

# THRIFTY OIL CO.

20 4

July 23, 2003

Ms. Barney Chan  
Alameda County Health Care Services  
Department of Environmental Health  
1131 Harbor Bay Parkway, 2nd Floor  
Alameda, CA 94502

O.36822  
Local #4057  
RWQCB #01-1478  
Global ID #T0600101365  
Confirmation #3250464022

RE: **Former Thrifty Oil Co. Station #049**  
**ARCO Products Company Station #9535**  
3400 San Pablo Avenue  
Oakland, CA 94612  
*2<sup>nd</sup> Quarter 2003, Status Report*

**Alameda County**  
**JUL 28 2003**  
**Environmental Health**

Dear Mr. Chan:

Presented herewith is the Second Quarter 2003, Status Report for former Thrifty Oil Co. Station #049 located at 3400 San Pablo Avenue, Oakland, California.

If you have any questions or comments, please contact the undersigned in this report or myself at (562) 921-3581.

Sincerely,



*for*  
Chris Panaitescu  
General Manager  
Environmental Affairs

c: BP West Coast Products LLP; Ms. Kateri Luka  
File



# THRIFTY OIL CO.

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RE: **Former Thrifty Oil Co. Station #049**  
3400 San Pablo Avenue  
Oakland, CA 94612  
*2<sup>nd</sup> Quarter 2003, Status Report*

Dear Mr. Chan:

Presented herein is the Second Quarter 2003, Status Report prepared for former Thrifty Oil Co. (Thrifty) Station #049 located at 3400 San Pablo Avenue, Oakland, California (**Figure 1**). This report presents the results of the site monitoring and remedial activities conducted during the second quarter of 2003. Thrifty has retained the services of Earth Management Company (EMC) to conduct quarterly monitoring and sampling, and remediation system monitoring activities at this site.

## Groundwater Monitoring

Depth to groundwater is measured in each monitoring well on a quarterly basis. In general, groundwater occurs beneath the station at depths ranging from 3.03 feet below surface grade (bsg) in monitoring well MW-1 to 7.02 feet bsg in monitoring well MW-1 (**Appendix A**). A groundwater elevation contour map based on the April 23, 2003 data is presented in **Figure 2**. Groundwater elevation data indicates that groundwater flow to the southwest and northeast under a gradient ranging from 0.04 feet/foot to 0.1 feet/foot is towards a trough in the vicinity of wells MW-1 and MW-3.

## Quarterly Groundwater Sampling

As part of the ongoing groundwater-monitoring program, EMC obtained groundwater samples were obtained from monitoring wells MW-1 through MW-7 on April 23, 2003. Groundwater samples were obtained by EMC and delivered in a chilled state following strict Chain-of-Custody procedures to a state-certified laboratory and analyzed for total petroleum hydrocarbons (TPH-g) by EPA method 8015 modified for gasoline. Volatile organic compounds of benzene, toluene, ethylbenzene, xylenes (BTEX), and MTBE were analyzed by EPA method 8021B. A summary of historical analytical sampling results for TPH-g, BTEX, and MTBE is provided in **Table 1**. Copies of the EMC Field Status Reports are presented in **Appendix A**, and copies of the laboratory analytical reports are contained in **Appendix B**.

The TPH-g, benzene and MTBE isoconcentration maps are presented in **Figures 3, 4, and 5**, respectively. Laboratory results indicate the highest concentrations of TPH-g and MTBE were found in monitoring well MW-2 (19,500 ug/L and 9,580 ug/L, respectively). The highest concentration of benzene was found in well MW-4 (130 ug/L).



## Remediation Status

Site remedial activities were initiated in April 1991. The remediation system consists of a Groundwater Treatment System using activated carbon, with groundwater extraction from recovery well RW-1. System operational data is included in **Table 2** and **Appendix C**. On February 14, 2003, the groundwater system was shut down initially for carbon replacement, and on April 4, 2003, the system was left off for system upgrade activities. As of April 4, 2003, the system has treated approximately 1,445,088 gallons of groundwater since start up (April 1991).

## Other Activities

Following review of Thrifty's workplan dated December 9, 2002, the Alameda County Health Care Agency (ACHCA) transmitted a fax letter dated December 18, 2002, which requested submittal of an addendum to the workplan. In response to this request, Thrifty submitted an Addendum to Workplan for Additional Site Assessment and Remedial System Upgrade (Addendum to Workplan) on February 28, 2003.

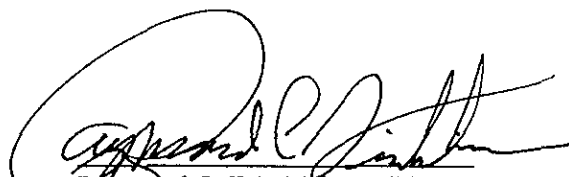
In a letter to Thrifty on June 24, 2003 the ACHCA acknowledged receipt and review of several documents that Thrifty resubmitted on May 23, 2003. These documents included: the Workplan for Additional Site Assessment and Remediation system Upgrade (December 9, 2002), the Addendum to the workplan (February 28, 2003) and a copy of the December 18, 2002 ACHCA e-mail letter. After reviewing these documents, the ACHCA approved the system upgrade, and requested a preliminary conduit and well survey to be performed before installing the off-site borings and well (the locations of the borings and well could change depending upon the outcome of the conduit search). Thrifty has awarded the conduit and well survey search to Advanced GeoEnvironmental, Inc. (AGE). Upon completion of the scope of work, a conduit/well survey report will be forwarded to the ACHCA for review and file. Following submittal of this report, Thrifty will proceed with the offsite well/boring installation and system upgrade, unless otherwise directed by the ACHCA.

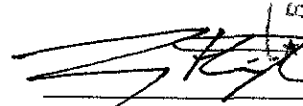
The groundwater monitoring wells will be monitored and sampled during the next quarter. All site monitoring/sampling data generated during the next quarter will be reported in the third quarter 2003 monitoring report.


All interpretations expressed in this report are based solely upon data collected by EMC, and laboratory analyses conducted by Associated Laboratories.

Written by:

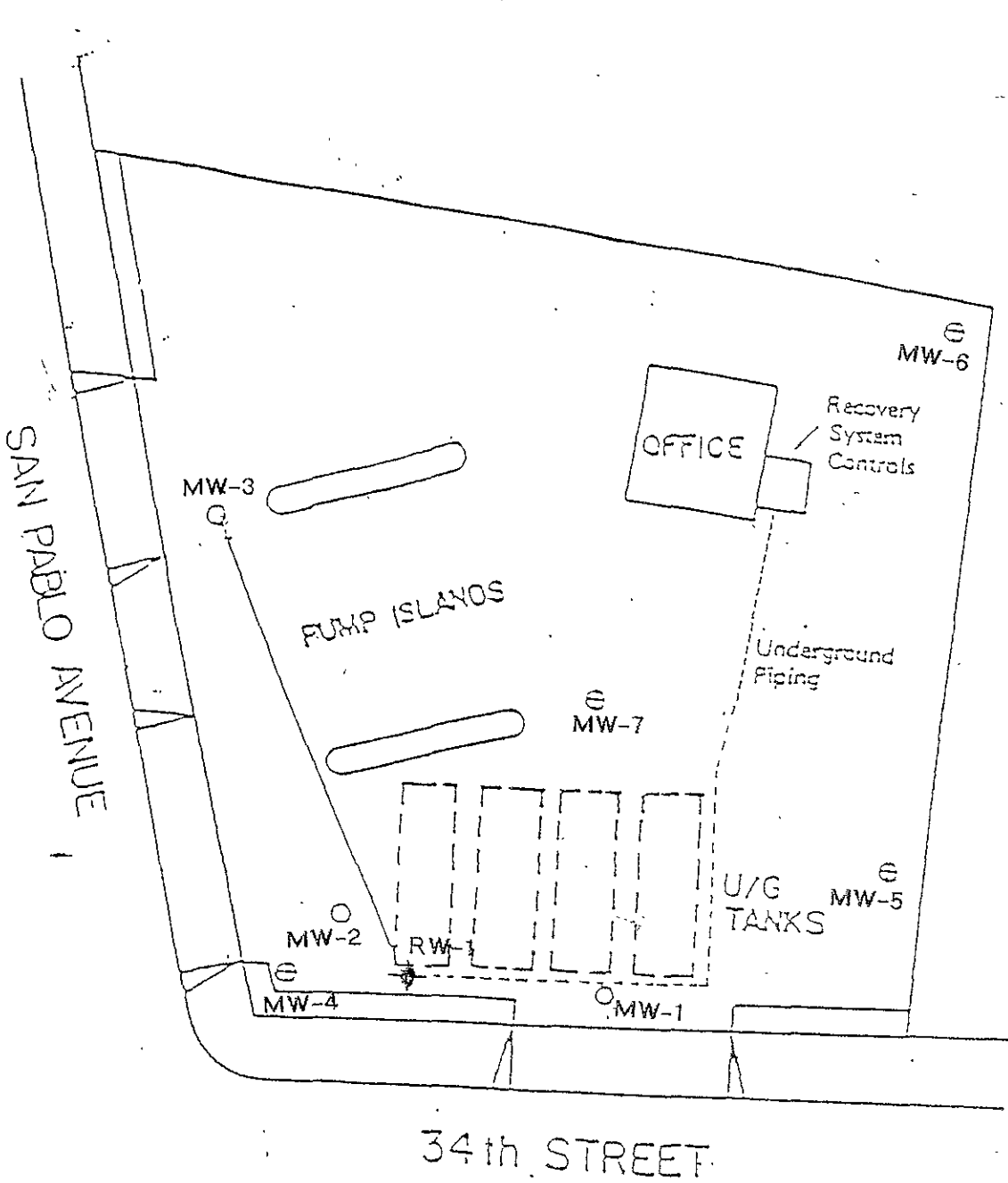
Reviewed by:

  
Raymond C. Friedrichsen, REA II  
Senior Project Manager, MBA  
Environmental Hydrogeologist

  
Larry Higinbotham  
Registered Geologist #5497



# FIGURES



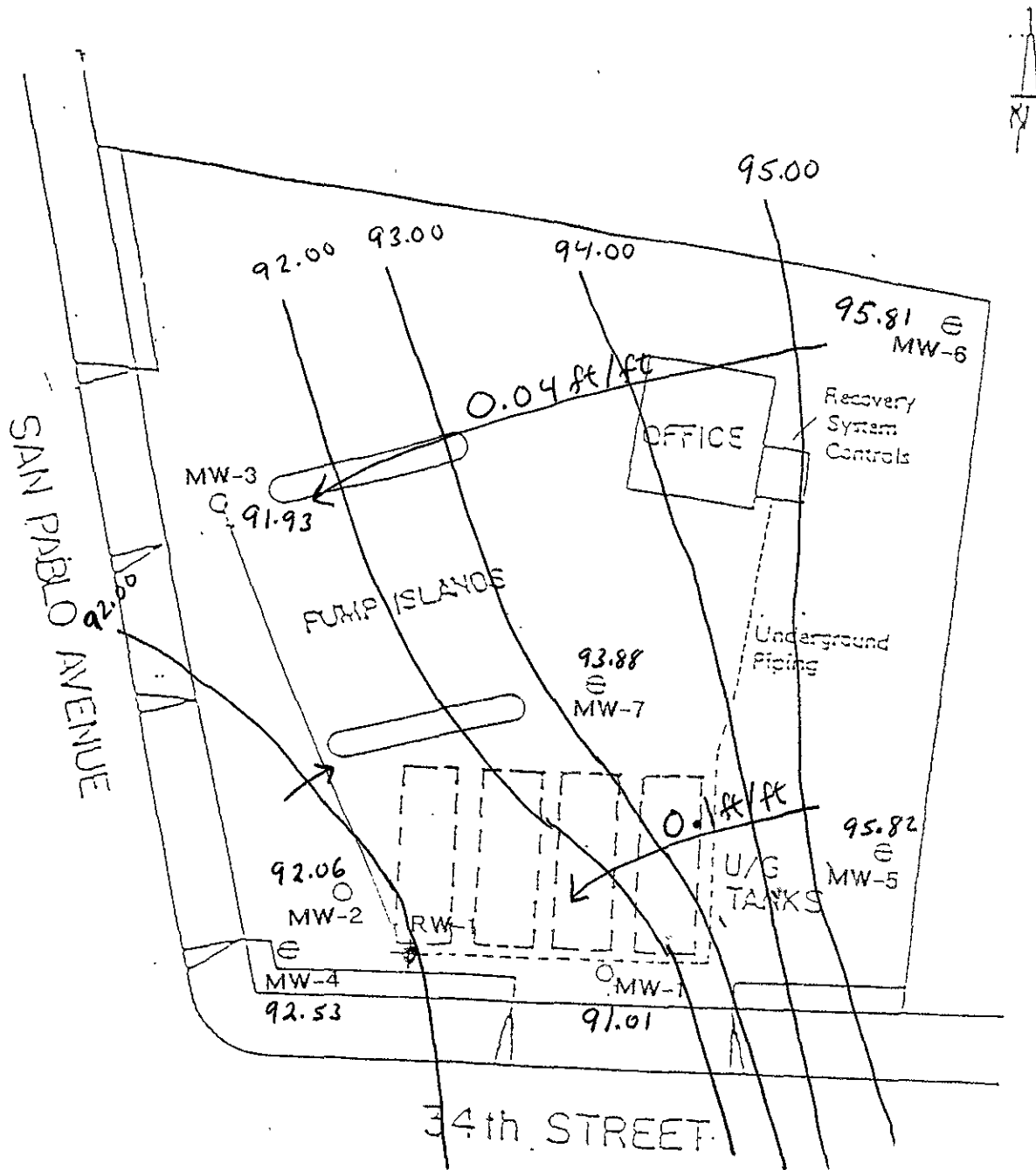
SITE PLAN AND RECOVERY SYSTEM LOCATION  
 THRIFTY SERVICE STATION NO. 49  
 3400 SAN PABLO AVE.  
 OAKLAND, CA

LEGEND

- MW1 - GT MONITORING WELLS
- ⊕ MW-4 - WCC MONITORING WELLS
- ⊕ RW-1 - PROPOSED RECOVERY WELL



FIGURE 1



GROUNDWATER CONTOUR MAP  
 THRIFTY SERVICE STATION NO. 49  
 3400 SAN PABLO AVE.  
 OAKLAND, CA

LEGEND

- MW1 - GT MONITORING WELLS
- ⊕ MW-4 - WCC MONITORING WELLS
- ⊕ RW-1 - PROPOSED RECOVERY WELL

4/23/03

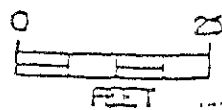
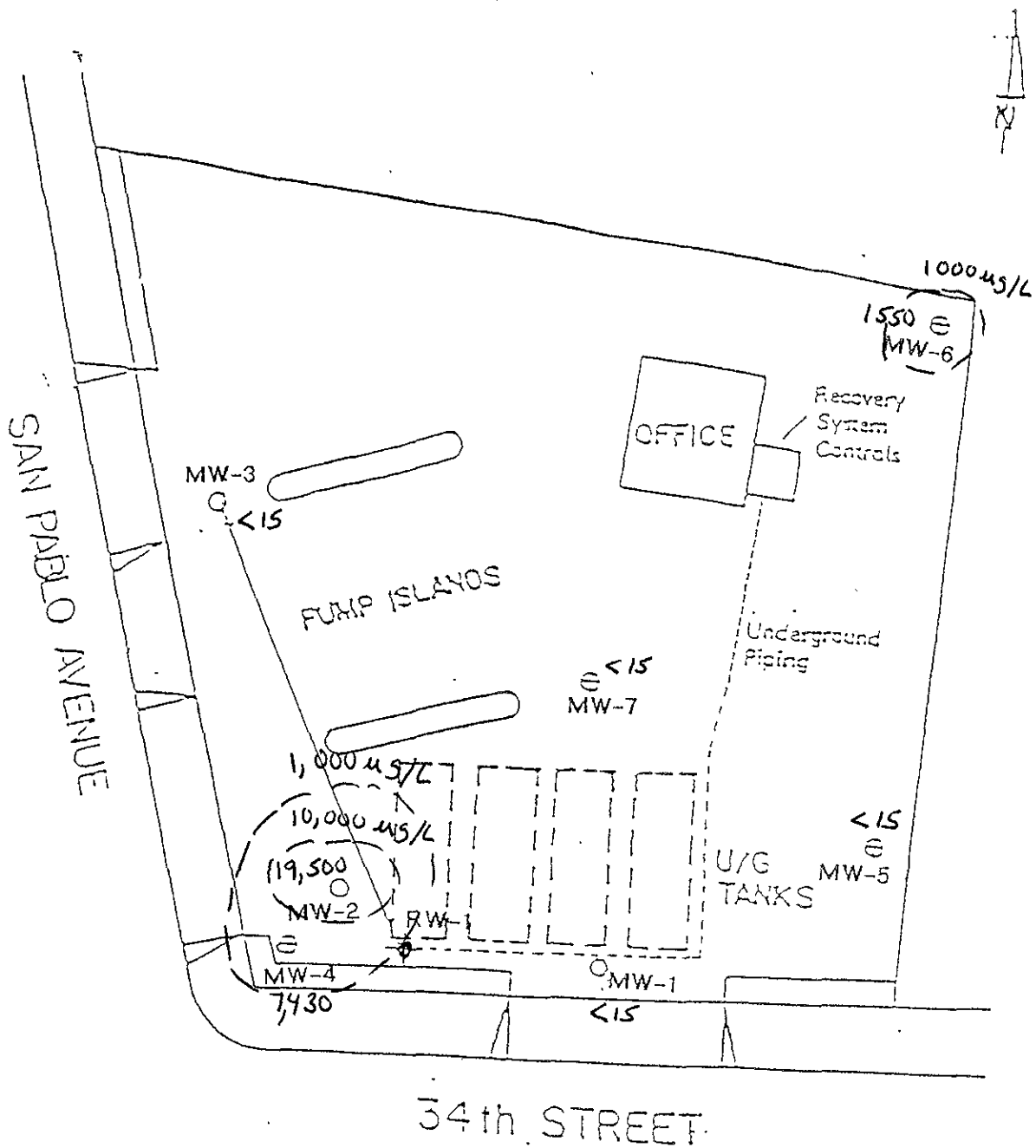


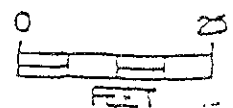
FIGURE 2



TPH ISOCONCENTRATION MAP  $\mu\text{g/L}$   
 THRIFTY SERVICE STATION NO. 49  
 3400 SAN PABLO AVE.  
 OAKLAND, CA

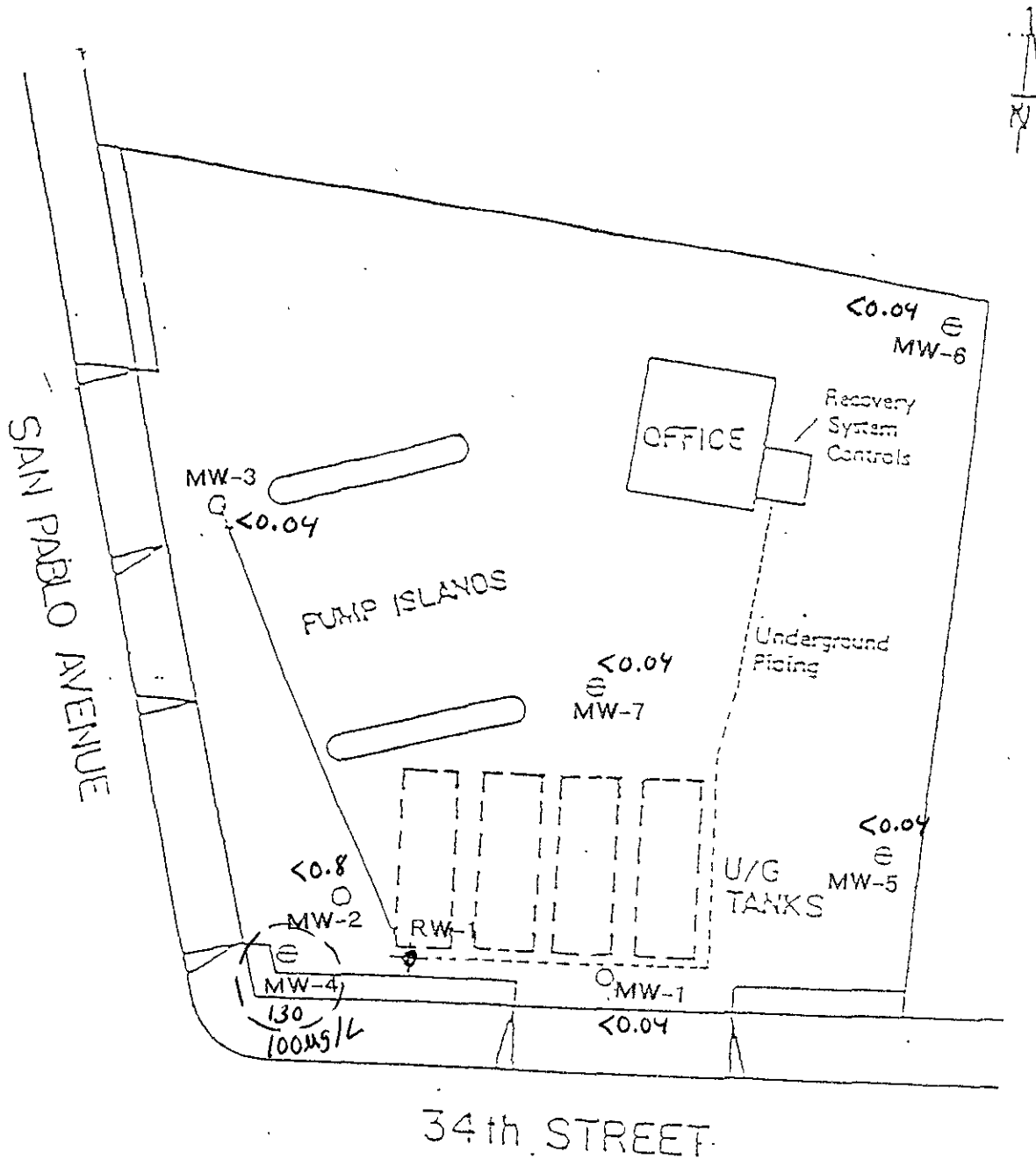
LEGEND

- MW1 - GT MONITORING WELLS
- ⊙ MW4 - WCC MONITORING WELLS
- ⊕ RW-1 - PROPOSED RECOVERY WELL



4/23/03

FIGURE 3



BENZENE ISOCONCENTRATION MAP ug/L  
 THRIFTY SERVICE STATION NO. 49  
 3400 SAN PABLO AVE.  
 OAKLAND, CA

LEGEND

- MW-1 - GT MONITORING WELLS
- ⊗ MW-4 - WCC MONITORING WELLS
- ⊕ RW-1 - PROPOSED RECOVERY WELL

4/23/03

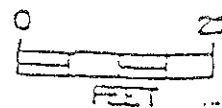
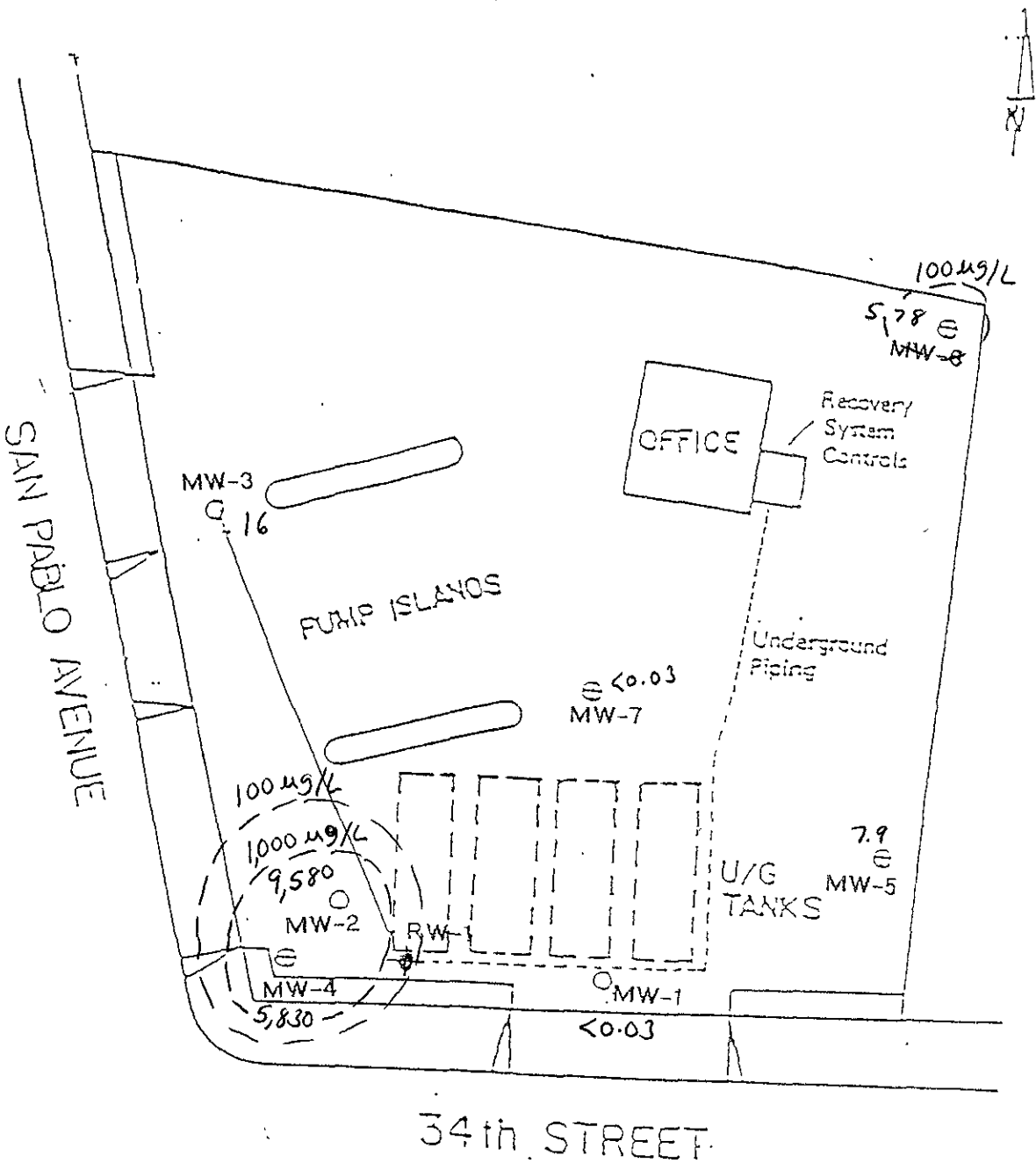


FIGURE 4

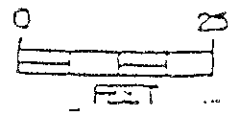




MTBE ISOCONCENTRATION MAP ug/L  
 THRIFTY SERVICE STATION NO. 49  
 3400 SAN PABLO AVE.  
 OAKLAND, CA

LEGEND

- MW1 - GT MONITORING WELLS
- ⊗ MW-4 - WCC MONITORING WELLS
- ⊕ RW-1 - PROPOSED RECOVERY WELL



4/23/03

FIGURE 5

# **TABLES**

**TABLE 1**  
**GROUNDWATER DATA**  
**THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
<b>MONITORING WELL #MW-1</b>											
01/09/92	-	-	-	-	-	-	5.54	NP	0.00	98.03	92.49
04/13/92	-	-	-	-	-	-	5.86	NP	0.00	98.03	92.17
10/05/92	-	-	-	-	-	-	9.39	NP	0.00	98.03	88.64
01/06/93	-	-	-	-	-	-	4.76	NP	0.00	98.03	93.27
04/26/93	-	-	-	-	-	-	4.96	NP	0.00	98.03	93.07
01/04/94	-	-	-	-	-	-	7.00	NP	0.00	98.03	91.03
04/05/94	-	-	-	-	-	-	6.44	NP	0.00	98.03	91.59
10/09/95	44,000	4,500	4,300	1,700	10,000	-	-	-	-	98.03	-
01/08/96	21,000	1,200	150	34	4,800	-	6.15	NP	0.00	98.03	91.88
04/08/96	4,700	80	110	10	910	-	5.40	NP	0.00	98.03	92.63
07/22/96	7,000	280	130	<3	2,100	440	5.50	NP	0.00	98.03	92.53
10/16/96	120	<0.3	<0.3	<0.3	<0.5	180	6.02	NP	0.00	98.03	92.01
01/22/97	160	<0.3	<0.3	<0.3	<0.5	360	4.40	NP	0.00	98.03	93.63
04/21/97	20,000	420	140	5.8	840	55,000	6.30	NP	0.00	98.03	91.73
07/14/97	13,000	<0.3	<0.3	<0.3	<0.55	30,000	5.92	NP	0.00	98.03	92.11
10/07/97	-	-	-	-	-	-	7.71	7.70	0.01	98.03	90.33
01/15/98	<50	0.3	<0.3	<0.3	<0.5	-	4.40	NP	0.00	98.03	93.63
04/23/98	540	<0.3	<0.3	<0.3	<0.5	<20	8.10	NP	0.00	98.03	89.93
07/20/98	<50	<0.3	<0.3	<0.3	<0.5	<5	5.55	NP	0.00	98.03	92.48
10/14/98	50	1.4	0.56	<0.3	11	22	7.05	NP	0.00	98.03	90.98
01/21/99	<50	0.59	<0.3	<0.3	<0.5	<5	4.10	NP	0.00	98.03	93.93
04/15/99	<50	<0.3	<0.3	<0.3	<0.5	<5	4.30	NP	0.00	98.03	93.73
07/26/99	<50	<0.3	<0.3	<0.3	<0.5	<5	5.54	NP	0.00	98.03	92.49
10/13/99	<50	<0.3	<0.3	<0.3	<0.5	<5	6.13	NP	0.00	98.03	91.90
01/20/00	<50	<0.3	<0.3	<0.3	<0.5	<5	6.04	NP	0.00	98.03	91.99
04/05/00	<50	<0.25	<0.25	<0.25	<0.5	<5	4.03	NP	0.00	98.03	94.00
07/19/00	<50	<0.3	<0.3	<0.3	<0.6	<5	4.00	NP	0.00	98.03	94.03
10/18/00	<50	<0.18	<0.14	<0.18	<0.26	<0.24	5.53	NP	0.00	98.03	92.50
01/17/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	3.97	NP	0.00	98.03	94.06
04/19/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	3.98	NP	0.00	98.03	94.05
07/18/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	5.51	NP	0.00	98.03	92.52
10/10/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	3.97	NP	0.00	98.03	94.06
01/30/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	3.95	NP	0.00	98.03	94.08
04/17/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	2.42	NP	0.00	98.03	95.61
07/31/02	<50	<0.18	1.3	<0.18	<0.26	<0.24	5.49	NP	0.00	98.03	92.54

**TABLE 1**  
**GROUNDWATER DATA**  
**THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
11/14/02	<50	<0.08	<0.18	<0.17	<0.4	16	6.13	NP	0.00	98.03	91.90
01/29/03	<15	<0.04	<0.02	<0.02	<0.06	<0.03	2.45	NP	0.00	98.03	95.58
04/23/03	<15	<0.04	<0.02	<0.02	<0.06	<0.03	7.02	NP	0.00	98.03	91.01
<b>MONITORING WELL #MW-2</b>											
01/09/92	-	-	-	-	-	-	5.35	NP	0.00	97.44	92.09
04/13/92	-	-	-	-	-	-	7.42	NP	0.00	97.44	90.02
10/05/92	-	-	-	-	-	-	12.15	NP	0.00	97.44	85.29
01/06/93	-	-	-	-	-	-	5.46	NP	0.00	97.44	91.98
04/26/93	-	-	-	-	-	-	5.15	NP	0.00	97.44	92.29
01/04/94	-	-	-	-	-	-	9.45	NP	0.00	97.44	87.99
04/05/94	-	-	-	-	-	-	8.23	NP	0.00	97.44	89.21
10/09/95	33,000	6,000	390	1,700	4,900	-	-	-	-	97.44	-
01/08/96	<50	0.32	<0.3	0.41	2.1	-	5.60	NP	0.00	97.44	91.84
04/08/96	10,000	490	210	210	830	-	5.43	NP	0.00	97.44	92.01
07/22/96	60,000	6,500	1,000	1,500	10,000	8,500	5.65	NP	0.00	97.44	91.79
10/16/96	6,500	12	0.34	0.72	110	4,700	5.82	NP	0.00	97.44	91.62
01/22/97	3,200	<0.3	0.46	0.37	<0.5	8,000	4.30	NP	0.00	97.44	93.14
04/21/97	66,000	5,300	1,000	2,300	14,000	30,000	5.80	NP	0.00	97.44	91.64
07/14/97	17,000	1.8	4.6	4.6	350	24,000	8.92	NP	0.00	97.44	88.52
10/07/97	220,000	5,200	1,700	3,800	15,000	-	6.80	NP	0.00	97.44	90.64
01/19/98	25,000	5.4	2.2	2.1	240	-	8.50	NP	0.00	97.44	88.94
04/23/98	7,700	<0.3	0.55	0.38	4.9	28,000	7.60	NP	0.00	97.44	89.84
07/20/98	430,000	4,200	10,000	5,400	28,000	77,000	6.94	NP	0.00	97.44	90.50
10/14/98	27,000	<0.3	4.5	4.1	4.6	65,000	8.45	NP	0.00	97.44	88.99
01/21/99	16,000	7.6	9.8	4.2	310	*49,000 / 42,000	6.95	NP	0.00	97.44	90.49
04/15/99	20,000	<0.3	<0.3	<0.3	<0.5	*31,000 / 30,000	8.45	NP	0.00	97.44	88.99
07/26/99	6,700	<6	<6	<6	<10	*11,000 / 15,000	6.94	NP	0.00	97.44	90.50
10/13/99	7,600	<3	3.7	<3	11	11,000	5.48	NP	0.00	97.44	91.96
01/20/00	7,500	<6	<6	<6	<10	*14,000 / 16,000	5.84	NP	0.00	97.44	91.60
04/05/00	10,400	<0.25	<0.25	<0.25	<0.5	*10,000 / 14,400	5.41	NP	0.00	97.44	92.03
07/19/00	130	<0.3	<0.3	<0.3	<0.6	*9,620 / 6,520	5.40	NP	0.00	97.44	92.04
10/18/00	150	<0.18	<0.14	<0.18	<0.26	*9,090 / 6,560	6.91	NP	0.00	97.44	90.53
01/17/01	75	<0.18	2	2	3	*8,650 / 9,710	5.41	NP	0.00	97.44	92.03
04/19/01	4,380	<0.18	<0.14	<0.18	<0.26	8,890	5.40	NP	0.00	97.44	92.04

**TABLE 1**  
**GROUNDWATER DATA**  
**THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
07/18/01	3,260	<0.18	<0.14	<0.18	2	*7960 / 1,710	6.92	NP	0.00	97.44	90.52
10/10/01	1,760	<0.18	<0.14	<0.18	<0.26	*2,980 / 2,600	3.87	NP	0.00	97.44	93.57
01/30/02	1,770	<0.18	1	1	2	*2,560 / 1,590	8.45	NP	0.00	97.44	88.99
04/17/02	1,470	1	<0.14	<0.18	<0.26	*2,460 / 2,080	8.45	NP	0.00	97.44	88.99
07/31/02	3,910	<0.18	1.2	<0.18	2.1	*2,090 / 1,740	9.98	NP	0.00	97.44	87.46
11/14/02	39,400	1,680	728	173	5,120	8,270	5.40	NP	0.00	97.44	92.04
01/29/03	22,100	746	76	<1.0	2,840	8,220	8.43	NP	0.00	97.44	89.01
04/23/03	19,500	<0.8	<0.4	<0.4	<1.2	9,580	5.38	NP	0.00	97.44	92.06
<b>MONITORING WELL #MW-3</b>											
01/09/92	-	-	-	-	-	-	17.60	NP	0.00	97.69	80.09
04/13/92	-	-	-	-	-	-	17.40	NP	0.00	97.69	80.29
10/05/92	-	-	-	-	-	-	17.35	NP	0.00	97.69	80.34
01/06/93	-	-	-	-	-	-	17.40	NP	0.00	97.69	80.29
04/26/93	-	-	-	-	-	-	17.90	NP	0.00	97.69	79.79
01/04/94	-	-	-	-	-	-	17.60	NP	0.00	97.69	80.09
04/05/94	-	-	-	-	-	-	16.25	NP	0.00	97.69	81.44
01/08/96	-	-	-	-	-	-	7.11	NP	0.00	97.69	90.58
04/08/96	8,800	610	31	530	900	-	7.20	NP	0.00	97.69	90.49
07/22/96	38,000	4,100	1,500	1,600	5,400	2,600	6.82	NP	0.00	97.69	90.87
10/16/96	2,400	<0.3	<0.3	<0.3	<0.5	3,800	6.84	NP	0.00	97.69	90.85
01/22/97	2,200	<0.3	<0.3	<0.3	<0.5	5,500	4.80	NP	0.00	97.69	92.89
04/21/97	15,000	1,500	36	260	710	11,000	9.40	NP	0.00	97.69	88.29
07/14/97	5,400	0.45	<0.3	<0.3	<0.5	14,000	10.92	NP	0.00	97.69	86.77
10/07/97	8,800	0.39	<0.3	<0.3	0.88	-	11.95	NP	0.00	97.69	85.74
01/19/98	22,000	1,300	15	20	310	-	7.85	NP	0.00	97.69	89.84
04/23/98	9,200	3.9	3.1	5.7	9.8	16,000	11.20	NP	0.00	97.69	86.49
07/20/98	750	0.41	1.4	0.47	1.8	2,800	7.36	NP	0.00	97.69	90.33
10/14/98	750	<0.3	<0.3	<0.3	<0.5	15,000	11.95	NP	0.00	97.69	85.74
01/21/99	4,700	0.32	<0.3	<0.3	<0.5	* 12,000 / 16,000	10.45	NP	0.00	97.69	87.24
04/15/99	7,900	0.59	0.69	<0.3	0.94	* 11,000 / 14,000	7.86	NP	0.00	97.69	89.83
07/26/99	5,200	<3	<3	<3	<5	*9,600 / 11,000	10.40	NP	0.00	97.69	87.29
10/13/99	<50	<0.3	<0.3	<0.3	<0.5	<5	7.09	NP	0.00	97.69	90.60
01/20/00	<50	<0.3	<0.3	<0.3	<0.5	<5	6.86	NP	0.00	97.69	90.83
04/05/00	<50	0.8	<0.25	<0.25	<0.5	*5.6 / <5	8.85	NP	0.00	97.69	88.84

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
07/19/00	<50	<0.3	<0.3	<0.3	<0.6	<5	8.86	NP	0.00	97.69	88.83
10/18/00	<50	<0.18	<0.14	<0.18	<0.26	<0.24	7.32	NP	0.00	97.69	90.37
01/17/01	<50	<0.18	2	<0.18	1	*39 / 39	5.40	NP	0.00	97.69	92.29
04/19/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	8.87	NP	0.00	97.69	88.82
07/18/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	7.32	NP	0.00	97.69	90.37
10/10/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	8.87	NP	0.00	97.69	88.82
01/30/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	5.78	NP	0.00	97.69	91.91
04/17/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	7.31	NP	0.00	97.69	90.38
07/31/02	138	1.1	1.2	<0.18	<0.26	<0.24	5.76	NP	0.00	97.69	91.93
11/14/02	<50	<0.08	<0.18	<0.17	<0.4	21	5.73	NP	0.00	97.69	91.96
01/29/03	<15	<0.04	<0.02	<0.02	<0.06	16	7.30	NP	0.00	97.69	90.39
04/23/03	<15	<0.04	<0.02	<0.02	<0.06	16	5.76	NP	0.00	97.69	91.93
<b>MONITORING WELL #MW-4</b>											
01/09/92	-	-	-	-	-	-	5.25	NP	0.00	97.33	92.08
04/13/92	-	-	-	-	-	-	6.40	NP	0.00	97.33	90.93
10/05/92	-	-	-	-	-	-	9.95	NP	0.00	97.33	87.38
01/06/93	-	-	-	-	-	-	4.10	NP	0.00	97.33	93.23
04/26/93	-	-	-	-	-	-	4.84	NP	0.00	97.33	92.49
01/04/94	-	-	-	-	-	-	9.05	NP	0.00	97.33	88.28
04/05/94	-	-	-	-	-	-	8.10	NP	0.00	97.33	89.23
10/09/95	63,000	9,000	2,100	2,500	9,600	-	-	-	-	97.33	-
01/08/96	23,000	2,200	830	880	3,600	-	5.57	NP	0.00	97.33	91.76
04/08/96	56,000	5,000	2,500	2,600	11,000	-	5.36	NP	0.00	97.33	91.97
07/22/96	33,000	3,700	1,600	1,400	6,000	2,400	4.80	NP	0.00	97.33	92.53
10/16/96	2,800	7.8	0.60	0.41	52	2,000	5.47	NP	0.00	97.33	91.86
01/22/97	1,400	<0.3	<0.3	<0.3	<0.5	3,100	5.15	NP	0.00	97.33	92.18
04/21/97	-	-	-	-	-	-	6.36	5.30	1.06	97.33	91.77
07/14/97	-	-	-	-	-	-	5.24	5.21	0.03	97.33	92.11
10/07/97	-	-	-	-	-	-	7.82	7.80	0.02	97.33	89.53
01/15/98	-	-	-	-	-	-	6.68	6.60	0.08	97.33	90.71
04/23/98	-	-	-	-	-	-	6.36	5.30	1.06	97.33	91.77
07/20/98	<50	<0.3	<0.3	<0.3	<0.5	<5	6.05	NP	0.00	97.33	91.28
10/14/98	3,100	86	23	2.0	520	1,100	6.85	NP	0.00	97.33	90.48
01/21/99	9,100	3.2	5.6	1.8	130	*24,000 / 17,000	6.10	NP	0.00	97.33	91.23

**TABLE 1**  
**GROUNDWATER DATA**  
**THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (mg/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
04/15/99	14,000	<0.3	0.71	<0.3	<0.5	*20,000 / 22,000	6.05	NP	0.00	97.33	91.28
07/26/99	4,500	<6	<6	<6	<10	*8,700 / 9,800	6.07	NP	0.00	97.33	91.26
10/13/99	410	<0.3	0.63	<0.3	<0.5	660	5.54	NP	0.00	97.33	91.79
01/20/00	770	<0.3	<0.3	<0.3	<0.5	*2,400 / 1,900	5.49	NP	0.00	97.33	91.84
04/05/00	61,200	0.9	<0.25	<0.25	<0.5	*18,500 / 21,900	5.30	NP	0.00	97.33	92.03
07/19/00	96,600	1,770	1,760	2,690	8,730	21,900 / 9,740 J	5.29	NP	0.00	97.33	92.04
10/18/00	34,900	698	1,010	607	4,130	*27,800 / 15,900	6.02	NP	0.00	97.33	91.31
01/17/01	29,100	799	930	614	3,400	*24,300 / 31,400	4.88	NP	0.00	97.33	92.45
04/19/01	103,000	4,880	3,980	3,260	11,800	66,900	4.89	NP	0.00	97.33	92.44
07/18/01	52,200	3,320	2,090	440	5,520	*55,500 / 16,800	6.04	NP	0.00	97.33	91.29
10/10/01	8,580	6.1	14	5.3	70	*40,100 / 30,000	4.51	NP	0.00	97.33	92.82
01/30/02	36,500	<0.18	3	1	3	*43,000 / 24,900	4.51	NP	0.00	97.33	92.82
04/17/02	12,900	8	1	<0.18	1	16,000 / 13,600	4.51	NP	0.00	97.33	92.82
07/31/02	19,300	<0.18	1.2	1.5	2.6	*13,200 / 10,100	5.26	NP	0.00	97.33	92.07
11/14/02	36,200	1,720	940	235	6,190	8,280	5.27	NP	0.00	97.33	92.06
01/29/03	13,000	444	39	<0.4	1,200	8,160	4.50	NP	0.00	97.33	92.83
04/23/03	7,430	130.0	5.7	<0.2	387	5,830	4.80	NP	0.00	97.33	92.53
<b>MONITORING WELL #MW-5</b>											
01/09/92	-	-	-	-	-	-	5.32	NP	0.00	98.85	93.53
04/13/92	-	-	-	-	-	-	4.82	NP	0.00	98.85	94.03
10/0/92	-	-	-	-	-	-	8.78	NP	0.00	98.85	90.07
01/06/93	-	-	-	-	-	-	3.46	NP	0.00	98.85	95.39
04/26/93	-	-	-	-	-	-	4.66	NP	0.00	98.85	94.19
01/04/94	-	-	-	-	-	-	6.36	NP	0.00	98.85	92.49
04/05/94	-	-	-	-	-	-	5.94	NP	0.00	98.85	92.91
07/12/95	<100	<0.5	<0.5	<0.5	<1	-	-	-	-	98.85	-
10/09/95	440	31	11	19	84	-	-	-	-	98.85	-
01/08/96	<50	<0.3	<0.3	<0.3	<0.5	-	6.63	NP	0.00	98.85	92.22
04/08/96	<50	<0.3	<0.3	<0.3	<0.5	-	5.22	NP	0.00	98.85	93.63
07/22/96	<50	<0.3	<0.3	<0.3	<0.5	<20	6.62	NP	0.00	98.85	92.23
10/16/96	<50	<0.3	<0.3	<0.3	<0.5	<20	6.12	NP	0.00	98.85	92.73
01/22/97	<50	<0.3	<0.3	<0.3	<0.5	<20	5.17	NP	0.00	98.85	93.68
04/21/97	73	2.5	0.34	0.74	3.8	21	6.64	NP	0.00	98.85	92.21
07/14/97	<50	<0.3	<0.3	<0.3	<0.5	<20	6.67	NP	0.00	98.85	92.18

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
10/07/97	130	<0.3	<0.3	<0.3	<0.5	-	8.20	NP	0.00	98.85	90.65
01/19/98	85	<0.3	<0.3	<0.3	<0.5	-	1.55	NP	0.00	98.85	97.30
04/23/98	220	0.39	<0.3	<0.3	<0.5	350	8.10	NP	0.00	98.85	90.75
07/20/98	<50	<0.3	<0.3	<0.3	<0.5	<5	6.30	NP	0.00	98.85	92.55
10/14/98	<50	<0.3	<0.3	<0.3	<0.5	<5	7.65	NP	0.00	98.85	91.20
01/21/99	<50	<0.3	<0.3	<0.3	<0.5	*6.7 / <5	6.15	NP	0.00	98.85	92.70
04/15/99	<50	<0.3	<0.3	<0.3	<0.5	<5	1.60	NP	0.00	98.85	97.25
07/26/99	<50	<0.3	<0.3	<0.3	<0.5	<5	6.13	NP	0.00	98.85	92.72
10/13/99	<50	<0.3	<0.3	<0.3	<0.5	<5	6.61	NP	0.00	98.85	92.24
01/20/00	<50	<0.3	<0.3	<0.3	<0.5	<5	6.14	NP	0.00	98.85	92.71
04/05/00	<50	0.5	<0.25	<0.25	<0.5	*5.4 / <5	4.58	NP	0.00	98.85	94.27
07/19/00	<50	<0.3	<0.3	<0.3	<0.6	<5	4.59	NP	0.00	98.85	94.26
10/18/00	<50	<0.18	<0.14	<0.18	<0.26	<0.24	6.28	NP	0.00	98.85	92.57
01/17/01	<50	<0.18	<0.14	<0.18	1	*5 / 4.8	4.58	NP	0.00	98.85	94.27
04/19/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	4.58	NP	0.00	98.85	94.27
07/18/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	6.12	NP	0.00	98.85	92.73
10/10/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	4.58	NP	0.00	98.85	94.27
01/30/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	4.48	NP	0.00	98.85	94.37
04/17/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	4.58	NP	0.00	98.85	94.27
07/31/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	6.10	NP	0.00	98.85	92.75
11/14/02	<50	<0.08	<0.18	<0.17	<0.4	9	6.11	NP	0.00	98.85	92.74
01/29/03	<15	<0.04	<0.02	<0.02	<0.06	7.1	4.55	NP	0.00	98.85	94.30
04/23/03	<15	<0.04	<0.02	<0.02	<0.06	7.9	3.03	NP	0.00	98.85	95.82
<b>MONITORING WELL #MW-6</b>											
01/09/92	-	-	-	-	-	-	6.30	NP	0.00	99.67	93.37
04/13/92	-	-	-	-	-	-	5.47	NP	0.00	99.67	94.20
10/05/92	-	-	-	-	-	-	9.85	NP	0.00	99.67	89.82
01/06/93	-	-	-	-	-	-	4.16	NP	0.00	99.67	95.51
04/26/93	-	-	-	-	-	-	5.75	NP	0.00	99.67	93.92
01/14/94	-	-	-	-	-	-	7.20	NP	0.00	99.67	92.47
04/05/94	-	-	-	-	-	-	6.76	NP	0.00	99.67	92.91
07/10/95	<100	<0.5	0.9	<0.5	1.1	-	-	-	-	99.67	-
10/09/95	250	4.8	5.6	11	58	-	-	-	-	99.67	-
01/08/96	<50	<0.3	<0.3	<0.3	<0.5	-	6.16	NP	0.00	99.67	93.51



**TABLE 1**  
**GROUNDWATER DATA**  
**THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
04/08/96	230	4.6	4.7	3.2	33	-	4.60	NP	0.00	99.67	95.07
07/22/96	<50	<0.3	<0.3	<0.3	<0.5	<20	7.30	NP	0.00	99.67	92.37
10/16/96	<50	<0.3	<0.3	<0.3	<0.5	<20	5.82	NP	0.00	99.67	93.85
01/22/97	<50	<0.3	<0.3	<0.3	<0.5	<20	4.40	NP	0.00	99.67	95.27
04/21/97	130	<0.3	<0.3	<0.3	<0.5	<20	7.10	NP	0.00	99.67	92.57
07/14/97	<50	<0.3	<0.3	<0.3	0.70	<20	7.35	NP	0.00	99.67	92.32
10/07/97	<50	0.78	0.3	<0.3	<0.5	-	6.98	NP	0.00	99.67	92.69
01/23/98	<50	<0.3	<0.3	<0.3	<0.5	-	2.35	NP	0.00	99.67	97.32
04/23/98	<50	<0.3	<0.3	<0.3	<0.5	<20	6.90	NP	0.00	99.67	92.77
07/20/98	<50	<0.3	1.1	<0.3	1.4	<5	5.45	NP	0.00	99.67	94.22
10/14/98	<50	<0.3	<0.3	<0.3	<0.5	<5	4.95	NP	0.00	99.67	94.72
01/21/99	<50	0.35	0.62	<0.3	<0.5	<5	3.90	NP	0.00	99.67	95.77
04/15/99	<50	<0.3	<0.3	<0.3	<0.5	<5	2.35	NP	0.00	99.67	97.32
07/26/99	1,000	<0.3	<0.3	<0.3	<0.5	*2,300 / 3,900	3.93	NP	0.00	99.67	95.74
10/13/99	<50	<0.3	<0.3	<0.3	<0.5	<5	6.15	NP	0.00	99.67	93.52
01/20/00	<50	<0.3	<0.3	<0.3	<0.5	*42 / 41	5.84	NP	0.00	99.67	93.83
04/05/00	4,600	338	2.8	1.2	55.2	*282 / 230	3.89	NP	0.00	99.67	95.78
07/19/00	60	1	2	<0.3	<0.6	*87 / 76	3.07	NP	0.00	99.67	96.60
10/18/00	-	-	-	-	-	-	-	-	-	99.67	-
01/17/01	103	<0.18	2	<0.18	3	*78 / 106	3.87	NP	0.00	99.67	95.80
04/19/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	3.86	NP	0.00	99.67	95.81
07/18/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	5.40	NP	0.00	99.67	94.27
10/10/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	3.86	NP	0.00	99.67	95.81
01/30/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	3.86	NP	0.00	99.67	95.81
04/17/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	3.86	NP	0.00	99.67	95.81
07/31/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	5.40	NP	0.00	99.67	94.27
11/14/02	140	3.2	<0.18	5.2	<0.4	111	5.42	NP	0.00	99.67	94.25
01/29/03	694 J	<0.04	<0.02	<0.02	<0.06	630	3.88	NP	0.00	99.67	95.79
04/23/03	1,550	<0.04	<0.02	<0.02	<0.06	578	3.86	NP	0.00	99.67	95.81
<b>MONITORING WELL #MW-7</b>											
01/09/92	-	-	-	-	-	-	6.30	NP	0.00	99.02	92.72
04/13/92	-	-	-	-	-	-	6.68	NP	0.00	99.02	92.34
10/05/92	-	-	-	-	-	-	9.60	NP	0.00	99.02	89.42
01/06/93	-	-	-	-	-	-	13.90	NP	0.00	99.02	85.12

**TABLE 1**  
**GROUNDWATER DATA**  
**THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
04/26/93	-	-	-	-	-	-	5.55	NP	0.00	99.02	93.47
01/04/94	-	-	-	-	-	-	7.58	NP	0.00	99.02	91.44
04/05/94	-	-	-	-	-	-	6.66	NP	0.00	99.02	92.36
10/09/95	27,000	2,400	140	1,700	2,700	-	-	-	-	99.02	-
01/08/96	13,000	800	42	540	860	-	6.94	NP	0.00	99.02	92.08
04/08/94	9,100	840	31	690	1,200	-	5.48	NP	0.00	99.02	93.54
07/22/96	11,000	1,700	22	660	700	840	6.60	NP	0.00	99.02	92.42
10/16/96	180	<0.3	<0.3	<0.3	<0.5	270	6.42	NP	0.00	99.02	92.60
01/22/97	130	<0.3	<0.3	<0.3	<0.5	470	5.70	NP	0.00	99.02	93.32
04/21/97	10,000	1,400	27	820	490	1,100	5.30	NP	0.00	99.02	93.72
07/14/97	8,200	660	15	230	270	560	7.90	NP	0.00	99.02	91.12
10/07/97	7,700	480	15	8.4	350	-	7.70	NP	0.00	99.02	91.32
01/19/98	1,400	20	0.74	0.46	4.4	-	6.05	NP	0.00	99.02	92.97
04/23/98	590	<0.3	<0.3	<0.3	<0.5	1,700	7.60	NP	0.00	99.02	91.42
07/20/98	4,900	570	150	300	500	1,500	5.30	NP	0.00	99.02	93.72
10/14/98	1,100	1.0	<0.3	<0.3	5.3	2,000	8.60	NP	0.00	99.02	90.42
01/21/99	570	0.32	<0.3	<0.3	<0.5	* 1,500 / 1,700	6.70	NP	0.00	99.02	92.32
04/15/99	770	<0.3	<0.3	<0.3	<0.5	* 1,400 / 1,200	6.07	NP	0.00	99.02	92.95
07/26/99	500	<0.3	<0.3	<0.3	<0.5	*710 / 950	7.86	NP	0.00	99.02	91.16
10/13/99	<50	<0.3	0.44	<0.3	0.62	<5	6.93	NP	0.00	99.02	92.09
01/20/00	<50	<0.3	<0.3	<0.3	<0.5	*5 / <5	6.44	NP	0.00	99.02	92.58
04/05/00	5,670	415	19	1.7	60.1	*329 / 194	7.86	NP	0.00	99.02	91.16
07/19/00	1,350	14	<3	<3	10	*237 / 120	7.10	NP	0.00	99.02	91.92
10/18/00	<50	<0.18	<0.14	<0.18	<0.26	*63 / 41.1	5.28	NP	0.00	99.02	93.74
01/17/01	<50	<0.18	<0.14	<0.18	3	*57 / 81	5.27	NP	0.00	99.02	93.75
04/19/01	<50	<0.18	<0.14	<0.18	<0.26	66	7.86	NP	0.00	99.02	91.16
07/18/01	<50	<0.18	<0.14	<0.18	<0.26	*9 / 3.5	6.30	NP	0.00	99.02	92.72
10/10/01	<50	<0.18	<0.14	<0.18	<0.26	*9.4 / 7.9	8.23	NP	0.00	99.02	90.79
01/30/02	2,590	40	9	8	6	*45 / 22	5.14	NP	0.00	99.02	93.88
04/17/02	51	<0.18	<0.14	<0.18	<0.26	*58 / 45	5.53	NP	0.00	99.02	93.49
07/31/02	<50	<0.18	<0.14	<0.18	<0.26	*39 / 33	5.93	NP	0.00	99.02	93.09
11/14/02	<50	<0.08	<0.18	<0.17	<0.4	6.8	5.92	NP	0.00	99.02	93.10
01/29/03	<15	<0.04	<0.02	<0.02	<0.06	<0.03	5.51	NP	0.00	99.02	93.51
04/23/03	<15	<0.04	<0.02	<0.02	<0.06	<0.03	5.14	NP	0.00	99.02	93.88

**TABLE 1**  
**GROUNDWATER DATA**  
**THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
<b>MONITORING WELL #RW-1</b>											
01/09/92	-	-	-	-	-	-	14.00	NP	0.00	-	-
04/13/92	-	-	-	-	-	-	14.00	NP	0.00	-	-
10/05/92	-	-	-	-	-	-	15.05	NP	0.00	-	-
01/06/93	-	-	-	-	-	-	5.43	NP	0.00	-	-
04/26/93	-	-	-	-	-	-	13.20	NP	0.00	-	-
01/04/94	-	-	-	-	-	-	14.30	NP	0.00	-	-
04/05/94	-	-	-	-	-	-	14.13	NP	0.00	-	-
01/08/96	-	-	-	-	-	-	14.22	NP	0.00	-	-
04/08/96	-	-	-	-	-	-	14.33	NP	0.00	-	-
07/22/96	8,100	530	84	120	860	-	14.27	NP	0.00	-	-
10/16/96	-	-	-	-	-	-	13.10	NP	0.00	-	-
01/22/97	-	-	-	-	-	-	16.97	NP	0.00	-	-
10/07/97	-	-	-	-	-	-	14.20	NP	0.00	-	-
01/15/98	-	-	-	-	-	-	15.60	NP	0.00	-	-
04/23/98	81,000	0.72	1.4	3.2	5.7	270,000	14.20	NP	0.00	-	-
07/20/98	-	-	-	-	-	-	14.30	NP	0.00	-	-
10/14/98	-	-	-	-	-	-	11.20	NP	0.00	-	-
01/21/99	-	-	-	-	-	-	-	-	-	-	-
04/15/99	-	-	-	-	-	-	13.10	NP	0.00	-	-
07/26/99	4,400	<3	<3	<3	<5	*6,800 / 9,000	13.83	NP	0.00	-	-
10/13/99	-	-	-	-	-	-	-	-	-	-	-
01/20/00	-	-	-	-	-	-	13.22	NP	0.00	-	-
04/05/00	-	-	-	-	-	-	-	-	-	-	-
07/19/00	-	-	-	-	-	-	13.25	NP	0.00	-	-
10/18/00	-	-	-	-	-	-	11.14	NP	0.00	-	-
01/17/01	-	-	-	-	-	-	11.12	NP	0.00	-	-
04/19/01	-	-	-	-	-	-	-	-	-	-	-
07/18/01	-	-	-	-	-	-	11.20	NP	0.00	-	-
10/10/01	-	-	-	-	-	-	11.20	NP	0.00	-	-
01/30/02	-	-	-	-	-	-	12.30	NP	0.00	-	-
04/17/02	-	-	-	-	-	-	14.30	NP	0.00	-	-
07/31/02	-	-	-	-	-	-	14.21	NP	0.00	-	-
11/14/02	-	-	-	-	-	-	14.13	NP	0.00	-	-
01/29/03	-	-	-	-	-	-	13.12	NP	0.00	-	-
04/23/03	-	-	-	-	-	-	14.51	NP	0.00	-	-

**TABLE 1**  
**GROUNDWATER DATA**  
**THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					

**NOTE:** \* MTBE 8020 / 8260  
 ND = Nondetectable  
 NP = No free hydrocarbon product  
 " - " = Not analyzed / Not available

Benzene, toluene, ethylbenzene, and xylene analyzed by EPA method 8020.  
 Total petroleum hydrocarbons (TPH) analyzed by EPA method 8015 modified for gasoline  
 Methyl-tert Butyl Ether (MTBE) analyzed by EPA method 8020 or 8260

**TABLE 2**  
**GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM**  
 Thrifty Oil Co. Station No 049, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	Total H-C Removed (lbs)	EFFLUENT (ug/L)						INFLUENT (ug/L)					
					TPH-g	B	T	E	X	MTBE	TPH-g	B	T	E	X	MTBE
4/8/91	1,310	0	-	0.000	-	<0.3	<0.3	<0.3	<0.9	-	-	910	2000	160	2000	-
4/15/91	1,434	124	18	0.049	-	<0.3	<0.3	<0.3	<0.3	-	-	2800	4600	310	5000	-
4/22/91	1,510	200	11	0.078	-	<15	<15	<15	<45	-	-	3100	3300	<15	2800	-
4/29/91	1,660	350	21	0.137	-	<0.3	<0.3	<0.3	<0.9	-	-	3600	4500	300	5000	-
5/6/91	1,740	430	11	0.168	-	<0.3	<0.3	<0.3	<0.9	-	-	3600	3500	300	3800	-
5/13/91	1,880	570	20	0.223	-	<0.3	<0.3	<0.3	<0.9	-	-	3300	3200	230	3900	-
5/20/91	2,010	700	19	0.274	-	<0.3	<0.3	<0.3	<0.9	-	-	3300	3400	260	5100	-
5/28/91	2,050	740	5	0.290	-	<0.3	<0.3	<0.3	<0.9	-	-	2900	3000	230	4200	-
6/3/91	2,110	800	10	0.313	-	<0.3	<0.3	<0.3	<0.9	-	-	2500	2100	110	2800	-
6/10/91	2,160	850	7	0.333	-	<0.3	<0.3	<0.3	<0.9	-	-	1800	1700	120	2100	-
6/17/91	2,219	909	8	0.356	-	<0.3	<0.3	<0.3	<0.9	-	-	2100	1900	170	2700	-
6/24/91	2,263	953	6	0.373	-	<0.3	<0.3	<0.3	<0.9	-	-	2100	1800	150	2700	-
07/01/91	2,313	1,003	7	0.393	-	<0.5	<0.5	<1	<1	-	-	2,700	2,000	150	2,900	-
07/08/91	2,700	1,390	55	0.544	-	<0.5	<0.5	<1	<1	-	-	4,000	2,500	130	4,400	-
07/15/91	2,872	1,562	25	0.611	-	<0.5	<0.5	<1	<1	-	-	3,100	1,900	140	3,200	-
07/22/91	3,144	1,834	39	0.718	-	<0.5	<0.5	<1	<1	-	-	3,400	2,100	110	2,800	-
07/29/91	3,220	1,910	11	0.748	-	<0.5	<0.5	<1	<1	-	-	5,100	2,200	180	2,700	-
08/05/91	3,348	2,038	18	0.798	-	<0.5	<0.5	<1	<1	-	-	5,100	3,900	400	4,200	-
08/12/91	3,472	2,162	18	0.846	-	<0.5	<0.5	<1	<1	-	-	11,000	6,200	440	8,400	-
08/19/91	3,548	2,238	11	0.876	-	<0.5	<0.5	<1	<1	-	-	4,500	2,400	130	2,600	-
08/26/91	3,655	2,345	15	0.918	-	<0.5	<0.5	<1	<1	-	-	4,400	2,500	260	3,600	-
09/09/91	3,822	2,512	12	0.983	-	<0.5	<0.5	<1	<1	-	-	5,200	3,000	390	3,700	-
09/16/91	3,884	2,574	9	1.007	-	<0.5	<0.5	<1	<1	-	-	4,100	2,000	460	4,900	-
09/23/91	4,013	2,703	18	1.058	-	<0.5	<0.5	<1	<1	-	-	4,600	1,600	710	6,400	-
09/30/91	4,092	2,782	11	1.089	-	<0.5	<0.5	<1	<1	-	-	5,700	2,000	380	6,200	-
10/07/91	4,131	2,821	6	1.104	System shut down						-	-	-	-	-	-
10/14/91	4,195	2,885	9	1.129	-	<0.5	<0.5	<1	<1	-	-	4,400	2,000	370	8,100	-
10/21/91	4,406	3,096	30	1.212	-	<0.5	<0.5	<1	<1	-	-	2,300	1,100	190	4,200	-
10/28/91	4,474	3,164	10	1.238	-	<0.5	<0.5	<1	<1	-	-	6,400	4,100	620	6,100	-
11/03/91	4,613	3,303	23	1.293	-	<0.5	<0.5	<1	<1	-	-	6,100	2,800	200	5,600	-
11/11/91	4,700	3,390	11	1.327	-	<0.5	<0.5	<1	<1	-	-	6,500	2,300	<30	4,900	-
11/18/91	4,887	3,577	27	1.400	-	<0.5	<0.5	<1	<1	-	-	5,600	2,500	300	4,600	-
11/25/91	5,042	3,732	22	1.461	-	<0.5	<0.5	<1	<1	-	-	5,400	2,800	230	5,700	-
12/03/91	5,263	3,953	28	1.547	-	<0.5	<0.5	<1	<1	-	-	7,200	3,300	490	5,500	-
12/09/91	5,362	4,052	17	1.586	-	<0.5	<0.5	<1	<1	-	-	4,400	1,700	140	3,900	-
12/16/91	5,486	4,176	18	1.635	-	<0.5	<0.5	<0.5	<0.5	-	-	4,700	2,300	310	4,600	-
12/23/91	5,516	4,206	4	1.646	-	<0.5	<0.5	<0.5	<0.5	-	-	4,000	2,200	290	5,900	-
12/30/91	5,575	4,265	8	1.669	-	<0.5	<0.5	<0.5	<0.5	-	-	5,200	2,500	350	5,800	-
01/15/92	5,720	4,410	9	1.726	-	<0.5	<0.5	<0.5	<0.5	-	-	3,400	1,900	300	6,300	-

**TABLE 2**  
**GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM**  
 Thrifty Oil Co. Station No 049, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	Total H-C Removed (lbs)	EFFLUENT (ug/L)						INFLUENT (ug/L)							
					TPH-g	B	T	E	X	MTBE	TPH-g	B	T	E	X	MTBE		
02/10/92	6,264	4,954	21	1,939	-	<0.5	<0.5	<0.5	<0.5	-	-	5,800	2,800	320	7,200	-		
03/09/92	8,520	7,210	81	2,822	<200	<0.5	16	<0.5	<0.5	-	47,000	7,100	4,800	630	10,300	-		
04/13/92	22,888	21,578	411	7,369	<200	<0.5	<0.5	<0.5	<0.5	-	29,000	4,500	2,200	160	4,800	-		
05/11/92	24,920	23,610	73	7,800	<200	<0.5	<0.5	<0.5	<0.5	-	22,000	4,300	1,500	130	3,800	-		
06/01/92	28,330	27,020	162	8,368	<200	<0.5	<0.5	<0.5	<0.5	-	18,000	3,400	1,500	660	4,200	-		
07/13/92	72,675	27,020	-	8,368	-	<0.5	<0.5	<0.5	<0.5	-	-	1,800	750	150	5,600	-		
07/13/92	72,675	27,020	-	8,368	The system pumped air and flowmeter jumped from 30,000 gallons to 70,000 gallons						-	-	-	-	-	-	-	-
08/17/92	75,046	29,391	68	8,724	-	<0.5	<0.5	<0.5	<0.5	-	-	1,100	350	200	1,100	-		
09/14/92	75,582	29,927	19	8,804	-	<0.5	<0.5	<0.5	<1	-	-	2,100	520	<25	3,500	-		
10/05/92	75,680	30,025	5	8,819	<200	<0.5	<0.5	<0.5	<1	-	19,000	1,700	270	<25	4,000	-		
11/09/92	77,280	31,625	46	9,072	-	<0.5	<0.5	<0.5	<0.5	-	-	4,000	1,400	120	5,900	-		
12/14/92	79,420	33,765	61	9,411	-	<0.5	<0.5	<0.5	<1	-	-	7,300	4,900	1,800	16,000	-		
01/04/93	84,720	39,065	252	10,250	-	<0.5	<0.5	<0.5	<1	-	-	5,400	2,100	450	7,800	-		
02/15/93	102,689	57,034	428	14,739	<200	<0.5	<0.5	<0.5	<1	-	41,000	6,600	3,200	260	9,600	-		
02/22/93	146,430	57,034	-	14,739	The system pumped air and flowmeter jumped from 102,689 gallons to 146,430 gallons.						-	-	-	-	-	-	-	
03/08/93	147,500	58,104	76	15,104	-	<0.5	<0.5	<0.5	<1	-	-	7,400	3,400	56	11,000	-		
04/26/93	151,200	61,804	76	16,291	<100	<0.5	<0.5	<0.5	<1	-	36,000	4,300	2,200	420	8,300	-		
04/26/93	151,200	61,804	-	16,291	Shut down system for repair						-	-	-	-	-	-	-	
07/21/93	151,240	61,844	0	16,303	Restart the system						-	-	-	-	-	-	-	
08/11/93	151,650	62,254	20	16,426	-	<0.5	<0.5	<0.5	<1	-	-	6,500	2,300	390	6,200	-		
09/16/93	154,005	64,609	65	17,200	<60	<0.3	<0.3	<0.3	<0.6	-	43,000	2,300	320	<4.4	2,900	-		
10/04/93	154,896	65,500	50	17,482	<60	<0.3	<0.3	<0.3	<0.6	-	33,000	2,900	470	6.9	3,500	-		
11/05/93	157,431	68,035	79	17,989	<50	<0.3	<0.3	<0.3	<0.5	-	15,000	1,100	27	<0.3	920	-		
12/03/93	159,324	69,928	68	18,233	<50	<0.3	<0.3	<0.3	<0.5	-	16,000	1,100	88	<6.6	2,300	-		
01/06/94	166,440	77,044	209	19,181	-	<0.3	<0.3	<0.3	<0.5	-	-	3,800	730	<13	1,200	-		
02/03/94	170,720	81,324	153	19,752	-	<0.3	<0.3	<0.3	<0.5	-	-	3,600	610	<4.4	4,800	-		
03/03/94	178,168	88,772	266	20,744	-	<0.3	<0.3	<0.3	<0.5	-	-	2,800	2,000	270	3,400	-		
04/07/94	185,670	96,274	214	22,056	<50	<0.3	<0.3	<0.3	<0.5	-	26,000	2,200	550	<6.6	1,900	-		
05/12/94	188,840	99,444	91	22,460	<50	<0.3	<0.3	<0.3	<0.5	-	4,600	100	10	8.4	280	-		
06/16/94	194,680	105,284	167	22,684	<50	<0.3	<0.3	<0.3	<0.5	-	<50	<0.3	<0.3	<0.3	<0.5	-		
07/11/94	199,135	109,739	178	22,832	<50	<0.3	<0.3	<0.3	<0.5	-	4,000	220	<2.6	<2.6	320	-		
08/04/94	200,910	111,514	74	22,919	<50	<0.3	<0.3	<0.3	<0.5	-	7,800	480	6.2	<0.3	630	-		
09/15/94	203,450	114,054	60	23,036	<50	<0.3	<0.3	<0.3	<0.5	-	3,200	150	2.4	2.6	170	-		
10/10/94	205,210	115,814	70	23,069	<50	<0.3	<0.3	<0.5	<0.5	-	1,300	8.6	1.5	1.1	15	-		
11/07/94	206,060	116,664	30	23,074	<50	<0.3	<0.3	<0.5	<0.5	-	170	1.5	<0.3	<0.5	0.5	-		
12/05/94	207,093	117,697	37	23,075	<50	<0.3	<0.3	<0.5	<0.5	-	75	1.3	<0.3	<0.5	<0.5	-		
01/09/95	207,293	117,897	6	23,075	<50	<0.3	<0.3	<0.5	<0.5	-	<50	<0.3	<0.3	<0.5	<0.5	-		
02/01/95	207,650	118,254	16	23,075	<50	<0.3	<0.3	<0.5	<0.5	-	<50	<0.3	<0.3	<0.5	<0.5	-		
02/06/95	207,810	118,414	32	23,075	<50	<0.3	<0.3	<0.5	<0.5	-	<50	2.7	<0.3	<0.5	<0.5	-		

**TABLE 2**  
**GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM**  
 Thrifty Oil Co. Station No 049, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	Total H-C Removed (lbs)	EFFLUENT (ug/L)						INFLUENT (ug/L)						
					TPH-g	B	T	E	X	MTBE	TPH-g	B	T	E	X	MTBE	
03/10/95	208,430	119,034	19	23.076	<100	<0.5	<0.5	<0.5	<1	-	<100	<0.5	<0.5	<0.5	<1	-	
04/10/95	208,564	119,168	4	23.079	<100	<0.5	<0.5	<0.5	<1	-	3,300	180	7.6	2.1	150	-	
05/08/95	208,608	119,212	2	23.082	<100	<0.5	<0.5	<0.5	<1	-	11,000	640	9.2	<5	1,100	-	
06/05/95	208,926	119,530	11	23.103	<100	<0.5	<0.5	<0.5	<1	-	5,100	270	2.2	<0.5	49	-	
07/10/95	214,182	124,786	150	23.500	<100	<0.5	<0.5	<0.5	<1	-	13,000	1,600	120	24	1,300	-	
08/07/95	221,876	132,480	275	24.332	Shut down system for repair						-	-	-	-	-	-	-
08/28/95	221,997	132,601	6	24.346	Restart the system						-	-	-	-	-	-	-
09/06/95	222,003	132,607	1	24.346	<100	<0.5	<0.5	<0.5	<1	-	2,300	<0.5	<0.5	<0.5	<1	-	
10/09/95	222,343	132,947	10	24.352	<100	<0.5	<0.5	<0.5	<1	-	2,000	5.6	0.77	0.66	3.8	-	
11/06/95	222,704	133,308	13	24.360	<50	0.3	0.31	<0.3	0.68	-	3,000	27	1.7	3.7	48	-	
12/11/95	223,792	134,396	31	24.387	<50	<0.3	<0.3	<0.3	<0.5	-	<50	<0.3	<0.3	<0.3	0.96	-	
01/08/96	224,661	135,265	31	24.400	970	<0.3	<0.3	<0.3	0.67	-	1,800	39	<0.3	<0.3	<0.5	-	
02/12/96	227,812	138,416	90	24.467	<50	10	0.37	<0.3	0.53	-	3,300	190	<7.5	<7.5	20	-	
03/12/96	229,301	139,905	51	24.504	<50	<0.3	<0.3	<0.3	<0.5	-	2,700	250	2.3	<1.5	<2.5	-	
04/08/96	242,320	152,924	482	24.704	<50	<0.3	<0.3	<0.3	<0.5	-	1,000	90	5	<0.3	67	-	
05/06/96	247,840	158,444	197	25.072	100	<0.3	<0.3	<0.3	<0.5	-	15,000	2,200	600	32	2,400	-	
06/03/96	248,423	159,027	21	25.145	Shut down system for carbon change						-	-	-	-	-	-	
08/08/96	248,423	159,027	-	25.145	Start-up system						-	-	-	-	-	-	
08/20/96	248,630	159,234	17	25.149	<50	<0.3	<0.3	<0.3	<0.5	-	2,100	24	<0.3	<0.3	49	-	
09/23/96	259,030	169,634	306	25.417	<50	<0.3	<0.3	<0.3	<0.5	-	4,100	260	<3	<3	34	-	
10/16/96	263,610	174,214	199	25.547	<50	<0.3	<0.3	<0.3	<0.5	-	2,700	220	3.8	<0.6	44	-	
11/19/96	263,986	174,590	11	25.553	<50	<0.3	<0.3	<0.3	<0.5	-	1,200	<0.3	<0.3	<0.3	<0.5	-	
12/16/96	264,210	174,814	8	25.581	<50	<0.3	<0.3	<0.3	1.5	-	29,000	410	2,300	120	1,100	-	
01/22/97	266,220	176,824	54	26.393	<50	<0.3	<0.3	<0.3	<0.5	-	68,000	<0.3	<0.3	<0.3	<0.5	-	
02/24/97	267,030	177,634	25	26.794	<50	<0.3	<0.3	<0.3	<0.5	-	51,000	3,500	3,200	390	2,200	-	
03/17/97	267,230	177,834	10	26.911	<50	<0.3	<0.3	<0.3	<0.5	-	89,000	<6	11	<6	14	-	
04/21/97	267,415	178,019	5	27.026	<50	<0.3	<0.3	<0.3	<0.5	-	61,000	730	18	130	360	-	
05/22/97	276,535	187,139	294	29.375	<50	<0.3	<0.3	<0.3	<0.5	-	850	1.3	<0.3	0.4	4.6	-	
06/23/97	281,214	191,818	146	29.408	-	-	-	-	-	-	-	-	-	-	-	-	
07/14/97	284,210	194,814	143	29.501	<50	<0.3	<0.3	<0.3	<0.5	-	6,600	<0.3	0.59	<0.3	9	-	
08/18/97	298,610	209,214	411	30.293	-	-	-	-	-	-	-	-	-	-	-	-	
09/15/97	301,043	211,647	87	30.427	-	-	-	-	-	-	-	-	-	-	-	-	
10/07/97	333,480	244,084	1,474	44.014	<50	<0.3	<0.3	<0.3	<0.5	-	94,000	<0.3	<0.3	<0.3	<0.5	-	
11/17/97	334,286	244,890	20	44.645	-	-	-	-	-	-	-	-	-	-	-	-	
12/08/97	334,382	244,986	5	44.720	-	-	-	-	-	-	-	-	-	-	-	-	
12/12/97	334,382	244,986	-	44.720	Shut down system due to stolen equipment						-	-	-	-	-	-	-
04/08/98	334,382	244,986	-	44.720	<50	<0.3	<0.3	<0.3	<0.5	<20	3,100	12	1	<0.3	490	2,600	
05/11/98	334,382	244,986	-	44.720	-	-	-	-	-	-	-	-	-	-	-	-	
06/22/98	334,382	244,986	-	44.720	-	-	-	-	-	-	-	-	-	-	-	-	

**TABLE 2**  
**GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM**  
 Thrifty Oil Co. Station No 049, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	Total H-C Removed (lbs)	EFFLUENT (ug/L)						INFLUENT (ug/L)					
					TPH-g	B	T	E	X	MTBE	TPH-g	B	T	E	X	MTBE
07/20/98	334,382	244,986	-	44,720	<50	<0.3	<0.3	<0.3	<0.5	-	52,000	8	0.52	0.83	1.5	-
08/03/98	346,521	257,125	867	49,977	Shut down system for carbon canisters replacement						-	-	-	-	-	-
09/17/98	354,985	265,589	188	53,642	-	-	-	-	-	-	-	-	-	-	-	-
10/14/98	358,015	268,619	112	54,338	<50	<0.3	<0.3	<0.3	1.6	-	3,100	45	13	3.5	350	-
11/05/98	359,600	270,204	72	54,378	System shut down due to vandalism and stolen equipment						-	-	-	-	-	-
11/20/98	359,600	270,204	-	54,378	Restart						-	-	-	-	-	-
12/11/98	369,452	280,056	469	54,633	-	-	-	-	-	-	-	-	-	-	-	-
12/24/98	-	280,056	-	54,633	No reading, meter broken						-	-	-	-	-	-
01/15/99	0	280,056	-	54,633	Replaced Flowmeter started at 0						-	-	-	-	-	-
01/21/99	985.5	281,042	164	54,636	57	<0.3	<0.3	<0.3	0.76	-	380	6.2	1	<0.3	9.1	-
02/12/99	1,971.0	282,027	45	54,639	-	-	-	-	-	-	-	-	-	-	-	-
03/12/99	4,390.0	284,446	86	54,647	-	-	-	-	-	-	-	-	-	-	-	-
04/15/99	8,595.0	288,651	124	54,661	<50	<0.3	<0.3	<0.3	<0.5	<5	410	1.6	0.78	<0.3	5	*580 / 330
05/04/99	9,410.0	289,466	43	54,663	-	-	-	-	-	-	-	-	-	-	-	-
05/18/99	9,410.0	289,466	-	54,663	Shut down system for pump controller repair by manufacturer						-	-	-	-	-	-
09/20/99	9,411.0	289,467	0	54,663	Restart the system						-	-	-	-	-	-
09/24/99	9,412.4	289,468	0	54,663	-	-	-	-	-	-	-	-	-	-	-	-
10/13/99	9,509.8	289,566	5	54,666	<50	<0.3	<0.3	<0.3	<0.5	<5	6,000	<0.3	<0.3	<0.3	<0.5	13,000
11/12/99	9,701.9	289,758	6	54,676	-	-	-	-	-	-	-	-	-	-	-	-
12/17/99	9,893.7	289,950	5	54,685	-	-	-	-	-	-	-	-	-	-	-	-
01/20/00	10,052.1	290,108	5	54,693	<50	<0.3	<0.3	<0.3	<0.5	-	<50	<0.3	<0.3	<0.3	<0.5	-
02/17/00	10,156.6	290,213	4	54,698	-	-	-	-	-	-	-	-	-	-	-	-
03/13/00	10,354.7	290,411	8	54,708	-	-	-	-	-	-	-	-	-	-	-	-
04/05/00	10,545.7	290,602	8	54,897	72.7	1.8	4.1	0.7	6.7	-	119,000	2,360	6,440	6,240	25,200	*30,800 / 21,800
05/19/00	11,071.7	291,128	12	55,419	Shut down system for carbon drum replacement						-	-	-	-	-	-
06/05/00	11,075.4	291,131	0	55,419	Restart the system						-	-	-	-	-	-
06/14/00	11,131.6	291,188	6	55,474	<50	<0.3	<0.3	<0.3	<0.6	<5	<1,000	<6	<6	<6	14	24,500
07/06/00	11,362.0	291,418	10	55,703	Shut down system for carbon replacement						-	-	-	-	-	-
07/17/00	0.0	291,418	-	55,703	Restart the system after carbon change, repipe and flowmeter change (starting at 0.0)						-	-	-	-	-	-
07/24/00	411.0	291,829	59	55,907	<50	<0.3	<0.3	<0.3	<0.6	<5	205	<0.3	1	<0.3	<0.6	*99 / 104
08/21/00	8,193.0	299,611	278	55,920	-	-	-	-	-	-	-	-	-	-	-	-
09/18/00	27,251.0	318,669	681	55,953	-	-	-	-	-	-	-	-	-	-	-	-
10/18/00	54,280.0	345,698	901	96,155	<50	<0.18	<0.14	<0.18	<0.26	<0.24	357,000	2,380	2,960	1,290	6,850	9,630
10/30/00	64,610.0	356,028	861	126,867	-	-	-	-	-	-	-	-	-	-	-	-
11/27/00	79,870.0	371,288	545	172,235	-	-	-	-	-	-	-	-	-	-	-	-
12/22/00	99,240.0	390,658	775	229,823	-	-	-	-	-	-	-	-	-	-	-	-
01/17/01	101,250.0	392,668	77	233,018	<50	<0.18	<0.14	<0.18	<0.26	<0.24	24,700	783	373	2	3,480	15,000
02/23/01	144,120.0	435,538	1,159	241,836	-	-	-	-	-	-	-	-	-	-	-	-
03/30/01	195,400.0	486,818	1,465	252,385	-	-	-	-	-	-	-	-	-	-	-	-



**TABLE 2**  
**GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM**  
 Thrifty Oil Co. Station No 049, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	Total H-C Removed (lbs)	EFFLUENT (ug/L)						INFLUENT (ug/L)					
					TPH-g	B	T	E	X	MTBE	TPH-g	B	T	E	X	MTBE
04/06/01	199,090.0	490,508	527	253.144	System shut down for carbon replacement, Replaced on 4/11/01, restart on 4/13/01.											
04/20/01	207,050.0	498,468	569	255.172	98	<0.18	<0.14	<0.18	<0.26	93	36,500	855	716	659	1,570	11,400
04/27/01	210,640.0	502,058	513	256.263	System shut down for repair/replacement of compressor's pressure switch and exhaust valve											
04/30/01	210,640.0	502,058	-	256.263	320	<0.18	<0.14	<0.18	<0.26	*337 / 60	7,620	268	22	10	124	*13,600 / 9,130
05/11/01	210,640.0	502,058	-	256.263	Replaced pressure switch on 5/7/01, system still off for carbon replacement.											
05/21/01	210,640.0	502,058	-	256.263	Restart the system											
05/30/01	226,830.0	518,248	1,799	263.289	<50	<0.18	<0.14	<0.18	<0.26	<0.24	96,600	4,980	1,660	2,770	11,300	*53,600 / 41,600
06/29/01	267,230.0	558,648	1,347	295.790	-	-	-	-	-	-	-	-	-	-	-	-
07/11/01	310,010.0	601,428	3,565	341.855	<50	<0.18	<0.14	<0.18	<0.26	<0.24	162,000	<0.18	4,140	4,760	24,000	<0.24
08/17/01	441,270.0	732,688	3,548	518.940	-	-	-	-	-	-	-	-	-	-	-	-
09/28/01	498,310.0	789,728	1,358	595.894	-	-	-	-	-	-	-	-	-	-	-	-
10/03/01	503,930.0	795,348	1,124	600.424	<50	<0.18	<0.14	<0.18	<0.26	<0.24	31,600	<1.8	150	294	5,280	<2.4
11/12/01	664,700.0	956,118	4,019	642.733	-	-	-	-	-	-	-	-	-	-	-	-
12/28/01	706,300.0	997,718	904	653.680	-	-	-	-	-	-	-	-	-	-	-	-
01/11/02	721,050.0	1,012,468	1,054	657.562	System shut down for carbon replacement											
01/21/02	721,050.0	1,012,468	-	657.562	Restart the system											
02/01/02	731,320.0	1,022,738	934	658.963	<100	<0.3	<0.3	<0.3	<0.6	<5	1,172	1	1	1	6	<5
02/22/02	751,340.0	1,042,758	953	659.159	-	-	-	-	-	-	-	-	-	-	-	-
03/27/02	813,240.0	1,104,658	1,876	659.763	-	-	-	-	-	-	-	-	-	-	-	-
04/12/02	835,170.0	1,126,588	1,371	660.975	<50	<0.18	<0.14	<0.18	<0.26	<0.24	12,100	5	1	<0.18	<0.26	18,400
04/26/02	918,670.0	1,210,088	5,964	669.389	System shut down											
05/10/02	918,680.0	1,210,088	1	669.390	Restart											
05/17/02	928,670.0	1,220,088	1,427	670.397	-	-	-	-	-	-	-	-	-	-	-	-
06/03/02	-	-	-	-	-	<0.5	<0.7	<0.8	<3.3	-	Outlet sampling results from EBMUD (sample collected by EBMUD inspector)					
06/03/02	-	-	-	-	<50	<0.18	<0.14	<0.18	<0.26	<0.24	Split-sample results (sample collected by us)					
06/07/02	971,240.0	1,262,658	2,027	674.686	-	-	-	-	-	-	-	-	-	-	-	-
06/28/02	1,012,150.0	1,303,568	1,948	678.809	-	-	-	-	-	-	-	-	-	-	-	-
07/15/02	1,045,670.0	1,337,088	1,972	681.977	<50	<0.18	<0.14	<0.18	<0.26	3.3 J	10,600	<0.18	<0.14	<0.18	<0.26	10,000
07/31/02	1,052,380.0	1,343,798	419	682.569	System shut down for carbon replacement											
08/16/02	1,052,390.0	1,343,808	1	682.569	Restart											
08/30/02	1,057,310.0	1,348,728	351	683.004	-	-	-	-	-	-	-	-	-	-	-	-
09/20/02	-	-	-	-	Sample results from EBMUD not received yet						Outlet sampling results from EBMUD (sample collected by EBMUD inspector)					
09/20/02	1,061,730.0	1,353,148	210	683.394	<50	<0.1	<0.15	<0.06	-	-	Split-sample results (sample collected by us, analysis by EPA 624 & 8015M)					
09/27/02	1,064,020.0	1,355,438	327	683.596	-	-	-	-	-	-	-	-	-	-	-	-
10/04/02	1,069,130.0	1,360,548	730	683.787	<50	<0.18	<0.14	<0.18	<0.26	<0.24	4,500 J	<0.18	<0.14	<0.18	<0.26	2,570
10/25/02	1,082,500.0	1,373,918	637	684.289	-	-	-	-	-	-	-	-	-	-	-	-
11/29/02	1,108,680.0	1,400,098	748	685.270	-	-	-	-	-	-	-	-	-	-	-	-
12/27/02	1,123,890.0	1,415,308	543	685.840	-	-	-	-	-	-	-	-	-	-	-	-
01/03/03	1,128,910.0	1,420,328	717	686.028	System shut down for carbon replacement											

**TABLE 2**  
**GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM**  
 Thrifty Oil Co. Station No 049, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	Total H-C Removed (lbs)	EFFLUENT (ug/L)						INFLUENT (ug/L)					
					TPH-g	B	T	E	X	MTBE	TPH-g	B	T	E	X	MTBE
01/10/03	1,128,970.0	1,420,388	9	686 030	Restart											
01/17/03	1,132,560.0	1,423,978	513	686 999	<50	<0.14	<0.07	<0.08	1.1	<2.0	32,400	11	64	<0.8	6,050	706
01/31/03	1,143,290.0	1,434,708	766	689 460	<15	<0.04	0.58	<0.02	1.1	<0.03	22,700	14	34	18	5,160	550
02/14/03	1,153,670.0	1,445,088	741	691 423	System shut down for carbon replacement											
04/04/03	1,153,670.0	1,445,088	-	691 423	System shut down for upgrade											

<b>WD PERMIT LIMITS:</b>	NE	5.0	5.0	5.0	5.0	NE
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**Note:** < = less than laboratory detection level indicated  
 - = no sample / not analyzed  
 NE = Permit Limit not established

TPH is analyzed by EPA Method 8015 M  
 BTEX is analyzed by EPA Method 602 or 8020  
 \*MTBE 8020/8260

In February 2000, the total cumulative discharge amount was corrected to reflect all system maintenance and flowmeter changeouts since the startup of the system. The total number may be different from previous versions of this table.  
 Total Hydrocarbons Removed = From 4/8/91 to 2/10/92, the influent TPHg is assumed to be 47,000 (3/9/92)

**TABLE 3  
 ADDITIONAL GROUNDWATER DATA  
 THRIFTY OIL STATION # 049, OAKLAND, CA.**

DATE SAMPLED	OXYGENATES				1,2-Dichloroethane (ug/L)
	Di-Isopropyl Ether (DIPE) (ug/L)	Ethyl-Tert-Butyl Ether (ETBE) (ug/L)	Tert-Amyl Methyl Ether (TAME) (ug/L)	Tert-Butyl Alcohol (TBA) (ug/L)	
<b>MONITORING WELL # MW-1</b>					
11/14/02	<0.2	<0.12	<0.16	<10	<0.13
01/29/03	-	-	-	-	-
04/23/03	-	-	-	-	-
<b>MONITORING WELL # MW-2</b>					
11/14/02	<2.0	<1.2	111	341	<1.3
01/29/03	-	-	-	-	-
04/23/03	-	-	-	-	-
<b>MONITORING WELL # MW-3</b>					
11/14/02	<0.2	<0.12	<0.16	<10	<0.13
01/29/03	-	-	-	-	-
04/23/03	-	-	-	-	-
<b>MONITORING WELL # MW-4</b>					
11/14/02	<2.0	<1.2	106	281	<1.3
01/29/03	-	-	-	-	-
04/23/03	-	-	-	-	-
<b>MONITORING WELL # MW-5</b>					
11/14/02	<0.2	<0.12	<0.16	<10	<0.13
01/29/03	-	-	-	-	-
04/23/03	-	-	-	-	-
<b>MONITORING WELL # MW-6</b>					
11/14/02	<0.2	<0.12	<0.16	<10	<0.13
01/29/03	-	-	-	-	-
04/23/03	-	-	-	-	-
<b>MONITORING WELL # MW-7</b>					
11/14/02	<0.2	<0.12	<0.16	<10	<0.13
01/29/03	-	-	-	-	-
04/23/03	-	-	-	-	-

NOTE: DIPE, ETBE, TAME, TBA analyzed by EPA Method 8260B

# APPENDIX A



**PROJECT STATUS REPORT**

SITE: THRIFTY OIL CO. #049  
 ADDRESS: 3400 SAN PABLO AVE.  
OAKLAND, CA. 94612

DATE: 04.23.03

PERSONNEL: SERBAK,

WELL ID	DTP (FT)	DTW (FT)	DTB (FT)	PT (FT)	WC (FT)	DIA (IN)	PURGE (GAL)		COMMENT
							EST.	ACT.	
<i>MONTHLY/QUARTERLY</i>									
MW-1		7.03	17.74			2"	10		
MW-2		5.38	23.78			2"	12		
MW-3		5.76	24.16			2"	12		
MW-4		4.80	13.60			4"	23		
MW-5		3.05	13.76			2"	7		
MW-6		3.86	13.06			2"	6		
MW-7		5.14	13.56			4"	22		
RW-1		14.81	24.34			6"			
THE NUMBERS FOR RW 1 ARE INCORRECT DUE TO COPY, THE WELL CAN'T BE GAUGED BECAUSE AROUND 5 TO 6 FOOT IS OBSTRUCT WITH SILT.									

FREE PRODUCT REMOVED: APPROX      GALLONS      PURGE-WATER REMOVED: APPROX      GALLONS

REMARKS: Q.W.S

**EXPLANATION:** DTP- DEPTH TO PRODUCT, DTW- DEPTH TO WATER, DTB= DEPTH TO BOTTOM; ALL MEASURED FROM TOP OF CASING  
 PT- PRODUCT THICKNESS, WC- WATER COLUMN, DIA= DIAMETER EST=ESTIMATE, ACT= ACTUAL FT= FEET, GAL= GALLONS

FIELD DATA -GROUNDWATER SAMPLING PROGRAM

Site:	# 049	Date:	04.23.03
Address:			
Personnel:	SERBAN,	Weather:	Rain
Well No:	MW-1	Equip:	BAUER

<b>Before Purging:</b>			
Total Well Depth: (ft.)	17.74	Well Diameter	24
Depth to Water (ft)	2.02	Est. Purge Volume:	10

<b>Sampling Data:</b>							
	<b>Initial Turbidity:</b>			<b>Final Turbidity:</b>			
Time	9:08	9:07	9:09	9:10	9:12	9:13	9:15
EC	1810	1830	1810	1740	1760	1740	1820
pH	6.03	5.87	5.81	5.90	5.81	5.80	5.71
Temp	21.3	21.1	20.9	20.7	20.5	20.4	20.3
Gal.	1	2	4	6	7	8	10
Time							
EC							
pH							
Temp							
Gal.							

<b>After Purging/Before Sample Collection</b>			
Depth to Water (ft.)	9.06	Total Well Depth(ft.)	17.74

FIELD DATA -GROUNDWATER SAMPLING PROGRAM

Site: <u>H 049</u>	Date: <u>04.23.03</u>
Address: _____	
Personnel: <u>SERBAU</u>	Weather: <u>RAIN</u>
Well No: <u>MU-2</u>	Equip: <u>BAUER</u>

Before Purging:			
Total Well Depth: (ft.)	<u>23.78</u>	Well Diameter	<u>24</u>
Depth to Water (ft)	<u>6.38</u>	Est. Purge Volume:	<u>12</u>

Sampling Data:							
Initial Turbidity:				Final Turbidity:			
Time	10:49	10:51	10:53	10:54	10:56	10:58	11:00
EC	930	910	890	870	860	880	840
pH	6.20	6.23	6.21	6.20	6.21	6.23	6.21
Temp	21.3	21.4	21.5	21.6	21.6	21.8	21.7
Gal.	1	3	5	6	8	10	12
Time							
EC							
pH							
Temp							
Gal.							

After Purging/Before Sample Collection			
Depth to Water (ft.)	<u>9.06</u>	Total Well Depth(ft.)	<u>23.78</u>

FIELD DATA -GROUNDWATER SAMPLING PROGRAM

Site:	H 049	Date:	04.23.03
Address:			
Personnel:	SERBOW,	Weather:	RAIN
Well No:	MW-3	Equip:	BAUER

<b>Before Purging:</b>			
Total Well Depth: (ft.)	24.16	Well Diameter	24
Depth to Water (ft)	5.76	Est. Purge Volume:	12

<b>Sampling Data:</b>							
<b>Initial Turbidity:</b>				<b>Final Turbidity:</b>			
Time	9:23	9:26	9:27	9:28	9:30	9:32	9:35
EC	116	1180	1140	1120	1150	1160	1130
pH	6.08	6.11	6.10	6.11	6.10	6.09	6.07
Temp	71.3	71.3	71.5	71.7	71.8	71.7	71.7
Gal.	1	3	5	6	8	10	12
Time							
EC							
pH							
Temp							
Gal.							

<b>After Purging/Before Sample Collection</b>			
Depth to Water (ft.)	10.02	Total Well Depth(ft).	24.16



FIELD DATA -GROUNDWATER SAMPLING PROGRAM

Site:	# 049	Date:	04.23.02
Address:			
Personnel:	SRBAW	Weather:	Rain
Well No:	MW-4	Equip:	BAUER

<b>Before Purging:</b>			
Total Well Depth: (ft.)	13.60	Well Diameter	4"
Depth to Water (ft)	4.80	Est. Purge Volume:	23

<b>Sampling Data:</b>							
<b>Initial Turbidity:</b>				<b>Final Turbidity:</b>			
Time	10:26	10:28	10:31	10:35	10:38	10:41	10:45
EC	890	970	960	880	930	910	910
pH	6.03	6.01	6.01	6.93	6.90	6.91	6.90
Temp	21.4	21.3	21.1	21.1	20.9	20.8	20.7
Gal.	3	6	9	13	16	19	23
Time							
EC							
pH							
Temp							
Gal.							

<b>After Purging/Before Sample Collection</b>			
Depth to Water (ft.)	6.80	Total Well Depth(ft.)	13.60

FIELD DATA -GROUNDWATER SAMPLING PROGRAM

Site: #049	Date: 04.23.03
Address:	
Personnel: SERBOM	Weather: RAIN
Well No: MW-5	Equip: BAICER

<b>Before Purging:</b>			
Total Well Depth: (ft.)	13.76	Well Diameter	24
Depth to Water (ft)	3.03	Est. Purge Volume:	7

<b>Sampling Data:</b>							
<b>Initial Turbidity:</b>				<b>Final Turbidity:</b>			
Time	8:54	8:55	8:56	8:57	8:58	8:59	9:00
EC	1730	1710	1700	1690	1670	1690	1710
pH	6.14	6.10	6.11	6.10	6.11	6.10	6.11
Temp	21.3	21.4	21.3	21.4	21.3	21.2	21.0
Gal.	1	2	3	4	5	6	7
Time							
EC							
pH							
Temp							
Gal.							

<b>After Purging/Before Sample Collection</b>			
Depth to Water (ft.)	5.11	Total Well Depth(ft.)	13.76

FIELD DATA - GROUNDWATER SAMPLING PROGRAM

Site:	<u>1049</u>	Date:	<u>04.23.03</u>
Address:			
Personnel:	<u>SERBAN</u>	Weather:	<u>RAIN</u>
Well No:	<u>MW-6</u>	Equip:	<u>BAUER</u>

<b>Before Purging:</b>			
Total Well Depth: (ft.)	<u>13.06</u>	Well Diameter	<u>24</u>
Depth to Water (ft)	<u>3.86</u>	Est. Purge Volume:	<u>6</u>

<b>Sampling Data:</b>							
Initial Turbidity:				Final Turbidity:			
Time	<u>10:14</u>	<u>10:15</u>	<u>10:16</u>	<u>10:17</u>	<u>10:18</u>	<u>10:19</u>	<u>10:20</u>
EC	<u>1230</u>	<u>1240</u>	<u>1260</u>	<u>1270</u>	<u>1280</u>	<u>1230</u>	<u>1220</u>
pH	<u>6.17</u>	<u>6.11</u>	<u>6.10</u>	<u>6.11</u>	<u>6.13</u>	<u>6.10</u>	<u>6.11</u>
Temp	<u>71.4</u>	<u>71.2</u>	<u>71.3</u>	<u>71.4</u>	<u>71.6</u>	<u>71.7</u>	<u>71.6</u>
Gal.	<u>0.5</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
Time							
EC							
pH							
Temp							
Gal.							

<b>After Purging/Before Sample Collection</b>	
Depth to Water (ft.)	<u>6.11</u> Total Well Depth(ft.) <u>13.06</u>

## FIELD DATA - GROUNDWATER SAMPLING PROGRAM

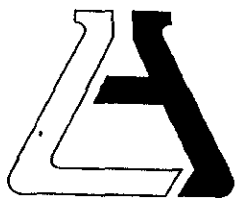
Site: <u>H 049</u>	Date: <u>04.23.03</u>
Address: _____	
Personnel: <u>SERBAN</u>	Weather: <u>RAIN</u>
Well No: <u>MU-7</u>	Equip: <u>Baird</u>

<b>Before Purging:</b>			
Total Well Depth: (ft.)	<u>13.56</u>	Well Diameter	<u>4"</u>
Depth to Water (ft)	<u>5.14</u>	Est. Purge Volume:	<u>22</u>

<b>Sampling Data:</b>							
Initial Turbidity:				Final Turbidity:			
Time	9:44	9:52	9:55	9:58	10:01	10:04	10:10
EC	1340	1340	1350	1320	1320	1310	1320
pH	6.04	6.10	6.12	6.11	6.09	6.10	6.11
Temp	21.1	21.2	21.3	21.4	21.5	21.4	21.5
Gal.	3	6	9	12	15	18	22
Time							
EC							
pH							
Temp							
Gal.							

<b>After Purging/Before Sample Collection</b>			
Depth to Water (ft.)	<u>2.14</u>	Total Well Depth(ft.)	<u>13.56</u>

# **APPENDIX B**



**ASSOCIATED LABORATORIES**

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Thrifty Oil Co. (8871)  
ATTN: Jeff Suryakusuma  
13116 Imperial Hwy.  
P.O. Box 2128  
Santa Fe Springs, CA 90670

LAB REQUEST 109861

REPORTED 05/06/2003

RECEIVED 04/25/2003

PROJECT Station #049  
3400 San Pablo Avenue, Oakland

SUBMITTER Client

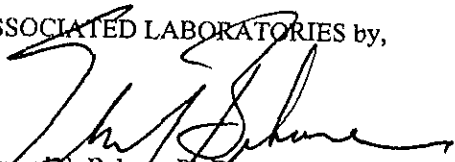
COMMENTS Global ID: T0600101365

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

<u>Order No.</u>	<u>Client Sample Identification</u>
427268	TOC #049 MW-5
427269	TOC #049 MW-1
427270	TOC #049 MW-3
427271	TOC #049 MW-7
427272	TOC #049 MW-6
427273	TOC #049 MW-4
427274	TOC #049 MW-2
427275	Trip Blank
427276	Laboratory Method Blank

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

  
Edward S. Behare, Ph.D.  
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING  
Chemical  
Microbiological  
Environmental

Order #: 427268

Client Sample ID: TOC #049 MW-5

Matrix: WATER

Date Sampled: 04/23/2003 Time Sampled: 13:00

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8021B BTEX + MTBE</b>						
Benzene	ND	1	0.3	0.04	ug/L	04/29/03 LZ
Ethyl benzene	ND	1	0.3	0.02	ug/L	04/29/03 LZ
Methyl t - butyl ether	7.9	1	5	0.03	ug/L	04/29/03 LZ
Toluene	ND	1	0.3	0.02	ug/L	04/29/03 LZ
Xylene (total)	ND	1	0.6	0.06	ug/L	04/29/03 LZ
<b>8015M - Gasoline</b>						
Gasoline	ND	1	50	15	ug/L	04/29/03 LZ
<b>Surrogates</b>						
a,a,a-Trifluorotoluene	84				Units %	Control Limits 55 - 200

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
ND = Not detected below indicated MDL, J=Trace



Order #: 427269

Matrix: WATER

Client Sample ID: TOC #049 MW-1

Date Sampled: 04/23/2003 Time Sampled: 13:10

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8021B BTEX + MTBE</b>						
Benzene	ND	1	0.3	0.04	ug/L	04/29/03 LZ
Ethyl benzene	ND	1	0.3	0.02	ug/L	04/29/03 LZ
Methyl t - butyl ether	ND	1	5	0.03	ug/L	04/29/03 LZ
Toluene	ND	1	0.3	0.02	ug/L	04/29/03 LZ
Xylene (total)	ND	1	0.6	0.06	ug/L	04/29/03 LZ
<b>8015M - Gasoline</b>						
Gasoline	ND	1	50	15	ug/L	04/29/03 LZ
<b>Surrogates</b>						
a,a,a-Trifluorotoluene	82				Units	Control Limits
					%	55 - 200

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
ND = Not detected below indicated MDL, J=Trace





Order #: 427270

Matrix: WATER

Client Sample ID: TOC #049 MW-3

Date Sampled: 04/23/2003 Time Sampled: 13:20

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8021B BTEX + MTBE</b>						
Benzene	ND	1	0.3	0.04	ug/L	04/29/03 LZ
Ethyl benzene	ND	1	0.3	0.02	ug/L	04/29/03 LZ
Methyl t - butyl ether	16	1	5	0.03	ug/L	04/29/03 LZ
Toluene	ND	1	0.3	0.02	ug/L	04/29/03 LZ
Xylene (total)	ND	1	0.6	0.06	ug/L	04/29/03 LZ
<b>8015M - Gasoline</b>						
Gasoline	ND	1	50	15	ug/L	04/29/03 LZ
<b>Surrogates</b>						
a,a,a-Trifluorotoluene	84				Units	Control Limits
					%	55 - 200

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
ND = Not detected below indicated MDL, J=Trace



Order #: 427271

Client Sample ID TOC #049 MW-7

Matrix: WATER

Date Sampled: 04/23/2003 Time Sampled: 13:30

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8021B BTEX + MTBE</b>						
Benzene	ND	1	0.3	0.04	ug/L	04/29/03 LZ
Ethyl benzene	ND	1	0.3	0.02	ug/L	04/29/03 LZ
Methyl t - butyl ether	ND	1	5	0.03	ug/L	04/29/03 LZ
Toluene	ND	1	0.3	0.02	ug/L	04/29/03 LZ
Xylene (total)	ND	1	0.6	0.06	ug/L	04/29/03 LZ
<b>8015M - Gasoline</b>						
Gasoline	ND	1	50	15	ug/L	04/29/03 LZ
<b>Surrogates</b>						
a,a,a-Trifluorotoluene	82				Units %	Control Limits 55 - 200

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
ND = Not detected below indicated MDL, J=Trace



Order #: 427272

Client Sample ID: TOC #049 MW-6

Matrix: WATER

Date Sampled: 04/23/2003 Time Sampled: 13:40

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8021B BTEX + MTBE</b>						
Benzene	ND	1	0.3	0.04	ug/L	04/29/03 LZ
Ethyl benzene	ND	1	0.3	0.02	ug/L	04/29/03 LZ
Methyl t - butyl ether	578	20	100.0	0.03	ug/L	04/29/03 LZ
Toluene	ND	1	0.3	0.02	ug/L	04/29/03 LZ
Xylene (total)	ND	1	0.6	0.06	ug/L	04/29/03 LZ
<b>8015M - Gasoline</b>						
Gasoline	1550	20	1000	15	ug/L	04/29/03 LZ
<b>Surrogates</b>						
a,a,a-Trifluorotoluene	90				Units %	Control Limits 55 - 200

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
ND = Not detected below indicated MDL, J=Trace



Order #: 427273

Client Sample ID: TOC #049 MW-4

Matrix: WATER

Date Sampled: 04/23/2003 Time Sampled: 13:50

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8021B BTEX + MTBE</b>						
Benzene	130	10	3.0	0.04	ug/L	04/29/03 LZ
Ethyl benzene	ND	10	3.0	0.02	ug/L	04/29/03 LZ
Methyl t - butyl ether	5830	200	1000.0	0.03	ug/L	04/29/03 LZ
Toluene	5.7	10	3.0	0.02	ug/L	04/29/03 LZ
Xylene (total)	387	10	6.0	0.06	ug/L	04/29/03 LZ
<b>8015M - Gasoline</b>						
Gasoline	7430	10	500	15	ug/L	04/29/03 LZ
<b>Surrogates</b>						
a,a,a-Trifluorotoluene	109				Units	Control Limits
					%	55 - 200

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace



Order #: 427274

Client Sample ID: TOC #049 MW-2

Matrix: WATER

Date Sampled: 04/23/2003 Time Sampled: 14:00

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8021B BTEX + MTBE</b>						
Benzene	ND	20	6.0	0.04	ug/L	04/29/03 LZ
Ethyl benzene	ND	20	6.0	0.02	ug/L	04/29/03 LZ
Methyl t - butyl ether	9580	200	1000.0	0.03	ug/L	04/29/03 LZ
Toluene	ND	20	6.0	0.02	ug/L	04/29/03 LZ
Xylene (total)	ND	20	12.0	0.06	ug/L	04/29/03 LZ
<b>8015M - Gasoline</b>						
Gasoline	19500	200	10000	15	ug/L	04/29/03 LZ
<b>Surrogates</b>						
a,a,a-Trifluorotoluene	93				Units	Control Limits
					%	55 - 200

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
ND = Not detected below indicated MDL, J=Trace



Order #: 427275

Client Sample ID: Trip Blank

Matrix: WATER

Date Sampled: 04/23/2003 Time Sampled: 13:00

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8021B BTEX + MTBE</b>						
Benzene	ND	1	0.3	0.04	ug/L	04/29/03 LZ
Ethyl benzene	ND	1	0.3	0.02	ug/L	04/29/03 LZ
Methyl t - butyl ether	ND	1	5	0.03	ug/L	04/29/03 LZ
Toluene	ND	1	0.3	0.02	ug/L	04/29/03 LZ
Xylene (total)	ND	1	0.6	0.06	ug/L	04/29/03 LZ
<b>8015M - Gasoline</b>						
Gasoline	ND	1	50	15	ug/L	04/29/03 LZ
<b>Surrogates</b>						
a,a,a-Trifluorotoluene	83				Units %	Control Limits 55 - 200

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 109861 results, page 8 of 9



Order #: 427276

Client Sample ID: Laboratory Method Blank

Matrix: WATER

Date Sampled: 04/23/2003

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8021B BTEX + MTBE</b>						
Benzene	ND	1	0.3	0.04	ug/L	04/29/03 LZ
Ethyl benzene	ND	1	0.3	0.02	ug/L	04/29/03 LZ
Methyl t - butyl ether	ND	1	5	0.03	ug/L	04/29/03 LZ
Toluene	ND	1	0.3	0.02	ug/L	04/29/03 LZ
Xylene (total)	ND	1	0.6	0.06	ug/L	04/29/03 LZ
<b>8015M - Gasoline</b>						
Gasoline	ND	1	50	15	ug/L	04/29/03 LZ
<b>Surrogates</b>						
a,a,a-Trifluorotoluene	85				Units	Control Limits
					%	55 - 200

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace



**ASSOCIATED LABORATORIES**  
LCS REPORT FORM

QC Sample: LCS / LCSD  
 Matrix: WATER  
 Prep. Date: 04/29/03  
 Analysis Date: 4/29/03-4/30/03  
 LAB ID#'s in Batch: LR 109889, 109861, 109851

REPORTING UNITS = ug/L

**PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS**

Test	Method	PREP. BLK	LCS			LCSD	
		Value	Result	TRUE	%Rec	Result	%Rec
Benzene	8021	ND	19.3	20	97	18.6	93
Toluene	8021	ND	19.2	20	96	18.6	93
Ethylbenzene	8021	ND	21.1	20	106	20.5	103
Xylenes	8021	ND	62.0	60	103	60.4	101

LCS = Lab Control Sample Result  
 TRUE = True Value of LCS  
 L.LIMIT / H.LIMIT = LCS Control Limits

L.Limit	H.Limit
80%	120%

**SURROGATE RECOVERY**

Sample No.	AAA-TFT
QC Limit	55-200
Method Blank	85
LCS	101
LCSD	101

AAA-TFT = a,a,a-Trifluorotoluene



**ASSOCIATED LABORATORIES**  
**QA REPORT FORM**

QC Sample: LCS / LCSD  
 Matrix: WATER  
 Prep. Date: 04/29/03  
 Analysis Date: 4/29/03-4/30/03  
 ID#'s in Batch: LR 109889, 109861, 109851

Reporting Units = ug/L

**PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS**

			PREP BLK					
			Value	Result	True	%Rec	L.Limit	H.Limit
Test	Method	LCS	ND	525	500	105	80%	120%
TPH	8015M-G	LCSD	ND	481	500	96	80%	120%

*LCS Result = Lab Control Sample Result*

*True = True Value of LCS*

*L.Limit / H.Limit = LCS Control Limits*

**SURROGATE RECOVERY**

Sample No.	AAA-TFT
QC Limit	55-200
Method Blank	85
LCS	167
LCSD	143

*AAA-TFT = a,a,a-Trifluorotoluene*

# Chain of Custody Record

**ASSOCIATED LABORATORIES**

806 North Batavia • Orange, CA 92868

Phone: (714) 771-6900 • Fax: (714) 538-1209



Company: <b>THRIFTY OIL CO.</b>	Phone: <b>562/421-3581</b>	A.L. Job No. <b>109861</b>	Page _____ of _____
Project Manager: <b>JEFF SURYAKUSUMA</b>	Fax: <b>562/421-7510</b>	<b>Analysis Requested</b>	
Project Name: <b>Q. W. S.</b>	Project #: <b>T0600101365</b>		
Site Name and Address: <b>3400 SAN PABLO AVENUE OAKLAND, 94612</b>		<b>Test Instructions &amp; Comments</b>	

Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.	T	B	M						
1 MW-5		04.23.03	13:00	H <sub>2</sub> O	3VDA	HCL	X	X	X						
2 MW-1		↑	13:10	↑	↑	↑	X	X	X						
3 MW-3			13:20				X	X	X						
4 MW-7			13:30				X	X	X						
5 MW-6			13:40				X	X	X						
6 MW-4			13:50				X	X	X						
7 MW-2		↓	14:00	↓	↓	↓	X	X	X						
8 TIP BLANK		04.23.03	13:00	↓	2VOA	HCL	X	X							
9															
10															
11															
12															
13															
14															
15															

**Sample Receipt - To Be Filled By Laboratory**

Total Number of Containers	Properly Cooled Y / N / NA	Relinquished by Sampler: <b>SERBAN</b> 1.	Relinquished by: <b>GOLDEN STATE</b> 2.	Relinquished by: _____ 3.
Custody Seals Y / N / NA	Samples Intact Y / N / NA	Signature: <i>[Signature]</i>	Signature: _____	Signature: _____
Received in Good Condition Y / N	Samples Accepted Y / N	Printed Name: <b>SERBAN POPA 8 W</b>	Printed Name: _____	Printed Name: _____
		Date: <b>04.23.03</b> Time: <b>17:30</b>	Date: _____ Time: _____	Date: _____ Time: _____

**Turn Around Time**

<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush <input type="checkbox"/> Same Day <input type="checkbox"/> 48 hrs. <input type="checkbox"/> 24 hrs. <input type="checkbox"/> 72 hrs.	Received By: <b>GOLDEN STATE</b> 1. Signature: _____ Printed Name: _____ Date: _____ Time: _____	Received By: _____ 2. Signature: <i>[Signature]</i> Printed Name: <b>Rayan Lewis</b> Date: <b>4/25/03</b> Time: <b>9:50</b>	Received By: _____ 3. Signature: _____ Printed Name: _____ Date: _____ Time: _____
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*M-4106*

# APPENDIX C

049

DATE:

04.04.03

START-UP/SHUT DOWN REPORT

STATION NO.: 049

SYSTEM TYPE: G.W.C.

START-UP REPORT:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SHUT DOWN REPORT:

System shut down for upgrade  
Performed complete system check up and observed  
that several mechanical and pneumatic components need  
to be replaced. (Solenoid valves inside pulsing panel,  
bubbler, diaphragm pump, shut off valves etc.)

Strongly recommend replacement of the entire  
system with a newer type.

SIGNATURE: [Signature]

[Signature]