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By Alameda County Environmental Health at 1:57 pm, Apr 02, 2013



Tesoro Environmental Resource Company  
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Auburn, WA 98001-5931  
253 896 8700 Phone  
253 896 8863 Fax

29 March 2013

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

**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,

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  
Long Beach, CA 90806 562 988-2759 FAX

31 January 2012  
Project No. 01ZO

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

**Subject: Fourth 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 fourth quarter 2011 at the subject site (Figure 1).

### **Executive Summary**

Arctos conducted semiannual groundwater monitoring on 31 October 2011. Total petroleum hydrocarbons as gasoline (TPHg), benzene, and methyl tert-butyl ether (MTBE) concentrations continue to show decreasing concentrations on site. A comparison of current and historical maximum hydrocarbon concentrations show a decrease of over 99 percent at the former onsite source area.

### **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 semiannual groundwater monitoring event on 31 October 2011. Samples were collected from wells MW-1, MW-3R, RW-1, RW-2, and PT-1 (Figure 2).

Wells MW-10 and MW-11 were not sampled because they were not accessible during sampling. 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 29.1 to 30.1 feet above mean sea level (14.6 to 18.6 feet below ground surface; Table 1). Water elevations decreased between 2 and 4 feet since April 2011. Water level data indicated that the general direction of water flow was toward the southwest with an estimated gradient of 0.003 (1 foot/300 feet; Figure 2). October 2011 groundwater elevations and gradient were generally consistent with historical data (Attachment C).

Well MW-3R had the highest onsite TPHg and MTBE concentrations of 1,200 and 16 µg/l, respectively. Only onsite wells MW-3R and RW-1 had benzene concentrations (83 and 1.3 µg/l, respectively) above the ESL of 1 µg/l. The following table summarizes TPHg, benzene, and MTBE concentrations for the current period and maximum historical concentrations reported at onsite well MW-3R.

Well	Event	TPHg (µg/l)	Benzene (µg/l)	MTBE (µg/l)
MW-3R	Maximum (date)	160,000 (5/15/92)	17,000 (12/14/94)	2,800 (11/14/02)
	10/31/11	1,200	83	16
	<i>Reduction</i>	99.3%	99.5%	99.4%

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 six wells with concentrations above the ESLs, except for MTBE at well PT-1. PT-1 shows a stable trend for MTBE over the past 13 monitoring events (since September 2008) with concentrations steadily decreasing since February 2010. Trend analysis procedures and results are summarized in Attachment F.

**Conclusions and Recommendations**

Petroleum hydrocarbon compounds show statistically decreasing or stable trends for wells above the ESLs with reductions over 99 percent at the onsite former source area. Arctos recommends continuing semiannual groundwater sampling to confirm decreasing groundwater concentrations at offsite wells.

If you have questions or comments, please call Mike Purchase at 510/525-2180.

Very truly yours,

**ARCTOS ENVIRONMENTAL**



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



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

- Attachments:
- Table 1 – Well and Groundwater Elevations
  - Table 2 – Grounwater 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

Jerry Wickham  
Alameda County Environmental Health  
31 January 2012  
Page 4



Attachment F – Trend Analysis  
Attachment G – Waste Manifests

**TABLE 1**

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

<b>Well No.</b>	<b>Date of Measurement</b>	<b>Depth to Water (feet below casing)</b>	<b>PVC Casing Elevation<sup>(a)</sup> (feet MSL)</b>	<b>Water Table Elevation<sup>(b)</sup> (feet MSL)</b>
MW-1	10/27/10	17.03	46.36	29.33
	1/25/11	15.61		30.75
	4/5/11	13.96		32.40
	10/31/11	16.47		29.89
MW-2	10/27/10	16.18	45.61	29.43
	1/25/11	14.73		30.88
	4/5/11	12.85		32.76
	10/31/11	15.52		30.09
MW-3R	10/27/10	15.90	45.16	29.26
	1/25/11	14.50		30.66
	4/5/11	12.72		32.44
	10/31/11	15.30		29.86
MW-4	10/27/10	18.02	47.36	29.34
	1/25/11	16.64		30.72
	4/5/11	14.95		32.41
	10/31/11	17.45		29.91
MW-5	10/27/10	17.08	46.50	29.42
	1/25/11	15.56		30.94
	4/5/11	13.84		32.66
	10/31/11	16.48		30.02
MW-6	10/27/10	15.78	45.17	29.39
	1/25/11	14.19		30.98
	4/5/11	12.25		32.92
	10/31/11	16.19		28.98
MW-7	10/27/10	15.21	44.24	29.03
	1/25/11	13.81		30.43
	4/5/11	11.96		32.28
	10/31/11	14.64		29.60
MW-8	10/27/10	16.20	44.95	28.75
	1/25/11	15.15		29.80
	4/5/11	13.02		31.93
	10/31/11	15.64		29.31

**TABLE 1**

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

<b>Well No.</b>	<b>Date of Measurement</b>	<b>Depth to Water (feet below casing)</b>	<b>PVC Casing Elevation<sup>(a)</sup> (feet MSL)</b>	<b>Water Table Elevation<sup>(b)</sup> (feet MSL)</b>
MW-9	10/27/10	18.40	47.65	29.25
	1/25/11	17.00		30.65
	4/5/11	15.50		32.15
	10/31/11	17.87		29.78
MW-10	10/27/10	16.20	45.04	28.84
	1/25/11	14.90		30.14
	4/5/11	13.40		31.64
	10/31/11	15.70		29.34
MW-11	10/27/10	19.10	47.69	28.59
	1/25/11	17.92		29.77
	4/5/11	16.67		31.02
	10/31/11	18.62		29.07
MW-12	10/27/10	18.30	47.27	28.97
	1/25/11	17.05		30.22
	4/5/11	15.60		31.67
	10/31/11	17.75		29.52
RW-1	10/27/10	16.70	45.86	29.16
	1/25/11	15.25		30.61
	4/5/11	13.43		32.43
	10/31/11	16.02		29.84
RW-2	10/27/10	17.17	46.40	29.23
	1/25/11	15.74		30.66
	4/5/11	14.13		32.27
	10/31/11	16.59		29.81
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

**TABLE 1**

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

<b>Well No.</b>	<b>Date of Measurement</b>	<b>Depth to Water (feet below casing)</b>	<b>PVC Casing Elevation<sup>(a)</sup> (feet MSL)</b>	<b>Water Table Elevation<sup>(b)</sup> (feet MSL)</b>
PT-1	10/27/10	17.27	46.48	29.21
	1/25/11	15.85		30.63
	4/5/11	14.20		32.28
	10/31/11	16.69		29.79

- (a) Elevation of PVC well casing (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**

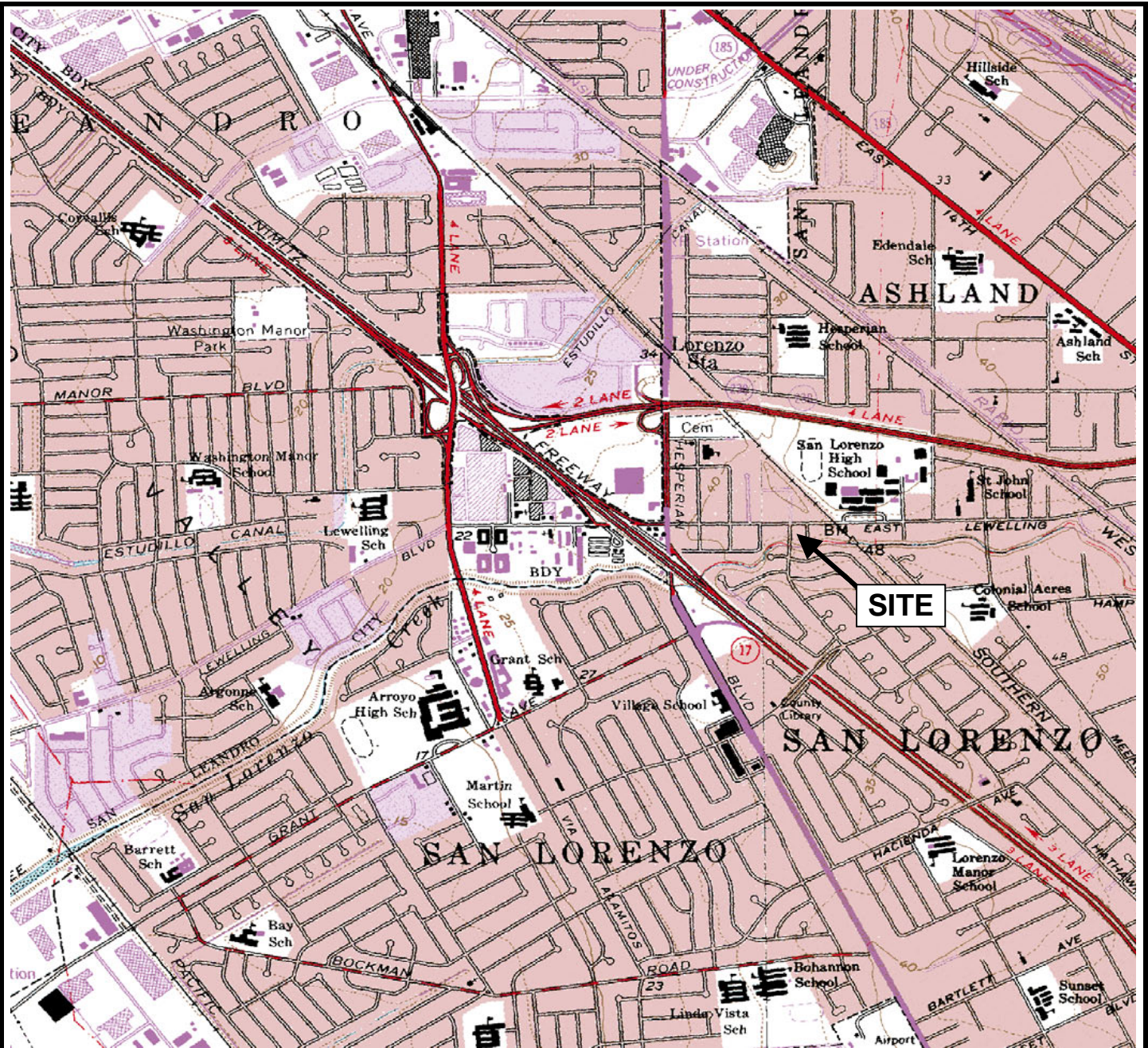
Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (µg/l)	Benzene <sup>(b)</sup> (µg/l)	Toluene <sup>(b)</sup> (µg/l)	Ethylbenzene <sup>(b)</sup> (µg/l)	Total Xylenes <sup>(b)</sup> (µg/l)	MTBE <sup>(b)</sup> (µg/l)	DIPE <sup>(b)</sup> (µg/l)	ETBE <sup>(b)</sup> (µg/l)	TAME <sup>(b)</sup> (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	10/27/10	200	ND<0.5 <sup>(e)</sup>	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
	10/31/11	ND<50	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
MW-2	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	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
	10/31/11	1,200	83	1.1	24	4.8	16	ND<0.5	ND<0.5	ND<0.5	14
MW-4	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	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<5	
MW-6	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	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	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	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	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	34.0	11	1.7	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-11	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	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

TABLE 2

**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	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
	10/31/11	100	1.3	ND<0.5	ND<0.5	ND<0.5	8.5	ND<0.5	ND<0.5	ND<0.5	9.2
RW-2	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
	10/31/11	310	ND<0.5	ND<0.5	0.53	1.1	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	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
	10/31/11	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

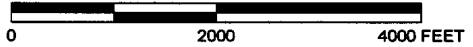
- (a) Samples collected before January 2008 reported by others; data provided by RDM Environmental, Inc. (RDM), Fourth Quarter 2007 Groundwater Monitoring Report.
- (b) Total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes, methyl tert-butyl ether (MTBE), di-isopropyl 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) ND - Not detected at the reporting limit listed.



**SITE**



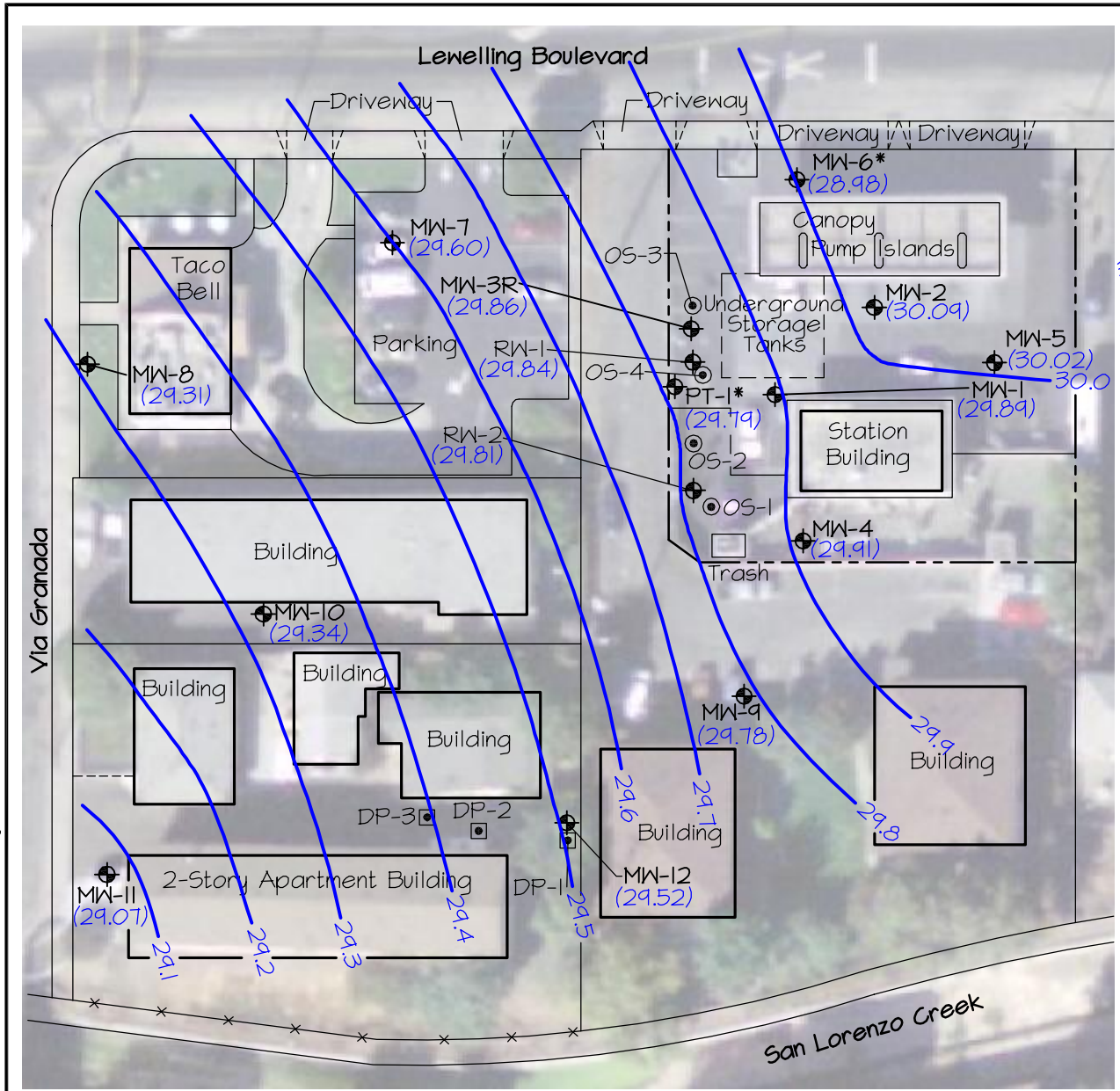
SCALE



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

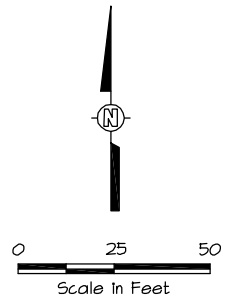
ARCTOS ENVIRONMENTAL			
TESORO - SAN LORENZO, 67107			
<b>SITE LOCATION MAP</b>			
PROJECT NO. 01ZO	DRAWN BY MP	CHECKED BY MP	APPROVED BY JG
FILE NO. Site Map.xls	<b>FIGURE 1</b>		

01Z011B0514.dwg



Legend

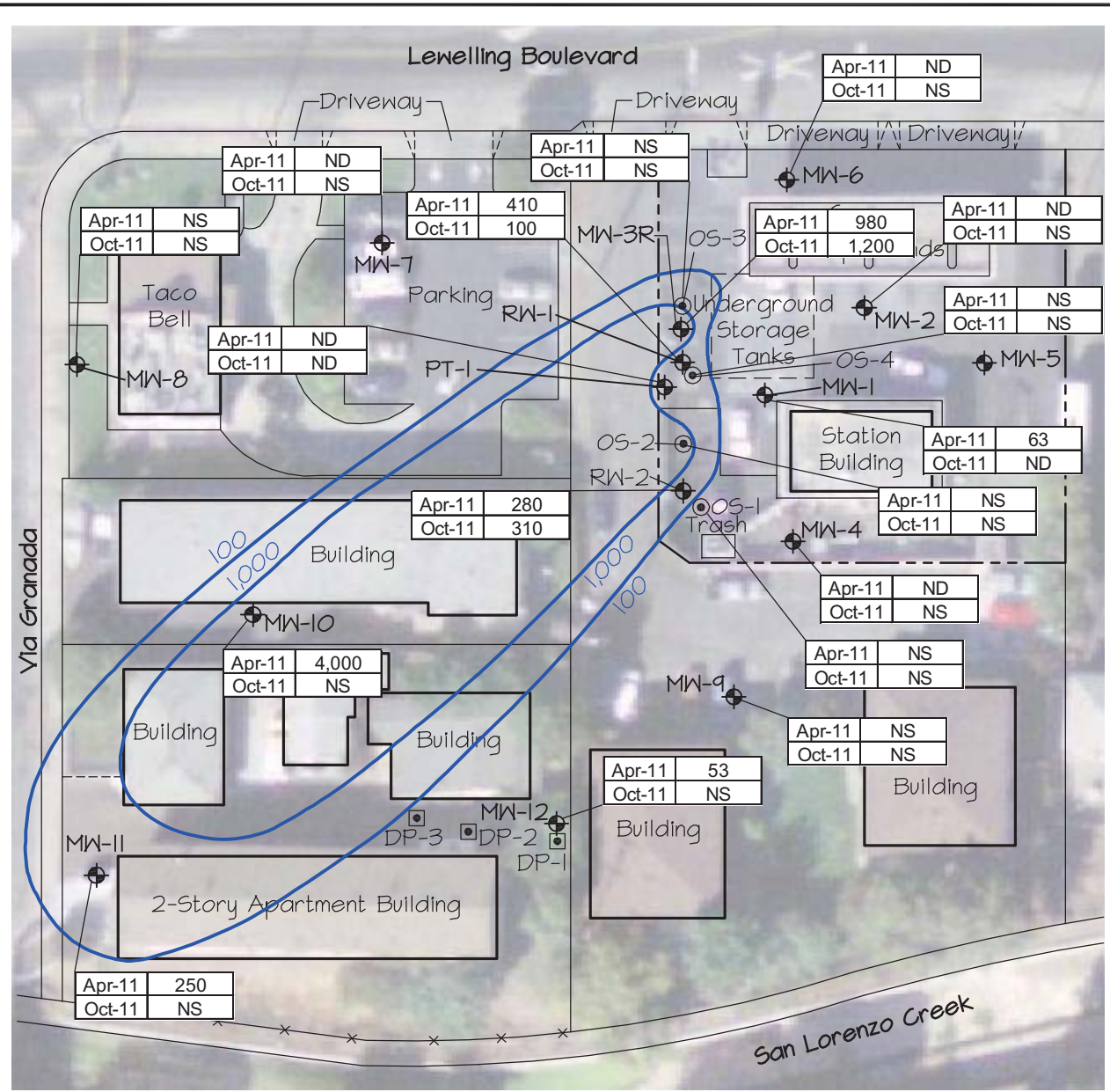
- MW-1 Monitoring Well with 31 October 2011 Groundwater Elevation (Feet MSL) (32.40)
- DP-1 Soil Boring
- OS-1 Oxygen Injection Well
- 30.0 Groundwater Elevation Contour (Feet MSL)
- \* Elevation Not Used For Contours



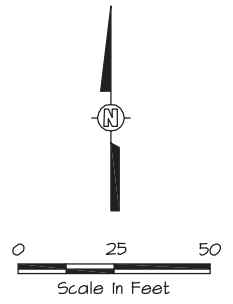
ARCTOS ENVIRONMENTAL			
TESORO - SAN LORENZO			
<b>SITE PLAN</b>			
PROJECT NO. OIZO	DRAWN BY MY	CHECKED BY MP	APPROVED BY JPG
FILE NO. OIZO11B0514.DWG		FIGURE 2	

REVISION	REVISIONS			
	NO.	BY	DATE	DESCRIPTION
14	11	MY	11/18/10	Fourth Quarter 2010 Status Report
	12	MY	2/14/11	First Quarter 2011 Status Report
	13	MY	6/20/11	Second Quarter 2011 Status Report
	14	MY	12/15/11	Fourth Quarter 2011 Status Report

01Z011B0214.dwg



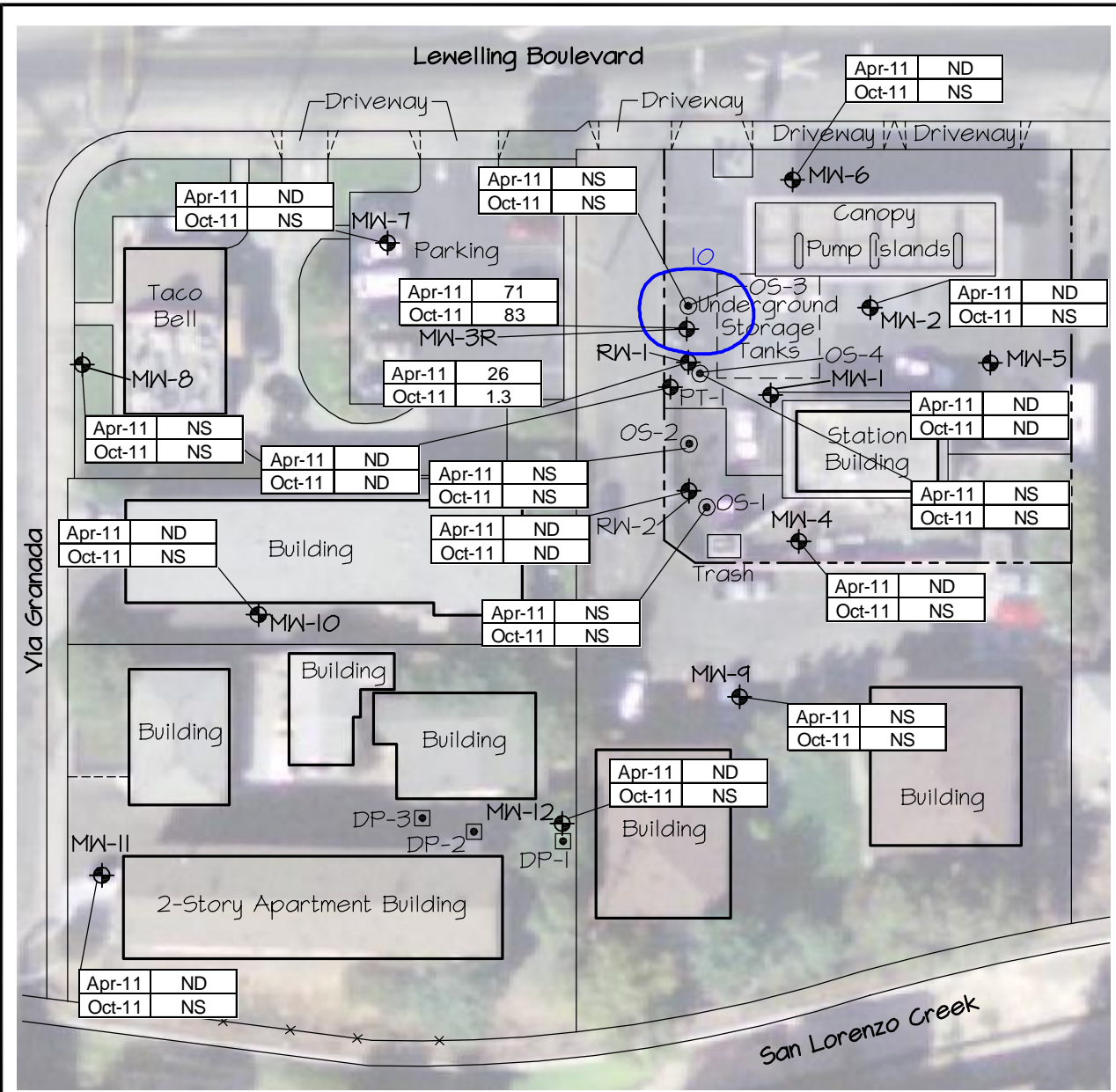
- Legend**
- MW-1 Monitoring Well with 5 or 6 April and 31 October 2011 Total Petroleum Hydrocarbons as Gasoline (TPHg) Results in  $\mu\text{g/l}$
  - DP-1 Soil Boring
  - OS-1 Oxygen Injection Well
  - ND Not Detected
- 100 TPHg Concentration Contour ( $\mu\text{g/l}$ ), Queried Where Uncertain



REVISION	REVISIONS			
	NO.	BY	DATE	DESCRIPTION
14	11	MY	11/2/10	Fourth Quarter 2010 Status Report
	12	MY	2/14/11	First Quarter 2011 Status Report
	13	MY	6/20/11	Second Quarter 2011 Status Report
	14	MY	12/15/11	Fourth Quarter 2011 Status Report

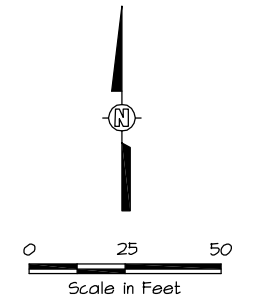
ARCTOS ENVIRONMENTAL			
TESORO - SAN LORENZO			
<b>TPHg CONCENTRATION CONTOURS IN GROUNDWATER</b>			
PROJECT NO. OIZO	DRAWN BY MY	CHECKED BY MP	APPROVED BY JPG
FILE NO. OIZO11B0214.DWG	FIGURE 3		

01Z011B0314.dwg



**Legend**

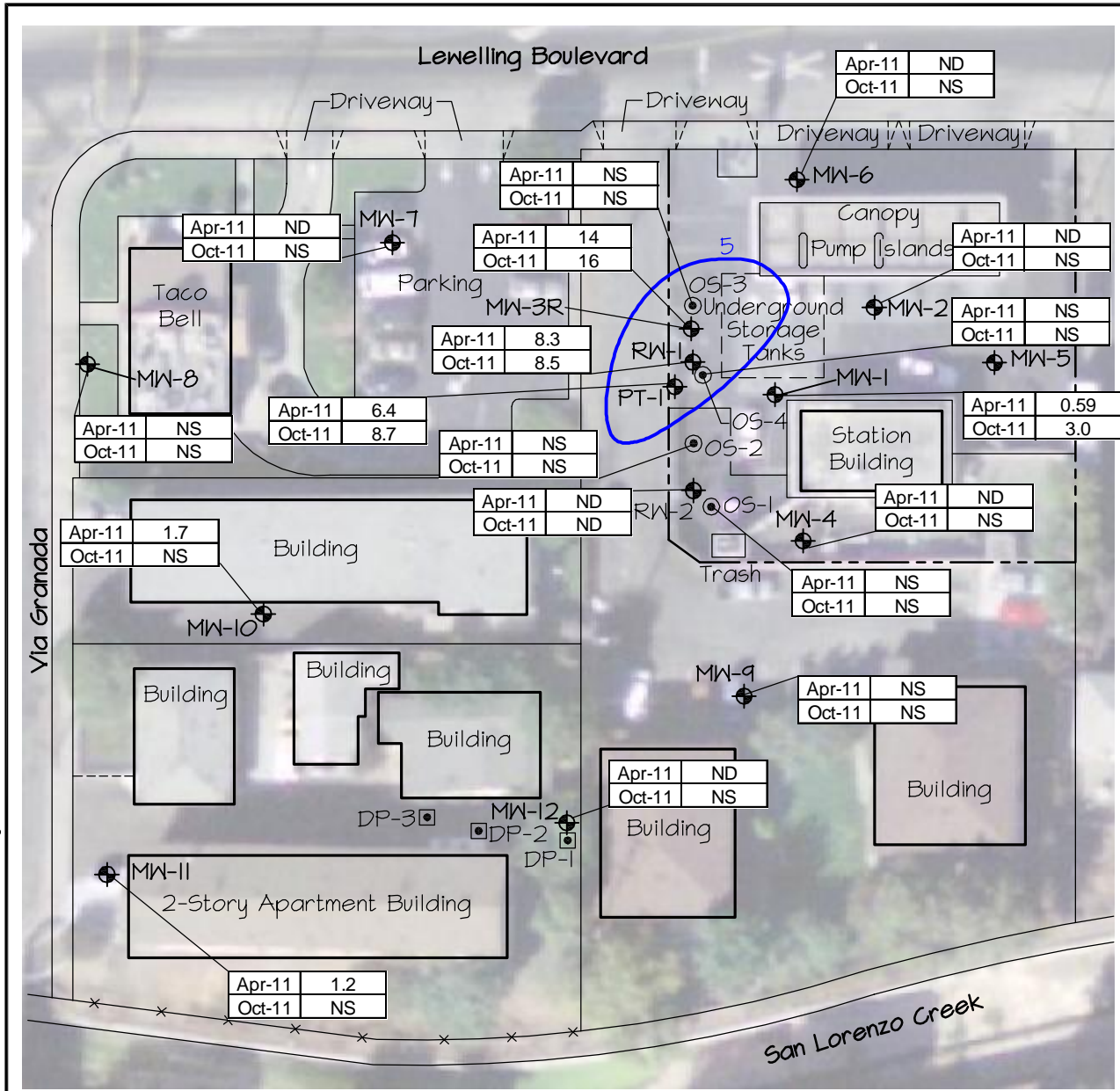
- MW-1 Monitoring Well with 5 or 6 April and 31 October 2011 Benzene Results in µg/l
- OS-1 Oxygen Injection Well
- DP-1 Soil Boring
- ND Not Detected
- 10 Benzene Concentration Contour (µg/l), Queried Where Uncertain



REVISION	REVISIONS			
	NO.	BY	DATE	DESCRIPTION
14	11	MY	11/2/10	Fourth Quarter 2010 Status Report
	12	MY	2/14/11	First Quarter 2011 Status Report
	13	MY	6/20/11	Second Quarter 2011 Status Report
	14	MY	12/15/11	Fourth Quarter 2011 Status Report

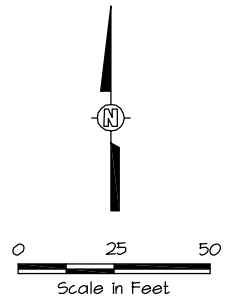
ARCTOS ENVIRONMENTAL			
TESORO - SAN LORENZO			
<b>BENZENE CONCENTRATION CONTOURS IN GROUNDWATER</b>			
PROJECT NO. OIZO	DRAWN BY MY	CHECKED BY MP	APPROVED BY JPG
FILE NO. OIZO11B0314.DWG	FIGURE 4		

01Z011B0414.dwg



Legend

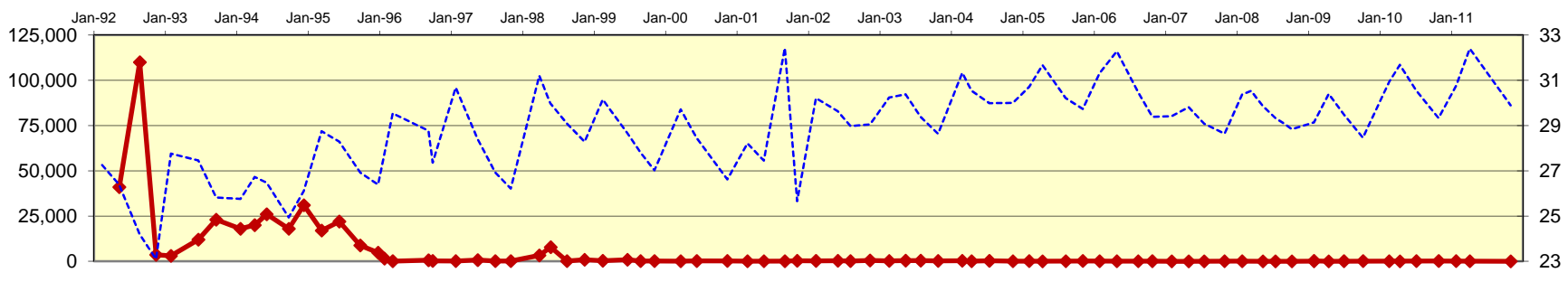
- MW-1 Monitoring Well with 5 or 6 April and 31 October 2011 Methyl Tert-Butyl Ether (MTBE) Results in µg/l
- OS-1 Oxygen Injection Well
- DP-1 Soil Boring
- ND Not Detected
- 5 MTBE Concentration Contour (µg/l), Queried Where Uncertain



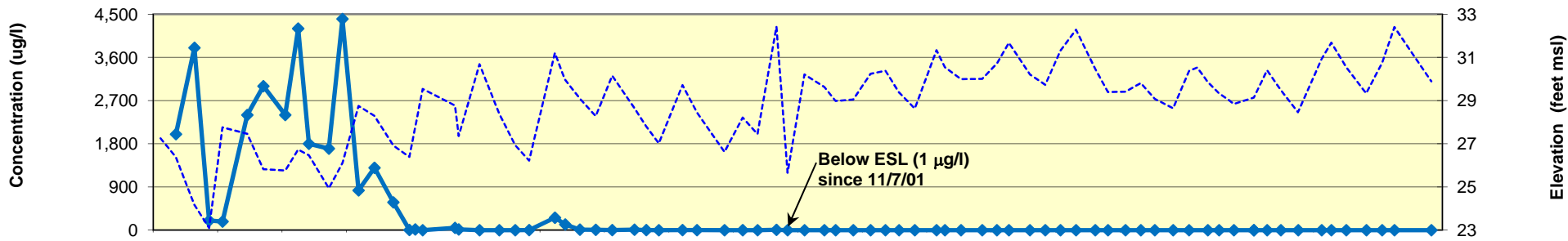
ARCTOS ENVIRONMENTAL			
TESORO - SAN LORENZO			
<b>MTBE CONCENTRATION CONTOUR IN GROUNDWATER</b>			
PROJECT NO. OIZO	DRAWN BY MY	CHECKED BY MP	APPROVED BY JPG
FILE NO. OIZO11B0414.DWG	FIGURE 5		

REVISION	REVISIONS			
	NO.	BY	DATE	DESCRIPTION
14	11	MY	11/12/10	Fourth Quarter 2010 Status Report
	12	MY	2/14/11	First Quarter 2011 Status Report
	13	MY	6/20/11	Second Quarter 2011 Status Report
	14	MY	12/15/11	Fourth Quarter 2011 Status Report

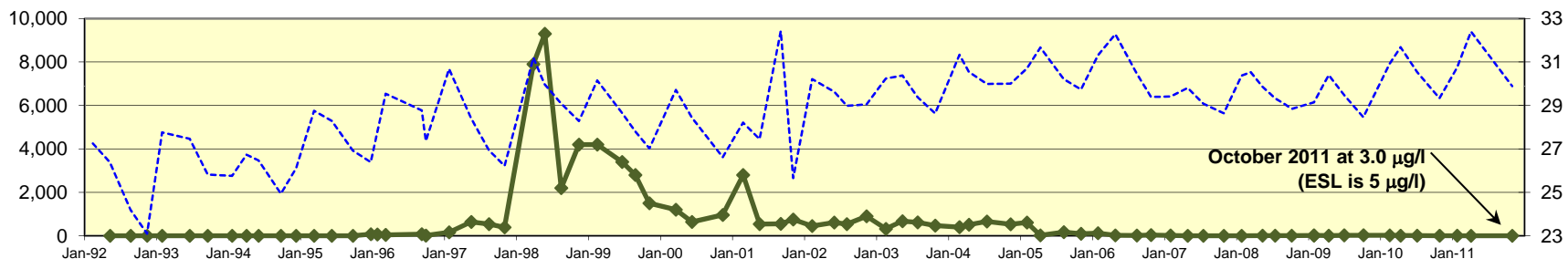
### TPHg and Groundwater Elevation



### Benzene and Groundwater Elevation



### MTBE and Groundwater Elevation

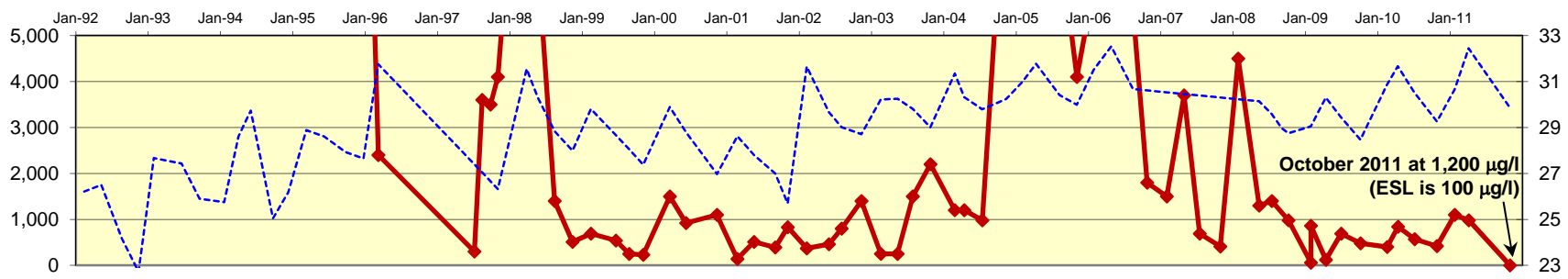


Date

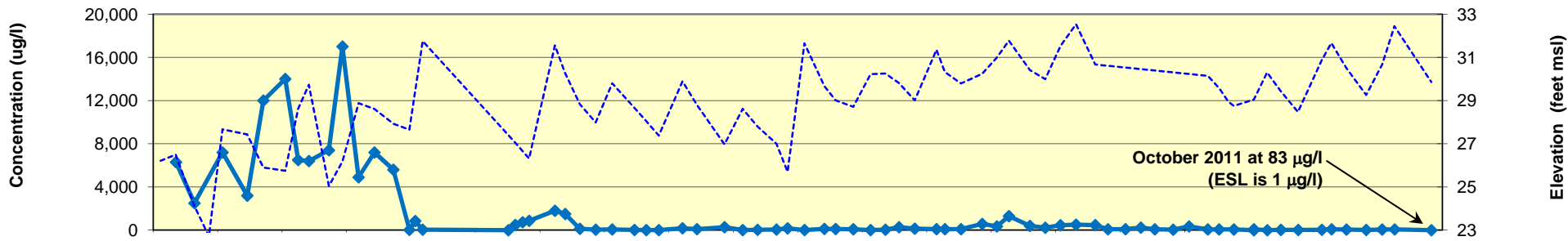
◆ TPHg   
 ◆ Benzene   
 ◆ MTBE   
 - - - Groundwater Elevation



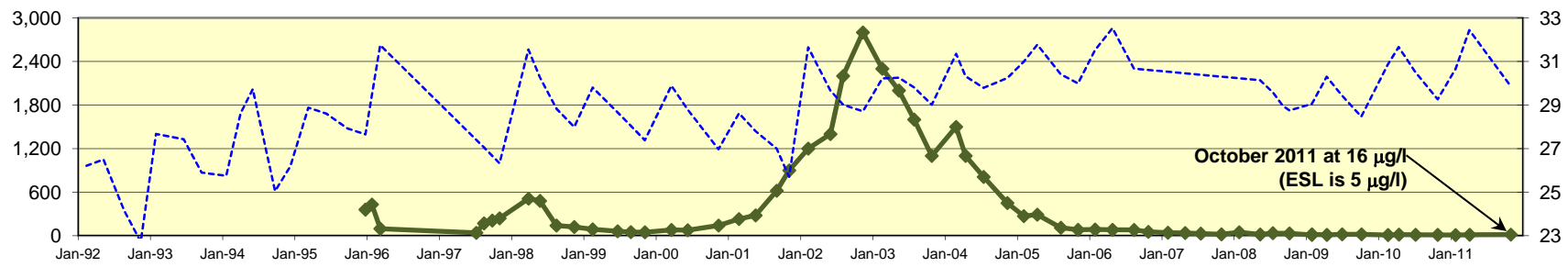
### TPHg and Groundwater Elevation



### Benzene and Groundwater Elevation



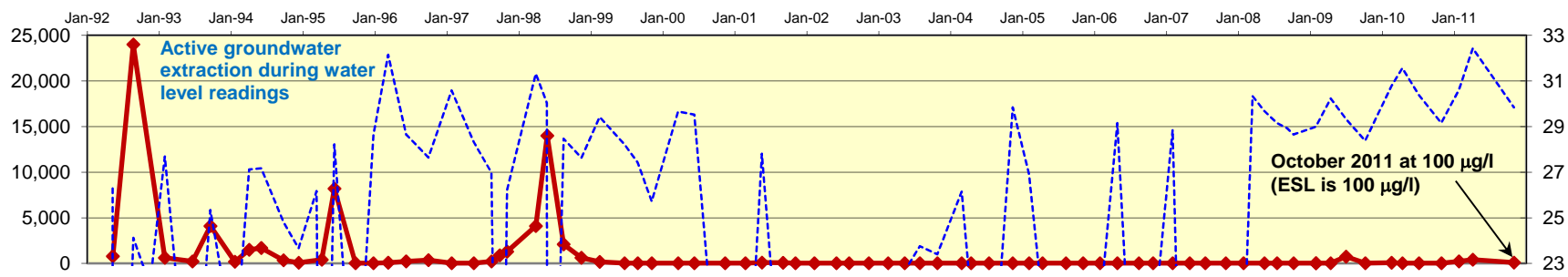
### MTBE and Groundwater Elevation



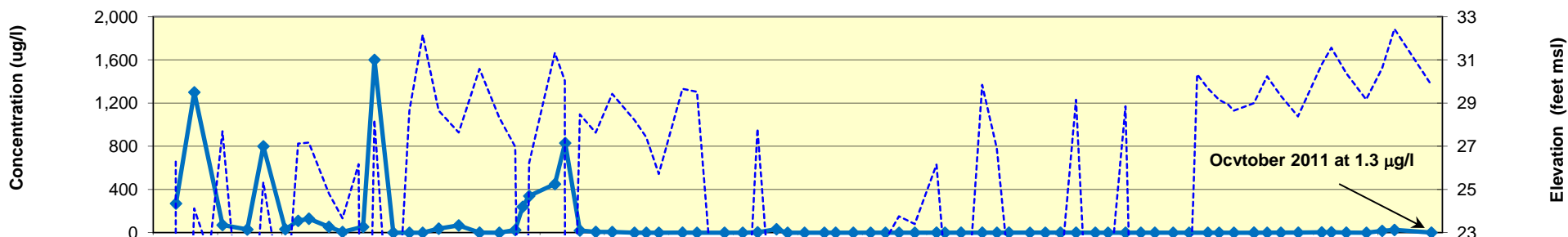
Date

◆ TPHg   
 ◆ Benzene   
 ◆ MTBE   
 - - - Groundwater Elevation

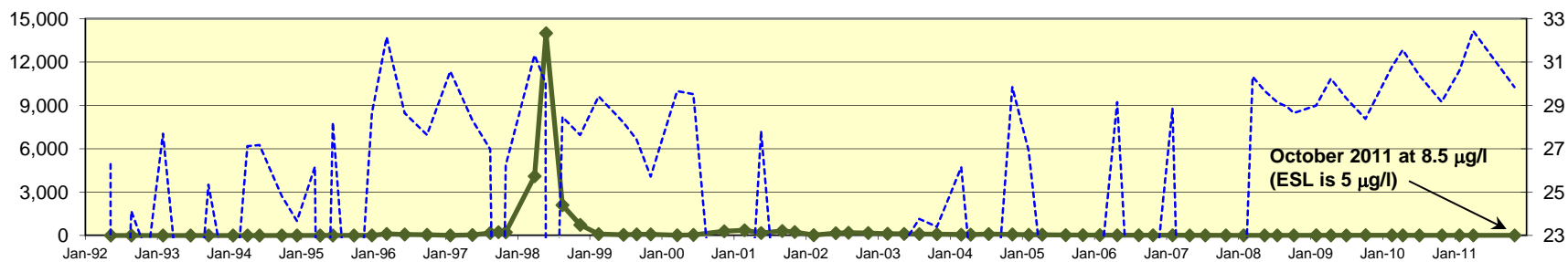
### TPHg and Groundwater Elevation



### Benzene and Groundwater Elevation



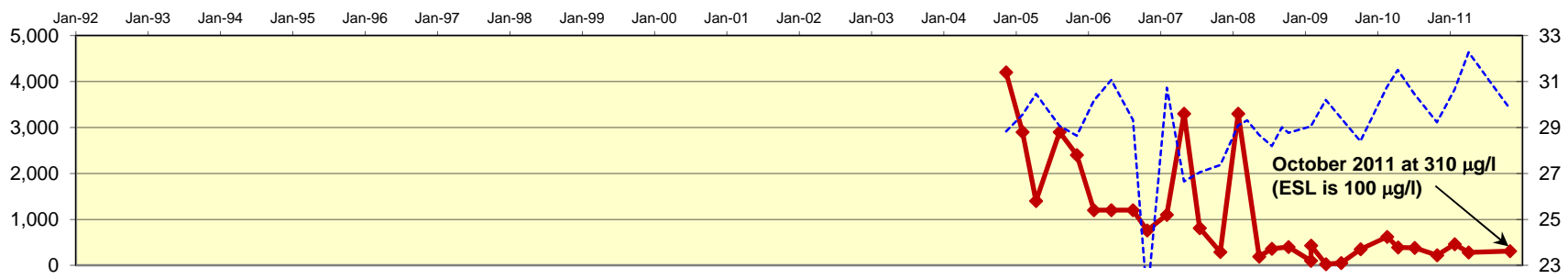
### MTBE and Groundwater Elevation



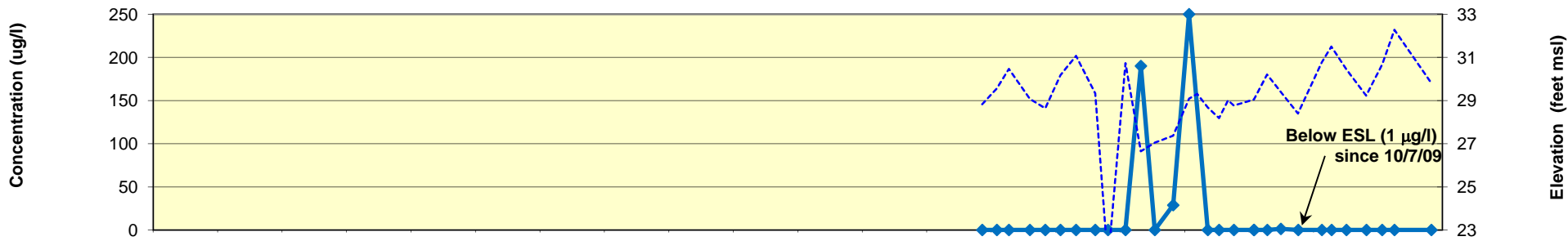
Date

◆ TPHg   
 ◆ Benzene   
 ◆ MTBE   
 - - - Groundwater Elevation

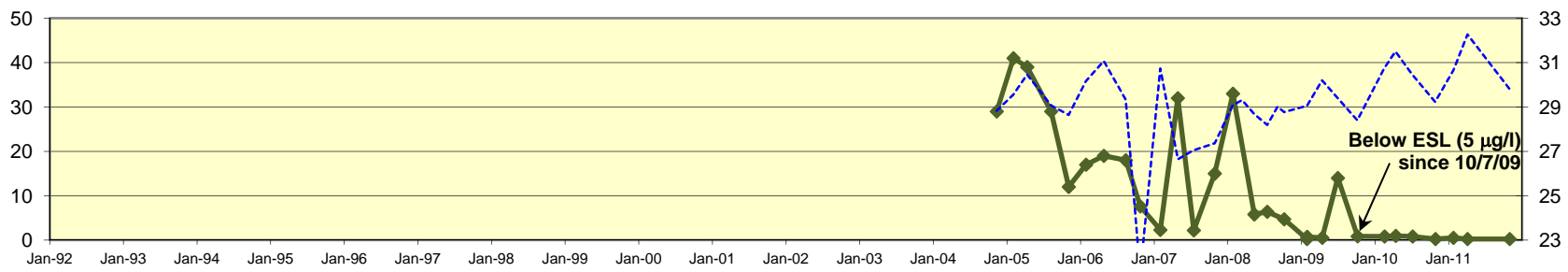
### TPHg and Groundwater Elevation



### Benzene and Groundwater Elevation



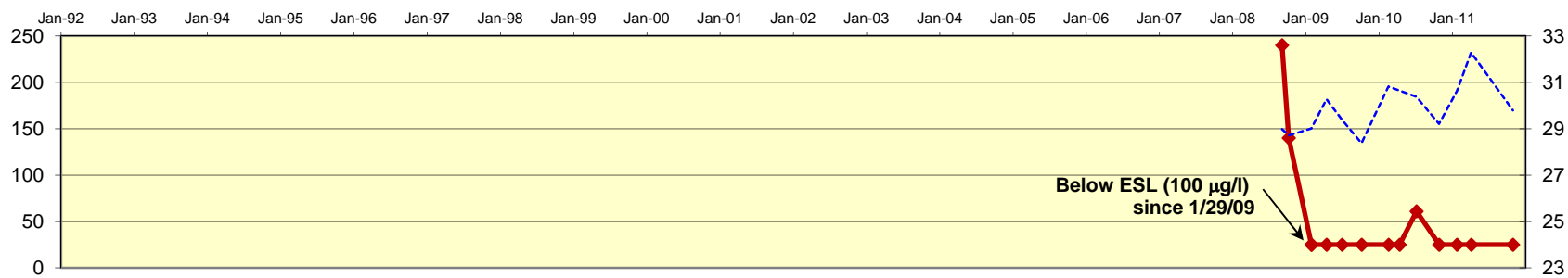
### MTBE and Groundwater Elevation



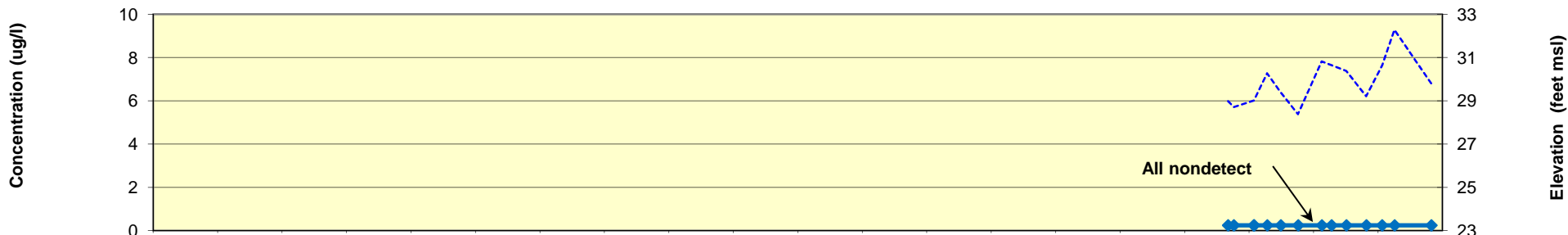
Date

◆ TPHg   
 ◆ Benzene   
 ◆ MTBE   
 - - - - Groundwater Elevation

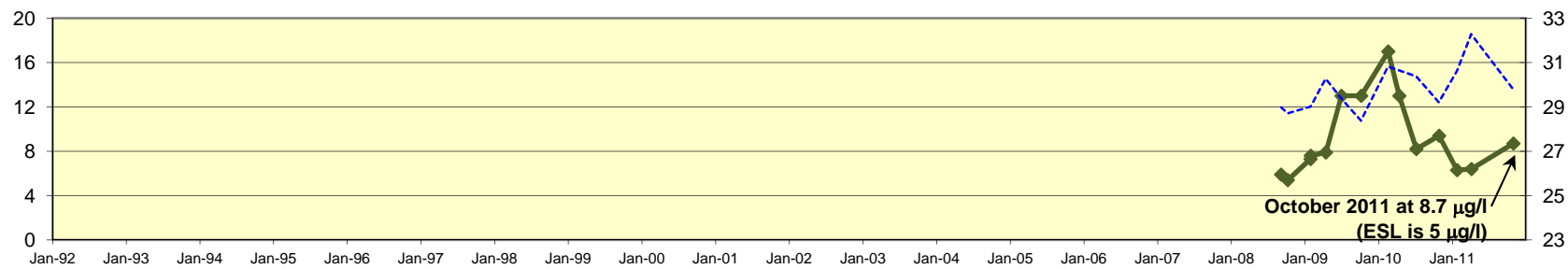
### TPHg and Groundwater Elevation



### Benzene and Groundwater Elevation



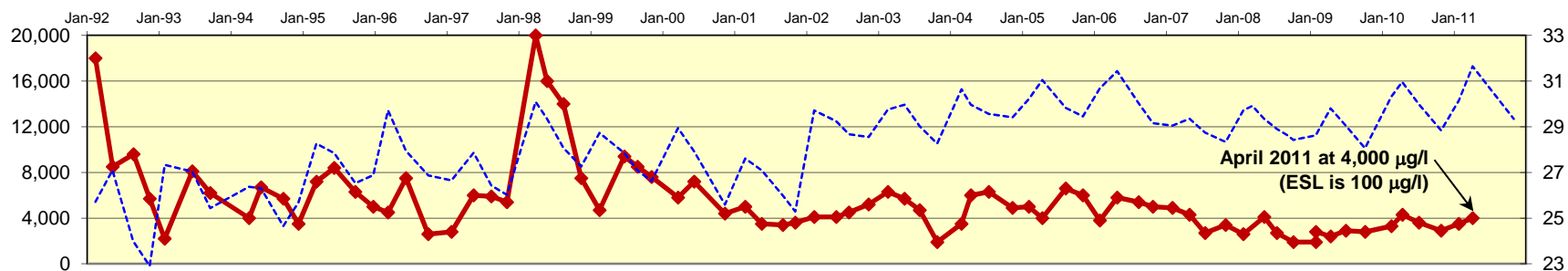
### MTBE and Groundwater Elevation



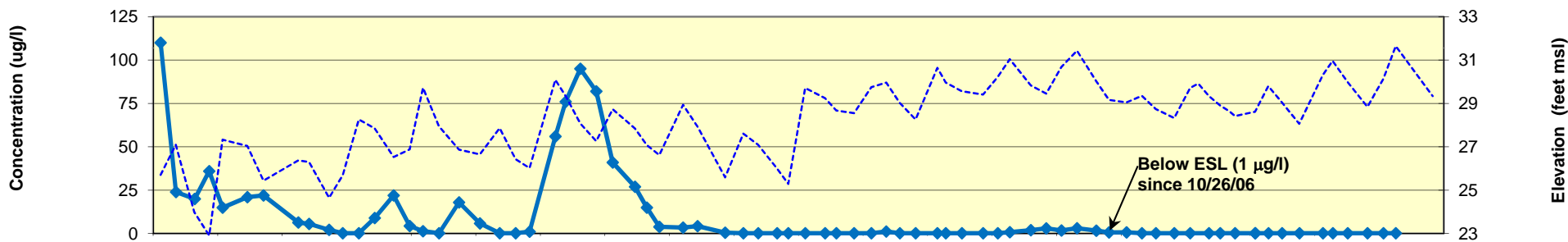
Date

◆ TPHg    
 ◆ Benzene    
 ◆ MTBE    
 - - - - Groundwater Elevation

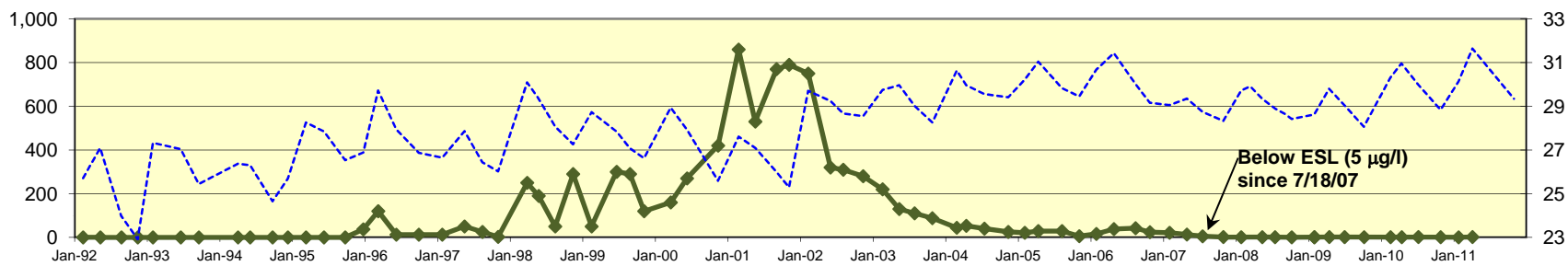
### TPHg and Groundwater Elevation



### Benzene and Groundwater Elevation



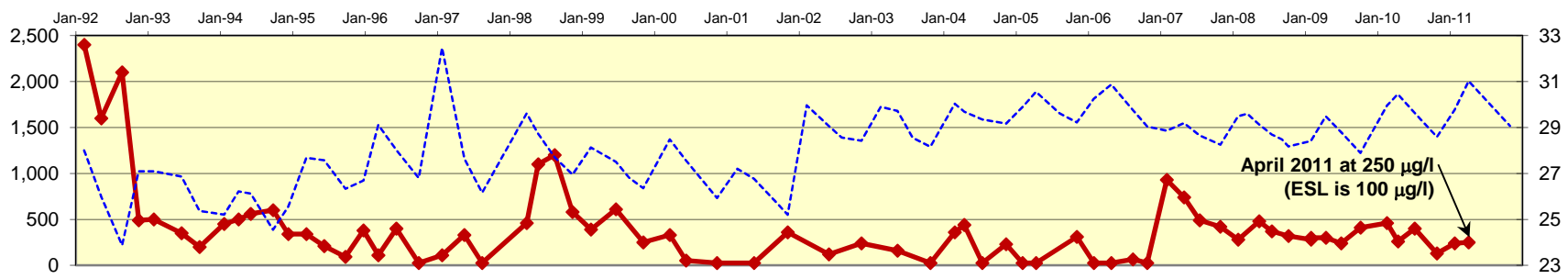
### MTBE and Groundwater Elevation



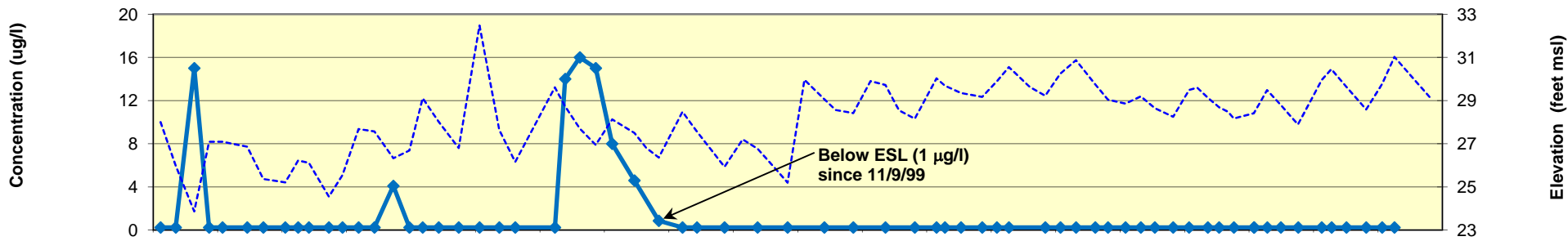
Date

◆ TPHg   
 ◆ Benzene   
 ◆ MTBE   
 - - - Groundwater Elevation

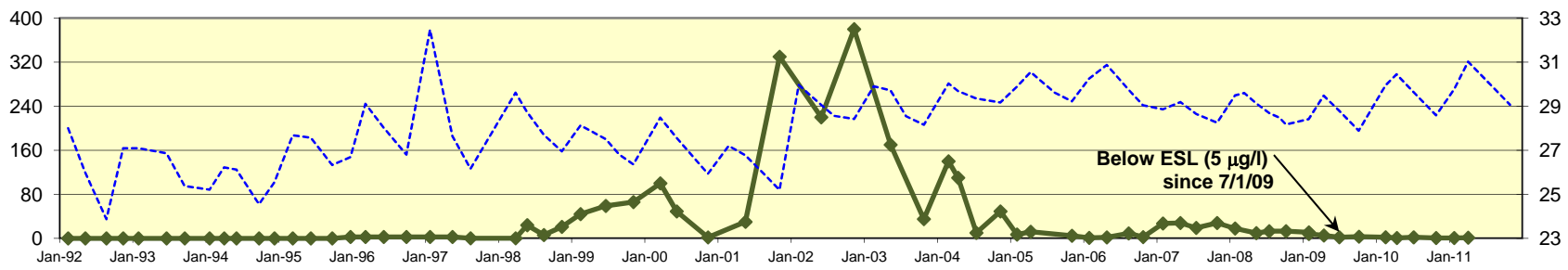
### TPHg and Groundwater Elevation



### Benzene and Groundwater Elevation



### MTBE and Groundwater Elevation



Date

◆ 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	Semiannual (2nd and 4th quarters)
MW-3R, RW-1, RW-2, and PT-1	On site	
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
Ultrameter	60722421	10/31/11	8:15	4, 7, 10	4.0, 7.0 10.0	Y	15	BM	
┆	┆	┆	┆	1413	1413	Y	15	BM	
YSI 55 DO	#12	┆	┆	100% $\pm$ 1/2	100%	Y	-	BM	

Notes/comments:

## Water Level Measurements

Job Number: MI-111031      Date: 10/31/11      Client: Orion

Site: Tescro #67107

Well I.D.	Time	Dia	Depth to NAPL	Thickness of NAPL	Depth to water (DTW)	Total Depth (measured)	Total Depth (historical)	Ref Point (TOC/ TOB)		
MW-1	842	2			16.47		33.40	TOC		
MW-2	846	2			15.52		33.90			
MW-3R	904	6			15.30		28.10			
MW-4	855	2			17.45		24.55			
MW-5	849	2			16.48		29.30			
MW-6	851	2			16.19		28.60			
MW-7	832	2			14.64		24.20			
MW-8	830	2			15.64		23.09			
MW-9	835	2			17.87		23.70			
MW-10	828	2			15.70		28.70			
MW-11	824	2			18.62		29.40			
MW-12	825	2			17.75		28.21			
PT-1	853 905	4			16.19		29.71			
RW-1	901	6			16.02		35.51			
RW-2	858	6			16.59		26.55		+	







## Purging And Sampling Data Sheet

Job#: M1-111031	Sampler: B Myers	Client: Orion
Well ID: PT-1	Date: 10/31/11	Site: San Lorenzo
Well diam: 1/4" 1" 2" 3" <u>4"</u> 6" Other:	DTW: <u>110.69</u> Total Depth: <u>29.71</u>	
Purge equip: <u>ES - diam:</u> Bladder Peri Waterra Positive Air Displacement Ext. System disp bailer teflon bailer other:	Tubing: OD: New Dedicated NA	
Purge method: <u>3-5 Case Volume</u> 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 Volume = 8.5 X 3 = 25.5 (Total Purge)

80% = 19.29

Time	Temp (°F)	pH	Cond (mS/µS)	Turbidity (NTU)	Purge Rate (gal or ml/ min)	Volume Removed (gal / L)	Notes
915	20.2	6.9	846	23	-	8.5	
918	20.1	6.9	840	21	-	17	
							Well dewatered @ 17 gallons
1100	20.6	6.9	835	19	-		

Did well dewater? <u>YES</u> NO		Total volume removed: <u>17</u> (gal / L)	
Sample method: <u>Disp Bailer</u> Ded. Tubing New Tubing Ext. Port Other:			
Sample date: 10/31/11	Sample time: <u>1100</u>	DTW at sample: <u>19.27</u>	
Sample ID: <u>PT-1</u>	Lab: Kiff	Number of bottles: <u>3/10</u>	
Analysis: See COC			
Equipment blank ID @	Field blank ID @		
Duplicate ID:	Pre-purge DO: <u>1.76</u>	Post purge DO:	
Fe <sup>2+</sup> :	Pre-purge ORP: <u>178</u>	Post purge ORP:	
NAPL depth:	Volume of NAPL:	Volume removed: ml	

## Purging And Sampling Data Sheet

Job#: M1-111031	Sampler: B Myers	Client: Orion
Well ID: <u>RW-1</u>	Date: 10/31/11	Site: San Lorenzo
Well diam: 1/4" 1" 2" 3" 4" <u>6"</u> Other:	DTW: <u>16.02</u> Total Depth: <u>35.51</u>	
Purge equip: <u>ES - diaphragm</u> : Bladder Peri Waterra Positive Air Displacement Ext. System disp bailer teflon bailer other:	Tubing: OD: New Dedicated NA	
Purge method: <u>3-5 Case Volume</u> 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 Volume = 28.7 X 3 = 86 (Total Purge) 80% = 19.92

Time	Temp (°F)	pH	Cond (mS (µS))	Turbidity (NTU)	Purge Rate (gal or mL/ min)	Volume Removed (gal / L)	Notes
<u>945</u>	<u>20.1</u>	<u>6.5</u>	<u>838</u>	<u>17</u>	<u>2</u>	<u>29</u>	
<u>1003</u>	<u>19.2</u>	<u>6.7</u>	<u>842</u>	<u>4</u>	<u>↓</u>	<u>58</u>	
<u>1021</u>	<u>19.9</u>	<u>6.7</u>	<u>837</u>	<u>4</u>	<u>↓</u>	<u>86</u>	

Did well dewater? YES <u>NO</u>	Total volume removed: <u>86</u> (gal / L)
Sample method: <u>Disp Bailer</u> Ded. Tubing New Tubing Ext. Port Other:	
Sample date: 10/31/11 Sample time: <u>1025</u>	DTW at sample: <u>19.92</u>
Sample ID: <u>RW-1</u> Lab: Kiff	Number of bottles: <u>3</u>
Analysis: See COC	
Equipment blank ID @	Field blank ID @
Duplicate ID:	Pre-purge DO: <u>1.08</u> Post purge DO:
Fe <sup>2+</sup> :	Pre-purge ORP: <u>93</u> Post purge ORP:
NAPL depth:	Volume of NAPL: Volume removed: ml

## Purging And Sampling Data Sheet

Job#: M1-111031	Sampler: B Myers	Client: Orion
Well ID: <i>Rw2</i>	Date: 10/31/11	Site: San Lorenzo
Well diam: 1/4" 1" 2" 3" 4" <u>6"</u> Other:	DTW: <i>16.59</i> Total Depth: <i>26.55</i>	
Purge equip: <u>ES - diam:</u> Bladder Peri Waterra Positive Air Displacement Ext. System disp bailer teflon bailer other:	Tubing: OD: New Dedicated NA	
Purge method: <u>3-5 Case Volume</u> 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 Volume = *14.6* X 3 = *43.8* (Total Purge)

80% = *18.59*

Time	Temp (°C/°F)	pH	Cond (mS (µS))	Turbidity (NTU)	Purge Rate (gal or mL/ min)	Volume Removed (gal / L)	Notes
<i>1035</i>	<i>20.0</i>	<i>6.8</i>	<i>751</i>	<i>283</i>	-	<i>15</i>	
<i>1042</i>	<i>20.6</i>	<i>6.9</i>	<i>739</i>	<i>30</i>	-	<i>30</i>	
<i>1049</i>	<i>20.6</i>	<i>7.0</i>	<i>728</i>	<i>31</i>	-	<i>44</i>	

Did well dewater? YES  NO Total volume removed: *44* (gal / L)

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

Sample date: 10/31/11 Sample time: *1110* DTW at sample: *17.13*

Sample ID: *Rw2* Lab: Kiff Number of bottles: *10*

Analysis: See COC

Equipment blank ID @ Field blank ID @

Duplicate ID: Pre-purge DO: *1.54* Post purge DO:

Fe<sup>2+</sup>: Pre-purge ORP: *-12* 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
	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
	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	
	10/31/11	16.47	29.89	
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

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.)	6/13/95	14.67	43.09	28.42
	9/28/95	16.07		27.02
	12/28/95	16.46		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		



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.)	7/31/03	15.30	45.23	29.93
	10/28/03	14.93		30.30
	2/28/04	13.56		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		

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.)	4/5/11	12.85	45.61	32.76
	10/31/11	15.52		30.09
MW-3	2/18/92	16.89	43.10	26.21
	5/14/92	16.60		26.50
	5/15/92	NM		--
	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		

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.)	5/28/98	NM	43.10	--
	8/19/98	14.27		28.83
	11/17/98	15.11		27.99
	2/18/99	13.30		29.80
	6/24/99	14.44		28.66
	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

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.)	10/26/06	23.85	45.21	21.36
	2/2/07	21.96		23.25
	4/30/07	19.40		25.81
	7/18/07	23.11		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		
10/31/11	15.30	29.86		
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

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.)	9/28/94	19.70	44.66	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
	12/28/95	17.81		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	

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.)	11/14/02	17.92	46.98	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
	2/28/04	15.82		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		

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.)	7/6/10	16.82	47.36	30.54
	10/27/10	18.02		29.34
	1/25/11	16.64		30.72
	4/5/11	14.95		32.41
	10/31/11	17.45		29.91
MW-5	2/18/92	17.37	43.79	26.42
	5/14/92	17.29		26.50
	8/27/92	22.18		21.61
	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		

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.)	11/17/98	15.89	43.79	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	
	11/15/00	16.71		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			



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.)	4/30/07	16.10	46.12	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	
	7/16/08	16.71		29.41	
	9/5/08	17.34		46.50	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		
10/31/11	16.48	30.02			
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	

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.)	6/13/95	13.96	42.47	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
	5/20/97	14.00		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		

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.)	5/15/03	14.07	44.79	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
	4/13/05	15.59		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		

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.)	1/25/11	14.19	44.79	30.98
	4/5/11	12.25		32.92
	10/31/11	16.19		28.98
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
	1/24/94	16.07		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		

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.)	6/24/99	13.35	41.54	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
	2/11/02	13.76		43.85
	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		

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.)	10/30/07	15.40	43.85	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
	10/8/08	15.83	28.41	
	1/29/09	15.46	28.78	
	4/14/09	14.16	30.08	
	7/1/09	15.06	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	
10/31/11	14.64	29.60		
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		

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.)	12/28/95	15.62	42.26	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
	5/28/98	NM		--
	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		

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.)	2/28/04	14.02	44.58	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
	10/26/06	15.32		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		
10/31/11	15.64	29.31		



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	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
	6/13/95	16.75		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		

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.)	3/22/00	15.46	44.94	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
	7/31/03	17.58			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			

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.)	5/13/08	17.48	47.26	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
10/31/11	17.87		29.78	
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	

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.)	3/12/96	12.62	42.34	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	
	8/30/99	15.26		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			

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.)	4/16/04	14.69	44.65	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
	10/30/07	16.32		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		
10/31/11	15.70	29.34		

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	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
	6/11/96	16.98		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		

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.)	3/22/00	16.52	45.00	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
	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	
	7/16/04	18.01	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		

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.)	5/13/08	18.23	47.36	29.13
	7/16/08	18.67		28.69
	9/5/08	19.21		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
10/31/11	18.62	29.07		
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
	5/13/08	17.35		29.53
	7/16/08	17.70		29.18
	9/5/08	18.51		47.27
	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		



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	4/5/11	15.60	47.27	31.67
(cont.)	10/31/11	17.75		29.52
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
	1/28/97	12.59		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	

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.)	6/24/99	14.96	43.17	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
	2/4/05	18.57		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		

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.)	10/30/07	31.15	45.47	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
10/31/11	16.02	29.84		
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
	4/28/06	13.93		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

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.)	10/30/07	17.63	45.00	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
	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	
10/31/11	16.59	29.81		
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		--
	1/29/09	17.74		29.05

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)
OS-2 (cont.)	4/14/09	16.50	46.79	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**

<b>Well No.</b>	<b>Date of Measurement</b>	<b>Depth to Water (feet below casing)</b>	<b>PVC Casing Elevation<sup>(a)</sup> (feet MSL)</b>	<b>Water Table Elevation<sup>(b)</sup> (feet MSL)</b>
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
	10/31/11	16.69		29.79

(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> (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	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	
DUP	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> (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.)	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
	10/31/11	ND<50	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
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> (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.)	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> (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-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
	10/31/11	1,200	83	1.1	24	4.8	16	ND<0.5	ND<0.5	ND<0.5	14
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> (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-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> (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-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> (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.)	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
DUP	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
	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	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<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> (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-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	
DUP	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
	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



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**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-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> (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.)	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	
	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	
	DUP	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
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	
10/31/2011	100	1.3	ND<0.5	ND<0.5	ND<0.5	8.5	ND<0.5	ND<0.5	ND<0.5	9.2		
RW-2	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	
	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
DUP	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
	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
10/31/11	310	ND<0.5	ND<0.5	0.53	1.1	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 <sup>(i)</sup>	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> (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
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<0.5
	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<0.5
	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<0.5
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<0.5
	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<0.5
	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<0.5
	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<0.5
	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<0.5
	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<0.5
	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<0.5
	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<0.5
OS-3  DUP	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
	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<0.5
	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	
OS-4  DUP	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<0.5
	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<0.5
	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<0.5
	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<0.5
	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<0.5
	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<0.5
	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<0.5
PT-1  DUP	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<0.5
	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<0.5
	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<0.5
	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<0.5
	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<0.5
	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<0.5
	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<0.5
	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<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
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
	10/31/11	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

- (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) NS - Not sampled this sampling period.
- (j) 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**



## Laboratory Results

Mike Purchase  
Arctos Environmental  
1332 Peralta Avenue  
Berkeley, CA 94702

Subject : 5 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,



Joel Kiff



Subject : 5 Water Samples  
Project Name : Tesoro - San Lorenzo #67107  
Project Number : 01ZO

## Case Narrative

Matrix Spike/Matrix Spike Duplicate results associated with samples MW-3R, PT-1 and RW-2 for the analyte Sulfate were affected by the analyte concentration present in the un-spiked sample.

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

Project Number : **01ZO**

Sample : **MW-1**

Matrix : Water

Lab Number : 79292-01

Sample Date :10/31/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/31/11 23:41
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/31/11 23:41
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/31/11 23:41
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/31/11 23:41
<b>Methyl-t-butyl ether (MTBE)</b>	<b>3.0</b>	0.50	ug/L	EPA 8260B	10/31/11 23:41
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	10/31/11 23:41
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	10/31/11 23:41
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	10/31/11 23:41
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	10/31/11 23:41
Methanol	< 50	50	ug/L	EPA 8260B	10/31/11 23:41
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	10/31/11 23:41
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/31/11 23:41
1,2-Dichloroethane-d4 (Surr)	104		% Recovery	EPA 8260B	10/31/11 23:41
Toluene - d8 (Surr)	92.9		% Recovery	EPA 8260B	10/31/11 23:41

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

Project Number : **01ZO**

Sample : **MW-3R**

Matrix : Water

Lab Number : 79292-02

Sample Date :10/31/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Nitrate as N	< 0.10	0.10	mg/L	EPA 300.0	10/31/11 21:23
<b>Sulfate</b>	<b>19</b>	0.50	mg/L	EPA 300.0	10/31/11 21:23
<b>Ferrous Iron</b>	<b>0.62</b>	0.10	mg/L	SM 3500-Fe D	10/31/11 17:43
<b>Iron</b>	<b>2.0</b>	0.10	mg/L	EPA 6010B	11/03/11 13:06
<b>Benzene</b>	<b>83</b>	0.50	ug/L	EPA 8260B	11/01/11 00:12
<b>Toluene</b>	<b>1.1</b>	0.50	ug/L	EPA 8260B	11/01/11 00:12
<b>Ethylbenzene</b>	<b>24</b>	0.50	ug/L	EPA 8260B	11/01/11 00:12
<b>Total Xylenes</b>	<b>4.8</b>	0.50	ug/L	EPA 8260B	11/01/11 00:12
<b>Methyl-t-butyl ether (MTBE)</b>	<b>16</b>	0.50	ug/L	EPA 8260B	11/01/11 00:12
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	11/01/11 00:12
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	11/01/11 00:12
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	11/01/11 00:12
<b>Tert-Butanol</b>	<b>14</b>	5.0	ug/L	EPA 8260B	11/01/11 00:12
Methanol	< 50	50	ug/L	EPA 8260B	11/01/11 00:12
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	11/01/11 00:12
<b>TPH as Gasoline</b>	<b>1200</b>	50	ug/L	EPA 8260B	11/01/11 00:12
1,2-Dichloroethane-d4 (Surr)	104		% Recovery	EPA 8260B	11/01/11 00:12
Toluene - d8 (Surr)	92.1		% Recovery	EPA 8260B	11/01/11 00:12

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

Project Number : **01ZO**

Sample : **PT-1**

Matrix : Water

Lab Number : 79292-03

Sample Date :10/31/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
<b>Nitrate as N</b>	<b>0.31</b>	0.10	mg/L	EPA 300.0	11/01/11 00:24
<b>Sulfate</b>	<b>35</b>	0.50	mg/L	EPA 300.0	10/31/11 23:19
Ferrous Iron	< 0.10	0.10	mg/L	SM 3500-Fe D	10/31/11 17:44
<b>Iron</b>	<b>3.8</b>	0.10	mg/L	EPA 6010B	11/03/11 13:19
Benzene	< 0.50	0.50	ug/L	EPA 8260B	11/01/11 00:44
Toluene	< 0.50	0.50	ug/L	EPA 8260B	11/01/11 00:44
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	11/01/11 00:44
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	11/01/11 00:44
<b>Methyl-t-butyl ether (MTBE)</b>	<b>8.7</b>	0.50	ug/L	EPA 8260B	11/01/11 00:44
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	11/01/11 00:44
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	11/01/11 00:44
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	11/01/11 00:44
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	11/01/11 00:44
Methanol	< 50	50	ug/L	EPA 8260B	11/01/11 00:44
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	11/01/11 00:44
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	11/01/11 00:44
1,2-Dichloroethane-d4 (Surr)	104		% Recovery	EPA 8260B	11/01/11 00:44
Toluene - d8 (Surr)	93.5		% Recovery	EPA 8260B	11/01/11 00:44

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

Project Number : **01ZO**

Sample : **RW-1**

Matrix : Water

Lab Number : 79292-04

Sample Date :10/31/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
<b>Benzene</b>	<b>1.3</b>	0.50	ug/L	EPA 8260B	11/01/11 01:15
Toluene	< 0.50	0.50	ug/L	EPA 8260B	11/01/11 01:15
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	11/01/11 01:15
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	11/01/11 01:15
<b>Methyl-t-butyl ether (MTBE)</b>	<b>8.5</b>	0.50	ug/L	EPA 8260B	11/01/11 01:15
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	11/01/11 01:15
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	11/01/11 01:15
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	11/01/11 01:15
<b>Tert-Butanol</b>	<b>9.2</b>	5.0	ug/L	EPA 8260B	11/01/11 01:15
Methanol	< 50	50	ug/L	EPA 8260B	11/01/11 01:15
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	11/01/11 01:15
<b>TPH as Gasoline</b>	<b>100</b>	50	ug/L	EPA 8260B	11/01/11 01:15
1,2-Dichloroethane-d4 (Surr)	105		% Recovery	EPA 8260B	11/01/11 01:15
Toluene - d8 (Surr)	93.5		% Recovery	EPA 8260B	11/01/11 01:15

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

Project Number : **01ZO**

Sample : **RW-2**

Matrix : Water

Lab Number : 79292-05

Sample Date :10/31/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
<b>Nitrate as N</b>	<b>2.9</b>	0.20	mg/L	EPA 300.0	11/01/11 00:52
<b>Sulfate</b>	<b>57</b>	1.0	mg/L	EPA 300.0	10/31/11 23:48
Ferrous Iron	< 0.10	0.10	mg/L	SM 3500-Fe D	10/31/11 17:44
<b>Iron</b>	<b>1.6</b>	0.10	mg/L	EPA 6010B	11/03/11 13:23
Benzene	< 0.50	0.50	ug/L	EPA 8260B	11/01/11 01:46
Toluene	< 0.50	0.50	ug/L	EPA 8260B	11/01/11 01:46
<b>Ethylbenzene</b>	<b>0.53</b>	0.50	ug/L	EPA 8260B	11/01/11 01:46
<b>Total Xylenes</b>	<b>1.1</b>	0.50	ug/L	EPA 8260B	11/01/11 01:46
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	11/01/11 01:46
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	11/01/11 01:46
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	11/01/11 01:46
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	11/01/11 01:46
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	11/01/11 01:46
Methanol	< 50	50	ug/L	EPA 8260B	11/01/11 01:46
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	11/01/11 01:46
<b>TPH as Gasoline</b>	<b>310</b>	50	ug/L	EPA 8260B	11/01/11 01:46
1,2-Dichloroethane-d4 (Surr)	105		% Recovery	EPA 8260B	11/01/11 01:46
Toluene - d8 (Surr)	92.9		% Recovery	EPA 8260B	11/01/11 01:46

**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	11/03/2011
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/31/2011
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/31/2011
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/31/2011
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/31/2011
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	10/31/2011
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	10/31/2011
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	10/31/2011
Methanol	< 50	50	ug/L	EPA 8260B	10/31/2011
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	10/31/2011
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	10/31/2011
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	10/31/2011
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/31/2011
1,2-Dichloroethane-d4 (Surr)	105		%	EPA 8260B	10/31/2011
Toluene - d8 (Surr)	93.2		%	EPA 8260B	10/31/2011
Ferrous Iron	<0.10	0.10	mg/L	SM 3500-Fe D	10/31/2011
Nitrate as N	<0.10	0.10	mg/L	EPA 300.0	10/31/2011
Sulfate	<0.50	0.50	mg/L	EPA 300.0	10/31/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
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## QC Report : Matrix Spike/ Matrix Spike Duplicate

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
Ferrous Iron	79292-02	0.62	0.250	0.250	0.922	0.941	mg/L	SM 3500-Fe D	10/31/11	120	128	2.04	70.0-130	25
Nitrate as N	79292-02	< 0.10	0.500	0.500	0.528	0.513	mg/L	EPA 300.0	10/31/11	106	103	2.93	85.0-115	10
<b>Sulfate</b>	79292-02	19	2.50	2.50	21.1	20.5	mg/L	EPA 300.0	10/31/11	85.9	<b>61.1</b>	2.97	85.0-115	10
Iron	79292-02	2.0	0.400	0.400	2.45	2.46	mg/L	EPA 6010B	11/3/11	110	113	0.530	75-125	20
Benzene	79285-02	<0.50	40.0	40.0	39.7	38.3	ug/L	EPA 8260B	10/31/11	99.4	95.8	3.66	80-120	25
Diisopropyl ether	79285-02	<0.50	39.6	39.6	45.4	44.3	ug/L	EPA 8260B	10/31/11	115	112	2.46	80-120	25
Ethanol	79285-02	<5.0	99.7	99.7	126	118	ug/L	EPA 8260B	10/31/11	126	118	6.82	55.1-159	25
Ethyl-tert-butyl ether	79285-02	<0.50	39.9	39.9	43.7	42.7	ug/L	EPA 8260B	10/31/11	110	107	2.43	76.5-120	25



**QC Report : Matrix Spike/ Matrix Spike Duplicate**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
Ethylbenzene	79285-02	<0.50	40.0	40.0	41.0	39.3	ug/L	EPA 8260B	10/31/11	102	98.2	4.27	80-120	25
Methanol	79285-02	<50	998	998	1210	1190	ug/L	EPA 8260B	10/31/11	122	119	1.80	53.2-147	25
Methyl-t-butyl ether	79285-02	<0.50	40.2	40.2	43.1	42.6	ug/L	EPA 8260B	10/31/11	107	106	1.07	69.7-121	25
P + M Xylene	79285-02	<0.50	40.0	40.0	40.0	38.5	ug/L	EPA 8260B	10/31/11	100	96.3	3.80	76.8-120	25
Tert-Butanol	79285-02	150	193	193	357	352	ug/L	EPA 8260B	10/31/11	107	104	2.23	80-120	25
Tert-amyl-methyl ether	79285-02	<0.50	39.9	39.9	42.9	42.2	ug/L	EPA 8260B	10/31/11	108	106	1.78	78.9-120	25
Toluene	79285-02	<0.50	40.0	40.0	37.2	36.0	ug/L	EPA 8260B	10/31/11	92.9	90.0	3.20	80-120	25

## QC Report : Laboratory Control Sample (LCS)

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	11/3/11	97.8	85-115
Benzene	39.8	ug/L	EPA 8260B	10/31/11	97.8	80-120
Diisopropyl ether	39.4	ug/L	EPA 8260B	10/31/11	113	80-120
Ethanol	99.3	ug/L	EPA 8260B	10/31/11	129	55.1-159
Ethyl-tert-butyl ether	39.7	ug/L	EPA 8260B	10/31/11	109	76.5-120
Ethylbenzene	39.8	ug/L	EPA 8260B	10/31/11	101	80-120
Methanol	993	ug/L	EPA 8260B	10/31/11	128	53.2-147
Methyl-t-butyl ether	40.0	ug/L	EPA 8260B	10/31/11	104	69.7-121
P + M Xylene	39.8	ug/L	EPA 8260B	10/31/11	100	76.8-120
TPH as Gasoline	502	ug/L	EPA 8260B	10/31/11	99.6	70.0-130
Tert-Butanol	192	ug/L	EPA 8260B	10/31/11	105	80-120
Tert-amyl-methyl ether	39.7	ug/L	EPA 8260B	10/31/11	106	78.9-120
Toluene	39.8	ug/L	EPA 8260B	10/31/11	92.2	80-120
Ferrous Iron	0.502	mg/L	SM 3500-Fe D	10/31/11	97.1	70.0-130
Nitrate as N	0.500	mg/L	EPA 300.0	10/31/11	94.3	85.0-115
Sulfate	2.50	mg/L	EPA 300.0	10/31/11	97.8	85.0-115







# Subcontract Laboratory Report Attachments



# CALSCIENCE

WORK ORDER NUMBER: 11-11-0006

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

## Analytical Report For

**Client:** Kiff Analytical

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

**Attention:** Joel Kiff  
2795 2nd Street, Suite 300  
Davis, CA 95616-6593

*Amanda Porter*

Approved for release on 11/8/2011 by:  
Amanda Porter  
Project Manager

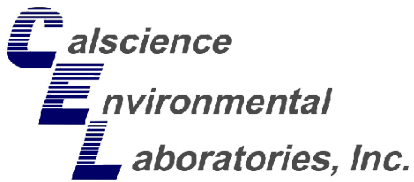
ResultLink ▶

Email your PM ▶



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 analyses, 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. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.





# Contents

Client Project Name: Tesoro - San Lorenzo #67107  
Work Order Number: 11-11-0006

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## Analytical Report



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

Date Received: 11/01/11  
Work Order No: 11-11-0006

Project: Tesoro - San Lorenzo #67107

Page 1 of 1

Client Sample Number	Lab Sample Number	Date Collected	Matrix
MW-3R	11-11-0006-1	10/31/11	Aqueous

Parameter	Results	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chemical Oxygen Demand	5.0	5.0	1		mg/L	11/02/11	11/02/11	EPA 410.4
Alkalinity, Total (as CaCO <sub>3</sub> )	541	5.00	1		mg/L	N/A	11/04/11	SM 2320B
Biochemical Oxygen Demand	3.8	1.0	1		mg/L	11/01/11	11/06/11	SM 5210 B
Carbon, Total Organic	3.1	0.50	1		mg/L	N/A	11/04/11	SM 5310 D

PT-1	11-11-0006-2	10/31/11	Aqueous
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Parameter	Results	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chemical Oxygen Demand	ND	5.0	1		mg/L	11/02/11	11/02/11	EPA 410.4
Alkalinity, Total (as CaCO <sub>3</sub> )	416	5.00	1		mg/L	N/A	11/04/11	SM 2320B
Biochemical Oxygen Demand	ND	1.0	1		mg/L	11/01/11	11/06/11	SM 5210 B
Carbon, Total Organic	1.8	0.50	1		mg/L	N/A	11/04/11	SM 5310 D

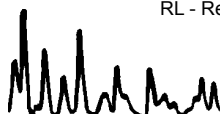
RW-2	11-11-0006-3	10/31/11	Aqueous
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Parameter	Results	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chemical Oxygen Demand	ND	5.0	1		mg/L	11/02/11	11/02/11	EPA 410.4
Alkalinity, Total (as CaCO <sub>3</sub> )	323	5.00	1		mg/L	N/A	11/04/11	SM 2320B
Biochemical Oxygen Demand	ND	1.0	1		mg/L	11/01/11	11/06/11	SM 5210 B
Carbon, Total Organic	1.9	0.50	1		mg/L	N/A	11/04/11	SM 5310 D

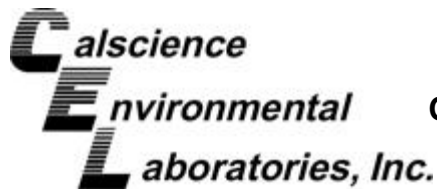
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Parameter	Results	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chemical Oxygen Demand	ND	5.0	1		mg/L	11/02/11	11/02/11	EPA 410.4
Alkalinity, Total (as CaCO <sub>3</sub> )	ND	1.0	1		mg/L	N/A	11/04/11	SM 2320B
Biochemical Oxygen Demand	ND	1.0	1		mg/L	11/01/11	11/06/11	SM 5210 B
Carbon, Total Organic	ND	0.50	1		mg/L	N/A	11/04/11	SM 5310 D

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







Quality Control - Spike/Spike Duplicate



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

Date Received: N/A  
Work Order No: 11-11-0006

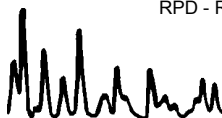
Project: Tesoro - San Lorenzo #67107

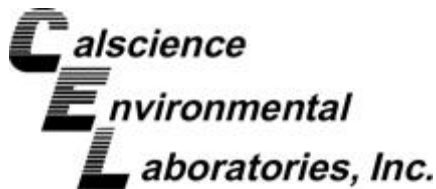
Matrix: Aqueous or Solid

<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	11-11-0155-5	11/04/11	N/A	98	96	75-125	2	0-25	

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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: 11-11-0006

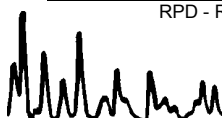
Project: Tesoro - San Lorenzo #67107

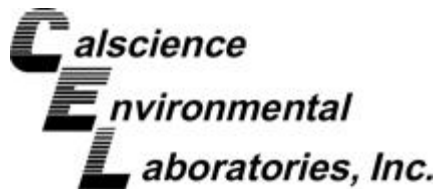
Matrix: Aqueous or Solid

Parameter	Method	QC Sample ID	Date Analyzed	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	SM 2320B	11-10-2052-13	11/04/11	251	251	0	0-25	
Bicarbonate (as CaCO3)	SM 2320B	11-10-2052-13	11/04/11	251	251	0	0-25	
Carbonate (as CaCO3)	SM 2320B	11-10-2052-13	11/04/11	ND	ND	NA	0-25	
Hydroxide (as CaCO3)	SM 2320B	11-10-2052-13	11/04/11	ND	ND	NA	0-25	
Chemical Oxygen Demand	EPA 410.4	11-10-2041-1	11/02/11	27	26	4	0-25	
Biochemical Oxygen Demand	SM 5210 B	RW-2	11/06/11	ND	ND	NA	0-25	

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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: 11-11-0006

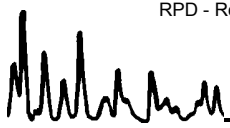
Project: Tesoro - San Lorenzo #67107

Matrix: Aqueous or Solid

<u>Parameter</u>	<u>Method</u>	<u>Quality Control</u> Sample ID	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Analyzed</u>	<u>LCS %</u> <u>REC</u>	<u>LCSD %</u> <u>REC</u>	<u>%REC</u> <u>CL</u>	<u>RPD</u>	<u>RPD</u> <u>CL</u>	<u>Qual</u>
Carbon, Total Organic	SM 5310 D	099-05-097-4,436	N/A	11/04/11	105	106	80-120	1	0-20	

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RPD - Relative Percent Difference , CL - Control Limit



Work Order Number: 11-11-0006

<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.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
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.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (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.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

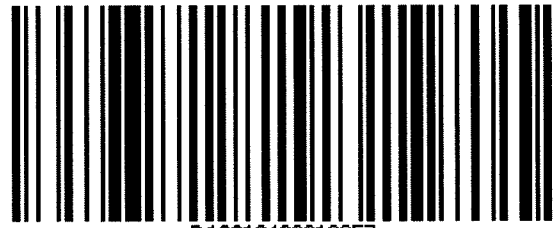
Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.







**800.334.5000**  
**ontrac.com**



D10010422610257

Date Printed 10/31/2011

Tracking#D10010422610257

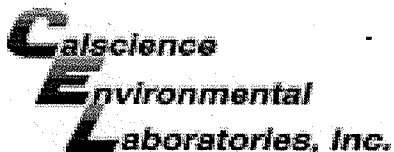
*Shipped From:*  
KIFF ANALYTICAL  
2795 2ND STREET 300  
DAVIS, CA 95616

*Sent By:* SAMPLE RECEIVING  
*Phone#:* (530)297-4800  
*wgt(lbs):* 20  
*Reference:* SUBS 79168, 79292  
*Reference 2:* CLASS 600

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

*Service:* **S**  
*Sort Code:* **ORG**  
*Special Services:*  
**Signature Required**

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WORK ORDER #: 11-11-0006

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Kiff

DATE: 11/01/11

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0°C - 6.0°C, not frozen)

Temperature 2.2°C + 0.5°C (CF) = 2.7°C [X] 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.

[X] Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: [ ] Air [ ] Filter

Initial: MC

CUSTODY SEALS INTACT:

- [X] Cooler [ ] \_\_\_\_\_ [ ] No (Not Intact) [ ] Not Present [ ] N/A
[ ] Sample [ ] \_\_\_\_\_ [ ] No (Not Intact) [X] Not Present

Initial: MC

Initial: MC

SAMPLE CONDITION:

Table with 4 columns: Item, Yes, No, N/A. Rows include Chain-Of-Custody (COC) document(s) received with samples, COC document(s) received complete, Sampler's name indicated on COC, Sample container label(s) consistent with COC, etc.

CONTAINER TYPE:

- Solid: [ ] 4ozCGJ [ ] 8ozCGJ [ ] 16ozCGJ [ ] Sleeve ( ) [ ] EnCores® [ ] TerraCores® [ ] \_\_\_\_\_
Water: [ ] VOA [ ] VOA h [ ] VOAn2 [ ] 125AGB [ ] 125AGBh [ ] 125AGBp [ ] 1AGB [ ] 1AGBna2 [ ] 1AGBs
[ ] 500AGB [ ] 500AGJ [ ] 500AGJs [ ] 250AGB [ ] 250CGB [ ] 250CGBs [X] 1PB [ ] 1PBna [ ] 500PB
[X] 250PB [ ] 250PBn [ ] 125PB [ ] 125PBz nna [ ] 100PJ [ ] 100PJna2 [ ] \_\_\_\_\_ [ ] \_\_\_\_\_ [ ] \_\_\_\_\_

Air: [ ] Tedlar® [ ] Summa® Other: [ ] \_\_\_\_\_ Trip Blank Lot#: \_\_\_\_\_ Labeled/Checked by: MC

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: C

Preservative: h: HCL n: HNO3 na2:Na2S2O3 na: NaOH p: H3PO4 s: H2SO4 u: Ultra-pure znna: ZnAc2+NaOH f: Filtered Scanned by: C





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

## ATTACHMENT F TREND ANALYSIS

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	63	Below ESL	Below ESL	Below ESL	Below ESL
MW-3R	28	Decreasing	Decreasing	Decreasing	Decreasing
RW-1	63	Decreasing	Decreasing	Decreasing	Below ESL
RW-2	28	Decreasing	Below ESL	Below ESL	Below ESL
PT-1	13	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 13 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 through April 2011.

### 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.	2. Page 1 of
3. Generator's Name and Mailing Address <i>Tesoro #67107 44 Leaveling Blvd</i>					
4. Generator's Phone ( ) <i>San Lorenzo, CA</i>					
5. Transporter 1 Company Name <i>Confluence Env</i>		6. US EPA ID Number		A. State Transporter's ID	
7. Transporter 2 Company Name		8. US EPA ID Number		B. Transporter 1 Phone <i>916-760-7641</i>	
9. Designated Facility Name and Site Address <i>ISI 1105 Airport Rd. Rio Vista CA</i>		10. US EPA ID Number		C. State Transporter's ID	
				D. Transporter 2 Phone	
				E. State Facility's ID	
				F. Facility's Phone <i>707-374-3834</i>	
11. WASTE DESCRIPTION			12. Containers		13. Total Quantity
			No.	Type	14. Unit Wt./Vol.
a. <i>NON HAZ PURGEWATER</i>			<i>1</i>	<i>Poly</i>	<i>212 GAL</i>
b.					
c.					
d.					
G. Additional Descriptions for Materials Listed Above			H. Handling Codes for Wastes Listed Above		
15. Special Handling Instructions and Additional Information					
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		Date Month Day Year
17. Transporter 1 Acknowledgement of Receipt of Materials			Signature		Date Month Day Year
Printed/Typed Name <i>BRAUNOW MYERS</i>			<i>[Signature]</i>		<i>10 31 11</i>
18. Transporter 2 Acknowledgement of Receipt of Materials			Signature		Date Month Day Year
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 <i>INSTRAT INC</i>			Signature <i>[Signature]</i>		Date Month Day Year <i>11 3 11</i>

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY