

# THRIFTY OIL CO.

April 9, 2001

RO05

O.13589

Ms. Susan Hugo  
Alameda County Health Care Services  
Department of Environmental Health  
1131 Harbor Bay parkway, 2nd Floor  
Alameda, CA 94502

APR 13 2001

RE: **Thrifty Oil Co. Station #063**  
6125 Telegraph Avenue  
Oakland, CA 94609  
*1st Quarter 2001, Status Report*

Dear Ms. Hugo:

Presented herewith is the First Quarter 2001, Status Report for former Thrifty Oil Co. Station #063 located at 6125 Telegraph Avenue, Oakland, California.

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

Sincerely,



Chris Panaitescu  
General Manager  
Environmental Affairs

cc: ARCO Products Company  
File



# THRIFTY OIL CO.

April 9, 2001

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

RE: **Former Thrifty Oil Co. Station #063**  
6125 Telegraph Avenue  
Oakland, CA  
*1st Quarter 2001, Status Report*

Dear Ms. Hugo:

Presented herein is the First Quarter 2001, Status Report prepared for former Thrifty Oil Co. (Thrifty) Station #063 located at 6125 Telegraph Avenue, Oakland, California (**Figure 1**). Presented in this report are the results of the site monitoring and remedial efforts in the First Quarter 2001. Thrifty has retained the services of Earth Management Company (EMC) to conduct quarterly monitoring and sampling, and remedial 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 under water table conditions beneath the station at depths ranging from 10.75 feet below surface grade (bsg) in monitoring well MW-4 to 14.80 feet bsg in monitoring well MW-5 on January 10, 2001 (**Appendix A**). A groundwater elevation contour map based on the January 10, 2001 data is presented in **Figure 2**. The groundwater is flowing toward a groundwater depression in the area of wells MW-3 and MW-6.

## **Quarterly Groundwater Sampling**

As part of the ongoing groundwater monitoring program, groundwater samples were obtained from monitoring wells MW-1, MW-4, MW-5, and MW-6 on January 10, 2001. Well MW-3 was sampled on January 10, 2001 as an influent stream into the groundwater remediation system. 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) EPA method 8015M modified for gasoline. Volatile aromatic compounds of benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tert-butyl ether (MTBE) were analyzed for by EPA method 8021B. A summary of historical analytical sampling results are 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**.

TPH-g, BTEX, and MTBE concentrations appear in **Table 1** and **Appendix B**. TPH-g, benzene, and MTBE laboratory analytical results are plotted on **Figures 3, 4, and 5**, respectively. Laboratory results indicate the highest concentrations of TPH-g, benzene, and MTBE were in monitoring well MW-3, with concentrations of 10,000 ug/L, 384 ug/L, and 11,600 ug/L, respectively. The isoconcentration maps incorporate data from the treatment system influent, due to the fact the groundwater is pumped solely from well MW-3.

### **Remediation Status**

Site remedial activities were initiated in April 1991. Presently, the remediation system consists of a Groundwater Treatment System with carbon connected to groundwater monitoring well MW-3. System operational data is included in **Table 2** and **Appendix C**. During this reporting period, the groundwater treatment system processed approximately 105,290 gallons of groundwater, and has treated approximately 1,002,719 gallons of groundwater since start up (through March 26, 2001). The system was shut down from December 22 through January 8, 2001, because the Thrifty technician was on vacation. The system operated throughout the rest of the first quarter 2001.

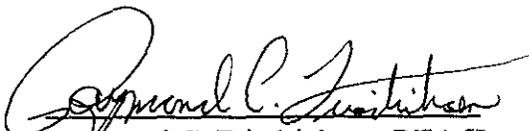
Influent, intermediate, and effluent water samples were collected on January 10, 2001. The samples collected by EMC were sent to a state certified laboratory for analysis. The samples were analyzed for TPH-g, BTEX, and MTBE by EPA methods 8015 and 8021B. All laboratory results for effluent samples for TPH-g, BTEX, and MTBE were below the laboratory detection limits. A copy of the laboratory analytical reports are included in **Appendix D**.

### **Other Activities**

The groundwater monitoring wells, and the treatment unit, will be monitored and sampled for the next quarter. All site monitoring/sampling data generated during the next quarter will be reported in the Second Quarter 2001 monitoring report.

Interpretations expressed herein are based upon data collected by EMC.

Written by:

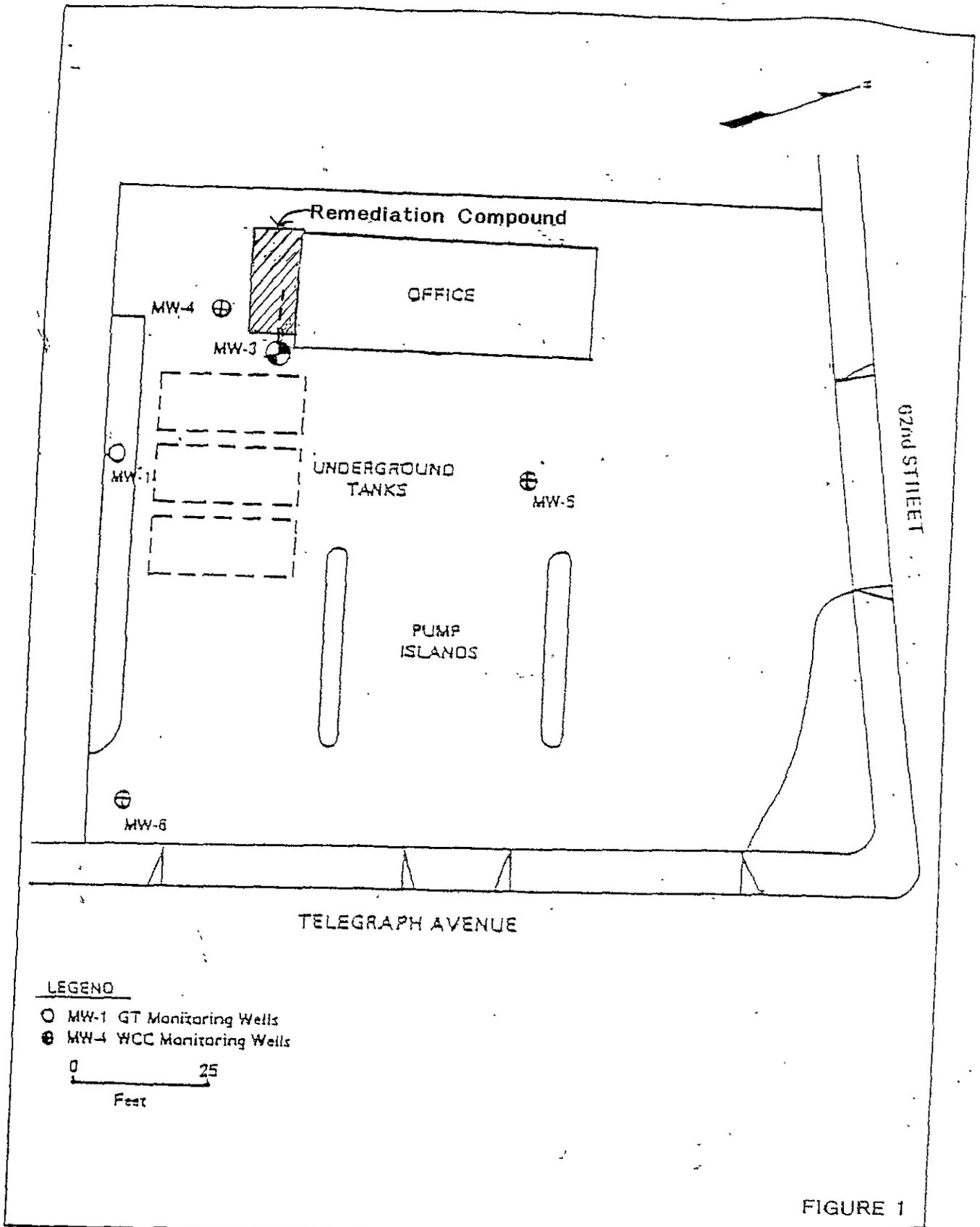
  
Raymond C. Friedrichsen, REA II  
Project Manager, MBA  
Senior Hydrogeologist

Reviewed by:

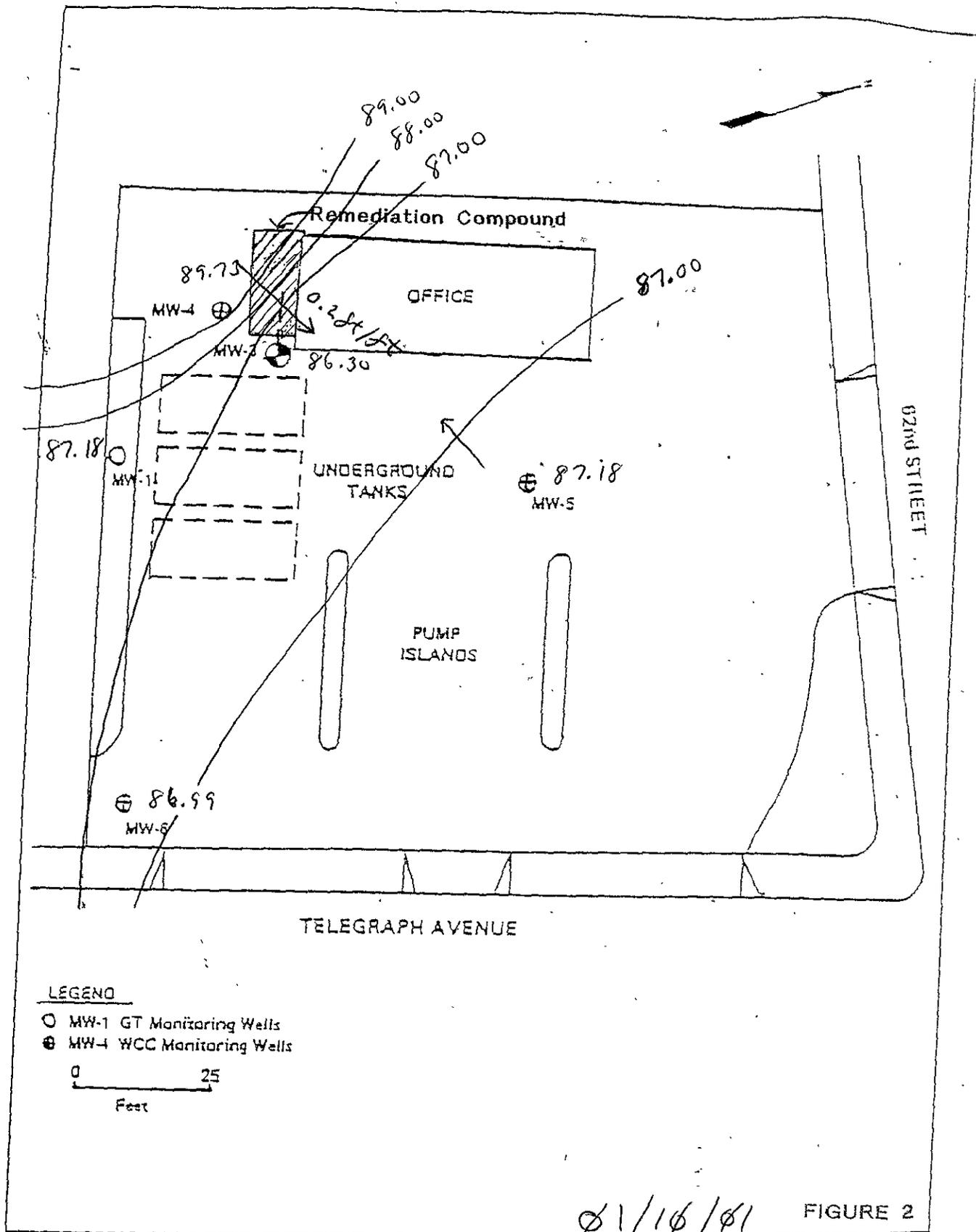
  
Larry Higinbotham  
Registered Geologist #5495



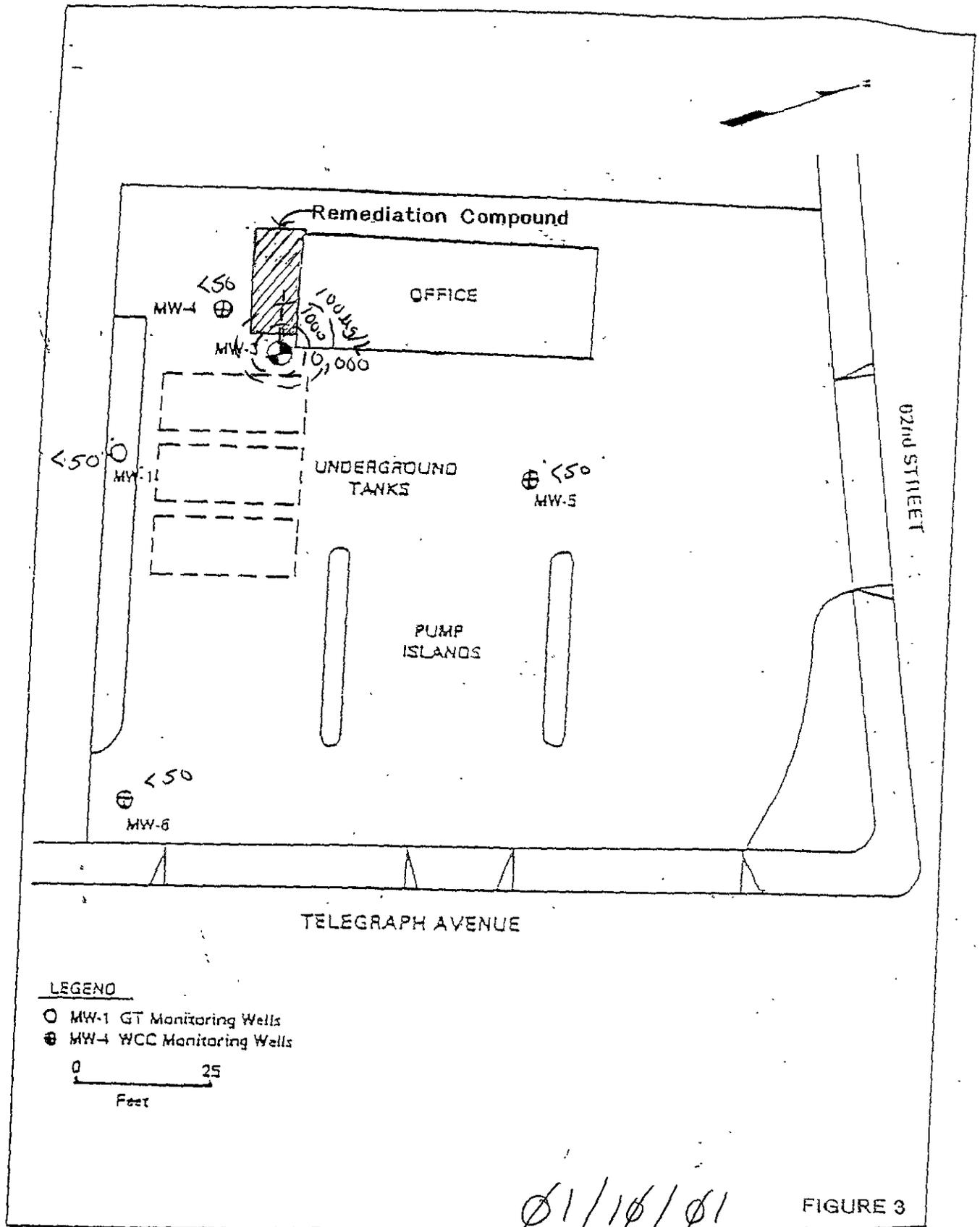
# FIGURES



SITE PLAN AND RECOVERY SYSTEM  
 THRIFTY SERVICE STATION NO. 63  
 6125 TELEGRAPH AVE.  
 OAKLAND, CA

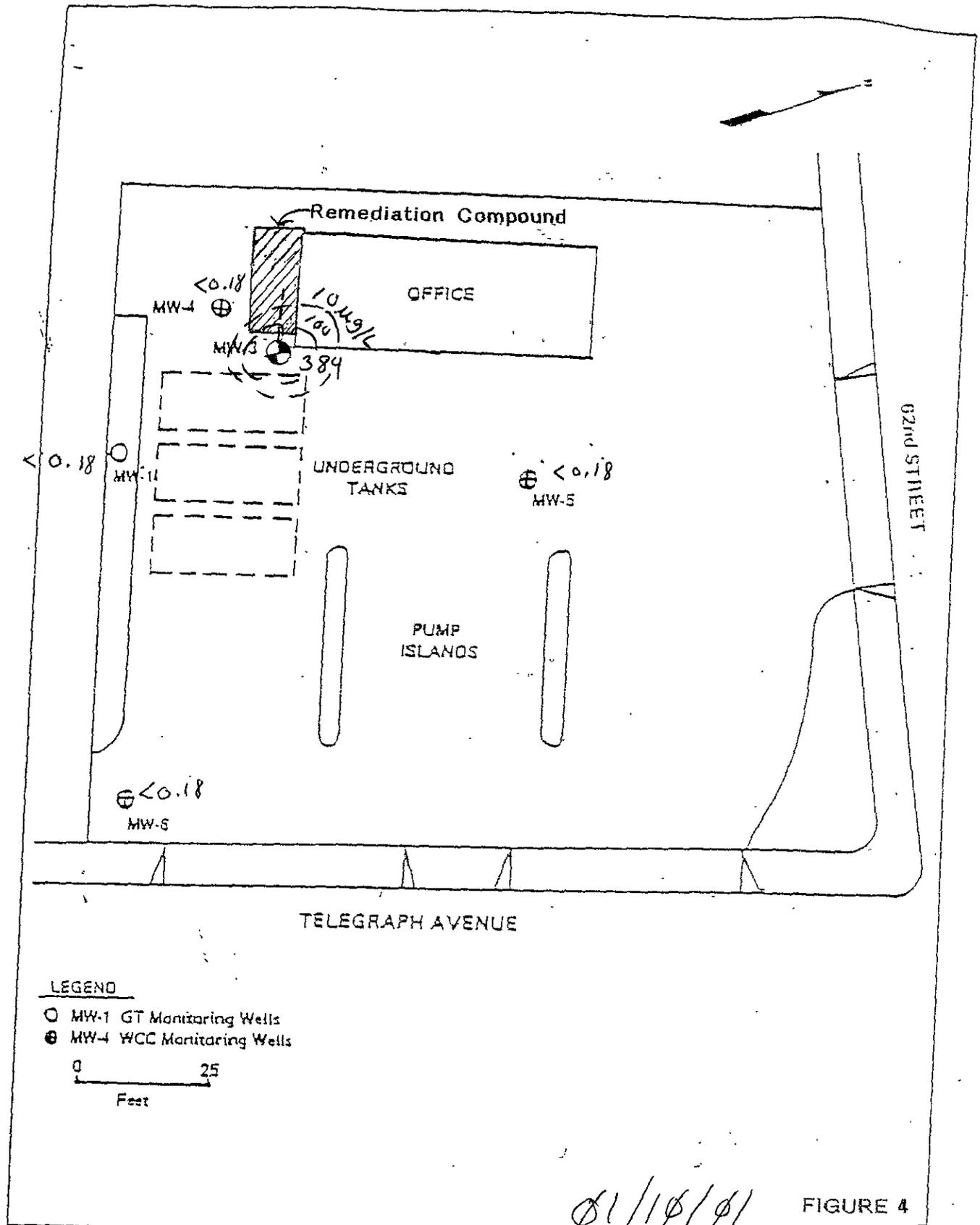


Groundwater Contour Map  
 THRIFTY SERVICE STATION NO. 63  
 6125 TELEGRAPH AVE.  
 OAKLAND, CA

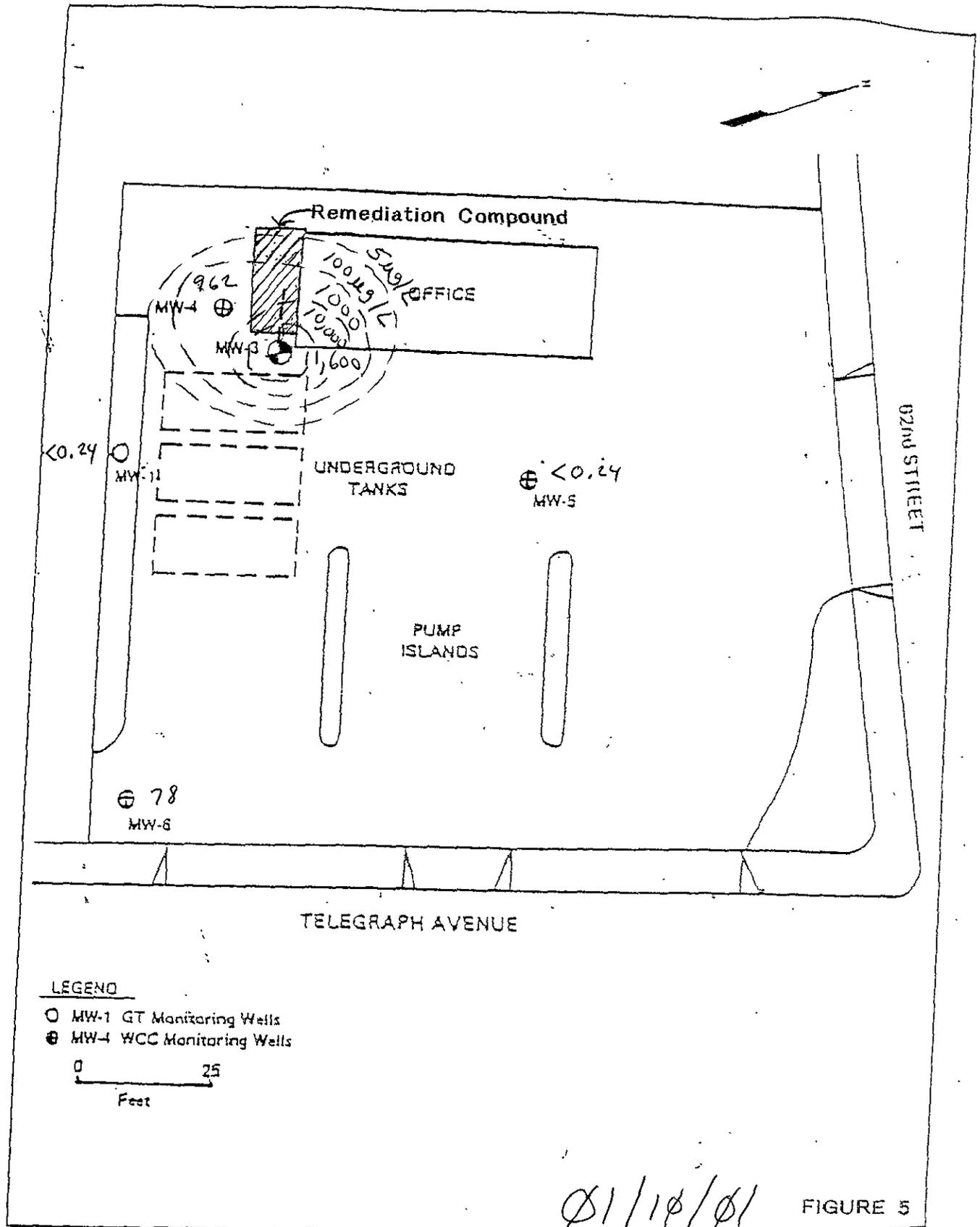


01/10/01  
 TPH-g Isoconcentration Map ug/L  
 THRIFTY SERVICE STATION NO. 63  
 6125 TELEGRAPH AVE.  
 OAKLAND, CA

FIGURE 3

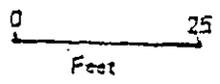


01/10/01 **FIGURE 4**  
**Benzene Isoconcentration Map ug/L**  
**THRIFTY SERVICE STATION NO. 63**  
**6125 TELEGRAPH AVE.**  
**OAKLAND, CA**



**LEGEND**

- MW-1 GT Monitoring Wells
- ⊕ MW-4 WCC Monitoring Wells



01/10/01

FIGURE 5

MTBE Isoconcentration Map ug/L  
 THRIFTY SERVICE STATION NO. 63  
 6125 TELEGRAPH AVE.  
 OAKLAND, CA

# **TABLES**

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #063, 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>											
11/21/86	-	-	-	-	-	-	15.42	NP	0.00	99.34	83.92
07/22/91	-	-	-	-	-	-	20.41	FILM	0.00	99.34	78.93
10/24/91	-	-	-	-	-	-	19.06	SHEEN	0.00	99.34	80.28
01/22/92	-	-	-	-	-	-	18.78	SHEEN	0.00	99.34	80.56
03/24/92	-	-	-	-	-	-	13.55	SHEEN	0.00	99.34	85.79
07/15/92	-	-	-	-	-	-	18.90	FILM	0.00	99.34	80.44
10/05/92	-	-	-	-	-	-	20.50	FILM	0.00	99.34	78.84
01/06/93	-	-	-	-	-	-	14.93	FILM	0.00	99.34	84.41
07/13/93	-	-	-	-	-	-	15.44	FILM	0.00	99.34	83.90
10/11/93	-	-	-	-	-	-	20.36	FILM	0.00	99.34	78.98
01/11/94	-	-	-	-	-	-	19.50	FILM	0.00	99.34	79.84
04/12/94	-	-	-	-	-	-	18.10	FILM	0.00	99.34	81.24
07/14/94	-	-	-	-	-	-	20.03	FILM	0.00	99.34	79.31
01/15/96	11,000	2,800	150	780	770	-	19.02	NP	0.00	99.34	80.32
04/15/96	17,000	3,600	330	1,500	3,400	-	18.82	NP	0.00	99.34	80.52
07/15/96	12,000	1,300	200	1,200	4,600	250	-	NP	-	-	-
10/09/96	-	-	-	-	-	-	14.87	NP	0.00	99.34	84.47
01/13/97	27,000	810	6,000	570	4,100	2,700	10.20	NP	0.00	99.34	89.14
04/14/97	2,900	3.0	2.9	<0.3	1.7	9,900	-	NP	-	-	-
07/07/97	5,200	0.57	0.57	<0.3	0.71	16,000	18.75	NP	0.00	99.34	80.59
10/16/97	680	<0.3	0.55	<0.3	<0.5	-	17.92	NP	0.00	99.34	81.42
01/07/98	42,000	980	2,800	1,200	5,200	1.3	9.80	NP	0.00	99.34	89.54
04/06/98	7,100	700	340	170	2,600	1,000	9.60	NP	0.00	99.34	89.74
07/14/98	19,000	2,100	400	890	5,800	1,600	13.70	NP	0.00	99.34	85.64
10/15/98	490	<0.3	<0.3	<0.3	<0.5	1,300	15.25	NP	0.00	99.34	84.09
01/20/99	350	<0.3	<0.3	<0.3	<0.5	* 670 / 820	12.20	NP	0.00	99.34	87.14
04/16/99	320	<0.3	<0.3	<0.3	<0.5	* 540 / 630	12.20	NP	0.00	99.34	87.14
07/14/99	290	<0.3	<0.3	<0.3	<0.5	*590 / 580	13.75	NP	0.00	99.34	85.59
10/07/99	130	<0.3	<0.3	<0.3	<0.5	270	12.15	NP	0.00	99.34	87.19
01/26/00	13,000	460	54	290	3,700	940	13.14	NP	0.00	99.34	86.20
04/19/00	546	<0.25	<0.25	<0.25	<0.5	*430 / 606	10.63	NP	0.00	99.34	88.71
05/26/00	<50	<0.3	<0.3	<0.3	<0.6	<5	9.11	NP	0.00	99.34	90.23
07/26/00	<50	<0.3	<0.3	<0.3	<0.6	<5	9.10	NP	0.00	99.34	90.24
10/25/00	<50	<0.18	<0.14	<0.18	<0.26	<0.24	9.08	NP	0.00	99.34	90.26
01/10/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	12.16	NP	0.00	99.34	87.18

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #063, 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-2</b>											
11/21/86	-	-	-	-	-	-	14.90	0.11	14.79	100.01	96.28
07/22/91	-	-	-	-	-	-	17.84	0.38	17.46	100.01	95.35
10/24/91	-	-	-	-	-	-	17.00	16.97	0.03	100.01	83.03
01/22/92	-	-	-	-	-	-	16.72	FILM	0.00	100.01	83.29
03/24/92	-	-	-	-	-	-	15.81	11.98	3.83	100.01	87.09
07/15/92	-	-	-	-	-	-	16.37	FILM	0.00	100.01	83.64
10/05/92	-	-	-	-	-	-	18.41	18.09	0.32	100.01	81.84
01/06/93	-	-	-	-	-	-	12.37	FILM	0.00	100.01	87.64
07/13/93	-	-	-	-	-	-	15.19	FILM	0.00	100.01	84.82
10/11/93	-	-	-	-	-	-	18.05	0.10	17.95	100.01	95.51
01/11/94	-	-	-	-	-	-	16.98	0.03	16.95	100.01	95.83
04/12/94	-	-	-	-	-	-	15.54	FILM	0.00	100.01	84.47
07/14/94	-	-	-	-	-	-	17.93	FILM	0.00	100.01	82.08
01/15/96	7,100	720	280	48	660	-	17.20	NP	0.00	100.01	82.81
04/15/96	11,000	600	59	420	870	-	17.26	NP	0.00	100.01	82.75
07/15/96	19,000	360	51	610	1,600	<250	-	-	-	-	-
10/09/96	-	-	-	-	-	-	14.42	NP	0.00	100.01	85.59
01/13/97	11,000	230	30	91	700	56	10.25	NP	0.00	100.01	89.76
04/14/97	141	1.2	0.33	0.44	<0.5	20	-	-	-	-	-
07/07/97	<50	<0.3	<0.3	<0.3	<0.5	<20	17.20	NP	0.00	100.01	82.81
10/16/97	<50	<0.3	<0.3	<0.3	<0.5	-	16.20	NP	0.00	100.01	83.81
01/07/98	-	-	-	-	-	-	16.26	16.18	0.08	100.01	83.81
Well Abandoned 1/30/98											
<b>MONITORING WELL #MW-3</b>											
11/21/86	-	100	5.1	<1.0	25	-	16.25	0.10	16.15	99.76	95.70
07/22/91	-	-	-	-	-	-	24.00	NP	0.00	99.76	75.76
10/24/91	-	-	-	-	-	-	18.10	NP	0.00	99.76	81.66
01/22/92	-	-	-	-	-	-	25.80	SHEEN	0.00	99.76	73.96
03/24/92	-	-	-	-	-	-	15.60	NP	0.00	99.76	84.16
07/15/92	-	-	-	-	-	-	25.10	FILM	0.00	99.76	74.66
10/05/92	-	-	-	-	-	-	25.20	NP	0.00	99.76	74.56
01/06/93	-	-	-	-	-	-	25.45	NP	0.00	99.76	74.31
07/13/93	-	-	-	-	-	-	14.24	NP	0.00	99.76	85.52
10/11/93	-	-	-	-	-	-	25.60	NP	0.00	99.76	74.16

**TABLE 1**  
**GROUNDWATER DATA**  
**THRIFTY OIL STATION #063, 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)					
01/11/94	-	-	-	-	-	-	25.90	NP	0.00	99.76	73.86
04/12/94	-	-	-	-	-	-	25.70	NP	0.00	99.76	74.06
07/14/94	-	-	-	-	-	-	25.10	NP	0.00	99.76	74.66
01/15/96	-	-	-	-	-	-	26.04	NP	0.00	99.76	73.72
04/15/96	-	-	-	-	-	-	21.03	NP	0.00	99.76	78.73
07/15/96	5,900	240	30	270	730	780	-	-	-	-	-
10/09/96	-	-	-	-	-	-	21.43	NP	0.00	99.76	78.33
01/13/97	-	-	-	-	-	-	11.20	NP	0.00	99.76	88.56
07/07/97	-	-	-	-	-	-	23.40	NP	0.00	99.76	76.36
10/16/97	-	-	-	-	-	-	22.30	NP	0.00	99.76	77.46
01/07/98	-	-	-	-	-	-	20.10	NP	0.00	99.76	79.66
07/14/98	-	-	-	-	-	-	14.40	NP	0.00	99.76	85.36
10/15/98	-	-	-	-	-	-	-	-	-	-	-
01/20/99	-	-	-	-	-	-	-	-	-	-	-
04/16/99	-	-	-	-	-	-	11.20	NP	0.00	99.76	88.56
07/14/99	5,600	9.6	1.3	3.5	8.1	*14,000 / 14,000	25.87	NP	0.00	99.76	73.89
10/07/99	-	-	-	-	-	-	15.40	NP	0.00	99.76	84.36
01/26/00	-	-	-	-	-	-	14.25	NP	0.00	99.76	85.51
04/19/00	-	-	-	-	-	-	14.20	NP	0.00	99.76	85.56
05/26/00	-	-	-	-	-	-	15.12	NP	0.00	99.76	84.64
07/26/00	-	-	-	-	-	-	14.30	NP	0.00	99.76	85.46
10/25/00	-	-	-	-	-	-	14.32	NP	0.00	99.76	85.44
01/10/01	-	-	-	-	-	-	13.46	NP	0.00	99.76	86.30
<b>MONITORING WELL #MW-4</b>											
11/21/86	100,000	3,200	2,700	2,400	14,000	-	16.22	FILM	0.00	99.48	83.26
07/22/91	-	-	-	-	-	-	21.80	21.35	0.45	99.48	78.02
10/24/91	-	-	-	-	-	-	20.02	SHEEN	0.00	99.48	79.46
01/22/92	-	-	-	-	-	-	19.78	SHEEN	0.00	99.48	79.70
03/24/92	-	-	-	-	-	-	13.94	FILM	0.00	99.48	85.54
07/15/92	-	-	-	-	-	-	19.27	FILM	0.00	99.48	80.21
10/03/92	-	-	-	-	-	-	21.44	FILM	0.00	99.48	78.04
01/06/93	-	-	-	-	-	-	14.08	FILM	0.00	99.48	85.40
07/13/93	-	-	-	-	-	-	16.09	FILM	0.00	99.48	83.39
10/11/93	-	-	-	-	-	-	21.33	FILM	0.00	99.48	78.15

**TABLE 1**  
**GROUNDWATER DATA**  
**THRIFTY OIL STATION #063, 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)					
01/11/94	-	-	-	-	-	-	20.45	FILM	0.00	99.48	79.03
04/12/94	-	-	-	-	-	-	19.05	FILM	0.00	99.48	80.43
07/14/94	-	-	-	-	-	-	20.41	FILM	0.00	99.48	79.07
01/15/96	5,000	370	38	300	390	-	19.89	NP	0.00	99.48	79.59
04/15/96	38,000	300	78	540	470	-	19.62	NP	0.00	99.48	79.86
07/15/96	13,000	880	69	820	1,100	3,600	-	-	-	-	-
10/09/96	-	-	-	-	-	-	15.32	NP	0.00	99.48	84.16
01/13/97	47,000	2,500	2,500	1,100	2,800	70,000	10.80	NP	0.00	99.48	88.68
04/14/97	8,700	<0.3	0.45	<0.3	0.64	29,000	-	-	-	-	-
07/07/97	12,000	<0.3	<0.3	<0.3	<0.5	-	18.80	NP	0.00	99.48	80.68
10/16/97	770	<0.3	<0.3	<0.3	<0.5	-	17.76	NP	0.00	99.48	81.72
01/07/98	75,000	3,000	900	1,400	2,500	110	11.60	NP	0.00	99.48	87.88
04/08/98	18,000	1,200	130	710	1,400	22,000	10.10	NP	0.00	99.48	89.38
07/14/98	21,000	1,300	58	1,200	1,100	23,000	16.30	NP	0.00	99.48	83.18
10/15/98	9,100	1.1	0.62	<0.3	<0.5	30,000	16.90	NP	0.00	99.48	82.58
01/20/99	16,000	<0.3	0.91	0.72	1.4	* 43,000 / 42,000	15.35	NP	0.00	100.48	85.13
04/16/99	17,000	0.48	0.92	0.54	1.4	* 28,000 / 26,000	15.30	NP	0.00	100.48	85.18
07/14/99	8,500	<6	<6	<6	<10	*21,000 / 16,000	18.40	NP	0.00	100.48	82.08
10/07/99	2,500	<1.5	3.1	<1.5	<2.5	4,800	16.89	NP	0.00	100.48	83.59
01/26/00	9,900	350	9	460	460	2,800	12.62	NP	0.00	100.48	87.86
04/19/00	8,990	0.7	<0.25	<0.25	<0.5	*3,240 / 5,450	12.28	NP	0.00	100.48	88.20
05/26/00	94	<0.3	<0.3	<0.3	<0.6	*746 / 419	13.81	NP	0.00	100.48	86.67
07/26/00	<50	<0.3	<0.3	<0.3	<0.6	3,110 / 2,060	12.29	NP	0.00	100.48	88.19
10/25/00	2,480	<0.18	<0.14	<0.18	<0.26	*3,690 / 3,040	12.26	NP	0.00	100.48	88.22
01/10/01	<50	<0.18	2	<0.18	1	962	10.75	NP	0.00	100.48	89.73
<b>MONITORING WELL #MW-5</b>											
11/21/86	<1,000	4.8	2.1	<0.5	7.4	-	16.10	NP	0.00	100.98	84.88
07/22/91	-	<0.5	1.6	<1.0	2.0	-	18.20	NP	0.00	100.98	82.78
10/24/91	-	-	-	-	-	-	17.67	NP	0.00	100.98	83.31
01/22/92	600	21.0	8.0	2.0	17.0	-	-	-	-	-	-
03/24/92	-	-	-	-	-	-	12.98	NP	0.00	100.98	88.00
07/15/92	<200	<0.5	<0.5	<0.5	<0.5	-	17.29	NP	0.00	100.98	83.69
10/05/92	-	-	-	-	-	-	18.92	NP	0.00	100.98	82.06
01/06/93	300	2.7	<0.5	1.3	26.0	-	13.12	NP	0.00	100.98	87.86

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #063, 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)	TOFUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MIBE (ug/L)					
07/13/93	<100	1.1	0.5	1.0	1.5	-	16.15	NP	0.00	100.98	84.83
10/11/93	130	1.2	<0.3	<0.3	<0.6	-	18.75	NP	0.00	100.98	82.23
01/11/94	<50	1.5	<0.3	<0.3	<0.5	-	17.80	NP	0.00	100.98	83.18
04/12/94	<50	<0.3	<0.3	<0.3	<0.5	-	13.59	NP	0.00	100.98	87.39
07/14/94	<50	0.42	<0.3	<0.3	<0.5	-	18.26	NP	0.00	100.98	82.72
07/15/95	100	1.2	<0.5	0.8	<1	-	-	-	-	-	-
01/15/96	1,900	21	13	6.2	6.8	-	13.09	NP	0.00	100.98	87.89
04/15/96	250	5.1	2.7	1.7	1.1	-	13.16	NP	0.00	100.98	87.82
07/15/96	270	6.5	1.4	1.8	1.4	230	-	NP	-	-	-
10/09/96	-	-	-	-	-	-	15.37	NP	0.00	100.98	85.61
01/13/97	25,000	780	5,700	560	4,000	24,000	10.90	NP	0.00	100.98	90.08
04/14/97	6,300	260	1,600	28	550	9,000	-	-	-	-	-
07/07/97	7,500	300	1,500	12	110	16,000	14.70	NP	0.00	100.98	86.28
10/16/97	4,600	<0.3	0.65	<0.3	<0.5	-	13.60	NP	0.00	100.98	87.38
01/07/98	2,700	33	11	37	580	7.3	10.97	NP	0.00	100.98	90.01
04/08/98	300	9.1	<0.3	<0.3	<0.5	650	10.90	NP	0.00	100.98	90.08
07/14/98	670	5.9	<0.3	<0.3	0.53	2,300	15.20	NP	0.00	100.98	85.78
10/15/98	<50	<0.3	<0.3	<0.3	<0.5	19	15.90	NP	0.00	100.98	85.08
01/20/99	<50	<0.3	<0.3	<0.3	<0.5	<5	15.20	NP	0.00	101.98	86.78
04/16/99	<50	<0.3	<0.3	<0.3	<0.5	<5	15.25	NP	0.00	101.98	86.73
07/14/99	<50	<0.3	<0.3	<0.3	<0.5	<5	15.96	NP	0.00	101.98	86.02
10/07/99	<50	<0.3	<0.3	<0.3	<0.5	<5	16.33	NP	0.00	101.98	85.65
01/26/00	<50	<0.3	<0.3	<0.3	<0.5	<5	14.80	NP	0.00	101.98	87.18
04/19/00	965	<0.25	<0.25	<0.25	<0.5	<5	10.97	NP	0.00	101.98	91.01
05/26/00	<50	<0.3	<0.3	<0.3	<0.6	<5	14.43	NP	0.00	101.98	87.55
07/26/00	<50	<0.3	<0.3	<0.3	<0.6	<5	14.02	NP	0.00	101.98	87.96
10/25/00	<50	<0.18	<0.14	<0.18	<0.26	<0.24	14.04	NP	0.00	101.98	87.94
01/10/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	14.80	NP	0.00	101.98	87.18
<b>MONITORING WELL #MW-6</b>											
11/21/86	<1,000	<2.0	<2.0	<2.0	<2.0	-	12.64	NP	0.00	99.44	86.80
07/22/91	-	-	-	-	-	-	-	-	-	-	-
01/22/92	<200	<0.5	<0.5	<0.5	1.5	-	-	-	-	-	-
03/24/92	-	-	-	-	-	-	10.04	NP	0.00	99.44	89.40
07/15/92	<200	<0.5	<0.5	<0.5	<0.5	-	13.29	NP	0.00	99.44	86.15

**TABLE 1**  
**GROUNDWATER DATA**  
**THRIFTY OIL STATION #063, 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)					
10/05/92	-	-	-	-	-	-	14.69	NP	0.00	99.44	84.75
01/06/93	<200	<0.5	<0.5	<0.5	<1.0	-	10.87	NP	0.00	99.44	88.57
07/13/93	<100	<0.5	<0.5	<0.5	<1.0	-	13.10	NP	0.00	99.44	86.34
10/11/93	<60	<0.3	<0.3	<0.3	<0.6	-	14.43	NP	0.00	99.44	85.01
01/11/94	<50	<0.3	<0.3	<0.3	<0.5	-	13.56	NP	0.00	99.44	85.88
04/12/94	<50	<0.3	<0.3	<0.3	<0.3	-	12.10	NP	0.00	99.44	87.34
07/14/94	<50	<0.3	<0.3	<0.3	<0.3	-	14.16	NP	0.00	99.44	85.28
07/15/95	140	<0.5	<0.5	<0.5	<1	-	-	-	-	-	-
01/15/96	56	0.38	0.33	<0.3	<0.5	-	14.29	NP	0.00	99.44	85.15
04/15/96	96	4.5	<0.3	<0.3	0.53	-	14.32	NP	0.00	99.44	85.12
07/15/96	140	2.4	0.44	<0.3	0.70	110	-	-	-	-	-
10/09/96	-	-	-	-	-	-	12.09	NP	0.00	99.44	87.35
01/13/97	210	<0.3	1.2	<0.3	0.68	270	9.85	NP	0.00	99.44	89.59
04/14/97	<50	<0.3	<0.3	<0.3	<0.5	<20	-	-	-	-	-
07/07/97	<50	<0.3	<0.3	<0.3	<0.5	<20	14.20	NP	0.00	99.44	85.24
10/16/97	<50	<0.3	<0.3	<0.3	<0.5	-	13.10	NP	0.00	99.44	86.34
01/07/98	<50	<0.3	<0.3	<0.3	<0.5	0.10	9.80	NP	0.00	99.44	89.64
07/14/98	330	<0.3	<0.3	<0.3	<0.5	380	12.30	NP	0.00	99.44	87.14
10/15/98	<50	<0.3	<0.3	<0.3	<0.5	<5	14.30	NP	0.00	99.44	85.14
01/20/99	<50	0.47	<0.3	<0.3	<0.5	<5	13.60	NP	0.00	100.44	86.84
04/16/99	<50	<0.3	<0.3	<0.3	<0.5	<5	13.50	NP	0.00	100.44	86.94
07/14/99	<50	<0.3	<0.3	<0.3	<0.5	*5.4 / <5	14.65	NP	0.00	100.44	85.79
10/07/99	<50	<0.3	0.96	0.35	1.8	<5	15.39	NP	0.00	100.44	85.05
01/26/00	<50	<0.3	<0.3	<0.3	0.63	<5	13.85	NP	0.00	100.44	86.59
04/19/00	83.1	<0.25	<0.25	<0.25	<0.5	*11 / <5	9.65	NP	0.00	100.44	90.79
05/26/00	<50	<0.3	<0.3	<0.3	<0.6	<5	13.10	NP	0.00	100.44	87.34
07/26/00	<50	<0.3	<0.3	<0.3	<0.6	<5	12.35	NP	0.00	100.44	88.09
10/25/00	<50	<0.18	<0.14	<0.18	<0.26	*7 / 10	12.30	NP	0.00	100.44	88.14
01/10/01	<50	<0.18	<0.14	<0.18	<0.26	78	13.45	NP	0.00	100.44	86.99

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

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 063, OAKLAND, CA

Date	Totalizer (gallons)	Total Cum. Discharge (gallons)	Flow (gpd/day)	EFFLUENT (ug/L)						INFLUENT (ug/L)					
				TPH-g	B	T	E	X	MTBE	TPH-g	B	T	E	X	MTBE
4/8/91	1,669	0	-	-	<0.3	<0.3	<0.3	<0.9	-	-	1300	120	<7.5	1300	-
4/15/91	5,742	4,073	582	-	<0.3	<0.3	<0.3	<0.3	-	-	700	140	<15	500	-
4/22/91	10,240	8,571	643	-	<0.3	<0.3	<0.3	<0.9	-	-	850	100	34	860	-
4/29/91	15,510	13,841	753	-	<0.3	<0.3	<0.3	<0.9	-	-	220	8.4	<0.3	42	-
5/6/91	20,200	18,531	670	-	<0.3	<0.3	<0.3	<0.9	-	-	280	0.8	<0.3	56	-
5/13/91	24,430	22,761	604	-	<0.3	<0.3	<0.3	<0.9	-	-	190	5.6	<0.3	37	-
5/20/91	28,480	26,811	579	-	<0.3	<0.3	<0.3	<0.9	-	-	150	0.83	1.4	29	-
5/28/91	29,310	27,841	104	-	<0.3	<0.3	<0.3	<0.9	-	-	<0.3	<0.3	<0.3	<0.9	-
6/3/91	33,080	31,411	628	-	<0.3	<0.3	<0.3	<0.9	-	-	58	4	<0.3	33	-
6/10/91	38,939	35,270	551	-	<0.3	<0.3	<0.3	<0.9	-	-	45	<0.3	<0.3	18	-
6/17/91	40,673	39,004	533	-	<0.3	<0.3	<0.3	<0.9	-	-	69	4.9	0.9	21	-
6/24/91	44,453	42,784	540	-	<0.3	<0.3	<0.3	<0.9	-	-	5.4	2	<0.3	6.6	-
7/1/91	48,173	46,504	531	-	<0.5	<0.5	<1	<1	-	-	14	15	<1	9.1	-
7/8/91	51,881	50,012	501	-	<0.5	<0.5	<1	<1	-	-	<0.5	<0.5	<1	6.9	-
7/15/91	55,186	53,517	501	-	<0.5	<0.5	<1	<1	-	-	<0.5	0.6	<1	6.3	-
7/22/91	62,150	60,481	995	-	<0.5	<0.5	<1	<1	-	-	<0.5	<0.5	<1	2.6	-
7/29/91	62,150	60,481	-	-	<0.5	<0.5	<1	<1	-	-	<0.5	<0.5	1.2	19	-
8/5/91	63,241	61,572	156	-	<0.5	<0.5	<1	<1	-	-	<0.5	<0.5	<1	<1	-
8/12/91	68,091	64,422	407	-	<0.5	<0.5	<1	<1	-	-	2.6	<0.5	<1	12	-
8/19/91	67,649	65,980	223	-	<0.5	<0.5	<1	<1	-	-	20	3.3	2.8	70	-
8/26/91	70,514	68,845	409	-	<0.5	<0.5	<1	<1	-	-	<0.5	<0.5	1.2	19	-
9/9/91	70,564	68,895	4	-	<0.5	<0.5	<1	<1	-	-	270	10	13	69	-
9/16/91	73,526	71,857	423	System shut down due to damaged compressor pump						-	-	-	-	-	-
10/7/91	73,526	71,857	-	-	<0.5	<0.5	<1	<1	-	-	<0.5	<0.5	<1	3.8	-
10/14/91	74,516	72,847	141	-	<0.5	<0.5	<1	<1	-	-	60	1.1	<1	23	-
10/21/91	76,091	74,422	225	-	<0.5	<0.5	<1	<1	-	-	<0.5	<0.5	<1	<1	-
10/28/91	83,242	81,573	1,022	-	<0.5	<0.5	<1	<1	-	-	<0.5	<0.5	<1	14	-
11/3/91	83,242	81,573	-	-	<0.5	<0.5	<1	<1	-	-	<0.5	<0.5	<1	3.1	-
11/11/91	84,351	82,682	139	-	<0.5	<0.5	<1	<1	-	-	99	1.9	<1	14	-
11/18/91	85,647	83,978	185	-	<0.5	<0.5	<1	<1	-	-	42	1	1	10	-
11/25/91	89,512	87,843	552	-	<0.5	<0.5	<1	<1	-	-	<0.5	<0.5	<1	3.9	-
12/3/91	93,407	91,738	487	-	<0.5	<0.5	<1	<1	-	-	<0.5	<0.5	<1	3.5	-
12/9/91	96,210	94,541	487	-	<0.5	<0.5	<1	<1	-	-	<0.5	<0.5	<1	3.2	-
12/16/91	99,045	97,376	405	-	<0.5	<0.5	<0.5	<0.5	-	-	1.3	<0.5	<0.5	1.5	-
12/23/91	102,334	100,665	470	-	<0.5	<0.5	<0.5	<0.5	-	-	1.7	<0.5	<0.5	2.4	-
12/30/91	105,124	103,455	399	-	<0.5	<0.5	<0.5	<0.5	-	-	22.6	1.2	0.7	4.9	-
1/15/92	115,891	114,022	660	-	<0.5	<0.5	<0.5	<0.5	-	-	130	11	<0.5	50	-
2/10/92	124,846	123,177	352	-	<0.5	<0.5	<0.5	<0.5	-	-	20	0.51	<0.5	3.6	-
3/9/92	149,965	148,296	897	<200	<0.5	<0.5	<0.5	<0.5	-	12,000	2,100	400	170	2,100	-
4/13/92	168,567	166,898	531	<200	<0.5	<0.5	<0.5	<0.5	-	2,100	280	3.9	<2.5	98	-
5/11/92	187,170	185,501	664	<200	<0.5	0.7	<0.5	<0.5	-	<200	<0.5	<0.5	<0.5	<0.5	-
6/8/92	190,490	188,821	119	-	<0.5	<0.5	<0.5	<0.5	-	-	44	3.7	0.7	64	-
7/6/92	197,080	195,411	235	-	-	-	-	-	-	-	-	-	-	-	-
7/13/92	197,890	196,221	116	-	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	-

**TABLE 2**  
**GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM**  
 Thrifty Oil Co. Station No 063, OAKLAND, CA

Date	Totalizer (gallons)	Total Cum. Discharge (gallons)	Flow (gpm/day)	EFFLUENT (ug/L)						INFLUENT (ug/L)					
				TPH-g	P	T	E	X	MTBE	TPH-g	P	T	E	X	MTBE
7/13/92	197,890	196,221	-	System shut down for repair of electrical motor											
8/10/92	197,890	196,221	-	Restart the system											
8/17/92	201,300	199,691	487	-	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	-
9/14/92	209,647	207,978	298	-	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<1	-
10/5/92	217,360	215,691	367	<200	<0.5	<0.5	<0.5	<1	-	<200	<0.5	<0.5	<0.5	<1	-
11/09/92	225,760	224,111	241	-	<0.5	<0.5	<0.5	<1	-	-	1.1	0.5	<0.5	10	-
12/14/92	243,048	241,379	493	-	<0.5	<0.5	<0.5	<1	-	-	720	46	<10	1,700	-
01/04/93	252,510	250,841	451	-	<0.5	<0.5	<0.5	<1	-	-	400	32	<25	520	-
02/15/93	266,210	264,541	326	<200	<0.5	<0.5	<0.5	<1	-	9,000	1,400	330	260	1,200	-
03/08/93	269,330	267,661	149	-	<0.5	<0.5	<0.5	<1	-	-	1,100	150	7.5	1,000	-
04/26/93	271,290	269,621	40	<100	<0.5	<0.5	<0.5	<1	-	7,200	1,100	100	25	780	-
04/26/93	271,290	269,621	-	System shut down for repair											
07/15/93	272,577	270,908	16	Restart the system											
08/11/93	284,230	282,561	432	-	<0.5	<0.5	<0.5	<1	-	-	1.3	<0.5	<0.5	1.6	-
09/16/93	298,832	297,163	406	<60	<0.3	<0.3	<0.3	<0.6	-	<60	<0.3	<0.3	<0.3	<0.6	-
10/08/93	305,641	303,972	310	-	-	-	-	-	-	-	-	-	-	-	-
10/11/93	307,068	305,399	476	<60	<0.3	<0.3	<0.3	<0.6	-	<60	<0.3	<0.3	<0.3	<0.6	-
10/15/93	308,495	306,826	357	-	-	-	-	-	-	-	-	-	-	-	-
11/12/93	318,203	316,534	347	<50	<0.3	<0.3	<0.3	<0.5	-	<50	<0.3	<0.3	<0.3	<0.5	-
12/10/93	329,947	328,278	419	<50	<0.3	<0.3	<0.3	<0.5	-	<50	<0.3	<0.3	<0.3	<0.5	-
01/13/94	345,860	344,191	468	-	<0.3	<0.3	<0.3	<0.5	-	-	<0.3	<0.3	<0.3	<0.5	-
02/10/94	359,662	357,993	493	-	<0.3	<0.3	<0.3	<0.5	-	-	430	41	36	480	-
02/18/94	618,620	-	-	Changed air filters The water flowmeter jumped from 359,662 to 618,620											
03/10/94	627,540	366,913	448	-	<0.3	<0.3	<0.3	<0.5	-	-	<0.3	<0.3	<0.3	7.7	-
04/14/94	645,330	384,703	508	<50	<0.3	<0.3	<0.3	<0.5	-	170	1.5	<0.3	0.38	0.73	-
05/19/94	653,520	392,893	234	<50	<0.3	<0.3	<0.3	<0.5	-	1,500	46	4.1	0.5	84	-
06/16/94	664,015	403,388	375	<50	<0.3	<0.3	<0.3	<0.5	-	12,000	880	37	<13	1,600	-
07/14/94	672,750	412,123	312	<50	<0.3	<0.3	<0.3	<0.5	-	<50	<0.3	<0.3	<0.3	<0.5	-
08/11/94	681,920	421,293	328	<50	<0.3	<0.3	<0.3	<0.5	-	<50	<0.3	<0.3	<0.3	<0.5	-
09/15/94	692,083	431,456	290	<50	<0.3	<0.3	<0.3	<0.5	-	<50	<0.3	<0.3	<0.3	<0.5	-
10/17/94	699,979	439,352	247	<50	<0.3	<0.3	<0.5	<0.5	-	<50	<0.3	<0.3	<0.5	<0.6	-
11/14/94	712,539	451,912	449	<50	<0.3	<0.3	<0.5	<0.5	-	<50	<0.3	<0.3	<0.5	<0.6	-
12/19/94	734,620	473,993	631	<50	<0.3	<0.3	<0.5	<0.5	-	<50	<0.3	<0.3	<0.5	<0.6	-
01/10/95	742,072	481,445	339	-	-	-	-	-	-	-	-	-	-	-	-
01/16/95	742,074	481,447	0	System shut down for repair of compressor pump											
02/06/95	742,074	481,447	-	Restart the system											
02/13/95	744,063	483,436	284	<50	<0.3	<0.3	<0.5	<0.5	-	<50	<0.3	<0.3	<0.5	<0.6	-
03/13/95	758,930	498,303	531	<100	<0.5	<0.5	<0.5	<1	-	1,300	<0.5	<0.5	<0.5	<1	-
04/17/95	768,276	507,649	267	<100	<0.5	<0.5	<0.5	<1	-	6,200	410	73	97	280	-
05/15/95	780,716	520,089	444	<100	<0.5	<0.5	<0.5	<1	-	1,900	0.6	<0.5	<0.5	<1	-
06/12/95	784,514	523,887	136	<100	<0.5	<0.5	<0.5	<1	-	<100	<0.5	<0.5	<0.5	<1	-
07/18/95	794,158	533,531	268	<100	<0.5	<0.5	<0.5	<1	-	1,100	<0.5	<0.5	<0.5	<1	-
08/14/95	795,216	534,589	39	<100	<0.5	<0.5	<0.5	<1	-	170	<0.5	<0.5	<0.5	<1	-
09/06/95	797,631	537,004	105	<100	<0.5	<0.5	<0.5	<1	-	1,320	<0.5	<0.5	<0.5	<1	-

**TABLE 2**  
**GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM**  
 Thrifty Oil Co. Station No 063, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gpm)	EFFLUENT (ug/L)						INFLUENT (ug/L)						
				TPH-g	B	T	E	X	MTBE	TPH-g	B	T	E	X	MTBE	
10/17/95	800,316	539,689	65	<100	<0.5	<0.5	<0.5	<1	-	2,400	26	2.7	3.9	46	-	
11/20/95	806,264	545,637	175	150	<0.3	<0.3	<0.3	<0.5	-	450	0.31	<0.3	<0.3	<0.5	-	
12/11/95	809,236	548,609	142	300	<0.3	<0.3	<0.3	0.59	-	470	<0.3	<0.3	<0.3	<0.5	-	
01/15/96	822,734	562,107	386	510	<0.3	<0.3	<0.3	<0.5	-	900	0.39	<0.3	<0.3	<0.5	-	
02/19/96	648,213	587,586	728	800	<0.3	0.57	<0.3	0.83	-	1700	23	3.7	<0.3	80	-	
03/19/96	849,587	588,960	47	930	<0.3	<0.3	<0.3	<0.5	-	1,600	5.5	1.4	<0.3	94	-	
04/15/96	852,042	591,415	91	990	<0.3	<0.3	<0.3	<0.5	-	1,100	0.43	<0.3	<0.3	<0.5	-	
05/13/96	890,214	629,587	1,363	840	<0.3	<0.3	<0.3	<0.5	-	910	<0.3	<0.3	<0.3	<0.5	-	
05/13/96	890,214	629,587	-	System shut down for carbon change												
06/14/96	890,214	629,587	-	Restart the system												
06/18/96	890,818	630,191	151	<50	<0.3	<0.3	<0.3	<0.5	-	1,000	92	8.7	3.4	55	-	
07/01/96	892,781	632,154	151	-	-	-	-	-	-	-	-	-	-	-	-	
07/08/96	894,210	633,583	204	System shut down due to burglary and damaged air compressor												
08/05/96	894,210	633,583	-	Restart the system												
08/13/96	896,220	635,593	251	<50	<0.3	<0.3	<0.3	<0.5	-	3,500	160	110	220	650	-	
09/23/96	899,410	638,783	78	<50	<0.3	<0.3	<0.3	<0.5	-	<50	0.49	<0.3	<0.3	<0.5	-	
10/09/96	899,845	639,218	27	<50	<0.3	<0.3	<0.3	<0.5	-	730	1.7	0.42	2.1	2.5	-	
11/11/96	901,348	640,721	46	<50	<0.3	<0.3	<0.3	<0.5	-	81	<0.3	<0.3	<0.3	<0.5	-	
12/09/96	901,576	640,949	8	<50	<0.3	<0.3	<0.3	<0.5	-	<50	<0.3	<0.3	<0.3	<0.5	-	
01/13/97	904,630	644,003	87	<50	<0.3	<0.3	<0.3	<0.5	-	13,000	590	250	180	850	-	
02/10/97	912,610	651,983	285	82	<0.3	0.38	<0.3	<0.5	-	700	0.92	0.75	<0.3	4.1	-	
03/10/97	921,020	660,393	300	<50	<0.3	<0.3	<0.3	<0.5	-	600	<0.3	<0.3	<0.3	<0.5	-	
04/14/97	932,410	671,783	325	<50	<0.3	<0.3	<0.3	<0.5	-	4,400	<0.3	<0.3	<0.3	<0.5	-	
05/12/97	941,028	680,401	308	<50	<0.3	<0.3	<0.3	<0.5	-	5,600	7.3	0.32	<0.3	17	-	
06/23/97	943,183	682,556	51	-	-	-	-	-	-	-	-	-	-	-	-	
07/07/97	945,821	685,194	188	<50	<0.3	<0.3	<0.3	<0.5	-	1,500	3.4	<0.3	<0.3	26	-	
08/04/97	951,020	690,393	186	-	-	-	-	-	-	-	-	-	-	-	-	
09/02/97	957,933	697,306	238	System shut down due to stolen air compressor												
10/06/97	961,030	700,403	91	-	-	-	-	-	-	-	-	-	-	-	-	
10/16/97	961,077	700,450	5	<50	<0.3	<0.3	<0.3	<0.5	-	550	<0.3	<0.3	<0.3	<0.5	-	
11/17/97	970,920	710,283	308	-	-	-	-	-	-	-	-	-	-	-	-	
12/23/97	986,016	725,389	419	-	-	-	-	-	-	-	-	-	-	-	-	
01/05/98	991,520	730,893	423	-	-	-	-	-	-	-	-	-	-	-	-	
01/07/98	992,365	731,738	423	<50	<0.3	<0.3	<0.3	<0.5	-	65,000	690	8,400	3,100	20,000	-	
02/02/98	996,874	736,247	173	-	-	-	-	-	-	-	-	-	-	-	-	
02/09/98	-	-	-	System shut down due to the UST replacement and station remodeling												
02/17/98	-	-	-	<50	<0.5	<0.3	<0.3	<0.5	-	35,000	150	<15	<15	8,900	-	
04/13/98	53,000	736,247	-	Replaced carbons and restarted system with new meter (53,000)												
4/13 - 6/1/98	-	-	-	System was undergoing several maintenance / piping / hose replacement												
06/01/98	53,780	737,027	16	-	-	-	-	-	-	-	-	-	-	-	-	
07/14/98	56,905	740,152	73	<50	<0.3	<0.3	<0.3	<0.5	-	3,500	14	0.56	<0.3	26	-	
08/13/98	59,426	742,673	84	-	-	-	-	-	-	-	-	-	-	-	-	
09/11/98	62,356	745,603	101	-	-	-	-	-	-	-	-	-	-	-	-	
10/15/98	62,714	745,961	11	<50	<0.3	<0.3	<0.3	<0.5	-	2,200	21	4	<0.3	100	-	

**TABLE 2**  
**GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM**  
 Thrifty Oil Co. Station No 063, OAKLAND, CA

Date	Totalizer Discharge (gallons)	Total Cum. Discharge (gallons)	Flow (gal/day)	EFFLUENT (ug/L)						INFLUENT (ug/L)					
				TPH-g	B	T	E	X	MTBE	TPH-g	B	T	E	X	MTBE
11/06/98	62,952	746,199	11	-	-	-	-	-	-	-	-	-	-	-	-
11/20/98	-	-	-	System shut down for flowmeter replacement											
12/01/98	0 0	746,199	-	Restart the system with flowmeter at 000											
12/31/98	5,340 0	751,539	178	-	-	-	-	-	-	-	-	-	-	-	-
01/11/99	15,020 0	761,219	880	System shut down											
1/11 - 2/1/99	-	-	-	System was undergoing maintenance for the compressor											
01/20/99	-	-	-	<50	<0.3	<0.3	<0.3	<0.5	-	110	0.43	0.42	<0.3	<0.5	280
02/01/99	15,600 0	761,799	28	Restart system											
02/12/99	22,840 0	769,039	658	-	-	-	-	-	-	-	-	-	-	-	-
02/22/99	22,840.0	769,039	-	System shut down for carbon canister replacement											
03/26/99	22,840.0	769,039	-	Restart the system											
03/31/99	24,620 0	770,619	356	-	-	-	-	-	-	-	-	-	-	-	-
04/16/99	29,605.0	775,804	312	<50	<0.3	<0.3	<0.3	<0.5	<5	<50	<0.3	<0.3	<0.3	<0.5	<5
05/11/99	36,010 0	782,209	256	-	-	-	-	-	-	-	-	-	-	-	-
05/25/99	46,000 0	792,199	714	System shut down due to carbon canister leaking											
09/02/99	46,000 0	792,199	-	Restart system											
09/17/99	46,217 0	792,416	14	-	-	-	-	-	-	-	-	-	-	-	-
10/07/99	46,809 0	793,008	30	<50	<0.3	<0.3	<0.3	<0.5	11	65	<0.3	<0.3	<0.3	<0.5	120
10/21/99	47,278 0	793,477	34	System shut down for carbon change											
11/24/99	47,283.0	793,482	0	Restart system											
12/30/99	49,386.0	795,585	58	-	-	-	-	-	-	-	-	-	-	-	-
01/26/00	50,569 0	796,768	44	<50	<0.3	<0.3	<0.3	<0.5	-	<50	<0.3	<0.3	<0.3	<0.5	-
02/25/00	51,983 0	798,182	47	-	-	-	-	-	-	-	-	-	-	-	-
03/24/00	54,603 0	800,802	94	-	-	-	-	-	-	-	-	-	-	-	-
04/19/00	56,754 0	802,953	83	<5	<0.25	<0.25	<0.25	<0.5	-	<50	1.3	<0.25	<0.25	<0.5	<5
04/30/00	58,022.0	804,221	115	-	-	-	-	-	-	-	-	-	-	-	-
05/26/00	60,086 0	806,285	79	-	-	-	-	-	-	923	<0.6	2	85	80	*3,350/4,810
06/16/00	61,889 0	808,088	86	<50	<0.3	<0.3	<0.3	<0.6	<5	3,820	<0.3	<0.3	<0.3	<0.6	3,740
07/26/00	65,987 0	812,186	102	<50	<0.3	<0.3	<0.3	<0.6	<5	<50	<0.3	<0.3	<0.3	<0.6	<5
08/25/00	68,630 0	814,829	88	-	-	-	-	-	-	-	-	-	-	-	-
09/29/00	85,661.0	831,860	487	-	-	-	-	-	-	-	-	-	-	-	-
10/13/00	96,212.0	842,411	754	-	-	-	-	-	-	-	-	-	-	-	-
10/20/00	99,700.0	845,899	498	Shut down system for QWS and replaced flowmeter starting at 000 (old meter estimated at 99,700) System restarted on 10/25/00 after QWS											
10/25/00	0 0	845,899	-	<50	<0.18	<0.14	<0.18	<0.26	<0.24	17,100	111	121	141	972	998
10/27/00	2,160 0	848,059	1,080	-	-	-	-	-	-	-	-	-	-	-	-
11/24/00	16,580 0	862,459	514	-	-	-	-	-	-	-	-	-	-	-	-
12/22/00	51,530.0	897,429	1,249	-	-	-	-	-	-	-	-	-	-	-	-
01/10/01	54,520 0	900,419	157	<50	<0.18	<0.14	<0.18	<0.26	<0.24	10,000	384	223	<0.18	1,330	11,600
02/19/01	99,640.0	945,539	1,128	-	-	-	-	-	-	-	-	-	-	-	-
03/26/01	158,820.0	1,002,719	1,634	-	-	-	-	-	-	-	-	-	-	-	-

**Note:** TPH is analyzed by EPA Method 8015 M  
 BTEX is analyzed by EPA Method 602 or 8020  
 < = less than laboratory detection level indicated



# APPENDIX A



**FIELD DATA -GROUNDWATER SAMPLING PROGRAM**

Site:	# 063	Date:	01-10-01
Address:			
Personnel:	SERBATH	Weather:	RAINY DAY
Well No:	MW-1	Equip:	BAILER

<b>Before Purging:</b>			
Total Well Depth: (ft.)	29.00	Well Diameter	2"
Depth to Water (ft)	12.16	Est. Purge Volume:	11

<b>Sampling Data:</b>							
<b>Initial Turbidity:</b>				<b>Final Turbidity:</b>			
Time	10:50	10:52	10:53	10:55	10:56	10:58	11:00
EC	1100	990	970	960	970	930	940
pH	6.36	6.37	6.33	6.33	6.25	6.24	6.25
Temp	71.4	71.3	71.2	71.1	70.9	70.8	70.6
Gal.	1	3	4	6	7	9	11
Time							
EC							
pH							
Temp							
Gal.							

<b>After Purging/Before Sample Collection</b>	
Depth to Water (ft.)	14.30
Total Well Depth(ft.)	29.00

## FIELD DATA - GROUNDWATER SAMPLING PROGRAM

Site:	# 063	Date:	01-10-01
Address:			
Personnel:	SERBATH,	Weather:	RAIN
Well No:	MW-4	Equip:	BAUER

<b>Before Purging:</b>			
Total Well Depth: (ft.)	29.15	Well Diameter	24
Depth to Water (ft)	10.75	Est. Purge Volume:	12

<b>Sampling Data:</b>							
<b>Initial Turbidity:</b>				<b>Final Turbidity:</b>			
Time	11:04	11:06	11:08	11:09	11:11	11:13	11:15
EC	1360	1370	1390	1410	1430	1410	1430
pH	6.36	6.30	6.26	6.15	6.12	6.15	6.09
Temp	71.6	71.9	72.1	72.1	72.3	72.2	72.4
Gal.	1	3	5	6	8	10	12
Time							
EC							
pH							
Temp							
Gal.							

<b>After Purging/Before Sample Collection</b>			
Depth to Water (ft.)	13.85	Total Well Depth(ft.)	29.15

**FIELD DATA -GROUNDWATER SAMPLING PROGRAM**

Site:	# 063	Date:	01-10-01
Address:			
Personnel:	BERBAY,	Weather:	SUNNY
Well No:	MW-5	Equip:	BAILER

<b>Before Purging:</b>			
Total Well Depth: (ft.)	26.28	Well Diameter	4"
Depth to Water (ft)	14.80	Est. Purge Volume:	30

<b>Sampling Data:</b>							
<b>Initial Turbidity:</b>				<b>Final Turbidity:</b>			
Time	10:13	10:17	10:21	10:26	10:31	10:35	10:40
EC	1560	1540	1530	1540	1520	1530	1520
pH	6.23	6.21	6.18	6.23	6.21	6.18	6.20
Temp	21.2	21.3	21.4	21.2	21.3	21.3	21.4
Gal.	4	8	12	17	21	25	30
Time							
EC							
pH							
Temp							
Gal.							

<b>After Purging/Before Sample Collection</b>			
Depth to Water (ft.)	15.65	Total Well Depth(ft.)	26.28



# **APPENDIX B**



**ASSOCIATED LABORATORIES**

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

FAX 714/538-1209

CLIENT Thrifty Oil (8871)  
ATTN: Jeff Suryakusuma  
13539 E. Foster Rd.  
Santa Fe Springs, CA 90670

LAB REQUEST 65709

REPORTED 01/22/2001

RECEIVED 01/13/2001

PROJECT Station #063  
6125 Telegraph Ave., Oakland

SUBMITTER Client

COMMENTS

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>
238661	TOC #063, MW-6
238662	TOC #063, MW-5
238663	TOC #063, MW-1
238664	TOC #063, MW-4
238665	TOC #063, Trip 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,

Dr. S. Behare, Ph.D.  
President

*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 #: 238661

Client Sample ID TOC #063, MW-6

Matrix: WATER

Date Sampled: 01/10/2001 Time Sampled: 13:30

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
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## 8021B BTEX + MTBE

Benzene	ND	1	0.3	0.18	ug/L	01/19/01 HP
Ethyl benzene	ND	1	0.3	0.18	ug/L	01/19/01 HP
Methyl t - butyl ether	78	2	10	0.24	ug/L	01/19/01 HP
Toluene	ND	1	0.3	0.14	ug/L	01/19/01 HP
Xylene (total)	ND	1	0.6	0.26	ug/L	01/19/01 HP

## 8015M - Total Petroleum Hydrocarbons

Gasoline	ND	1	50	50	ug/L	01/19/01 HP
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Order #: 238662

Client Sample ID TOC #063, MW-5

Matrix: WATER

Date Sampled: 01/10/2001 Time Sampled: 13:40

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
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## 8021B BTEX + MTBE

Benzene	ND	1	0.3	0.18	ug/L	01/19/01 HP
Ethyl benzene	ND	1	0.3	0.18	ug/L	01/19/01 HP
Methyl t - butyl ether	ND	1	5	0.24	ug/L	01/19/01 HP
Toluene	ND	1	0.3	0.14	ug/L	01/19/01 HP
Xylene (total)	ND	1	0.6	0.26	ug/L	01/19/01 HP

## 8015M - Total Petroleum Hydrocarbons

Gasoline	ND	1	50	50	ug/L	01/19/01 HP
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Order #: 238663

Client Sample ID TOC #063, MW-1

Matrix: WATER

Date Sampled: 01/10/2001 Time Sampled: 13:50

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
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## 8021B BTEX + MTBE

Benzene	ND	1	0.3	0.18	ug/L	01/19/01 HP
Ethyl benzene	ND	1	0.3	0.18	ug/L	01/19/01 HP
Methyl t - butyl ether	ND	1	5	0.24	ug/L	01/19/01 HP
Toluene	ND	1	0.3	0.14	ug/L	01/19/01 HP
Xylene (total)	ND	1	0.6	0.26	ug/L	01/19/01 HP

## 8015M - Total Petroleum Hydrocarbons

Gasoline	ND	1	50	50	ug/L	01/19/01 HP
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PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor  
 ND = Not detected below indicated MDL, J=Trace



Order #: 238664

Client Sample ID TOC #063, MW-4

Matrix: WATER

Date Sampled: 01/10/2001 Time Sampled: 13:55

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
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8021B BTEX + MTBE

Benzene	ND	1	0.3	0.18	ug/L	01/19/01 HP
Ethyl benzene	ND	1	0.3	0.18	ug/L	01/19/01 HP
Methyl t - butyl ether	962	20	100	0.24	ug/L	01/19/01 HP
Toluene	2.0	1	0.3	0.14	ug/L	01/19/01 HP
Xylene (total)	1.0	1	0.6	0.26	ug/L	01/19/01 HP

8015M - Total Petroleum Hydrocarbons

Gasoline	ND	1	50	50	ug/L	01/19/01 HP
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Order #: 238665

Client Sample ID TOC #063, Trip Blank

Matrix: WATER

Date Sampled: 01/10/2001 Time Sampled: 13:30

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
---------	--------	----	-----	-----	-------	--------------

8021B BTEX + MTBE

Benzene	ND	1	0.3	0.18	ug/L	01/19/01 HP
Ethyl benzene	ND	1	0.3	0.18	ug/L	01/19/01 HP
Methyl t - butyl ether	ND	1	5	0.24	ug/L	01/19/01 HP
Toluene	ND	1	0.3	0.14	ug/L	01/19/01 HP
Xylene (total)	ND	1	0.6	0.26	ug/L	01/19/01 HP

8015M - Total Petroleum Hydrocarbons

Gasoline	ND	1	50	50	ug/L	01/19/01 HP
----------	----	---	----	----	------	-------------

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



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

QC Sample: LR 65709 - 663

Matrix: WATER

Prep. Date: 01/19/01

Analysis Date: 01/19/01 - 01/20/01

LAB ID#'s in Batch: LR 65709, 65710, 65788, 65736, 65819, 65876

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT**

REPORTING UNITS = ug/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spk. Dup	%Rec MS	%Rec MSD	RPD
Benzene	8021	ND	10.0	9.18	9.49	92	95	3
Toluene	8021	ND	10.0	9.46	9.78	95	98	3
Ethylbenzene	8021	ND	10.0	9.35	9.80	94	98	5
Xylenes	8021	ND	30.0	28.39	29.79	95	99	5

\* = Matrix Interference. LCS OK. Data Reported.

ND = Not Detected

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Dup

%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 70 - 130
RPD LIMITS = 30

**PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS**

Test	Method	PREP. BLK	LCS				
		Value	Result	True	%Rec	L.Limit	H.Limit
Benzene	8021	ND	90.9	100.0	91	80%	120%
Toluene	8021	ND	93.7	100.0	94	80%	120%
Ethylbenzene	8021	ND	95.9	100.0	96	80%	120%
Xylenes	8021	ND	289.5	300.0	97	80%	120%

LCS = Lab Control Sample Result

TRUE = True Value of LCS

L.LIMIT / H.LIMIT = LCS Control Limits

**ASSOCIATED LABORATORIES  
QA REPORT FORM**

QC Sample: LR 65709 - 663

Matrix: WATER

Prep. Date: 01/19/01

Analysis Date: 01/19/01 - 01/20/01

ID#'s in Batch: LR 65709, 65710, 65788, 65736, 65819, 65876

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT**

Reporting Units = ug/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
TPH	8015M-G	ND	520	547	572	105.2	110.0	4.5

*ND = Not Detected*

*RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate*

*%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate*

<i>%REC LIMITS = 70 - 130</i>
-------------------------------

<i>RPD LIMITS = 30</i>
------------------------

**PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS**

PREP BLK	LCS				
Value	Result	True	%Rec	L.Limit	H.Limit
ND	5709	5200	109.8	80%	120%

*LCS Result = Lab Control Sample Result*

*True = True Value of LCS*

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

65709  
L

**Chain of Custody Record**

Company <b>THEIFTY OIL CO.</b>	Phone <b>(562) 921-3581</b>	A.L. Job No.	Page _____ of _____
Project Manager <b>JEFF JURY ARSUNIA</b>	Fax <b>714</b>	<b>Analysis Requested</b>	
Project Name <b>Q.W.S</b>	Project # <b>063 L</b>		
Site Name and Address <b>6125 TELEGRAPH AVE. OAKLAND CA. 94609</b>		<b>Test Instructions &amp; Comments</b>	

Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.	Analysis Requested		
							T H E	B I E	M I E
✓ MW-6		01.10.01	13:30	WATER	3 VIALS	HCL	X	X	X
✓ MW-5		↓	13:40	↑	↑	HCL	X	X	X
✓ MW-1		↓	13:50	↓	↓	HCL	X	X	X
✓ MW-4		↓	13:55	↓	↓	HCL	X	X	X
✓ TRIP BLANK		↓	13:30	↓	2 VIALS	HCL	X	X	
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									

Sample Receipt - To Be Filled By Laboratory				Relinquished by 1.		Relinquished by 2.		Relinquished by 3.	
Total Number of Containers	11	Property Cooled Y/N/NA	Y	Signature:	<i>[Signature]</i>	Signature:		Signature:	
Custody Seals Y/N/NA	11	Samples Intact Y/N/NA	Y	Printed Name:	GERBA P.	Printed Name:		Printed Name:	
Received in Good Condition Y/N	Y	Samples Accepted Y/N	Y	Date:	01.10.01	Date:		Date:	
Turn Around Time				Received By:		Received By:	2.	Received By:	3.
<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Rush	<input type="checkbox"/> Same Day	<input type="checkbox"/> 48 hrs.	Signature:	<i>[Signature]</i>	Signature:		Signature:	
		<input type="checkbox"/> 24 hrs.	<input type="checkbox"/> 72 hrs.	Printed Name:	Gregory P.	Printed Name:		Printed Name:	
				Date:	01.10.01	Date:		Date:	

# APPENDIX C

063

THRIFTY OIL CO. SERVICE STATION #63  
6125 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA  
GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERBATA P.

DATE OF INSPECTION: 03.26.01

OBSERVATIONS AND COMMENTS: Add oil, clean notes filter bag,  
check hoses and drums for leaking, replace cartridge  
water filter,

FLOW METER READING: 0156820

SAMPLES OBTAINED: N/A

PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 14

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER: 11

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 1.1

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 1.1

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 0.9

INSPECTOR'S SIGNATURE: [Signature]

THRIFTY OIL CO. SERVICE STATION #63  
6125 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA  
GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERBATA P.

DATE OF INSPECTION: 03.19.01

OBSERVATIONS AND  
COMMENTS: change oil, clean water filter bag,  
replace cartridge water filter, check connection  
between carbon drums,

FLOW METER READING: 0144170

SAMPLES OBTAINED: 7/14

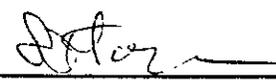
PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 14

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER: 11 (8P)

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 1.0

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 1.1

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 0.9

INSPECTOR'S SIGNATURE: 

THRIFTY OIL CO. SERVICE STATION #63  
6125 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA  
GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERBON P.

DATE OF INSPECTION: 03.12.01

OBSERVATIONS AND  
COMMENTS: Add oil, clean water filter bag,  
check hoses, replace cartridge water filter,

FLOW METER READING: 0136230

SAMPLES OBTAINED: N/A

PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 14

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER: 11

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 1.0

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 0.9

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 0.8

INSPECTOR'S SIGNATURE: [Signature]

THRIFTY OIL CO. SERVICE STATION #63  
6125 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA  
GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: BERBARI P

DATE OF INSPECTION: 03.05.01

OBSERVATIONS AND  
COMMENTS: check oil, hoses, clean water filter  
bag, replace cartridge water filter

FLOW METER READING: 0126070

SAMPLES OBTAINED: N/A

PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 14

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER: 11

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 1.0

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 0.9

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 0.8

INSPECTOR'S SIGNATURE: [Signature]

THRIFTY OIL CO. SERVICE STATION #63  
6125 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA  
GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: JERBAH P.

DATE OF INSPECTION: 02.26.01

OBSERVATIONS AND COMMENTS: Change oil, replace cartridge water filter, check connections between drums and clean water filter bag.

FLOW METER READING: 0108880

SAMPLES OBTAINED: N/A

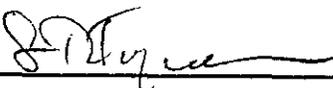
PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 14

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER: 11

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 1.0

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 0.9

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 0.7

INSPECTOR'S SIGNATURE: 

063

THRIFTY OIL CO. SERVICE STATION #63  
6125 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA  
GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERBON P

DATE OF INSPECTION: 02-19-01

OBSERVATIONS AND  
COMMENTS: check oil, belt, clean water filter  
bag, replace cartridge water filter

FLOW METER READING: 0099640

SAMPLES OBTAINED: N/A

PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 14

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER: 12

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 1.1

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 1.0

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 0.9

INSPECTOR'S SIGNATURE: D. Stojan

THRIFTY OIL CO. SERVICE STATION (#63)  
6125 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA  
GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERBAN T

DATE OF INSPECTION: 02 12-01

OBSERVATIONS AND COMMENTS: Add oil, clean water bag filter,  
replace cartridge water filter

FLOW METER READING: 0084320

SAMPLES OBTAINED: N/A

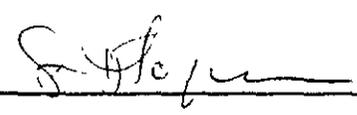
PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 14

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER: 12

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 11

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 1.0

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 0.9

INSPECTOR'S SIGNATURE: 

THRIFTY OIL CO. SERVICE STATION #63  
6125 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA  
GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERBA P.

DATE OF INSPECTION: 02.05.01

OBSERVATIONS AND COMMENTS: check oil, belt, hoses, clean water filter bag, replace cartridge water filter.

FLOW METER READING: 0087580

SAMPLES OBTAINED: H1A

PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 14

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER: 12

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 1.1

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 1.1

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 0.9

INSPECTOR'S SIGNATURE: [Signature]

063

THRIFTY OIL CO. SERVICE STATION #63  
6125 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA  
GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERBATA P.

DATE OF INSPECTION: 01.29.01

OBSERVATIONS AND  
COMMENTS: check oil, belt, hoses, replace  
cartridge water filter,

FLOW METER READING: 0078890

SAMPLES OBTAINED: N/A

PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 14

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER: 12

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 1.1

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 1.1

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 0.9

INSPECTOR'S SIGNATURE: R. D. [Signature]

063

THRIFTY OIL CO. SERVICE STATION #63  
6125 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA  
GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERBATA P

DATE OF INSPECTION: 01.22.01

OBSERVATIONS AND COMMENTS: change oil, check connections hoses,  
air hoses, replace water bag filter,  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

FLOW METER READING: 0067250

SAMPLES OBTAINED: N/A

PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 14

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER: 12

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 1.1

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 1.0

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 0.9

INSPECTOR'S SIGNATURE: *Serbatu*

063

THRIFTY OIL CO. SERVICE STATION #63  
6125 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA  
GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERBAN P

DATE OF INSPECTION: 01-15-01

OBSERVATIONS AND COMMENTS: Add oil, check belt, hoses, clean water filter, replace cartridge water filter

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

FLOW METER READING: 0055890

SAMPLES OBTAINED: N/A

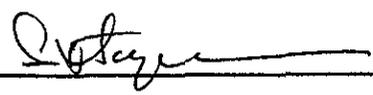
PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 14

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER: 12

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 1.1

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 1.0

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 0.8

INSPECTOR'S SIGNATURE: 



63

DATE: 01-08-01

START UP / SHUT DOWN REPORT  
STATION # 063  
SYSTEM TYPE : G.W.

START UP REPORT:

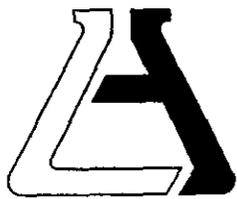
Restart system -  
Flow = 0054520 -

SHUT DOWN REPORT:

|||

SIGNATURE: \_\_\_\_\_

# APPENDIX D



**ASSOCIATED LABORATORIES**

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

FAX 714/538-1209

CLIENT Thrifty Oil (8871)  
ATTN: Jeff Suryakusuma  
13539 E. Foster Rd.  
Santa Fe Springs, CA 90670

LAB REQUEST 65710

REPORTED 01/22/2001

RECEIVED 01/12/2001

PROJECT Station #063  
6125 Telegraph Ave., Oakland

SUBMITTER Client

COMMENTS

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.

Order No.

238666

238667

238668

Client Sample Identification

TOC #063, Effluent

TOC #063, Intermed.

TOC #063, Influent

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.*

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING  
Chemical  
Microbiological  
Environmental

Order #: 238666

Client Sample ID TOC #063, Effluent

Matrix: WATER

Date Sampled: 01/10/2001 Time Sampled: 11:30

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
---------	--------	----	-----	-----	-------	--------------

## 8021B BTEX + MTBE

Benzene	ND	1	0.3	0.18	ug/L	01/18/01 HP
Ethyl benzene	ND	1	0.3	0.18	ug/L	01/18/01 HP
Methyl t - butyl ether	ND	1	5	0.24	ug/L	01/18/01 HP
Toluene	ND	1	0.3	0.14	ug/L	01/18/01 HP
Xylene (total)	ND	1	0.6	0.26	ug/L	01/18/01 HP

## 8015M - Total Petroleum Hydrocarbons

Gasoline	ND	1	50	50	ug/L	01/18/01 HP
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Order #: 238667

Client Sample ID TOC #063, Intermed.

Matrix: WATER

Date Sampled: 01/10/2001 Time Sampled: 11:40

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
---------	--------	----	-----	-----	-------	--------------

## 8021B BTEX + MTBE

Benzene	ND	1	0.3	0.18	ug/L	01/18/01 HP
Ethyl benzene	ND	1	0.3	0.18	ug/L	01/18/01 HP
Methyl t - butyl ether	273	10	50.0	0.24	ug/L	01/18/01 HP
Toluene	2.0	1	0.3	0.14	ug/L	01/18/01 HP
Xylene (total)	3.0	1	0.6	0.26	ug/L	01/18/01 HP

## 8015M - Total Petroleum Hydrocarbons

Gasoline	69	1	50	50	ug/L	01/18/01 HP
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Order #: 238668

Client Sample ID TOC #063, Influent

Matrix: WATER

Date Sampled: 01/10/2001 Time Sampled: 11:45

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
---------	--------	----	-----	-----	-------	--------------

## 8021B BTEX + MTBE

Benzene	384	100	30.0	0.18	ug/L	01/18/01 HP
Ethyl benzene	ND	100	30.0	0.18	ug/L	01/18/01 HP
Methyl t - butyl ether	11,600	333	1665.0	0.24	ug/L	01/18/01 HP
Toluene	223	100	30.0	0.14	ug/L	01/18/01 HP
Xylene (total)	1,330	100	60.0	0.26	ug/L	01/18/01 HP

## 8015M - Total Petroleum Hydrocarbons

Gasoline	10,000	100	5000	50	ug/L	01/18/01 HP
----------	--------	-----	------	----	------	-------------

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL, J=Trace



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



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

QC Sample: LR 65709 - 663  
 Matrix: WATER  
 Prep. Date: 01/19/01  
 Analysis Date: 01/19/01 - 01/20/01  
 LAB ID#'s in Batch: LR 65709, 65710, 65788, 65736, 65819, 65876

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT**

REPORTING UNITS = ug/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spk. Dup	%Rec MS	%Rec MSD	RPD
Benzene	8021	ND	10.0	9.18	9.49	92	95	3
Toluene	8021	ND	10.0	9.46	9.78	95	98	3
Ethylbenzene	8021	ND	10.0	9.35	9.80	94	98	5
Xylenes	8021	ND	30.0	28.39	29.79	95	99	5

\* = Matrix Interference. LCS OK. Data Reported.

ND = Not Detected

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Dup

%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 70 - 130
RPD LIMITS = 30

**PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS**

Test	Method	PREP. BLK	LCS				
		Value	Result	True	%Rec	L.Limit	H.Limit
Benzene	8021	ND	90.9	100.0	91	80%	120%
Toluene	8021	ND	93.7	100.0	94	80%	120%
Ethylbenzene	8021	ND	95.9	100.0	96	80%	120%
Xylenes	8021	ND	289.5	300.0	97	80%	120%

LCS = Lab Control Sample Result

TRUE = True Value of LCS

L.LIMIT / H.LIMIT = LCS Control Limits

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

QC Sample: LR 65709 - 663 \_\_\_\_\_  
 Matrix: WATER \_\_\_\_\_  
 Prep. Date: 01/19/01 \_\_\_\_\_  
 Analysis Date: 01/19/01 - 01/20/01 \_\_\_\_\_  
 ID#'s in Batch: LR 65709, 65710, 65788, 65736, 65819, 65876 \_\_\_\_\_

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT**

Reporting Units = ug/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
TPH	8015M-G	ND	520	547	572	105.2	110.0	4.5

ND = Not Detected

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate

%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 70 - 130
------------------------

RPD LIMITS = 30
-----------------

**PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS**

PREP BLK	LCS				
Value	Result	True	%Rec	L.Limit	H.Limit
ND	5709	5200	109.8	80%	120%

LCS Result - Lab Control Sample Result

True - True Value of LCS

L Limit H Limit - LCS Control Limits

# Chain of Custody Record

65710

## 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) 921-3581</b>							A.L. Job No. _____		Page _____ of _____					
Project Manager <b>JEFF JURYAROSUMI</b> Fax _____							<b>Analysis Requested</b>				<b>Test Instructions &amp; Comments</b>			
Project Name <b>System sampling</b> Project # <b>063</b>														
Site Name and Address <b>6125 TELEGRAPH AVE. OAKLAND CA. 94609.</b>							<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">T</td> <td style="width: 20px; text-align: center;">B</td> </tr> <tr> <td style="text-align: center;">P</td> <td style="text-align: center;">E</td> </tr> <tr> <td style="text-align: center;">H</td> <td style="text-align: center;">X</td> </tr> </table>		T	B	P	E	H	X
T	B													
P	E													
H	X													
Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.								
1		01.10.01	11:30	WATER	2 VIALS	HCL			X	X				
2		01.10.01	11:40	WATER	2 VIALS	HCL			X	X				
3		01.10.01	11:45	WATER	2 VIALS	HCL			X	✓				
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														

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

Total Number of Containers	<b>0</b>	Properly Cooled Y/N/NA	<b>Y</b>
Custody Seals Y/N/NA	<b>N</b>	Samples Intact Y/N/NA	<b>Y</b>
Received in Good Condition Y/N	<b>Y</b>	Samples Accepted Y/N	<b>Y</b>

Relinquished by Sampler:	1.	Relinquished by	2.	Relinquished by	3.
Signature:	<i>[Signature]</i>	Signature:		Signature:	
Printed Name:	<b>SERRA P.</b>	Printed Name:		Printed Name:	
Date:		Date:		Date:	
Time:		Time:		Time:	

**Turn Around Time**

**Normal**     
  **Rush**     
  **Same Day**     
  **48 hrs.**  
 **24 hrs.**     
  **72 hrs.**

Received By:	1.	Received By:	2.	Received By:	3.
Signature:	<i>[Signature]</i>	Signature:		Signature:	
Printed Name:	<b>Eric Smith</b>	Printed Name:		Printed Name:	
Date:	<b>10/30</b>	Date:		Date:	
Time:	<b>1100</b>	Time:		Time:	