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**SITE CONCEPTUAL MODEL UPDATE  
THIRD QUARTER 2007**

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California  
RDM Project No. 00-67106

Prepared For:

TESORO PETROLEUM COMPANIES, INC.  
3450 South 344<sup>th</sup> Way, Suite 100  
Auburn, Washington 98001

Prepared By:

RDM ENVIRONMENTAL, INC.  
6280 Brookshire Drive  
Rocklin, California 95677  
(916) 415-1134

HALEY & ALDRICH OF NEW YORK  
200 Town Centre Drive, Suite 2  
Rochester, New York 14623  
(585) 359-9000

November 13, 2007

## **EXECUTIVE SUMMARY**

This Site Conceptual Model (SCM) Update has been prepared by RDM Environmental, Inc. (RDM) and Haley & Aldrich, Inc. (Haley & Aldrich), on behalf of Tesoro Petroleum Companies, Inc. (Tesoro), for the former Tesoro Station No. 67106 located at 1088 Marina Boulevard, San Leandro, California. This report is submitted in fulfillment of the requirements for the California Regional Water Quality Control Board, San Francisco Bay Region (CRWQCBSFB), the Alameda County Health Care (ACEH) Agency – Department of Health and the City of San Leandro – Environmental Service Division. This report contains only updates to the Site Conceptual Model Update Second Quarter 2007 report dated 15 August 2007 (RDM). Standard background information previously submitted to the agency in hard copy is not included in this update report. This information can be found in hard copy by referring to the SCM report dated 10 November 2005, or electronically accessed on the Tesoro San Leandro Sharepoint website (<https://portal.haleyaldrich.com/sites/ext/San Leandro>).

Laboratory analytical results obtained during this quarterly monitoring event continue to demonstrate plume stability (as indicated mainly by no off-site migration of contaminants and general stability of monitoring parameters). Analytical results and field parameter data also show that subsurface conditions continue to improve via natural attenuation mechanisms, further supporting the decision by all stakeholders (June 2007 meeting held at ACEH) to move the site towards closure with a “No Further Action” approach. A formal site closure plan is currently being prepared and will be submitted in the First Quarter 2008.

*Please note: The following report has been prepared following a newly revised format. This format was created with the purpose of improving readability and ease of review and also to highlight significant quarterly data.*

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- A Groundwater Sampling Data Sheets – Quarterly Groundwater Sampling
- B Official Laboratory Reports and Chain of Custody Records – Quarterly Groundwater Samples
- C Historical Site Data

## **1.0 SITE BACKGROUND**

Site Description, Groundwater Use and Site Background details are available in hard copy in any of the previous report submittals or electronically on the Tesoro San Leandro Sharepoint website (<https://portal.haleyaldrich.com/sites/ext/Tesoro/San Leandro>). A site topographic map and site map are shown in Figures 1 and 2, respectively. No new Site Background information has been developed during this reporting period.

## **2.0 FIELD ACTIVITIES**

On 23 July 2007, groundwater levels in Monitoring wells MW-1 through MW-9 were measured prior to well purging and sampling. No free product was observed in any of the groundwater monitoring wells and has not been observed in any project monitoring well since before March 1998. Groundwater monitoring data for the past three years are presented in Table 1. Records of field activities are included in Appendix A.

Data used to prepare the groundwater elevation contour maps were obtained from fluid level sensors deployed during the 23 July 2007 sampling event. Groundwater elevation data are summarized in Table 1 and the groundwater elevation contour map is shown in Figure 3. The data indicate that the groundwater direction is predominately to the south.

## **3.0 REMEDIATION SYSTEM**

Active SVE remediation and ozone/air sparging were temporarily suspended on 12 May 2006 and have remained off to date based on the No Further Action approach to site closure agreed to by all stakeholders during a June 2007 meeting held at ACEH.

## **4.0 ANALYTICAL PROGRAM**

Groundwater samples collected during this sampling event were analyzed by a State-certified laboratory for:

- |  |                         |
|--|-------------------------|
| – total petroleum hydrocarbons as gasoline (TPH-g)               | – MTBE                  |
| – volatile organic compounds (VOCs) including the BTEX compounds | – other fuel oxygenates |

Monitored natural attenuation (MNA) parameters were collected including:

- |                    |                |                        |
|--------------------|----------------|------------------------|
| – dissolved oxygen | – conductivity | – carbon dioxide       |
| – redox potential  | – ferrous iron | – total organic carbon |
| – pH               | – total iron   | – alkalinity           |

All samples were collected and analyzed using site specific methods. Details are available in hard copy in any of the previous report submittals or electronically on the Tesoro San Leandro Sharepoint website. Laboratory analytical reports can be found in Appendix B. MNA results are summarized in Table 2.

## **5.0 GROUNDWATER RESULTS**

All results are summarized in the attached Tables and Figures. The groundwater elevation and analytical results from this quarter are generally consistent with recent trends.

Groundwater elevation data from this quarter falls within observed seasonal groundwater fluctuations which range between 2 and 3 feet annually (Table 1, Figure 3). Groundwater flow beneath the site is to the south under a hydraulic gradient of less than 0.05 foot per foot, similar to previous quarters.

On 23 July 2007, groundwater samples were collected from wells MW-1 through MW-9 (Tables 1 and 2, with historical data in Appendix C). Iso-concentration maps for site compounds of concern are included in Figures 4 through 7.

In general, the groundwater monitoring analytical trends show a continued decrease in site contaminants even though active remediation (i.e., ozone sparging and soil vapor extraction) was suspended over 1 year ago. Contaminant concentrations remain below those observed pre-systems shutdown. These results suggest that natural processes at the site are operating on their own to remediate the constituents present, and that additional active remediation would be an unnecessary use of resources.

## **6.0 CONCLUSIONS**

Monitoring of groundwater conditions following the shut-down of active remediation has shown a stable plume and continued improvement in conditions, an indication that recent active remediation was having a negligible impact on the site. As a result of this, an agreement was reached in June of 2007 by all project stakeholders that natural processes are likely working to improve water quality and that further remedial action is not necessary.

## **7.0 RECOMMENDATIONS AND PROPOSED ACTIVITIES**

Based on our review of the data, we recommend:

- Continuing quarterly monitoring of water levels and compound concentrations in key wells, with reporting of findings in quarterly Site Conceptual Model update reports.
- Preparing a site closure plan for agency approval during the First Quarter 2008.

## 8.0 STATEMENT OF LIMITATIONS AND PROFESSIONAL CERTIFICATION

The conclusions presented herein are based solely upon the agreed upon scope of work outlined in this report. RDM makes no warranties or guarantees as to the accuracy or completeness of information provided or compiled by others. It is possible that information exists beyond the scope of this investigation. Additional information, which was not found or available to RDM at the time of writing this report, may result in modification of the conclusions presented. This report is not a legal opinion. The services performed by RDM have been conducted in a manner consistent with the level of care ordinarily exercised by members of our profession currently practicing under similar conditions. No other warranty, expressed or implied, is made.

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RDM ENVIRONMENTAL, INC.



Richard D. Munsch  
Project Manager

HALEY & ALDRICH OF NEW YORK



Michael G. Nickelsen  
Senior Scientist



Michael G. Lee, P.E.  
CA Reg. Civil Engineer No. C055795



Paul M. Tornatore, P.E. in New York  
Vice President/Senior Consultant



## **9.0 REFERENCES**

Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater; Volume 1: Summary Tier 1 Lookup Tables. California Regional Water Quality Control Board, San Francisco Bay Region, Interim Final – 2005.

Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater; Volume 2: Background Documentation for the Development of Tier I Environmental Screening Levels. California Regional Water Quality Control Board, San Francisco Bay Region, Interim Final – 2005.

**TABLE 1**  
**GROUND WATER MONITORING DATA**

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Monitoring Well	Date	Reference Elevation (ft) <sup>a</sup>	Depth to Ground Water (ft)	Ground Water Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (µg/L)	Oxygenates (µg/L)	Comments
MW-1	07/16/04	35.47	14.04	21.43	<0.5	0.57	130	74	5,500	1.4	ND	No sheen
	11/13/04		13.99	21.43	<0.70	<0.70	56	25	4,000	ND	ND	No sheen
	02/04/05		13.36	22.11	0.57	<0.5	140	58	9,700	0.75	ND	No sheen
	04/08/05		12.43	23.04	<1.5	<1.5	84	24	8,100	<1.5	ND	No sheen
	08/10/05		13.62	21.85	<1.5	<1.5	92	32	8,700	<1.5	ND	No sheen
	11/05/05		13.95	21.52	<1.5	<1.5	92	38	9,200	<1.5	ND	No sheen
	01/13/06		12.43	23.04	<1.5	<1.5	34	17	6,500	<1.5	ND	No sheen
	05/12/06		12.40	23.33	<0.5	1.0	26	12	3,600	<0.5	330 <sup>d</sup> , 390 <sup>e</sup>	No sheen
	08/13/06		13.08	22.39	<0.5	0.57	40	12	5,200	<0.5	ND	No sheen
	10/20/06		13.58	21.89	<0.5	0.61	52	16	5,300	<0.5	ND	No sheen
	02/12/07		12.94	22.53	<0.5	<0.5	12	2.7	3,500	<0.5	ND	No sheen
	04/25/07		13.35	22.12	<0.5	<0.5	15	3.6	3,400	<0.5	ND	No sheen
	07/23/07		14.00	21.47	<0.5	0.61	24	7.5	5,400	<0.5	ND	No sheen
MW-2	07/16/04	35.11	13.76	21.35	42	36	1,200	2,300	21,000	17	ND	No sheen
	11/13/04		13.79	21.35	25	27	780	1,300	14,000	9.1	ND	No sheen
	02/04/05		13.08	22.03	24	20	720	1,000	14,000	8.6	ND	No sheen
	04/08/05		12.11	23.00	19	11	580	630	14,000	7.9	ND	No sheen
	08/10/05		13.27	21.84	21	11	610	520	13,000	7.6	ND	No sheen
	11/05/05		11.92	23.19	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	01/13/06		12.26	22.85	17	7.8	220	230	6,800	3.5	ND	No sheen
	05/12/06		11.64	23.47	2.3	1.6	39	34	1,400	<0.5	200 <sup>d</sup> , 190 <sup>e</sup>	No sheen
	08/13/06		12.80	22.31	17	6.4	520	160	7,700	3.4	ND	No sheen
	10/20/06		13.31	21.80	22	7.6	620	140	8,800	3.1	ND	No sheen
	02/12/07		12.81	22.30	24	8.5	450	110	7,700	2.5	ND	No sheen
	04/25/07		13.10	22.01	22	8.7	620	100	9,400	<2.0	ND	No sheen
	07/23/07		13.69	21.42	13	7.5	640	98	9,100	0.58	ND	No sheen
MW-3	07/16/04	34.84	13.62	21.22	6.1	1.1	<0.5	0.83	1,900	43	21 <sup>c</sup>	No sheen
	11/13/04		13.70	21.22	4.7	0.79	<0.5	<0.5	1,300	30	82 <sup>c</sup>	No sheen
	02/04/05		12.94	21.90	0.79	<0.5	<0.5	<0.5	1,300	10	12 <sup>c</sup>	No sheen
	04/08/05		12.10	22.74	<0.5	<0.5	<0.5	<0.5	770	4.2	ND	No sheen
	08/10/05		13.19	21.65	3.4	0.61	0.57	<0.5	1,600	6.3	11 <sup>c</sup>	No sheen
	11/05/05		13.46	21.38	7.1	1.0	2.7	0.75	2,200	3.6	13 <sup>c</sup>	No sheen
	01/13/06		12.20	22.64	5.0	1.1	4.9	1.2	1,200	3.1	9.8 <sup>a</sup>	No sheen
	05/12/06		11.79	23.05	2.4	1.2	1.8	1.1	960	2.1	6.1 <sup>c</sup> , 220 <sup>d</sup> , 300 <sup>e</sup>	No sheen
	08/13/06		12.66	22.18	2.2	0.62	1.6	1.0	1,700	1.1	5.5 <sup>c</sup>	No sheen
	10/20/06		13.19	21.65	1.9	<0.5	<0.5	<0.5	1,200	1.6	ND	No sheen
	02/12/07		12.74	22.10	<0.5	<0.5	<0.5	<0.5	990	1.2	5.5 <sup>c</sup> , 8.8 <sup>e</sup>	No sheen
	04/25/07		12.99	21.85	<0.5	<0.5	<0.5	<0.5	760	1.4	6.1 <sup>c</sup>	No sheen
	07/23/07		13.55	21.29	1.4	<0.5	<0.5	<0.5	750	1.1	ND	No sheen

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Monitoring Well	Date	Reference Elevation (ft) <sup>a</sup>	Depth to Ground Water (ft)	Ground Water Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (µg/L)	Oxygenates (µg/L)	Comments
MW-4	07/16/04	35.33	14.16	21.17	46	330	360	2,200	10,000	58	28 <sup>c</sup>	No sheen
	11/13/04		14.34	21.17	50	240	360	2,200	9,400	22	ND	No sheen
	02/04/05		13.56	21.77	14	160	170	1,100	4,800	7.9	ND	No sheen
	04/08/05		12.65	22.68	15	160	200	1,200	5,800	6.6	ND	No sheen
	08/10/05		13.73	21.60	7.0	110	100	570	3,000	5.2	9.9 <sup>e</sup>	No sheen
	11/05/05		14.35	20.98	6.0	91	95	630	3,000	5.3	9.1 <sup>e</sup>	No sheen
	01/13/06		12.76	22.57	8.3	100	160	860	4,000	4.9	6.7 <sup>a</sup>	No sheen
	05/12/06		12.56	22.75	<0.5	0.62	<0.5	<0.5	<50	<0.5	180 <sup>d</sup> , 260 <sup>b</sup>	No sheen
	08/13/06		13.30	22.30	2.5	20	41	240	1,200	2.0	ND	No sheen
	10/20/06		13.78	21.55	2.9	28	56	350	1,500	2.7	ND	No sheen
	02/12/07		13.21	22.10	<0.5	0.58	1.5	3.3	150	3.1	9.7 <sup>e</sup>	No sheen
	04/25/07		13.58	21.75	0.83	4.6	10	26	340	4.8	6.0 <sup>e</sup>	No sheen
	07/23/07		14.19	21.14	2.6	4.1	42	43	1,000	3.0	ND	No sheen
MW-5	07/16/04	35.09	13.92	21.17	24	0.85	36	20	2,100	71	46 <sup>c</sup>	No sheen
	11/13/04		14.35	21.17	19	0.55	37	17	1,600	38	59 <sup>c</sup>	No sheen
	02/04/05		13.48	21.61	40	1.40	120	80	4,500	32	43 <sup>c</sup>	No sheen
	04/08/05		12.42	22.67	<0.5	<0.5	<0.5	<0.5	67	7.9	ND	No sheen
	08/10/05		13.36	21.73	<0.5	<0.5	<0.5	<0.5	<50	1.5	ND	No sheen
	11/05/05		13.96	21.13	<0.5	<0.5	2.2	1.5	110	<0.5	ND	No sheen
	01/13/06		12.53	22.56	<0.5	<0.5	1.2	<0.5	0.58	<0.5	ND	No sheen
	05/12/06		12.26	22.83	<0.5	<0.5	<0.5	<0.5	<50	0.54	28 <sup>c</sup>	No sheen
	08/13/06		13.05	22.04	<0.5	<0.5	0.58	<0.5	140	0.66	ND	No sheen
	10/20/06		13.52	21.57	0.76	<0.5	2.8	1.1	320	1.40	5.9 <sup>c</sup>	No sheen
	02/12/07		13.04	22.05	<0.5	<0.5	<0.5	<0.5	210	2.80	6.4 <sup>e</sup>	No sheen
	04/25/07		13.40	21.69	<0.5	<0.5	<0.5	<0.5	340	3.70	8.1 <sup>e</sup>	No sheen
	07/23/07		13.95	21.14	0.72	<0.5	1.4	0.73	700	3.20	8.9 <sup>e</sup>	No sheen
MW-6	07/16/04	32.74	12.84	19.90	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	11/13/04		12.13	19.90	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	02/04/05		11.14	21.60	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	04/08/05		10.94	21.80	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	08/10/05		11.42	21.32	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	11/05/05		11.90	20.84	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	01/13/06		10.70	22.04	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	05/12/06		10.63	22.11	<0.5	0.72	<0.5	<0.5	<50	<0.5	35 <sup>e</sup>	No sheen
	08/13/06		11.08	21.66	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	10/20/06		11.58	21.16	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	02/12/07		11.22	21.52	<0.5	<0.5	<0.5	<0.5	<50	<0.5	9.3 <sup>e</sup>	No sheen
	04/25/07		11.43	21.31	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	07/23/07		11.98	20.76	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen

**TABLE 1**  
**GROUND WATER MONITORING DATA**

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San Leandro, California

Monitoring Well	Date	Reference Elevation (ft) <sup>a</sup>	Depth to Ground Water (ft)	Ground Water Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (µg/L)	Oxygenates (µg/L)	Comments
MW-7	07/16/04	33.64	12.85	20.79	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	11/13/04		13.01	20.79	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	02/04/05		12.57	21.07	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	04/08/05		11.82	21.82	<0.5	<0.5	<0.5	<0.5	<50	0.78	ND	No sheen
	08/10/05		12.44	21.20	<0.5	<0.5	<0.5	<0.5	<50	0.61	ND	No sheen
	11/05/05		12.91	20.73	<0.5	<0.5	<0.5	<0.5	<50	0.76	ND	No sheen
	01/13/06		11.51	22.13	<0.5	<0.5	<0.5	<0.5	<50	0.61	ND	No sheen
	05/12/06		11.37	22.27	<0.5	0.59	<0.5	<0.5	<50	0.57	15 <sup>e</sup>	No sheen
	08/13/06		11.88	21.76	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	10/20/06		12.32	21.32	<0.5	<0.5	<0.5	<0.5	<50	0.54	ND	No sheen
	02/12/07		12.21	21.43	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	04/25/07		12.33	21.31	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	07/23/07		13.00	20.64	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
MW-8	07/16/04	36.08	14.76	21.32	32	<0.5	34	51	2,000	92	67 <sup>c</sup>	No sheen
	11/13/04		14.91	21.32	30	0.64	84	92	4,100	61	76 <sup>c</sup>	No sheen
	02/04/05		14.09	21.99	27	<0.5	65	92	2,700	56	38 <sup>c</sup>	No sheen
	04/08/05		13.11	22.97	1.1	<0.5	<0.5	<0.5	81	6.9	ND	No sheen
	08/10/05		14.20	21.88	14	<0.5	26	22	2,000	27	22 <sup>c</sup>	No sheen
	11/05/05		14.79	21.29	9.7	<0.5	54	67	2,300	15	21 <sup>c</sup>	No sheen
	01/13/06		13.24	22.84	<0.5	<0.5	<0.5	0.51	52	0.58	ND	No sheen
	05/12/06		12.97	23.11	<0.5	<0.5	<0.5	<0.5	<50	<0.5	90 <sup>d</sup> , 91 <sup>e</sup>	No sheen
	08/13/06		13.83	22.25	0.51	<0.5	0.84	0.51	77	6.1	ND	No sheen
	10/20/06		14.33	21.75	1.1	<0.5	1.8	0.94	100	5.8	6.5 <sup>c</sup>	No sheen
	02/12/07		13.73	22.35	<0.5	<0.5	<0.5	4.5	69	4.2	14 <sup>e</sup>	No sheen
	04/25/07		14.19	21.89	<0.5	<0.5	<0.5	<0.5	<50	3.5	ND	No sheen
	07/23/07		14.80	21.28	<0.5	<0.5	<0.5	<0.5	<50	2.6	ND	No sheen
MW-9	07/16/04	34.63	13.52	21.11	<0.5	<0.5	<0.5	<0.5	56	<0.5	ND	No sheen
	11/13/04		13.68	21.11	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	02/04/05		13.04	21.59	<0.5	<0.5	<0.5	<0.5	90	<0.5	ND	No sheen
	04/08/05		12.17	22.46	<0.5	<0.5	<0.5	<0.5	150	<0.5	ND	No sheen
	08/10/05		13.04	21.59	<0.5	<0.5	0.76	<0.5	260	<0.5	ND	No sheen
	11/05/05		13.55	21.08	<0.5	<0.5	<0.5	<0.5	150	<0.5	ND	No sheen
	01/13/06		12.30	22.33	<0.5	<0.5	0.78	<0.5	280	<0.5	ND	No sheen
	05/12/06		5.45	NC	NS	NS	NS	NS	NS	NS	NS	Well Blocked
	08/13/06		12.66	21.97	<0.5	<0.5	1.7	<0.5	1,000	<0.5	ND	No sheen
	10/20/06		13.14	21.49	<0.5	<0.5	0.58	<0.5	490	<0.5	ND	No sheen
	02/12/07		12.73	21.90	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	04/25/07		12.95	21.68	<0.5	<0.5	<0.5	<0.5	<50	1.4	ND	No sheen
	07/23/07		13.54	21.09	<0.5	<0.5	<0.5	<0.5	<50	1.4	ND	No sheen

a =Referenced to mean sea level.

b =tert-amyl methyl ether

c = tert-butanol

d = methanol

e = ethanol

TPH = Total petroleum hydrocarbons.

MTBE = Methyl tertiary butyl ether.

µg/L = Micrograms per liter.

Oxygenates = methyl-t-butyl ether, diisopropyl ether, ethyl-t-butyl ether, tert-amyl methyl ether, tert-butanol, 1,2-dichloroethane, 1,2-dibromoethane

**TABLE 2**  
**MNA MONITORING**

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Monitoring Well	Date	pH	D.O. (ppm)	ORP	Specific Conductivity	Temperature	Dissolved CO <sub>2</sub> (ppm)	Ferrous Iron (Fe <sup>2+</sup> )	Total Alkalinity (ppm)	Total Organic Carbon (ppm)	Total Iron (ppm)
MW-1	05/12/06	7.01	2.97	-23	277	18.3	41	0.6	120	11	1.36
08/13/06	6.97	1.11	-84	227	66.6	26	1.2	94	2.7	14.7	
	6.88	1.07	-81	232	67.6		1.4				
	6.84	1.00	-89	228	66.3		1.4				
10/20/06	6.87	0.17	131	233	71.9	19	0.6	94	2.5	0.83	
	6.87	0.26	146	237	71.9		0.6				
	6.86	0.18	152	238	71.7		0.6				
02/12/07	7.17	2.16	-48	243	65.2	18	0.8	102	2.1	0.258	
	7.21	2.22	-50	247	65.4		0.8				
	7.19	2.24	-52	255	65.5		0.6				
04/25/07	7.05	0.50	-122	185	63.5	28	0.6	74	2.3	0.977	
	7.00	0.48	-126	186	64.0		0.6				
	6.98	0.53	-132	186	64.1		0.6				
07/23/07	7.66	1.21	-90	170	69.8	15	1.2	74	4.3	2.7	
	7.56	1.27	-92	168	67.4		1.2				
	7.50	1.28	-96	168	66.5		1.2				
MW-2	05/12/06	7.38	7.51	82	332	18.1	59	0.0	68	3.9	0.703
08/13/06	6.70	0.65	-113	239	72.8	26	2.0	120	3.2	25.5	
	6.71	0.67	-119	240	73.0		1.8				
	6.71	0.72	-120	239	73.2		1.8				
10/20/06	6.93	0.06	132	272	72.1	24	1.2	120	3.3	21.4	
	6.85	0.04	140	267	72.3		1.2				
	6.82	0.04	138	267	72.5		1.2				
02/12/07	6.98	0.48	-186	279	65.8	18	1.3	122	3.7	1.11	
	6.93	0.51	-189	271	65.7		1.3				
	6.99	0.47	-195	268	65.8		1.3				
04/25/07	7.00	0.67	-132	213	64.7	24	2.0	96	3.2	1.49	
	6.96	0.72	-128	215	64.7		2.0				
	6.97	0.73	-126	216	64.8		2.0				
07/23/07	7.37	0.96	-160	194	68.9	17	1.8	84	9.0	1.2	
	7.28	0.94	-163	196	68.0		1.8				
	7.25	1.01	-160	195	67.8		1.8				
MW-3	05/12/06	6.84	2.21	-48	283	19.1	42	1.0	76	3.8	1.23
08/13/06	6.82	0.51	-199	276	69.4	20	1.6	94	2.4	3.47	
	6.79	0.52	-185	274	71.9		1.4				
	6.72	0.47	-183	262	72.5		1.4				
10/20/06	6.87	0.58	-32	297	75.1	21	0.6	118	2.5	2.65	
	6.80	0.62	-38	298	75.9		0.6				
	6.78	0.63	-33	301	76.2		0.6				
02/12/07	6.94	0.70	-172	302	66.3	22	0.6	144	2.4	0.959	
	6.90	0.71	-181	301	66.5		0.6				
	6.77	0.68	-183	297	66.3		0.6				
04/25/07	7.11	0.91	-124	307	65.5	32	1.4	144	2.3	0.977	
	7.02	0.87	-126	303	65.6		1.4				
	6.98	0.93	-132	304	65.4		1.4				
07/23/07	7.71	1.07	-154	301	68.3	25	1.6	130	6.3	1.1	
	7.45	1.02	-162	296	67.9		1.6				
	7.36	0.99	-167	295	67.3		1.6				

**TABLE 2**  
**MNA MONITORING**

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

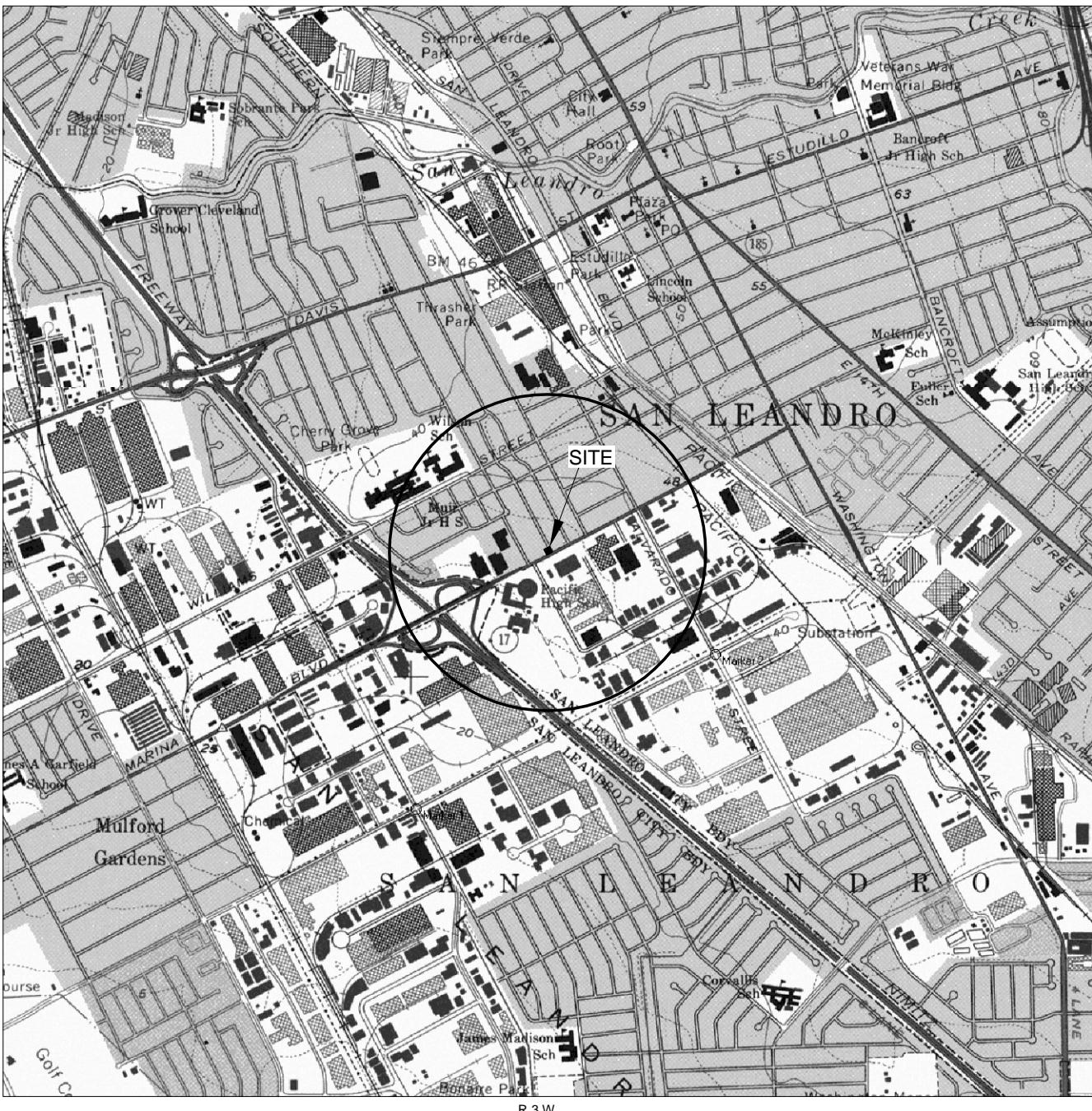
Monitoring Well	Date	pH	D.O. (ppm)	ORP	Specific Conductivity	Temperature	Dissolved CO <sub>2</sub> (ppm)	Ferrous Iron (Fe <sup>2+</sup> )	Total Alkalinity (ppm)	Total Organic Carbon (ppm)	Total Iron (ppm)
MW-4	05/12/06	7.59	9.65	40	534	19.8	3.9	0.0	190	2.4	95
08/13/06	7.08	2.41	-14	509	68.5	20	NM	180	3.7	308	
	7.04	2.86	-17	475	68.2		NM				
	7.17	2.88	-14	499	68.0		NM				
10/20/06	6.99	0.56	92	630	74.0	29	0.0	198	3.5	105	
	7.00	0.44	94	622	73.9		0.0				
	7.03	0.54	91	642	75.1		0.0				
02/12/07	7.02	1.04	-28	665	66.5	31	0.3	334	3.8	0.689	
	7.02	1.07	-29	658	66.6		0.3				
	7.14	1.03	-28	643	66.5		0.3				
04/25/07	7.13	0.86	59	706	64.9	57	1.0	362	4.2	2.70	
	7.05	0.88	61	719	65.0		1.0				
	7.02	0.87	63	713	65.0		1.0				
07/23/07	7.35	0.87	42	707	71.8	82	0.9	350	12.0	1	
	7.36	0.88	50	714	70.9		0.8				
	7.38	0.81	50	719	69.7		0.9				
MW-5	05/12/06	7.28	22.41	173	538	20.0	12	0.0	250	1.90	0.36
08/13/06	6.90	2.28	79	689	71.8	23	0.0	350	2.5	2.49	
	6.86	2.16	75	668	72.7		0.0				
	6.87	1.92	7.2	659	72.0		0.0				
10/20/06	6.98	1.28	88	776	70.2	53	0.0	344	2.6	8.73	
	6.92	0.34	96	761	69.8		0.0				
	6.93	0.30	92	758	71.8		0.0				
02/12/07	6.95	1.36	79	712	65.4	51	0.0	438	3.2	0.158	
	6.94	1.36	80	727	65.5		0.0				
	6.97	1.42	82	768	65.3		0.0				
04/25/07	7.05	0.47	38	905	64.6	86	1.6	500	3.6	0.317	
	7.04	0.46	39	903	64.8		1.6				
	7.05	0.42	38	903	64.9		1.6				
07/23/07	7.18	1.34	85	961	66.4	100	1.6	560	16.0	0.60	
	7.18	1.29	87	965	66.3		1.6				
	7.18	1.24	91	954	66.1		1.6				
MW-6	05/12/06	7.02	4.30	53	1079	17.9	160	0.2	510	3.9	<0.1
08/13/06	6.87	2.58	47	1067	67.7	81	0.0	480	4.9	<0.1	
	6.91	2.36	44	1045	67.1		0.0				
	6.86	2.42	42	1052	66.9		0.0				
10/20/06	7.07	3.58	-73	1120	68.5	100	0.2	500	5.0	1.04	
	7.04	3.12	-86	1150	68.9		0.0				
	6.97	3.46	-62	1115	69.1		0.2				
02/12/07	6.81	3.29	48	1005	63.4	78	0.0	496	4.9	<0.10	
	6.87	3.84	48	1025	63.1		0.0				
	6.97	3.74	80	1027	63.2		0.0				
04/25/07	7.01	3.56	94	1018	63.4	93	0.4	478	4.5	<0.10	
	7.04	3.51	92	995	63.6		0.4				
	7.03	3.46	97	1005	63.5		0.4				
07/23/07	7.09	4.55	126	969	67.7	78	0.0	470	12	<0.10	
	7.11	4.71	137	971	67.6		0.0				
	7.12	4.69	132	976	67.6		0.0				

**TABLE 2**  
**MNA MONITORING**

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Monitoring Well	Date	pH	D.O. (ppm)	ORP	Specific Conductivity	Temperature	Dissolved CO <sub>2</sub> (ppm)	Ferrous Iron (Fe <sup>2+</sup> )	Total Alkalinity (ppm)	Total Organic Carbon (ppm)	Total Iron (ppm)
MW-7	05/12/06	7.04	2.02	12	425	20.1	65	0.0	170	2.1	<0.1
08/13/06	6.73	0.86	44	455	70.0	42	0.0	180	2.0	0.732	
	6.68	0.91	43	455	70.4		0.0				
	6.66	0.96	46	458	7.09		0.0				
10/20/06	7.07	2.92	130	467	69.4	50	0.0	188	1.9	0.44	
	6.87	3.13	142	492	70.3		0.0				
	6.84	3.07	126	493	71.8		0.0				
02/12/07	7.01	1.06	56	454	63.1	36	0.0	178	2.3	0.143	
	6.94	1.11	58	457	63.0		0.0				
	6.87	1.15	58	476	62.9		0.0				
04/25/07	7.13	1.07	97	460	62.9	42	0.0	178	2.0	<0.10	
	7.02	1.09	99	454	63.6		0.0				
	6.98	1.11	92	452	63.6		0.0				
07/23/07	7.23	1.42	46	444	65.8	40	0.0	170	2.8	<0.10	
	7.18	1.49	42	455	65.6		0.0				
	7.20	1.51	43	458	65.6		0.0				
MW-8	05/12/06	6.99	5.60	-13	846	18.9	87	0.0	290	2.90	<0.1
08/13/06	6.86	0.89	-30	716	70.1	97	0.6	370	3.6	2.67	
	6.86	0.84	-32	742	69.9		0.6				
	6.86	0.80	-35	787	70.9		0.6				
10/20/06	6.91	0.07	49	714	68.6	110	0.5	368	3.1	3.56	
	6.88	0.06	48	710	68.5		0.5				
	6.87	0.04	45	718	68.5		0.5				
02/12/07	6.82	1.16	73	589	62.9	81	0.0	306	2.8	0.256	
	6.80	1.08	73	590	63.1		0.0				
	6.84	1.12	73	602	63.8		0.0				
04/25/07	7.02	0.81	85	591	62.6	86	2.4	286	2.0	0.59	
	6.95	0.79	87	586	63.3		2.4				
	6.96	0.82	88	588	63.3		2.4				
07/23/07	7.21	1.31	21	525	64.7	82	1.5	260	4.2	0.29	
	7.16	1.35	26	526	64.6		1.5				
	7.13	1.34	22	530	64.6		1.5				
MW-9	05/12/06	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
08/13/06	7.02	1.50	1.50	413	68.9	21	0.0	180	2.6	4.69	
	7.01	1.99	1.99	410	68.9		0.0				
	6.99	2.16	2.16	412	68.9		0.0				
10/20/06	7.06	0.11	97	429	73.1	23	0.0	178	3.2	14.4	
	7.01	0.12	96	423	71.9		0.0				
	6.99	0.13	99	422	71.4		0.0				
02/12/07	7.08	0.88	34	271	67.1	16	0.2	116	3.0	0.232	
	7.04	0.83	34	267	67.1		0.2				
	7.04	0.79	33	272	67.2		0.2				
04/25/07	7.03	1.12	-57	394	64.9	29	1.0	198	3.5	1.85	
	7.00	1.23	-62	400	65.0		1.0				
	7.00	1.24	.56	403	65.0		1.0				
07/23/07	7.19	1.21	-67	503	67.6	29	1.6	260	4.7	1.6	
	7.11	1.19	-69	504	67.6		1.6				
	7.10	1.23	-70	505	67.7		1.6				

D.O. = Dissolved Oxygen  
ORP = Oxygen Reduction Production  
CO<sub>2</sub> = Carbon Dioxide



GENERAL NOTES:  
BASE MAP FROM U.S.G.S.  
SAN LEANDRO, CA  
7.5 MINUTE TOPOGRAPHIC  
PHOTOREVISED 1980



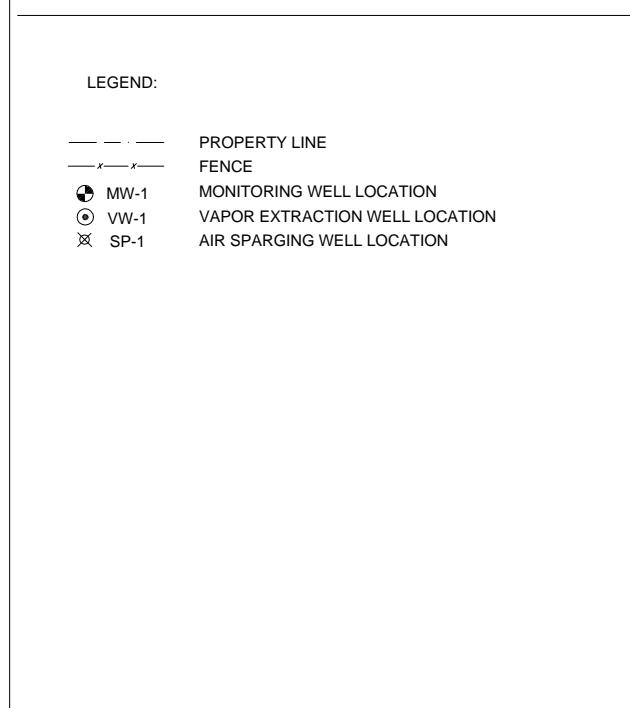
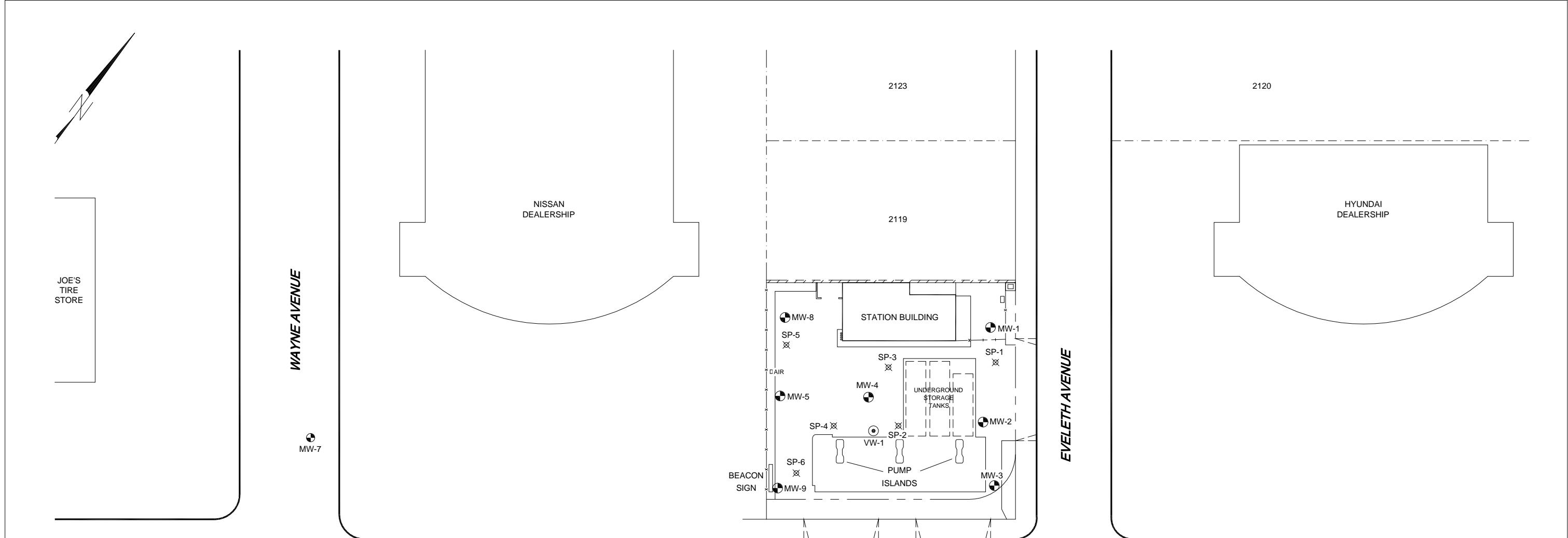
## QUADRANGLE LOCATION

0 2000 FT  
SCALE 1:24,000

**FIGURE 1**  
**SITE LOCATION MAP**

PROJECT NO. 00-3720	DRAWN BY M.L. 12/18/01	 <b>Environmental</b>
FILE NO. 00-3720-1A	PREPARED BY RDM	
REVISION NO. 1	REVIEWED BY	



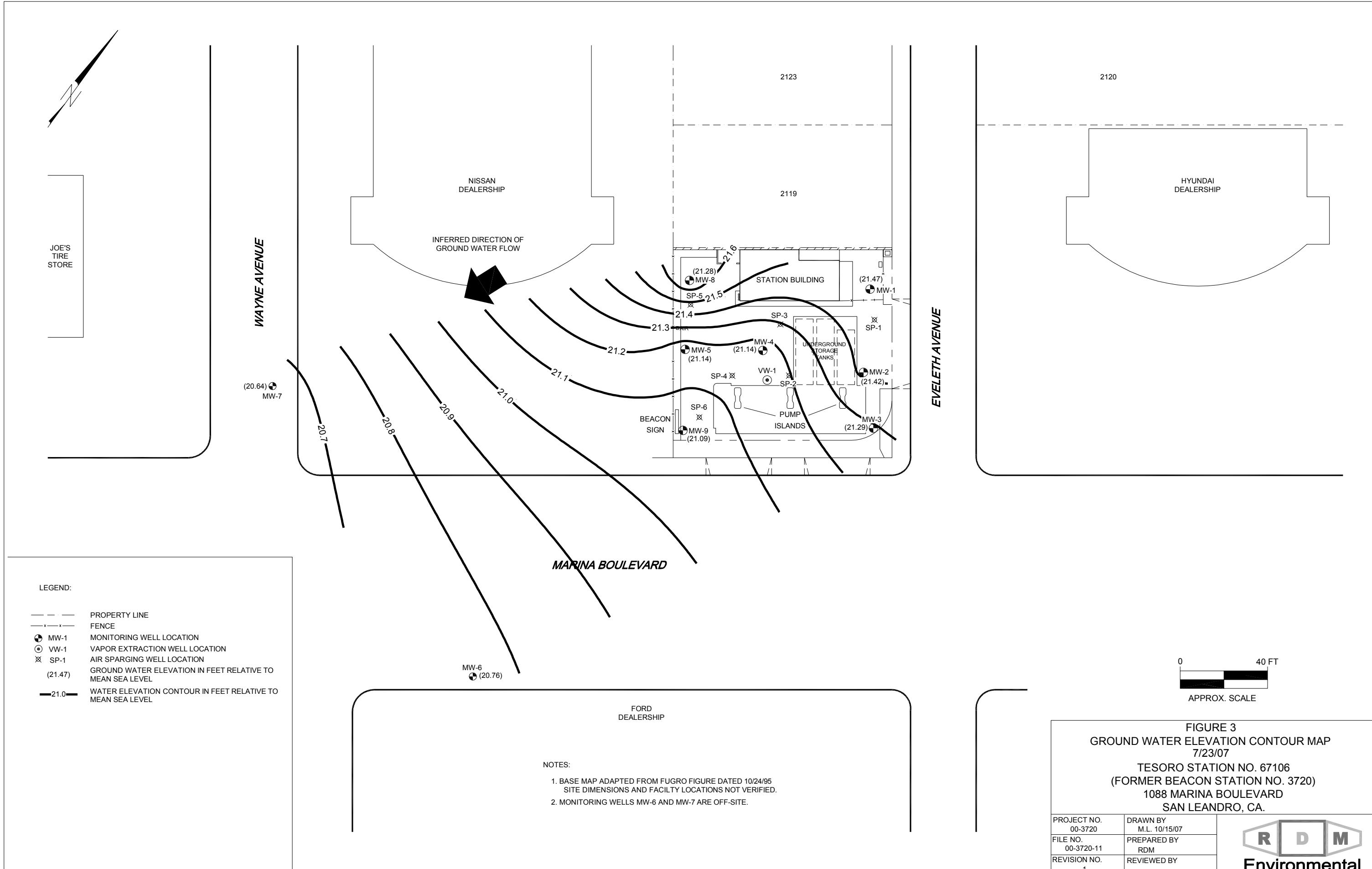


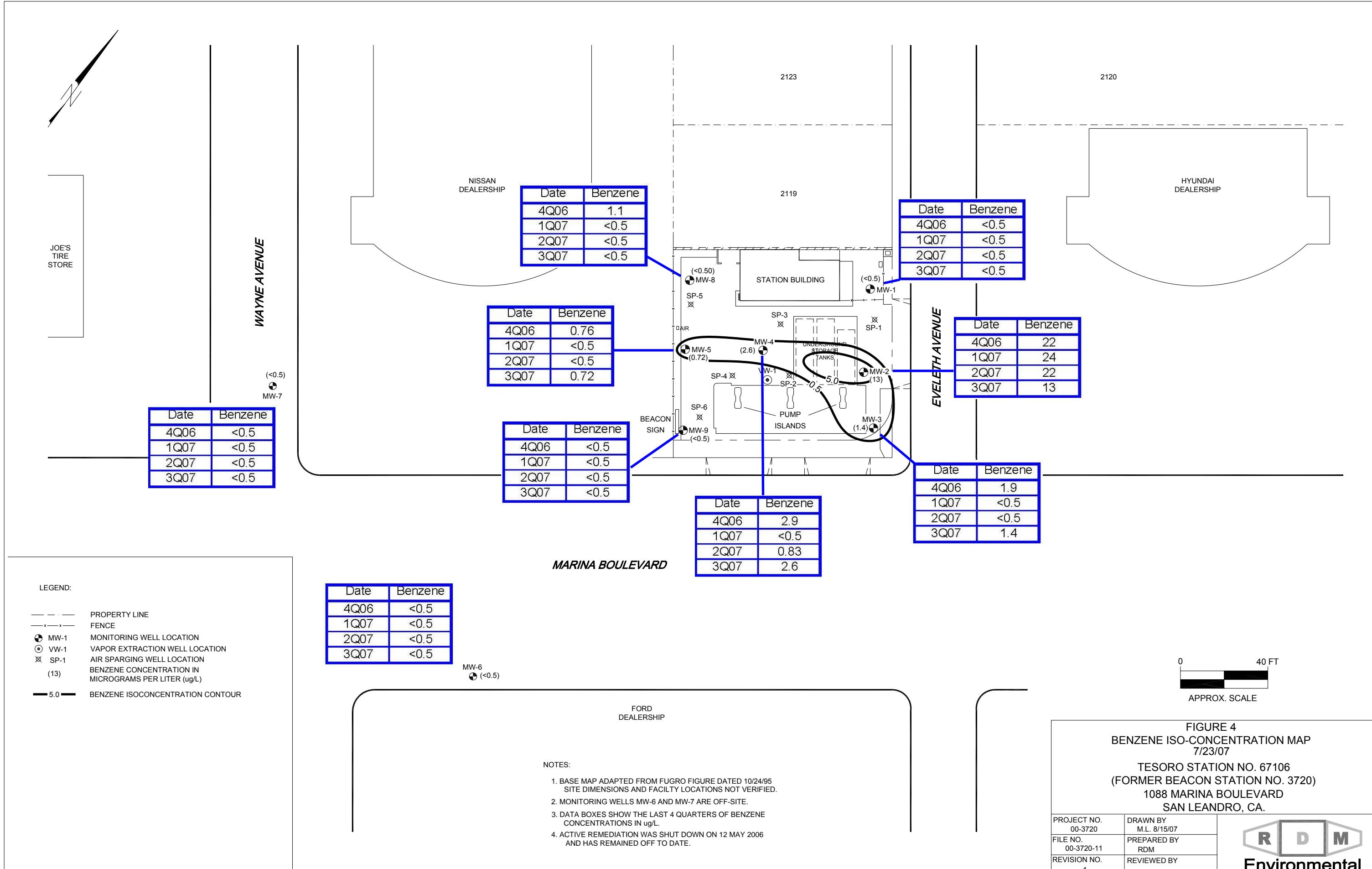
**FIGURE 2**  
**SITE MAP**

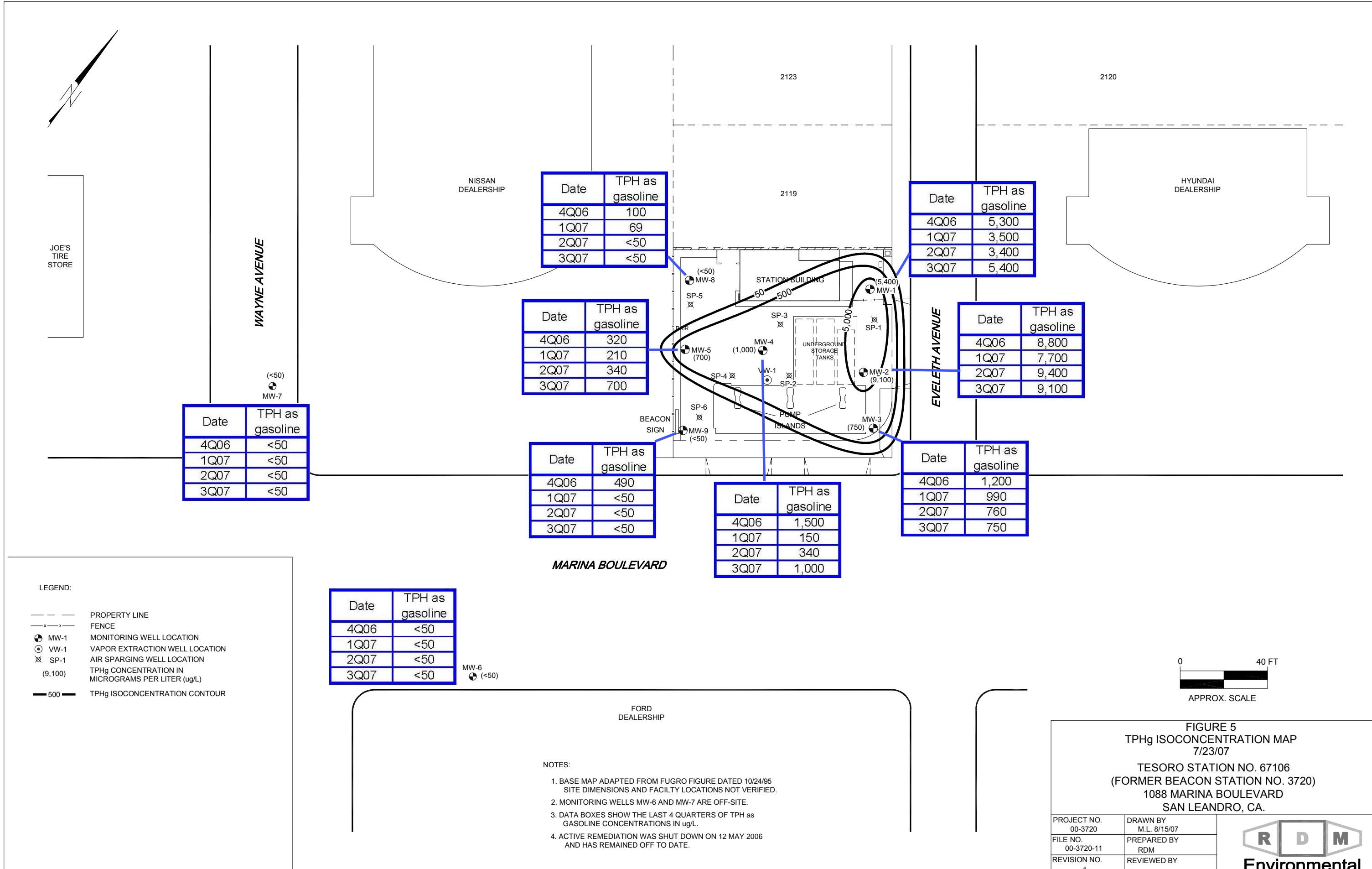
TESORO STATION NO. 67106  
(FORMER BEACON STATION NO. 3720)  
1088 MARINA BOULEVARD  
SAN LEANDRO, CA.

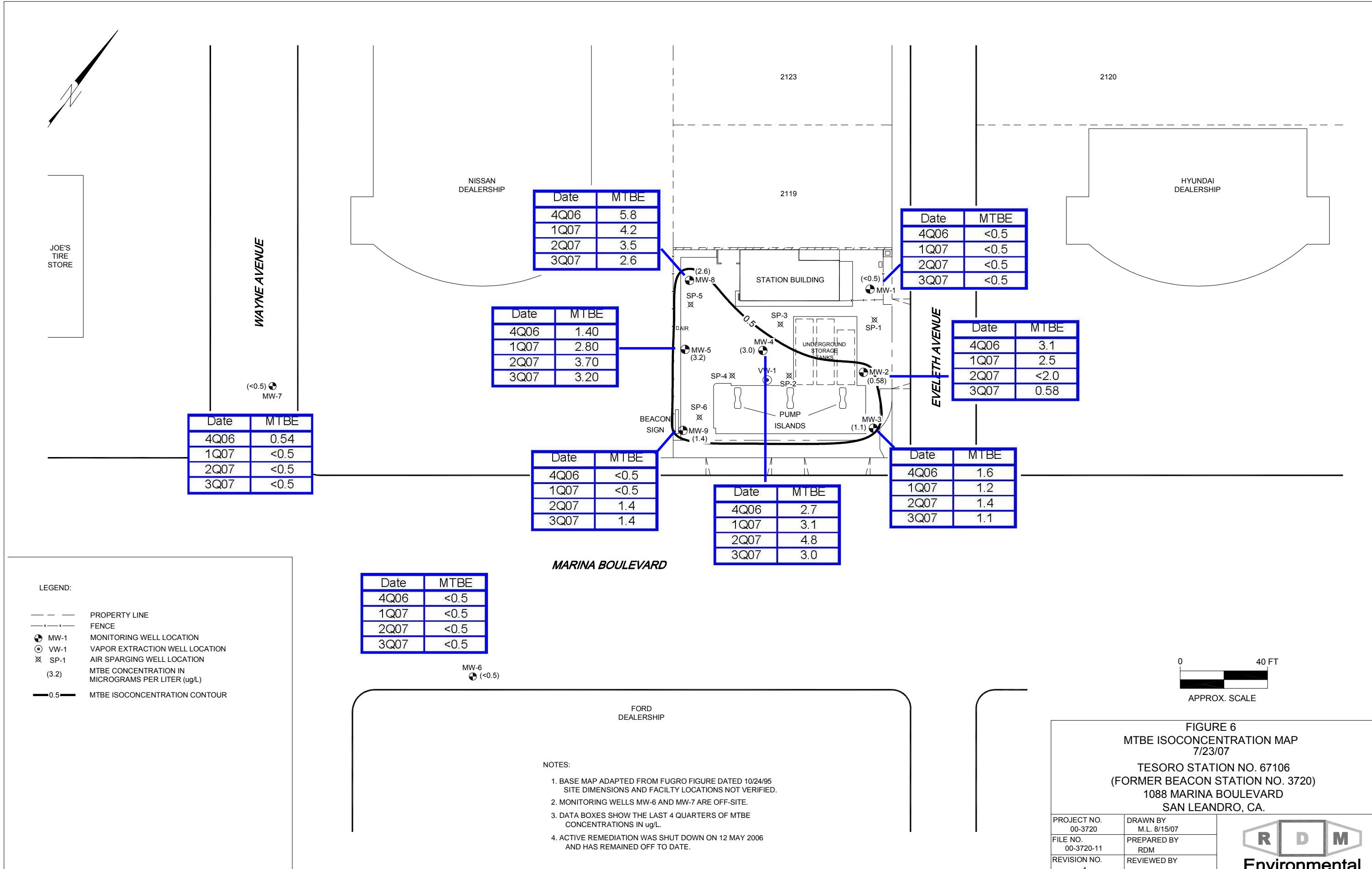
PROJECT NO. 00-3720	DRAWN BY M.L. 5/19/04
FILE NO. 00-3720-11	PREPARED BY RDM
REVISION NO. 1	REVIEWED BY

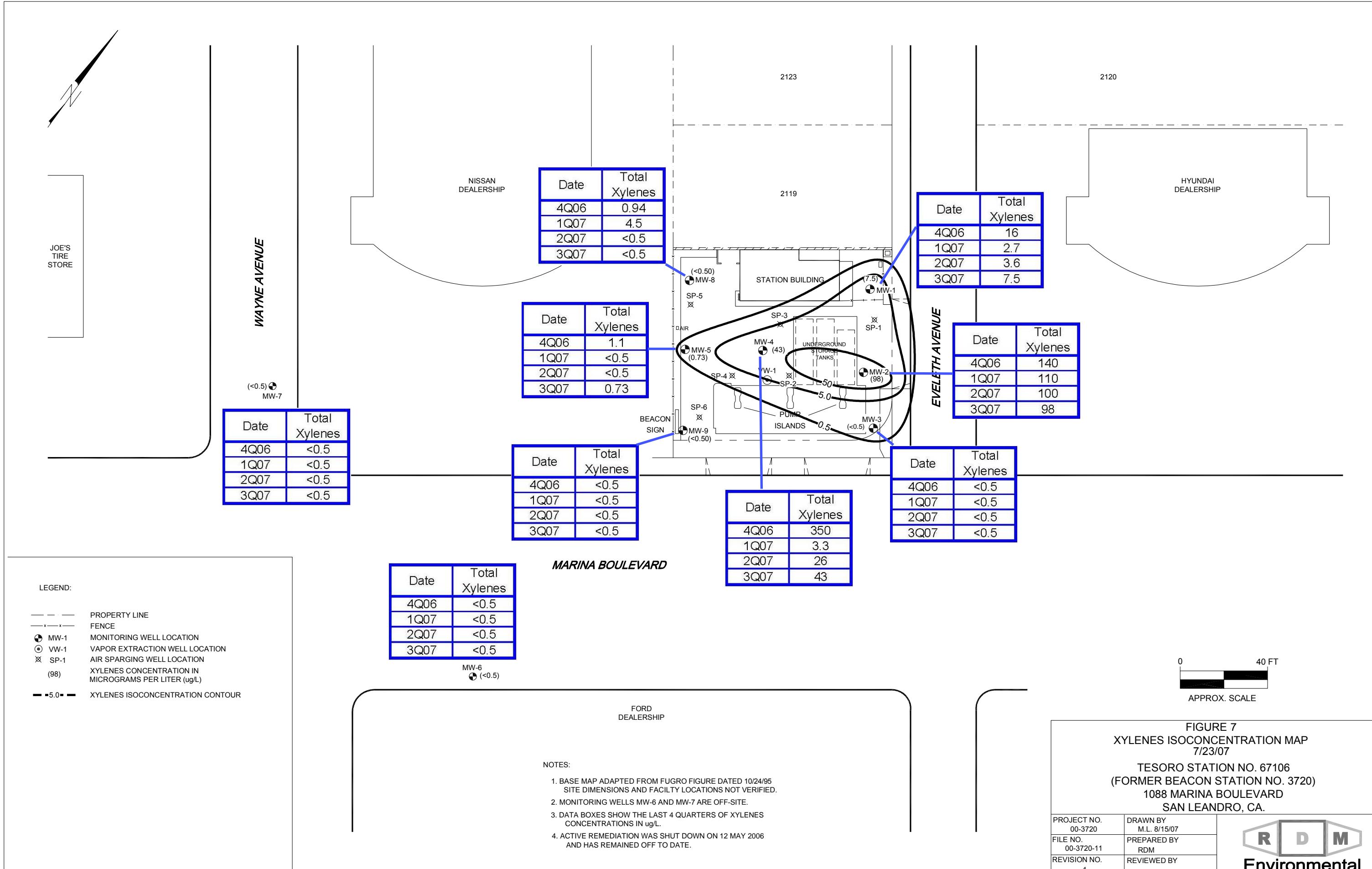












## **Appendix A**

Ground Water Sampling Data Sheets –  
Quarterly Ground Water Samples

RDM ENVIRONMENTAL  
GROUND WATER LEVEL DATA

Project Address: Tesoro Station 67106  
1088 Marina Blvd., San Leandro, CA Date: 7/23/2007  
Technicians : MJ/DH Project Number: 02-67106

Client:	Tesoro	Sample Data:	7/23/2007					
Site:	Tesoro Station 67106	Project Number:	02-67106					
	1088 Marina Blvd., San Leandro, CA	<b>Well Designation:</b> Ma-1						
Signature: <i>[Signature]</i>								
<b>Well Box Condition/Traffic</b>								
Traffic Control	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Time:	0817 hours					
Standing water	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	above or below casing						
Top of well level	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Remark:						
Well cap & locked	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Remark:						
Height of Riser	8"							
Well Box	8" <input checked="" type="checkbox"/> 12" <input type="checkbox"/> 24" Type of well box	CN1						
<b>Purging/Sampling Equipment</b>								
<b>Purging -</b>								
2" Disposable Bailer	Submersible Pump							
2" PVC Bailer	Dedicated Bailer							
4" PVC Bailers	Centrifugal Pump							
	<i>Parastatic</i>	<input checked="" type="checkbox"/>						
<b>Sampling -</b>								
Disposable Bailer	Teflon Bailer	Disposable Tubing	<input checked="" type="checkbox"/>					
<b>Well Purging</b>								
Well Diameter: 2"	<input checked="" type="checkbox"/>	4"	<input type="checkbox"/>	6"	<input type="checkbox"/>	8"	<input type="checkbox"/>	
Purge Vol. Multiplier	0.16			0.65			1.47	2.61
Initial Measurement	Recharge Measurement			Calculated Purge			<i>4.34</i>	
Time: <i>5817</i>	Time: <i>5817</i>			Actual Purge			<i>1.50</i>	
Depth of Well	Depth to Water							
Depth to Water	<i>27.24</i>							
<i>14.07</i>								
<b>Sample</b>								
Start Purge <i>1109</i>			Sample Time <i>1126</i>					
Time	Temperature	pH	E.C.	D.O.	ORP	Fe+2		Volume
<i>1113</i>	<i>69.8</i>	<i>7.46</i>	<i>170</i>	<i>1.21</i>	<i>-90</i>	<i>1.2</i>	<i>1</i>	
<i>1117</i>	<i>67.4</i>	<i>7.56</i>	<i>168</i>	<i>1.27</i>	<i>-92</i>	<i>1.2</i>	<i>2</i>	
<i>1121</i>	<i>64.5</i>	<i>7.50</i>	<i>168</i>	<i>1.28</i>	<i>-96</i>	<i>1.2</i>	<i>3</i>	
Sample Appearance <i>clear.</i>			Lock			<i>N/A.</i>		
<b>Equipment Replacement</b>								
Lock	<i>n/a</i>	Well Cap	<i>ok</i>	Bolts	<i>-1</i>	Box	<i>ok</i>	
Remarks:								

Client:	Tesoro	Sample Data:	7/23/2007					
Site:	Tesoro Station 67106	Project Number:	02-67106					
	1088 Marina Blvd., San Leandro, CA	Well Designation:	mw-2					
Signature:	<u>DH</u>							
<b>Well Box Condition/Traffic</b>								
Traffic Control	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Time:	0820 hours					
Standing water	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	above or below casing						
Top of well level	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Remark:						
Well cap & locked	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Remark:						
Height of Riser	2"							
Well Box	8" 12" 24" <input checked="" type="checkbox"/>	Type of well box	CN1					
<b>Purging/Sampling Equipment</b>								
<b>Purging -</b>								
2" Disposable Bailer	Submersible Pump							
2" PVC Bailer	Dedicated Bailer							
4" PVC Bailers	Centrifugal Pump							
	Parastaltic	X						
<b>Sampling -</b>								
Disposable Bailer	Teflon Bailer	Disposable Tubing	X					
<b>Well Purging</b>								
Well Diameter: 2"	X	4"	6"	8"				
Purge Vol. Multiplier	0.16	0.65	1.47	2.61				
Initial Measurement	Recharge Measurement	Calculated Purge	Actual Purge					
Time: 0820	Time:	4.14	1.50					
Depth of Well 22.31	Depth to Water							
Depth to Water 13.64								
<b>Sample</b>								
Start Purge 1133	Sample Time 1150							
Time	Temperature	pH	E.C.	D.O.	ORP	Fe+2		Volume
1137	68.9	7.37	194	0.96	-160	1.8		1
1141	66.0	7.28	196	0.94	-163	1.8		2
1145	67.4	7.25	195	1.01	-160	1.8		3
Sample Appearance	Clear			Lock	ok			
<b>Equipment Replacement</b>								
Lock	ok	Well Cap	ok	Bolts	ok-1	Box	ok	
Remarks:								

Client:	Tesoro	Sample Data:	7/23/2007					
Site:	Tesoro Station 67106	Project Number:	02-67106					
	1088 Marina Blvd., San Leandro, CA	<b>Well Designation:</b> mn-3						
Signature:								
<b>Well Box Condition/Traffic</b>								
Traffic Control	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Time:	5613 hours					
Standing water	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	above or below casing						
Top of well level	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Remark:						
Well cap & locked	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Remark:						
Height of Riser	2"							
Well Box	8" <input checked="" type="checkbox"/> 12" <input type="checkbox"/> 24" <input type="checkbox"/>	Type of well box	CN1					
<b>Purging/Sampling Equipment</b>								
<b>Purging -</b>								
2" Disposable Bailer	<input type="checkbox"/>	Submersible Pump	<input type="checkbox"/>					
2" PVC Bailer	<input type="checkbox"/>	Dedicated Bailer	<input type="checkbox"/>					
4" PVC Bailers	<input type="checkbox"/>	Centrifugal Pump	<input type="checkbox"/>					
		Parabolic	<input checked="" type="checkbox"/>					
<b>Sampling -</b>								
Disposable Bailer	<input type="checkbox"/>	Teflon Bailer	<input type="checkbox"/>	Disposable Tubing	<input checked="" type="checkbox"/>			
<b>Well Purging</b>								
Well Diameter:	2" <input checked="" type="checkbox"/>	4" <input type="checkbox"/>	6" <input type="checkbox"/>	8" <input type="checkbox"/>				
Purge Vol. Multiplier	0.16	0.65	1.47	2.61				
Initial Measurement	Recharge Measurement		Calculated Purge	Actual Purge				
Time:	6213	Time:	7.13					
Depth of Well	24.46	Depth to Water		1.50				
Depth to Water	13.55							
<b>Sample</b>								
Start Purge	1022		Sample Time	1039				
Time	Temperature	pH	E.C.	D.O.	ORP	Fe+2		Volume
1022	68.3	7.71	301	1.07	-154	1.6		1
1030	67.9	7.45	296	1.02	-162	1.6		2
1034	67.3	7.36	295	0.99	-167	1.6		3
Sample Appearance	Clear		Lock	ok				
<b>Equipment Replacement</b>								
Lock	ok	Well Cap	ok	Bolts	ok	Box	ok	
Remarks:								

Client:	Tesoro	Sample Data:	7/23/2007					
Site:	Tesoro Station 67106	Project Number:	02-67106					
	1088 Marina Blvd., San Leandro, CA	<b>Well Designation:</b> mw-4						
Signature:								
<b>Well Box Condition/Traffic</b>								
Traffic Control	(Yes) <input checked="" type="checkbox"/> No	Time:	0815 hours					
Standing water	Yes <input checked="" type="checkbox"/> No	above or below casing						
Top of well level	(Yes) <input checked="" type="checkbox"/> No	Remark:						
Well cap & locked	Yes <input checked="" type="checkbox"/> No	Remark:	6/3 line					
Height of Riser	2"							
Well Box	8" 12" (24")	Type of well box	<u>Not marked</u>					
<b>Purging/Sampling Equipment</b>								
<b>Purging -</b>								
2" Disposable Bailer	_____	Submersible Pump	_____					
2" PVC Bailer	_____	Dedicated Bailer	_____					
4" PVC Bailers	_____	Centrifugal Pump	_____					
		Parastaltic	X					
<b>Sampling -</b>								
Disposable Bailer	_____	Teflon Bailer	_____					
		Disposable Tubing	X					
<b>Well Purging</b>								
Well Diameter: 2"	1	4"	6"	8"				
Purge Vol. Multiplier	0.16	0.65	1.47	2.61				
Initial Measurement	Recharge Measurement		Calculated Purge	6.36				
Time: 0815	Time: _____		Actual Purge	1.50				
Depth of Well 27.43	Depth to Water	_____						
Depth to Water 14.19		_____						
<b>Sample</b>								
Start Purge 1048	Sample Time 1105							
Time	Temperature	pH	E.C.	D.O.	ORP	Fe+2		Volume
1052	71.8	7.35	707	0.87	42	0.9		1
1056	70.9	7.36	714	6.88	50	0.8		2
1100	69.7	7.38	719	0.81	50	0.9		3
Sample Appearance	Clear			Lock	n/a			
Equipment Replacement								
Lock	n/a	Well Cap	ok	Bolts	-2	Box	st	
Remarks:								

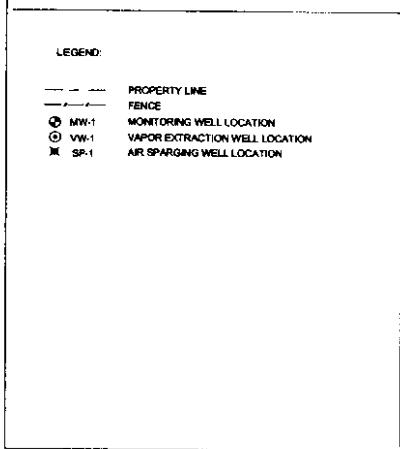
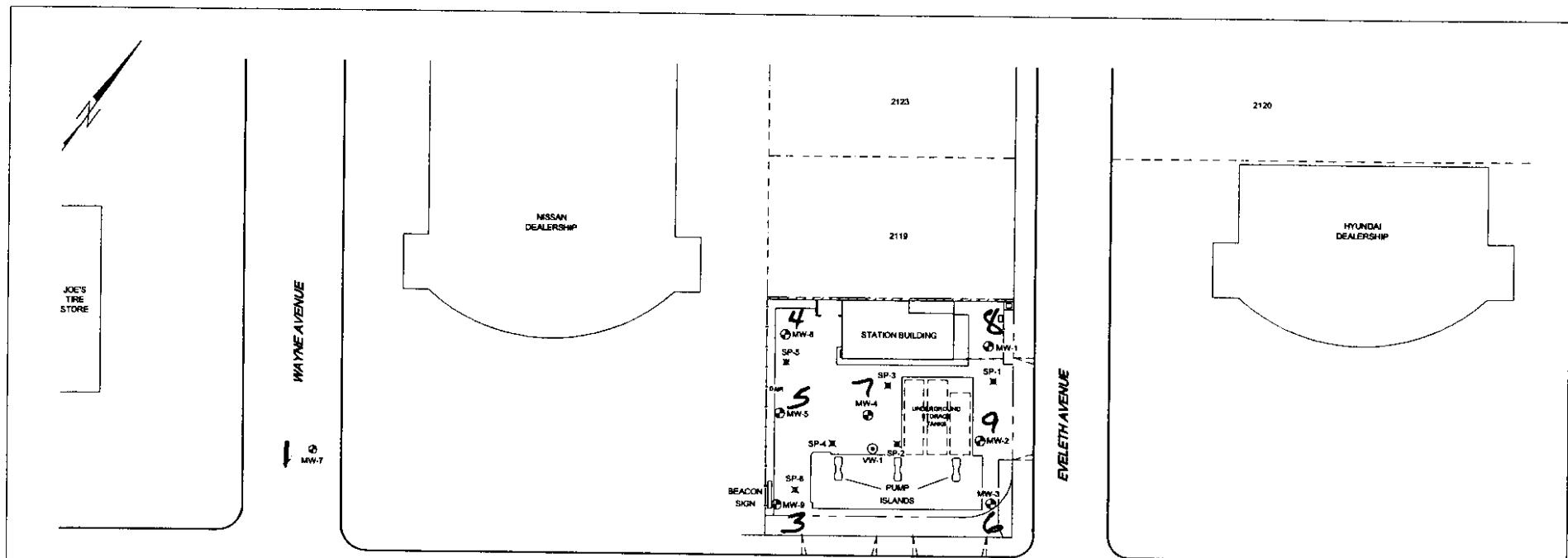
Client:	Tesoro	Sample Data:	7/13/2007				
Site:	Tesoro Station 67106	Project Number:	02-67106				
	1088 Marina Blvd., San Leandro, CA	Well Designation:	<u>mw-5</u>				
Signature:	<u>[Signature]</u>						
<b>Well Box Condition/Traffic</b>							
Traffic Control	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Time:	<u>0811</u> hours				
Standing water	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	above or below casing					
Top of well level	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Remark:					
Well cap & locked	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Remark:					
Height of Riser	<u>2"</u>						
Well Box	8" 12" <u>24"</u>	Type of well box	<u>Not marked</u>				
<b>Purging/Sampling Equipment</b>							
<b>Purging -</b>							
2" Disposable Bailer	<input type="checkbox"/> Submersible Pump						
2" PVC Bailer	<input type="checkbox"/> Dedicated Bailer						
4" PVC Bailers	<input type="checkbox"/> Centrifugal Pump						
	<u>Paraffatic</u> <input checked="" type="checkbox"/>						
<b>Sampling -</b>							
Disposable Bailer	<input type="checkbox"/>	Teflon Bailer	<input type="checkbox"/> Disposable Tubing <input checked="" type="checkbox"/>				
<b>Well Purging</b>							
Well Diameter: 2"	<input checked="" type="checkbox"/>	4"	<input type="checkbox"/>	6"	<input type="checkbox"/>	8"	<input type="checkbox"/>
Purge Vol. Multiplier	0.16		0.65		1.47		2.61
Initial Measurement	Recharge Measurement			Calculated Purge			
Time: <u>0811</u>	Time: <u>0811</u>			Actual Purge	<u>7.13</u>		
Depth of Well	<u>25.80</u>	Depth to Water	<input type="checkbox"/>		<u>1.50</u>		
Depth to Water	<u>13.95</u>						
<b>Sample</b>							
Start Purge	<u>0957</u>			Sample Time	<u>1014</u>		
Time	Temperature	pH	E.C.	D.O.	ORP	Fe+2	Volume
1001	<u>66.4</u>	<u>7.18</u>	<u>961</u>	<u>1.34</u>	<u>85</u>	<u>1.4</u>	<u>1</u>
1005	<u>46.3</u>	<u>7.18</u>	<u>905</u>	<u>1.29</u>	<u>87</u>	<u>1.4</u>	<u>2</u>
1009	<u>66.1</u>	<u>7.18</u>	<u>954</u>	<u>1.24</u>	<u>91</u>	<u>1.4</u>	<u>3</u>
Sample Appearance	<u>Clear</u>			Lock	<u>n/a</u>		
<b>Equipment Replacement</b>							
Lock	<u>n/a</u>	Well Cap	<u>ok</u>	Bolts	<u>-4</u>	Box	<u>ok</u>
Remarks:							

Client:	Tesoro	Sample Data:	7/13/2007					
Site:	Tesoro Station 67106	Project Number:	02-67106					
	1088 Marina Blvd., San Leandro, CA	Well Designation:	<i>mw - L</i>					
Signature:	<i>[Signature]</i>							
<b>Well Box Condition/Traffic</b>								
Traffic Control	Yes	No	Time: <u>0844</u> hours					
Standing water	Yes	No	above or below casing					
Top of well level	Yes	No	Remark:					
Well cap & locked	Yes	No	Remark:					
Height of Riser	<u>7'</u>							
Well Box	8" <u>12"</u> 24"	Type of well box	<u>PVC</u>					
<b>Purging/Sampling Equipment</b>								
<b>Purging -</b>								
2" Disposable Bailer	Submersible Pump							
2" PVC Bailer	Dedicated Bailer							
4" PVC Bailers	Centrifugal Pump							
	<i>Parabolic.</i> X							
<b>Sampling -</b>								
Disposable Bailer	Teflon Bailer	Disposable Tubing	X					
<b>Well Purging</b>								
Well Diameter: 2"	X	4"	6"	8"				
Purge Vol. Multiplier	0.16	0.65	1.47	2.61				
Initial Measurement	Recharge Measurement	Calculated Purge	<u>1.38</u>					
Time: <u>0844</u>	Time: <u>0854</u>	Actual Purge	<u>1.50</u>					
Depth of Well <u>14.46</u>	Depth to Water							
Depth to Water <u>11.98</u>								
<b>Sample</b>								
Start Purge	<u>0842</u>		Sample Time <u>0855</u>					
Time	Temperature	pH	E.C.	D.O.	ORP	Fe+2		Volume
<u>0845</u>	<u>67.7</u>	<u>7.04</u>	<u>914</u>	<u>4.55</u>	<u>126</u>	<u>06</u>		<u>1</u>
<u>0844</u>	<u>67.6</u>	<u>7.11</u>	<u>971</u>	<u>4.71</u>	<u>137</u>	<u>06</u>		<u>2</u>
<u>0851</u>	<u>67.6</u>	<u>7.12</u>	<u>976</u>	<u>4.64</u>	<u>132</u>	<u>06</u>		<u>3</u>
Sample Appearance	<u>Clear</u>		Lock	<u>OK</u>				
<b>Equipment Replacement</b>								
Lock	<u>ok</u>	Well Cap	<u>ok</u>	Bolts	-3	Box	<u>ok</u>	
Remarks:								

Client:	Tesoro	Sample Data:	7/23/2007					
Site:	Tesoro Station 67106	Project Number:	02-67106					
	1088 Marina Blvd., San Leandro, CA	Well Designation:	MW-7					
Signature:	<i>[Signature]</i>							
<b>Well Box Condition/Traffic</b>								
Traffic Control	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Time:	05:01 hours					
Standing water	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	above or below casing						
Top of well level	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Remark:						
Well cap & locked	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Remark:						
Height of Riser	9"							
Well Box	8" <i>(12" 24")</i>	Type of well box	<i>Pomero</i>					
<b>Purging/Sampling Equipment</b>								
<b>Purging -</b>								
2" Disposable Bailer	<input type="checkbox"/>	Submersible Pump	<input type="checkbox"/>					
2" PVC Bailer	<input type="checkbox"/>	Dedicated Bailer	<input type="checkbox"/>					
4" PVC Bailers	<input type="checkbox"/>	Centrifugal Pump	<input type="checkbox"/>					
	<i>Parafeltite</i> X							
<b>Sampling -</b>								
Disposable Bailer	<input type="checkbox"/>	Teflon Bailer	<input type="checkbox"/>	Disposable Tubing	<input checked="" type="checkbox"/>			
<b>Well Purging</b>								
Well Diameter: 2"	X	4"	6"	8"				
Purge Vol. Multiplier	0.16	0.65	1.47	2.61				
Initial Measurement	Recharge Measurement		Calculated Purge		5.98			
Time: <i>05:01</i>	Time: <i>05:01</i>		Actual Purge	1.50				
Depth of Well <i>25.45</i>	Depth to Water <i>13.00</i>							
<b>Sample</b>								
Start Purge	<i>05:25</i>		Sample Time	<i>05:39</i>				
Time	Temperature	pH	E.C.	D.O.	ORP	Fe+2		Volume
<i>05:28</i>	<i>45.8</i>	<i>7.23</i>	<i>444</i>	<i>1.42</i>	<i>40</i>	<i>ok</i>		<i>1</i>
<i>05:31</i>	<i>45.4</i>	<i>7.18</i>	<i>455</i>	<i>1.49</i>	<i>42</i>	<i>ok</i>		<i>2</i>
<i>05:34</i>	<i>45.6</i>	<i>7.20</i>	<i>458</i>	<i>1.51</i>	<i>43</i>	<i>ok</i>		<i>3</i>
Sample Appearance	<i>Clear.</i>		Lock	<i>ok</i>				
<b>Equipment Replacement</b>								
Lock	<i>ok</i>	Well Cap	<i>ok</i>	Bolts	<i>-3</i>	Box	<i>ok</i>	
Remarks:								

Client:	Tesoro	Sample Data:	7/23/2007				
Site:	Tesoro Station 67106	Project Number:	02-67106				
	1088 Marina Blvd., San Leandro, CA	Well Designation:	<i>MW-8</i>				
Signature:	<i>[Signature]</i>						
<b>Well Box Condition/Traffic</b>							
Traffic Control	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Time: <u>0809</u> hours				
Standing water	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	above or below casing				
Top of well level	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Remark:				
Well cap & locked	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Remark:				
Height of Riser	<u>12"</u>						
Well Box	<u>8"</u>	<u>12"</u>	<u>24"</u>				
	Type of well box <u>CN1</u>						
<b>Purging/Sampling Equipment</b>							
<b>Purging -</b>							
2" Disposable Bailer	Submersible Pump						
2" PVC Bailer	Dedicated Bailer						
4" PVC Bailers	Centrifugal Pump						
	<i>Parastaltic</i> <input checked="" type="checkbox"/>						
<b>Sampling -</b>							
Disposable Bailer	Teflon Bailer	Disposable Tubing	<input checked="" type="checkbox"/>				
<b>Well Purging</b>							
Well Diameter: 2"	<input checked="" type="checkbox"/>	4"	<input type="checkbox"/>	6"	<input type="checkbox"/>	8"	<input type="checkbox"/>
Purge Vol. Multiplier	0.16	0.65	1.47	2.61			
Initial Measurement	Recharge Measurement			Calculated Purge			
Time: <u>0809</u>	Time: <u>0933</u>				Actual Purge	<u>1.36</u>	
Depth of Well	<u>28.05</u>			Depth to Water	<u>14.60</u>		
Depth to Water							
<b>Sample</b>							
Start Purge	<u>0933</u>			Sample Time	<u>0950</u>		
Time	Temperature	pH	E.C.	D.O.	ORP	Fe+2	Volume
0937	<u>64.7</u>	<u>7.21</u>	<u>325</u>	<u>1.31</u>	<u>-21</u>	<u>1.5</u>	<u>1</u>
0941	<u>64.6</u>	<u>7.16</u>	<u>326</u>	<u>1.35</u>	<u>-24</u>	<u>1.5</u>	<u>2</u>
0945	<u>64.6</u>	<u>7.13</u>	<u>330</u>	<u>1.34</u>	<u>-22</u>	<u>1.5</u>	<u>3</u>
Sample Appearance	<u>Clear</u>			Lock	<u>ok</u>		
<b>Equipment Replacement</b>							
Lock	<u>ok</u>	Well Cap	<u>ok</u>	Bolts	<u>ok</u>	Box	<u>ok</u>
Remarks:							

Client:	Tesoro	Sample Data:	7/23/2007					
Site:	Tesoro Station 67106	Project Number:	02-67106					
	1088 Marina Blvd., San Leandro, CA	Well Designation:	ml - 9					
Signature:	<i>[Signature]</i>							
<b>Well Box Condition/Traffic</b>								
Traffic Control	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Time:	0807 hours					
Standing water	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	above or below casing						
Top of well level	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Remark:						
Well cap & locked	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Remark:						
Height of Riser	4"							
Well Box	8" 12" 24" <input checked="" type="checkbox"/>	Type of well box	<i>Not marked</i>					
<b>Purging/Sampling Equipment</b>								
<b>Purging -</b>								
2" Disposable Bailer	<input type="checkbox"/>	Submersible Pump	<input type="checkbox"/>					
2" PVC Bailer	<input type="checkbox"/>	Dedicated Bailer	<input type="checkbox"/>					
4" PVC Bailers	<input type="checkbox"/>	Centrifugal Pump	<input type="checkbox"/>					
		<i>Parastaltic</i>	X					
<b>Sampling -</b>								
Disposable Bailer	<input type="checkbox"/>	Teflon Bailer	<input type="checkbox"/>	Disposable Tubing	<input checked="" type="checkbox"/>			
<b>Well Purging</b>								
Well Diameter: 2"	4" X	6"	8"					
Purge Vol. Multiplier	0.16	0.65	1.47	2.61				
Initial Measurement	Recharge Measurement		Calculated Purge		21.57			
Time: 0807	Time:		Actual Purge					
Depth of Well 24.40	Depth to Water							
Depth to Water 13.54								
<b>Sample</b>								
Start Purge 6907	Sample Time 6924							
Time	Temperature	pH	E.C.	D.O.	ORP	Fe+2		Volume
0911	67.4	7.19	503	1.21	-67	1.6		1
0915	67.6	7.11	504	1.19	-69	1.6		2
0919	67.7	7.10	505	1.23	-70	1.6		3
Sample Appearance	<i>clear.</i>			Lock	-1			
<b>Equipment Replacement</b>								
Lock	-1	Well Cap	ok	Bolts	-3	Box	ok	
Remarks:								



0 40 FT  
APPROX. SCALE

**FIGURE 2**  
**SITE MAP**

TESORO STATION NO. 67106  
(FORMER BEACON STATION NO. 3720)  
1088 MARINA BOULEVARD  
SAN LEANDRO, CA.

PROJECT NO. 00-3720	DRAWN BY M.L. 5/1994
FILE NO. 00-3720-11	PREPARED BY RDM
REVISION NO. 1	REVIEWED BY

**R D M**  
Environmental

## **Appendix B**

Official Laboratory Analytical Results –  
Quarterly Ground Water Samples



Report Number : 57632

Date : 7/27/2007

Richard Munsch  
RDM Environmental  
6280 Brookshire Drive  
Rocklin, CA 95677

Subject : 9 Water Samples  
Project Name : 67106  
Project Number : 67106

Dear Mr. Munsch,

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.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink that reads "Joel Kiff".

Joel Kiff



Report Number : 57632

Date : 7/27/2007

Project Name : **67106**

Project Number : **67106**

Sample : **MW-1**

Matrix : Water

Lab Number : 57632-01

Sample Date : 7/23/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Toluene	0.61	0.50	ug/L	EPA 8260B	7/25/2007
Ethylbenzene	24	0.50	ug/L	EPA 8260B	7/25/2007
Total Xylenes	7.5	0.50	ug/L	EPA 8260B	7/25/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	7/25/2007
Methanol	< 50	50	ug/L	EPA 8260B	7/25/2007
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	7/25/2007
<b>TPH as Gasoline</b>	<b>5400</b>	90	ug/L	EPA 8260B	7/25/2007
Toluene - d8 (Surr)	92.6		% Recovery	EPA 8260B	7/25/2007
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	7/25/2007

Approved By:  Joel Kiff



Project Name : **67106**

Project Number : **67106**

Report Number : 57632

Date : 7/27/2007

Sample : **MW-2**

Matrix : Water

Lab Number : 57632-02

Sample Date : 7/23/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	<b>13</b>	0.50	ug/L	EPA 8260B	7/25/2007
Toluene	<b>7.5</b>	0.50	ug/L	EPA 8260B	7/25/2007
Ethylbenzene	<b>640</b>	1.5	ug/L	EPA 8260B	7/25/2007
Total Xylenes	<b>98</b>	0.50	ug/L	EPA 8260B	7/25/2007
Methyl-t-butyl ether (MTBE)	<b>0.58</b>	0.50	ug/L	EPA 8260B	7/25/2007
Diisopropyl ether (DIPE)	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	7/25/2007
Ethyl-t-butyl ether (ETBE)	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	7/25/2007
Tert-amyl methyl ether (TAME)	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	7/25/2007
Tert-Butanol	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	7/25/2007
Methanol	<b>&lt; 50</b>	50	ug/L	EPA 8260B	7/25/2007
Ethanol	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	7/25/2007
<b>TPH as Gasoline</b>	<b>9100</b>	150	ug/L	EPA 8260B	7/25/2007
Toluene - d8 (Surr)	89.4		% Recovery	EPA 8260B	7/25/2007
4-Bromofluorobenzene (Surr)	106		% Recovery	EPA 8260B	7/25/2007

Approved By:  Joel Kiff



Project Name : **67106**

Project Number : **67106**

Report Number : 57632

Date : 7/27/2007

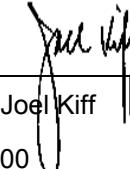
Sample : **MW-3**

Matrix : Water

Lab Number : 57632-03

Sample Date : 7/23/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	<b>1.4</b>	0.50	ug/L	EPA 8260B	7/26/2007
Toluene	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	7/26/2007
Ethylbenzene	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	7/26/2007
Total Xylenes	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	7/26/2007
Methyl-t-butyl ether (MTBE)	<b>1.1</b>	0.50	ug/L	EPA 8260B	7/26/2007
Diisopropyl ether (DIPE)	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	7/26/2007
Ethyl-t-butyl ether (ETBE)	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	7/26/2007
Tert-amyl methyl ether (TAME)	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	7/26/2007
Tert-Butanol	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	7/26/2007
Methanol	<b>&lt; 50</b>	50	ug/L	EPA 8260B	7/26/2007
Ethanol	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	7/26/2007
<b>TPH as Gasoline</b>	<b>750</b>	50	ug/L	EPA 8260B	7/26/2007
Toluene - d8 (Surr)	99.2		% Recovery	EPA 8260B	7/26/2007
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	7/26/2007

Approved By:  Joel Kiff



Project Name : **67106**

Project Number : **67106**

Report Number : 57632

Date : 7/27/2007

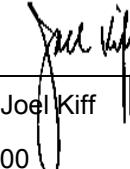
Sample : **MW-4**

Matrix : Water

Lab Number : 57632-04

Sample Date : 7/23/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	<b>2.6</b>	0.50	ug/L	EPA 8260B	7/25/2007
Toluene	<b>4.1</b>	0.50	ug/L	EPA 8260B	7/25/2007
Ethylbenzene	<b>42</b>	0.50	ug/L	EPA 8260B	7/25/2007
Total Xylenes	<b>43</b>	0.50	ug/L	EPA 8260B	7/25/2007
Methyl-t-butyl ether (MTBE)	<b>3.0</b>	0.50	ug/L	EPA 8260B	7/25/2007
Diisopropyl ether (DIPE)	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	7/25/2007
Ethyl-t-butyl ether (ETBE)	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	7/25/2007
Tert-amyl methyl ether (TAME)	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	7/25/2007
Tert-Butanol	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	7/25/2007
Methanol	<b>&lt; 50</b>	50	ug/L	EPA 8260B	7/25/2007
Ethanol	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	7/25/2007
<b>TPH as Gasoline</b>	<b>1000</b>	50	ug/L	EPA 8260B	7/25/2007
Toluene - d8 (Surr)	99.3		% Recovery	EPA 8260B	7/25/2007
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	7/25/2007

Approved By:  Joel Kiff



Project Name : **67106**

Project Number : **67106**

Report Number : 57632

Date : 7/27/2007

Sample : **MW-5**

Matrix : Water

Lab Number : 57632-05

Sample Date : 7/23/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	<b>0.72</b>	0.50	ug/L	EPA 8260B	7/25/2007
Toluene	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	7/25/2007
Ethylbenzene	<b>1.4</b>	0.50	ug/L	EPA 8260B	7/25/2007
Total Xylenes	<b>0.73</b>	0.50	ug/L	EPA 8260B	7/25/2007
Methyl-t-butyl ether (MTBE)	<b>3.2</b>	0.50	ug/L	EPA 8260B	7/25/2007
Diisopropyl ether (DIPE)	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	7/25/2007
Ethyl-t-butyl ether (ETBE)	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	7/25/2007
Tert-amyl methyl ether (TAME)	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	7/25/2007
Tert-Butanol	<b>8.9</b>	5.0	ug/L	EPA 8260B	7/25/2007
Methanol	<b>&lt; 50</b>	50	ug/L	EPA 8260B	7/25/2007
Ethanol	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	7/25/2007
<b>TPH as Gasoline</b>	<b>700</b>	50	ug/L	EPA 8260B	7/25/2007
Toluene - d8 (Surr)	97.7		% Recovery	EPA 8260B	7/25/2007
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	7/25/2007

Approved By:  Joel Kiff



Project Name : **67106**

Project Number : **67106**

Report Number : 57632

Date : 7/27/2007

Sample : **MW-6**

Matrix : Water

Lab Number : 57632-06

Sample Date : 7/23/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	7/25/2007
Methanol	< 50	50	ug/L	EPA 8260B	7/25/2007
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	7/25/2007
<b>TPH as Gasoline</b>	<b>&lt; 50</b>	<b>50</b>	<b>ug/L</b>	<b>EPA 8260B</b>	<b>7/25/2007</b>
Toluene - d8 (Surr)	99.0		% Recovery	EPA 8260B	7/25/2007
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	7/25/2007

Approved By:  Joel Kiff



Project Name : **67106**

Project Number : **67106**

Report Number : 57632

Date : 7/27/2007

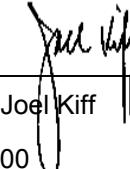
Sample : **MW-7**

Matrix : Water

Lab Number : 57632-07

Sample Date : 7/23/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	7/25/2007
Methanol	< 50	50	ug/L	EPA 8260B	7/25/2007
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	7/25/2007
<b>TPH as Gasoline</b>	<b>&lt; 50</b>	<b>50</b>	<b>ug/L</b>	<b>EPA 8260B</b>	<b>7/25/2007</b>
Toluene - d8 (Surr)	98.5		% Recovery	EPA 8260B	7/25/2007
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	7/25/2007

Approved By:  Joel Kiff



Project Name : **67106**

Project Number : **67106**

Report Number : 57632

Date : 7/27/2007

Sample : **MW-8**

Matrix : Water

Lab Number : 57632-08

Sample Date : 7/23/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Methyl-t-butyl ether (MTBE)	2.6	0.50	ug/L	EPA 8260B	7/25/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	7/25/2007
Methanol	< 50	50	ug/L	EPA 8260B	7/25/2007
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	7/25/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	7/25/2007
Toluene - d8 (Surr)	97.8		% Recovery	EPA 8260B	7/25/2007
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	7/25/2007

Approved By:  Joel Kiff



Project Name : **67106**

Project Number : **67106**

Report Number : 57632

Date : 7/27/2007

Sample : **MW-9**

Matrix : Water

Lab Number : 57632-09

Sample Date : 7/23/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Methyl-t-butyl ether (MTBE)	1.4	0.50	ug/L	EPA 8260B	7/25/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	7/25/2007
Methanol	< 50	50	ug/L	EPA 8260B	7/25/2007
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	7/25/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	7/25/2007
Toluene - d8 (Surr)	98.4		% Recovery	EPA 8260B	7/25/2007
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	7/25/2007

Approved By:  Joel Kiff

Report Number : 57632

Date : 7/27/2007

**QC Report : Method Blank Data**Project Name : **67106**Project Number : **67106**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	7/24/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	7/24/2007
Benzene	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	7/25/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	7/25/2007
Methanol	< 50	50	ug/L	EPA 8260B	7/25/2007
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	7/25/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	7/25/2007
Toluene - d8 (Surr)	100		%	EPA 8260B	7/25/2007
4-Bromofluorobenzene (Surr)	104		%	EPA 8260B	7/25/2007
Benzene	< 0.50	0.50	ug/L	EPA 8260B	7/26/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	7/26/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	7/26/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	7/26/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	7/26/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	7/26/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	7/26/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	7/26/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	7/26/2007
Methanol	< 50	50	ug/L	EPA 8260B	7/26/2007
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	7/26/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	7/26/2007
Toluene - d8 (Surr)	101		%	EPA 8260B	7/26/2007
4-Bromofluorobenzene (Surr)	105		%	EPA 8260B	7/26/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	7/24/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	7/24/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	7/24/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	7/24/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	7/24/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	7/24/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	7/24/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	7/24/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	7/24/2007
Methanol	< 50	50	ug/L	EPA 8260B	7/24/2007
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	7/24/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	7/24/2007
Toluene - d8 (Surr)	97.8		%	EPA 8260B	7/24/2007
4-Bromofluorobenzene (Surr)	103		%	EPA 8260B	7/24/2007

Approved By:

Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 57632

## QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 7/27/2007

Project Name : 67106

Project Number : 67106

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
Benzene	57601-01	9.0	40.0	40.1	47.6	47.0	ug/L	EPA 8260B	7/24/07	96.4	94.9	1.54	70-130	25
Toluene	57601-01	0.88	40.0	40.1	40.7	40.5	ug/L	EPA 8260B	7/24/07	99.5	98.9	0.581	70-130	25
Tert-Butanol	57601-01	<5.0	200	200	201	210	ug/L	EPA 8260B	7/24/07	100	105	4.07	70-130	25
Methyl-t-Butyl Ether	57601-01	2.7	40.0	40.1	42.5	43.7	ug/L	EPA 8260B	7/24/07	99.5	102	2.72	70-130	25
Benzene	57027-04	<0.50	40.0	40.0	40.5	39.4	ug/L	EPA 8260B	7/25/07	101	98.5	2.71	70-130	25
Toluene	57027-04	<0.50	40.0	40.0	40.5	39.4	ug/L	EPA 8260B	7/25/07	101	98.5	2.66	70-130	25
Tert-Butanol	57027-04	<5.0	200	200	212	208	ug/L	EPA 8260B	7/25/07	106	104	2.05	70-130	25
Methyl-t-Butyl Ether	57027-04	<0.50	40.0	40.0	41.9	40.5	ug/L	EPA 8260B	7/25/07	105	101	3.44	70-130	25
Benzene	57670-04	<0.50	40.0	40.0	41.0	39.6	ug/L	EPA 8260B	7/26/07	102	99.0	3.31	70-130	25
Toluene	57670-04	<0.50	40.0	40.0	41.0	39.9	ug/L	EPA 8260B	7/26/07	102	99.8	2.74	70-130	25
Tert-Butanol	57670-04	<5.0	200	200	210	205	ug/L	EPA 8260B	7/26/07	105	103	2.14	70-130	25
Methyl-t-Butyl Ether	57670-04	<0.50	40.0	40.0	40.9	40.3	ug/L	EPA 8260B	7/26/07	102	101	1.58	70-130	25
Benzene	57615-05	<0.50	40.0	40.0	44.1	43.0	ug/L	EPA 8260B	7/24/07	110	108	2.45	70-130	25
Toluene	57615-05	<0.50	40.0	40.0	42.4	41.4	ug/L	EPA 8260B	7/24/07	106	103	2.53	70-130	25
Tert-Butanol	57615-05	<5.0	200	200	218	212	ug/L	EPA 8260B	7/24/07	109	106	2.84	70-130	25
Methyl-t-Butyl Ether	57615-05	<0.50	40.0	40.0	42.8	42.2	ug/L	EPA 8260B	7/24/07	107	106	1.30	70-130	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Approved By: Joel Kiff



## QC Report : Laboratory Control Sample (LCS)

Project Name : **67106**Project Number : **67106**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	7/24/07	106	70-130
Toluene	40.0	ug/L	EPA 8260B	7/24/07	108	70-130
Tert-Butanol	200	ug/L	EPA 8260B	7/24/07	108	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	7/24/07	98.6	70-130
Benzene	40.0	ug/L	EPA 8260B	7/25/07	98.2	70-130
Toluene	40.0	ug/L	EPA 8260B	7/25/07	101	70-130
Tert-Butanol	200	ug/L	EPA 8260B	7/25/07	104	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	7/25/07	97.4	70-130
Benzene	40.0	ug/L	EPA 8260B	7/26/07	97.9	70-130
Toluene	40.0	ug/L	EPA 8260B	7/26/07	101	70-130
Tert-Butanol	200	ug/L	EPA 8260B	7/26/07	103	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	7/26/07	102	70-130
Benzene	40.0	ug/L	EPA 8260B	7/24/07	110	70-130
Toluene	40.0	ug/L	EPA 8260B	7/24/07	103	70-130
Tert-Butanol	200	ug/L	EPA 8260B	7/24/07	108	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	7/24/07	104	70-130

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Approved By:

Joel Kiff





Report Number : 57632

Date : 7/27/2007

## Analysis Summary

Attention : Richard Munsch  
RDM Environmental  
6280 Brookshire Drive  
Rocklin, CA 95677

Project Name : 67106

Project Number : 67106

Sample Name			MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-8	
Sample Date			7/23/2007		7/23/2007		7/23/2007		7/23/2007		7/23/2007		7/23/2007		7/23/2007		7/23/2007	
Analyte	Method	Units	MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results
Benzene	EPA 8260B	ug/L	0.50	ND	0.50	<b>13</b>	0.50	<b>1.4</b>	0.50	<b>2.6</b>	0.50	<b>0.72</b>	0.50	ND	0.50	ND	0.50	ND
Toluene	EPA 8260B	ug/L	0.50	<b>0.61</b>	0.50	<b>7.5</b>	0.50	ND	0.50	<b>4.1</b>	0.50	ND	0.50	ND	0.50	ND	0.50	ND
Ethylbenzene	EPA 8260B	ug/L	0.50	<b>24</b>	1.5	<b>640</b>	0.50	ND	0.50	<b>42</b>	0.50	<b>1.4</b>	0.50	ND	0.50	ND	0.50	ND
Total Xylenes	EPA 8260B	ug/L	0.50	<b>7.5</b>	0.50	<b>98</b>	0.50	ND	0.50	<b>43</b>	0.50	<b>0.73</b>	0.50	ND	0.50	ND	0.50	ND
Methyl-t-butyl ether (MTBE)	EPA 8260B	ug/L	0.50	ND	0.50	<b>0.58</b>	0.50	<b>1.1</b>	0.50	<b>3.0</b>	0.50	<b>3.2</b>	0.50	ND	0.50	ND	0.50	<b>2.6</b>
Diisopropyl ether (DIPE)	EPA 8260B	ug/L	0.50	ND	0.50	ND	0.50	ND	0.50	ND	0.50	ND	0.50	ND	0.50	ND	0.50	ND
Ethyl-t-butyl ether (ETBE)	EPA 8260B	ug/L	0.50	ND	0.50	ND	0.50	ND	0.50	ND	0.50	ND	0.50	ND	0.50	ND	0.50	ND
Tert-amyl methyl ether (TAME)	EPA 8260B	ug/L	0.50	ND	0.50	ND	0.50	ND	0.50	ND	0.50	ND	0.50	ND	0.50	ND	0.50	ND
Tert-Butanol	EPA 8260B	ug/L	5.0	ND	5.0	ND	5.0	ND	5.0	ND	5.0	<b>8.9</b>	5.0	ND	5.0	ND	5.0	ND
Methanol	EPA 8260B	ug/L	50	ND	50	ND	50	ND	50	ND	50	ND	50	ND	50	ND	50	ND
Ethanol	EPA 8260B	ug/L	5.0	ND	5.0	ND	5.0	ND	5.0	ND	5.0	ND	5.0	ND	5.0	ND	5.0	ND
TPH as Gasoline	EPA 8260B	ug/L	90	<b>5400</b>	150	<b>9100</b>	50	<b>750</b>	50	<b>1000</b>	50	<b>700</b>	50	ND	50	ND	50	ND
Toluene - d8 (Surr)	EPA 8260B	%		92.6		89.4		99.2		99.3		97.7		99.0		98.5		97.8
4-Bromofluorobenzene (Surr)	EPA 8260B	%		105		106		105		105		104		104		102		104

MRL = Method Reporting Limit

ND = Not Detected

Approved By,

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

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

ELAP # 2236



## Analysis Summary

Attention : Richard Munsch  
RDM Environmental  
6280 Brookshire Drive  
Rocklin, CA 95677

Project Name :67106

Project Number : 67106

		Sample Name	MW-9	
		Sample Date	7/23/2007	
Analyte	Method	Units	MRL	Results
Benzene	EPA 8260B	ug/L	0.50	ND
Toluene	EPA 8260B	ug/L	0.50	ND
Ethylbenzene	EPA 8260B	ug/L	0.50	ND
Total Xylenes	EPA 8260B	ug/L	0.50	ND
Methyl-t-butyl ether (MTBE)	EPA 8260B	ug/L	0.50	<b>1.4</b>
Diisopropyl ether (DIPE)	EPA 8260B	ug/L	0.50	ND
Ethyl-t-butyl ether (ETBE)	EPA 8260B	ug/L	0.50	ND
Tert-amyl methyl ether (TAME)	EPA 8260B	ug/L	0.50	ND
Tert-Butanol	EPA 8260B	ug/L	5.0	ND
Methanol	EPA 8260B	ug/L	50	ND
Ethanol	EPA 8260B	ug/L	5.0	ND
TPH as Gasoline	EPA 8260B	ug/L	50	ND
Toluene - d8 (Surr)	EPA 8260B	%		98.4
4-Bromofluorobenzene (Surr)	EPA 8260B	%		104

MRL = Method Reporting Limit

ND = Not Detected

Approved By,

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

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800  
ELAP # 2236

Report Number : 57632

Date : 7/27/2007

# CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

July 31, 2007

**CLS Work Order #: CQG0797  
COC #: 57632**

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

**Project Name: 67106**

Enclosed are the results of analyses for samples received by the laboratory on 07/24/07 12:45. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

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

Sincerely,



James Liang, Ph.D.  
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

# CALIFORNIA LABORATORY SERVICES

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

Project: 67106  
Project Number: 67106  
Project Manager: Troy Turpen

**CLS Work Order #: CQG0797**  
**COC #: 57632**

<b>KIFF</b> Analytical LLC		2795 Second Street, Suite 300 Davis, CA 95618 Lab: 530.297.4800 Fax: 530.297.4808				California Lab Services 3249 Fitzgerald Rd. Rancho Cordova, CA 95742 tel: (916) 638-7301																
Project Contact (Hardcopy or PDF to):  Troy Turpen		EDF Report? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				Lab No. 57632 Page 1 of 1																
Company/Address:  Kiff Analytical		Recommended but not mandatory to complete this section:  Sampling Company Log Code:				Chain-of-Custody Record and Analysis Request																
Phone No.:	FAX No.:	Global ID:				Analysis Request																
Project Number: 67106	P.O. No.: 57632	EDF Deliverable to (Email Address):																				
Project Name: 67106		E-mail address: inbox@kiffanalytical.com																				
Project Address:		Sampling		Container	Preservative	Matrix																
<b>Sample Designation</b>	Date	Time	Glass	Poly	Sleeve	Amber	Teflon	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	ZnAc <sub>2</sub> & NaOH	NONE	WATER	SOIL	AIR	Alkalinity	T.O.C.	Dissolved CO <sub>2</sub>	Total Iron	Date due: July 31, 2007 For Lab Use Only		
	MW-1	7/23/07	11:26	1	3			1	1				2	X			X	X	X		X	X
	MW-2	7/23/07	11:50	1	3			1	1				2	X			X	X	X		X	X
	MW-3	7/23/07	10:39	1	3			1	1				2	X			X	X	X		X	X
	MW-4	7/23/07	11:05	1	3			1	1				2	X			X	X	X		X	X
	MW-5	7/23/07	10:14	1	3			1	1				2	X			X	X	X		X	X
	MW-6	7/23/07	08:55	1	3			1	1				2	X			X	X	X		X	X
	MW-7	7/23/07	08:39	1	3			1	1				2	X			X	X	X		X	X
	MW-8	7/23/07	09:50	1	3			1	1				2	X			X	X	X		X	X
	MW-9	7/23/07	09:24	1	3			1	1				2	X			X	X	X		X	X
Relinquished by:  Kiff Analytical		Date 07/24/07	Time 1245	Received by:				Remarks:														
Relinquished by:		Date	Time	Received by:																		
Relinquished by:		Date 7/24/07	Time 1845	Received by: J.W.M.A.				Bill to: Accounts Payable														

# CALIFORNIA LABORATORY SERVICES

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

Project: 67106  
Project Number: 67106  
Project Manager: Troy Turpen

**CLS Work Order #:** CQG0797  
**COC #:** 57632

## Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (CQG0797-01) Water   Sampled: 07/23/07 11:26   Received: 07/24/07 12:45</b>									
Total Alkalinity	74	5.0	mg/L	1	CQ06167	07/25/07	07/25/07	SM2310B	
Bicarbonate as CaCO <sub>3</sub>	74	5.0	"	"	"	"	"	"	
Carbonate as CaCO <sub>3</sub>	ND	5.0	"	"	"	"	"	"	
Hydroxide as CaCO <sub>3</sub>	ND	5.0	"	"	"	"	"	"	
Carbon Dioxide as CO <sub>2</sub>	15	5.0	"	"	CQ06144	07/24/07	07/24/07	SM 4500C	
Total Organic Carbon	4.3	1.0	"	"	CQ06158	07/25/07	07/26/07	SM5310B	
<b>MW-2 (CQG0797-02) Water   Sampled: 07/23/07 11:50   Received: 07/24/07 12:45</b>									
Total Alkalinity	84	5.0	mg/L	1	CQ06167	07/25/07	07/25/07	SM2310B	
Bicarbonate as CaCO <sub>3</sub>	84	5.0	"	"	"	"	"	"	
Carbonate as CaCO <sub>3</sub>	ND	5.0	"	"	"	"	"	"	
Hydroxide as CaCO <sub>3</sub>	ND	5.0	"	"	"	"	"	"	
Carbon Dioxide as CO <sub>2</sub>	17	5.0	"	"	CQ06144	07/24/07	07/24/07	SM 4500C	
Total Organic Carbon	9.0	1.0	"	"	CQ06158	07/25/07	07/26/07	SM5310B	
<b>MW-3 (CQG0797-03) Water   Sampled: 07/23/07 10:39   Received: 07/24/07 12:45</b>									
Total Alkalinity	130	5.0	mg/L	1	CQ06167	07/25/07	07/25/07	SM2310B	
Bicarbonate as CaCO <sub>3</sub>	130	5.0	"	"	"	"	"	"	
Carbonate as CaCO <sub>3</sub>	ND	5.0	"	"	"	"	"	"	
Hydroxide as CaCO <sub>3</sub>	ND	5.0	"	"	"	"	"	"	
Carbon Dioxide as CO <sub>2</sub>	25	5.0	"	"	CQ06144	07/24/07	07/24/07	SM 4500C	
Total Organic Carbon	6.3	1.0	"	"	CQ06158	07/25/07	07/26/07	SM5310B	
<b>MW-4 (CQG0797-04) Water   Sampled: 07/23/07 11:05   Received: 07/24/07 12:45</b>									
Total Alkalinity	350	5.0	mg/L	1	CQ06167	07/25/07	07/25/07	SM2310B	
Bicarbonate as CaCO <sub>3</sub>	350	5.0	"	"	"	"	"	"	
Carbonate as CaCO <sub>3</sub>	ND	5.0	"	"	"	"	"	"	
Hydroxide as CaCO <sub>3</sub>	ND	5.0	"	"	"	"	"	"	
Carbon Dioxide as CO <sub>2</sub>	82	5.0	"	"	CQ06144	07/24/07	07/24/07	SM 4500C	
Total Organic Carbon	12	1.0	"	"	CQ06158	07/25/07	07/26/07	SM5310B	

# CALIFORNIA LABORATORY SERVICES

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

Project: 67106  
Project Number: 67106  
Project Manager: Troy Turpen

**CLS Work Order #: CQG0797**  
COC #: 57632

## Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-5 (CQG0797-05) Water    Sampled: 07/23/07 10:14    Received: 07/24/07 12:45</b>									
Total Alkalinity	560	5.0	mg/L	1	CQ06167	07/25/07	07/25/07	SM2310B	
Bicarbonate as CaCO <sub>3</sub>	560	5.0	"	"	"	"	"	"	"
Carbonate as CaCO <sub>3</sub>	ND	5.0	"	"	"	"	"	"	"
Hydroxide as CaCO <sub>3</sub>	ND	5.0	"	"	"	"	"	"	"
Carbon Dioxide as CO <sub>2</sub>	100	5.0	"	"	CQ06144	07/24/07	07/24/07	SM 4500C	
Total Organic Carbon	16	1.0	"	"	CQ06158	07/25/07	07/26/07	SM5310B	
<b>MW-6 (CQG0797-06) Water    Sampled: 07/23/07 08:55    Received: 07/24/07 12:45</b>									
Total Alkalinity	470	5.0	mg/L	1	CQ06167	07/25/07	07/25/07	SM2310B	
Bicarbonate as CaCO <sub>3</sub>	470	5.0	"	"	"	"	"	"	"
Carbonate as CaCO <sub>3</sub>	ND	5.0	"	"	"	"	"	"	"
Hydroxide as CaCO <sub>3</sub>	ND	5.0	"	"	"	"	"	"	"
Carbon Dioxide as CO <sub>2</sub>	78	5.0	"	"	CQ06144	07/24/07	07/24/07	SM 4500C	
Total Organic Carbon	12	1.0	"	"	CQ06158	07/25/07	07/26/07	SM5310B	
<b>MW-7 (CQG0797-07) Water    Sampled: 07/23/07 08:39    Received: 07/24/07 12:45</b>									
Total Alkalinity	170	5.0	mg/L	1	CQ06167	07/25/07	07/25/07	SM2310B	
Bicarbonate as CaCO <sub>3</sub>	170	5.0	"	"	"	"	"	"	"
Carbonate as CaCO <sub>3</sub>	ND	5.0	"	"	"	"	"	"	"
Hydroxide as CaCO <sub>3</sub>	ND	5.0	"	"	"	"	"	"	"
Carbon Dioxide as CO <sub>2</sub>	40	5.0	"	"	CQ06144	07/24/07	07/24/07	SM 4500C	
Total Organic Carbon	2.8	1.0	"	"	CQ06158	07/25/07	07/26/07	SM5310B	
<b>MW-8 (CQG0797-08) Water    Sampled: 07/23/07 09:50    Received: 07/24/07 12:45</b>									
Total Alkalinity	260	5.0	mg/L	1	CQ06167	07/25/07	07/25/07	SM2310B	
Bicarbonate as CaCO <sub>3</sub>	260	5.0	"	"	"	"	"	"	"
Carbonate as CaCO <sub>3</sub>	ND	5.0	"	"	"	"	"	"	"
Hydroxide as CaCO <sub>3</sub>	ND	5.0	"	"	"	"	"	"	"
Carbon Dioxide as CO <sub>2</sub>	82	5.0	"	"	CQ06144	07/24/07	07/24/07	SM 4500C	
Total Organic Carbon	4.2	1.0	"	"	CQ06158	07/25/07	07/26/07	SM5310B	

# CALIFORNIA LABORATORY SERVICES

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

Project: 67106  
Project Number: 67106  
Project Manager: Troy Turpen

CLS Work Order #: CQG0797  
COC #: 57632

## Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-9 (CQG0797-09) Water   Sampled: 07/23/07 09:24   Received: 07/24/07 12:45</b>									
Total Alkalinity	260	5.0	mg/L	1	CQ06167	07/25/07	07/25/07	SM2310B	
Bicarbonate as CaCO <sub>3</sub>	260	5.0	"	"	"	"	"	"	"
Carbonate as CaCO <sub>3</sub>	ND	5.0	"	"	"	"	"	"	"
Hydroxide as CaCO <sub>3</sub>	ND	5.0	"	"	"	"	"	"	"
Carbon Dioxide as CO <sub>2</sub>	29	5.0	"	"	CQ06144	07/24/07	07/24/07	SM 4500C	
Total Organic Carbon	4.7	1.0	"	"	CQ06158	07/25/07	07/26/07	SM5310B	

# CALIFORNIA LABORATORY SERVICES

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

Project: 67106  
Project Number: 67106  
Project Manager: Troy Turpen

**CLS Work Order #: CQG0797**  
COC #: 57632

## Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (CQG0797-01) Water Sampled: 07/23/07 11:26 Received: 07/24/07 12:45</b>									
Iron	2700	100	µg/L	1	CQ06163	07/25/07	07/25/07	EPA 200.7	
<b>MW-2 (CQG0797-02) Water Sampled: 07/23/07 11:50 Received: 07/24/07 12:45</b>									
Iron	1200	100	µg/L	1	CQ06163	07/25/07	07/25/07	EPA 200.7	
<b>MW-3 (CQG0797-03) Water Sampled: 07/23/07 10:39 Received: 07/24/07 12:45</b>									
Iron	1100	100	µg/L	1	CQ06163	07/25/07	07/25/07	EPA 200.7	
<b>MW-4 (CQG0797-04) Water Sampled: 07/23/07 11:05 Received: 07/24/07 12:45</b>									
Iron	1400	100	µg/L	1	CQ06163	07/25/07	07/25/07	EPA 200.7	
<b>MW-5 (CQG0797-05) Water Sampled: 07/23/07 10:14 Received: 07/24/07 12:45</b>									
Iron	600	100	µg/L	1	CQ06163	07/25/07	07/25/07	EPA 200.7	
<b>MW-6 (CQG0797-06) Water Sampled: 07/23/07 08:55 Received: 07/24/07 12:45</b>									
Iron	ND	100	µg/L	1	CQ06163	07/25/07	07/25/07	EPA 200.7	
<b>MW-7 (CQG0797-07) Water Sampled: 07/23/07 08:39 Received: 07/24/07 12:45</b>									
Iron	ND	100	µg/L	1	CQ06163	07/25/07	07/25/07	EPA 200.7	
<b>MW-8 (CQG0797-08) Water Sampled: 07/23/07 09:50 Received: 07/24/07 12:45</b>									
Iron	290	100	µg/L	1	CQ06163	07/25/07	07/25/07	EPA 200.7	
<b>MW-9 (CQG0797-09) Water Sampled: 07/23/07 09:24 Received: 07/24/07 12:45</b>									
Iron	1600	100	µg/L	1	CQ06163	07/25/07	07/25/07	EPA 200.7	

# CALIFORNIA LABORATORY SERVICES

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

Project: 67106  
Project Number: 67106  
Project Manager: Troy Turpen

**CLS Work Order #:** CQG0797  
**COC #:** 57632

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

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

### Batch CQ06144 - General Preparation

<b>Blank (CQ06144-BLK1)</b>	Prepared & Analyzed: 07/24/07									
Carbon Dioxide as CO <sub>2</sub>	ND	5.0	mg/L							

### Batch CQ06158 - General Preparation

<b>Blank (CQ06158-BLK1)</b>	Prepared: 07/25/07 Analyzed: 07/26/07									
Total Organic Carbon	ND	1.0	mg/L							

<b>LCS (CQ06158-BS1)</b>	Prepared: 07/25/07 Analyzed: 07/26/07						
Total Organic Carbon	8.94	1.0	mg/L	10.0	89.4	75-125	

<b>LCS Dup (CQ06158-BSD1)</b>	Prepared: 07/25/07 Analyzed: 07/26/07						
Total Organic Carbon	9.14	1.0	mg/L	10.0	91.4	75-125	2.22

<b>Matrix Spike (CQ06158-MS1)</b>	<b>Source: CQG0797-02</b>	Prepared: 07/25/07 Analyzed: 07/26/07						
Total Organic Carbon	19.5	1.0	mg/L	10.0	9.05	104	75-125	

<b>Matrix Spike Dup (CQ06158-MSD1)</b>	<b>Source: CQG0797-02</b>	Prepared: 07/25/07 Analyzed: 07/26/07						
Total Organic Carbon	20.0	1.0	mg/L	10.0	9.05	109	75-125	

### Batch CQ06167 - General Preparation

<b>Blank (CQ06167-BLK1)</b>	Prepared & Analyzed: 07/25/07									
Total Alkalinity	ND	5.0	mg/L							
Bicarbonate as CaCO <sub>3</sub>	ND	5.0	"							
Carbonate as CaCO <sub>3</sub>	ND	5.0	"							
Hydroxide as CaCO <sub>3</sub>	ND	5.0	"							

# CALIFORNIA LABORATORY SERVICES

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

Project: 67106  
Project Number: 67106  
Project Manager: Troy Turpen

CLS Work Order #: CQG0797  
COC #: 57632

## Metals by EPA 200 Series Methods - Quality Control

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

### Batch CQ06163 - EPA 3010A

<b>Blank (CQ06163-BLK1)</b>										Prepared & Analyzed: 07/25/07
Iron	ND	100	µg/L							
<b>LCS (CQ06163-BS1)</b>										Prepared & Analyzed: 07/25/07
Iron	1080	100	µg/L	1000		108	80-120			
<b>LCS Dup (CQ06163-BSD1)</b>										Prepared & Analyzed: 07/25/07
Iron	1080	100	µg/L	1000		108	80-120	0.557	20	
<b>Matrix Spike (CQ06163-MS1)</b>		<b>Source: CQG0795-01</b>								Prepared & Analyzed: 07/25/07
Iron	1090	100	µg/L	1000	73.7	101	75-125			
<b>Matrix Spike Dup (CQ06163-MSD1)</b>		<b>Source: CQG0795-01</b>								Prepared & Analyzed: 07/25/07
Iron	1080	100	µg/L	1000	73.7	100	75-125	0.923	25	

# CALIFORNIA LABORATORY SERVICES

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07/31/07 14:43

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

Project: 67106  
Project Number: 67106  
Project Manager: Troy Turpen

**CLS Work Order #: CQG0797**  
COC #: 57632

## Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



2795 2nd Street, Suite 300  
Davis, CA 95616  
Lab: 530.297.4800  
Fax: 530.297.4802

SRG # / Lab No.

57632

Page \_\_\_\_ of \_\_\_\_

Project Contact (Hardcopy or PDF To):

RICHARD MUNSK

California EDF Report?

Yes     No

Chain-of-Custody Record and Analysis Request

Company / Address:

RDM Env

Sampling Company Log Code:

Phone #: 916 415 1134

Fax #: 916 415 1154

Global ID:

Project #: 67106

P.O. #:

EDF Deliverable To (Email Address):

Project Name:

Sample Signature:

Project Address:

1088 Marina  
San Leandro

Sampling

Container

Preservative

Matrix

MTBE (EPA 8260B) per EPA 8021 level @ 5.0 ppb

MTBE (EPA 8260B) @ 0.5 ppb

BTEX (EPA 8260B)

TPH Gas (EPA 8260B)

5 Oxygenates (EPA 8260B)

7 Oxygenates (EPA 8260B)

Lead Scav (1,2 DCA & 1,2 EDB-EPA 8260B)

Volatile Halocarbons (EPA 8260B)

Volatile Organics Full List (EPA 8260B)

Volatile Organics (EPA 524.2 Drinking Water)

TPH as Diesel (EPA 8015M)

TPH as Motor Oil (EPA 8015M)

Total Lead (EPA 6010)

W/F Lead (NTC) Total Fe

Diss. CO<sub>2</sub>

T.I.C.

01

02

03

04

05

06

07

08

09

12 hr  
 24 hr  
 48 hr  
 72 hr  
 wk

For Lab Use Only

Sample Designation

Date

Time

40 ml VOA

Sleeve

Poly

Glass

Tedlar

HCl

HNO<sub>3</sub>

None

#2601

Water

Soil

Air

MW-1

7/23/07

11263

3

1

X

X

X

X

X

MW-2

1150

1

1

1

1

1

1

1

1

MW-3

1028

1

1

1

1

1

1

1

1

MW-4

1105

1

1

1

1

1

1

1

1

MW-5

1014

1

1

1

1

1

1

1

1

MW-6

0855

1

1

1

1

1

1

1

1

MW-7

0835

1

1

1

1

1

1

1

1

MW-8

0950

1

1

1

1

1

1

1

1

MW-9

0924

1

1

1

1

1

1

1

1

Relinquished by:

Douglas Hoff

Date

7/24/07

1106

1

Time

1

Received by:

\_\_\_\_\_

Remarks:

(SFT)

Email Copy to RDM  
Tesoro Petro/Anna Wilson

Relinquished by:

Richard Munk

Date

072407

1106

1

Time

1

Received by Laboratory:

Kiff  
Rensselaer Analytical

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
2.2	Rm	072407	1525	IR-5	Yes / No

## **Appendix C**

### Historical Site Data

## APPENDIX C

### HISTORICAL GROUND WATER MONITORING DATA

Tesoro Station No. 67106  
 Former Beacon Station No. 3720  
 1088 Marina Boulevard  
 San Leandro, California

Monitoring Well	Date	Reference Elevation (ft) <sup>a</sup>	Depth to Ground Water (ft)	Ground Water Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (µg/L)	Oxygenates (µg/L)	Comments
MW-1	03/12/98	33.10	11.09	22.01	<0.5	<0.5	5.0	2.8	100	<5.0	NA	No sheen
	05/28/98		11.36	21.74	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	08/31/98		12.61	20.49	<0.5	<0.5	6.4	1.4	130	<5.0	NA	No sheen
	11/19/98		13.84	19.26	0.75	<0.5	<0.5	3.0	120	<5.0	NA	No sheen
	03/15/99		11.95	21.15	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	06/07/99		13.45	19.65	1.6	1.9	230	110	5,200	<5.0	NA	No sheen
	09/07/99		13.10	20.00	1.0	<0.5	22	15	490	<5.0	NA	No sheen
	12/13/99		14.29	18.81	<2.5	<2.5	170	110	4,100	<25	NA	No sheen
	03/08/00		11.22	21.88	<0.5	<0.5	21	7.7	1,200	150	NA	No sheen
	06/12/00		12.85	20.25	1.5	0.9	160	98	3,000	34	NA	No sheen
	11/15/00		14.19	18.91	<20	<20	470	390	8,500	14,000	NA	No sheen
	02/27/01		12.35	20.75	5.4	2.6	260	190	6,100	4,300	NA	No sheen
	05/22/01		14.18	18.92	8.9	13	1,100	1,300	21,000	2,300	NA	No sheen
	09/05/01		13.70	19.10	<2.0	3.6	600	850	12,000	93	NA	No sheen
	11/07/01		14.25	18.85	<5.0	<5.0	1,300	1,600	23,000	87	NA	No sheen
	02/11/02	35.47	13.05	22.42	<0.5	<0.5	140	150	4,500	18	NA	No sheen
	06/03/02		13.31	22.16	<2.5	<2.5	520	460	12,000	12	NA	No sheen
	08/06/02		13.75	21.72	<0.5	<0.5	710	580	22,000	15	NA	No sheen
	11/14/02		14.10	21.37	<5.0	<5.0	300	250	16,000	8.1	ND	No sheen
	02/20/03		12.80	22.67	<1.5	<1.5	130	89	7,300	9.3	ND	No sheen
	05/15/03		12.90	22.57	<2.5	<2.5	270	120	14,000	4.7	ND	No sheen
	07/31/03		13.50	21.97	<5.0	<5.0	380	230	18,000	5.2	ND	No sheen
	10/28/03		14.42	21.05	<5.0	<5.0	340	210	17,000	<5.0	ND	No sheen
	02/28/04		12.72	22.75	<2.0	<2.0	140	48	10,000	4.8	ND	No sheen
	04/16/04		13.52	21.95	<0.5	<0.5	29	11	2,800	2.1	ND	No sheen
	07/16/04		14.04	21.43	<0.5	0.57	130	74	5,500	1.4	ND	No sheen
	11/13/04		13.99	21.43	<0.70	<0.70	56	25	4,000	ND	ND	No sheen
	02/04/05		13.36	22.11	0.57	<0.5	140	58	9,700	0.75	ND	No sheen
	04/08/05		12.43	23.04	<1.5	<1.5	84	24	8,100	<1.5	ND	No sheen
	08/10/05		13.62	21.85	<1.5	<1.5	92	32	8,700	<1.5	ND	No sheen
	11/05/05		13.95	21.52	<1.5	<1.5	92	38	9,200	<1.5	ND	No sheen
	01/13/06		12.43	23.04	<1.5	<1.5	34	17	6,500	<1.5	ND	No sheen
	05/12/06		12.40	23.33	<0.5	1.0	26	12	3,600	<0.5	330 <sup>d</sup> , 390 <sup>e</sup>	No sheen
	08/13/06		13.08	22.39	<0.5	0.57	40	12	5,200	<0.5	ND	No sheen
	10/20/06		13.58	21.89	<0.5	0.61	52	16	5,300	<0.5	ND	No sheen
	02/12/07		12.94	22.53	<0.5	<0.5	12	2.7	3,500	<0.5	ND	No sheen
	04/25/07		13.35	22.12	<0.5	<0.5	15	3.6	3,400	<0.5	ND	No sheen
	07/23/07		14.00	21.47	<0.5	0.61	24	7.5	5,400	<0.5	ND	No sheen

**APPENDIX C**  
**HISTORICAL GROUND WATER MONITORING DATA**

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Monitoring Well	Date	Reference Elevation (ft) <sup>a</sup>	Depth to Ground Water (ft)	Ground Water Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (µg/L)	Oxygenates (µg/L)	Comments
MW-2	03/12/98	32.80	10.92	21.88	32	1.0	12	6.5	440	20	NA	No sheen
	05/28/98		10.41	22.39	<0.5	<0.5	<0.5	<0.5	<50	27	NA	No sheen
	08/31/98		12.29	20.51	9.3	0.95	4.9	8.8	270	20	NA	No sheen
	11/19/98		13.47	19.33	16	0.72	<0.5	4.3	180	7.4	NA	No sheen
	03/15/99		11.95	20.85	12	3.5	59	840	2,400	10	NA	No sheen
	06/07/99		13.11	19.69	21	0.99	6.9	10	690	6.1	NA	No sheen
	09/07/99		12.92	19.88	7.8	1.2	42	100	610	<5.0	NA	No sheen
	12/13/99		13.96	18.84	26	0.93	52	96	3,000	<5.0	NA	No sheen
	03/08/00		10.87	21.93	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	06/12/00		12.53	20.27	51	17	170	320	5,500	18	NA	No sheen
	11/15/00		13.96	18.84	75	48	1,200	2,800	16,000	19,000	NA	No sheen
	02/27/01		12.29	20.51	54	24	320	870	10,000	6,000	NA	No sheen
	05/22/01		15.51	17.29	12	5.0	79	100	2,400	3,500	NA	No sheen
	09/05/01		13.75	19.05	120	180	1,500	5,100	34,000	400	NA	No sheen
	11/07/01		13.99	18.81	87	170	1,400	3,700	32,000	870	NA	No sheen
	02/11/02	35.11	12.98	22.13	170	250	1,600	4,700	34,000	390	NA	No sheen
	06/03/02		13.24	21.87	130	260	1,700	5,100	29,000	110	NA	No sheen
	08/06/02		13.73	21.38	110	240	1,700	4,700	34,000	84	NA	No sheen
	11/14/02		13.55	21.56	51	150	1,300	3,600	35,000	39	ND	No sheen
	02/20/03		11.80	23.31	67	130	1,100	2,800	23,000	71	ND	No sheen
	05/15/03		12.27	22.84	57	110	840	2,300	19,000	43	ND	No sheen
	07/31/03		13.46	21.65	78	210	2,000	5,000	31,000	36	ND	No sheen
	10/28/03		14.09	21.02	59	120	2,000	3,600	32,000	19	ND	No sheen
	02/28/04		12.27	22.84	21	26	520	980	10,000	35	ND	No sheen
	04/16/04		13.22	21.89	30	30	540	890	11,000	30	23 <sup>c</sup>	No sheen
	07/16/04		13.76	21.35	42	36	1,200	2,300	21,000	17	ND	No sheen
	11/13/04		13.79	21.35	25	27	780	1,300	14,000	9.1	ND	No sheen
	02/04/05		13.08	22.03	24	20	720	1,000	14,000	8.6	ND	No sheen
	04/08/05		12.11	23.00	19	11	580	630	14,000	7.9	ND	No sheen
	08/10/05		13.27	21.84	21	11	610	520	13,000	7.6	ND	No sheen
	11/05/05		11.92	23.19	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	01/13/06		12.26	22.85	17	7.8	220	230	6,800	3.5	ND	No sheen
	05/12/06		11.64	23.47	2.3	1.6	39	34	1,400	<0.5	200 <sup>d</sup> , 190 <sup>e</sup>	No sheen
	08/13/06		12.80	22.31	17	6.4	520	160	7,700	3.4	ND	No sheen
	10/20/06		13.31	21.80	22	7.6	620	140	8,800	3.1	ND	No sheen
	02/12/07		12.81	22.30	24	8.5	450	110	7,700	2.5	ND	No sheen
	04/25/07		13.10	22.01	22	8.7	620	100	9,400	<2.0	ND	No sheen
	07/23/07		13.69	21.42	13	7.5	640	98	9,100	0.58	ND	No sheen

**APPENDIX C**  
**HISTORICAL GROUND WATER MONITORING DATA**

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Monitoring Well	Date	Reference Elevation (ft) <sup>a</sup>	Depth to Ground Water (ft)	Ground Water Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (µg/L)	Oxygenates (µg/L)	Comments
MW-3	03/12/98	32.30	10.81	21.49	0.67	<0.5	7.1	3.4	1,200	7.3	NA	No sheen
	05/28/98		11.45	20.85	<0.5	0.5	<0.5	<0.5	350	<5.0	NA	No sheen
	08/31/98		12.21	20.09	<0.5	0.89	0.69	<0.5	240	<5.0	NA	No sheen
	11/19/98		13.26	19.04	5.3	0.72	0.86	4.2	440	<5.0	NA	No sheen
	03/15/99		11.89	20.41	3.3	1.3	0.77	<0.5	410	<5.0	NA	No sheen
	06/07/99		12.91	19.39	<0.5	2.0	<0.5	0.66	680	<5.0	NA	No sheen
	09/07/99		12.81	19.49	<0.5	0.62	<0.5	8.7	150	12	NA	No sheen
	12/13/99		13.75	18.55	<0.5	0.52	<0.5	1.0	830	<5.0	NA	No sheen
	03/08/00		11.39	20.91	0.58	<0.5	0.77	<0.5	960	<5.0	NA	No sheen
	06/12/00		12.58	19.72	1.7	<0.5	46	6.3	1,700	<5.0	NA	No sheen
	11/15/00		13.85	18.45	<200	<200	<200	<200	<20,000	84,000	NA	No sheen
	02/27/01		12.22	20.08	98	<20	130	30	3,500	16,000	NA	No sheen
	05/22/01		13.66	18.64	41	<20	20	<20	<2,000	5,800	NA	No sheen
	09/05/01		13.41	18.89	9.9	1.5	49	8.2	5,300	430	NA	No sheen
	11/07/01		13.85	18.45	9.4	1.8	47	8.8	6,500	1,600	NA	No sheen
	02/11/02	34.84	12.86	21.98	8.9	<2.0	14	<2.0	2,400	530	NA	No sheen
	06/03/02		13.10	21.74	13	0.77	19	0.94	2,100	110	NA	No sheen
	08/06/02		13.52	21.32	25	2.5	12	1.1	2,800	120	NA	No sheen
	11/14/02		13.49	21.35	29	0.89	3.7	<0.5	2,200	420	1.1 <sup>b</sup> , 19 <sup>c</sup>	No sheen
	02/20/03		12.92	21.92	2.5	<0.5	<0.5	<0.5	2,400	340	13 <sup>c</sup>	No sheen
	05/15/03		12.83	22.01	2.0	<0.5	1.2	<0.5	2,100	200	0.85 <sup>b</sup> , 15 <sup>c</sup>	No sheen
	07/31/03		13.44	21.40	1.2	<0.5	<0.5	<0.5	1,600	330	0.81 <sup>b</sup> , 15 <sup>c</sup>	No sheen
	10/28/03		13.92	20.92	1.0	<0.5	<0.5	<0.5	1,600	160	7.1 <sup>c</sup>	No sheen
	02/28/04		12.50	22.34	1.2	<0.5	0.74	<0.5	1,400	58	74 <sup>c</sup>	No sheen
	04/16/04		13.07	21.77	1.2	<0.5	<0.5	<0.5	1,400	45	95 <sup>c</sup>	No sheen
	07/16/04		13.62	21.22	6.1	1.1	<0.5	0.83	1,900	43	21 <sup>c</sup>	No sheen
	11/13/04		13.70	21.22	4.7	0.79	<0.5	<0.5	1,300	30	82 <sup>c</sup>	No sheen
	02/04/05		12.94	21.90	0.79	<0.5	<0.5	<0.5	1,300	10	12 <sup>c</sup>	No sheen
	04/08/05		12.10	22.74	<0.5	<0.5	<0.5	<0.5	770	4.2	ND	No sheen
	08/10/05		13.19	21.65	3.4	0.61	0.57	<0.5	1,600	6.3	11 <sup>c</sup>	No sheen
	11/05/05		13.46	21.38	7.1	1.0	2.7	0.75	2,200	3.6	13 <sup>c</sup>	No sheen
	01/13/06		12.20	22.64	5.0	1.1	4.9	1.2	1,200	3.1	9.8 <sup>a</sup>	No sheen
	05/12/06		11.79	23.05	2.4	1.2	1.8	1.1	960	2.1	6.1 <sup>c</sup> , 220 <sup>d</sup> , 300 <sup>e</sup>	No sheen
	08/13/06		12.66	22.18	2.2	0.62	1.6	1.0	1,700	1.1	5.5 <sup>c</sup>	No sheen
	10/20/06		13.19	21.65	1.9	<0.5	<0.5	<0.5	1,200	1.6	ND	No sheen
	02/12/07		12.74	22.10	<0.5	<0.5	<0.5	<0.5	990	1.2	5.5 <sup>c</sup> , 8.8 <sup>e</sup>	No sheen
	04/25/07		12.99	21.85	<0.5	<0.5	<0.5	<0.5	760	1.4	6.1 <sup>c</sup>	No sheen
	07/23/07		13.55	21.29	1.4	<0.5	<0.5	<0.5	750	1.1	ND	No sheen

**APPENDIX C**  
**HISTORICAL GROUND WATER MONITORING DATA**

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Monitoring Well	Date	Reference Elevation (ft) <sup>a</sup>	Depth to Ground Water (ft)	Ground Water Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (µg/L)	Oxygenates (µg/L)	Comments
MW-4	03/12/98	32.90	11.31	21.59	2,200	1,500	630	3,000	14,000	440	NA	No sheen
	05/28/98		10.40	22.50	<0.5	0.75	0.68	6.9	67	26	NA	No sheen
	08/31/98		12.54	20.36	1.8	2.5	0.65	3.4	<50	<5.0	NA	No sheen
	11/19/98		13.99	18.91	<0.5	<0.5	<0.5	0.61	<50	17	NA	No sheen
	03/15/99		12.06	20.84	1.2	1.6	0.76	4.5	160	9.3	NA	No sheen
	06/07/99		13.57	19.33	210	370	350	2,000	5,800	<20	NA	No sheen
	09/07/99		10.30	22.60	2.2	2.8	4.8	25	130	12	NA	No sheen
	12/13/99		14.18	18.72	1.3	1.0	1.2	4.8	<50	12	NA	No sheen
	03/08/00		11.77	21.13	78	200	160	750	3,700	11	NA	No sheen
	06/12/00		13.47	19.43	<0.5	<0.5	<0.5	<0.5	<50	24	NA	No sheen
	11/15/00		14.33	18.57	12	38	28	130	710	1,300	NA	No sheen
	02/27/01		14.25	18.65	67	300	310	1,400	6,500	1,000	NA	No sheen
	05/22/01		13.99	18.91	2.1	5.6	4.8	20	130	350	NA	No sheen
	09/05/01		15.75	17.15	110	670	250	1,300	6,200	600	NA	No sheen
	11/07/01		16.10	16.80	40	270	180	940	4,100	110	NA	No sheen
	02/11/02	35.33	15.04	20.29	91	590	620	3,000	14,000	350	NA	No sheen
	06/03/02		13.61	21.72	69	390	190	1,100	4,300	240	NA	No sheen
	08/06/02		15.01	20.32	100	690	570	2,900	13,000	170	NA	No sheen
	11/14/02		13.98	21.35	65	380	550	3,400	20,000	130	ND	No sheen
	02/20/03		13.33	22.00	57	240	650	3,700	18,000	98	ND	No sheen
	05/15/03		13.29	22.04	44	100	200	1,200	8,500	120	21 <sup>c</sup>	No sheen
	07/31/03		13.76	21.57	42	59	250	1,400	11,000	87	ND	No sheen
	10/28/03		14.48	20.85	80	40	130	650	8,100	130	20 <sup>c</sup>	No sheen
	02/28/04		12.96	22.37	85	430	570	3,700	17,000	67	ND	No sheen
	04/16/04		13.57	21.76	72	420	570	3,800	19,000	60	ND	No sheen
	07/16/04		14.16	21.17	46	330	360	2,200	10,000	58	28 <sup>c</sup>	No sheen
	11/13/04		14.34	21.17	50	240	360	2,200	9,400	22	ND	No sheen
	02/04/05		13.56	21.77	14	160	170	1,100	4,800	7.9	ND	No sheen
	04/08/05		12.65	22.68	15	160	200	1,200	5,800	6.6	ND	No sheen
	08/10/05		13.73	21.60	7.0	110	100	570	3,000	5.2	9.9 <sup>c</sup>	No sheen
	11/05/05		14.35	20.98	6.0	91	95	630	3,000	5.3	9.1 <sup>c</sup>	No sheen
	01/13/06		12.76	22.57	8.3	100	160	860	4,000	4.9	6.7 <sup>a</sup>	No sheen
	05/12/06		12.56	22.75	<0.5	0.62	<0.5	<0.5	<50	<0.5	180 <sup>d</sup> , 260 <sup>b</sup>	No sheen
	08/13/06		13.30	22.30	2.5	20	41	240	1,200	2.0	ND	No sheen
	10/20/06		13.78	21.55	2.9	28	56	350	1,500	2.7	ND	No sheen
	02/12/07		13.21	22.10	<0.5	0.58	1.5	3.3	150	3.1	9.7 <sup>e</sup>	No sheen
	04/25/07		13.58	21.75	0.83	4.6	10	26	340	4.8	6.0 <sup>c</sup>	No sheen
	07/23/07		14.19	21.14	2.6	4.1	42	43	1,000	3.0	ND	No sheen

**APPENDIX C**  
**HISTORICAL GROUND WATER MONITORING DATA**

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Monitoring Well	Date	Reference Elevation (ft) <sup>a</sup>	Depth to Ground Water (ft)	Ground Water Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (µg/L)	Oxygenates (µg/L)	Comments
MW-5	03/12/98	32.70	11.11	21.59	2,600	160	470	2,200	12,000	<250	NA	No sheen
	05/28/98		10.92	21.78	480	99	160	730	4,700	<250	NA	No sheen
	08/31/98		12.79	19.91	200	14	55	220	1,400	180	NA	No sheen
	11/19/98		13.39	19.31	1.4	<0.5	<0.5	<0.5	<50	39	NA	No sheen
	03/15/99		11.71	20.99	320	17	290	780	3,400	33	NA	No sheen
	06/07/99		13.26	19.44	220	8.9	240	290	3,200	<25	NA	No sheen
	09/07/99		9.70	23.00	8.5	<0.5	8.5	12	140	38	NA	No sheen
	12/13/99		14.06	18.64	<0.5	<0.5	<0.5	13	140	<5.0	NA	No sheen
	03/08/00		11.80	20.90	0.66	<0.5	2.5	30	280	<5.0	NA	No sheen
	06/12/00		12.99	19.71	22	1.2	79	170	2,700	6.4	NA	No sheen
	11/15/00		14.23	18.47	36	1.6	180	180	4,500	10	NA	No sheen
	02/27/01		12.66	20.04	33	1.6	160	220	2,800	110	NA	No sheen
	05/22/01		13.58	19.12	49	2.2	180	230	3,200	240	NA	No sheen
	09/05/01		14.05	18.65	28	1.0	100	100	2,400	560	NA	No sheen
	11/07/01		14.32	18.38	<2.0	<2.0	2.1	20	390	590	NA	No sheen
	02/11/02	35.09	13.31	21.78	19	<5.0	59	52	1,200	1,800	NA	No sheen
	06/03/02		13.55	21.54	44	<2.0	150	210	3,200	610	NA	No sheen
	08/06/02		14.10	20.99	42	<2.0	140	150	3,200	820	NA	No sheen
	11/14/02		14.03	21.06	29	1.3	94	100	2,900	560	100 <sup>c</sup>	No sheen
	02/20/03		13.35	21.74	22	<1.0	81	77	2,900	270	170 <sup>c</sup>	No sheen
	05/15/03		13.11	21.98	55	1.8	94	85	3,700	220	0.64 <sup>b</sup> , 170 <sup>c</sup>	No sheen
	07/31/03		13.88	21.21	45	1.1	26	19	2,400	200	180 <sup>c</sup>	No sheen
	10/28/03		14.41	20.68	6.8	<0.5	4.4	1.1	570	77	8.0 <sup>c</sup>	No sheen
	02/28/04		12.89	22.20	37	1.4	130	120	3,400	72	32 <sup>c</sup>	No sheen
	04/16/04		13.41	21.68	26	0.73	45	53	2,400	81	130 <sup>c</sup>	No sheen
	07/16/04		13.92	21.17	24	0.85	36	20	2,100	71	46 <sup>c</sup>	No sheen
	11/13/04		14.35	21.17	19	0.55	37	17	1,600	38	59 <sup>c</sup>	No sheen
	02/04/05		13.48	21.61	40	1.40	120	80	4,500	32	43 <sup>c</sup>	No sheen
	04/08/05		12.42	22.67	<0.5	<0.5	<0.5	<0.5	67	7.9	ND	No sheen
	08/10/05		13.36	21.73	<0.5	<0.5	<0.5	<0.5	<50	1.5	ND	No sheen
	11/05/05		13.96	21.13	<0.5	<0.5	2.2	1.5	110	<0.5	ND	No sheen
	01/13/06		12.53	22.56	<0.5	<0.5	1.2	<0.5	0.58	<0.5	ND	No sheen
	05/12/06		12.26	22.83	<0.5	<0.5	<0.5	<0.5	<50	0.54	28 <sup>c</sup>	No sheen
	08/13/06		13.05	22.04	<0.5	<0.5	0.58	<0.5	140	0.66	ND	No sheen
	10/20/06		13.52	21.57	0.76	<0.5	2.8	1.1	320	1.40	5.9 <sup>c</sup>	No sheen
	02/12/07		13.04	22.05	<0.5	<0.5	<0.5	<0.5	210	2.80	6.4 <sup>c</sup>	No sheen
	04/25/07		13.40	21.69	<0.5	<0.5	<0.5	<0.5	340	3.70	8.1 <sup>c</sup>	No sheen
	07/23/07		13.95	21.14	0.72	<0.5	1.4	0.73	700	3.20	8.9 <sup>c</sup>	No sheen

**APPENDIX C**  
**HISTORICAL GROUND WATER MONITORING DATA**

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Monitoring Well	Date	Reference Elevation (ft) <sup>a</sup>	Depth to Ground Water (ft)	Ground Water Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (µg/L)	Oxygenates (µg/L)	Comments
MW-6	03/12/98	30.40	10.49	19.91	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	05/28/98		10.58	19.82	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	08/31/98		10.85	19.55	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	11/19/98		10.88	19.52	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	03/15/99		10.83	19.57	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	06/07/99		11.01	19.39	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	09/07/99		11.89	18.51	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	12/13/99		12.09	18.31	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	03/08/00		10.02	20.38	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	06/12/00		11.07	19.33	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	11/15/00		12.34	18.06	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen
	02/27/01		10.75	19.65	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen
	05/22/01		11.55	18.85	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen
	09/05/01		12.10	18.30	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen
	11/07/01		12.31	18.09	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen
	02/11/02	32.74	11.05	21.69	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen
	06/03/02		11.70	21.40	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen
	08/06/02		12.28	20.46	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen
	11/14/02		12.46	20.28	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	02/20/03		11.26	21.48	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	05/15/03		11.85	20.89	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	07/31/03		11.73	21.01	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	10/28/03		12.38	20.36	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	02/28/04		11.88	20.86	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	04/16/04		11.85	20.89	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	07/16/04		12.84	19.90	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	11/13/04		12.13	19.90	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	02/04/05		11.14	21.60	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	04/08/05		10.94	21.80	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	08/10/05		11.42	21.32	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	11/05/05		11.90	20.84	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	01/13/06		10.70	22.04	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	05/12/06		10.63	22.11	<0.5	0.72	<0.5	<0.5	<50	<0.5	35 <sup>e</sup>	No sheen
	08/13/06		11.08	21.66	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	10/20/06		11.58	21.16	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	02/12/07		11.22	21.52	<0.5	<0.5	<0.5	<0.5	<50	<0.5	9.3 <sup>e</sup>	No sheen
	04/25/07		11.43	21.31	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	07/23/07		11.98	20.76	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen

**APPENDIX C**  
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Tesoro Station No. 67106  
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San Leandro, California

Monitoring Well	Date	Reference Elevation (ft) <sup>a</sup>	Depth to Ground Water (ft)	Ground Water Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (µg/L)	Oxygenates (µg/L)	Comments
MW-7	03/12/98	31.20	10.14	21.06	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	05/28/98		10.93	20.27	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	08/31/98		12.01	19.19	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	11/19/98		12.54	18.66	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	03/15/99		10.94	20.26	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	06/07/99		12.05	19.15	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	09/07/99		12.67	18.53	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	12/13/99		12.73	18.47	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	03/08/00		10.90	20.30	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	06/12/00		12.61	18.59	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	11/15/00		13.06	18.14	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen
	02/27/01		11.85	19.35	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen
	05/22/01		12.31	18.89	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen
	09/05/01		12.85	18.35	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen
	11/07/01		12.75	18.45	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen
	02/11/02	33.64	NM	NC	NS	NS	NS	NS	NS	NS	NS	
	06/03/02		12.58	21.06	<0.5	<0.5	<0.5	<0.5	<50	0.95	NA	No sheen
	08/06/02		12.93	20.71	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen
	11/14/02		13.04	20.60	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	02/20/03		12.75	20.89	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	05/15/03		12.45	21.19	<0.5	<0.5	<0.5	<0.5	<50	0.69	ND	No sheen
	07/31/03		12.80	20.84	<0.5	<0.5	<0.5	<0.5	<50	0.65	ND	No sheen
	10/28/03		NM	NC	NS	NS	NS	NS	NS	NS	NS	No sheen
	02/28/04		12.21	21.43	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	04/16/04		12.26	21.38	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	07/16/04		12.85	20.79	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	11/13/04		13.01	20.79	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	02/04/05		12.57	21.07	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	04/08/05		11.82	21.82	<0.5	<0.5	<0.5	<0.5	<50	0.78	ND	No sheen
	08/10/05		12.44	21.20	<0.5	<0.5	<0.5	<0.5	<50	0.61	ND	No sheen
	11/05/05		12.91	20.73	<0.5	<0.5	<0.5	<0.5	<50	0.76	ND	No sheen
	01/13/06		11.51	22.13	<0.5	<0.5	<0.5	<0.5	<50	0.61	ND	No sheen
	05/12/06		11.37	22.27	<0.5	0.59	<0.5	<0.5	<50	0.57	15 <sup>e</sup>	No sheen
	08/13/06		11.88	21.76	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	10/20/06		12.32	21.32	<0.5	<0.5	<0.5	<0.5	<50	0.54	ND	No sheen
	02/12/07		12.21	21.43	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	04/25/07		12.33	21.31	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	07/23/07		13.00	20.64	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen

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Monitoring Well	Date	Reference Elevation (ft) <sup>a</sup>	Depth to Ground Water (ft)	Ground Water Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (µg/L)	Oxygenates (µg/L)	Comments
MW-8	03/12/98	33.80	11.81	21.99	1.4	<0.5	<0.5	<0.5	72	<5.0	NA	No sheen
	05/28/98		12.14	21.66	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	08/31/98		13.16	20.64	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	11/19/98		14.56	19.24	510	24	1,200	2,800	14,000	<5.0	NA	No sheen
	03/15/99		12.40	21.40	160	16	910	2,100	14,000	<50	NA	No sheen
	06/07/99		14.06	19.74	330	14	470	880	7,800	<50	NA	No sheen
	09/07/99		14.01	19.79	150	2.6	260	370	3,200	<5.0	NA	No sheen
	12/13/99		14.91	18.89	35	<5.0	280	730	6,700	<50	NA	No sheen
	03/08/00		11.85	21.95	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	06/12/00		13.59	20.21	4.0	<0.5	4.9	2.1	140	<5.0	NA	No sheen
	11/15/00		14.94	18.86	2.0	<0.5	3.1	2.6	100	110	NA	No sheen
	02/27/01		NM	NC	NS	NS	NS	NS	NS	NS	NA	Tank Over Well
	05/22/01		NM	NC	NS	NS	NS	NS	NS	NS	NA	Tank Over Well
	09/05/01		14.68	19.12	160	<2.0	200	330	4,800	850	NA	No sheen
	11/07/01		15.10	18.70	1.1	<1.0	2.0	6.1	<100	590	NA	No sheen
	02/11/02	36.08	14.06	22.02	7.9	<5.0	16	22	<500	1,700	NA	No sheen
	06/03/02		14.25	21.83	20.0	<2.0	19	35	550	650	NA	No sheen
	08/06/02		14.55	21.53	220	<2.0	170	280	4,800	1,000	NA	No sheen
	11/14/02		14.73	21.35	250	<2.5	160	220	4,800	1,200	47 <sup>c</sup>	No sheen
	02/20/03		13.81	22.27	17	<1.0	19	42	760	520	16 <sup>c</sup>	No sheen
	05/15/03		13.68	22.40	14	<0.5	16	23	690	370	0.79 <sup>b</sup> , 10 <sup>c</sup>	No sheen
	07/31/03		14.54	21.54	29	<1.0	15	18	700	380	36 <sup>c</sup>	No sheen
	10/28/03		15.09	20.99	87	<1.0	34	40	2,000	490	130 <sup>c</sup>	No sheen
	02/28/04		13.45	22.63	21	<0.5	15	49	1,100	200	110 <sup>c</sup>	No sheen
	04/16/04		14.19	21.89	57	<0.5	52	75	2,900	300	140 <sup>c</sup>	No sheen
	07/16/04		14.76	21.32	32	<0.5	34	51	2,000	92	67 <sup>c</sup>	No sheen
	11/13/04		14.91	21.32	30	0.64	84	92	4,100	61	76 <sup>c</sup>	No sheen
	02/04/05		14.09	21.99	27	<0.5	65	92	2,700	56	38 <sup>c</sup>	No sheen
	04/08/05		13.11	22.97	1.1	<0.5	<0.5	<0.5	81	6.9	ND	No sheen
	08/10/05		14.20	21.88	14	<0.5	26	22	2,000	27	22 <sup>c</sup>	No sheen
	11/05/05		14.79	21.29	9.7	<0.5	54	67	2,300	15	21 <sup>c</sup>	No sheen
	01/13/06		13.24	22.84	<0.5	<0.5	<0.5	0.51	52	0.58	ND	No sheen
	05/12/06		12.97	23.11	<0.5	<0.5	<0.5	<0.5	<50	<0.5	90 <sup>d</sup> , 91 <sup>e</sup>	No sheen
	08/13/06		13.83	22.25	0.51	<0.5	0.84	0.51	77	6.1	ND	No sheen
	10/20/06		14.33	21.75	1.1	<0.5	1.8	0.94	100	5.8	6.5 <sup>c</sup>	No sheen
	02/12/07		13.73	22.35	<0.5	<0.5	<0.5	4.5	69	4.2	14 <sup>e</sup>	No sheen
	04/25/07		14.19	21.89	<0.5	<0.5	<0.5	<0.5	<50	3.5	ND	No sheen
	07/23/07		14.80	21.28	<0.5	<0.5	<0.5	<0.5	<50	2.6	ND	No sheen

**APPENDIX C**  
**HISTORICAL GROUND WATER MONITORING DATA**

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Monitoring Well	Date	Reference Elevation (ft) <sup>a</sup>	Depth to Ground Water (ft)	Ground Water Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (µg/L)	Oxygenates (µg/L)	Comments
MW-9	03/12/98	32.56	10.93	21.63	320	23	180	720	3,700	190	NA	No sheen
	05/28/98		11.31	21.25	110	6.4	87	300	2,200	220	NA	No sheen
	08/31/98		12.16	20.40	240	23	690	1,900	11,000	<50	NA	No sheen
	11/19/98		11.04	21.52	7.7	<0.5	10	22	280	67	NA	No sheen
	03/15/99		11.81	20.75	<0.5	<0.5	<0.5	1.2	<50	<5.0	NA	No sheen
	06/07/99		12.21	20.35	9.3	0.86	9.7	12	340	<5.0	NA	No sheen
	09/07/99		10.10	22.46	0.76	<0.5	1.9	0.8	72	9.9	NA	No sheen
	12/13/99		13.64	18.92	<0.5	<0.5	<0.5	<0.5	60	<5.0	NA	No sheen
	03/08/00		10.88	21.68	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	06/12/00		12.50	20.06	0.9	<0.5	2.7	1.3	640	10	NA	No sheen
	11/15/00		13.60	18.96	<0.5	<0.5	0.69	<0.5	200	12	NA	No sheen
	02/27/01		12.15	20.41	0.61	<0.5	2.2	1.2	360	42	NA	No sheen
	05/22/01		13.20	19.36	0.57	<0.5	2.1	0.61	330	290	NA	No sheen
	09/05/01		13.10	19.46	<2.0	<2.0	<2.0	<2.0	<200	1,100	NA	No sheen
	11/07/01		13.85	18.71	1.0	<1.0	<1.0	<1.0	230	510	NA	No sheen
	02/11/02	34.63	12.98	21.65	<0.5	<0.5	<0.5	<0.5	<50	41	NA	No sheen
	06/03/02		12.48	22.15	<0.5	<0.5	<0.5	<0.5	<50	55	NA	No sheen
	08/06/02		13.16	21.47	<0.5	<0.5	<0.5	<0.5	<50	65	NA	No sheen
	11/14/02		13.15	21.48	<0.5	<0.5	<0.5	<0.5	<50	47	ND	No sheen
	02/20/03		12.46	22.17	<0.5	<0.5	<0.5	<0.5	<50	28	ND	No sheen
	05/15/03		12.26	22.37	<0.5	<0.5	<0.5	<0.5	<50	8.9	ND	No sheen
	07/31/03		12.94	21.69	<0.5	<0.5	<0.5	<0.5	<50	0.85	ND	No sheen
	10/28/03		13.83	20.80	<0.5	<0.5	<0.5	<0.5	<50	0.76	ND	No sheen
	02/28/04		12.59	22.04	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	04/16/04		13.04	21.59	<0.5	<0.5	<0.5	<0.5	53	<0.5	ND	No sheen
	07/16/04		13.52	21.11	<0.5	<0.5	<0.5	<0.5	56	<0.5	ND	No sheen
	11/13/04		13.68	21.11	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	02/04/05		13.04	21.59	<0.5	<0.5	<0.5	<0.5	90	<0.5	ND	No sheen
	04/08/05		12.17	22.46	<0.5	<0.5	<0.5	<0.5	150	<0.5	ND	No sheen
	08/10/05		13.04	21.59	<0.5	<0.5	0.76	<0.5	260	<0.5	ND	No sheen
	11/05/05		13.55	21.08	<0.5	<0.5	<0.5	<0.5	150	<0.5	ND	No sheen
	01/13/06		12.30	22.33	<0.5	<0.5	0.78	<0.5	280	<0.5	ND	No sheen
	05/12/06		5.45	NC	NS	NS	NS	NS	NS	NS	NS	Well Blocked
	08/13/06		12.66	21.97	<0.5	<0.5	1.7	<0.5	1,000	<0.5	ND	No sheen
	10/20/06		13.14	21.49	<0.5	<0.5	0.58	<0.5	490	<0.5	ND	No sheen
	02/12/07		12.73	21.90	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	04/25/07		12.95	21.68	<0.5	<0.5	<0.5	<0.5	<50	1.4	ND	No sheen
	07/23/07		13.54	21.09	<0.5	<0.5	<0.5	<0.5	<50	1.4	ND	No sheen

a =Referenced to mean sea level.

b =tert-amyl methyl ether

c = tert-butanol

d = methanol

e = ethanol

TPH = Total petroleum hydrocarbons.

MTBE = Methyl tertiary butyl ether.

µg/L = Micrograms per liter.

Oxygenates = methyl-t-butyl ether, diisopropyl ether, ethyl-t-butyl ether, tert-amyl methyl ether, tert-butanol, 1,2-dichloroethane, 1,2-dibromoethane