

# THRIFTY OIL CO.

RE 4

July 14, 2005

0.58693

Mr. Amir Gholami  
Alameda County Health Care Services  
Department of Environmental Health  
1131 Harbor Bay Parkway, 2nd Floor  
Alameda, CA 94502

Local #4057  
RWQCB #01-1478  
Global ID #T0600101365  
Confirmation #4106705605

RE: **Former Thrifty Oil Co. Station #049**  
3400 San Pablo Avenue  
Oakland, CA 94612  
*2nd Quarter 2005, Status Report*

Alameda County  
Environmental Health  
JUL 19 2005

Dear Mr. Gholami:

Presented herein is the 2nd Quarter 2005, 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 2005. 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 4.72 feet below top of casing (btc) in monitoring/extraction well MW-4R to 6.99 feet btc in monitoring well MW-1 (**Appendix A**). A groundwater elevation contour map based on the April 20, 2005, monitoring data is presented in **Figure 2**. Groundwater elevation data indicates that groundwater flow to the southwest under at an approximate gradient of 0.0469 feet/foot.

### Quarterly Groundwater Sampling

As part of the ongoing groundwater-monitoring program, EMC obtained groundwater samples from monitoring wells MW-1, MW-2R, MW-3, MW-4R, MW-5, MW-6, MW-7, and RW-1R on April 20, 2005. Groundwater wells MW-2 and MW-4 and recovery well RW-1 were abandoned by Advanced GeoEnvironmental (AGE) in January 2004, and replacement wells MW-2R, MW-4R, and RW-1R were installed as part of an upgrade to the groundwater recovery system. Groundwater samples were delivered by EMC in a chilled state following strict Chain-of-Custody procedures to a state-certified laboratory and analyzed for total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8015M. Volatile organic compounds of benzene, toluene, ethylbenzene, xylenes (BTEX), methyl tert butyl ether (MTBE), and other oxygenates were analyzed by EPA Method 8260B. A summary of historical analytical sampling results for TPHg, BTEX, and MTBE is provided in **Table 1**. Copies of the EMC Field Data Groundwater Sampling Forms are provided in **Appendix A**, and copies of the laboratory analytical reports are contained in **Appendix B**.

TPHg, benzene, and MTBE isoconcentration maps in micrograms per liter (ug/L) were prepared using data from the April 20, 2005, sampling event and are presented in **Figures 3, 4, and 5**, respectively. Laboratory results indicate the highest concentrations of TPHg, benzene, and MTBE were detected in well MW-4R (19,200 ug/L, 190 ug/L, and 1,870 ug/L, respectively).



Concentrations of TPHg, benzene, and MTBE all decreased in well MW-3 from the sample collected on October 20, 2003. However, elevated concentrations of TPHg and MTBE were detected in upgradient well MW-5. The groundwater flow direction and TPHg, benzene, and MTBE contour maps suggest that an upgradient source is likely.

### **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**. On April 4, 2003, the system was shut off for system upgrade activities. As of April 4, 2003, the system treated approximately 1,445,088 gallons of groundwater since start up (April 1991).

Thrifty selected AGE to conduct remedial system upgrade activities including installation of a new treatment compound, installation of new piping, connection of piping to the replacement well network, and the operation and maintenance of the upgraded groundwater pump and treat system. In January 2004, AGE abandoned wells MW-2, MW-4, and RW-1 and replaced them with wells MW-2R, MW-4R, and RW-1R.

The upgraded remediation system was restarted by Advance GeoEnvironmental (AGE) for continuous operation on June 21, 2004. The primary components of the upgraded system within the treatment compound consist of an air compressor, 500 gallon Poly settling tank, control panel, and three 200 pound granular activated carbon canisters (**Figures 6 and 7**). The upgraded system is removing groundwater from extraction wells MW-2R, MW-4R, and RW-1R that are each equipped with downhole submersible pumps.

On November 2, 2004, AGE reported that the pump had been stolen from well MW-4R. Due to the fact that well MW-4R produced more water than well MW-2R, the pump from well MW-2R was removed and installed in well MW-4R. On February 25, 2005, a new pump was installed in well MW-4R and the pump was replaced in well MW-2R.

On January 12, 2005, system operations and maintenance duties were assumed by EMC from AGE. According to EMC, as of June 28, 2005, the upgraded system produced and treated 96,005 gallons of water for a cumulative system total of 1,538,179 gallons (**Table 2**). A quarterly effluent water sample from the PSP-1 sampling port was collected on April 6, 2005, and analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8021B. BTEX compounds were not detected above their respective detection limits. The system was shutdown for quarterly sampling on April 14, 2005 and restarted on April 21, 2005. Copies of the Field Reports prepared by EMC are provided in **Appendix C** and the system effluent analytical results are provided in **Appendix D**.

### **Recent Site Investigation**

In a transmittal letter dated March 11, 2004, Thrifty submitted preliminary soil and groundwater data from the four offsite soil borings and onsite well replacement activities performed by AGE. On March 18, 2004, Thrifty, AGE, and the Alameda Health Care Agency (ACHCA) met at the site to discuss the location

Thrifty #049  
2nd Quarter 2005  
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of offsite well MW-8 and the soil and groundwater data provided by Thrifty. In a letter dated March 19, 2004, the ACHCA requested that Thrifty prepare a workplan to address the offsite contamination detected during the January 2004 site assessment conducted by AGE. After further discussing the scope of work with the ACHCA in e-mail dated April 27, 2004, Thrifty submitted a workplan to install one onsite and two offsite wells downgradient of the site. The ACHCA responded in an e-mail dated May 4, 2004, requesting additional borings to delineate the plume to the west and southwest of the site. Thrifty submitted a revised Workplan for Additional Offsite Assessment dated May 7, 2004 that included two additional borings to the southwest of the site. In a letter dated May 17, 2004, the ACHCA approved the May 7, 2004, workplan with the request that additional borings be considered if soil and groundwater samples indicate significant hydrocarbon contamination. The ACHCA also suggested moving the location of onsite well MW-10 slightly to the west or installing a second boring along the northern boundary of the site. Thrifty has selected GeoHydrologic Consultants, Inc. (GHC) to conduct site assessment activities. GHC has obtained well permits and is in the process of obtaining an encroachment permit from the City of Oakland Public Works Department (COPWD).

#### Planned Activities

The encroachment permit is currently being reviewed by the COPWD following comments by Thrifty. Thrifty will complete field activities and submit a site assessment report within 75 days following approval of the encroachment permit.

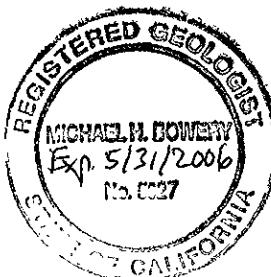
The groundwater monitoring wells will be monitored and sampled during the next quarter. All site monitoring/sampling data generated during the next quarter will be reported in the Second Quarter 2005 monitoring report.

#### Closing Comments

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

Sincerely,

  
Michael H. Bowery, R. G.  
Project Manager



  
Chris Panaitescu  
General Manager  
Environmental Affairs

cc: BP West Coast Products LLC; Mr. Jack Oman  
File

# ***TABLES***

Alameda County  
JUL 19 2005  
Environmental Health

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

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO BOTTOM (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>												
Screen Interval = 5 to 25 feet												
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	91.03
01/04/94	-	-	-	-	-	-	7.00		NP	0.00	98.03	91.59
04/05/94	-	-	-	-	-	-	6.44		NP	0.00	98.03	-
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	90.98
10/14/98	50	1.4	0.56	<0.3	11	22	7.05		NP	0.00	98.03	93.93
01/21/99	<50	0.59	<0.3	<0.3	<0.5	<5	4.10		NP	0.00	98.03	-
04/15/99	<50	<0.3	<0.3	<0.3	<0.5	<5	4.30		NP	0.00	98.03	92.49
07/26/99	<50	<0.3	<0.3	<0.3	<0.5	<5	5.54		NP	0.00	98.03	91.90
10/13/99	<50	<0.3	<0.3	<0.3	<0.5	<5	6.13		NP	0.00	98.03	91.99
01/20/00	<50	<0.3	<0.3	<0.3	<0.5	<5	6.04		NP	0.00	98.03	-
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
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
07/10/03	<15	<0.22	<0.32	<0.31	<0.4	<0.18	5.15	17.74	NP	0.00	98.03	92.88
10/20/03	<15	<0.04	<0.02	<0.02	<0.06	<0.03	5.13	17.74	NP	0.00	98.03	92.90
01/14/04	<15	<0.04	<0.02	<0.02	<0.06	<0.03	3.92	17.72	NP	0.00	98.03	94.11
04/08/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	4.54	17.74	NP	0.00	98.03	93.49
07/21/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	7.01	17.74	NP	0.00	98.03	91.02
10/20/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	5.46	17.73	NP	0.00	98.03	92.57

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

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO BOTTOM (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthyBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)						
01/19/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	5.48	17.73	NP	0.00	98.03	92.55
04/20/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	6.99	17.73	NP	0.00	98.03	91.04
<b>MONITORING WELL #MW-2</b>												
Screen Interval = 5 to 25 feet												
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	2.0	2.0	3.0	* 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
07/18/01	3,260	<0.18	<0.14	<0.18	2.0	* 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	1.0	1.0	2.0	* 2,560 / 1,590	8.45		NP	0.00	97.44	88.99
04/17/02	1,470	1.0	<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
07/10/03	29,900	<2.2	<3.2	<3.1	<4.0	6,690	5.10	23.76	NP	0.00	97.44	92.34

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

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO BOTTOM (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)						
10/20/03	13,000	4.79	<0.02	<0.02	<0.06	*6,330 / 5,980	5.10	23.76	NP	0.00	97.44	92.34
01/14/04						WELL ABANDONED 01/2004						
<b>MONITORING WELL #MW-2R</b>												
04/08/04	11,600	304	16 J	55	427	4,170	4.58	16.74	NP	0.00	-	-
07/21/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	6.72	16.74	NP	0.00	-	-
10/20/04	20,900	3,180	2,970	259	1,240	92	3.72	16.74	NP	0.00	-	-
01/19/05	18,900	537	250	866	2,290	3,340	4.50	16.74	NP	0.00	-	-
04/20/05	13,100	<2.2	<3.2	<3.1	<4.0	563	5.27	16.74	NP	0.00	-	-
<b>MONITORING WELL #MW-3</b>												
Screen Interval = 5 to 25 feet												
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	0.59	<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
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	<0.18	1.0	* 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

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

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO BOTTOM (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)						
07/31/02	138	11	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
07/10/03	<15	<0.22	<0.32	<0.31	<0.4	11	5 63	24 16	NP	0.00	97.69	92.06
10/20/03	13,700	4 13	<0.02	<0.02	<0.06	*6,570 / 4,920	5 61	24 16	NP	0.00	97.69	92.08
01/14/04	1,160	2 0	2.2	6 1	7 8	*1,510 / 767	4 23	24 16	NP	0.00	97.69	93.46
04/08/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	5 48	24 13	NP	0.00	97.69	92.21
07/21/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	6.66	24 13	NP	0.00	97.69	91.03
10/20/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	4.20	24 13	NP	0.00	97.69	93.49
01/19/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	5.74	24.13	NP	0.00	97.69	91.95
04/20/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	7.23	24.11	NP	0.00	97.69	90.46
<b>MONITORING WELL #MW-4</b>												
	Screen Interval = 4 to 14 feet											
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
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	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

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

DATE SAMPLED	ANALYTICAL PARAMETERS					DEPTH TO GROUNDWATER	DEPTH TO BOTTOM	DEPTH TO PRODUCT	PRODUCT THICKNESS	CASING ELEVATION	GROUNDWATER ELEVATION
	TPH (ng/L)	BENZENE (ng/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)	(feet)	(feet)	(feet)	(feet)	(feet)
07/18/01	52,200	3,320	2,090	440	5,520	*55,500 / 16,800	6.04		NP	0.00	97.33
10/10/01	8,580	6.1	14	5.3	70	*40,100 / 30,000	4.51		NP	0.00	97.33
01/30/02	36,500	<0.18	3.0	1.0	3.0	*43,000 / 24,900	4.51		NP	0.00	97.33
04/17/02	12,900	8.0	1.0	<0.18	1.0	16,000 / 13,600	4.51		NP	0.00	97.33
07/31/02	19,300	<0.18	1.2	1.5	2.6	*13,200 / 10,100	5.26		NP	0.00	97.33
11/14/02	36,200	1,720	940	235	6,190	8,280	5.27		NP	0.00	97.33
01/29/03	13,000	444	39	<0.4	1,200	8,160	4.50		NP	0.00	97.33
04/23/03	7,430	130	5.7	<0.2	387	5,830	4.80		NP	0.00	97.33
07/10/03	16,200	<2.2	<3.2	<3.1	<4.0	3,930	4.55	13.60	NP	0.00	97.33
10/20/03	6,040	672	384	3.4	444	*3,780 / 3,220	4.56	13.60	NP	0.00	97.33
01/14/04	WELL ABANDONED 01/2004										
<b>MONITORING WELL #MW-4R</b>											
04/08/04	37,900	819	424	159	3,190	18,400	4.96	19.62	NP	0.00	-
07/21/04	14,500	<2.2	<3.2	<3.1	39 J	18,900	6.60	19.62	NP	0.00	-
10/20/04	66,000	6,390	6,560	672	3,290	13,300	3.38	19.62	NP	0.00	-
01/19/05	17,600	513	240	855	2,230	3,310	4.32	19.62	NP	0.00	-
04/20/05	19,200	190	109	452	974	1,870	4.72	19.64	NP	0.00	-
<b>MONITORING WELL #MW-5</b>											
	Screen Interval: 4 to 14 feet										
01/09/92	-	-	-	-	-	-	5.32		NP	0.00	98.85
04/13/92	-	-	-	-	-	-	4.82		NP	0.00	98.85
10/0/92	-	-	-	-	-	-	8.78		NP	0.00	98.85
01/06/93	-	-	-	-	-	-	3.46		NP	0.00	98.85
04/26/93	-	-	-	-	-	-	4.66		NP	0.00	98.85
01/04/94	-	-	-	-	-	-	6.36		NP	0.00	98.85
04/05/94	-	-	-	-	-	-	5.94		NP	0.00	98.85
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
04/08/96	<50	<0.3	<0.3	<0.3	<0.5	-	5.22		NP	0.00	98.85
07/22/96	<50	<0.3	<0.3	<0.3	<0.5	<20	6.62		NP	0.00	98.85
10/16/96	<50	<0.3	<0.3	<0.3	<0.5	<20	6.12		NP	0.00	98.85
01/22/97	<50	<0.3	<0.3	<0.3	<0.5	<20	5.17		NP	0.00	98.85
04/21/97	73	2.5	0.34	0.74	3.8	21	6.64		NP	0.00	98.85
07/14/97	<50	<0.3	<0.3	<0.3	<0.5	<20	6.67		NP	0.00	98.85
10/07/97	130	<0.3	<0.3	<0.3	<0.5	-	8.20		NP	0.00	98.85
01/19/98	85	<0.3	<0.3	<0.3	<0.5	-	1.55		NP	0.00	98.85
04/23/98	220	0.39	<0.3	<0.3	<0.5	350	8.10		NP	0.00	98.85
07/20/98	<50	<0.3	<0.3	<0.3	<0.5	<5	6.30		NP	0.00	98.85
10/14/98	<50	<0.3	<0.3	<0.3	<0.5	<5	7.65		NP	0.00	98.85
01/21/99	<50	<0.3	<0.3	<0.3	<0.5	*6.7 / <5	6.15		NP	0.00	98.85
04/15/99	<50	<0.3	<0.3	<0.3	<0.5	<5	1.60		NP	0.00	98.85
07/26/99	<50	<0.3	<0.3	<0.3	<0.5	<5	6.13		NP	0.00	98.85
											92.72

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

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO BOTTOM (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)						
10/13/99	<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	1.0	*5.4 / 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
07/10/03	<15	<0.22	<0.32	<0.31	<0.4	7.4	5.25	13.76	NP	0.00	98.85	93.60
10/20/03	<15	<0.04	<0.02	<0.02	<0.06	*9.11 / 9.2	5.25	13.76	NP	0.00	98.85	93.60
01/14/04	<15	<0.04	<0.02	<0.02	<0.06	*8.2 / 4.1	3.03	13.76	NP	0.00	98.85	95.82
04/08/04	797	<0.22	<0.32	<0.31	<0.4	635	4.35	13.76	NP	0.00	98.85	94.50
07/21/04	548	<0.22	<0.32	<0.31	<0.4	788	5.56	13.76	NP	0.00	98.85	93.29
10/20/04	901	<0.22	<0.32	<0.31	<0.4	734	4.15	13.77	NP	0.00	98.85	94.70
01/19/05	350	<0.22	<0.32	<0.31	<0.4	860	4.57	13.77	NP	0.00	98.85	94.28
04/20/05	718	<0.22	<0.32	<0.31	<0.4	848	6.10	13.77	NP	0.00	98.85	92.75

MONITORING WELL #MW-6												
Screen Interval = 4 to 14 feet												
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
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

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

DATE SAMPLED	ANALYTICAL PARAMETERS					DEPTH TO GROUNDWATER (feet)	DEPTH TO BOTTOM (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDBREAKER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)						
07/20/98	<50	<0.3	1.1	<0.3	1.4	<5	5.45		NP	0.00	99.67
10/14/98	<50	<0.3	<0.3	<0.3	<0.5	<5	4.95		NP	0.00	99.67
01/21/99	<50	0.35	0.62	<0.3	<0.5	<5	3.90		NP	0.00	99.67
04/15/99	<50	<0.3	<0.3	<0.3	<0.5	<5	2.35		NP	0.00	99.67
07/26/99	1,000	<0.3	<0.3	<0.3	<0.5	*2,300 / 3,900	3.93		NP	0.00	99.67
10/13/99	<50	<0.3	<0.3	<0.3	<0.5	<5	6.15		NP	0.00	93.52
01/20/00	<50	<0.3	<0.3	<0.3	<0.5	*42 / 41	5.84		NP	0.00	99.67
04/05/00	4,600	338	2.8	1.2	55.2	*282 / 230	3.89		NP	0.00	99.67
07/19/00	60	1.0	2.0	<0.3	<0.6	*87 / 76	3.07		NP	0.00	99.67
10/18/00	-	-	-	-	-	-	-	-	-	99.67	-
01/17/01	103	<0.18	2.0	<0.18	3.0	*78 / 106	3.87		NP	0.00	99.67
04/19/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	3.86		NP	0.00	99.67
07/18/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	5.40		NP	0.00	99.67
10/10/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	3.86		NP	0.00	99.67
01/30/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	3.86		NP	0.00	99.67
04/17/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	3.86		NP	0.00	99.67
07/31/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	5.40		NP	0.00	99.67
11/14/02	140	3.2	<0.18	5.2	<0.4	111	5.42		NP	0.00	99.67
01/29/03	694 J	<0.04	<0.02	<0.02	<0.06	630	3.88		NP	0.00	99.67
04/23/03	1,550	<0.04	<0.02	<0.02	<0.06	578	3.86		NP	0.00	99.67
07/10/03	1,670	<0.22	<0.32	<0.31	<0.4	509	5.31	13.04	NP	0.00	99.67
10/20/03	1,320	<0.04	<0.02	<0.02	<0.06	*656 / 662	5.30	13.04	NP	0.00	99.67
01/14/04	272	<0.04	<0.02	<0.02	<0.06	*304 / 180	3.82	13.02	NP	0.00	99.67
04/08/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	5.18	13.06	NP	0.00	99.67
07/21/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	6.42	13.06	NP	0.00	93.25
10/20/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	5.62	13.06	NP	0.00	99.67
01/19/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	5.40	13.06	NP	0.00	94.27
04/20/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	5.41	13.06	NP	0.00	99.67
											94.26

MONITORING WELL #MW-1		Screen Interval = 4 to 14 feet									
01/09/92	-	-	-	-	-	-	6.30		NP	0.00	99.02
04/13/92	-	-	-	-	-	-	6.68		NP	0.00	99.02
10/05/92	-	-	-	-	-	-	9.60		NP	0.00	99.02
01/06/93	-	-	-	-	-	-	13.90		NP	0.00	85.12
04/26/93	-	-	-	-	-	-	5.55		NP	0.00	99.02
01/04/94	-	-	-	-	-	-	7.58		NP	0.00	91.44
04/05/94	-	-	-	-	-	-	6.66		NP	0.00	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
04/08/94	9,100	840	31	690	1,200	-	5.48		NP	0.00	93.54
07/22/96	11,000	1,700	22	660	700	840	6.60		NP	0.00	99.02
10/16/96	180	<0.3	<0.3	<0.3	<0.5	270	6.42		NP	0.00	92.42
01/22/97	130	<0.3	<0.3	<0.3	<0.5	470	5.70		NP	0.00	93.32
04/21/97	10,000	1,400	27	820	490	1,100	5.30		NP	0.00	99.02
											93.72

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

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER	DEPTH TO BOTTOM	DEPTH TO PRODUCT	PRODUCT THICKNESS	CASING ELEVATION	GROUNDWATER ELEVATION
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)	(feet)	(feet)	(feet)	(feet)	(feet)	(feet)
07/14/97	8,200	660	15	250	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	3.0	* 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 0	8 0	6.0	* 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
07/10/03	<15	<0.22	<0.32	<0.31	<0.4	<0.18	5 03	13 56	NP	0.00	99.02	93.99
10/20/03	<15	<0.04	<0.02	<0.02	<0.06	<0.03	5 01	13 56	NP	0.00	99.02	94.01
01/14/04	<15	<0.04	<0.02	<0.02	<0.06	<0.03	4.38	13 56	NP	0.00	99.02	94.64
04/08/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	4 86	13.56	NP	0.00	99.02	94.16
07/21/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	6 82	13.56	NP	0.00	99.02	92.20
10/20/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	5.71	13 56	NP	0.00	99.02	93.31
01/19/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	4.77	13 56	NP	0.00	99.02	94.25
04/20/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	5 54	13 56	NP	0.00	99.02	93.48

**MONITORING WELL #RW-1**

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	-	-
0104/94	-	-	-	-	-	-	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	-	-

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

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER	DEPTH TO BOTTOM	DEPTH TO PRODUCT	PRODUCT THICKNESS	CASING ELEVATION	GROUNDWATER ELEVATION
	TPH ( $\mu\text{g/L}$ )	BENZENE ( $\mu\text{g/L}$ )	TOLUENE ( $\mu\text{g/L}$ )	EthylBenzene ( $\mu\text{g/L}$ )	XYLENE ( $\mu\text{g/L}$ )	MTBE ( $\mu\text{g/L}$ )	(feet)	(feet)	(feet)	(feet)	(feet)	(feet)
10/16/96	-	-	-	-	-	-	15 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	-	-	-	-	-	-	No Access		-	-	-	-
07/10/03	-	-	-	-	-	-	No Access		-	-	-	-
10/20/03	-	-	-	-	-	-	No Access		-	-	-	-
01/14/04	WELL ABANDONED 01/2004											
<b>MONITORING WELL #RW-1R</b>												
04/08/04	6,740	42	32 J	<3 1	1,160	239	4 76	19 08	NP	0 00	-	-
07/21/04	118	<0 22	<0 32	<0 31	<0 4	107	6 85	19 08	NP	0 00	-	-
10/20/04	29,900	3,850	4,010	381	1,920	103	4 28	19 07	NP	0 00	-	-
01/19/05	13,400	272	243	24 J	2,230	2,110	4 54	19.07	NP	0 00	-	-
04/20/05	1,220	<0 22	<0.32	<0 31	<0 4	1,580	4 95	19.10	NP	0.00	-	-

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

On 7/21/04, 4/08/04, 7/10/03 & 11/14/02, BTEX and MTBE done by 8260B

**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	1,560	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	-
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	-

**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	
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	58	8,724	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	
09/14/92	75,582	29,927	19	8,804	-	<0.5	<0.5	<0.5	<0.5	-	-	1,100	350	200	1,100	-	
10/05/92	75,680	30,025	5	8,819	<200	<0.5	<0.5	<0.5	<1	-	-	2,100	520	<25	3,500	-	
11/09/92	77,280	31,625	46	9,072	-	<0.5	<0.5	<0.5	<0.5	-	19,000	1,700	270	<25	4,000	-	
12/14/92	79,420	33,765	61	9,411	-	<0.5	<0.5	<0.5	<1	-	-	4,000	1,400	120	5,900	-	
01/04/93	84,720	39,065	252	10,250	-	<0.5	<0.5	<0.5	<1	-	-	7,300	4,800	1,800	16,000	-	
02/15/93	102,689	57,034	428	14,739	<200	<0.5	<0.5	<0.5	<1	-	-	5,400	2,100	450	7,800	-	
02/22/93	146,430	57,034	-	14,739	The system pumped air and flowmeter jumped from 102,689 gallons to 146,430 gallons						-	41,000	6,600	3,200	260	9,500	-
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	<0.5	-		
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	<0.3	<0.5	-	1,300	86	1.5	1.1	15	-	
11/07/94	206,060	116,664	30	23,074	<50	<0.3	<0.3	<0.3	<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	<0.3	<0.5	-	75	13	<0.3	<0.5	<0.5	-	
01/09/95	207,293	117,897	6	23,075	<50	<0.3	<0.3	<0.3	<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	<0.3	<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	<0.3	<0.5	-	<50	2.7	<0.3	<0.5	<0.5	-	
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	-	

**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-B	B	T	E	X	MTBE	TPH-B	B	T	E	X	MTBE
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	500	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	-	-	-	-	-	-	-	-	-	-	-	-
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	986	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	282,027	45	54,639	-	-	-	-	-	-	-	-	-	-	-	-
03/12/99	4,390	284,446	86	54,647	-	-	-	-	-	-	-	-	-	-	-	-

**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	
04/15/99	8,595	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	289,466	43	54,663	-	-	-	-	-	-	-	-	-	-	-	-	
05/18/99	9,410	289,466	-	54,663	Shut down system for pump controller repair by manufacturer						-	-	-	-	-	-	
09/20/99	9,411	289,467	0	54,663	Restart the system						-	-	-	-	-	-	
09/24/99	9,412	289,468	0	54,663	-	-	-	-	-	-	-	-	-	-	-	-	
10/13/99	9,510	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	9,702	289,758	6	54,676	-	-	-	-	-	-	-	-	-	-	-	-	
12/17/99	9,894	289,950	5	54,685	-	-	-	-	-	-	-	-	-	-	-	-	
01/20/00	10,052	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	10,157	290,213	4	54,698	-	-	-	-	-	-	-	-	-	-	-	-	
03/13/00	10,356	290,411	8	54,708	-	-	-	-	-	-	-	-	-	-	-	-	
04/05/00	10,546	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	11,072	291,128	12	55,419	Shut down system for carbon drum replacement						-	-	-	-	-	-	
06/05/00	11,075	291,131	0	55,419	Restart the system						-	-	-	-	-	-	
06/14/00	11,132	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	291,418	10	55,703	Shut down system for carbon replacement						-	-	-	-	-	-	
07/17/00	0	291,418	-	55,703	Restart the system after carbon change, ripipe and flowmeter change (starting at 0.0)						-	-	-	-	-	-	
07/24/00	411	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	299,611	278	55,920	-	-	-	-	-	-	-	-	-	-	-	-	
09/18/00	27,251	318,669	681	55,963	-	-	-	-	-	-	-	-	-	-	-	-	
10/18/00	54,280	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	356,028	861	126,867	-	-	-	-	-	-	-	-	-	-	-	-	
11/27/00	79,870	371,288	545	172,235	-	-	-	-	-	-	-	-	-	-	-	-	
12/22/00	99,240	390,658	775	229,823	-	-	-	-	-	-	-	-	-	-	-	-	
01/17/01	101,250	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	435,538	1,159	241,836	-	-	-	-	-	-	-	-	-	-	-	-	
03/30/01	195,400	486,818	1,465	252,385	-	-	-	-	-	-	-	-	-	-	-	-	
04/06/01	199,090	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	498,468	569	255,172	88	<0.18	<0.14	<0.18	<0.26	93	36,500	855	716	659	1,570	11,400	
04/27/01	210,640	502,058	513	256,263	System shut down for repair/replacement of compressor's pressure switch and exhaust valve						-	-	-	-	-	-	-
04/30/01	210,640	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	502,058	-	256,263	Replaced pressure switch on 5/7/01, system still off for carbon replacement.						-	-	-	-	-	-	
05/21/01	210,640	502,058	-	256,263	Restart the system						-	-	-	-	-	-	
05/30/01	226,830	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	558,648	1,347	295,790	-	-	-	-	-	-	-	-	-	-	-	-	
07/11/01	310,010	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	732,688	3,548	518,940	-	-	-	-	-	-	-	-	-	-	-	-	
09/28/01	498,310	789,728	1,358	595,894	-	-	-	-	-	-	-	-	-	-	-	-	
10/03/01	503,930	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	956,118	4,019	642,733	-	-	-	-	-	-	-	-	-	-	-	-	
12/28/01	706,300	997,718	904	653,680	-	-	-	-	-	-	-	-	-	-	-	-	
01/11/02	721,050	1,012,468	1,054	657,562	System shut down for carbon replacement						-	-	-	-	-	-	-
01/21/02	721,050	1,012,468	-	657,562	Restart the system						-	-	-	-	-	-	-

**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
02/01/02	731,320	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	1,042,758	953	659,159	-	-	-	-	-	-	-	-	-	-	-	-
03/27/02	813,240	1,104,658	1,876	659,763	-	-	-	-	-	-	-	-	-	-	-	-
04/12/02	835,170	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	1,210,088	5,964	669,389	System shut down											
05/10/02	918,680	1,210,098	1	669,390	Restart											
05/17/02	928,670	1,220,088	1,427	670,397	-	-	-	-	-	-	-	-	-	-	-	-
06/03/02	-	-	-	-	<50	<0.18	<0.14	<0.18	<0.26	<0.24	Split-sample results during EBMUD inspection & sampling					
06/07/02	971,240	1,262,658	2,027	674,686	-	-	-	-	-	-	-	-	-	-	-	-
06/28/02	1,012,150	1,303,568	1,948	678,809	-	-	-	-	-	-	-	-	-	-	-	-
07/15/02	1,045,670	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	1,343,798	419	682,569	System shut down for carbon replacement											
08/16/02	1,052,390	1,343,808	1	682,569	Restart											
08/30/02	1,057,310	1,348,728	351	683,004	-	-	-	-	-	-	-	-	-	-	-	-
09/20/02	1,061,730	1,353,148	210	683,394	<50	<0.1	<0.15	<0.06	-	-	Split-sample results during EBMUD inspection & sampling					
09/27/02	1,064,020	1,355,438	327	683,596	-	-	-	-	-	-	-	-	-	-	-	-
10/04/02	1,069,130	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	1,373,918	637	684,289	-	-	-	-	-	-	-	-	-	-	-	-
11/29/02	1,108,680	1,400,098	748	685,270	-	-	-	-	-	-	-	-	-	-	-	-
12/27/02	1,123,890	1,415,308	543	685,840	-	-	-	-	-	-	-	-	-	-	-	-
01/03/03	1,128,910	1,420,328	717	686,028	System shut down for carbon replacement											
01/10/03	1,128,970	1,420,388	9	686,030	Restart											
01/17/03	1,132,560	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	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	1,445,088	741	691,423	System shut down for carbon replacement											
04/04/03	1,153,670	1,445,088	-	691,423	System kept off and dismantled for upgrade											
06/18/04	0.0	1,445,088	-	691,423	Startup of upgraded system											
06/21/04	2,322.2	1,447,410	774	691,945	-	<0.22	<0.32	<0.31	<0.4	-	-	-	-	-	-	-
06/23/04	3,361.0	1,448,449	519	692,178	-	<0.14	<0.16	<0.18	<0.45	-	-	-	-	-	-	-
06/25/04	4,398.0	1,449,486	519	692,412	-	<0.14	<0.16	<0.18	<0.45	-	-	-	-	-	-	-
07/01/04	6,395.7	1,451,484	333	692,861	-	-	-	-	-	-	-	-	-	-	-	-
07/09/04	8,606.5	1,453,695	276	693,358	-	-	-	-	-	-	-	-	-	-	-	-
07/19/04	11,130.0	1,456,218	252	693,925	-	-	-	-	-	-	-	-	-	-	-	-
07/29/04	11,346.0	1,456,434	22	693,974	-	-	-	-	-	-	-	-	-	-	-	-
08/09/04	12,511.0	1,457,599	106	694,236	-	-	-	-	-	-	27,000	201	247	<0.18	2,060	11,300
08/30/04	19,294.0	1,464,382	323	695,761	-	-	-	-	-	-	-	-	-	-	-	-
09/03/04	20,211.0	1,465,299	229	695,936	-	<0.14	<0.16	<0.18	<0.45	-	18,900	280	290	27	3,600	9,810
09/21/04	24,766.0	1,469,854	253	696,653	-	-	-	-	-	-	-	-	-	-	-	-
10/07/04	28,244.9	1,473,333	217	697,276	-	<0.14	<0.16	<0.18	<0.45	-	24,100	221	151	74	3,100	11,800
10/18/04	28,288.1	1,473,376	4	697,285	-	<0.14	<0.16	<0.18	<0.45	-	Split-sample results during EBMUD inspection & sampling					
10/21/04	28,463.5	1,473,552	58	697,320	-	-	-	-	-	-	-	-	-	-	-	-
10/28/04	34,435.8	1,479,524	853	698,519	-	-	-	-	-	-	-	-	-	-	-	-

**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
11/02/04	37,200.4	1,482,288	553	699,074	-	-	-	-	-	-	-	-	-	-	-	-
11/09/04	39,902.6	1,484,991	398	699,677	-	-	-	-	-	-	-	-	-	-	-	-
11/17/04	43,165.9	1,488,254	408	700,478	-	-	-	-	-	-	29,500	564	628	173	4,550	11,800
11/22/04	43,760.3	1,488,848	119	700,624	-	-	-	-	-	-	-	-	-	-	-	-
12/03/04	43,827.9	1,488,916	6	700,641	-	-	-	-	-	-	-	-	-	-	-	-
12/09/04	43,862.7	1,488,951	6	700,650	-	-	-	-	-	-	-	-	-	-	-	-
12/17/04	44,034.6	1,489,123	21	700,692	-	-	-	-	-	-	-	-	-	-	-	-
12/23/04	45,408.0	1,490,496	229	700,993	-	<0.14	<0.16	<0.18	1.2	-	23,200	473	256	488	2,100	6,080
12/29/04	47,405.4	1,492,493	333	701,379	-	-	-	-	-	-	-	-	-	-	-	-
01/07/05	54,048.5	1,499,137	738	702,663	-	-	-	-	-	-	-	-	-	-	-	-
01/12/05	56,143.5	1,501,232	419	703,067	EMC took over operation and maintenance of system						-	-	-	-	-	-
01/14/05	56,307.2	1,501,395	82	703,099	Carbon change						-	-	-	-	-	-
01/19/05	56,307.2	1,501,395	-	703,099	Restarted after carbon change						-	-	-	-	-	-
01/27/05	57,610.1	1,502,698	163	703,251	<15	<0.14	1.1	<0.18	<0.45	-	4,850	189	205	255	1,450	966
02/03/05	63,253.1	1,508,341	806	703,479	-	-	-	-	-	-	-	-	-	-	-	-
02/11/05	65,739.0	1,510,827	311	703,579	-	-	-	-	-	-	-	-	-	-	-	-
02/18/05	67,326.3	1,512,414	227	703,644	-	-	-	-	-	-	-	-	-	-	-	-
02/24/05	67,392.1	1,512,480	11	703,646	-	-	-	-	-	-	-	-	-	-	-	-
03/09/05	67,984.2	1,513,072	46	703,670	-	-	-	-	-	-	-	-	-	-	-	-
03/17/05	69,219.3	1,514,307	154	703,720	-	-	-	-	-	-	-	-	-	-	-	-
03/23/05	70,454.2	1,515,542	206	703,770	-	-	-	-	-	-	-	-	-	-	-	-
03/30/05	71,783.1	1,516,871	190	703,824	-	-	-	-	-	-	-	-	-	-	-	-
04/06/05	75,721.2	1,520,809	563	704,082	<15	<0.14	0.91	<0.18	<0.45	-	10,900	247	112	356	892	2,010
04/07/05	-	-	-	-	<15	<0.14	<0.16	<0.18	<0.45	<0.22	Split-sample results during EBMUD inspection & sampling					
04/14/05	79,730.2	1,524,818	501	704,446	System was turned off for QWS						-	-	-	-	-	-
04/21/05	79,885.1	1,524,973	22	704,460	Restarted system						-	-	-	-	-	-
04/27/05	80,674.2	1,525,762	132	704,531	-	-	-	-	-	-	-	-	-	-	-	-
05/12/05	83,901.3	1,528,989	215	704,824	-	-	-	-	-	-	-	-	-	-	-	-
05/20/05	84,601.7	1,529,690	88	704,888	-	-	-	-	-	-	-	-	-	-	-	-
05/27/05	86,432.1	1,531,520	261	705,054	-	-	-	-	-	-	-	-	-	-	-	-
06/02/05	87,654.3	1,532,742	204	705,165	-	-	-	-	-	-	-	-	-	-	-	-
06/09/05	87,981.1	1,533,069	47	705,195	-	-	-	-	-	-	-	-	-	-	-	-
06/16/05	88,340.0	1,533,428	51	705,227	-	-	-	-	-	-	-	-	-	-	-	-
06/16/05	0.0	1,533,428	-	705,227	Changed battery for flow meter (reset to 0.0 gallons)						-	-	-	-	-	-
06/23/05	2,914.2	1,536,342	418	705,492	-	-	-	-	-	-	-	-	-	-	-	-
06/28/05	4,751.3	1,538,179	367	705,659	-	-	-	-	-	-	-	-	-	-	-	-

**WD PERMIT LIMITS:**

NE      5.0      5.0      5.0      5.0      NE

**Note:**

< = less than laboratory detection level indicated

- = no sample / not analyzed

NE = Permit Limit not established

Total Hydrocarbons Removed = From 4/8/91 to 2/10/92, the influent TPHg is assumed to be 47,000 (3/9/92)

TPH is analyzed by EPA Method 8015 M

BTEX is analyzed by EPA Method 602/8020 or 8021

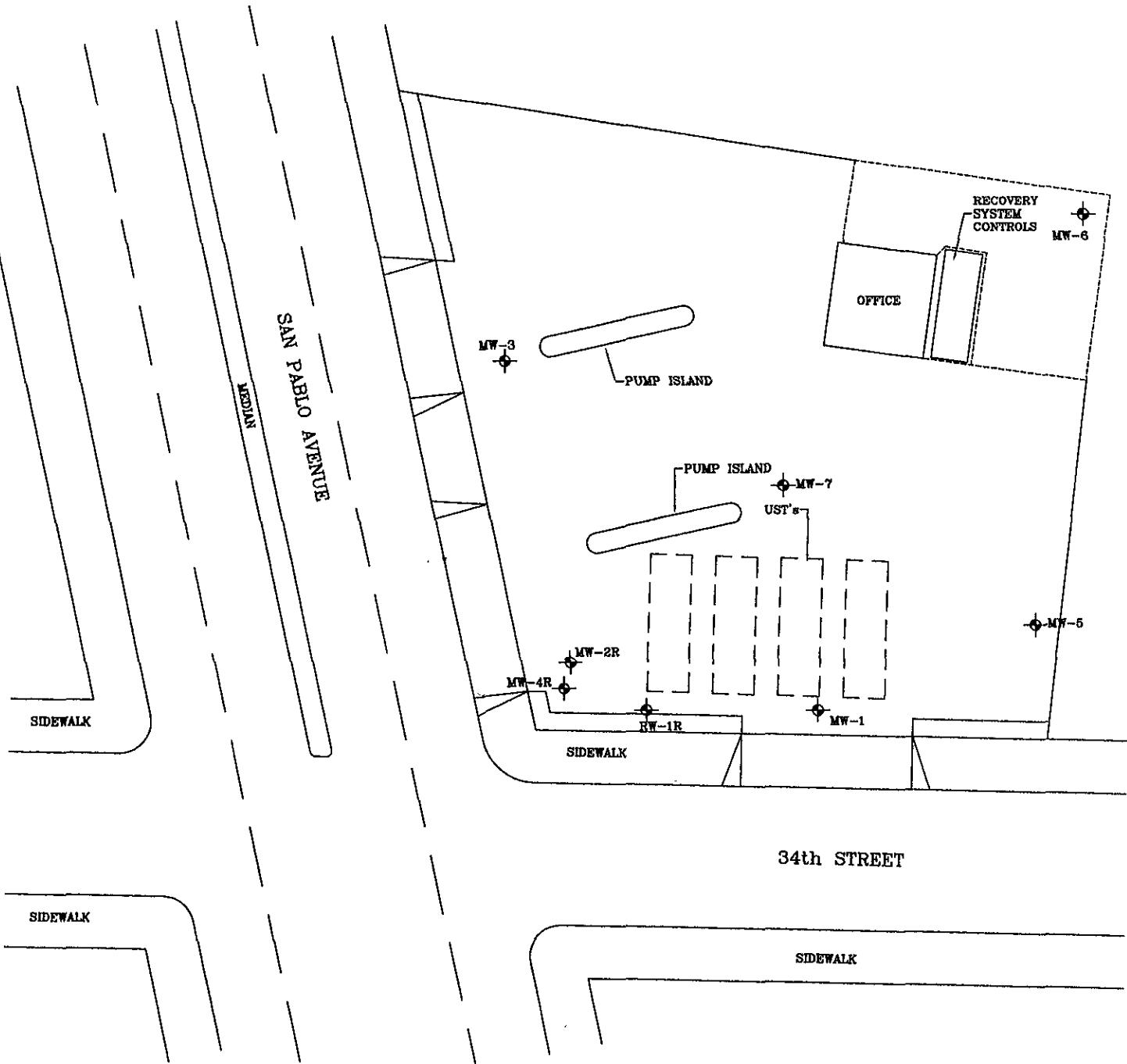
\*MTBE 8021/8260

**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 R-C Removed (lbs)	EFFLUENT (ug/L)					INFLUENT (ug/L)					
					TPH-g	B	T	E	X	TPH-g	B	T	E	X	MTBE

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.

## ***FIGURES***



#### LEGEND

- MW-4R • RECOVERY WELL LOCATION
- MW-1 • MONITORING WELL LOCATION
- SB-1 ● SOIL BORING LOCATION

**SITE PLAN**  
**THRIFTY OIL #049**  
**3400 SAN PABLO AVE**  
**OAKLAND, CALIFORNIA**

FIGURE:

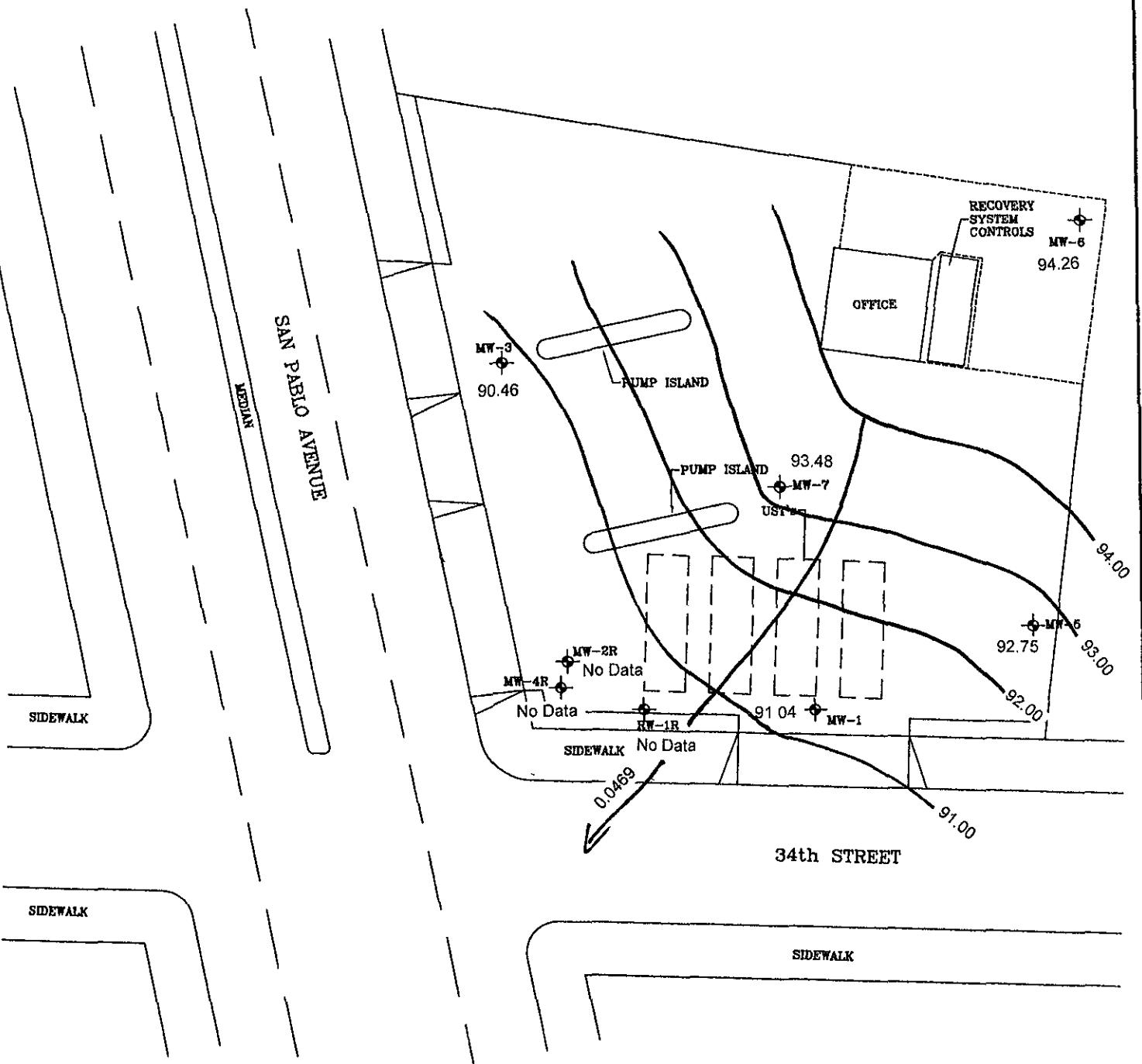
1

N

SCALE  
30  
FEET

0

60



LEGEND

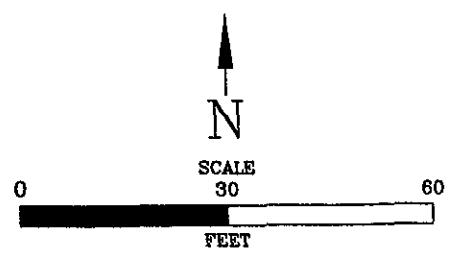
- MW-4R • RECOVERY WELL LOCATION Data Collected 4/20/2005
- MW-1 • MONITORING WELL LOCATION Datum is Mean Sea Level
- SB-1 ● SOIL BORING LOCATION

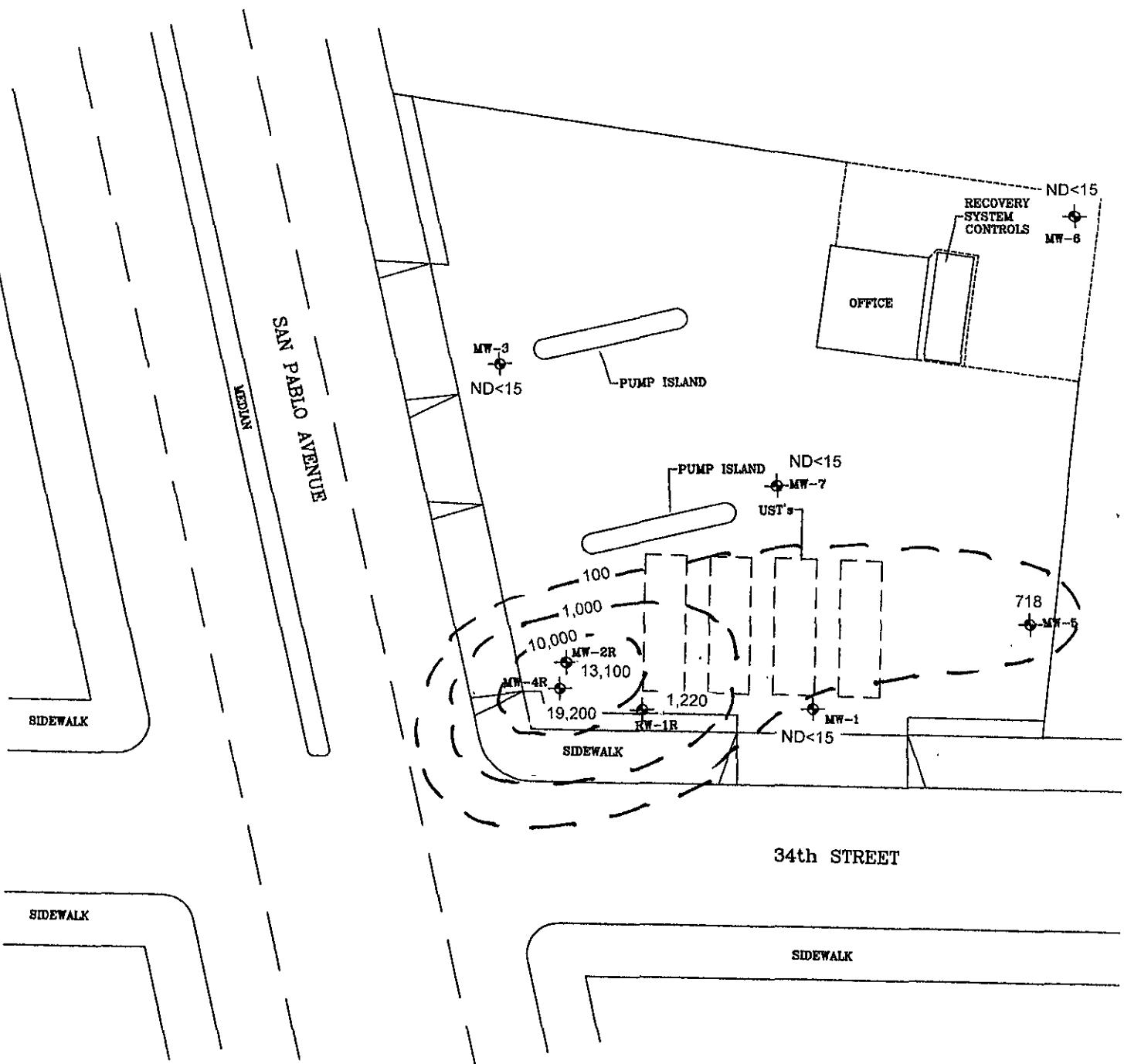
## GROUNDWATER CONTOURS

THRIFTY OIL #049  
3400 SAN PABLO AVE  
OAKLAND, CALIFORNIA

FIGURE:

2





#### LEGEND

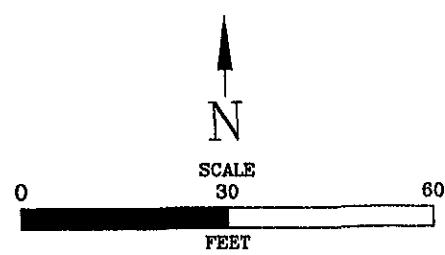
- |       |                            |                             |
|-------|----------------------------|-----------------------------|
| MW-4R | ● RECOVERY WELL LOCATION   | Samples Collected 4/20/2005 |
| MW-1  | ● MONITORING WELL LOCATION | Results in ug/L             |
| SB-1  | ● SOIL BORING LOCATION     |                             |

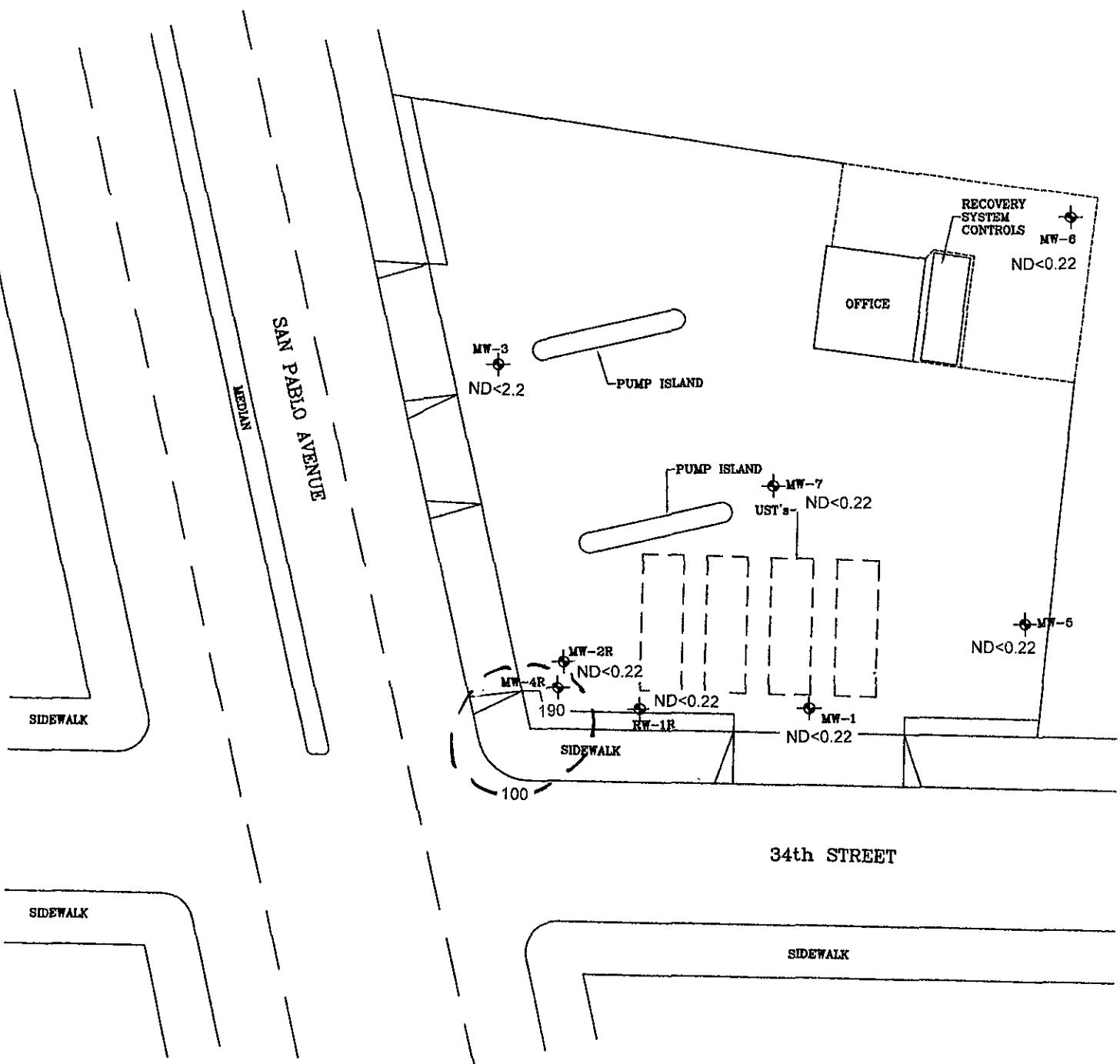
## TPHg in GROUNDWATER

THRIFTY OIL #049  
3400 SAN PABLO AVE  
OAKLAND, CALIFORNIA

FIGURE:

3





#### LEGEND

- MW-4R • RECOVERY WELL LOCATION
  - MW-1 • MONITORING WELL LOCATION
  - SB-1 • SOIL BORING LOCATION
- Samples Collected 4/20/2005  
Results in ug/L

Benzene in GROUNDWATER

THRIFTY OIL #049  
3400 SAN PABLO AVE  
OAKLAND, CALIFORNIA

FIGURE:

4

N

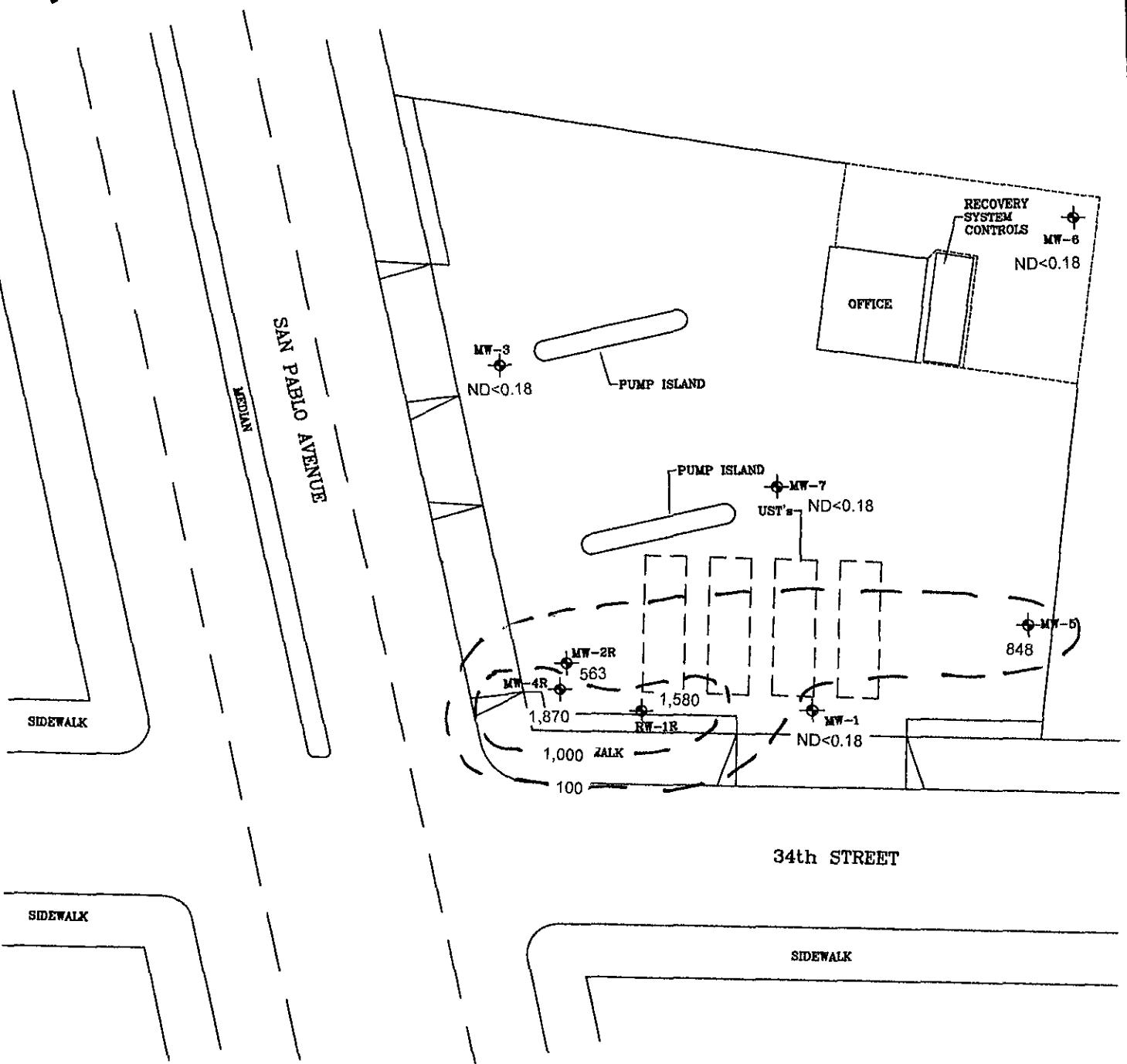
SCALE

30

60

FEET

0



#### LEGEND

MW-4R • RECOVERY WELL LOCATION

MW-1 • MONITORING WELL LOCATION

SB-1 • SOIL BORING LOCATION

Samples Collected 4/20/2005

Results in ug/L

**MTBE in GROUNDWATER**

THRIFTY OIL #049  
3400 SAN PABLO AVE  
OAKLAND, CALIFORNIA

FIGURE:

5

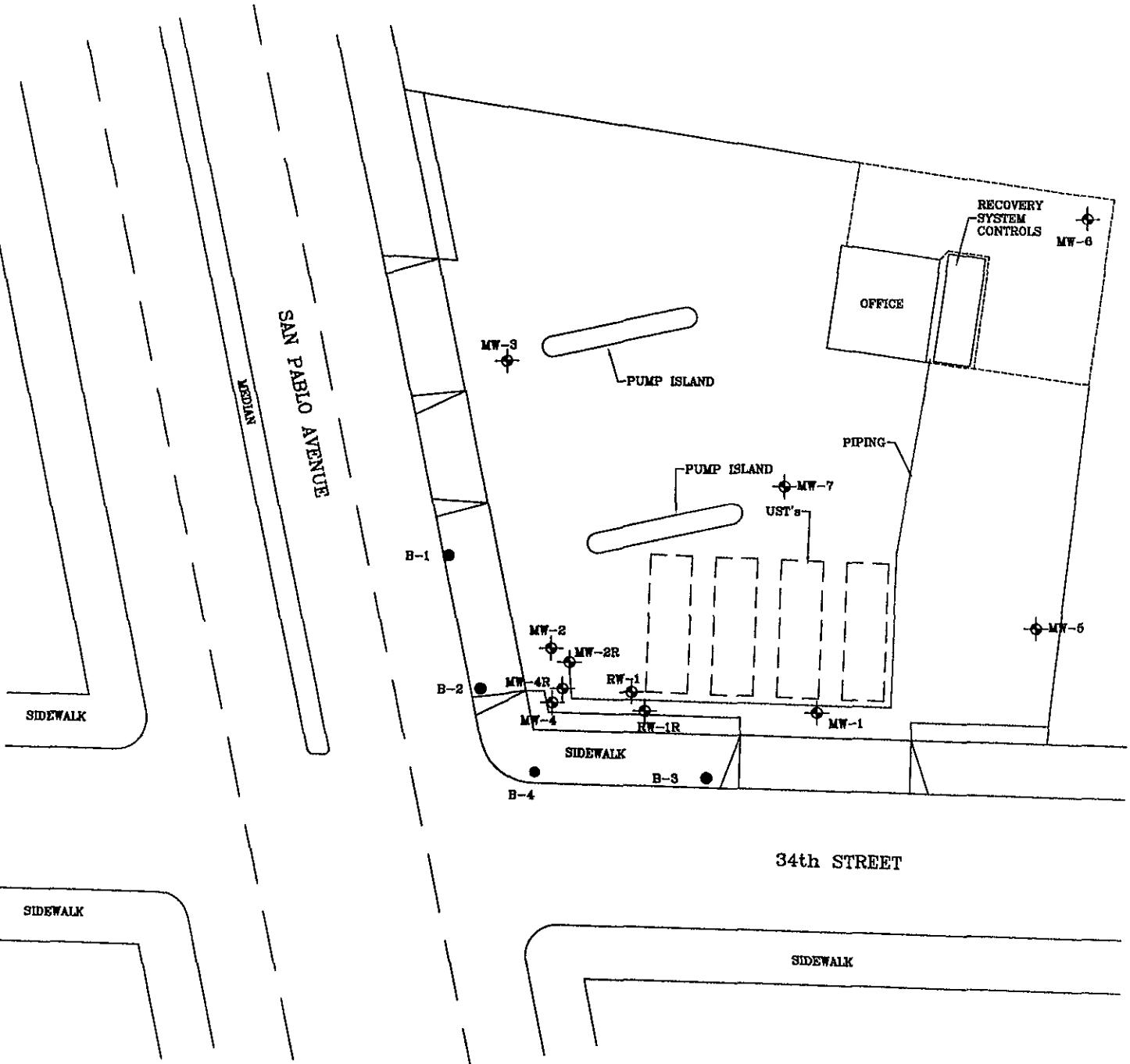
N

SCALE

30

60

FEET



## REMEDIATION SYSTEM LAYOUT

Thrifty Oil #49  
3400 San Pablo Avenue  
Oakland, California



*Advanced*  
GeoEnvironmental, Inc.

PROJECT NO. AGE-NC-03-1049

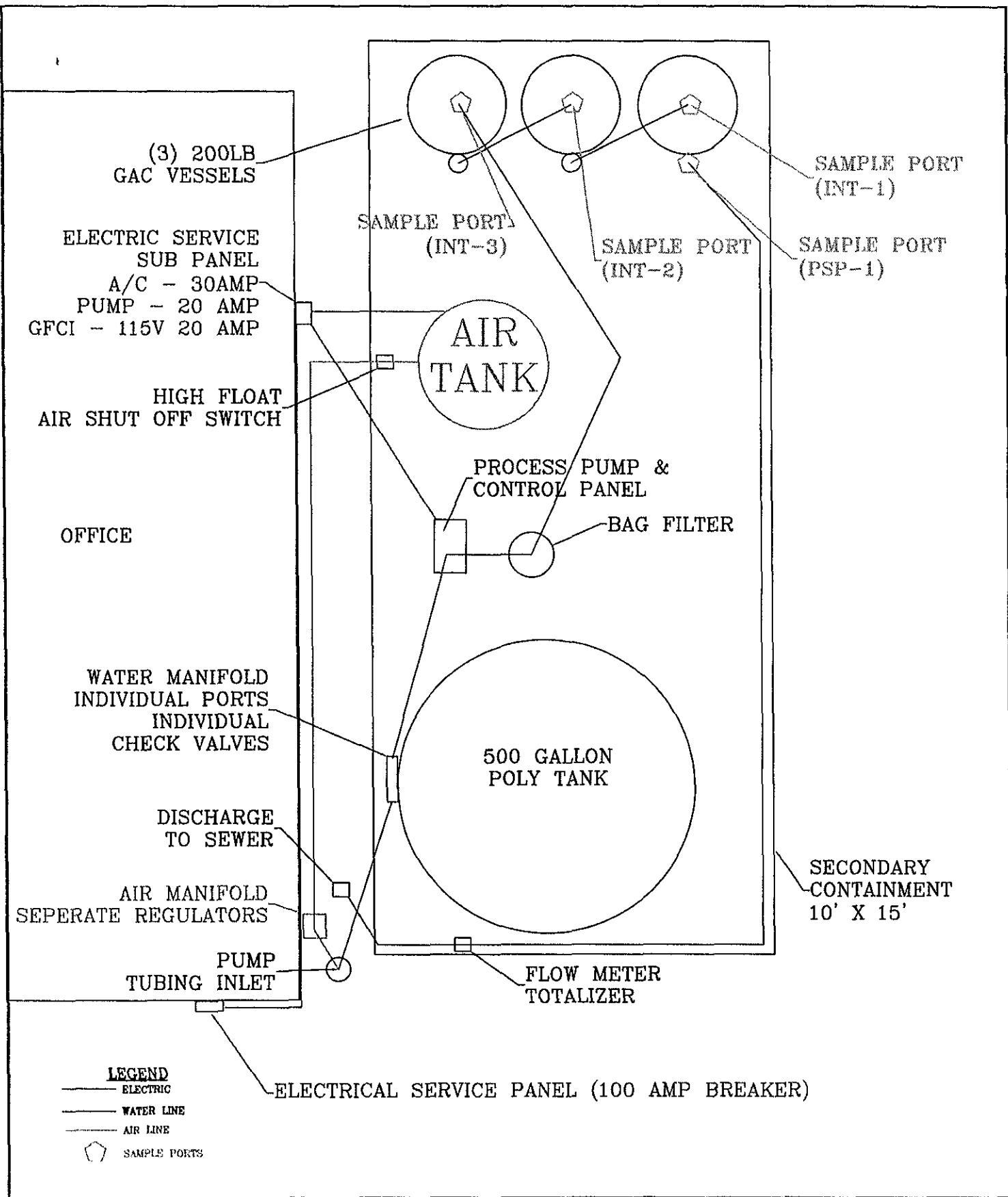
DATE: 19 April 2004

FILE: Thrifty49-2

FIGURE:

6

0 30 60  
SCALE  
FEET



TREATMENT COMPOUND LAYOUT  
THRIFTY OIL STATION #049  
3400 SAN PABLO AVENUE  
OAKLAND, CALIFORNIA



*Advanced*  
GeoEnvironmental, Inc.

PROJECT NO. AGE-NC-03-1049

FILE: Thrifty49-6

FIGURE:

DATE: 26 MAY 2004

DRAWN BY: MAC

7

## *APPENDIX A*



**EARTH MANAGEMENT CO.**

## **Environmental Remediation**

## **PROJECT STATUS REPORT**

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

DATE: 04-20-05

PERSONNEL: SERBAN,

**FREE PRODUCT REMOVED:**

**APPROX. — GALLONS**

**PURGE-WATER REMOVED:**

APPROX. 155 GALLONS

**REMARKS.**

PURGE WATER FROM WELLS WAS COLLECT IN HOLDING TANK  
AND GALLONS WILL BE ADD TO THE FLOW #

**EXPLANATION:**

REV 6/30/2004

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:	TL 044	Date:	04-20-05
Address:			
Personnel:	SERBAL,	Weather:	SUNNY DAY
Well No:	MW-6	Equip:	BAILER

## Before Purging:

Total Well Depth: (ft.)	13.06	Well Diameter	24
Depth to Water (ft.)	5.41	Est. Purge Volume:	5

## Sampling Data:

### Initial Turbidity:

### Final Turbidity:

Time	8:52	8:54	8:56	8:58	9:00
EC	1240	1230	1270	1250	1240
pH	5.83	5.81	6.03	6.01	5.97
Temp	72.1	71.9	71.7	71.7	71.6
Gal.	1	2	3	4	5

Time						
EC						
pH						
Temp						
Gal.						

## After Purging/Before Sample Collection

Depth to Water (ft.)	6.54	Total Well Depth (ft.)	13.06
----------------------	------	------------------------	-------

# FIELD DATA - GROUNDWATER SAMPLING PROGRAM

Site:	TL 049	Date:	04-20-05
Address:			
Personnel:	SERBAN,	Weather:	SUNNY DAY
Well No:	MW-5	Equip:	BAILER

## Before Purging:

Total Well Depth (ft.)	13.77	Well Diameter	2"
Depth to Water (ft.)	6.10	Est. Purge Volume:	5

## Sampling Data:

### Initial Turbidity:

### Final Turbidity:

Time	9:07	9:09	9:11	9:13	9:15	
EC	1340	1310	1290	1270	1270	
pH	6.03	6.08	5.97	5.83	5.81	
Temp	71.4	71.3	71.1	71.2	71.1	
Gal.	1	2	3	4	5	

Time						
EC						
pH						
Temp						
Gal.						

## After Purging/Before Sample Collection

Depth to Water (ft.)	7.42	Total Well Depth (ft.)	13.77
----------------------	------	------------------------	-------

# FIELD DATA - GROUNDWATER SAMPLING PROGRAM

Site:	SL 049	Date:	04-20-05
Address:			
Personnel:	SERRAN,	Weather:	SUNNY DAY
Well No:	MW-1	Equip:	BAILER

**Before Purging:**

Total Well Depth: (ft.)	17.73	Well Diameter	2"
Depth to Water (ft)	6.99	Est. Purge Volume:	7

**Sampling Data:**
**Initial Turbidity:**

Time	9:22	9:24	9:26	9:28	9:30
EC	1340	1320	1320	1340	1320
pH	5.83	5.81	5.80	5.83	5.81
Temp	71.3	71.2	71.4	71.3	71.2
Gal.	1	2	4	5	7

**Final Turbidity:**

Time					
EC					
pH					
Temp					
Gal.					

**After Purging/Before Sample Collection**

Depth to Water (ft)	8.23	Total Well Depth(ft)	17.73
---------------------	------	----------------------	-------

# FIELD DATA - GROUNDWATER SAMPLING PROGRAM

Site:	FL 049	Date:	06-20-05
Address:			
Personnel:	SERBAN	Weather:	SUNNY DAY
Well No:	MW-7	Equip:	BAILER

## Before Purging:

Total Well Depth: (ft)	13.56	Well Diameter	4"
Depth to Water (ft)	5.54	Est. Purge Volume:	21

## Sampling Data:

### Initial Turbidity:

### Final Turbidity:

Time	9:40	9:45	9:50	9:55	10:00		
EC	14.10	16.90	16.70	16.90	16.70		
pH	5.81	5.83	5.80	5.83	5.81		
T <sub>temp</sub>	71.3	71.4	71.3	71.2	71.1		
Gal.	4	8	12	16	21		

Time							
EC							
pH							
T <sub>temp</sub>							
Gal.							

## After Purging/Before Sample Collection

Depth to Water (ft)	6.23	Total Well Depth (ft)	13.56
---------------------	------	-----------------------	-------

# FIELD DATA - GROUNDWATER SAMPLING PROGRAM

Site:	4049	Date:	04-20-05
Address:			
Personnel:	SERRABAU	Weather:	SUNNY DAY
Well No:	MW-3	Equip:	BAILER

## Before Purging:

Total Well Depth: (ft)	24.11	Well Diameter	24
Depth to Water (ft)	7.22	Est. Purge Volume:	11

## Sampling Data:

### Initial Turbidity:

### Final Turbidity:

Time	10:08	10:11	10:14	10:17	10:20	
EC	1610	1630	1640	1630	1620	
pH	5.93	5.87	5.83	5.81	5.83	
Temp	71.4	71.6	71.3	71.2	71.2	
Gal.	2	4	6	8	11	

Time						
EC						
pH						
Temp						
Gal.						

## After Purging/Before Sample Collection

Depth to Water (ft)	10.06	Total Well Depth (ft)	24.11
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# FIELD DATA - GROUNDWATER SAMPLING PROGRAM

Site:	H-049	Date:	04-20-05
Address:			
Personnel:	SERBAN	Weather:	SUNNY DAY
Well No:	MW-22	Equip:	BAPIER

## Before Purging:

Total Well Depth (ft)	16.74	Well Diameter	44
Depth to Water (ft)	5.27	Est. Purge Volume:	30

## Sampling Data:

### Initial Turbidity:

Time	10:36	10:42	10:48	10:54	11:00		
EC	1630	1650	1640	1630	1620		
pH	6.01	6.03	6.01	5.93	6.01		
Temp	71.6	71.2	71.3	71.1	71.1		
Gal.	6	12	18	24	30		

Time							
EC							
pH							
Temp							
Gal.							

## After Purging/Before Sample Collection

Depth to Water (ft)	7.11	Total Well Depth (ft)	16.74
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# FIELD DATA - GROUNDWATER SAMPLING PROGRAM

Site:	H 049	Date:	04-20-05
Address:			
Personnel:	SERBAN,	Weather:	SUNNY DAY
Well No:	MW-4R	Equip:	BAILER

**Before Purging:**

Total Well Depth (ft)	19.64	Well Diameter	4"
Depth to Water (ft)	4.72	Est. Perce Volume:	39

**Sampling Data:**
**Initial Turbidity:**

Time	11:28	11:36	11:44	11:52	12:00		
EC	1430	1440	1420	1410	1430		
pH	5.62	5.71	5.73	5.69	5.73		
Temp	72.1	71.8	71.7	71.6	71.7		
Gal.	7	15	23	31	39		

**Final Turbidity:**

Time							
EC							
pH							
Temp							
Gal.							

**After Purging/Before Sample Collection**

Depth to Water (ft)	6.13	Total Well Depth (ft)	19.64
---------------------	------	-----------------------	-------

# FIELD DATA - GROUNDWATER SAMPLING PROGRAM

Site:	TD 049	Date:	04-20-05
Address:			
Personnel:	SERBAN,	Weather:	SUNNY DAY
Well No:	RW-1R	Equip:	BAILER

**Before Purging:**

Total Well Depth: (ft)	19.10	Well Diameter	4"
Depth to Water (ft)	4.95	Est. Purge Volume:	37

**Sampling Data:**
**Initial Turbidity:**

Time	12:28	12:36	12:44	12:52	13:00		
EC	1460	1450	1470	1460	1440		
pH	6.03	6.06	6.01	5.98	5.93		
Tcmb	71.3	71.1	70.9	71.2	71.1		
Gal.	4	14	22	29	37		

Time							
EC							
pH							
Temp							
Gal.							

**After Purging/Before Sample Collection**

Depth to Water (ft.)	6.24	Total Well Depth(ft.)	19.10
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# ASSOCIATED LABORATORIES

806 North Batavia • Orange, CA 92868

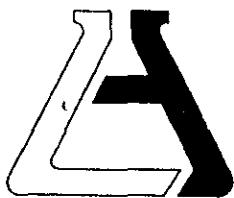
Phone: (714) 771-6900 • Fax: (714) 538-1209



## Chain of Custody Record

Company		Phone		A.L. Job No.		Analysis Requested		Test Instructions & Comments			
Project Manager		Fax									
Project Name		Project #									
Site Name and Address											
Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.					
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
<b>Sample Receipt - To Be Filled By Laboratory</b>						<b>Relinquished by Sampler:</b>	<b>1.</b>	<b>Relinquished by</b>	<b>2.</b>	<b>Relinquished by</b>	<b>3.</b>
Total Number of Containers		Properly Cooled Y / N / NA				Signature:	Signature:		Signature:		
Custody Seals Y / N / NA		Samples Intact Y / N / NA				Printed Name:	Printed Name:		Printed Name:		
Received in Good Condition Y / N		Samples Accepted Y / N				Date: Time:	Date: Time:	Date: Time:	Date: Time:		
<b>Turn Around Time</b>						<b>Received By:</b>	<b>1.</b>	<b>Received By:</b>	<b>2.</b>	<b>Received By:</b>	<b>3.</b>
						Signature:	Signature:		Signature:		
						Printed Name:	Printed Name:		Printed Name:		
						Date: Time:	Date: Time:	Date: Time:	Date: Time:		
<input type="checkbox"/> Normal		<input type="checkbox"/> Rush		<input type="checkbox"/> Same Day		<input type="checkbox"/> 48 hrs.					
						<input type="checkbox"/> 24 hrs.					

## ***APPENDIX B***



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

FAX 714/538-1209

CLIENT Thrifty Oil Company (8871)

ATTN: Jeff Suryakusuma  
13116 Imperial Hwy.  
P.O. Box 2128  
Santa Fe Springs, CA 90670

LAB REQUEST 149236 ✓

REPORTED 05/05/2005

RECEIVED 04/21/2005

PROJECT Station #049  
3400 San Pablo Ave., 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.

**Order No.**

614240  
614241  
614242  
614243  
614244  
614245  
614246  
614247  
614248  
614249

**Client Sample Identification**

TOC #049, MW-6  
TOC #049, MW-5  
TOC #049, MW-1  
TOC #049, MW-7  
TOC #049, MW-3  
TOC #049, MW-2R  
TOC #049, MW-4R  
TOC #049, RW-1R  
TOC #049, Trip Blank  
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.*

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 #: 614240

Matrix: WATER

Client Sample ID TOC #049, MW-6

Date Sampled: 04/20/2005 Time Sampled: 13:10

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE Only</b>						
Benzene	ND	1	1	0.22	ug/L	04/29/05 DP
Ethyl benzene	ND	1	5	0.31	ug/L	04/29/05 DP
Methyl-tert-butylether (MTBE)	ND	1	1	0.18	ug/L	04/29/05 DP
Toluene	ND	1	5	0.32	ug/L	04/29/05 DP
Xylenes, total	ND	1	5	0.4	ug/L	04/29/05 DP
<b>Surrogates</b>						<b>Units</b>
Surr1 - Dibromofluoromethane	101			%	70 - 130	
Surr2 - 1,2-Dichloroethane-d4	114			%	70 - 130	
Surr3 - Toluene-d8	99			%	70 - 130	
Surr4 - p-Bromofluorobenzene	105			%	70 - 130	
<b>8015B - Gasoline</b>						
Gasoline	ND	1	50	15	ug/L	04/23/05 WL
<b>Surrogates</b>						<b>Units</b>
a,a,a-Trifluorotoluene	75			%	55 - 200	

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



Order #: 614241

Client Sample ID TOC #049, MW-5

Matrix: WATER

Date Sampled: 04/20/2005 Time Sampled: 13:20

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE Only</b>						
Benzene	ND	1	1	0.22	ug/L	04/29/05 DP
Ethyl benzene	ND	1	5	0.31	ug/L	04/29/05 DP
Methyl-tert-butylether (MTBE)	848	1	1	0.18	ug/L	04/29/05 DP
Toluene	ND	1	5	0.32	ug/L	04/29/05 DP
Xylenes, total	ND	1	5	0.4	ug/L	04/29/05 DP
<b>Surrogates</b>						
Surr1 - Dibromofluoromethane	102			%	70 - 130	
Surr2 - 1,2-Dichloroethane-d4	110			%	70 - 130	
Surr3 - Toluene-d8	96			%	70 - 130	
Surr4 - p-Bromofluorobenzene	106			%	70 - 130	
<b>8015B - Gasoline</b>						
Gasoline	718	1	50	15	ug/L	04/23/05 WL
<b>Surrogates</b>						
a,a,a-Trifluorotoluene	85			%	55 - 200	

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



Order #: 614242

Matrix: WATER

Client Sample ID TOC #049, MW-1

Date Sampled: 04/20/2005 Time Sampled: 13:30

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE Only</b>						
Benzene	ND	1	1	0.22	ug/L	04/29/05 DP
Ethyl benzene	ND	1	5	0.31	ug/L	04/29/05 DP
Methyl-tert-butylether (MTBE)	ND	1	1	0.18	ug/L	04/29/05 DP
Toluene	ND	1	5	0.32	ug/L	04/29/05 DP
Xylenes, total	ND	1	5	0.4	ug/L	04/29/05 DP
<b>Surrogates</b>						
Surr1 - Dibromofluoromethane	101			%	70 - 130	
Surr2 - 1,2-Dichloroethane-d4	113			%	70 - 130	
Surr3 - Toluene-d8	99			%	70 - 130	
Surr4 - p-Bromofluorobenzene	107			%	70 - 130	
<b>8015B - Gasoline</b>						
Gasoline	ND	1	50	15	ug/L	04/23/05 WL
<b>Surrogates</b>						
a,a,a-Trifluorotoluene	76			%	55 - 200	

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



Order #: 614243

Matrix: WATER

Client Sample ID TOC #049, MW-7

Date Sampled: 04/20/2005 Time Sampled: 13:40

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE Only</b>						
Benzene	ND	1	1	0.22	ug/L	04/30/05 DP
Ethyl benzene	ND	1	5	0.31	ug/L	04/30/05 DP
Methyl-tert-butylether (MTBE)	ND	1	1	0.18	ug/L	04/30/05 DP
Toluene	ND	1	5	0.32	ug/L	04/30/05 DP
Xylenes, total	ND	1	5	0.4	ug/L	04/30/05 DP
<b>Surrogates</b>						<b>Units</b>
Surr1 - Dibromofluoromethane	99				%	70 - 130
Surr2 - 1,2-Dichloroethane-d4	110				%	70 - 130
Surr3 - Toluene-d8	97				%	70 - 130
Surr4 - p-Bromofluorobenzene	108				%	70 - 130
<b>8015B - Gasoline</b>						<b>Control Limits</b>
Gasoline	ND	1	50	15	ug/L	04/23/05 WL
<b>Surrogates</b>						<b>Units</b>
a,a,a-Trifluorotoluene	78				%	55 - 200

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



Order #: 614244

Matrix: WATER

Client Sample ID TOC #049, MW-3

Date Sampled: 04/20/2005 Time Sampled: 13:50

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE Only</b>						
Benzene	ND	1	1	0.22	ug/L	04/30/05 DP
Ethyl benzene	ND	1	5	0.31	ug/L	04/30/05 DP
Methyl-tert-butylether (MTBE)	ND	1	1	0.18	ug/L	04/30/05 DP
Toluene	ND	1	5	0.32	ug/L	04/30/05 DP
Xylenes, total	ND	1	5	0.4	ug/L	04/30/05 DP
<b>Surrogates</b>						<b>Units</b>
Surr1 - Dibromofluoromethane	100				%	70 - 130
Surr2 - 1,2-Dichloroethane-d4	114				%	70 - 130
Surr3 - Toluene-d8	94				%	70 - 130
Surr4 - p-Bromofluorobenzene	106				%	70 - 130
<b>8015B - Gasoline</b>						
Gasoline	ND	1	50	15	ug/L	04/25/05 WL
<b>Surrogates</b>						<b>Units</b>
a,a,a-Trifluorotoluene	76				%	55 - 200

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



Order #: 614245

Matrix: WATER

Client Sample ID TOC #049, MW-2R

Date Sampled: 04/20/2005 Time Sampled: 14:00

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE Only</b>						
Benzene	ND	10	10.0	0.22	ug/L	04/30/05 DP
Ethyl benzene	ND	10	50.0	0.31	ug/L	04/30/05 DP
Methyl-tert-butylether (MTBE)	563	10	10.0	0.18	ug/L	04/30/05 DP
Toluene	ND	10	50.0	0.32	ug/L	04/30/05 DP
Xylenes, total	ND	10	50.0	0.4	ug/L	04/30/05 DP
<b>Surrogates</b>						<b>Units</b>
Surr1 - Dibromofluoromethane	105				%	70 - 130
Surr2 - 1,2-Dichloroethane-d4	105				%	70 - 130
Surr3 - Toluene-d8	98				%	70 - 130
Surr4 - p-Bromofluorobenzene	111				%	70 - 130
<b>8015B - Gasoline</b>						
Gasoline	13100	20	1000.0	15	ug/L	04/25/05 WL
<b>Surrogates</b>						<b>Units</b>
a,a,a-Trifluorotoluene	84				%	55 - 200

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



Order #: 614246

Client Sample ID TOC #049, MW-4R

Matrix: WATER

Date Sampled: 04/20/2005 Time Sampled: 14:10

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE Only</b>						
Benzene	190	1	1	0.22	ug/L	04/30/05 DP
Ethyl benzene	452	1	5	0.31	ug/L	04/30/05 DP
Methyl-tert-butylether (MTBE)	1870	1	1	0.18	ug/L	04/30/05 DP
Toluene	109	1	5	0.32	ug/L	04/30/05 DP
Xylenes, total	974	1	5	0.4	ug/L	04/30/05 DP
<b>Surrogates</b>						
Surr1 - Dibromofluoromethane	100			%	70 - 130	
Surr2 - 1,2-Dichloroethane-d4	61			%	70 - 130	
Surr3 - Toluene-d8	95			%	70 - 130	
Surr4 - p-Bromofluorobenzene	119			%	70 - 130	
<b>8015B - Gasoline</b>						
Gasoline	19200	20	1000.0	15	ug/L	04/25/05 WL
<b>Surrogates</b>						
a,a,a-Trifluorotoluene	185			%	55 - 200	

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



Order #: 614247

Matrix: WATER

Client Sample ID TOC #049, RW-1R  
Date Sampled: 04/20/2005 Time Sampled: 15:10

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE Only</b>						
Benzene	ND	1	1	0.22	ug/L	04/30/05 DP
Ethyl benzene	ND	1	5	0.31	ug/L	04/30/05 DP
Methyl-tert-butylether (MTBE)	1580	1	1	0.18	ug/L	04/30/05 DP
Toluene	ND	1	5	0.32	ug/L	04/30/05 DP
Xylenes, total	ND	1	5	0.4	ug/L	04/30/05 DP
<b>Surrogates</b>						<b>Units</b>
Surr1 - Dibromofluoromethane	103			%	70 - 130	
Surr2 - 1,2-Dichloroethane-d4	112			%	70 - 130	
Surr3 - Toluene-d8	101			%	70 - 130	
Surr4 - p-Bromofluorobenzene	109			%	70 - 130	
<b>8015B - Gasoline</b>						
Gasoline	1220	1	50	15	ug/L	04/23/05 WL
<b>Surrogates</b>						<b>Units</b>
a,a,a-Trifluorotoluene	90			%	55 - 200	

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



Order #: 614248

Matrix: WATER

Client Sample ID TOC #049, Trip Blank

Date Sampled: 04/20/2005 Time Sampled: 00:00

**Analyte****Result DF PQL MDL Units Date/Analyst****8260B BTEX/MTBE Only**

Benzene	ND	1	1	0.22 ug/L	04/30/05 DP
Ethyl benzene	ND	1	5	0.31 ug/L	04/30/05 DP
Toluene	ND	1	5	0.32 ug/L	04/30/05 DP
Xylenes, total	ND	1	5	0.4 ug/L	04/30/05 DP

**Surrogates****Units Control Limits**

Surr1 - Dibromofluoromethane	102	%	70 - 130
Surr2 - 1,2-Dichloroethane-d4	111	%	70 - 130
Surr3 - Toluene-d8	109	%	70 - 130
Surr4 - p-Bromofluorobenzene	106	%	70 - 130

**8015B - Gasoline**

Gasoline	ND	1	50	15 ug/L	04/23/05 WL
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**Surrogates****Units Control Limits**

a,a,a-Trifluorotoluene	76	%	55 - 200
------------------------	----	---	----------

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



Order #: 614249

## Client Sample ID Laboratory Method Blank

Matrix: WATER

Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
<b>8260B BTEX/MTBE Only</b>						
Benzene	ND	1	1	0.22	ug/L	04/29/05 DP
Ethyl benzene	ND	1	5	0.31	ug/L	04/29/05 DP
Methyl-tert-butylether (MTBE)	ND	1	1	0.18	ug/L	04/29/05 DP
Toluene	ND	1	5	0.32	ug/L	04/29/05 DP
Xylenes, total	ND	1	5	0.4	ug/L	04/29/05 DP
<b>Surrogates</b>						<b>Units</b>
Surr1 - Dibromofluoromethane	100				%	70 - 130
Surr2 - 1,2-Dichloroethane-d4	111				%	70 - 130
Surr3 - Toluene-d8	97				%	70 - 130
Surr4 - p-Bromofluorobenzene	104				%	70 - 130
<b>8015B - Gasoline</b>						
Gasoline	ND	1	50	15	ug/L	04/23/05 WL
<b>Surrogates</b>						<b>Units</b>
a,a,a-Trifluorotoluene	72				%	55 - 200

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



**ASSOCIATED LABORATORIES**  
**QA REPORT FORM - METHOD 8260 / 624 / 524.2**

QC Sample: MS / MSD - Water Samples 149236-240

Analysis Date: April 29, 2005 9:35 PM

Applies to: LR 149264, 149267, 149236

Reporting Units = ug/L

**Matrix Spike / Matrix Spike Duplicate**

Test	Sample Result	Spike Added	Matrix Spike	Matrix Spk. Dup	%Rec MS	%Rec MSD	RPD	QC Limits	
								RPD	%REC
1,1-Dichloroethene	ND	50.0	56.95	55.67	114	111	2	22	59-172
MTBE	ND	50.0	52.51	50.99	105	102	3	24	62-137
Benzene	ND	50.0	53.77	49.79	108	100	8	24	62-137
Trichloroethene	ND	50.0	51.39	50.54	103	101	2	21	66-142
Toluene	ND	50.0	50.37	50.02	101	100	1	21	59-139
Chlorobenzene	ND	50.0	48.53	49.56	97	99	2	21	60-133

QC Sample: LCS # 3 7:32 AM

Analysis Date: April 30, 2005

**LCS RECOVERY / METHOD BLANK**

Test	Sample Result	Spike Added	LCS Spike	%Rec LCS	QC Limits %REC
1,1-Dichloroethene	ND	50.0	54.38	109	59-172
MTBE	ND	50.0	50.08	100	62-137
Benzene	ND	50.0	51.83	104	62-137
Trichloroethene	ND	50.0	51.95	104	66-142
Toluene	ND	50.0	47.84	96	59-139
Chlorobenzene	ND	50.0	47.61	95	60-133

QC Sample: LCS 6:32 PM

Analysis Date: April 29, 2005

**LCS RECOVERY / METHOD BLANK**

Test	Sample Result	Spike Added	LCS Spike	%Rec LCS	QC Limits %REC
1,1-Dichloroethene	ND	50.0	53.14	106	59-172
MTBE	ND	50.0	50.98	102	62-137
Benzene	ND	50.0	50.41	101	62-137
Trichloroethene	ND	50.0	48.77	98	66-142
Toluene	ND	50.0	47.72	95	59-139
Chlorobenzene	ND	50.0	45.81	92	60-133

Method Blank = All ND

**SURROGATE ( QC Limits : 70-135 )**

Compound	MB 3	MB 4	MS	MSD	LCS	LCS 3
DBFM	101	100	105	102	106	104
1,2-DCA	110	111	104	104	104	104
Tol-d8	97	97	96	98	95	94
p-BFB	103	104	104	107	108	106

**ASSOCIATED LABORATORIES  
LCS REPORT FORM**

QC Sample: LCS/LCSD  
 Matrix: WATER  
 Prep. Date: April 24, 2005  
 Analysis Date: April 24 - 25, 2005  
 ID#'s in Batch: LR 149224, 149109, 149263, 149236

**LAB CONTROLLED SPIKE / LAB CONTROLLED DUPLICATE RESULT**

Reporting Units = mg/L

Test	Method	Method Blank	Spike Added	LCS Spike	LCSD Spk. Dup	%Rec LCS	%Rec LCSD	RPD
TPH	8015M-G	ND	500	478	466	96	93	3

ND = Not Detected

LCS Result = Lab Control Sample Result

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

%REC-LCS & LCSD = Percent Recovery of LCS Spike & LCS Spike Duplicate

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

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

**SURROGATE RECOVERY**

Sample No.	AAA-TFT
QC Limit	55-200
Method Blank	82
LCS	175
LCSD	165

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

**ASSOCIATED LABORATORIES**  
**LCS REPORT FORM**

QC Sample: LCS/LCSD

Matrix: WATER

Prep. Date: April 23, 2005

Analysis Date April 23 - 24, 2005

ID#'s in Batch: LR 149264, 149236, 149224, 149298, 149228, 149297

**LAB CONTROLLED SPIKE / LAB CONTROLLED DUPLICATE RESULT**

Reporting Units = mg/L

Test	Method	Method Blank	Spike Added	LCS Spike	LCSD Spk. Dup	%Rec LCS	%Rec LCSD	RPD
TPH	8015M-G	ND	500	469	441	94	88	6

ND = Not Detected

LCS Result = Lab Control Sample Result

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

%REC-LCS & LCSD = Percent Recovery of LCS Spike & LCS Spike Duplicate

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

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

**SURROGATE RECOVERY**

Sample No.	AAA-TFT
QC Limit	55-200
Method Blank	72
LCS	168
LCSD	178

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



ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92868-1225 - 714/771-6900 FAX 714/538-1209

### Cooler Receipt Form

Client: Thrift Project: 049

Date Cooler Received: 4/21/05 Date Cooler Opened: 4/21/05

Was cooler scanned for presence of radioactivity ?  Yes/No

If yes was radioactivity results above 25 cpm ?  Yes/No

Was a shipper's packing slip attached to the cooler ?  Yes/No

If the cooler had custody seal(s), were they signed and intact ?  Yes/No/Na

Was the cooler packed with: Ice  Ice Packs  Bubble wrap   
Styrofoam  Paper  None  Other

Cooler Temperature: 9.0°C \*

\*cooler needs to be received @ 4°C with an acceptable range of 2°- 6 °C

If samples were hand delivered do they meet the temp. criteria, which should be @ 4°C with  
an acceptable range of 2°- 6 °C ?  Yes/No

If no explain: \_\_\_\_\_

Were all samples sealed in plastic bags ?  Yes/No

Did all samples arrive intact ? If no, indicate below.  Yes/No

Were all samples labeled correctly ? (ID's Dates, Times) If no, indicate below.  Yes/No

Can the tests required be ran with the provided containers, If no indicate below.  Yes/No

Was sufficient sample volume sent for all containers ?  Yes/No

Were any VOA vials received with head space ?  Yes/No/Na

Was the correct preservatives used ?  Yes/No/Na  
If no, see the pH log for a list of samples containers regarding pH.

Any other important information: \_\_\_\_\_

Receiving Department: \_\_\_\_\_ Date: L \_\_\_\_\_

# Chain of Custody Record

## ASSOCIATED LABORATORIES

806 North Batavia • Orange, CA 92868

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



Company	THRIFTY OIL CO.		Phone	(562) 921-3581		A.L. Job No.	149236 ✓	Page	1 of 1				
Project Manager	JEFF SURYAKUSUMIT		Fax	(562) 921-7510		Analysis Requested		Test Instructions & Comments					
Project Name	Q. W. S.		Project #	049				T-OELW101365					
Site Name and Address	3400 SAN PABLO AVE. OAKLAND, CA. 94612												
Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.	TPL 1g(80ml/5ml)	B16EX(326ml/8)	M1D52(326ml/8)				
1 MW-6		04-20-05	13:10	H <sub>2</sub> O	3-VDA	HCL	X X X						
2 MW-5			13:20				X X X						
3 MW-1			13:30				X X X						
4 MW-7			13:40				X X X						
5 MW-3			13:50				X X X						
6 MW-2R			14:00				X X X						
7 MW-4R			14:10				X X X						
8 RW-1D			15:10				X X X						
9 RW-1LINE			00:00		2-VDT		X X						
10													
11													
12													
13													
14													
15													
Sample Receipt - To Be Filled By Laboratory						Relinquished by Sampler:	E.M.C.	1.	Relinquished by Sampler:	GOLDEN STATE	2.	Relinquished by Sampler:	
Total Number of Containers		Property Cooled Y / N / NA				Signature:	<i>Jeff</i>	Signature:	<i>OVERNIGHT</i>		Signature:		
Custody Seals Y / N / NA		Samples Intact Y / N / NA				Printed Name:	<i>SECRETARIAL</i>	Printed Name:		Printed Name:			
Received in Good Condition Y / N		Samples Accepted Y / N				Date:	04-20-05	Time:	17:00	Date:	Time:	Date:	
Turn Around Time						Received By:	GOLDEN STATE	Received By:		Received By:			
<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.	Signature:	<i>OVERNIGHT</i>	Signature:		Signature:			
						Printed Name:	<i>Jeff</i>	Printed Name:		Printed Name:			
						Date:	4/21/05	Time:	10:38	Date:	Time:		

## ***APPENDIX C***

## ***APPENDIX D***

OK9

THRIFTY OIL CO. SERVICE STATION #049  
GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERBAN P -

DATE OF INSPECTION: 06-28-05

OBSERVATIONS AND COMMENTS: CHECK OIL, BELT, CHECK HOSES AND

PIPED FOR LEAK, CHECK FILTER/REGULATOR,

CHEMICAL INJECTION COMPOUND,

FLOW METER READING: - 4751.3 -

SAMPLES OBTAINED: X1A

PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 10

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER:

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 5.1

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 2.8

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

INSPECTOR'S SIGNATURE: D. Stoyan

oh

THRIFTY OIL CO. SERVICE STATION #049

GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERBAGI D.

DATE OF INSPECTION: 06-23-05

OBSERVATIONS AND  
COMMENTS: CHECK BELT, CHAIN AND OIL FOR  
COMPRESSOR, ADJUST FILTER/REGULATOR,  
CHECK PUMP IN MW-2R, CLEAN INSIDE COMPOUND,

FLOW METER READING: 2914.2

SAMPLES OBTAINED: N/A

PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 10

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER:

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 5.3

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 2.8

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

INSPECTOR'S SIGNATURE: Dit

OK9

THRIFTY OIL CO. SERVICE STATION #049

GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERBATA P -

DATE OF INSPECTION: 06-16-05

OBSERVATIONS AND  
COMMENTS: I MUST REPLACE THE BATTERY FOR

FLOW METER, CHECK BELT, CLEANING OIL,  
CHECK DRUMS AND PIPE FOR LEAK,

- FLOW METER READ FROM 0 -

FLOW METER READING: ESTIMATED READING BECAUSE BATTERY DEAD,

SAMPLES OBTAINED: N/A - = 88340.0

PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 10

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER: -

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 3.6

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 2.8

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 1.2

INSPECTOR'S SIGNATURE: Serbata

THRIFTY OIL CO. SERVICE STATION (1049)  
GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERBAN P.

DATE OF INSPECTION: 06-09-05

OBSERVATIONS AND  
COMMENTS: CHECK OIL, BELT, AIR LEAK FROM

COMPRESSOR OR PIPE, CLEAN INSIDE COORDUATE,  
CARTRIDGE FILTER/REGULATOR, CHECK PUMP IN RW-12,

FLOW METER READING: 87981.1

SAMPLES OBTAINED: N/A

PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 10

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER:

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 2.8

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 2.1

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 1.6

INSPECTOR'S SIGNATURE: Stoyan

OK

THRIFTY OIL CO. SERVICE STATION #040

GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERBAN P.

DATE OF INSPECTION: 06-02-05

OBSERVATIONS AND  
COMMENTS: CHECK OIL, BELT, CHECK DUMP IN RW-1R AND  
MW-2R, CLEAN INSIDE COMPOUND,

FLOW METER READING: 87654.3

SAMPLES OBTAINED: H/M

PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 1.0

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER:

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 2.8

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 2.0

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 1.6

INSPECTOR'S SIGNATURE: D. Stas

THRIFTY OIL CO. SERVICE STATION #649

## GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERBAN P.DATE OF INSPECTION: 05-27-05OBSERVATIONS AND  
COMMENTS: CHECK BELT, OIL, ADJUST FILTERSREGULATOR, CATCH PLATES AND PIPE FOR LEAKS,  
   
   
   
 FLOW METER READING: 86432.1SAMPLES OBTAINED: N/APRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 10

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER: \_\_\_\_\_

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 3.0PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 2.7PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 1.8INSPECTOR'S SIGNATURE: Doban

du

THRIFTY OIL CO. SERVICE STATION #049

GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERBAGI

DATE OF INSPECTION: 05-20-05

OBSERVATIONS AND  
COMMENTS: CHECK PIPE AND HOSES FOR LEAK

ADJUST FILTER/REGULATOR, PICKUP ALGAE FROM  
WATER IN HOLDING TANK,

FLOW METER READING: 84601.1

SAMPLES OBTAINED: N/A

PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 10

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER:

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 3.0

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 2.4

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 1.8

INSPECTOR'S SIGNATURE: S. Stoyan

**THRIFTY OIL CO. SERVICE STATION #**

oh a

## **GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM**

NAME OF INSPECTOR: SERBIA P -

DATE OF INSPECTION: 05-12-05

OBSERVATIONS AND  
COMMENTS: CHECK BELT, CHECK PUMP IN MW-2 R,

RW-1B, CHECK HOSES AND PIPE FOR LEAKS,

For more information about the study, please contact Dr. Michael J. Hwang at (319) 356-4520 or via email at [mhwang@uiowa.edu](mailto:mhwang@uiowa.edu).

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Digitized by srujanika@gmail.com

For more information about the study, please contact Dr. Michael J. Hwang at (319) 356-4530 or via email at [mhwang@uiowa.edu](mailto:mhwang@uiowa.edu).

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**FLOW METER READING:** 83901.3

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PRESSURE GAUGE READING UP-STREAM OF THE BAG FILTER: 13

PRESSURE GAUGE READING DOWNSTREAM OF THE CARTRIDGE FILTER:

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 24.0

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 2.0

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 1.6

INSPECTOR'S SIGNATURE: S. Stevens

OK

THRIFTY OIL CO. SERVICE STATION #049

GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERRADEL P.

DATE OF INSPECTION: 04-27-05

OBSERVATIONS AND  
COMMENTS: CHECK OIL, BELT, ADJUST FILTER/REGULATOR,  
CHECK PUMPS IN RW-1R, MW-4R, MW-2R, PICKUP  
ALGAE FROM WATER IN RECOVERY TANK,

FLOW METER READING: 80674.2

SAMPLES OBTAINED: N/A

PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 15

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER: \_\_\_\_\_

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: \_\_\_\_\_

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: \_\_\_\_\_

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: \_\_\_\_\_

INSPECTOR'S SIGNATURE: Serradel P.



**EARTH MANAGEMENT CO.**  
Environmental Remediation

# SYSTEM STARTUP / S..UTDOWN REPORT

SITE:

ADDR:

DATE:

PERSON:

1049

3460 SAN PABLO AVE  
OAKLAND, CA 94612

04-21-05

SFRBAN,

Remediation System Type:  AS  SVE  DPE  GWT  FPR  Other:

System Type	Action		Hour Meter (hrs)	Totalizer (gal)	Purpose / Comments
	Startup	Shutdown			
AS Air Sparging					
SVE Soil Vapor Extraction					
DPE Dual-Phase Extraction					
GWT Groundwater Treatment	✓			79885.1	RESTART AFTER R.W.S.
FPR PP Recovery					
O Other:					

UTILITIES:

Electrical Meter: N/A

Nat. gas Meter: N/A

Propane Tank Level: N/A

OTHER NOTES:

155 GALLONS FROM SAMPLING WAS ADD TO TOTALIZER

**ALWAYS OBSERVE SAFETY PROCEDURES!**



**EARTH MANAGEMENT CO.**  
Environmental Remediation

# SYSTEM STARTUP / SHUTDOWN REPORT

SITE:

ADDR:

DATE:

PERSON:

1049

3400 SAN DABLO AVE  
OAKLAND, CA. 94612

04-14-05

SEBAN,

Remediation System Type:  AS  SVE  DPE  GWT  FPR  Other:

System Type	Action		Hour Meter (hrs)	Totalizer (gal)	Purpose / Comments
	Startup	Shutdown			
AS Air Sparging					
SVE Soil Vapor Extraction					
DPE Dual-Phase Extraction					
GWT Groundwater Treatment		✓		79730.2	FOR Q.W.S.
FPR PP Recovery					
O Other:					

UTILITIES:

Electrical Meter: N/A

Nat gas Meter: N/A

Propane Tank Level: N/A

OTHER NOTES:

SYSTEM WAS SHUT DOWN FOR Q.W.S.

**ALWAYS OBSERVE SAFETY PROCEDURES!**

# EARTH MANAGEMENT CO.



Environmental Remediation

## MAINTENANCE & REPAIR REPORT

049

- A) SS #: 049 SYSTEM TYPE:  
B) DEFICIENCY DESCRIPTION :

OUTLET SAMPLE

- C) NAME OF REPORTING PARTY AND DATE:  
D) DATE SCHEDULED : 04-07-06

- 1) NAME: DATE/TIME  
2) FINDINGS:

- 3) HAS THE JOB BEEN COMPLETED? YES/NO  
IF "NO", PLEASE DESCRIBE WHY AND WHAT YOU NEED  
TO FINISH:

- 4) POST REPAIR TEST RESULTS:

- 5) THE CAUSE OF THE DEFICIENCY:

BRIEF INSTRUCTIONS FOR PREVENTIVE MAINTENANCE  
TO THE TECHNICIAN:

- 6) OTHER: SPLIT WATER SAMPLE FROM  
# 049 OUTLET WITH INSPECTOR  
FROM EMUB OAKLAND

(ch9)

THRIFTY OIL CO. SERVICE STATION #049

GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERBAN POPESCU

DATE OF INSPECTION: 04-06-05

OBSERVATIONS AND  
COMMENTS: CHECK BELT, OIL, ADJUST PRESSURE FOR  
WELL PUMP, TAKE SAMPLE FROM SYSTEM

FLOW METER READING: 75721.2

SAMPLES OBTAINED: TAKE SAMPLE FROM GWT.

PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 14

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER: \_\_\_\_\_

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: \_\_\_\_\_

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: \_\_\_\_\_

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: \_\_\_\_\_

INSPECTOR'S SIGNATURE: S. Popescu