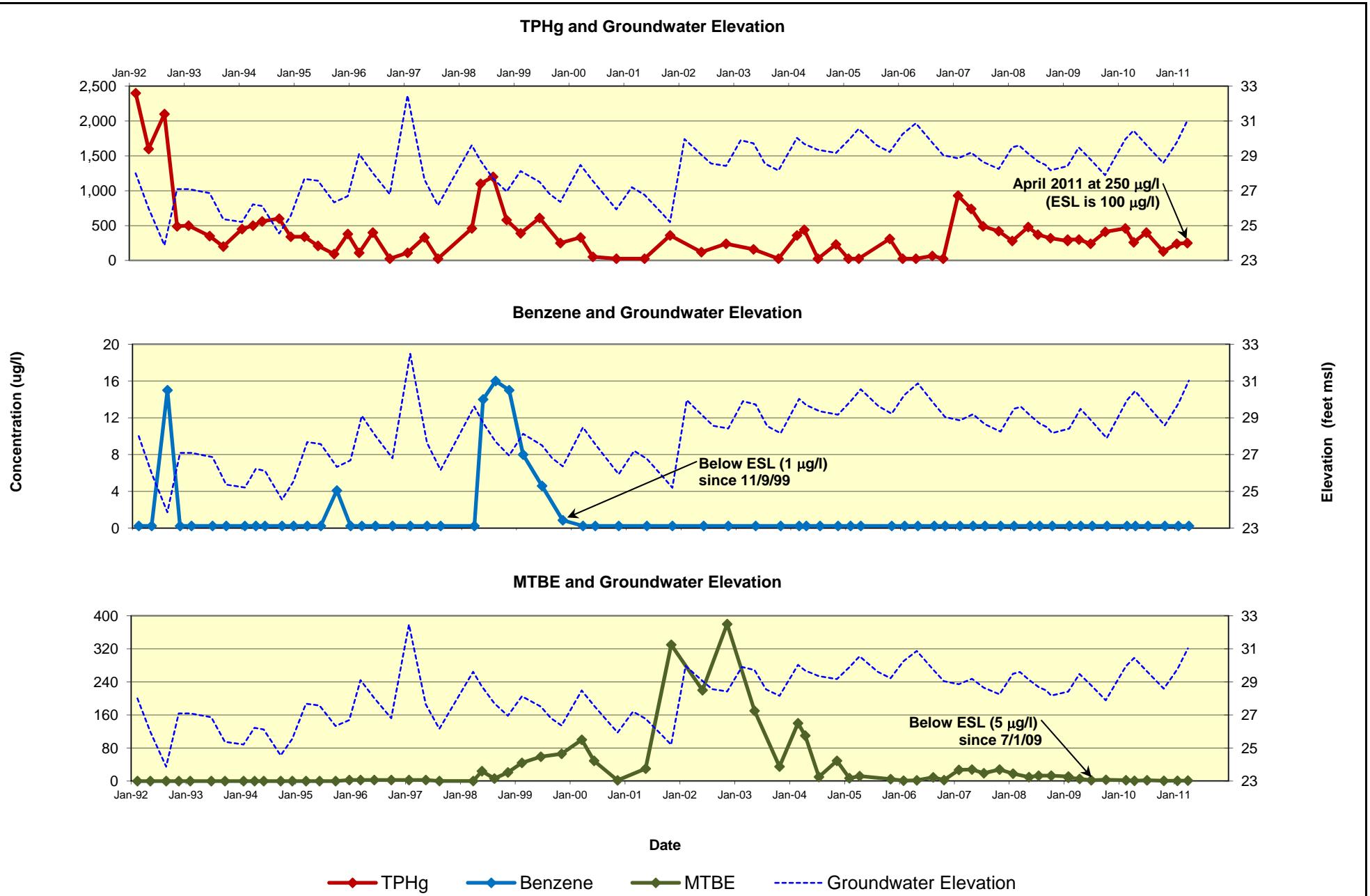
TPHg

Benzene

MTBE

Groundwater Elevation





**ATTACHMENT A**

**GROUNDWATER SAMPLING QA/QC PROCEDURES**

**ATTACHMENT A**  
**GROUNDWATER SAMPLING QA/QC PROCEDURES**

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### **Monitoring Plan**

Arctos conducted groundwater monitoring in accordance with the following monitoring plan approved by Alameda County Environmental Health (ACEH) in a 28 April 2011 letter:

<b>Well Designation</b>	<b>Location</b>	<b>Sampling Frequency</b>
MW-1	Upgradient	
MW-3R, RW-1, RW-2, and PT-1	On site	Semiannual (2nd and 4th quarters)
MW-10 and MW-11	Downgradient	
MW-2, MW-4, and MW-6	Upgradient and cross gradient	Annual (2nd quarter)
MW-7 and MW-12	Downgradient	

### **Analytical Plan**

Groundwater samples were analyzed by Kiff Analytical LLC (Kiff), a State-certified laboratory in Davis, California for total petroleum hydrocarbons as gasoline (TPHg); benzene, toluene, ethylbenzene, and total xylenes (BTEX); methyl tert-butyl ether (MTBE); and other oxygenates using EPA Method 8260B.

Arctos, as Tesoro's Authorized Responsible Party for the site, electronically submitted the groundwater monitoring results to the State Water Resources Control Board (SWRCB). The data were submitted in the State-mandated EDF format, in accordance with Assembly Bill 2886 requirements for underground storage tank (UST) sites in California. The EDFs including laboratory analytical data and quarterly groundwater elevations were transmitted through the Geotracker web portal

### **Purge-and-Bail Sampling**

The depth to groundwater and total well depth were measured before sampling using an electronic water well sounder. Before sampling, at least 3 casing volumes were purged from each monitoring well using a submersible pump. Throughout purging, pH, conductivity, turbidity, and temperature were measured and recorded for the evacuated groundwater. These measurements were used to confirm that the well was purged sufficiently. Water samples were generally collected after the measurements of pH, conductivity, and temperature had stabilized to within 10 percent of the previous readings. Copies of the well purging and sampling logs are provided in Attachment B.

Sampling was performed with a new 1-1/2-inch-diameter disposable polyethylene bailer suspended from new nylon line. The bailer was equipped with a bottom-release device. Groundwater was collected with the bailer from just below the water surface in each monitoring well. Water samples were collected from the bailers in new 40-milliliter glass bottles provided by the analytical laboratory. The samples were collected so that no headspace was present in each bottle. The preservatives necessary for the analyses performed were provided in the glass bottles by the analytical laboratory.

The collected water samples were placed in sealable plastic bags and packed on ice in a portable ice chest immediately after collection. Samples were delivered within 24 to 48 hours to the analytical laboratory. Additional field procedures, including the use of sample identification labels and chain-of-custody forms, were followed to track sample collection and delivery.

### **General Field Quality Assurance/Control (QA/QC) Procedures**

#### Chain-of-Custody Records

Chain-of-custody records were completed before samples were packaged for shipment. One copy of these records was placed in the project file. A second copy accompanied samples during transportation to the laboratory. The individual in the analytical laboratory who accepted responsibility for samples signed and dated the chain-of-custody record.

#### Equipment Decontamination Procedures

Field equipment was decontaminated between sampling events using the following procedures:

1. Rinsed with water using a brush to remove soil and mud.
2. Washed with non-phosphate detergent and water using a brush.
3. Rinsed with deionized or distilled water.
4. Rinsed again with deionized or distilled water.
5. Air dried.

Additional decontamination procedures are presented below:

1. Personnel dressed in suitable personal protective equipment (PPE) to reduce personal exposure.
2. Equipment that would be damaged by water (such as the battery portion of water level indicator or the pH and conductivity meters) was carefully

- wiped clean using a sponge and dried with new paper towels. Care was taken to prevent damage to the equipment.
3. When conducting a groundwater sampling event, evacuation and sampling equipment was decontaminated before sampling operations, between each well, and at the end of the sampling event. If dedicated equipment was used, it was rinsed with deionized water.
  4. Detergent waters and rinse waters were replaced periodically depending on level of contamination. Used detergent and rinse waters were contained in 55-gallon drums approved by the Department of Transportation (DOT) or holding tanks for storage.

#### Personal Decontamination Procedures

At a minimum, field personnel followed the following decontamination procedures:

1. Wore appropriate gloves
2. Washed hands thoroughly with soap and water
3. Avoided unnecessary contact with groundwater.

The site health and safety plan was reviewed for site-specific personal decontamination procedures.

#### Wastewater and Solid Waste Storage and Disposal

Small volumes of used wash and rinse solutions were collected during field work and transported to a central decontamination area. This wastewater was containerized in labeled 55-gallon DOT drums or holding tanks and stored in a secured area at the site. At the completion of field investigation activities or a groundwater sampling event, samples from the 55-gallon drums or holding tanks were collected and analyzed in accordance with the work or sampling plans. Once the analytical results were obtained, the Project Manager determined the appropriate disposal method for this wastewater. Non-hazardous waste manifests are included in Attachment G.

Solid wastes such as used personal protective equipment, paper towels, trash bags, and any other solid debris were collected for disposal. Because the sampled groundwater was not a hazardous waste, the solid wastes were disposed with the onsite trash.

#### Field Investigation Documentation Procedures

Field personnel followed documentation procedures developed for site investigation work. The procedures served to (1) provide a record of the activities performed in the field and

(2) permit identification of samples and tracking of their status in the field, during shipment, and at the laboratory. All documentation was recorded with waterproof ink.

Groundwater sampling activities were documented on daily field reports and on the well purge and sample log.

#### Health and Safety

Arctos used a site-specific health and safety plan (HSP) with procedures that were followed by field personnel for equipment safety, medical surveillance, personal protection, air quality monitoring, exposure control, emergency response, and general work practices during field activities. Before beginning work at the site, a site safety meeting was conducted. Field personnel reviewed the HSP and signed the accompanying acknowledgment form before initiating field activities. Field personnel were required to comply with the HSP throughout performance of site assessment activities.

#### Analytical QA/QC Procedures

Laboratory analytical QA/QC procedures included (1) preparing and analyzing laboratory samples to assess the performance of the analytical laboratory and (2) conducting data validation in accordance with the protocols described below. QC samples prepared by the laboratory included method blanks, matrix spike and matrix spike duplicates, and laboratory control samples.

The laboratory results were reviewed in general accordance with EPA guidelines for data validation. The data validation process included reviewing laboratory results for the following parameters:

- Completeness of the data package
- Compliance with EPA-required holding times
- Agreement of dilution factors with reported detection limits
- Presence or absence of analytes in the method blanks
- Agreement of duplicate samples
- Percent recovery and relative percent difference results for matrix spike and matrix spike duplicate analyses
- Percent recovery results for laboratory control samples.

**ATTACHMENT B**  
**FIELD DATA SHEETS**

**Equipment Calibration Log**

Equipment make/model	Equipment ID/serial number	Date	Time	Calibration Standards	Equipment Reading	Equipment Calibrated	Temp (°C/°F)	Tech init.	Comments
11thander	6222421	6/13/12	800	4, 7, 10	4.07.0 n.o	y	23	Bm	
	1			1413	1413	y	23	Bm	
	6222442			4, 7, 10	4.07.0 n.o	y	23	Bm	
				1413	1413	y	23	Bm	
Pro odo	#1	14/13/12	745	100%	100%	y	-	Bm	

Notes/comments:

## Water Level Measurements

Job Number: M1-120613

Date: 6/3/12 Client: Oran

Site: Tesco 17107

San Lorenzo

## Purging And Sampling Data Sheet

Job#: M1-120613	Sampler: B Myers J McBurney	Client: Orion
Well ID: MW-1	Date: 6/13/12	Site: San Lorenzo
Well diam: 1/4" 1" 2" 3" 4" 6" Other:	DTW: 15.90	Total Depth: 33.40
Purge equip: ES - diam? Bladder Peri Waterra Positive Air Displacement Ext. System		
disp bailer teflon bailer other:	Tubing: OD: New Dedicated NA	
Purge method: 3-5 Case Volume Micro/Low-Flow Extraction Other:		
Pump depth/ intake:	Multipliers: 1" = 0.04 2" = 0.16 3" = 0.37 4" = 0.65 5" = 1.02 6" = 1.47 Radius <sup>2</sup> X 0.163	
(TD - DTW X Multiplier = 1 Volume	80% Recovery (TD - DTW X 0.20 + DTW)	

$$1 \text{ Volume} = 2.8 \times 3 = 8.4 \text{ (Total Purge)} \quad 80\% = 19.40$$

Did well dewater? YES  NO Total volume removed: 9 (gal / L)

Sample method: Disp Bailer      Ded. Tubing      New Tubing      Ext. Port      Other:

Sample date: 6/13/12 Sample time: 11:55 DTW at sample: 16.21

Sample ID: 644-1 Lab: Kiff Number of bottles: 3

Sample ID: 10001 Lead: 100 Name: John Doe

**Analysis:** See COC

Equipment blank ID @ Field blank ID @ Date issued PO

Duplicate ID: Pre-purge DO: 2.132 Post-purge DO: 2.132

Fe<sup>2+</sup>: Pre-purge ORP: Post purge ORP:

NAPL depth: Volume of NAPL: Volume removed: ml

## Purging And Sampling Data Sheet

<b>Job#:</b> M1-120613	<b>Sampler:</b> B Myers J McBurney	<b>Client:</b> Orion
<b>Well ID:</b> <i>Mur-2</i>	<b>Date:</b> 6/13/12	<b>Site:</b> San Lorenzo
<b>Well diam:</b> 1/4" 1" <b>2"</b> 3" 4" 6" Other:	<b>DTW:</b> <i>14.91</i>	<b>Total Depth:</b> <i>33.90</i>
<b>Purge equip:</b> <b>ES - diam</b> Bladder Peri Waterra Positive Air Displacement Ext. System		
disp bailer teflon bailer other:	<b>Tubing:</b> OD: New Dedicated NA	
<b>Purge method:</b> <b>3-5 Case Volume</b> Micro/Low-Flow Extraction Other:		
<b>Pump depth/ intake:</b>	<b>Multipliers:</b> 1" = 0.04 2" = 0.16 3" = 0.37 4" = 0.65 5" = 1.02 6" = 1.47 Radius <sup>2</sup> X 0.163	
(TD - DTW X Multiplier = 1 Volume	80% Recovery (TD - DTW X 0.20 + DTW)	

$$1 \text{ Volume} = \underline{3} \times 3 = \underline{9} \text{ (Total Purge)} \quad 80\% = \underline{18.71}$$

Did well dewater? YES  NO

Sample method: Disp Bailer Ded. Tubing New Tubing Ext. Port Other:

Sample date: 6/13/12 Sample time: 940 DTW at sample: 15.16

Sample ID: 14-7 Lab: Kiff Number of bottles: 1

Sample ID: P1 - Page 1 of 1

**Analysis:** See COC

Analysis: See COC

Equipment blank ID @ Field blank ID @

Duplicate ID: Pre-purge DO: 204 Post purge DO:

Fe<sup>2+</sup>: Pre-purge ORP: 169 Post purge ORP:

NAPL depth: Volume of NAPL: Volume removed:

## Purging And Sampling Data Sheet

Job#: M1-120613	Sampler: B Myers J McBurney	Client: Orion
Well ID: HW-3R	Date: 6/13/12	Site: San Lorenzo
Well diam: 1/4" 1" 2" 3" 4" 6" Other:	DTW: 14.77	Total Depth: 28.10
Purge equip: ES - diam disp bailer teflon bailer other:	Bladder Peri Waterra Positive Air Displacement	Ext. System
Purge method: 3-5 Case Volume	Micro/Low-Flow Extraction Other:	
Pump depth/ intake:	Multipliers: 1" = 0.04 2" = 0.16 3" = 0.37 4" = 0.65 5" = 1.02 6" = 1.47 Radius <sup>2</sup> X 0.163	
(TD - DTW X Multiplier = 1 Volume	80% Recovery (TD - DTW X 0.20 + DTW)	

$$1 \text{ Volume} = 19.6 \times 3 = 58.8 \text{ (Total Purge)} \quad 80\% = 17.44$$

Did well dewater? YES  NO  Total volume removed: 59 (gal / L)

Sample method: Disp. Bailer      Ded. Tubing      New Tubing      Ext. Port      Other:

Sample date: 6/13/12 Sample time: 14:0 DTW at sample: 15.15

Sample ID: WLR Lab: Kiff Number of bottles: 10

Analysis: See COC

**Analysis:** See COC

Equipment blank ID @ Field blank ID @

Duplicate ID: Pre-purge DO: 0.73 Post purge DO:

Pre-purge ORP: -45 Post purge ORP:

Volume of NAPL: \_\_\_\_\_ Volume removed: \_\_\_\_\_

## **Purging And Sampling Data Sheet**

## Purging And Sampling Data Sheet

Job#: M1-120613	Sampler: B Myers J McBurney	Client: Orion
Well ID: <i>Muro</i>	Date: 6/13/12	Site: San Lorenzo
Well diam: 1/4" 1" 2" 3" 4" 6" Other:	DTW: 14.53	Total Depth: 28.00
Purge equip: <i>(ES - diam)</i> Bladder Peri Waterra Positive Air Displacement Ext. System		
disp bailer teflon bailer other:	Tubing: OD: New Dedicated NA	
Purge method: <i>3-5 Case Volume</i> Micro/Low-Flow Extraction Other:		
Pump depth/ intake:	Multipliers: 1" = 0.04 2" = 0.16 3" = 0.37 4" = 0.65 5" = 1.02 6" = 1.47 Radius <sup>2</sup> X 0.163	
(TD - DTW X Multiplier = 1 Volume	80% Recovery (TD - DTW X 0.20 + DTW)	

$$1 \text{ Volume} = 2.3 \times 3 = 6.9 \quad (\text{Total Purge}) \qquad 80\% = 17.34$$

Did well dewater? YES  NO  Total volume removed: 7 (gal / L)

Sample method: Disp. Bailer      Ded. Tubing      New Tubing      Ext. Port      Other:

Sample date: 6/13/12 Sample time: 1130 DTW at sample: 15.10

Sample ID: *Mvt.* Lab: Kiff Number of bottles: *10*

Analysis: See COC

### Entertainment Block ID

Equipment blank ID:	Field blank ID:	
Duplicate ID:	Pre-purge DO: 4.00	Post purge DO:
Fe <sup>2+</sup> :	Pre-purge ORP: 179	Post purge ORP:
NAPL depth:	Volume of NAPL:	Volume removed: ml

## Purging And Sampling Data Sheet

Job#: M1-120613	Sampler: B Myers J McBurney	Client: Orion
Well ID: MW-7	Date: 6/13/12	Site: San Lorenzo
Well diam: 1/4" 1" 2" 3" 4" 6" Other:	DTW: 14.03	Total Depth: 24.20
Purge equip: ES - diam: Bladder Peri Waterra Positive Air Displacement Ext. System		
disp bailer teflon bailer other:	Tubing: OD: New Dedicated NA	
Purge method: 3-5 Case Volume Micro/Low-Flow Extraction Other:		
Pump depth/ intake:	Multipliers: 1" = 0.04 2" = 0.16 3" = 0.37 4" = 0.65 5" = 1.02 6" = 1.47 Radius <sup>2</sup> X 0.163	
(TD - DTW X Multiplier = 1 Volume	80% Recovery (TD - DTW X 0.20 + DTW)	

$$1 \text{ Volume} = 1.6 \times 3 = 4.8 \quad (\text{Total Purge}) \qquad 80\% = 11.04$$

Did well dewater? YES  NO  Total volume removed: 4.8 (gal / L)

Sample method: Disp Bailer      Ded. Tubing      New Tubing      Ext. Port      Other:

Sample date: 6/13/12 Sample time: 10:35 DTW at sample: 141.61

Sample ID: 11157 Lab: Kiff Number of bottles: 3

Sample ID: 79107 Lab: 14M Number of Samples:

Analysis: See CUC

Equipment blank ID	@	Field blank ID	@
Duplicate ID:		Pre-purge DO:	1.14
Fe2+:		Pre-purge ORP:	66
NAPL depth:	Volume of NAPL:	Volume removed:	ml

## Purging And Sampling Data Sheet

Job#: M1-120613	Sampler: B Myers J McBurney	Client: Orion
Well ID: HW10	Date: 6/13/12	Site: San Lorenzo
Well diam: 1/4" 1" 2" 3" 4" 6" Other:	DTW: 15.13	Total Depth: 28.70
Purge equip: ES - diam: Bladder Peri Waterra Positive Air Displacement Ext. System		
disp bailer teflon bailer other:	Tubing: OD: New Dedicated NA	
Purge method: 3-5 Case Volume Micro/Low-Flow Extraction Other:		
Pump depth/ intake:	Multipliers: 1" = 0.04 2" = 0.16 3" = 0.37 4" = 0.65 5" = 1.02 6" = 1.47 Radius <sup>2</sup> X 0.163	
(TD - DTW X Multiplier = 1 Volume	80% Recovery (TD - DTW X 0.20 + DTW)	

$$1 \text{ Volume} = 2.2 \times 3 = 6.5 \text{ (Total Purge)} \quad 80\% = 17.84$$

Did well dewater? YES  NO  Total volume removed: 6.5 gal/L

Sample method: Disp. Bailer    Ded. Tubing    New Tubing    Ext. Port    Other:

Sample date: 6/13/12 Sample time: 9:35 DTW at sample: 15°.15

Sample ID: 111110 Lab: Kiff Number of bottles: 3

Sample ID: HW-10 Lab: Kiff Number of bottles: 5

**Analysis:** See COC

Equipment blank ID @ Field blank ID @

Duplicate ID: Pre-purge DO: 0.98 Post purge DO:

Fe<sup>2+</sup>: Pre-purge ORP: / / Post purge ORP:

NAPL depth: Volume of NAPL: Volume removed:

## Purging And Sampling Data Sheet

## Purging And Sampling Data Sheet

## Purging And Sampling Data Sheet

Job#: M1-120613	Sampler: B Myers J McBurney	Client: Orion
Well ID: PT-1	Date: 6/13/12	Site: San Lorenzo
Well diam: 1/4" 1" 2" 3" (4") 6" Other:	DTW: 11.09	Total Depth: 29.71
Purge equip: (ES - diam) disp bailer teflon bailer other:	Bladder Peri Waterra Positive Air Displacement	Ext. System
Purge method: 3-5 Case Volume	Tubing: OD: New Dedicated NA	
Pump depth/ intake:	Multipliers: 1" = 0.04 2" = 0.16 3" = 0.37 4" = 0.65 5" = 1.02 6" = 1.47 Radius <sup>2</sup> X 0.163	
(TD - DTW X Multiplier = 1 Volume	80% Recovery (TD - DTW X 0.20 + DTW)	

$$1 \text{ Volume} = \underline{8.9} \times 3 = \underline{26.7} \text{ (Total Purge)} \quad 80\% = \underline{18.81}$$

Did well dewater?  YES  NO Total volume removed: 27 / 18 (gal / L)

Sample method: Disp Bailer      Ded. Tubing      New Tubing      Ext. Port      Other:

Sample date: 6/13/12 Sample time: 1120 DTW at sample: 16.27

Sample ID: PT-1 Lab: Kiff Number of bottles: 10

**Analyses:** See SOC

Field Block ID: ⑧

Duplicate ID: Pre-purge DO: 2.39 Post purge DO:

Pre-purge ORP: 257 Post purge ORP:

Volume removed: \_\_\_\_\_ ml

## Purging And Sampling Data Sheet

Job#: M1-120613	Sampler: B Myers J McBurney	Client: Orion
Well ID: RW-1	Date: 6/13/12	Site: San Lorenzo
Well diam: 1/4" 1" 2" 3" 4" 6" Other:	DTW: 15.49	Total Depth: 35.57
Purge equip: <input checked="" type="checkbox"/> ES - diam <input type="checkbox"/> Bladder <input type="checkbox"/> Peri <input type="checkbox"/> Waterra <input type="checkbox"/> Positive Air Displacement <input type="checkbox"/> Ext. System disp bailer <input type="checkbox"/> teflon bailer <input type="checkbox"/> other:	Tubing: OD: <input type="checkbox"/> New <input type="checkbox"/> Dedicated <input type="checkbox"/> NA	
Purge method: <input checked="" type="checkbox"/> 3-5 Case Volume <input type="checkbox"/> Micro/Low-Flow <input type="checkbox"/> Extraction <input type="checkbox"/> Other:		
Pump depth/ intake:	Multipliers: 1" = 0.04 2" = 0.16 3" = 0.37 4" = 0.65 5" = 1.02 6" = 1.47 Radius <sup>2</sup> X 0.163	
(TD - DTW X Multiplier = 1 Volume	80% Recovery (TD - DTW X 0.20 + DTW)	

$$1 \text{ Volume} = 29.4 \times 3 = 88.2 \text{ (Total Purge)} \quad 80\% = 19.49$$

Did well dewater? YES NO Total volume removed: 90 (gal / L)

Sample method: Disp Bailer      Ded. Tubing      New Tubing      Ext. Port      Other:

Sample date: 6/13/12 Sample time: 1035 DTW at sample: 15.93

Sample ID: RW1 Lab: Kiff Number of bottles: 3

Analysis: See COC

Equipment blank ID	@	Field blank ID	@
Duplicate ID:		Pre-purge DO: 0,55	Post purge DO:
Fe2+:		Pre-purge ORP: -2-17	Post purge ORP:
NAPL depth:	Volume of NAPL:	Volume removed:	ml

## Purging And Sampling Data Sheet

Job#: M1-120613	Sampler: B Myers J McBurney	Client: Orion
Well ID: RW-2	Date: 6/13/12	Site: San Lorenzo
Well diam: 1/4" 1" 2" 3" 4" 6" Other:	DTW: 16.02 Total Depth: 26.55	
Purge equip: ES - diam: Bladder Peri Waterra Positive Air Displacement Ext. System		
disp bailer teflon bailer other:	Tubing: OD: New Dedicated NA	
Purge method: 3-5 Case Volume Micro/Low-Flow Extraction Other:		
Pump depth/ intake:	Multipliers: 1" = 0.04 2" = 0.16 3" = 0.37 4" = 0.65 5" = 1.02 6" = 1.47 Radius <sup>2</sup> X 0.163	
(TD - DTW X Multiplier = 1 Volume	80% Recovery (TD - DTW X 0.20 + DTW)	

$$1 \text{ Volume} = \underline{15.5} \times 3 = \underline{46.5} \text{ (Total Purge)} \quad 80\% = \underline{18.13}$$

Did well dewater? YES  NO  Total volume removed: 46.5 (gal / L)

Sample method: Disp Bailer      Ded. Tubing      New Tubing      Ext. Port      Other:

Sample date: 6/13/12 Sample time: 1140 DTW at sample: 16.24

Sample ID: RW-2 Lab: Kiff Number of bottles: 10

**Analysis:** See COC

Equipment blank ID: @ Field blank ID: @

Duplicate ID: Pre-purge DO: 0.80 Post purge DO:

Fe2 <sup>+</sup> :	Pre-purge ORP:	Post purge ORP:
NAPL depth:	Volume of NAPL:	Volume removed: ml

**ATTACHMENT C**

**HISTORICAL GROUNDWATER ELEVATIONS**

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-1	2/18/92	16.42	43.67	27.25
	5/14/92	17.28		26.39
	5/15/92	NM <sup>(c)</sup>		-- <sup>(d)</sup>
	8/27/92	19.48		24.19
	8/28/92	NM		--
	11/19/92	20.57		23.10
	2/3/93	15.91		27.76
	6/23/93	16.21		27.46
	9/22/93	17.85		25.82
	1/24/94	17.91		25.76
	4/7/94	16.94		26.73
	6/7/94	17.20		26.47
	9/28/94	18.73		24.94
	12/14/94	17.56		26.11
	3/15/95	14.92		28.75
	6/13/95	15.38		28.29
	9/28/95	16.75		26.92
	12/28/95	17.28		26.39
	1/30/96	NM		--
	3/12/96	14.13		29.54
	9/11/96	14.90		28.77
	10/2/96	16.31		27.36
	1/28/97	12.99		30.68
	5/20/97	15.28		28.39
	8/18/97	16.74		26.93
	9/29/97	NM		--
	11/5/97	17.45		26.22
	3/31/98	12.47		31.20
	5/26/98	13.69		29.98
	5/28/98	NM		--
	8/19/98	14.58		29.09
	11/17/98	15.39		28.28

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-1  (cont.)	2/18/99	13.52	43.67	30.15
	6/24/99	15.02		28.65
	8/30/99	15.87		27.80
	11/9/99	16.65		27.02
	3/22/00	13.96		29.71
	6/12/00	15.23		28.44
	11/15/00	17.05		26.62
	2/26/01	15.46		28.21
	5/21/01	16.22		27.45
	9/5/01	11.25		32.42
	11/7/01	18.01		25.66
	2/11/02	15.77	45.98	30.21
	6/3/02	16.35		29.63
	8/6/02	17.00		28.98
	11/14/02	16.93		29.05
	2/20/03	15.74		30.24
	5/15/03	15.60		30.38
	7/31/03	16.60		29.38
	10/28/03	17.35		28.63
	2/28/04	14.65		31.33
	4/16/04	15.44		30.54
	7/16/04	15.99		29.99
	11/13/04	15.98		30.00
	2/4/05	15.27		30.71
	4/13/05	14.31		31.67
	8/10/05	15.77		30.21
	11/5/05	16.25		29.73
	1/30/06	14.67		31.31
	4/28/06	13.70		32.28
	8/15/06	15.52		30.46
	10/26/06	16.59		29.39
	2/2/07	16.57		29.41

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-1 (cont.)	4/30/07	16.17	45.98	29.81
	7/18/07	16.90		29.08
	10/30/07	17.34		28.64
	1/28/08	15.61		30.37
	3/14/08	15.45		30.53
	5/13/08	16.12		29.86
	7/16/08	16.65		29.33
	9/5/08	17.31	46.36	29.05
	10/8/08	17.52		28.84
	1/29/09	17.22		29.14
	4/14/09	15.96		30.40
	7/1/09	16.88		29.48
	10/6/09	17.90		28.46
	2/17/10	15.43		30.93
	4/13/10	14.68		31.68
	7/6/10	15.82		30.54
	10/27/10	17.03		29.33
	1/25/11	15.61		30.75
	4/5/11	13.96		32.40
MW-2	2/18/92	16.65	43.09	26.44
	5/14/92	16.64		26.45
	8/27/92	16.61		26.48
	11/19/92	19.91		23.18
	2/3/93	15.23		27.86
	6/23/93	15.55		27.54
	9/22/93	17.22		25.87
	1/24/94	17.20		25.89
	4/7/94	16.26		26.83
	6/7/94	16.46		26.63
	9/28/94	18.06		25.03
	12/14/94	16.86		26.23
	3/15/95	14.08		29.01
	6/13/95	14.67		28.42
	9/28/95	16.07		27.02

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-2  (cont.)	12/28/95	16.46	43.09	26.63
	3/12/96	13.11		29.98
	6/13/96	14.14		28.95
	10/2/96	15.71		27.38
	1/28/97	12.05		31.04
	5/20/97	14.65		28.44
	8/18/97	16.00		27.09
	9/29/97	NM		--
	11/5/97	16.75		26.34
	3/31/98	11.54		31.55
	5/26/98	12.78		30.31
	5/28/98	NM		--
	8/19/98	14.40		28.39
	11/17/98	15.18		27.63
	2/18/99	14.07		27.06
	6/24/99	14.70		30.04
	8/30/99	15.46		28.59
	11/9/99	16.03		26.81
	3/22/00	13.05		28.11
	6/12/00	14.50		27.64
	11/15/00	16.28		27.92
	2/26/01	14.98		26.04
	5/21/01	15.45		29.80
	9/5/01	15.17		28.25
	11/7/01	17.05		28.24
	2/11/02	13.29	45.23	31.94
	6/3/02	14.84		30.39
	8/6/02	14.85		30.38
	11/14/02	15.35		29.88
	2/20/03	14.08		31.15
	5/15/03	14.55		30.68
	7/31/03	15.30		29.93
	10/28/03	14.93		30.30

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-2  (cont.)	2/28/04	13.56	45.23	31.67
	4/16/04	14.40		30.83
	7/16/04	15.03		30.20
	11/13/04	15.00		30.23
	2/4/05	14.26		30.97
	4/13/05	13.19		32.04
	8/10/05	14.84		30.39
	11/5/05	15.39		29.84
	1/30/06	13.54		31.69
	4/28/06	12.55		32.68
	8/15/06	14.57		30.66
	10/26/06	15.54		29.69
	2/2/07	15.60		29.63
	4/30/07	15.19		30.04
	7/18/07	15.96		29.27
	10/30/07	16.41		28.82
	1/28/08	14.63		30.60
	3/14/08	14.57		30.66
	5/13/08	15.12		30.11
	7/16/08	15.89		29.34
	9/5/08	16.44	45.61	29.17
	10/8/08	16.75		28.86
	1/29/09	16.35		29.26
	4/14/09	15.05		30.56
	7/1/09	16.02		29.59
	10/6/09	17.10		28.51
	2/17/10	14.50		31.11
	4/13/10	13.55		32.06
	7/6/10	14.96		30.65
	10/27/10	16.18		29.43
	1/25/11	14.73		30.88
	4/5/11	12.85		32.76
MW-3	2/18/92	16.89	43.10	26.21
	5/14/92	16.60		26.50

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-3 (cont.)	5/15/92	NM	43.10	--
	8/27/92	18.96		24.14
	8/28/92	NM		--
	11/18/92	20.38		22.72
	11/19/92	NM		--
	2/3/93	15.43		27.67
	6/23/93	15.67		27.43
	9/22/93	17.20		25.90
	1/24/94	17.35		25.75
	4/7/94	14.48		28.62
	6/7/94	13.37		29.73
	9/28/94	18.05		25.05
	12/14/94	16.92		26.18
	3/15/95	14.22		28.88
	6/13/95	14.49		28.61
	9/28/95	15.17		27.93
	12/28/95	15.45		27.65
	1/30/96	NM		--
	3/12/96	11.35		31.75
	6/11/96	Dry <sup>(e)</sup>		--
	10/2/96	Dry <sup>(e)</sup>		--
	1/28/97	Dry <sup>(e)</sup>		--
	5/20/97	Dry <sup>(e)</sup>		--
	7/10/97	NM		--
	8/18/97	16.05		27.05
	9/29/97	NM		--
	11/5/97	16.78		26.32
	3/31/98	11.55		31.55
	5/26/98	12.80		30.30
	5/28/98	NM		--
	8/19/98	14.27		28.83
	11/17/98	15.11		27.99
	2/18/99	13.30		29.80

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-3	6/24/99	14.44	43.10	28.66
(cont.)	8/30/99	15.05		28.05
	11/9/99	15.72		27.38
	3/22/00	13.21		29.89
	6/12/00	14.31		28.79
	11/15/00	16.13		26.97
	2/26/01	14.48		28.62
	5/21/01	15.30		27.80
	9/5/01	16.10		27.00
	11/7/01	17.40		25.70
	2/11/02	13.56	45.21	31.65
	6/3/02	15.54		29.67
	8/6/02	16.20		29.01
	11/14/02	16.50		28.71
	2/20/03	14.99		30.22
	5/15/03	14.96		30.25
	7/31/03	15.40		29.81
	10/28/03	16.20		29.01
	2/28/04	13.86		31.35
	4/16/04	14.89		30.32
	7/16/04	15.42		29.79
MW-3R	11/13/04	14.97	45.21	30.24
	2/4/05	14.22		30.99
	4/13/05	13.44		31.77
	8/10/05	14.80		30.41
	11/5/05	15.22		29.99
	1/30/06	13.69		31.52
	4/28/06	12.68		32.53
	8/15/06	14.54		30.67
	10/26/06	23.85		21.36
	2/2/07	21.96		23.25
	4/30/07	19.40		25.81

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-3R (cont.)	7/18/07	23.11	45.21	22.10
	10/30/07	22.71		22.50
	1/28/08	16.78		28.43
	3/14/08	14.38		30.83
	5/13/08	15.07		30.14
	7/16/08	15.63		29.58
	9/5/08	16.20		28.96
	10/8/08	16.41		28.75
	1/29/09	16.11		29.05
	4/14/09	14.86		30.30
	7/1/09	15.73		29.43
	10/6/09	16.69		28.47
	2/17/10	14.30		30.86
	4/13/10	13.50		31.66
	7/6/10	14.70		30.51
	10/27/10	15.90		29.26
	1/25/11	14.50		30.66
	4/5/11	12.72		32.44
MW-4	2/18/92	18.51	44.66	26.15
	5/14/92	18.22		26.44
	8/27/92	20.47		24.19
	8/28/92	NM		--
	11/19/92	21.58		23.08
	2/3/93	16.98		27.68
	6/23/93	17.23		27.43
	9/22/93	18.83		25.83
	1/24/94	18.86		25.80
	4/7/94	17.90		26.76
	6/7/94	18.08		26.58
	9/28/94	19.70		24.96
	12/14/94	18.55		26.11
	3/15/95	16.14		28.52
	6/13/95	16.41		28.25
	9/28/95	17.88		26.78

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-4  (cont.)	12/28/95	17.81	44.66	26.85
	3/12/96	14.77		29.89
	6/11/96	15.88		28.78
	10/2/96	17.40		27.26
	1/28/97	14.11		30.55
	5/20/97	16.24		28.42
	8/18/97	17.59		27.07
	9/29/97	NM		--
	11/5/97	18.24		26.42
	3/31/98	13.61		31.05
	5/26/98	14.78		29.88
	5/28/98	NM		--
	8/19/98	16.15		28.51
	11/17/98	16.93		27.73
	2/18/99	15.30		29.36
	6/24/99	16.35		28.31
	8/30/99	17.12		27.54
	11/9/99	17.60		27.06
	3/22/00	14.98		29.68
	6/12/00	16.26		28.40
	11/15/00	17.98		26.68
	2/26/01	16.31		28.35
	5/21/01	17.15		27.51
	9/5/01	18.22		26.44
	11/7/01	19.01		25.65
	2/11/02	16.68	46.98	30.30
	6/3/02	17.29		29.69
	8/6/02	17.92		29.06
	11/14/02	17.92		29.06
	2/20/03	16.72		30.26
	5/15/03	16.51		30.47
	7/31/03	17.41		29.57
	10/28/03	18.30		28.68

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-4  (cont.)	2/28/04	15.82	46.98	31.16
	4/16/04	16.42		30.56
	7/16/04	16.94		30.04
	11/13/04	17.00		29.98
	2/4/05	16.25		30.73
	4/13/05	15.33		31.65
	8/10/05	16.74		30.24
	11/5/05	17.23		29.75
	1/30/06	15.62		31.36
	4/28/06	14.71		32.27
	8/15/06	16.46		30.52
	10/26/06	17.45		29.53
	2/2/07	17.52		29.46
	4/30/07	17.10		29.88
	7/18/07	17.81		29.17
	10/30/07	18.25		28.73
	1/28/08	16.65		30.33
	3/14/08	16.48		30.50
	5/13/08	17.11		29.87
	7/16/08	17.63		29.35
	9/5/08	18.29	47.36	29.07
	10/8/08	18.50		28.86
	1/29/09	18.20		29.16
	4/14/09	17.02		30.34
	7/1/09	17.86		29.50
	10/6/09	18.90		28.46
	2/17/10	16.49		30.87
	4/13/10	15.80		31.56
	7/6/10	16.82		30.54
	10/27/10	18.02		29.34
	1/25/11	16.64		30.72
	4/5/11	14.95		32.41
MW-5	2/18/92	17.37	43.79	26.42
	5/14/92	17.29		26.50

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-5	8/27/92	22.18	43.79	21.61
(cont.)	11/19/92	20.68		23.11
	2/3/93	15.91		27.88
	6/23/93	16.24		27.55
	9/22/93	17.93		25.86
	1/24/94	17.82		25.97
	4/7/94	16.91		26.88
	6/7/94	17.10		26.69
	9/28/94	18.73		25.06
	12/14/94	17.53		26.26
	3/15/95	14.96		28.83
	6/13/95	15.30		28.49
	9/28/95	16.74		27.05
	12/28/95	15.10		28.69
	3/12/96	13.67		30.12
	6/11/96	14.88		28.91
	10/2/96	16.42		27.37
	1/28/97	12.83		30.96
	5/20/97	15.33		28.46
	8/18/97	16.69		27.10
	9/29/97	NM		--
	11/5/97	17.37		26.42
	3/31/98	12.40		31.39
	5/26/98	13.62		30.17
	5/28/98	NM		--
	8/19/98	15.19		28.60
	11/17/98	15.89		27.90
	2/18/99	14.23		29.56
	6/24/99	15.29		28.50
	8/30/99	16.07		27.72
	11/9/99	16.61		27.18
	3/22/00	13.81		29.98
	6/12/00	15.08		28.71

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-5 (cont.)	11/15/00	16.71	43.79	27.08
	2/26/01	15.05		28.74
	5/21/01	15.91		27.88
	9/5/01	16.99		26.80
	11/7/01	17.51		26.28
	2/11/02	14.31	46.12	31.81
	6/3/02	14.96		31.16
	8/6/02	15.65		30.47
	11/14/02	15.69		30.43
	2/20/03	14.19		31.93
	5/15/03	15.44		30.68
	7/31/03	16.48		29.64
	10/28/03	16.92		29.20
	2/28/04	14.64		31.48
	4/16/04	15.28		30.84
	7/16/04	15.88		30.24
	11/13/04	15.98		30.14
	2/4/05	15.17		30.95
	4/13/05	14.12		32.00
	8/10/05	15.69		30.43
	11/5/05	16.32		29.80
	1/30/06	14.49		31.63
	4/28/06	13.51		32.61
	8/15/06	15.46		30.66
	10/26/06	16.42		29.70
	2/2/07	16.49		29.63
	4/30/07	16.10		30.02
	7/18/07	16.80		29.32
	10/30/07	17.25		28.87
	1/28/08	15.47		30.65
	3/14/08	15.46		30.66
	5/13/08	16.15		29.97

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-5	7/16/08	16.71	46.12	29.41
(cont.)	9/5/08	17.34		29.16
	10/8/08	17.60		28.90
	1/29/09	17.23		29.27
	4/14/09	15.95		30.55
	7/1/09	16.89		29.61
	10/6/09	18.00		28.50
	2/17/10	15.40		31.10
	4/13/10	14.60		31.90
	7/6/10	15.83		30.67
	10/27/10	17.08		29.42
	1/25/11	15.56		30.94
	4/5/11	13.84		32.66
MW-6	2/18/92	15.87	42.47	26.60
	5/14/92	16.04		26.43
	8/27/92	18.17		24.30
	11/19/92	19.30		23.17
	2/3/93	14.60		27.87
	6/23/93	15.00		27.47
	9/22/93	16.66		25.81
	1/24/94	16.52		25.95
	4/7/94	15.70		26.77
	6/7/94	15.88		26.59
	9/28/94	17.51		24.96
	12/14/94	16.27		26.20
	3/15/95	13.52		28.95
	6/13/95	13.96		28.51
	9/28/95	15.61		26.86
	12/28/95	15.54		26.93
	1/30/96	NM		--
	3/12/96	11.88		30.59
	6/11/96	13.52		28.95
	10/2/96	15.10		27.37
	1/28/97	11.18		31.29

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-6  (cont.)	5/20/97	14.00	42.47	28.47
	8/18/97	15.54		26.93
	9/29/97	NM		--
	11/5/97	16.25		26.22
	3/31/98	10.60		31.87
	5/26/98	12.01		30.46
	5/28/98	NM		--
	8/19/98	13.60		28.87
	11/17/98	14.53		27.94
	2/18/99	12.39		30.08
	6/24/99	13.89		28.58
	8/30/99	14.75		27.72
	11/9/99	15.18		27.29
	3/22/00	12.30		30.17
	6/12/00	13.69		28.78
	11/15/00	15.73		26.74
	2/26/01	14.42		28.05
	5/21/01	15.23		27.24
	9/5/01	16.31		26.16
	11/7/01	17.01		25.46
	2/11/02	15.72	44.79	29.07
	6/3/02	16.39		28.40
	8/6/02	18.90		25.89
	11/14/02	18.93		25.86
	2/20/03	15.64		29.15
	5/15/03	14.07		30.72
	7/31/03	15.21		29.58
	10/28/03	15.73		29.06
	2/28/04	13.12		31.67
	4/16/04	13.92		30.87
	7/16/04	14.53		30.26
	11/13/04	14.62		30.17
	2/4/05	13.74		31.05

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-6  (cont.)	4/13/05	15.59	44.79	29.20
	8/10/05	14.33		30.46
	11/5/05	14.98		29.81
	1/30/06	12.99		31.80
	4/28/06	11.90		32.89
	8/15/06	14.13		30.66
	10/26/06	15.08		29.71
	2/2/07	15.16		29.63
	4/30/07	14.76		30.03
	7/18/07	15.53		29.26
	10/30/07	16.00		28.79
	1/28/08	14.09		30.70
	3/14/08	14.12		30.67
	5/13/08	14.89		29.90
	7/16/08	15.51		29.28
	9/5/08	16.08		29.09
	10/8/08	16.34		28.83
	1/29/09	15.98		29.19
	4/14/09	14.62		30.55
	7/1/09	15.60		29.57
	10/6/09	16.70		28.47
	2/17/10	14.03		31.14
	4/13/10	9.57		35.60
	7/6/10	14.50		30.29
	10/27/10	15.78		29.39
	1/25/11	14.19		30.98
	4/5/11	12.25		32.92
MW-7	2/18/92	15.51	41.54	26.03
	5/14/92	15.41		26.13
	8/27/92	17.45		24.09
	11/19/92	18.54		23.00
	2/3/93	14.10		27.44
	6/23/93	14.33		27.21
	9/22/93	15.92		25.62

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-7  (cont.)	1/24/94	16.07	41.54	25.47
	4/7/94	15.10		26.44
	6/7/94	15.16		26.38
	9/28/94	16.82		24.72
	12/14/94	15.75		25.79
	3/15/95	14.00		27.54
	6/13/95	13.44		28.10
	9/28/95	14.84		26.70
	12/28/95	14.55		26.99
	3/12/96	11.88		29.66
	6/11/96	13.52		28.02
	10/2/96	14.50		27.04
	1/28/97	11.08		30.46
	5/20/97	13.46		28.08
	8/18/97	14.95		26.59
	9/29/97	NM		--
	11/5/97	15.43		26.11
	3/31/98	10.25		31.29
	5/26/98	11.45		30.09
	5/28/98	NM		--
	8/19/98	13.08		28.46
	11/17/98	13.93		27.61
	2/18/99	12.16		29.38
	6/24/99	13.35		28.19
	8/30/99	14.23		27.31
	11/9/99	14.60		26.94
	3/22/00	11.91		29.63
	6/12/00	13.28		28.26
	11/15/00	15.12		26.42
	2/26/01	13.46		28.08
	5/21/01	14.31		27.23
	9/5/01	15.42		26.12
	11/7/01	16.18		25.36

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-7  (cont.)	2/11/02	13.76	43.85	30.09
	6/3/02	14.33		29.52
	8/6/02	15.04		28.81
	11/14/02	15.05		28.80
	2/20/03	14.01		29.84
	5/15/03	13.81		30.04
	7/31/03	14.99		28.86
	10/28/03	15.48		28.37
	2/28/04	12.87		30.98
	4/16/04	13.54		30.31
	7/16/04	13.96		29.89
	11/13/04	14.13		29.72
	2/4/05	13.22		30.63
	4/13/05	12.15		31.70
	8/10/05	13.69		30.16
	11/5/05	14.25		29.60
	1/30/06	12.59		31.26
	4/28/06	11.50		32.35
	8/15/06	13.51		30.34
	10/26/06	14.48		29.37
	2/2/07	14.62		29.23
	4/30/07	14.26		29.59
	7/18/07	14.92		28.93
	10/30/07	15.40		28.45
	1/28/08	13.47		30.38
	3/14/08	13.65		30.20
	5/13/08	14.31		29.54
	7/16/08	14.91		28.94
	9/5/08	15.47	44.24	28.77
	10/8/08	15.83		28.41
	1/29/09	15.46		28.78
	4/14/09	14.16		30.08

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-7  (cont.)	7/1/09	15.06	44.24	29.18
	10/6/09	16.07		28.17
	2/17/10	13.60		30.64
	4/13/10	17.70		26.54
	7/6/10	14.00		30.24
	10/27/10	15.21		29.03
	1/25/11	13.81		30.43
	4/5/11	11.96		32.28
MW-8	2/18/92	16.57	42.26	25.69
	5/14/92	16.24		26.02
	8/27/92	18.28		23.98
	11/19/92	19.32		22.94
	2/3/93	14.87		27.39
	6/23/93	15.18		27.08
	9/22/93	18.79		23.47
	1/24/94	17.06		25.20
	4/7/94	15.95		26.31
	6/7/94	15.10		27.16
	9/28/94	17.63		24.63
	12/14/94	16.66		25.60
	3/15/95	14.30		27.96
	6/13/95	14.37		27.89
	9/28/95	15.62		26.64
	12/28/95	15.62		26.64
	3/12/96	12.75		29.51
	6/11/96	13.94		28.32
	10/2/96	15.41		26.85
	1/28/97	12.30		29.96
	5/20/97	14.42		27.84
	8/18/97	16.16		26.10
	9/29/97	NM		--
	11/5/97	16.25		26.01
	3/31/98	11.49		30.77
	5/26/98	12.60		29.66

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-8  (cont.)	5/28/98	NM	42.26	--
	8/19/98	14.15		28.11
	11/17/98	14.98		27.28
	2/18/99	13.41		28.85
	6/24/99	14.35		27.91
	8/30/99	15.16		27.10
	11/9/99	15.61		26.65
	3/22/00	13.17		29.09
	6/12/00	14.19		28.07
	11/15/00	16.04		26.22
	2/26/01	12.99		29.27
	5/21/01	13.86		28.40
	9/5/01	14.91		27.35
	11/7/01	15.62		26.64
	2/11/02	13.55	44.58	31.03
	6/3/02	13.96		30.62
	8/6/02	15.82		28.76
	11/14/02	15.86		28.72
	2/20/03	14.70		29.88
	5/15/03	14.50		30.08
	7/31/03	15.73		28.85
	10/28/03	16.14		28.44
	2/28/04	14.02		30.56
	4/16/04	14.52		30.06
	7/16/04	14.88		29.70
	11/13/04	15.12		29.46
	2/4/05	14.17		30.41
	4/13/05	13.16		31.42
	8/10/05	14.41		30.17
	11/5/05	14.87		29.71
	1/30/06	13.65		30.93
	4/28/06	12.63		31.95
	8/15/06	14.42		30.16

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-8  (cont.)	10/26/06	15.32	44.58	29.26
	2/2/07	15.52		29.06
	4/30/07	15.15		29.43
	7/18/07	15.80		28.78
	10/30/07	16.23		28.35
	1/28/08	14.81		29.77
	3/14/08	14.67		29.91
	5/13/08	15.30		29.28
	7/16/08	15.82		28.76
	9/5/08	16.35	44.95	28.60
	10/8/08	16.70		28.25
	1/29/09	16.40		28.55
	4/14/09	15.15		29.80
	7/1/09	15.92		29.03
	10/6/09	16.87		28.08
	2/17/10	14.62		30.33
	4/13/10	13.87		31.08
	7/6/10	15.00		29.95
	10/27/10	16.20		28.75
	1/25/11	15.15		29.80
	4/5/11	13.02		31.93
MW-9	2/18/92	18.87	44.94	26.07
	5/14/92	18.55		26.39
	8/27/92	20.80		24.14
	11/19/92	21.90		23.04
	2/3/93	17.25		27.69
	6/23/93	17.61		27.33
	9/22/93	19.18		25.76
	1/24/94	19.17		25.77
	4/7/94	18.23		26.71
	6/7/94	18.40		26.54
	9/28/94	20.01		24.93
	12/14/94	18.88		26.06
	3/15/95	16.24		28.70

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-9  (cont.)	6/13/95	16.75	44.94	28.19
	9/28/95	18.04		26.90
	12/28/95	17.87		27.07
	3/12/96	NM		--
	6/11/96	16.26		28.68
	10/2/96	17.74		27.20
	1/28/97	14.51		30.43
	5/20/97	16.73		28.21
	8/18/97	NM		--
	9/29/97	NM		--
	11/5/97	18.61		26.33
	3/31/98	NM		--
	5/26/98	15.28		29.66
	5/28/98	NM		--
	8/19/98	16.55		28.39
	11/17/98	17.32		27.62
	2/18/99	15.74		29.20
	6/24/99	16.73		28.21
	8/30/99	17.48		27.46
	11/9/99	17.98		26.96
	3/22/00	15.46		29.48
	6/12/00	16.70		28.24
	11/15/00	18.65		26.29
	2/26/01	14.80		30.14
	5/21/01	15.68		29.26
	9/5/01	16.70		28.24
	11/7/01	17.23		27.71
	2/11/02	17.16	47.26	30.10
	6/3/02	17.66		29.60
	8/6/02	18.26		29.00
	11/14/02	18.33		28.93
	2/20/03	16.85		30.41
	5/15/03	16.63		30.63

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-9  (cont.)	7/31/03	17.58	47.26	29.68
	10/28/03	17.93		29.33
	2/28/04	16.22		31.04
	4/16/04	16.82		30.44
	7/16/04	17.33		29.93
	11/13/04	17.42		29.84
	2/4/05	16.68		30.58
	4/13/05	15.78		31.48
	8/10/05	17.11		30.15
	11/5/05	17.59		29.67
	1/30/06	16.06		31.20
	4/28/06	12.50		34.76
	8/15/06	16.87		30.39
	10/26/06	17.87		29.39
	2/2/07	17.88		29.38
	4/30/07	17.48		29.78
	7/18/07	18.15		29.11
	10/30/07	18.55		28.71
	1/28/08	16.98		30.28
	3/14/08	16.89		30.37
	5/13/08	17.48		29.78
	7/16/08	17.95		29.31
	9/5/08	18.61	47.65	29.04
	10/8/08	18.89		28.76
	1/29/09	18.58		29.07
	4/14/09	17.34		30.31
	7/1/09	18.22		29.43
	10/6/09	19.30		28.35
	2/17/10	16.89		30.76
	4/13/10	16.20		31.45
	7/6/10	17.20		30.45
	10/27/10	18.40		29.25
	1/25/11	17.00		30.65
	4/5/11	15.50		32.15

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-10	2/18/92	16.63	42.34	25.71
	5/14/92	15.25		27.09
	5/15/92	NM		--
	8/27/92	18.35		23.99
	8/29/92	NM		--
	11/19/92	19.43		22.91
	2/3/93	15.01		27.33
	6/23/93	15.30		27.04
	9/22/93	16.90		25.44
	1/24/94	NM		--
	4/7/94	15.97		26.37
	6/7/94	16.04		26.30
	9/28/94	17.69		24.65
	12/14/94	16.65		25.69
	3/15/95	14.08		28.26
	6/13/95	14.49		27.85
	9/28/95	15.81		26.53
	12/28/95	15.46		26.88
	3/12/96	12.62		29.72
	6/11/96	14.40		27.94
	10/2/96	15.47		26.87
	1/28/97	15.69		26.65
	5/20/97	14.48		27.86
	8/18/97	15.91		26.43
	9/29/97	NM		--
	11/5/97	16.32		26.02
	3/31/98	12.25		30.09
	5/26/98	12.97		29.37
	5/28/98	NM		--
	8/19/98	14.27		28.07
	11/17/98	15.08		27.26
	2/18/99	13.61		28.73
	6/24/99	14.50		27.84

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-10  (cont.)	8/30/99	15.26	42.34	27.08
	11/9/99	15.72		26.62
	3/22/00	13.40		28.94
	6/12/00	14.42		27.92
	11/15/00	16.75		25.59
	2/26/01	14.73		27.61
	5/21/01	15.25		27.09
	9/5/01	16.35		25.99
	11/7/01	17.05		25.29
	2/11/02	14.94	44.65	29.71
	6/3/02	15.41		29.24
	8/6/02	15.98		28.67
	11/14/02	16.10		28.55
	2/20/03	14.90		29.75
	5/15/03	14.69		29.96
	7/31/03	15.63		29.02
	10/28/03	16.39		28.26
	2/28/04	14.01		30.64
	4/16/04	14.69		29.96
	7/16/04	15.09		29.56
	11/13/04	15.24		29.41
	2/4/05	14.43		30.22
	4/13/05	13.61		31.04
	8/10/05	14.82		29.83
	11/5/05	15.20		29.45
	1/30/06	13.97		30.68
	4/28/06	13.22		31.43
	8/15/06	14.63		30.02
	10/26/06	15.49		29.16
	2/2/07	15.60		29.05
	4/30/07	15.30		29.35
	7/18/07	15.91		28.74

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-10  (cont.)	10/30/07	16.32	44.65	28.33
	1/28/08	14.93		29.72
	3/14/08	14.74		29.91
	5/13/08	15.31		29.34
	7/16/08	15.75		28.90
	9/5/08	16.40	45.04	28.64
	10/8/08	16.62		28.42
	1/29/09	16.42		28.62
	4/14/09	15.24		29.80
	7/1/09	16.00		29.04
	10/6/09	16.98		28.06
	2/17/10	14.72		30.32
	4/13/10	14.08		30.96
	7/6/10	15.05		29.99
	10/27/10	16.20		28.84
	1/25/11	14.90		30.14
	4/5/11	13.40		31.64
MW-11	2/18/92	17.00	45.00	28.00
	5/14/92	19.02		25.98
	8/27/92	21.13		23.87
	11/19/92	17.91		27.09
	2/3/93	17.91		27.09
	6/23/93	18.14		26.86
	9/22/93	19.63		25.37
	1/24/94	19.79		25.21
	4/7/94	18.78		26.22
	6/7/94	18.88		26.12
	9/28/94	20.45		24.55
	12/14/94	19.45		25.55
	3/15/95	17.32		27.68
	6/13/95	17.43		27.57
	9/28/95	18.67		26.33
	12/28/95	18.31		26.69
	3/12/96	15.89		29.11

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-11  (cont.)	6/11/96	16.98	45.00	28.02
	10/2/96	18.20		26.80
	1/28/97	12.53		32.47
	5/20/97	17.36		27.64
	8/18/97	18.84		26.16
	9/29/97	NM		--
	11/5/97	NM		--
	3/31/98	15.39		29.61
	5/26/98	16.25		28.75
	5/28/98	NM		--
	8/19/98	17.30		27.70
	11/17/98	18.05		26.95
	2/18/99	16.87		28.13
	6/24/99	17.50		27.50
	8/30/99	18.19		26.81
	11/9/99	18.64		26.36
	3/22/00	16.52		28.48
	6/12/00	17.44		27.56
	11/15/00	19.07		25.93
	2/26/01	17.80		27.20
	5/21/01	18.23		26.77
	9/5/01	19.21		25.79
	11/7/01	19.80		25.20
	2/11/02	17.40	47.36	29.96
	6/3/02	18.30		29.06
	8/6/02	18.80		28.56
	11/14/02	18.94		28.42
	2/20/03	17.46		29.90
	5/15/03	17.64		29.72
	7/31/03	18.81		28.55
	10/28/03	19.20		28.16
	2/28/04	17.33		30.03
	4/16/04	17.67		29.69

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-11  (cont.)	7/16/04	18.01	47.36	29.35
	11/13/04	18.19		29.17
	2/4/05	17.47		29.89
	4/13/05	16.81		30.55
	8/10/05	17.74		29.62
	11/5/05	18.14		29.22
	1/30/06	17.11		30.25
	4/28/06	16.49		30.87
	8/15/06	17.61		29.75
	10/26/06	18.32		29.04
	2/2/07	18.50		28.86
	4/30/07	18.17		29.19
	7/18/07	18.71		28.65
	10/30/07	19.11		28.25
	1/28/08	17.87		29.49
	3/14/08	17.76		29.60
	5/13/08	18.23		29.13
	7/16/08	18.67		28.69
	9/5/08	19.21	47.69	28.48
	10/8/08	19.52		28.17
	1/29/09	19.28		28.41
	4/14/09	18.21		29.48
	7/1/09	18.90		28.79
	10/6/09	19.80		27.89
	2/17/10	17.74		29.95
	4/13/10	17.24		30.45
	7/6/10	18.05		29.64
	10/27/10	19.10		28.59
	1/25/11	17.92		29.77
	4/5/11	16.67		31.02
MW-12	7/18/07	18.00	46.88	28.88
	10/30/07	18.42		28.46
	1/28/08	16.96		29.92
	3/14/08	16.83		30.05

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-12 (cont.)	5/13/08	17.35	46.88	29.53
	7/16/08	17.70		29.18
	9/5/08	18.51		28.76
	10/8/08	18.75		28.52
	1/29/09	18.49		28.78
	4/14/09	17.34		29.93
	7/1/09	18.13		29.14
	10/6/09	19.03		28.24
	2/17/10	16.90		30.37
	4/13/10	16.28		30.99
	7/6/10	17.19		30.08
	10/27/10	18.30		28.97
	1/25/11	17.05		30.22
	4/5/11	15.60		31.67
RW-1	5/14/92	16.88	43.17	26.29
	5/15/92	NM		--
	8/27/92	19.05		24.12
	11/19/92	21.11		22.06
	2/3/93	15.48		27.69
	6/23/93	28.25		14.92
	9/22/93	17.83		25.34
	1/24/94	24.00		19.17
	4/7/94	16.05		27.12
	6/7/94	16.00		27.17
	9/28/94	18.35		24.82
	12/14/94	19.50		23.67
	3/15/95	17.00		26.17
	4/10/95	NM		--
	6/13/95	14.95		28.22
	9/28/95	27.63		15.54
	12/28/95	14.54		28.63
	3/12/96	11.02		32.15
	6/11/96	14.52		28.65
	10/2/96	15.53		27.64

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
RW-1  (cont.)	1/28/97	12.59	43.17	30.58
	5/20/97	14.85		28.32
	8/18/97	16.19		26.98
	9/29/97	NM		--
	11/5/97	16.95		26.22
	3/31/98	11.85		31.32
	5/26/98	13.13		30.04
	5/28/98	NM		--
	8/19/98	14.70		28.47
	11/17/98	15.54		27.63
	2/18/99	13.75		29.42
	6/24/99	14.96		28.21
	8/30/99	15.75		27.42
	11/9/99	17.45		25.72
	3/22/00	13.51		29.66
	6/12/00	13.65		29.52
	11/15/00	29.45		13.72
	2/26/01	28.40		14.77
	5/21/01	15.36		27.81
	9/5/01	26.90		16.27
	11/7/01	28.41		14.76
	2/11/02	27.61	45.47	17.86
	6/3/02	26.90		18.57
	8/6/02	25.56		19.91
	11/14/02	24.83		20.64
	2/20/03	23.56		21.91
	5/15/03	22.80		22.67
	7/31/03	21.71		23.76
	10/28/03	22.07		23.40
	2/28/04	19.32		26.15
	4/16/04	23.95		21.52
	7/16/04	30.04		15.43
	11/13/04	15.63		29.84

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
RW-1  (cont.)	2/4/05	18.57	45.47	26.90
	4/13/05	24.21		21.26
	8/10/05	33.59		11.88
	11/5/05	25.63		19.84
	1/30/06	24.39		21.08
	4/28/06	16.32		29.15
	8/15/06	34.04		11.43
	10/26/06	25.48		19.99
	2/2/07	16.62		28.85
	4/30/07	NM		--
	7/18/07	30.72		14.75
	10/30/07	31.15		14.32
	1/28/08	26.79		18.68
	3/14/08	15.14		30.33
	5/13/08	15.79		29.68
	7/16/08	16.32		29.15
	9/5/08	16.93	45.86	28.93
	10/8/08	17.21		28.65
	1/29/09	16.87		28.99
	4/14/09	15.63		30.23
	7/1/09	16.53		29.33
	10/6/09	17.48		28.38
	2/17/10	15.08		30.78
	4/13/10	14.30		31.56
	7/6/10	15.48		30.38
	10/27/10	16.70		29.16
	1/25/11	15.25		30.61
	4/5/11	13.43		32.43
RW-2	11/13/04	16.17	45.00	28.83
	2/4/05	15.44		29.56
	4/13/05	14.54		30.46
	8/10/05	15.93		29.07
	11/5/05	16.36		28.64
	1/30/06	14.83		30.17

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
RW-2  (cont.)	4/28/06	13.93	45.00	31.07
	8/15/06	15.67		29.33
	10/26/06	23.50		21.50
	2/2/07	14.27		30.73
	4/30/07	18.35		26.65
	7/18/07	17.95		27.05
	10/30/07	17.63		27.37
	1/28/08	15.91		29.09
	3/14/08	15.69		29.31
	5/13/08	16.32		28.68
	7/16/08	16.81		28.19
	9/5/08	17.39	46.40	29.01
	10/8/08	17.63		28.77
	1/29/09	17.35		29.05
	4/14/09	16.20		30.20
	7/1/09	17.00		29.40
	10/6/09	18.00		28.40
	2/17/10	15.64		30.76
	4/13/10	14.90		31.50
	7/6/10	15.95		30.45
	10/27/10	17.17		29.23
	1/25/11	15.74		30.66
	4/5/11	14.13		32.27
OS-1	9/5/08	18.14	47.19	29.05
	10/8/08	18.41		28.78
	1/29/09	18.10		29.09
	4/14/09	16.86		30.33
	7/1/09	17.78		29.41
	10/6/09	18.78		28.41
	10/6/09	18.78		28.41
	2/17/10	16.37		30.82
	1/25/11	16.53		30.66
OS-2	9/5/08	17.75	46.79	29.04
	10/8/08	NM		--

TABLE C-1

**HISTORICAL WELL AND GROUNDWATER ELEVATIONS**  
**TESORO - SAN LORENZO, 67107**

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
OS-2 (cont.)	1/29/09	17.74	46.79	29.05
	4/14/09	16.50		30.29
	7/1/09	17.38		29.41
	10/6/09	18.42		28.37
	10/6/09	18.42		28.37
	2/17/10	16.00		30.79
	1/25/11	16.15		30.64
OS-3	9/5/08	16.68	45.68	29.00
	10/8/08	16.95		28.73
	1/29/09	16.60		29.08
	4/14/09	15.33		30.35
	7/1/09	16.26		29.42
	10/6/09	17.30		28.38
	10/6/09	17.30		28.38
	2/17/10	14.80		30.88
	1/25/11	14.94		30.74
OS-4	9/5/08	17.00	46.02	29.02
	10/8/08	17.26		28.76
	1/29/09	16.97		29.05
	4/14/09	15.70		30.32
	7/1/09	16.61		29.41
	10/6/09	17.63		28.39
	10/6/09	17.63		28.39
	2/17/10	15.16		30.86
	1/25/11	15.34		30.68
PT-1	9/5/08	17.50	46.48	28.98
	10/8/08	17.77		28.71
	1/29/09	17.47		29.01
	4/14/09	16.21		30.27
	7/1/09	17.10		29.38
	10/6/09	18.10		28.38
	10/6/09	18.10		28.38
	2/17/10	15.66		30.82

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
PT-1 (cont.)	7/6/10	16.10	46.48	30.38
	10/27/10	17.27		29.21
	1/25/11	15.85		30.63
	4/5/11	14.20		32.28

(a) Elevation of PVC well casing relative to mean sea level (MSL), provided by RDM Environmental, Inc. (RDM), Fourth Quarter 2007 Groundwater Monitoring Report.

Wells were surveyed by Cross Land Surveying, Inc., per AB 2886 requirements on 26 September 2008.

(b) Difference between "PVC Casing Elevation" and "Depth to Water."

(c) NM = Well not measured.

(d) "--" Not calculated.

(e) Field logs noted well was plugged at 14 feet below top of casing on 20 May 1997.

**ATTACHMENT D**

**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> ( $\mu\text{g/l}$ )	Benzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Toluene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Ethylbenzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Total Xylenes <sup>(b)</sup> ( $\mu\text{g/l}$ )	MTBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	DIPE <sup>(b)</sup> ( $\mu\text{g/l}$ )	ETBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	TAME <sup>(b)</sup> ( $\mu\text{g/l}$ )	TBA <sup>(b)</sup> ( $\mu\text{g/l}$ )
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-1	5/15/92	41,000	2,000	47	1,200	400	-- <sup>(e)</sup>	--	--	--	--
	8/28/92	110,000	3,800	54	850	970	--	--	--	--	--
	11/19/92	3,600	200	ND<0.5 <sup>(f)</sup>	90	140	--	--	--	--	--
	2/3/93	3,000	180	22	79	130	--	--	--	--	--
	6/23/93	12,000	2,400	74	650	510	--	--	--	--	--
	9/22/93	23,000	3,000	290	1,100	1,200	--	--	--	--	--
	1/24/94	18,000	2,400	280	1,100	1,700	--	--	--	--	--
	4/7/94	20,000	4,200	820	1,600	2,100	--	--	--	--	--
	6/7/94	26,000	1,800	510	1,100	1,600	--	--	--	--	--
	9/28/94	18,000	1,700	210	970	870	--	--	--	--	--
	12/14/94	31,000	4,400	2,400	2,300	4,300	--	--	--	--	--
	3/15/95	17,000	830	310	840	1,200	--	--	--	--	--
	6/13/95	22,000	1,300	99	1,500	1,100	--	--	--	--	--
	9/28/95	8,800	580	ND<25	780	410	--	--	--	--	--
	12/28/95	4,800	4.9	ND<1.3	ND<1.3	290	74	--	--	--	--
	1/30/96	1,500	17	7.1	20	45	63	--	--	--	--
	3/12/96	110	ND<0.5	ND<0.5	ND<0.5	ND<0.5	44	--	--	--	--
	9/11/96	600	48	0.90	37	26	75	--	--	--	--
	10/2/96	210	16	ND<0.5	6.0	0.92	11	--	--	--	--
	1/28/97	150	ND<0.5	ND<0.5	ND<0.5	ND<0.5	160	--	--	--	--
	5/20/97	680	ND<2.5	ND<2.5	ND<2.5	ND<2.5	640	--	--	--	--
	8/18/97	ND<250	ND<2.5	ND<2.5	ND<2.5	ND<2.5	540	--	--	--	--
	11/5/97	ND<250	2.8	ND<2.5	ND<2.5	ND<2.5	390	--	--	--	--
	3/31/98	3,300	260	13	110	150	7,900	--	--	--	--
	5/28/98	7,800	120	ND<10	39	55	9,300	--	--	--	--
	8/19/98	ND<250	12	ND<2.5	6.0	3.8	2,200	--	--	--	--
	11/17/98	860	8.3	ND<2.5	9.2	7.6	4,200	--	--	--	--
	2/18/99	310	2.7	ND<2.5	ND<2.5	3.9	4,200	--	--	--	--
	6/24/99	860	10	ND<2.5	12	6.5	3,400	--	--	--	--
	8/30/99	140	2.0	ND<0.5	3.9	2.0	2,800	--	--	--	--
	11/9/99	170	ND<0.5	ND<0.5	3.1	2.0	1,500	--	--	--	--
	3/22/00	ND<200	2.8	ND<2	3.6	ND<2	1,200	--	--	--	--
	6/12/00	190	1.3	ND<1	ND<1	ND<1	640	--	--	--	--
	11/15/00	240	ND<1	ND<1	ND<1	ND<1	960	--	--	--	--
	2/26/01	ND<100	1.2	ND<1	ND<1	ND<1	2,800	--	--	--	--
	5/21/01	ND<200	ND<2	ND<2	ND<2	ND<2	540	--	--	--	--
	9/5/01	ND<200	7.0	ND<2	ND<2	ND<2	550	--	--	--	--

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (µg/l)	Benzene <sup>(b)</sup> (µg/l)	Toluene <sup>(b)</sup> (µg/l)	Ethylbenzene <sup>(b)</sup> (µg/l)	Total Xylenes <sup>(b)</sup> (µg/l)	MTBE <sup>(b)</sup> (µg/l)	DIPE <sup>(b)</sup> (µg/l)	ETBE <sup>(b)</sup> (µg/l)	TAME <sup>(b)</sup> (µg/l)	TBA <sup>(b)</sup> (µg/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-1 (cont.)	11/7/01	290	ND<2	ND<2	ND<2	ND<2	750	--	--	--	--
	2/11/02	270	ND<1	ND<1	ND<1	ND<1	450	--	--	--	--
	6/3/02	310	ND<2	ND<2	ND<2	ND<2	610	--	--	--	--
	8/6/02	170	ND<0.5	ND<0.5	ND<0.5	ND<0.5	540	--	--	--	--
	11/14/02	490	ND<2	ND<2	ND<2	ND<2	900	--	--	--	--
	2/20/03	210	ND<1	ND<1	ND<1	ND<1	320	--	--	--	--
	5/15/03	400	ND<1.5	ND<1.5	ND<1.5	ND<1.5	670	ND<1.5	ND<1.5	ND<1.5	ND<15
	7/31/03	380	ND<1.5	ND<1.5	ND<1.5	ND<1.5	620	ND<1.5	ND<1.5	ND<1.5	ND<15
	10/28/03	230	ND<1	ND<1	ND<1	ND<1	470	ND<1	ND<1	ND<1	ND<10
	2/28/04	300	ND<0.5	ND<0.5	ND<0.5	ND<0.5	400	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/16/04	ND<200	ND<1.5	ND<1.5	ND<1.5	ND<1.5	510	ND<1.5	ND<1.5	ND<1.5	ND<15
	7/16/04	280	ND<1.5	ND<1.5	ND<1.5	ND<1.5	660	ND<1.5	ND<1.5	ND<1.5	ND<15
	11/13/04	ND<100	ND<1	ND<1	ND<1	ND<1	530	ND<1	ND<1	ND<1	19
	2/4/05	140	ND<1	ND<1	ND<1	ND<1	610	ND<1	ND<1	ND<1	18
	4/13/05	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	19	ND<0.5	ND<0.5	ND<0.5	12
	8/10/05	100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	170	ND<0.5	ND<0.5	ND<0.5	17
	11/5/05	220	ND<0.5	ND<0.5	ND<0.5	ND<0.5	95	ND<0.5	ND<0.5	ND<0.5	24
	1/30/06	92	ND<0.5	ND<0.5	ND<0.5	ND<0.5	120	ND<0.5	ND<0.5	ND<0.5	20
	4/28/06	57	ND<0.5	ND<0.5	ND<0.5	ND<0.5	18	ND<0.5	ND<0.5	ND<0.5	13
	8/15/06	60	ND<0.5	ND<0.5	ND<0.5	ND<0.5	15	ND<0.5	ND<0.5	ND<0.5	10
	10/26/06	110	ND<0.5	ND<0.5	ND<0.5	ND<0.5	34	ND<0.5	ND<0.5	ND<0.5	6.2
	2/2/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	17	ND<0.5	ND<0.5	ND<0.5	6.7
	4/30/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/18/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.94	ND<0.5	ND<0.5	68	5.5
	10/30/07	77 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.0	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/28/08	56 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.6	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/13/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.2	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/16/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.3	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/8/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.7	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	98	ND<0.5	ND<0.5	ND<0.5	ND<0.5	11	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	19	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.2	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/1/09	110	ND<0.5	ND<0.5	ND<0.5	ND<0.5	24	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	170	ND<0.5	ND<0.5	ND<0.5	ND<0.5	28	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/17/10	60	ND<0.5	ND<0.5	ND<0.5	ND<0.5	21	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4.9	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/6/10	160	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.1	ND<0.5	ND<0.5	ND<0.5	ND<5

**TABLE D-1**  
**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> ( $\mu\text{g/l}$ )	Benzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Toluene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Ethylbenzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Total Xylenes <sup>(b)</sup> ( $\mu\text{g/l}$ )	MTBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	DIPE <sup>(b)</sup> ( $\mu\text{g/l}$ )	ETBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	TAME <sup>(b)</sup> ( $\mu\text{g/l}$ )	TBA <sup>(b)</sup> ( $\mu\text{g/l}$ )
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-1 (cont.)	10/27/10	200	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4.7	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/25/11	140	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.8	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/5/11	63	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.59	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-2	2/18/92	1,600	ND<0.5	ND<0.5	1.9	ND<0.5	--	--	--	--	--
	5/14/92	740	1.2	1.0	1.3	ND<0.5	--	--	--	--	--
	8/27/92	1,400	6.5	1.1	0.60	ND<0.5	--	--	--	--	--
	11/19/92	360	ND<0.5	ND<0.5	2.7	ND<0.5	--	--	--	--	--
	2/3/93	590	1.2	1.6	4.5	6.4	--	--	--	--	--
	6/23/93	160	ND<0.5	ND<0.5	0.52	0.50	--	--	--	--	--
	9/22/93	290	ND<0.5	0.59	1.2	0.59	--	--	--	--	--
	1/24/94	330	ND<0.5	ND<0.5	0.68	ND<0.5	--	--	--	--	--
	4/7/94	490	ND<0.5	ND<0.5	ND<0.5	4.4	--	--	--	--	--
	6/7/94	550	ND<0.5	ND<0.5	1.5	ND<0.5	--	--	--	--	--
	9/28/94	190	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/14/94	1,400	7.2	0.84	ND<0.5	ND<0.5	--	--	--	--	--
	3/15/95	730	39	ND<0.5	0.53	ND<0.5	--	--	--	--	--
	6/13/95	750 <sup>(g)</sup>	8.3	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/28/95	670 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/28/95	3,100	9.5	ND<5	ND<5	5.2	4,600	--	--	--	--
	3/12/96	710	ND<1.3	ND<1.3	ND<1.3	ND<1.3	3,200	--	--	--	--
	6/13/96	1,900 <sup>(g)</sup>	1.6	1.6	ND<1.3	ND<1.3	5,100	--	--	--	--
	10/2/96	2,800	ND<2.5	ND<2.5	ND<2.5	ND<2.5	7,900	--	--	--	--
	1/28/97	130	ND<0.5	ND<0.5	ND<0.5	ND<0.5	210	--	--	--	--
	5/20/97	1,400	120	16	ND<2.5	4.0	390	--	--	--	--
	8/18/97	ND<250	ND<2.5	ND<2.5	ND<2.5	ND<2.5	2,000	--	--	--	--
	11/5/97	ND<250	ND<2.5	ND<2.5	ND<2.5	ND<2.5	2,900	--	--	--	--
	3/31/98	ND<10,000	ND<0.5	ND<0.5	ND<0.5	ND<0.5	85,000	--	--	--	--
	5/28/98	ND<50,000	ND<500	ND<500	ND<500	ND<500	97,000	--	--	--	--
	8/19/98	210	ND<0.5	ND<0.5	ND<0.5	ND<0.5	22,000	--	--	--	--
	11/17/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	17,000	--	--	--	--
	2/18/99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	13,000	--	--	--	--
	6/24/99	180	ND<15	ND<15	ND<15	ND<15	39,000	--	--	--	--
	8/30/99	ND<2,500	ND<25	ND<25	ND<25	ND<25	18,000	--	--	--	--
	11/9/99	ND<500	ND<5	ND<5	ND<5	ND<5	14,000	--	--	--	--
	3/22/00	ND<500	ND<5	ND<5	ND<5	ND<5	54,000	--	--	--	--
	6/12/00	ND<2,000	ND<20	ND<20	ND<20	ND<20	53,000	--	--	--	--
	11/15/00	ND<5,000	ND<50	ND<50	ND<50	ND<50	35,000	--	--	--	--

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> ( $\mu\text{g/l}$ )	Benzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Toluene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Ethylbenzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Total Xylenes <sup>(b)</sup> ( $\mu\text{g/l}$ )	MTBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	DIPE <sup>(b)</sup> ( $\mu\text{g/l}$ )	ETBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	TAME <sup>(b)</sup> ( $\mu\text{g/l}$ )	TBA <sup>(b)</sup> ( $\mu\text{g/l}$ )
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-2 (cont.)	2/26/01	ND<2,000	ND<20	ND<20	ND<20	ND<20	2,800	--	--	--	--
	5/21/01	ND<5,000	ND<25	ND<25	ND<25	ND<25	20,000	--	--	--	--
	9/5/01	ND<2,000	ND<20	ND<20	ND<20	ND<20	12,000	--	--	--	--
	11/7/01	ND<2,000	ND<20	ND<20	ND<20	ND<20	7,600	--	--	--	--
	2/11/02	ND<500	ND<5	ND<5	ND<5	ND<5	1500	--	--	--	--
	6/3/02	ND<500	ND<5	ND<5	ND<5	ND<5	2,200	--	--	--	--
	8/6/02	ND<500	ND<5	ND<5	ND<5	ND<5	3,300	--	--	--	--
	11/14/02	ND<1,000	ND<10	ND<10	ND<10	ND<10	3,200	--	--	--	--
	2/20/03	ND<50	ND<2	ND<2	ND<2	ND<2	160	--	--	--	--
	5/15/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	270	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/31/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	300	ND<2	ND<0.5	ND<0.5	ND<5
	10/28/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1,600	ND<1	ND<0.5	1.8	20
	2/28/04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	340	ND<1.5	ND<0.5	ND<0.5	ND<5
	4/16/04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	130	ND<1.5	ND<0.5	ND<0.5	35
	7/16/04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	68	ND<1	ND<0.5	ND<0.5	ND<5
	11/13/04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	35	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/4/05	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	22	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/13/05	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	11	ND<0.5	ND<0.5	ND<0.5	ND<5
	8/10/05	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	12	ND<0.5	ND<0.5	ND<0.5	ND<5
	11/5/05	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	11	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.2	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/28/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.3	ND<0.5	ND<0.5	ND<0.5	ND<5
	8/15/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.7	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/26/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.9	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/2/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.1	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/30/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.85	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/18/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.2	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/30/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.7	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/28/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.89	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/13/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.86	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/16/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.3	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/8/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.8	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.6	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.77	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/1/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.6	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.3	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/17/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.58	ND<0.5	ND<0.5	ND<0.5	ND<5

**TABLE D-1**  
**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (µg/l)	Benzene <sup>(b)</sup> (µg/l)	Toluene <sup>(b)</sup> (µg/l)	Ethylbenzene <sup>(b)</sup> (µg/l)	Total Xylenes <sup>(b)</sup> (µg/l)	MTBE <sup>(b)</sup> (µg/l)	DIPE <sup>(b)</sup> (µg/l)	ETBE <sup>(b)</sup> (µg/l)	TAME <sup>(b)</sup> (µg/l)	TBA <sup>(b)</sup> (µg/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-2 (cont.)	4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/6/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/27/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/25/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/5/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-3	5/15/92	160,000	6,300	5,900	1,700	6,100	--	--	--	--	--
	8/28/92	1,300,000	2,500	40,000	6,700	44,000	--	--	--	--	--
	2/3/93	82,000	7,200	11,000	2,900	13,000	--	--	--	--	--
	6/23/93	61,000	3,200	5,300	2,500	9,100	--	--	--	--	--
	9/22/93	94,000	12,000	14,000	3,900	18,000	--	--	--	--	--
	1/24/94	110,000	14,000	17,000	4,200	14,000	--	--	--	--	--
	4/7/94	28,000	6,500	1,800	1,700	4,100	--	--	--	--	--
	6/7/94	27,000	6,400	2,300	1,500	3,500	--	--	--	--	--
	9/28/94	40,000	7,400	4,300	1,500	4,600	--	--	--	--	--
	12/14/94	140,000	17,000	21,000	3,900	22,000	--	--	--	--	--
	3/15/95	58,000	4,900	1,900	1,800	7,100	--	--	--	--	--
	6/13/95	44,000	7,200	2,900	1,200	4,600	--	--	--	--	--
	9/28/95	30,000	5,600	2,100	1,900	6,900	--	--	--	--	--
	12/28/95	16,000	32	5.8	18	4,700	360	--	--	--	--
	1/30/96	8,700	850	800	190	1,700	430	--	--	--	--
	3/12/96	2,400	48	64	5.3	630	97	--	--	--	--
	7/10/97	300	ND<0.5	ND<0.5	ND<0.5	4.8	40	--	--	--	--
	8/18/97	3,600	480	8.4	100	230	170	--	--	--	--
	9/29/97	3,500	740	8.6	160	240	210	--	--	--	--
	11/5/97	4,100	870	15	180	210	240	--	--	--	--
	3/31/98	12,000	1,800	600	410	1,400	510	--	--	--	--
	5/28/98	6,500	1,500	400	280	870	480	--	--	--	--
	8/19/98	1,400	130	11	24	60	140	--	--	--	--
	11/17/98	510	48	3.5	9.9	14	120	--	--	--	--
	2/18/99	690	67	28	24	81	88	--	--	--	--
	6/24/99	540	27	21	8.6	32	61	--	--	--	--
	8/30/99	250	12	12	3.2	13	50	--	--	--	--
	11/9/99	230	9.8	5.3	3.4	10	48	--	--	--	--
	3/22/00	1,500	180	47	46	100	80	--	--	--	--
	6/12/00	920	100	6.2	20	25	76	--	--	--	--
	11/15/00	1,100	280	5.0	21	20	140	--	--	--	--
	2/26/01	140	14	4.3	3.1	11	230	--	--	--	190

**TABLE D-1**  
**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> ( $\mu\text{g/l}$ )	Benzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Toluene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Ethylbenzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Total Xylenes <sup>(b)</sup> ( $\mu\text{g/l}$ )	MTBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	DIPE <sup>(b)</sup> ( $\mu\text{g/l}$ )	ETBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	TAME <sup>(b)</sup> ( $\mu\text{g/l}$ )	TBA <sup>(b)</sup> ( $\mu\text{g/l}$ )
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-3 (cont.)	5/21/01	510	36	0.72	1.0	2.2	280	--	--	--	110
	9/5/01	390	59	0.53	0.75	0.57	620	--	--	--	120
	11/7/01	830	170	2.3	4.9	4.8	900	--	--	--	--
	2/11/02	370	17	ND<2.5	4.7	7.9	1,200	--	--	--	--
	6/3/02	460	120	ND<2.5	5.6	8.4	1,400	--	--	--	140
	8/6/02	800	110	ND<5	ND<5	ND<5	2,200	--	--	--	170
	11/14/02	1,400	89	ND<10	ND<10	ND<10	2,800	--	--	--	210
	2/20/03	ND<500	14	ND<5	ND<5	ND<5	2,300	--	--	--	97
	5/15/03	ND<500	43	ND<5	ND<5	ND<5	2,000	ND<5	ND<5	ND<5	87
	7/31/03	1,500	280	ND<5	6.6	7.4	1,600	ND<5	ND<5	ND<5	130
	10/28/03	2,200	140	1.6	6.5	4.0	1,100	ND<0.5	ND<0.5	0.75	74
	2/28/04	1,200	99	31	12	52	1,500	ND<0.5	ND<0.5	ND<0.5	82
	4/16/04	1,200	95	19	12	48	1,100	ND<0.5	ND<0.5	ND<0.5	340
	7/16/04	980	94	27	9.4	38	810	ND<0.5	ND<0.5	ND<0.5	580
MW-3R	11/13/04	9,000	580	52	440	1,600	450	ND<0.5	ND<0.5	ND<0.5	440
	2/4/05	5,400	350	29	260	1,100	270	ND<0.5	ND<0.5	ND<0.5	390
	4/13/05	20,000	1,300	84	1,200	3,200	290	ND<0.5	ND<0.5	ND<0.5	150
	8/10/05	7,100	400	23	340	1,200	110	ND<0.5	ND<0.5	ND<0.5	160
	11/5/05	4,100	230	10	250	600	81	ND<0.5	ND<0.5	ND<0.5	200
	1/30/06	6,100	460	20	470	1,000	85	ND<0.5	ND<0.5	ND<0.5	190
	4/28/06	8,200	510	15	490	940	81	ND<0.5	ND<0.5	ND<0.5	90
	8/15/06	5,600	470	11	500	680	80	ND<0.5	ND<0.5	ND<0.5	92
	10/26/06	1,800	82	4.2	38	220	53	ND<0.5	ND<0.5	ND<0.5	45
	2/2/07	1,500	94	4.3	7.0	110	42	ND<0.5	ND<0.5	ND<0.5	26
	4/30/07	3,700	240	17	280	300	38	ND<0.5	ND<0.5	ND<0.5	22
	7/18/07	690	85	1.5	3.6	20	29	ND<0.5	ND<0.5	ND<0.5	17
	10/30/07	410	46	0.90	4.7	12	19	ND<0.5	ND<0.5	ND<0.5	14
	1/28/08	4,500	350	10	250	220	48	ND<0.5	ND<0.5	ND<0.5	22
	5/13/08	1,300	68	4.4	74	38	18	ND<0.5	ND<0.5	ND<0.5	15
	7/16/08	1,400	71	9.8	38	20	35	ND<0.5	ND<0.5	ND<0.5	33
DUP	10/8/08	980	66	2.5	6.7	ND<0.5	32	ND<0.5	ND<0.5	ND<0.5	22
	1/29/09	58	ND<0.5	ND<0.5	ND<0.5	ND<0.5	11	ND<0.5	ND<0.5	ND<0.5	8.0
	1/30/09	860	82	1.4	16	4.3	19	ND<0.5	ND<0.5	ND<0.5	21
	4/15/09	120	1.6	ND<0.5	ND<0.5	ND<0.5	12	ND<0.5	ND<0.5	ND<0.5	16
	7/1/09	690	30	1.2	4.4	2.0	19	ND<0.5	ND<0.5	ND<0.5	20
	10/7/09	480	28	0.73	2.3	1.5	20	ND<0.5	ND<0.5	ND<0.5	16
	2/18/10	400	38	0.76	25	6.5	10	ND<0.5	ND<0.5	ND<0.5	18

**TABLE D-1**  
**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> ( $\mu\text{g/l}$ )	Benzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Toluene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Ethylbenzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Total Xylenes <sup>(b)</sup> ( $\mu\text{g/l}$ )	MTBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	DIPE <sup>(b)</sup> ( $\mu\text{g/l}$ )	ETBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	TAME <sup>(b)</sup> ( $\mu\text{g/l}$ )	TBA <sup>(b)</sup> ( $\mu\text{g/l}$ )
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-3R	4/14/10	840	81	1.4	62	22	16	ND<0.5	ND<0.5	ND<0.5	16
	7/7/10	570	59	0.94	21	5.6	13	ND<0.5	ND<0.5	ND<0.5	16
	10/27/10	420	24	0.56	2.1	0.83	12	ND<0.5	ND<0.5	ND<0.5	14
	1/25/11	1,100	64	1.1	40	9.4	9.8	ND<0.5	ND<0.5	ND<0.5	14
	4/6/11	980	71	1.2	43	14	14	ND<0.5	ND<0.5	ND<0.5	11
MW-4	2/18/92	5,100	ND<0.5	ND<0.5	12	21	--	--	--	--	--
	5/14/92	4,600	ND<0.5	5.6	1.8	2.2	--	--	--	--	--
	8/28/92	1,700	6.6	1.3	1.6	3.1	--	--	--	--	--
	11/19/92	400	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	2/3/93	1,100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/23/93	120	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/22/93	110	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	1/24/94	260	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	4/7/94	430	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/7/94	150	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/28/94	75	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/14/94	160	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	3/15/95	500	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/13/95	210 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/28/95	140 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/28/95	510 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	3/12/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	6/11/96	50 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	10/2/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	1/28/97	270 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	5/20/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	8/18/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	11/5/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--
	3/31/98	110	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	5/28/98	94	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	8/19/98	120 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	46	--	--	--	--
	11/17/98	ND<50	1.3	ND<0.5	ND<0.5	ND<0.5	780	--	--	--	--
	2/18/99	130	8.2	ND<0.5	ND<0.5	ND<0.5	240	--	--	--	--
	6/24/99	ND<50	ND<1	ND<0.5	ND<0.5	ND<0.5	2,100	--	--	--	--
	11/9/99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2,500	--	--	--	--
	3/22/00	69	ND<0.5	ND<0.5	ND<0.5	ND<0.5	12,000	--	--	--	--
	6/12/00	ND<2,000	ND<20	ND<20	ND<20	ND<20	17,000	--	--	--	--

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> ( $\mu\text{g/l}$ )	Benzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Toluene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Ethylbenzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Total Xylenes <sup>(b)</sup> ( $\mu\text{g/l}$ )	MTBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	DIPE <sup>(b)</sup> ( $\mu\text{g/l}$ )	ETBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	TAME <sup>(b)</sup> ( $\mu\text{g/l}$ )	TBA <sup>(b)</sup> ( $\mu\text{g/l}$ )
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-4 (cont.)	11/15/00	ND<100	ND<1	ND<1	ND<1	ND<1	17,000	--	--	--	--
	5/21/01	ND<5,000	ND<25	ND<25	ND<25	ND<25	13,000	--	--	--	--
	11/7/01	ND<1,000	ND<10	ND<10	ND<10	ND<10	3,800	--	--	--	--
	6/3/02	ND<200	ND<2	ND<2	ND<2	ND<2	1,100	--	--	--	--
	11/14/02	ND<200	ND<2	ND<2	ND<2	ND<2	700	--	--	--	--
	5/15/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	73	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/28/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	65	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/16/04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.0	ND<0.5	ND<0.5	ND<0.5	ND<5
	11/13/04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	50	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/28/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.89	ND<0.5	ND<0.5	ND<0.5	ND<5
	8/15/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	8.8	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/26/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.7	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/2/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.0	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/30/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/18/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/30/07	90	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/28/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.7	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/13/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/16/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.51	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/8/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/1/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.56	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/17/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/6/10	ND<50	ND<0.5	ND<0.5	0.62	0.83	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/27/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.65	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/25/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/5/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-5	2/18/92	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	5/14/92	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	8/27/92	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	11/19/92	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	2/3/93	55	3.0	2.7	8.0	9.9	--	--	--	--	--
	6/23/93	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (µg/l)	Benzene <sup>(b)</sup> (µg/l)	Toluene <sup>(b)</sup> (µg/l)	Ethylbenzene <sup>(b)</sup> (µg/l)	Total Xylenes <sup>(b)</sup> (µg/l)	MTBE <sup>(b)</sup> (µg/l)	DIPE <sup>(b)</sup> (µg/l)	ETBE <sup>(b)</sup> (µg/l)	TAME <sup>(b)</sup> (µg/l)	TBA <sup>(b)</sup> (µg/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-5 (cont.)	9/22/93	ND<50	0.66	1.1	ND<0.5	0.60	--	--	--	--	--
	1/24/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	4/7/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/7/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/28/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/14/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	3/15/95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/13/95	ND<50	ND<0.5	0.52	ND<0.5	ND<0.5	--	--	--	--	--
	9/28/95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/28/95	120	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	3/12/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	9.0	--	--	--	--
	6/11/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	10/2/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	1/28/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	5/20/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	8/18/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	11/5/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--
	3/31/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	5/28/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	8/19/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.1	--	--	--	--
	11/17/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.3	--	--	--	--
	2/18/99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	3/22/00	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	10/8/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/27/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-6	2/18/92	370	4.8	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	5/14/92	120	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	8/27/92	ND<50	1.2	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	11/19/92	66	1.3	ND<0.5	1.0	1.1	--	--	--	--	--
	2/3/93	100	1.9	2.6	23	12	--	--	--	--	--
	6/23/93	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/22/93	81	2.2	3.8	0.53	2.7	--	--	--	--	--
	1/24/94	98	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	4/7/94	150	0.71	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (µg/l)	Benzene <sup>(b)</sup> (µg/l)	Toluene <sup>(b)</sup> (µg/l)	Ethylbenzene <sup>(b)</sup> (µg/l)	Total Xylenes <sup>(b)</sup> (µg/l)	MTBE <sup>(b)</sup> (µg/l)	DIPE <sup>(b)</sup> (µg/l)	ETBE <sup>(b)</sup> (µg/l)	TAME <sup>(b)</sup> (µg/l)	TBA <sup>(b)</sup> (µg/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-6 (cont.)	6/7/94	180	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/28/94	100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/14/94	140	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	3/15/95	110	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/13/95	150 <sup>(g)</sup>	ND<0.5	0.87	ND<0.5	ND<0.5	--	--	--	--	--
	9/28/95	ND<50	0.78	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/28/95	410	ND<0.5	ND<0.5	ND<0.5	ND<0.5	70	--	--	--	--
	1/30/96	81	1.0	ND<0.5	ND<0.5	ND<0.5	46	--	--	--	--
	3/12/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.0	--	--	--	--
	6/11/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	10/2/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	1/28/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	5/20/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	8/18/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	11/5/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.8	--	--	--	--
	3/31/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	5/28/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	8/19/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	11/17/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	2/18/99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	3/22/00	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	10/8/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.1	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/15/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/1/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.71	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.0	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/18/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.71	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/7/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/27/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.64	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/25/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/6/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-7	2/18/92	670	16	ND<0.5	10	16	--	--	--	--	--
	5/14/92	1,500	44	ND<0.5	38	88	--	--	--	--	--
	8/27/92	23,000	400	5.8	290	1,400	--	--	--	--	--
	11/19/92	330	29	ND<0.5	10	53	--	--	--	--	--
	2/3/93	2,000	200	ND<0.5	110	480	--	--	--	--	--

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (µg/l)	Benzene <sup>(b)</sup> (µg/l)	Toluene <sup>(b)</sup> (µg/l)	Ethylbenzene <sup>(b)</sup> (µg/l)	Total Xylenes <sup>(b)</sup> (µg/l)	MTBE <sup>(b)</sup> (µg/l)	DIPE <sup>(b)</sup> (µg/l)	ETBE <sup>(b)</sup> (µg/l)	TAME <sup>(b)</sup> (µg/l)	TBA <sup>(b)</sup> (µg/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-7 (cont.)	6/23/93	280	20	ND<0.5	16	16	--	--	--	--	--
	9/22/93	860	71	2.2	33	210	--	--	--	--	--
	1/24/94	900	61	ND<1.3	10	160	--	--	--	--	--
	4/7/94	630	53	ND<0.5	7.1	49	--	--	--	--	--
	6/7/94	730	55	ND<0.5	14	24	--	--	--	--	--
	9/28/94	300	21	ND<0.5	2.3	3.1	--	--	--	--	--
	12/14/94	430	19	ND<0.5	3.3	32	--	--	--	--	--
	3/15/95	70	0.88	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/13/95	190	7.3	0.79	7.6	8.9	--	--	--	--	--
	9/28/95	60	1.5	ND<0.5	1.2	0.84	--	--	--	--	--
	12/28/95	60	ND<0.5	ND<0.5	0.91	0.69	10	--	--	--	--
	3/12/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	11	--	--	--	--
	6/11/96	79	ND<0.5	ND<0.5	ND<0.5	ND<0.5	16	--	--	--	--
	10/2/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	26	--	--	--	--
	1/28/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	13	--	--	--	--
	5/20/97	78	ND<0.5	0.85	ND<0.5	ND<0.5	40	--	--	--	--
	8/18/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	18	--	--	--	--
	11/5/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	8.0	--	--	--	--
	3/31/98	ND<50	ND<0.5	ND<0.5	ND<0.5	1.3	6.0	--	--	--	--
	5/28/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	10	--	--	--	--
	8/19/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	27	--	--	--	--
	11/17/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	30	--	--	--	--
	2/18/99	51	ND<0.5	ND<0.5	ND<0.5	ND<0.5	22	--	--	--	--
	11/9/99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	16	--	--	--	--
	3/22/00	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	18	--	--	--	--
	11/15/00	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	17	--	--	--	--
	11/7/01	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.4	--	--	--	--
	11/14/02	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.64	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/28/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	11/13/04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/2/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/30/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/30/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/13/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/16/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/8/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5

**TABLE D-1**  
**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (µg/l)	Benzene <sup>(b)</sup> (µg/l)	Toluene <sup>(b)</sup> (µg/l)	Ethylbenzene <sup>(b)</sup> (µg/l)	Total Xylenes <sup>(b)</sup> (µg/l)	MTBE <sup>(b)</sup> (µg/l)	DIPE <sup>(b)</sup> (µg/l)	ETBE <sup>(b)</sup> (µg/l)	TAME <sup>(b)</sup> (µg/l)	TBA <sup>(b)</sup> (µg/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-7 (cont.)	1/29/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/27/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/5/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-8	2/18/92	1,200	ND<0.5	ND<0.5	9.5	ND<0.5	--	--	--	--	--
	5/14/92	130	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	8/27/92	140	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	11/19/92	320	ND<0.5	ND<0.5	2.0	ND<0.5	--	--	--	--	--
	2/3/93	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/23/93	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/22/93	ND<50	ND<0.5	ND<0.5	0.67	ND<0.5	--	--	--	--	--
	1/24/94	290	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	4/7/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/7/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/28/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/14/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	3/15/95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/13/95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/28/95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	3/12/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	6/11/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	10/2/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	1/28/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	5/20/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	8/18/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	11/5/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--
	3/31/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	5/28/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	8/19/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	11/17/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	2/18/99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	3/22/00	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	4/30/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/18/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/13/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> ( $\mu\text{g/l}$ )	Benzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Toluene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Ethylbenzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Total Xylenes <sup>(b)</sup> ( $\mu\text{g/l}$ )	MTBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	DIPE <sup>(b)</sup> ( $\mu\text{g/l}$ )	ETBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	TAME <sup>(b)</sup> ( $\mu\text{g/l}$ )	TBA <sup>(b)</sup> ( $\mu\text{g/l}$ )
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-8 (cont.)	7/16/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/8/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/27/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-9	2/18/92	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	5/14/92	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	8/27/92	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	11/19/92	ND<50	ND<0.5	ND<0.5	ND<0.5	1.3	--	--	--	--	--
	2/3/93	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/23/93	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/22/93	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	1/24/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	4/7/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/7/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/28/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/14/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	3/15/95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/13/95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/28/95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/28/95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	6/11/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	10/2/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	1/28/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	5/20/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	11/5/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--
	8/19/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	11/17/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	2/18/99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	3/22/00	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	6/3/02	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--
	8/6/02	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/30/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/18/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/13/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (µg/l)	Benzene <sup>(b)</sup> (µg/l)	Toluene <sup>(b)</sup> (µg/l)	Ethylbenzene <sup>(b)</sup> (µg/l)	Total Xylenes <sup>(b)</sup> (µg/l)	MTBE <sup>(b)</sup> (µg/l)	DIPE <sup>(b)</sup> (µg/l)	ETBE <sup>(b)</sup> (µg/l)	TAME <sup>(b)</sup> (µg/l)	TBA <sup>(b)</sup> (µg/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-9 (cont.)	7/16/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/8/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/1/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/18/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/27/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/25/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-10	2/18/92	18,000	110	57	440	53	--	--	--	--	--
	5/15/92	8,500	24	9.8	97	ND<0.5	--	--	--	--	--
	8/29/92	9,600	20	2.8	40	3.5	--	--	--	--	--
	11/19/92	5,700	36	21	330	31	--	--	--	--	--
	2/3/93	2,200	15	4.6	36	9.6	--	--	--	--	--
	6/23/93	8,100	21	24	540	45	--	--	--	--	--
	9/22/93	6,200	22	17	350	16	--	--	--	--	--
	4/7/94	4,000	6.4	2.9	150	4.7	--	--	--	--	--
	6/7/94	6,700	5.6	ND<2.5	150	5.7	--	--	--	--	--
	9/28/94	5,700	2.2	2.6	110	44	--	--	--	--	--
	12/14/94	3,500	ND<1.3	ND<1.3	77	27	--	--	--	--	--
	3/15/95	7,200	ND<5	6.7	150	23	--	--	--	--	--
	6/13/95	8,400	9.0	48	610	130	--	--	--	--	--
	9/28/95	6,300	22	17	360	24	--	--	--	--	--
	12/28/95	5,000	4.4	5.6	340	11	37	--	--	--	--
	3/12/96	4,500	1.4	5.9	41	73	120	--	--	--	--
	6/11/96	7,500	ND<5	25	350	81	ND<25	--	--	--	--
	10/2/96	2,600	18	ND<2.5	ND<2.5	ND<2.5	ND<25	--	--	--	--
	1/28/97	2,800	5.9	ND<2.5	29	19	ND<25	--	--	--	--
	5/20/97	6,000	ND<20	34	290	74	ND<100	--	--	--	--
	8/18/97	5,900	ND<20	7.7	94	15	ND<50	--	--	--	--
	11/5/97	5,400	1.1	0.86	47	1.6	2.3	--	--	--	--
	3/31/98	20,000	56	180	1,400	3,700	250	--	--	--	--
	5/28/98	16,000	76	200	1,600	3,900	190	--	--	--	--
	8/19/98	14,000	95	160	1,300	1,700	ND<100	--	--	--	--

**TABLE D-1**  
**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> ( $\mu\text{g/l}$ )	Benzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Toluene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Ethylbenzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Total Xylenes <sup>(b)</sup> ( $\mu\text{g/l}$ )	MTBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	DIPE <sup>(b)</sup> ( $\mu\text{g/l}$ )	ETBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	TAME <sup>(b)</sup> ( $\mu\text{g/l}$ )	TBA <sup>(b)</sup> ( $\mu\text{g/l}$ )
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-10 (cont.)	11/17/98	7,500	82	64	590	150	290	--	--	--	--
	2/18/99	4,700	41	16	270	79	ND<100	--	--	--	--
	6/24/99	9,400	27	74	280	160	300	--	--	--	--
	8/30/99	8,500	15	33	160	33	290	--	--	--	--
	11/9/99	7,600	3.9	11	60	14	120	--	--	--	--
	3/22/00	5,800	3.5	33	360	320	160	--	--	--	--
	6/12/00	7,200	4.3	47	370	210	270	--	--	--	--
	11/15/00	4,400	0.54	2.2	3.8	7.3	420	--	--	--	--
	2/26/01	5,000	ND<1	2.5	24	13	860	--	--	--	--
	5/21/01	3,500	ND<0.5	3.2	4.1	12	530	--	--	--	--
	9/5/01	3,400	ND<2	ND<2	ND<2	4.1	770	--	--	--	--
	11/7/01	3,600	ND<0.5	0.64	0.75	2.7	790	--	--	--	--
	2/11/02	4,100	ND<2	2.2	61	26	750	--	--	--	--
	6/3/02	4,100	ND<1	7.0	67	37	320	--	--	--	--
	8/6/02	4,500	ND<1	5.4	18	18	310	--	--	--	--
	11/14/02	5,200	ND<1	ND<1	2.2	6.4	280	ND<0.5	ND<0.5	ND<0.5	13
	2/20/03	6,300	ND<1.5	9.5	280	69	220	ND<2	ND<2	ND<2	--
	5/15/03	5,700	1.2	14	280	78	130	ND<1	ND<1	ND<1	11
	7/31/03	4,700	ND<0.5	4.5	20	17	110	ND<1.5	ND<1.5	ND<1.5	7.5
	10/28/03	1,900	ND<0.5	0.54	0.80	2.9	88	ND<1.5	ND<1.5	ND<1.5	5.9
	2/28/04	3,500	ND<1	ND<1	17	7.9	44	ND<1	ND<1	ND<1	ND<10
	4/16/04	6,000	ND<1.5	3.0	150	34	53	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/16/04	6,300	ND<1	3.5	110	29	40	ND<0.5	ND<0.5	ND<0.5	ND<5
	11/13/04	4,900	ND<0.5	4.8	42	23	25	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/4/05	5,000	ND<0.5	3.3	46	30	21	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/13/05	4,000	0.81	6.5	200	120	29	ND<0.5	ND<0.5	ND<0.5	ND<5
	8/10/05	6,600	2.0	6.5	74	72	29	ND<0.5	ND<0.5	ND<0.5	ND<5
	11/5/05	6,000	3.0	9.7	17	56	5.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/06	3,800	1.8	3.9	61	29	16	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/28/06	5,800	3.1	7.0	210	120	38	ND<0.5	ND<0.5	ND<0.5	8.4
	8/15/06	5,400	1.7	4.2	22	40	42	ND<0.5	ND<0.5	ND<0.5	7.3
	10/26/06	5,000	0.71	2.2	4.8	25	24	ND<0.5	ND<0.5	ND<0.5	5.0
	2/2/07	4,900	0.72	2.3	7.4	15	21	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/30/07	4,300	ND<0.5	2.2	7.6	16	13	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/18/07	2,700	ND<0.5	0.97	ND<0.5	3.4	4.8	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/30/07	3,400	ND<0.5	0.73	ND<0.5	2.1	1.9	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/28/08	2,600	ND<0.5	0.88	ND<0.5	1.5	0.76	ND<0.5	ND<0.5	ND<0.5	ND<5

**TABLE D-1**  
**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (µg/l)	Benzene <sup>(b)</sup> (µg/l)	Toluene <sup>(b)</sup> (µg/l)	Ethylbenzene <sup>(b)</sup> (µg/l)	Total Xylenes <sup>(b)</sup> (µg/l)	MTBE <sup>(b)</sup> (µg/l)	DIPE <sup>(b)</sup> (µg/l)	ETBE <sup>(b)</sup> (µg/l)	TAME <sup>(b)</sup> (µg/l)	TBA <sup>(b)</sup> (µg/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-10 (cont.)	5/13/08	4,100	ND<0.5	0.66	ND<0.5	3.0	1.1	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/16/08	2,700	ND<0.5	ND<0.5	ND<0.5	1.4	0.80	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/8/08	1,900	ND<0.5	ND<0.5	ND<0.5	0.63	0.63	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/09	1,900	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.88	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/09	2,800	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.72	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/15/09	2,400	ND<0.5	ND<0.5	0.67	1.4	1.7	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/1/09	2,900	ND<0.5	ND<0.5	ND<0.5	1.4	1.4	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	2,800	ND<0.5	ND<0.5	ND<0.5	0.61	1.3	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/17/10	3,300	ND<0.5	ND<0.5	0.58	0.90	1.0	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/10	4,300	ND<0.5	ND<0.5	24	6.9	0.80	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/7/10	3,600	ND<0.5	ND<0.5	2.0	9.1	1.8	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/27/10	2,900	ND<0.5	ND<0.5	ND<0.5	2.0	0.88	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/25/11	3,500	ND<0.5	ND<0.5	1.6	2.1	0.59	ND<0.5	ND<0.5	ND<0.5	ND<5
DUP	4/5/11	4,000	ND<0.5	0.55	34	11	1.7	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/18/92	2,400	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	5/14/92	1,600	ND<0.5	1.9	1.3	0.70	--	--	--	--	--
	8/27/92	2,100	15	2.0	0.60	1.2	--	--	--	--	--
	11/19/92	490	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	2/3/93	500	ND<0.5	ND<0.5	0.55	ND<0.5	--	--	--	--	--
	6/23/93	350	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/22/93	200	ND<0.5	0.65	ND<0.5	0.71	--	--	--	--	--
	1/24/94	450	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	4/7/94	500	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/7/94	560	ND<0.5	ND<0.5	ND<0.5	0.64	--	--	--	--	--
	9/28/94	600	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/14/94	340	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	3/15/95	340	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/13/95	210 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/28/95	93	4.1	0.50	ND<0.5	ND<0.5	--	--	--	--	--
	12/28/95	380 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	3/12/96	110	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	6/11/96	400 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	10/2/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	1/28/97	110 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	5/20/97	330	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	8/18/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--
	3/31/98	460	ND<0.5	2.8	12	16	ND<0.5	--	--	--	--

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> ( $\mu\text{g/l}$ )	Benzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Toluene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Ethylbenzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Total Xylenes <sup>(b)</sup> ( $\mu\text{g/l}$ )	MTBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	DIPE <sup>(b)</sup> ( $\mu\text{g/l}$ )	ETBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	TAME <sup>(b)</sup> ( $\mu\text{g/l}$ )	TBA <sup>(b)</sup> ( $\mu\text{g/l}$ )
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-11 (cont.)	5/28/98	1,100	14	24	88	75	24	--	--	--	--
	8/19/98	1200	16	9.6	69	17	6.0	--	--	--	--
	11/17/98	580	15	4.4	14	ND<0.5	21	--	--	--	--
	2/18/99	390	8.0	ND<0.5	1.4	ND<0.5	44	--	--	--	--
	6/24/99	610	4.6	ND<0.5	0.66	ND<0.5	59	--	--	--	--
	11/9/99	250	0.87	ND<0.5	ND<0.5	ND<0.5	66	--	--	--	--
	3/22/00	330	ND<0.5	ND<0.5	ND<0.5	ND<0.5	100	--	--	--	--
	6/12/00	52	ND<0.5	ND<0.5	ND<0.5	ND<0.5	49	--	--	--	--
	11/15/00	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.8	--	--	--	--
	5/21/01	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	30	--	--	--	--
	11/7/01	360	ND<0.5	ND<0.5	ND<0.5	ND<0.5	330	--	--	--	--
	6/3/02	120	ND<0.5	ND<0.5	ND<0.5	ND<0.5	220	ND<0.5	ND<0.5	ND<0.5	13
	11/14/02	240	ND<1	ND<1	ND<1	ND<1	380	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/15/03	160	ND<0.5	ND<0.5	ND<0.5	ND<0.5	170	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/28/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	35	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/28/04	360	ND<0.5	ND<0.5	ND<0.5	ND<0.5	140	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/16/04	440	ND<0.5	ND<0.5	ND<0.5	ND<0.5	110	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/16/04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	10	ND<0.5	ND<0.5	ND<0.5	ND<5
	11/13/04	230	ND<0.5	ND<0.5	ND<0.5	ND<0.5	49	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/4/05	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.0	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/13/05	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	12	ND<0.5	ND<0.5	ND<0.5	ND<5
	11/5/05	310	ND<0.5	0.71	ND<0.5	1.6	4.8	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.0	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/28/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.8	ND<0.5	ND<0.5	ND<0.5	ND<5
	8/15/06	65	ND<0.5	ND<0.5	ND<0.5	ND<0.5	9.1	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/26/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.3	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/2/07	930	ND<0.5	ND<0.5	ND<0.5	0.72	27	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/30/07	740	ND<0.5	0.58	ND<0.5	0.64	28	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/18/07	490	ND<0.5	ND<0.5	ND<0.5	ND<0.5	19	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/30/07	420	ND<0.5	ND<0.5	ND<0.5	ND<0.5	28	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/28/08	280	ND<0.5	ND<0.5	ND<0.5	ND<0.5	18	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/13/08	480	ND<0.5	ND<0.5	ND<0.5	ND<0.5	9.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/16/08	370	ND<0.5	ND<0.5	ND<0.5	ND<0.5	13	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/8/08	320	ND<0.5	ND<0.5	ND<0.5	ND<0.5	13	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/09	280	ND<0.5	ND<0.5	ND<0.5	ND<0.5	11	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/09	300	ND<0.5	ND<0.5	ND<0.5	ND<0.5	8.1	ND<0.5	ND<0.5	ND<0.5	ND<5
DUP	4/15/09	300	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.2	ND<0.5	ND<0.5	ND<0.5	ND<5

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> ( $\mu\text{g/l}$ )	Benzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Toluene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Ethylbenzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Total Xylenes <sup>(b)</sup> ( $\mu\text{g/l}$ )	MTBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	DIPE <sup>(b)</sup> ( $\mu\text{g/l}$ )	ETBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	TAME <sup>(b)</sup> ( $\mu\text{g/l}$ )	TBA <sup>(b)</sup> ( $\mu\text{g/l}$ )
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-11 (cont.)	7/1/09	240	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.1	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	410	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.0	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/17/10	460	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.0	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/10	260	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.77	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/7/10	400	ND<0.5	ND<0.5	ND<0.5	0.80	1.9	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/27/10	130	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.74	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/25/11	240	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.77	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/5/11	250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.2	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-12	7/18/07	68 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/30/07	70 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/28/08	60 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	0.57	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/13/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/16/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/8/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/1/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/17/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/27/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/25/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/5/11	53	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
RW-1	5/15/92	790	270	62	29	140	--	--	--	--	--
	8/27/92	24,000	1,300	200	68	810	--	--	--	--	--
	2/3/93	620	71	35	22	110	--	--	--	--	--
	6/23/93	220	30	33	9.8	35	--	--	--	--	--
	9/22/93	4,100	800	400	170	910	--	--	--	--	--
	1/24/94	190	33	6.0	6.9	23	--	--	--	--	--
	4/7/94	1,500	110	57	32	260	--	--	--	--	--
	6/7/94	1,700	130	51	45	180	--	--	--	--	--
	9/28/94	350	54	9.2	12	29	--	--	--	--	--
	12/14/94	79	6.8	2.1	1.2	3.4	--	--	--	--	--
	4/10/95	410	54	11	11	69	--	--	--	--	--
	6/13/95	8,200	1,600	780	340	1,400	--	--	--	--	--
	9/28/95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/28/95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--

**TABLE D-1**  
**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (µg/l)	Benzene <sup>(b)</sup> (µg/l)	Toluene <sup>(b)</sup> (µg/l)	Ethylbenzene <sup>(b)</sup> (µg/l)	Total Xylenes <sup>(b)</sup> (µg/l)	MTBE <sup>(b)</sup> (µg/l)	DIPE <sup>(b)</sup> (µg/l)	ETBE <sup>(b)</sup> (µg/l)	TAME <sup>(b)</sup> (µg/l)	TBA <sup>(b)</sup> (µg/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
RW-1 (cont.)	3/12/96	86	ND<0.5	ND<0.5	ND<0.5	ND<0.5	110	--	--	--	--
	6/11/96	230	38	11	4.7	50	68	--	--	--	--
	10/2/96	360	68	29	14	75	47	--	--	--	--
	1/28/97	ND<50	0.77	ND<0.5	ND<0.5	ND<0.5	9.0	--	--	--	--
	5/20/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	32	--	--	--	--
	8/18/97	220	25	ND<0.5	ND<0.5	3.6	170	--	--	--	--
	9/29/97	900	240	2.8	51	55	230	--	--	--	--
	11/5/97	1,300	340	3.2	59	78	220	--	--	--	--
	3/31/98	4,100	450	130	200	940	4,100	--	--	--	--
	5/28/98	14,000	830	210	170	720	14,000	--	--	--	--
	8/19/98	2,100	20	ND<2.5	7.1	15	2,100	--	--	--	--
	11/17/98	630	7.8	ND<2.5	5.6	ND<2.5	730	--	--	--	--
	2/18/99	180	6.7	1.6	3.2	15	100	--	--	--	--
	6/24/99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	42	--	--	--	--
	8/30/99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	79	--	--	--	--
	11/9/99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	78	--	--	--	--
	3/22/00	ND<50	1.2	ND<0.5	ND<0.5	ND<0.5	17	--	--	--	--
	6/12/00	ND<50	ND<0.5	ND<0.5	ND<0.5	1.0	40	--	--	--	--
	11/15/00	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	290	--	--	--	--
	2/26/01	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	360	--	--	--	--
	5/21/01	100	4.1	1.6	1.8	23	170	--	--	--	--
	9/5/01	73	33	ND<0.5	ND<0.5	ND<0.5	310	--	--	--	--
	11/7/01	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	240	--	--	--	--
	2/11/02	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	21	--	--	--	--
	6/3/02	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	160	ND<0.5	ND<0.5	ND<0.5	7.7
	8/6/02	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	190	ND<0.5	ND<0.5	ND<0.5	6.0
	11/14/02	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	170	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/20/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	120	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/15/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	110	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/31/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	99	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/28/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	88	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/28/04	ND<50	1.3	ND<0.5	ND<0.5	ND<0.5	52	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/16/04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	57	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/16/04	ND<50	0.72	ND<0.5	ND<0.5	ND<0.5	100	ND<0.5	ND<0.5	ND<0.5	4.2
	11/13/04	ND<50	1.0	ND<0.5	ND<0.5	ND<0.5	71	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/4/05	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	45	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/13/05	ND<50	1.1	ND<0.5	ND<0.5	ND<0.5	52	ND<0.5	ND<0.5	ND<0.5	12

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> ( $\mu\text{g/l}$ )	Benzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Toluene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Ethylbenzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Total Xylenes <sup>(b)</sup> ( $\mu\text{g/l}$ )	MTBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	DIPE <sup>(b)</sup> ( $\mu\text{g/l}$ )	ETBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	TAME <sup>(b)</sup> ( $\mu\text{g/l}$ )	TBA <sup>(b)</sup> ( $\mu\text{g/l}$ )
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
RW-1 (cont.)	8/10/05	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	29	ND<0.5	ND<0.5	ND<0.5	ND<5
	11/5/05	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	27	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/06	ND<50	0.61	ND<0.5	ND<0.5	1.3	23	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/28/06	ND<50	0.69	ND<0.5	ND<0.5	1.6	16	ND<0.5	ND<0.5	ND<0.5	ND<5
	8/15/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	18	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/26/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	16	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/2/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	12	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/30/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	8.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/18/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.3	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/30/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.9	ND<0.5	ND<0.5	ND<0.5	ND<5
DUP	1/28/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.3	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/13/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.5	ND<0.5	ND<0.5	ND<0.5	6.8
	7/16/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.2	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/8/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.6	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.2	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	8.7	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.3	ND<0.5	ND<0.5	ND<0.5	6.6
	7/1/09	750	ND<0.5	ND<0.5	ND<0.5	0.67	1.7	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	0.68	ND<0.5	ND<0.5	ND<0.5	23	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/17/10	82	3.0	ND<0.5	4.0	1.4	10	ND<0.5	ND<0.5	ND<0.5	ND<5
RW-2	4/13/10	ND<50	4.2	ND<0.5	4.8	1.1	9.7	ND<0.5	ND<0.5	ND<0.5	7.5
	7/6/10	ND<50	0.82	ND<0.5	ND<0.5	ND<0.5	8.0	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/28/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.4	ND<0.5	ND<0.5	ND<0.5	6.6
	1/25/11	230	17	ND<0.5	1.2	ND<0.5	9.6	ND<0.5	ND<0.5	ND<0.5	9.3
	4/5/11	410	26	0.52	7.6	3.9	8.3	ND<0.5	ND<0.5	ND<0.5	8.1
	11/13/04	4,200	ND<0.5	ND<0.5	45	70	29	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/4/05	2,900	ND<0.5	ND<0.5	24	24	41	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/13/05	1,400	ND<0.5	ND<0.5	8.6	9.9	39	ND<0.5	ND<0.5	ND<0.5	ND<5
	8/10/05	2,900	ND<0.5	ND<0.5	26	33	29	ND<0.5	ND<0.5	ND<0.5	ND<5
	11/5/05	2,400	ND<0.5	ND<0.5	16	19	12	ND<0.5	ND<0.5	ND<0.5	ND<5
RW-2	1/30/06	1,200	ND<0.5	ND<0.5	4.6	5.3	17	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/28/06	1,200	ND<0.5	ND<0.5	12	15	19	ND<0.5	ND<0.5	ND<0.5	ND<5
	8/15/06	1,200	ND<0.5	ND<0.5	6.7	7.0	18	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/26/06	760	ND<0.5	ND<0.5	0.81	7.5	7.6	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/2/07	1,100	ND<0.5	ND<0.5	0.75	1.3	2.3	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/30/07	3,300	190	13	230	230	32	ND<0.5	ND<0.5	ND<0.5	18
	7/18/07	810	ND<0.5	ND<0.5	1.1	3.2	2.2	ND<0.5	ND<0.5	ND<0.5	ND<5

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (µg/l)	Benzene <sup>(b)</sup> (µg/l)	Toluene <sup>(b)</sup> (µg/l)	Ethylbenzene <sup>(b)</sup> (µg/l)	Total Xylenes <sup>(b)</sup> (µg/l)	MTBE <sup>(b)</sup> (µg/l)	DIPE <sup>(b)</sup> (µg/l)	ETBE <sup>(b)</sup> (µg/l)	TAME <sup>(b)</sup> (µg/l)	TBA <sup>(b)</sup> (µg/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
RW-2 (cont.)	10/30/07	290	29	0.60	2.7	6.5	15	ND<0.5	ND<0.5	ND<0.5	8.6
	1/28/08	3,300	250	7.9	190	170	33	ND<0.5	ND<0.5	ND<0.5	17
	5/13/08	190	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.8	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/16/08	360	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.4	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/8/08	400	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4.7	ND<0.5	ND<0.5	ND<0.5	ND<5
DUP	1/29/09	100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/09	430	ND<0.5	ND<0.5	ND<0.5	0.74	0.74	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/15/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.51	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/1/09	52	1.5	ND<0.5	ND<0.5	ND<0.5	14	ND<0.5	ND<0.5	ND<0.5	6.7
	10/7/09	350	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.85	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/18/10	620	ND<0.5	ND<0.5	ND<0.5	0.92	0.84	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/10	390	ND<0.5	ND<0.5	ND<0.5	1.1	0.97	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/7/10	380	ND<0.5	ND<0.5	ND<0.5	0.79	0.82	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/28/10	220	ND<0.5	ND<0.5	ND<0.5	0.67	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/25/11	460	ND<0.5	ND<0.5	ND<0.5	0.70	0.52	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/6/11	280	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
DW-15800 <sup>(h)</sup>	1/14/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.81	ND<0.5	ND<0.5	ND<0.5	ND<5
	3/20/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	9/19/06	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/5/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/29/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
DW-15808 <sup>(h)</sup>	1/14/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	3/20/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	9/19/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/5/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/29/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
DW-246 <sup>(h)</sup>	9/19/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/5/07 <sup>(i)</sup>	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.0
	2/21/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/29/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
OS-1 DUP	9/5/08	800	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/8/08	610	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	65	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/09	150	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/15/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/1/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> ( $\mu\text{g/l}$ )	Benzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Toluene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Ethylbenzene <sup>(b)</sup> ( $\mu\text{g/l}$ )	Total Xylenes <sup>(b)</sup> ( $\mu\text{g/l}$ )	MTBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	DIPE <sup>(b)</sup> ( $\mu\text{g/l}$ )	ETBE <sup>(b)</sup> ( $\mu\text{g/l}$ )	TAME <sup>(b)</sup> ( $\mu\text{g/l}$ )	TBA <sup>(b)</sup> ( $\mu\text{g/l}$ )
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
OS-1 (cont.)	10/7/09	60	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/18/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/25/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
OS-2	9/5/08	1,300	ND<0.5	0.56	ND<0.5	ND<0.5	0.99	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	200	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/09	1900	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.55	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/15/09	1200	ND<0.5	ND<0.5	0.72	ND<0.5	1.3	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/1/09	1,500	ND<0.5	ND<0.5	0.69	ND<0.5	1.8	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	1,200	ND<0.5	ND<0.5	0.55	ND<0.5	1.4	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/18/10	140	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.82	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/25/11	1,200	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.2	ND<0.5	ND<0.5	ND<0.5	ND<5
OS-3	9/5/08	3,200	160	15	72	470	19	ND<0.5	ND<0.5	ND<0.5	23
	10/8/08	4,100	240	38	240	630	22	ND<0.5	ND<0.5	ND<0.5	20
DUP	1/29/09	670	78	3.5	75	28	11	ND<0.5	ND<0.5	ND<0.5	7.8
	1/30/09	1,400	140	5.3	120	120	11	ND<0.5	ND<0.5	ND<0.5	16
	4/15/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	32	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/1/09	2,100	220	6.8	190	250	20	ND<0.5	ND<0.5	ND<0.5	18
	10/7/09	2,100	230	6.5	150	230	20	ND<0.5	ND<0.5	ND<0.5	16
	2/18/10	1,600	180	3.7	120	140	23	ND<0.5	ND<0.5	ND<0.5	8.6
	1/25/11	140	13	ND<0.5	3.1	0.64	25	ND<0.5	ND<0.5	ND<0.5	6.7
	9/5/08	210	ND<0.5	ND<0.5	ND<0.5	3.6	16	ND<0.5	ND<0.5	ND<0.5	ND<5
DUP	10/8/08	170	4.2	ND<0.5	ND<0.5	2.4	12	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	ND<50	1.4	ND<0.5	ND<0.5	ND<0.5	21	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/09	ND<50	ND<0.5	ND<0.5	0.79	ND<0.5	22	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/15/09	88	12	ND<0.5	2.2	0.58	19	ND<0.5	ND<0.5	ND<0.5	28
	7/1/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	34	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	680	14	ND<0.5	8.6	12	38	ND<0.5	ND<0.5	ND<0.5	12
	2/18/10	ND<50	ND<0.5	ND<0.5	ND<0.5	0.55	25	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/25/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.8	ND<0.5	ND<0.5	ND<0.5	ND<5
PT-1	9/5/08	240	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.9	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/8/08	140	ND<0.5	ND<0.5	ND<0.5	1.0	5.4	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.3	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.6	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/15/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.9	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/1/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	13	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	13	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/18/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	17	ND<0.5	ND<0.5	ND<0.5	ND<5

**TABLE D-1**  
**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (µg/l)	Benzene <sup>(b)</sup> (µg/l)	Toluene <sup>(b)</sup> (µg/l)	Ethylbenzene <sup>(b)</sup> (µg/l)	Total Xylenes <sup>(b)</sup> (µg/l)	MTBE <sup>(b)</sup> (µg/l)	DIPE <sup>(b)</sup> (µg/l)	ETBE <sup>(b)</sup> (µg/l)	TAME <sup>(b)</sup> (µg/l)	TBA <sup>(b)</sup> (µg/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
PT-1 (cont.)	4/14/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	13	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/7/10	61	ND<0.5	ND<0.5	ND<0.5	ND<0.5	8.2	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/28/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	9.4	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/25/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.3	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/6/11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.4	ND<0.5	ND<0.5	ND<0.5	ND<5

- (a) Samples collected before January 2008 reported by others; data provided by RDM Environmental, Inc. (RDM), Fourth Quarter 2007 Groundwater Monitoring Report
- (b) Total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes, methyl tert-butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), tert-amyl methyl ether (TAME), tert-butyl alcohol (TBA), analyzed by EPA Method 8260; reported in micrograms per liter (µg/l).
- (c) Environmental Screening Levels (ESLs) taken from Regional Water Quality Control Board, San Francisco Bay Region, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Volume 1: Summary Tier 1 Lookup tables dated November 2007.
- (d) NE - Not established.
- (e) -- - Not analyzed.
- (f) ND - Not detected at the reporting limit listed; reporting limit not listed if not previously reported.
- (g) Not typical gasoline.
- (h) Domestic water wells (used as irrigation wells); DW-15800 collected from well at 15800 Via Cordoba, DW-15808 collected from well at 15808 Via Cordoba, DW-246 collected from well at 246 Peach Drive in San Lorenzo, CA.
- (i) Property owner had the RDM technician sample a faucet plumbed to city water. RDM resampled the 246 Peach well on 21 February 2007.

**ATTACHMENT E**

**LABORATORY ANALYTICAL REPORT AND  
CHAIN-OF-CUSTODY FORM**



Report Number : 77019

Date : 04/13/2011

## Laboratory Results

Mike Purchase  
Arctos Environmental  
1332 Peralta Avenue  
Berkeley, CA 94702

Subject : 12 Water Samples  
Project Name : Tesoro - San Lorenzo #67107  
Project Number : 01ZO

Dear Mr. Purchase,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed. Testing procedures comply with the 2003 NELAC standard. All soil samples are reported on a total weight (wet weight) basis unless noted otherwise in the case narrative. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Kiff".

Joel Kiff



Report Number : 77019

Date : 04/13/2011

Subject : 12 Water Samples  
Project Name : Tesoro - San Lorenzo #67107  
Project Number : 01ZO

## Case Narrative

The Method Reporting Limit for Ethanol has been increased due to the presence of an interfering compound for sample MW-10.

California Laboratory Services provided analytical testing associated with these samples, but is not accredited by the National Environmental Laboratory Accreditation Program (NELAP).



Report Number : 77019

Date : 04/13/2011

Project Name : **Tesoro - San Lorenzo #67107**Project Number : **01ZO**Sample : **MW-1**

Matrix : Water

Lab Number : 77019-01

Sample Date : 04/05/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	04/06/11 23:00
Toluene	< 0.50	0.50	ug/L	EPA 8260B	04/06/11 23:00
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	04/06/11 23:00
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	04/06/11 23:00
<b>Methyl-t-butyl ether (MTBE)</b>	<b>0.59</b>	0.50	ug/L	EPA 8260B	04/06/11 23:00
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	04/06/11 23:00
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	04/06/11 23:00
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	04/06/11 23:00
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	04/06/11 23:00
Methanol	< 50	50	ug/L	EPA 8260B	04/06/11 23:00
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	04/06/11 23:00
<b>TPH as Gasoline</b>	<b>63</b>	50	ug/L	EPA 8260B	04/06/11 23:00
1,2-Dichloroethane-d4 (Surr)	99.5		% Recovery	EPA 8260B	04/06/11 23:00
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	04/06/11 23:00



Report Number : 77019

Date : 04/13/2011

Project Name : **Tesoro - San Lorenzo #67107**Project Number : **01ZO**Sample : **MW-2**

Matrix : Water

Lab Number : 77019-02

Sample Date : 04/05/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	04/06/11 23:31
Toluene	< 0.50	0.50	ug/L	EPA 8260B	04/06/11 23:31
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	04/06/11 23:31
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	04/06/11 23:31
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	04/06/11 23:31
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	04/06/11 23:31
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	04/06/11 23:31
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	04/06/11 23:31
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	04/06/11 23:31
Methanol	< 50	50	ug/L	EPA 8260B	04/06/11 23:31
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	04/06/11 23:31
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	04/06/11 23:31
1,2-Dichloroethane-d4 (Surr)	99.2		% Recovery	EPA 8260B	04/06/11 23:31
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	04/06/11 23:31



Report Number : 77019

Date : 04/13/2011

Project Name : **Tesoro - San Lorenzo #67107**Project Number : **01ZO**Sample : **MW-3R**

Matrix : Water

Lab Number : 77019-03

Sample Date : 04/06/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Nitrate as N	<b>0.62</b>	0.10	mg/L	EPA 300.0	04/07/11 13:07
Sulfate	<b>24</b>	0.50	mg/L	EPA 300.0	04/07/11 13:07
Iron	<b>3.1</b>	0.10	mg/L	EPA 6010B	04/12/11 16:29
Benzene	<b>71</b>	0.50	ug/L	EPA 8260B	04/07/11 00:03
Toluene	<b>1.2</b>	0.50	ug/L	EPA 8260B	04/07/11 00:03
Ethylbenzene	<b>43</b>	0.50	ug/L	EPA 8260B	04/07/11 00:03
Total Xylenes	<b>14</b>	0.50	ug/L	EPA 8260B	04/07/11 00:03
<b>Methyl-t-butyl ether (MTBE)</b>	<b>14</b>	0.50	ug/L	EPA 8260B	04/07/11 00:03
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 00:03
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 00:03
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 00:03
<b>Tert-Butanol</b>	<b>11</b>	5.0	ug/L	EPA 8260B	04/07/11 00:03
Methanol	< 50	50	ug/L	EPA 8260B	04/07/11 00:03
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	04/07/11 00:03
<b>TPH as Gasoline</b>	<b>980</b>	50	ug/L	EPA 8260B	04/07/11 00:03
1,2-Dichloroethane-d4 (Surr)	97.0		% Recovery	EPA 8260B	04/07/11 00:03
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	04/07/11 00:03



Report Number : 77019

Date : 04/13/2011

Project Name : **Tesoro - San Lorenzo #67107**Project Number : **01ZO**Sample : **MW-4**

Matrix : Water

Lab Number : 77019-04

Sample Date : 04/05/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 00:34
Toluene	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 00:34
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 00:34
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 00:34
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 00:34
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 00:34
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 00:34
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 00:34
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	04/07/11 00:34
Methanol	< 50	50	ug/L	EPA 8260B	04/07/11 00:34
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	04/07/11 00:34
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	04/07/11 00:34
1,2-Dichloroethane-d4 (Surr)	99.5		% Recovery	EPA 8260B	04/07/11 00:34
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	04/07/11 00:34



Report Number : 77019

Date : 04/13/2011

Project Name : **Tesoro - San Lorenzo #67107**Project Number : **01ZO**Sample : **MW-6**

Matrix : Water

Lab Number : 77019-05

Sample Date : 04/06/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Nitrate as N	17	0.50	mg/L	EPA 300.0	04/07/11 14:32
Sulfate	40	2.5	mg/L	EPA 300.0	04/07/11 14:32
Iron	8.9	0.10	mg/L	EPA 6010B	04/12/11 16:33
Benzene	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 01:06
Toluene	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 01:06
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 01:06
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 01:06
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 01:06
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 01:06
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 01:06
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 01:06
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	04/07/11 01:06
Methanol	< 50	50	ug/L	EPA 8260B	04/07/11 01:06
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	04/07/11 01:06
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	04/07/11 01:06
1,2-Dichloroethane-d4 (Surr)	99.8		% Recovery	EPA 8260B	04/07/11 01:06
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	04/07/11 01:06



Report Number : 77019

Date : 04/13/2011

Project Name : **Tesoro - San Lorenzo #67107**Project Number : **01ZO**Sample : **MW-7**

Matrix : Water

Lab Number : 77019-06

Sample Date : 04/05/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 01:37
Toluene	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 01:37
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 01:37
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 01:37
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 01:37
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 01:37
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 01:37
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 01:37
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	04/07/11 01:37
Methanol	< 50	50	ug/L	EPA 8260B	04/07/11 01:37
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	04/07/11 01:37
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	04/07/11 01:37
1,2-Dichloroethane-d4 (Surr)	99.8		% Recovery	EPA 8260B	04/07/11 01:37
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	04/07/11 01:37



Report Number : 77019

Date : 04/13/2011

Project Name : **Tesoro - San Lorenzo #67107**Project Number : **01ZO**Sample : **MW-10**

Matrix : Water

Lab Number : 77019-07

Sample Date : 04/05/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 02:09
<b>Toluene</b>	<b>0.55</b>	0.50	ug/L	EPA 8260B	04/07/11 02:09
<b>Ethylbenzene</b>	<b>34</b>	0.50	ug/L	EPA 8260B	04/07/11 02:09
<b>Total Xylenes</b>	<b>11</b>	0.50	ug/L	EPA 8260B	04/07/11 02:09
<b>Methyl-t-butyl ether (MTBE)</b>	<b>1.7</b>	0.50	ug/L	EPA 8260B	04/07/11 02:09
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 02:09
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 02:09
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 02:09
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	04/07/11 02:09
Methanol	< 50	50	ug/L	EPA 8260B	04/07/11 02:09
Ethanol	< 20	20	ug/L	EPA 8260B	04/07/11 02:09
<b>TPH as Gasoline</b>	<b>4000</b>	50	ug/L	EPA 8260B	04/07/11 02:09
1,2-Dichloroethane-d4 (Surr)	92.5		% Recovery	EPA 8260B	04/07/11 02:09
Toluene - d8 (Surr)	99.3		% Recovery	EPA 8260B	04/07/11 02:09



Report Number : 77019

Date : 04/13/2011

Project Name : **Tesoro - San Lorenzo #67107**Project Number : **01ZO**Sample : **MW-11**

Matrix : Water

Lab Number : 77019-08

Sample Date : 04/05/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 02:40
Toluene	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 02:40
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 02:40
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 02:40
<b>Methyl-t-butyl ether (MTBE)</b>	<b>1.2</b>	0.50	ug/L	EPA 8260B	04/07/11 02:40
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 02:40
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 02:40
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 02:40
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	04/07/11 02:40
Methanol	< 50	50	ug/L	EPA 8260B	04/07/11 02:40
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	04/07/11 02:40
<b>TPH as Gasoline</b>	<b>250</b>	50	ug/L	EPA 8260B	04/07/11 02:40
1,2-Dichloroethane-d4 (Surr)	99.6		% Recovery	EPA 8260B	04/07/11 02:40
Toluene - d8 (Surr)	99.3		% Recovery	EPA 8260B	04/07/11 02:40



Report Number : 77019

Date : 04/13/2011

Project Name : **Tesoro - San Lorenzo #67107**Project Number : **01ZO**Sample : **MW-12**

Matrix : Water

Lab Number : 77019-09

Sample Date : 04/05/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 03:12
Toluene	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 03:12
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 03:12
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 03:12
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 03:12
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 03:12
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 03:12
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 03:12
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	04/07/11 03:12
Methanol	< 50	50	ug/L	EPA 8260B	04/07/11 03:12
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	04/07/11 03:12
<b>TPH as Gasoline</b>	<b>53</b>	50	ug/L	EPA 8260B	04/07/11 03:12
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	04/07/11 03:12
Toluene - d8 (Surr)	98.4		% Recovery	EPA 8260B	04/07/11 03:12



Report Number : 77019

Date : 04/13/2011

Project Name : **Tesoro - San Lorenzo #67107**Project Number : **01ZO**Sample : **PT-1**

Matrix : Water

Lab Number : 77019-10

Sample Date : 04/06/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Nitrate as N	<b>0.92</b>	0.10	mg/L	EPA 300.0	04/07/11 15:01
Sulfate	<b>32</b>	0.50	mg/L	EPA 300.0	04/07/11 15:01
Iron	<b>1.9</b>	0.10	mg/L	EPA 6010B	04/12/11 16:37
Benzene	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 03:43
Toluene	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 03:43
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 03:43
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 03:43
<b>Methyl-t-butyl ether (MTBE)</b>	<b>6.4</b>	0.50	ug/L	EPA 8260B	04/07/11 03:43
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 03:43
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 03:43
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 03:43
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	04/07/11 03:43
Methanol	< 50	50	ug/L	EPA 8260B	04/07/11 03:43
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	04/07/11 03:43
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	04/07/11 03:43
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	04/07/11 03:43
Toluene - d8 (Surr)	98.7		% Recovery	EPA 8260B	04/07/11 03:43



Report Number : 77019

Date : 04/13/2011

Project Name : **Tesoro - San Lorenzo #67107**Project Number : **01ZO**Sample : **RW-1**

Matrix : Water

Lab Number : 77019-11

Sample Date : 04/05/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	<b>26</b>	0.50	ug/L	EPA 8260B	04/07/11 04:14
Toluene	<b>0.52</b>	0.50	ug/L	EPA 8260B	04/07/11 04:14
Ethylbenzene	<b>7.6</b>	0.50	ug/L	EPA 8260B	04/07/11 04:14
Total Xylenes	<b>3.9</b>	0.50	ug/L	EPA 8260B	04/07/11 04:14
<b>Methyl-t-butyl ether (MTBE)</b>	<b>8.3</b>	0.50	ug/L	EPA 8260B	04/07/11 04:14
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 04:14
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 04:14
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 04:14
<b>Tert-Butanol</b>	<b>8.1</b>	5.0	ug/L	EPA 8260B	04/07/11 04:14
Methanol	< 50	50	ug/L	EPA 8260B	04/07/11 04:14
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	04/07/11 04:14
<b>TPH as Gasoline</b>	<b>410</b>	50	ug/L	EPA 8260B	04/07/11 04:14
1,2-Dichloroethane-d4 (Surr)	99.8		% Recovery	EPA 8260B	04/07/11 04:14
Toluene - d8 (Surr)	99.4		% Recovery	EPA 8260B	04/07/11 04:14



Report Number : 77019

Date : 04/13/2011

Project Name : **Tesoro - San Lorenzo #67107**Project Number : **01ZO**Sample : **RW-2**

Matrix : Water

Lab Number : 77019-12

Sample Date : 04/06/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Nitrate as N	<b>6.0</b>	0.20	mg/L	EPA 300.0	04/07/11 16:54
Sulfate	<b>57</b>	1.0	mg/L	EPA 300.0	04/07/11 16:54
Iron	<b>0.90</b>	0.10	mg/L	EPA 6010B	04/12/11 16:41
Benzene	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 04:46
Toluene	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 04:46
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 04:46
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 04:46
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 04:46
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 04:46
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 04:46
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	04/07/11 04:46
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	04/07/11 04:46
Methanol	< 50	50	ug/L	EPA 8260B	04/07/11 04:46
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	04/07/11 04:46
<b>TPH as Gasoline</b>	<b>280</b>	50	ug/L	EPA 8260B	04/07/11 04:46
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	04/07/11 04:46
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	04/07/11 04:46

Report Number : 77019

Date : 04/13/2011

**QC Report : Method Blank Data****Project Name : Tesoro - San Lorenzo #67107****Project Number : 01ZO**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Iron	< 0.10	0.10	mg/L	EPA 6010B	04/12/2011
Benzene	< 0.50	0.50	ug/L	EPA 8260B	04/06/2011
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	04/06/2011
Toluene	< 0.50	0.50	ug/L	EPA 8260B	04/06/2011
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	04/06/2011
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	04/06/2011
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	04/06/2011
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	04/06/2011
Methanol	< 50	50	ug/L	EPA 8260B	04/06/2011
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	04/06/2011
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	04/06/2011
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	04/06/2011
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	04/06/2011
1,2-Dichloroethane-d4 (Surr)	99.3		%	EPA 8260B	04/06/2011
Toluene - d8 (Surr)	105		%	EPA 8260B	04/06/2011
Nitrate as N	< 0.10	0.10	mg/L	EPA 300.0	04/07/2011
Sulfate	< 0.50	0.50	mg/L	EPA 300.0	04/07/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

Project Name : **Tesoro - San Lorenzo #67107**Project Number : **01ZO**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
<b>Nitrate as N</b>														
Sulfate	77019-03	0.62	0.500	0.500	1.10	1.08	mg/L	EPA 300.0	4/7/11	95.0	91.8	1.48	85.0-115	10
Benzene	77019-03	24	2.50	2.50	27.1	27.0	mg/L	EPA 300.0	4/7/11	108	105	0.275	85.0-115	10
<b>Diisopropyl ether</b>														
Ethanol	77009-03	<0.50	40.0	40.0	39.6	37.4	ug/L	EPA 8260B	4/6/11	99.1	93.6	5.76	80-120	25
Ethyl-tert-butyl ether	77009-03	<0.50	40.0	40.0	37.8	37.8	ug/L	EPA 8260B	4/6/11	94.6	94.6	0.0292	80-120	25
Ethylbenzene	77009-03	<5.0	100	100	92.7	95.3	ug/L	EPA 8260B	4/6/11	92.4	94.9	2.77	55.1-159	25
Methanol	77009-03	<0.50	40.0	40.0	40.2	39.5	ug/L	EPA 8260B	4/6/11	100	98.8	1.62	76.5-120	25
Methyl-t-butyl ether	77009-03	<50	1000	1000	1010	1020	ug/L	EPA 8260B	4/6/11	101	102	1.07	53.2-147	25
	77009-03	<0.50	39.9	39.9	38.8	38.6	ug/L	EPA 8260B	4/6/11	97.4	97.0	0.456	69.7-121	25

Project Name : **Tesoro - San Lorenzo #67107**Project Number : **01ZO**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
<b>P + M Xylene</b>														
77009-03 <0.50 40.0 40.0 40.9 38.9 ug/L EPA 8260B 4/6/11 102 97.3 5.07 76.8-120 25														
<b>Tert-Butanol</b>														
77009-03 7.9 200 200 207 210 ug/L EPA 8260B 4/6/11 99.6 101 1.29 80-120 25														
<b>Tert-amyl-methyl ether</b>														
77009-03 <0.50 40.0 40.0 41.0 40.0 ug/L EPA 8260B 4/6/11 102 100 2.41 78.9-120 25														
<b>Toluene</b>														
77009-03 <0.50 40.0 40.0 43.3 40.0 ug/L EPA 8260B 4/6/11 108 99.9 8.08 80-120 25														
<b>Iron</b>														
77009-03 < 0.10 0.400 0.400 0.424 0.420 mg/L EPA 6010B 4/12/11 100 99.2 0.853 75-125 20														

Project Name : **Tesoro - San Lorenzo #67107**Project Number : **01ZO**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Iron	0.400	mg/L	EPA 6010B	4/12/11	98.3	85-115
Benzene	40.0	ug/L	EPA 8260B	4/6/11	97.3	80-120
Diisopropyl ether	40.0	ug/L	EPA 8260B	4/6/11	92.8	80-120
Ethanol	100	ug/L	EPA 8260B	4/6/11	95.6	55.1-159
Ethyl-tert-butyl ether	40.0	ug/L	EPA 8260B	4/6/11	98.7	76.5-120
Ethylbenzene	40.0	ug/L	EPA 8260B	4/6/11	102	80-120
Methanol	1000	ug/L	EPA 8260B	4/6/11	101	53.2-147
Methyl-t-butyl ether	39.9	ug/L	EPA 8260B	4/6/11	94.8	69.7-121
P + M Xylene	40.0	ug/L	EPA 8260B	4/6/11	99.4	76.8-120
TPH as Gasoline	498	ug/L	EPA 8260B	4/6/11	85.9	70.0-130
Tert-Butanol	200	ug/L	EPA 8260B	4/6/11	98.2	80-120
Tert-amyl-methyl ether	40.0	ug/L	EPA 8260B	4/6/11	99.6	78.9-120
Toluene	40.0	ug/L	EPA 8260B	4/6/11	108	80-120
Nitrate as N	0.500	mg/L	EPA 300.0	4/7/11	91.5	85.0-115
Sulfate	2.50	mg/L	EPA 300.0	4/7/11	99.8	85.0-115



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77019

Page

1 of 2



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77019

Page

2 of 2

Project Contact (Hardcopy or PDF To): Mike Purchase			California EDF Report?			Chain-of-Custody Record and Analysis Request										
Company / Address: Arctos Environmental 1332 Peralta Avenue, Berkley, CA. 90806			Sampling Company Log Code:			Analysis Request										
Phone Number: (510) 525-2180			Global ID: T0600101414			TAT										
Fax Number: (510) 525-2392			EDF Deliverable To (Email Address):			12 hr										
Project #: <i>M2-11C4US</i>		P.O. #:		Bill to:			24 hr									
Project Name: Tesoro - San Lorenzo #67107			Sampler Signature:			48hr										
Project Address: 44 Lewelling Blvd San Lorenzo, CA		Sampling		Containers & Preservatives			Matrix			72hr						
		Date	Time	40 ml HCl VOA	250 mL HDPE unpres.	500 mL HDPE unpres.	250 mL HDPE HNO <sub>3</sub>	250 mL glass H <sub>2</sub> SO <sub>4</sub>	125 mL Amber glass w/ septae	Water	Soil	Air	TPH-G, BTEX (8290B)	7 Oxygenates (MTBE, DiPE, ETBE, TAME, TBA, EOH, MeOH) (EPA 8290B)	circle method	For Lab Use Only
Sample Designation												BOD	Total Alkalinity (SM2320 B)	Total Organic Carbon (EPA 415.1)		
Rw-1		4/5	1235	3					X	X		COD	Total Iron (EPA 6010)	Total Lead (EPA 200.7 / 6010)		
Rw-2		4/6	955	34112					X	X		TOC	Ferrous Iron (SM 3500-Fe D)	Carbon Dioxide (SM 4500-CO2D)		
														Phosphorus, Nitrate, Nitrite and Sulfate (EPA 300.0/365.3)		
														Methane (RSK 175M)		
Relinquished by:		Date	Time	Received by:			Remarks:									
<i>Burke</i>		<i>4/6/11</i>	<i>1230</i>													
Relinquished by:		Date	Time	Received by:												
Relinquished by:		Date	Time	Received by Laboratory:			For Lab Use Only: Sample Receipt									
		<i>040611</i>	<i>1248</i>	<i>EPD left daily tank</i>			Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present	Yes / No			

# SAMPLE RECEIPT CHECKLIST

RECEIVER  
Eay  
Initials

SRG#:

77019

Date:

040611

Project ID:

Tesoro - San Lorenzo #67107

Method of Receipt:

Courier

Over-the-counter

Shipper

## COC Inspection

Is COC present?

Yes

No

Custody seals on shipping container?

Yes

No

Dated?

Yes

Broken

Not present  N/A

Is COC Signed by Relinquisher?

Yes

No

Is sampler name legibly indicated on COC?

Yes

No

Is analysis or hold requested for all samples

Yes

No

Is the turnaround time indicated on COC?

Yes

No

Is COC free of whiteout and uninitialed cross-outs?

Yes

No, Whiteout

No, Cross-outs

## Sample Inspection

Coolant Present:  Yes  No (includes water)

Temperature °C 5.7 Therm. ID# IR-1 Initial Eay Date/Time 040611 1231  N/A

Are there custody seals on sample containers?

Intact

Broken

Not present

Do containers match COC?  Yes  No  No, COC lists absent sample(s)

No, Extra sample(s) present

Are there samples matrices other than soil, water, air or carbon?

Yes

No

Are any sample containers broken, leaking or damaged?

Yes

No

Are preservatives indicated?  Yes, on sample containers

Yes, on COC

Not indicated

N/A

Are preservatives correct for analyses requested?

Yes

No

N/A

Are samples within holding time for analyses requested?

Yes

No

Are the correct sample containers used for the analyses requested?

Yes

No

Is there sufficient sample to perform testing?

Yes

No

Does any sample contain product, have strong odor or are otherwise suspected to be hot?

Yes  No

## Receipt Details

Matrix WA

Container type Vac

# of containers received 36

Matrix WA

Container type Poly

# of containers received 24

Matrix WA

Container type Glass

# of containers received 8

Date and Time Sample Put into Temp Storage Date: 040611

Time: 1248

## Quicklog

Are the Sample ID's indicated:  On COC  On sample container(s)  On Both  Not indicated

If Sample ID's are listed on both COC and containers, do they all match?  Yes  No  N/A

Is the Project ID indicated:  On COC  On sample container(s)  On Both  Not indicated

If project ID is listed on both COC and containers, do they all match?  Yes  No  N/A

Are the sample collection dates indicated:  On COC  On sample container(s)  On Both  Not indicated

If collection dates are listed on both COC and containers, do they all match?  Yes  No  N/A

Are the sample collection times indicated:  On COC  On sample container(s)  On Both  Not indicated

If collection times are listed on both COC and containers, do they all match?  Yes  No  N/A

COMMENTS: COC lists 500ml poly 1 Liter poly received instead: IT2 040611 1351

*Leaders in Analytical Science and Service*



# Subcontract Laboratory Report Attachments

2795 Second Street, Suite 300 Davis, CA 95618  
tel 530.297.4800 fax 530.297.4808  
[www.kiffanalytical.com](http://www.kiffanalytical.com)

# CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

April 18, 2011

**CLS Work Order #: CUD0253  
COC #: 77019**

Scott Forbes  
KIFF Analytical  
2795 Second St. Suite 300  
Davis, CA 95616

**Project Name: Tesoro - San Lorenzo #67107**

Enclosed are the results of analyses for samples received by the laboratory on 04/06/11 16:18. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



James Liang, Ph.D.  
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

# CALIFORNIA LABORATORY SERVICES

Page 1 of 5

04/18/11 15:53

KIFF Analytical  
2795 Second St. Suite 300  
Davis, CA 95616

Project: Tesoro - San Lorenzo #67107  
Project Number: M2-110405  
Project Manager: Scott Forbes

**CLS Work Order #: CUD0253**  
COC #: 77019



2795 Second Street, Suite 300  
Davis, CA 95618  
Lab: 530.297.4800  
Fax: 530.297.4808

California Laboratory Services  
3249 Fitzgerald Road  
Rancho Cordova, CA 95742  
916-638-7301

COC No. 77019 Page 1 of 1

*CUD0253*

Project Contact (Hardcopy or PDF to): Scott Forbes			EDF Report? YES		Chain-of-Custody Record and Analysis Request		
Company/Address: Kiff Analytical			Sampling Company Log Code: CESC		Analysis Request		TAT
Phone No.: 530-297-4800	FAX No.: 530-297-4808	Global ID: T0600101414	Deliverables to (Email Address): inbox@kiffanalytical.com				
Project Number: M2-110405	P.O. No.: 77019	Container / Preservative		Matrix			
Project Name: Tesoro - San Lorenzo #67107	Sampling	Date	Time	1-L Poly None 250ml Poly None	Water	Biochemical Oxygen Demand Iron, Ferrous	Standard
Sample Designation							For Lab Use Only
MW-3R	04/06/11	10:05	1 1		X	X X	X
MW-6	04/06/11	09:45	1 1		X	X X	X
PT-1	04/06/11	09:30	1 1		X	X X	X
RW-2	04/06/11	09:55	1 1		X	X X	X
Relinquished by: <i>Kathleen Boden</i>	Date 4/6/11	Time 16:18	Received by:				Remarks:
Relinquished by: <i>Kathleen Boden</i>	Date 4/6/11	Time 16:18	Received by:				
Relinquished by: <i>Kathleen Boden</i>	Date 4/6/11	Time 16:18	Received by Laboratory: <i>Accounts Payable</i>				Bill to:

# CALIFORNIA LABORATORY SERVICES

Page 2 of 5

04/18/11 15:53

KIFF Analytical  
2795 Second St. Suite 300  
Davis, CA 95616

Project: Tesoro - San Lorenzo #67107  
Project Number: M2-110405  
Project Manager: Scott Forbes

**CLS Work Order #: CUD0253**  
COC #: 77019

## Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-3R (CUD0253-01) Water Sampled: 04/06/11 10:05 Received: 04/06/11 16:18</b>									
Biochemical Oxygen Demand	4.8	3.0	mg/L	1	CU02454	04/12/11	04/17/11	SM5210B	A-COM
Ferrous Iron	0.16	0.10	"	"	CU02345	04/07/11	04/07/11	SM3500-Fe D	
<b>MW-6 (CUD0253-02) Water Sampled: 04/06/11 09:45 Received: 04/06/11 16:18</b>									
Biochemical Oxygen Demand	ND	3.0	mg/L	1	CU02436	04/07/11	04/12/11	SM5210B	
Ferrous Iron	ND	0.10	"	"	CU02345	04/07/11	04/07/11	SM3500-Fe D	
<b>PT-1 (CUD0253-03) Water Sampled: 04/06/11 09:30 Received: 04/06/11 16:18</b>									
Biochemical Oxygen Demand	ND	3.0	mg/L	1	CU02454	04/12/11	04/17/11	SM5210B	A-COM
Ferrous Iron	ND	0.10	"	"	CU02345	04/07/11	04/07/11	SM3500-Fe D	
<b>RW-2 (CUD0253-04) Water Sampled: 04/06/11 09:55 Received: 04/06/11 16:18</b>									
Biochemical Oxygen Demand	ND	3.0	mg/L	1	CU02436	04/07/11	04/12/11	SM5210B	
Ferrous Iron	ND	0.10	"	"	CU02345	04/07/11	04/07/11	SM3500-Fe D	

# CALIFORNIA LABORATORY SERVICES

Page 3 of 5

04/18/11 15:53

KIFF Analytical  
2795 Second St. Suite 300  
Davis, CA 95616

Project: Tesoro - San Lorenzo #67107  
Project Number: M2-110405  
Project Manager: Scott Forbes

**CLS Work Order #: CUD0253**  
COC #: 77019

## Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	RPD Limits	RPD Limit	Notes
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### Batch CU02345 - General Preparation

<b>Blank (CU02345-BLK1)</b>					Prepared & Analyzed: 04/07/11				
Ferrous Iron	ND	0.10	mg/L						
<b>LCS (CU02345-BS1)</b>									
Ferrous Iron	0.235	0.10	mg/L	0.250		94	80-120		
<b>LCS Dup (CU02345-BSD1)</b>									
Ferrous Iron	0.252	0.10	mg/L	0.250		101	80-120	7	25
<b>Matrix Spike (CU02345-MS1)</b>				<b>Source: CUD0253-01</b>	Prepared & Analyzed: 04/07/11				
Ferrous Iron	0.381	0.10	mg/L	0.250	0.162	87	75-125		
<b>Matrix Spike Dup (CU02345-MSD1)</b>				<b>Source: CUD0253-01</b>	Prepared & Analyzed: 04/07/11				
Ferrous Iron	0.392	0.10	mg/L	0.250	0.162	92	75-125	3	30

### Batch CU02436 - General

<b>Blank (CU02436-BLK1)</b>					Prepared: 04/07/11 Analyzed: 04/12/11				
Biochemical Oxygen Demand	ND	3.0	mg/L						
<b>Blank (CU02436-BLK2)</b>									
Biochemical Oxygen Demand	ND	3.0	mg/L						
<b>LCS (CU02436-BS1)</b>									
Biochemical Oxygen Demand	177	3.0	mg/L	167		106	83-138		
<b>LCS (CU02436-BS2)</b>									
Biochemical Oxygen Demand	165	3.0	mg/L	167		99	83-138		

# CALIFORNIA LABORATORY SERVICES

Page 4 of 5

04/18/11 15:53

KIFF Analytical  
2795 Second St. Suite 300  
Davis, CA 95616

Project: Tesoro - San Lorenzo #67107  
Project Number: M2-110405  
Project Manager: Scott Forbes

**CLS Work Order #: CUD0253**  
COC #: 77019

## Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	-----------	-------------	---------	-----------	-------

### Batch CU02436 - General

LCS Dup (CU02436-BSD1)		Prepared: 04/07/11 Analyzed: 04/12/11								
Biochemical Oxygen Demand	174	3.0	mg/L	167		104	83-138	2	21	
LCS Dup (CU02436-BSD2)		Prepared: 04/07/11 Analyzed: 04/12/11								
Biochemical Oxygen Demand	162	3.0	mg/L	167		97	83-138	2	21	

### Batch CU02454 - General

Blank (CU02454-BLK1)		Prepared: 04/12/11 Analyzed: 04/17/11								
Biochemical Oxygen Demand	ND	3.0	mg/L							
LCS (CU02454-BS1)		Prepared: 04/12/11 Analyzed: 04/17/11								
Biochemical Oxygen Demand	153	3.0	mg/L	167		92	83-138			
LCS Dup (CU02454-BSD1)		Prepared: 04/12/11 Analyzed: 04/17/11								
Biochemical Oxygen Demand	183	3.0	mg/L	167		110	83-138	18	21	

# CALIFORNIA LABORATORY SERVICES

Page 5 of 5

04/18/11 15:53

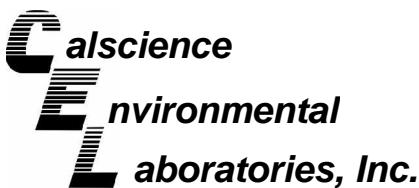
KIFF Analytical  
2795 Second St. Suite 300  
Davis, CA 95616

Project: Tesoro - San Lorenzo #67107  
Project Number: M2-110405  
Project Manager: Scott Forbes

**CLS Work Order #: CUD0253**  
COC #: 77019

## Notes and Definitions

A-COM	Samples were initially analyzed within holding time but failed to deplete required 2.0 mg/l. Samples were re analyzed using larger sample volumes outside of holding time
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



April 13, 2011

Joel Kiff  
 Kiff Analytical  
 2795 2nd Street, Suite 300  
 Davis, CA 95616-6593

Subject: **Calscience Work Order No.: 11-04-0413**

**Client Reference: Tesoro - San Lorenzo #67107**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 4/7/2011 and analyzed in accordance with the attached chain-of-custody.

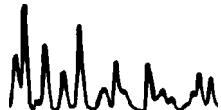
Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

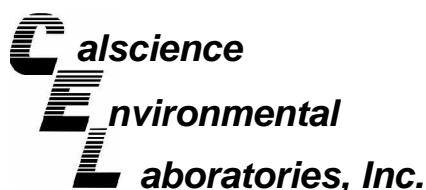
If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink that reads "Amanda Porter".

Calscience Environmental  
 Laboratories, Inc.  
 Amanda Porter  
 Project Manager





## Analytical Report



Kiff Analytical  
2795 2nd Street, Suite 300  
Davis, CA 95616-6593

Date Received: 04/07/11  
Work Order No: 11-04-0413

Project: Tesoro - San Lorenzo #67107

Page 1 of 1

Client Sample Number	Lab Sample Number	Date Collected	Matrix
MW-3R	11-04-0413-1	04/06/11	Aqueous

Parameter	Results	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chemical Oxygen Demand	ND	5.0	1		mg/L	04/09/11	04/09/11	EPA 410.4
Alkalinity, Total (as CaCO <sub>3</sub> )	520	5.00	1		mg/L	N/A	04/11/11	SM 2320B
Carbon, Total Organic	2.8	0.50	1		mg/L	N/A	04/07/11	SM 5310 D
MW-6	11-04-0413-2						04/06/11	Aqueous

Parameter	Results	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chemical Oxygen Demand	ND	5.0	1		mg/L	04/09/11	04/09/11	EPA 410.4
Alkalinity, Total (as CaCO <sub>3</sub> )	310	5.00	1		mg/L	N/A	04/11/11	SM 2320B
Carbon, Total Organic	1.4	0.50	1		mg/L	N/A	04/07/11	SM 5310 D
PT-1	11-04-0413-3						04/06/11	Aqueous

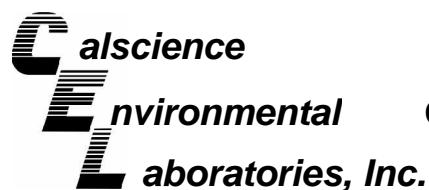
Parameter	Results	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chemical Oxygen Demand	ND	5.0	1		mg/L	04/09/11	04/09/11	EPA 410.4
Alkalinity, Total (as CaCO <sub>3</sub> )	452	5.00	1		mg/L	N/A	04/11/11	SM 2320B
Carbon, Total Organic	1.6	0.50	1		mg/L	N/A	04/07/11	SM 5310 D
RW-2	11-04-0413-4						04/06/11	Aqueous

Parameter	Results	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chemical Oxygen Demand	ND	5.0	1		mg/L	04/09/11	04/09/11	EPA 410.4
Alkalinity, Total (as CaCO <sub>3</sub> )	342	5.00	1		mg/L	N/A	04/11/11	SM 2320B
Carbon, Total Organic	1.5	0.50	1		mg/L	N/A	04/07/11	SM 5310 D
Method Blank	N/A						Aqueous	

Parameter	Results	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chemical Oxygen Demand	ND	5.0	1		mg/L	04/09/11	04/09/11	EPA 410.4
Alkalinity, Total (as CaCO <sub>3</sub> )	ND	1.0	1		mg/L	N/A	04/11/11	SM 2320B
Carbon, Total Organic	ND	0.50	1		mg/L	N/A	04/07/11	SM 5310 D

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501



## Quality Control - Spike/Spike Duplicate



Kiff Analytical  
2795 2nd Street, Suite 300  
Davis, CA 95616-6593

Date Received: N/A  
Work Order No: 11-04-0413

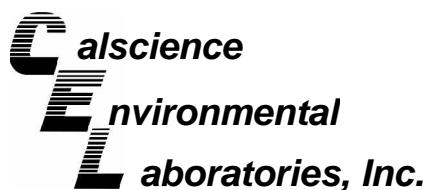
Project: Tesoro - San Lorenzo #67107

<b>Matrix: Aqueous or Solid</b>
---------------------------------

<u>Parameter</u>	<u>Method</u>	<u>Quality Control Sample ID</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>MS% REC</u>	<u>MSD % REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Carbon, Total Organic	SM 5310 D	11-04-0533-4	04/07/11	N/A	97	97	75-125	0	0-25	

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - Duplicate



Kiff Analytical  
2795 2nd Street, Suite 300  
Davis, CA 95616-6593

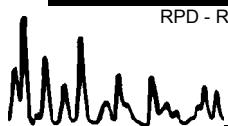
Date Received: N/A  
Work Order No: 11-04-0413

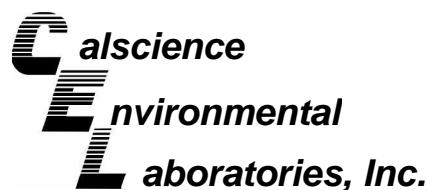
Project: Tesoro - San Lorenzo #67107

Matrix: Aqueous or Solid

Parameter	Method	QC Sample ID	Date Analyzed	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO <sub>3</sub> )	SM 2320B	11-04-0513-3	04/11/11	364	364	0	0-25	
Bicarbonate (as CaCO <sub>3</sub> )	SM 2320B	11-04-0513-3	04/11/11	364	364	0	0-25	
Carbonate (as CaCO <sub>3</sub> )	SM 2320B	11-04-0513-3	04/11/11	ND	ND	NA	0-25	
Hydroxide (as CaCO <sub>3</sub> )	SM 2320B	11-04-0513-3	04/11/11	ND	ND	NA	0-25	
Chemical Oxygen Demand	EPA 410.4	11-04-0291-1	04/09/11	32	33	3	0-25	

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - LCS/LCS Duplicate



Kiff Analytical  
2795 2nd Street, Suite 300  
Davis, CA 95616-6593

Date Received:

N/A

Work Order No:

11-04-0413

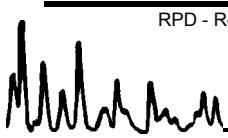
Project: Tesoro - San Lorenzo #67107

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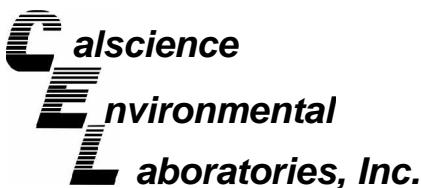
**Matrix: Aqueous or Solid**

Parameter	Method	Quality Control Sample ID	Date Extracted	Date Analyzed	LCS % REC	LCSD % REC	%REC CL	RPD	RPD CL	Qual
Carbon, Total Organic	SM 5310 D	099-05-097-4,231	N/A	04/07/11	102	102	80-120	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit



7440 Lincoln Way, Garden Grove, CA 92841-1427 . TEL:(714) 895-5494 . FAX: (714) 894-7501



## Glossary of Terms and Qualifiers

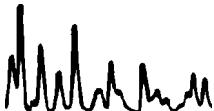


Work Order Number: 11-04-0413

---

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.





2795 Second Street, Suite 300  
Davis, CA 95618  
Lab: 530.297.4800  
Fax: 530.297.4808

Calscience  
7440 Lincoln Way  
Garden Grove, CA 92841-1427  
714-895-5494

0413  
77019

Page 1 of 1

0413

## Test Detail for Kiff Work Order: 77019

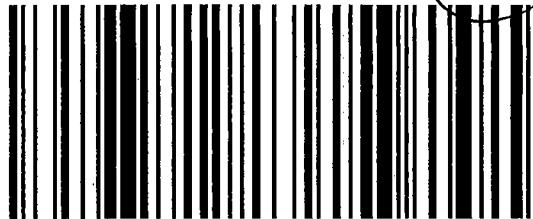
### Alkalinity SM 2320 (1)

Alkalinity, Total (as CaCO<sub>3</sub>)

0413



**800.334.5000**  
[ontrac.com](http://ontrac.com)



D10010368086033

Date Printed 4/6/2011

Tracking#D10010368086033

*Shipped From:*  
KIFF ANALYTICAL  
2795 2ND STREET 300  
DAVIS, CA 95616

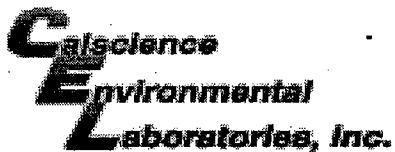
*Sent By:* SAMPLE RECEIVING  
*Phone#:* (530)297-4800  
*wgt(lbs):* 1  
*Reference:* SUB SRG  
*Reference 2:*

*Ship To Company:*  
**CALSCIENCE ENVIRONMENTAL**  
**7440 LINCOLN WAY**  
**GARDEN GROVE, CA 92841**  
**RECEIVING (714)895-5494**

**B10207210772**

*Service:* **G**  
*Sort Code:* **ORG**

*Special Services:*  
**Signature Required**



WORK ORDER #: 11-04-0413

**SAMPLE RECEIPT FORM**Cooler 1 of 1CLIENT: KIPP ANALYTICALDATE: 04/07/11**TEMPERATURE:** Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)Temperature 2.2 °C + 0.5 °C (CF) = 2.7 °C  Blank  Sample

- Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_).
- Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.
- Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature:  Air  FilterInitial: WB**CUSTODY SEALS INTACT:**

<input checked="" type="checkbox"/> Cooler	<input type="checkbox"/>	<input type="checkbox"/> No (Not Intact)	<input type="checkbox"/> Not Present	<input type="checkbox"/> N/A	Initial: <u>WB</u>
<input type="checkbox"/> Sample	<input type="checkbox"/>	<input type="checkbox"/> No (Not Intact)	<input checked="" type="checkbox"/> Not Present	<input type="checkbox"/>	Initial: <u>WB</u>

**SAMPLE CONDITION:**

Yes      No      N/A

- Chain-Of-Custody (COC) document(s) received with samples.....
- COC document(s) received complete.....
- Collection date/time, matrix, and/or # of containers logged in based on sample labels.
- No analysis requested.     Not relinquished.     No date/time relinquished.
- Sampler's name indicated on COC.....
- Sample container label(s) consistent with COC.....
- Sample container(s) intact and good condition.....
- Proper containers and sufficient volume for analyses requested.....
- Analyses received within holding time.....
- pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours...
- Proper preservation noted on COC or sample container.....
- Unpreserved vials received for Volatiles analysis
- Volatile analysis container(s) free of headspace.....
- Tedlar bag(s) free of condensation.....

**CONTAINER TYPE:**Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_\_)  EnCores®  TerraCores®  \_\_\_\_\_Water:  VOA  VOAh  VOAna<sub>2</sub>  125AGB  125AGBh  125AGBp  1AGB  1AGBna<sub>2</sub>  1AGBs 500AGB  500AGJ  500AGJs  250AGB  250CGB  250CGBs  1PB  500PB  500PBna 250PB  250PBn  125PB  125PBznna  100PJ  100PJna<sub>2</sub>  \_\_\_\_\_  \_\_\_\_\_ Air:  Tedlar®  Summa® Other:  \_\_\_\_\_ Trip Blank Lot#: \_\_\_\_\_ Labeled/Checked by: WBContainer: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: APPreservative: h: HCl n: HNO<sub>3</sub> na<sub>2</sub>:Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> na: NaOH p: H<sub>3</sub>PO<sub>4</sub> s: H<sub>2</sub>SO<sub>4</sub> znna: ZnAc<sub>2</sub>+NaOH f: Field-filtered Scanned by: JP

**ATTACHMENT F**

**TREND ANALYSIS**

**ATTACHMENT F**  
**TREND ANALYSIS**

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Arctos conducted a statistical trend analysis of historical groundwater monitoring data for groundwater wells with petroleum hydrocarbon impacts above the Regional Water Quality Control Board, San Francisco Bay Region's (RWQCB), Environmental Screening Levels (ESLs). The objective of the analysis was to determine if there were any statistically significant trends in the total petroleum hydrocarbons as gasoline (TPHg), benzene, methyl tert-butyl ether (MTBE), or tert-butyl alcohol (TBA) results that would require additional remedial activities. In accordance with U.S. Environmental Protection Agency (EPA) guidance for data quality evaluation, a Mann-Kendall nonparametric trend test was used to identify decreasing, stable, or increasing concentration trends at individual wells and, by extension, identify a decreasing, stable, or increasing plume within a 95 percent confidence interval (EPA, 2000). The results of the trend analysis are summarized in the following table.

Well	Number of Sampling Events	Trend			
		TPHg	Benzene	MTBE	TBA
<b>Onsite Wells</b>					
MW-1	62	Decreasing	Below ESL	Below ESL	Below ESL
MW-3R	27	Decreasing	Decreasing	Decreasing	Below ESL
RW-1	62	Decreasing	Decreasing	Decreasing	Below ESL
RW-2	27	Decreasing	Below ESL	Below ESL	Below ESL
PT-1	12	Below ESL	Below ESL	Stable	Below ESL
<b>Offsite Wells</b>					
MW-10	61	Decreasing	Below ESL	Below ESL	Below ESL
MW-11	52	Decreasing	Below ESL	Below ESL	Below ESL

All of the onsite groundwater monitoring wells with concentrations above the ESLs show decreasing trends for TPHg, benzene, and MTBE, except for well PT-1. Well PT-1 shows a stable trend for MTBE over the past 12 monitoring events (since September 2008), with concentrations steadily decreasing since February 2010. Both offsite wells MW-10 and MW-11 show decreasing trends for TPHg.

Reference

U.S. Environmental Protection Agency (EPA), 2000. *Practical Methods for Data Analysis, EPA QA/G-9, QA00 Update*, July.

**ATTACHMENT G**  
**WASTE MANIFESTS**

# NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

<b>NON-HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No.		Manifest Document No. CON 11-018	2. Page 1 of	
NON-HAZARDOUS WASTE MANIFEST	3. Generator's Name and Mailing Address <i>Tesoro #67107 44 Leveleing Blvd. San Lorenzo CA</i>		4. Generator's Phone ( ) <i>Confluence Env</i>			
	5. Transporter 1 Company Name <i>Confluence Env</i>		6. US EPA ID Number <i>916-760-7611</i>			
	7. Transporter 2 Company Name		8. US EPA ID Number			
	9. Designated Facility Name and Site Address <i>ISI Airport Rd. Rio Vista CA</i>		10. US EPA ID Number			
						E. State Facility's ID
						F. Facility's Phone <i>707-374-3834</i>
	11. WASTE DESCRIPTION		12. Containers		13. Total Quantity	14. Unit Wt./Vol.
	a.	<i>NON HAZ PURGEWATER</i>		1 Poly	<i>135</i>	<i>GAL</i>
	b.	<i>NON HAZ PURGEWATER</i>		1 Poly	<i>177</i>	<i>GAL</i>
	c.					
d.						
G. Additional Descriptions for Materials Listed Above <i>COLOR - clear ODOR - 0 SOLIDS - 0</i>				H. Handling Codes for Wastes Listed Above		
15. Special Handling Instructions and Additional Information						
Date						
Printed/Typed Name		Signature		Month	Day	Year
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.						
Printed/Typed Name		Signature		Month	Day	Year
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature		Month	Day	Year
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature		Month	Day	Year
19. Discrepancy Indication Space						
20. Facility Owner or Operator, Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.						
Printed/Typed Name		Signature		Month	Day	Year