

**THRIFTY OIL CO.** ENVIRONMENTAL  
PROTECTION

99 AUG 11 PM 2:43

August 5, 1999

O.11850

Ms. Juliet Shin  
Department of Environmental Health  
Hazardous Materials Specialist  
1131 Harbor Bay Parkway  
Suite 250  
Alameda, CA 94502-6577

RE: **Thrifty Oil Co. Station #052**  
20200 Hesperian Blvd.  
Hayward, CA 94541  
2nd Quarterly 1999, Status Report

Dear Ms. Shin:

Presented herewith is the Second Quarter 1999, Status Report for the above referenced site, submitted for your review and files.

Based on the historical data and the most recent groundwater sampling results, Thrifty believes that it has fulfilled its obligations and respectfully requests closure for this case. Any other releases which may have been discovered or may occur should be ARCO's responsibility, because they have leased and operated the site since September 25, 1986.

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

Sincerely Yours,



Chris Panaitescu  
General Manager  
Environmental Affairs

c: ARCO Products Company  
File



# THRIFTY OIL CO.

July 29, 1999

Ms. Juliet Shin  
Department of Environmental Health  
Hazardous Materials Specialist  
1131 Harbor Bay Parkway  
Suite 250  
Alameda, CA 94502-6577

RE: **Former Thrifty Oil Co. Station #052**  
20200 Hesperian Boulevard  
Hayward, CA 94541  
*2nd Quarterly 1999, Status Report*

Dear Ms. Shin:

Presented herein is the Second Quarter 1999, Status Report prepared for Former Thrifty Oil Station #052 located at 20200 Hesperian Boulevard, Hayward, California 94541 (**Figure 1**). Presented in this report are the results of the quarterly groundwater monitoring program conducted during the Second Quarter 1999. Thrifty Oil Co. (Thrifty) has retained the services of Earth Management Company (EMC) to conduct quarterly monitoring and sampling activities at the site.

## **Groundwater Monitoring**

Depth to groundwater is measured in each monitoring well on a quarterly basis. Historical gauging data obtained from December 1991 through April 29, 1999 are presented in **Table 1**. In general, groundwater occurs under water table conditions beneath the station at depths ranging from 5.93 feet from top of casing (toc) in monitoring well MW-3 to 13.80 feet from toc in monitoring well A-6. A groundwater elevation contour map based upon April 29, 1999 data is presented as **Figure 1**. The groundwater regime has two lows and is saddle shaped. Consequently, there is no preferred flow direction.

## **Groundwater Sampling**

As part of the on-going groundwater monitoring program, groundwater samples were obtained from monitoring wells AR-1, AR-2, MW-1, MW-2, MW-3, A-4, A-5, A-6, A-7, A-8, A-9, and A-10 on April 29, 1999. Each sample was collected using a disposal bailer. Groundwater samples were obtained by EMC and delivered in a chilled state following strict Chain-of Custody procedures to a state certified laboratory and analyzed for total petroleum hydrocarbons (TPH-g) by EPA method 8015 modified for gasoline, and for benzene, toluene, ethylbenzene, xylenes, and MTBE by EPA method 8020. Any samples detected with MTBE were confirmed by EPA method 8260.



A summary of historical analytical sampling results are provided in **Table 1**. Copies of the EMC Project Status Report are presented in **Appendix A**, and copies of the laboratory analytical results with Chain-of-Custody are contained in **Appendix B**.

All samples collected for TPH-g for gasoline, and benzene were below the laboratory detection limits. MTBE samples above the detection limit of 5 ug/L were in monitoring wells MW-1 (17 ug/L), and MW-2 (16 ug/L), all other samples were below the detection limits. TPH-g and benzene concentrations were plotted on **Figures 2 and 3**. An MTBE isoconcentration map is presented in **Figure 4**.

### **DISPENSER SAMPLING**

On May 27, 1999, a Thrifty geologist, Mr. Raymond C. Friedrichsen, met Ms. Juliet Shin and Mr. Robert Weston of the Alameda County Health Agency to observe the collection of soil samples beneath selected gasoline dispensers. All dispensers were inspected by the agency, and four soil samples were collected by Thrifty at the agency's discretion. One sample (6E) was collected approximately 2.5 feet below ground surface (bgs) from beneath dispenser #6, one sample (7E) was collected approximately 2.5 feet bgs from beneath dispenser #7, and two samples (8N and 8E) were collected approximately 2.5 and 3 feet bgs from beneath dispenser #8. All sample locations are plotted on **Figure 5**.

The reason for this sampling event is because Mr. Robert Weston noticed that a valve was dripping gasoline from dispenser #8 where an ARCO representative was working on this dispenser. Mr. Weston stated that this event happen on December 11, 1998.

A stainless steel shovel was washed with water in a three bucket rinse after each use, then used to dig beneath each dispenser a sample was collected to approximately one foot into the native clay soil. Four soil samples were collected by using a two inch brass tubes. All samples were collected by covering one end of the tube with a Teflon sheet and an end cap, then placing the open end into the hole and hand pushing until the tube was full of soil. The open of the brass tube was then covered with Teflon, capped, labeled and placed in an ice chest. The samples were forwarded for analysis along with a chain of custody to American Analytical Laboratory, a state certified laboratory located in Chatsworth, California.

The samples were analyzed for total petroleum hydrocarbons (TPH-g) by EPA method 8015. Benzene, toluene, ethylbenzene, xylenes (BTEX), and MTBE samples were analyzed by EPA method 8020. If MTBE was detected it was verified by EPA method 8260. The laboratory analytical results for soil samples 6E and 7E were below the detection limits for TPH-g (1 mg/kg), benzene (0.005 mg/kg), and MTBE (20 mg/kg). The laboratory analytical concentrations for soil samples 8E and 8N were 8.4 and 2400 mg/kg for TPH-g, below the detection limit of (0.005) and 0.38 mg/kg for benzene, and 2,200 and 10,000 ug/L for MTBE, respectively. These laboratory results are in **Appendix C**.

ug/kg?

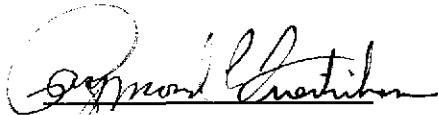
## CONCLUSIONS

Thrifty requested closure of this site on August 22, 1998. Because of the results of the recent groundwater sampling events, Thrifty feels that it has fulfilled its obligations, and that no further action should be required by Thrifty. Per our understanding, the observed release will be assigned to ARCO by your office. Please forward to Thrifty, a copy of your notification to ARCO assigning them responsibility for the December 1998 release.

As an interim measure, and until site closure is obtained, Thrifty requests that the frequency of groundwater monitoring be reduced to semi-annually.

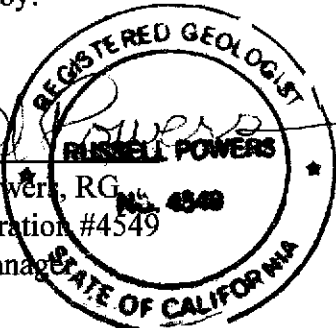

All interpretations for soil sampling expressed in this report are based upon review of data collected by a Thrifty geologist, and interpretations for groundwater expressed in this report are based upon review of data collected by EMC. Should you have any questions or require additional information, please contact the undersigned at (562) 921-3581, X376.

Prepared by:



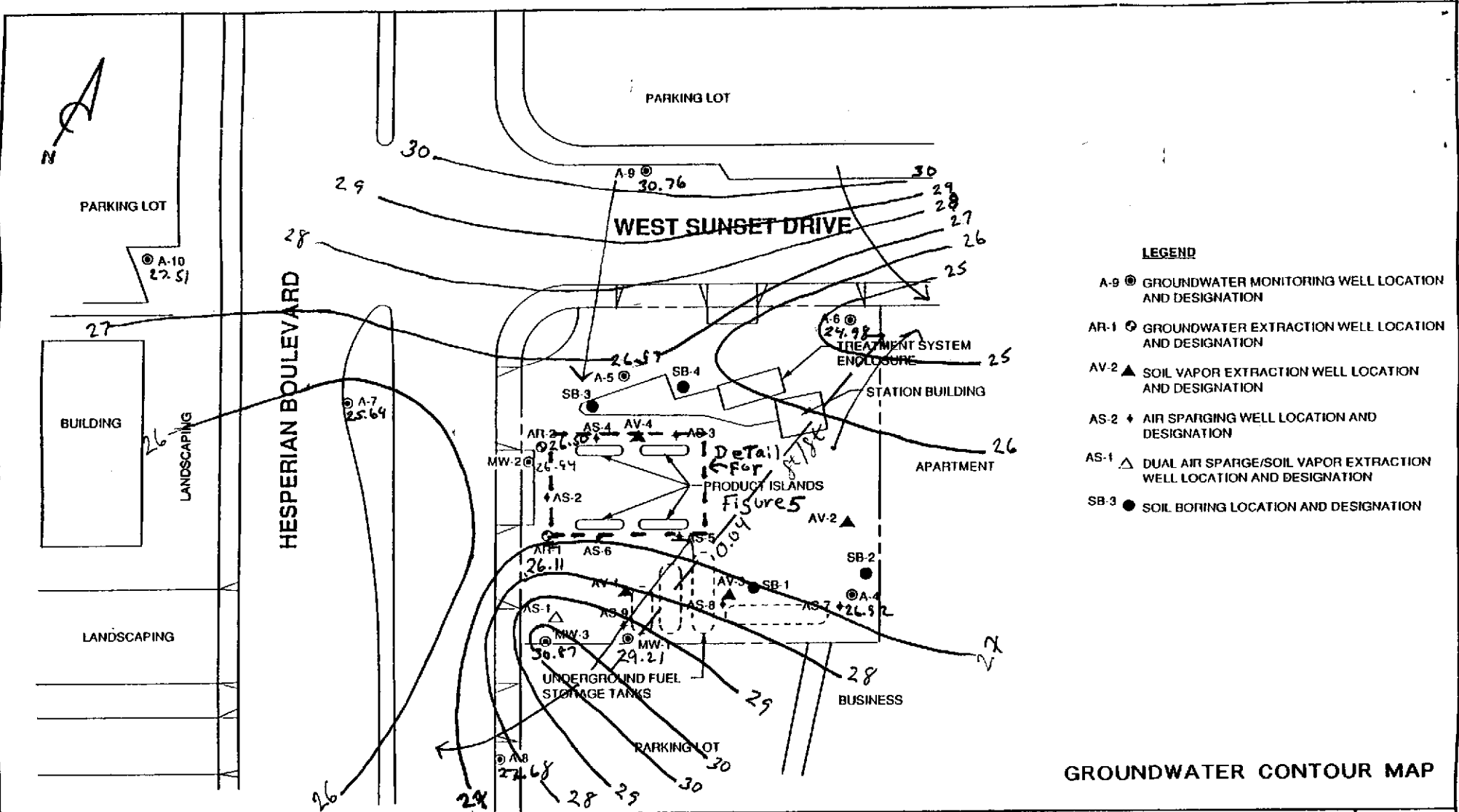
Raymond C. Friedrichsen  
Project Manager  
Environmental Geologist

Reviewed by:



Russell Powers, RG  
CA Registration #4549  
Project Manager

# FIGURES

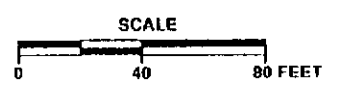


**LEGEND**

- A-9 ● GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
- AR-1 ● GROUNDWATER EXTRACTION WELL LOCATION AND DESIGNATION
- AV-2 ▲ SOIL VAPOR EXTRACTION WELL LOCATION AND DESIGNATION
- AS-2 † AIR SPARGING WELL LOCATION AND DESIGNATION
- AS-1 △ DUAL AIR SPARGE/SOIL VAPOR EXTRACTION WELL LOCATION AND DESIGNATION
- SB-3 ● SOIL BORING LOCATION AND DESIGNATION

**GROUNDWATER CONTOUR MAP**

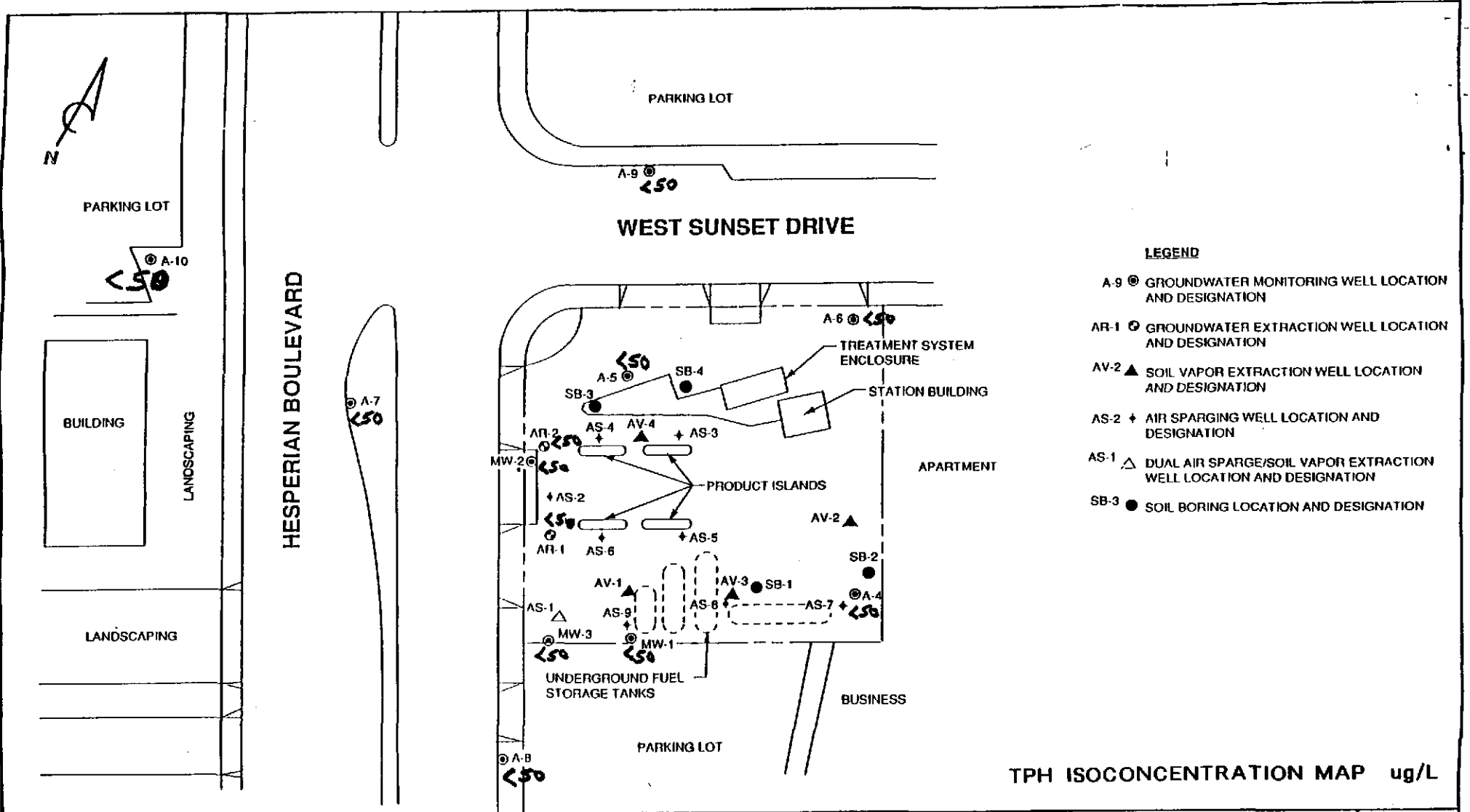
THRIFTY OIL CO.  
4-29-99



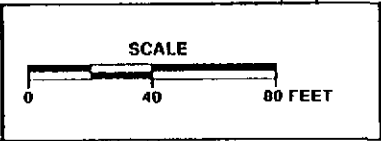
ARCO SERVICE STATION 5387  
20200 Hesperian Boulevard at West Sunset Drive  
Hayward, California

WELL LOCATION MAP

FIGURE:  
1



THRIFTY OIL CO.  
4-29-99



ARCO SERVICE STATION 5387  
20200 Hesperian Boulevard at West Sunset Drive  
Hayward, California

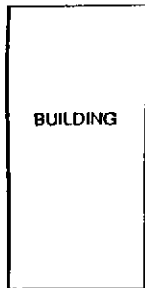
WELL LOCATION MAP

FIGURE:  
2



PARKING LOT

A-10  
0.3



LANDSCAPING

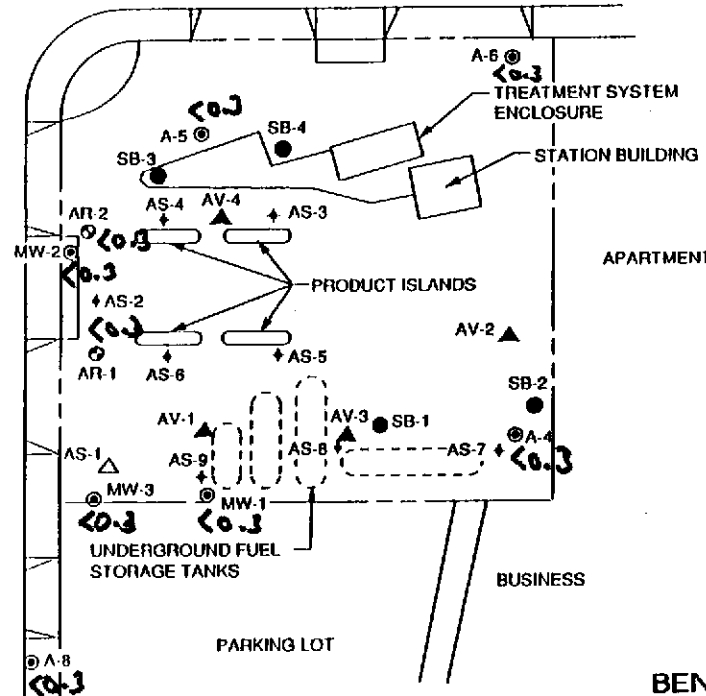
HESPERIAN BOULEVARD

A-7  
0.3

PARKING LOT

A-9  
0.3

WEST SUNSET DRIVE



**LEGEND**

- A-9 ● GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
- AR-1 ● GROUNDWATER EXTRACTION WELL LOCATION AND DESIGNATION
- AV-2 ▲ SOIL VAPOR EXTRACTION WELL LOCATION AND DESIGNATION
- AS-2 + AIR SPARGING WELL LOCATION AND DESIGNATION
- AS-1 ▲ DUAL AIR SPARGE/SOIL VAPOR EXTRACTION WELL LOCATION AND DESIGNATION
- SB-3 ● SOIL BORING LOCATION AND DESIGNATION

**BENZENE ISOCONCENTRATION MAP ug/L**

THRIFTY OIL CO.

4-29-99

SCALE



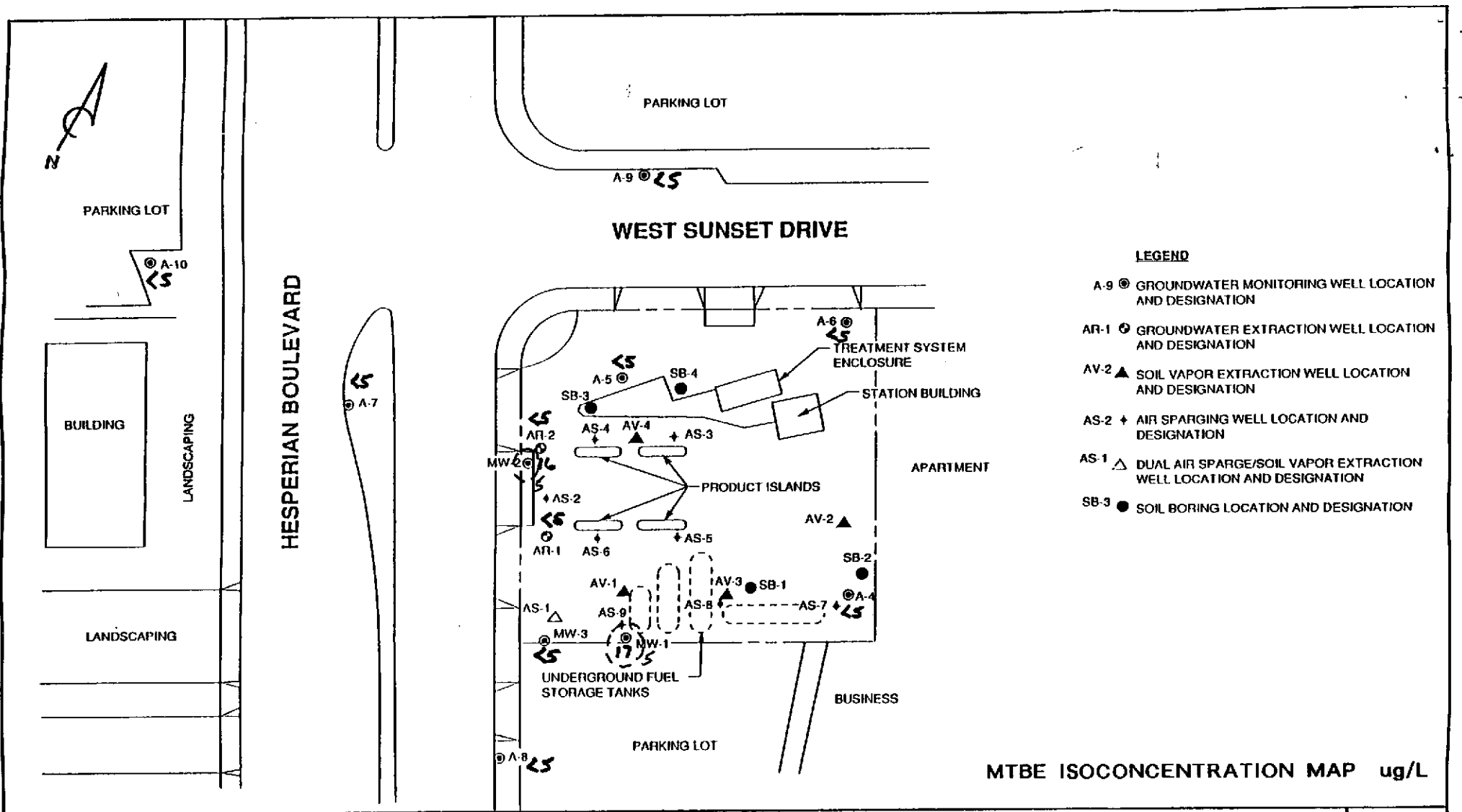
ARCO SERVICE STATION 5387  
20200 Hesperian Boulevard at West Sunset Drive  
Hayward, California

WELL LOCATION MAP

FIGURE:

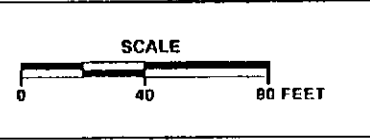
3





MTBE ISOCONCENTRATION MAP ug/L

THRIFTY OIL CO.  
4-29-99

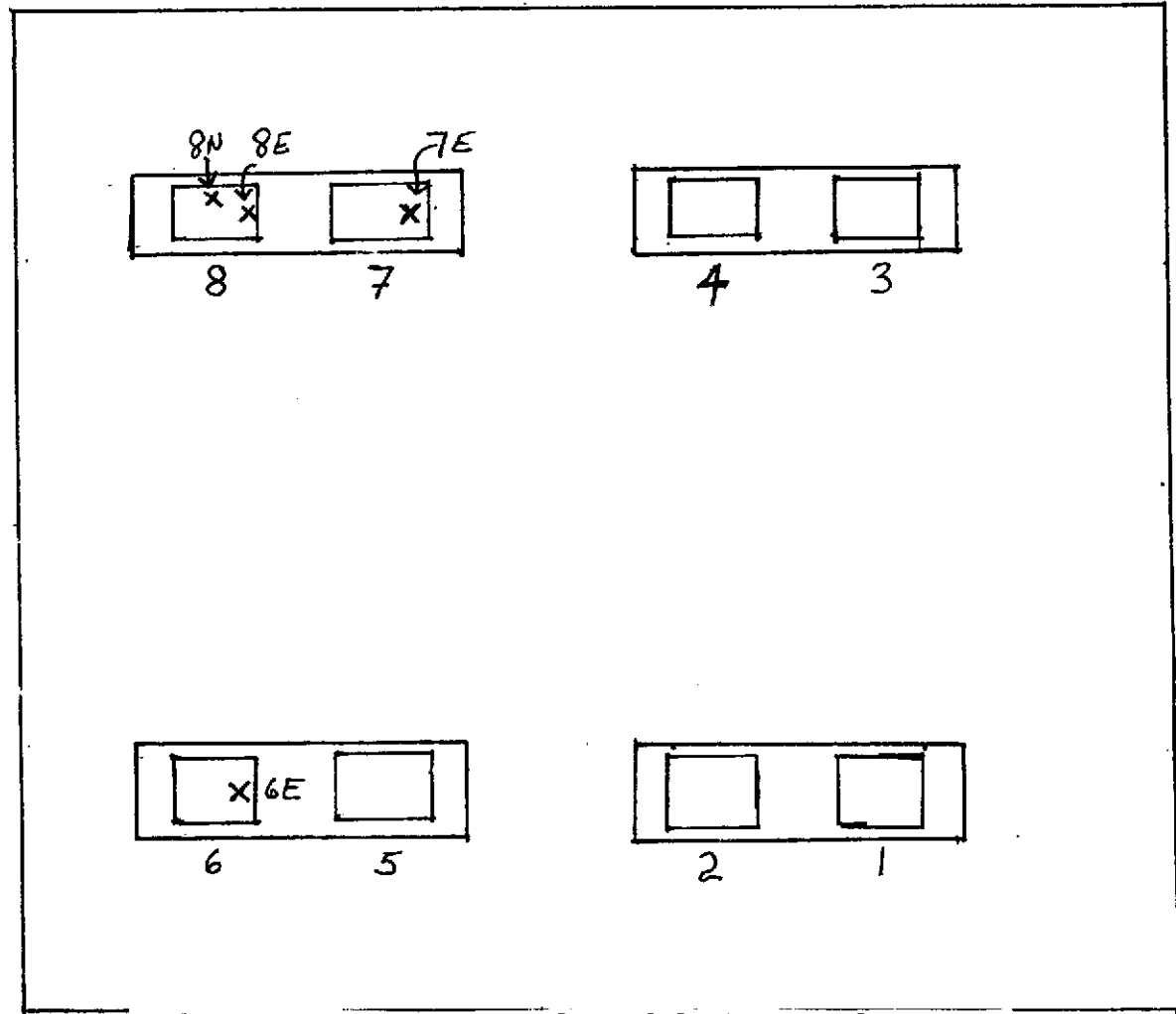


ARCO SERVICE STATION 5387  
20200 Hesperian Boulevard at West Sunset Drive  
Hayward, California

WELL LOCATION MAP

FIGURE:  
4

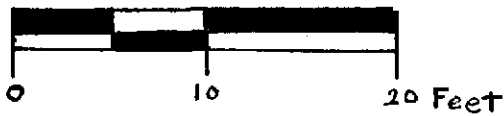
Dispenser Site Location Map for Soil Sampling



**FORMER THRIFTY OIL CO. STATION #052**

**ARCO SERVICE STATION #5387**

20200 Hesperian Boulevard at West Sunset Drive  
Hayward, California



MAY 27, 1999

**FIGURE 5**

# TABLE(S)

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #052, HAYWARD, CA**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MIBE (ug/L)					
<b>Monitoring Well AR-1</b>											
09/14/92	820	67	<1.0	8.8	6.7	-	15.21	NP	0.00	38.11	22.90
11/12/92	140	66	<0.5	4.3	3.7	-	15.36	NP	0.00	38.11	22.75
02/11/93	360	190	<2.5	8.6	<2.5	-	12.81	NP	0.00	38.11	25.30
04/14/93	420	240	5.2	30	8.7	-	11.77	NP	0.00	38.11	26.34
08/12/93	370	150	<2	11	<2	-	13.55	NP	0.00	38.11	24.56
10/26/93	240	98	<2	11	<2	-	13.98	NP	0.00	38.11	24.13
02/17/94	4,700	1,100	<10	140	26	-	12.15	NP	0.00	37.46	25.31
05/03/94	620	130	1.3	48	4.3	-	12.03	NP	0.00	37.46	25.43
08/17/94	3,600	630	<5	200	12	-	12.92	NP	0.00	37.33	24.41
11/18/94	12,100	720	6.1	337	15	-	12.41	NP	0.00	37.33	24.92
09/26/95	ND	8.3	ND	ND	ND	-	11.34	NP	0.00	37.46	26.12
12/06/95	120	20	ND	20	0.6	-	11.87	NP	0.00	37.46	25.59
02/14/96	ND	ND	ND	ND	0.52	-	10.48	NP	0.00	37.46	26.98
10/29/96	ND	ND	0.99	ND	ND	-	11.80	NP	0.00	37.46	25.66
01/29/97	<50	0.41	<0.3	<0.3	<0.3	<20	11.25	NP	0.00	37.46	26.21
04/30/97	<20	<0.3	<0.3	<0.3	<0.5	<50	12.24	NP	0.00	37.46	25.22
07/31/97	<50	<0.3	<0.3	<0.3	<0.5	<20	10.80	NP	0.00	37.46	26.66
10/22/97	<50	<0.3	<0.3	<0.3	<0.5	<20	11.90	NP	0.00	37.46	25.56
01/28/98	<50	<0.3	<0.3	<0.3	<0.5	<20	11.20	NP	0.00	37.46	26.26
04/22/98	<50	<0.3	<0.3	<0.3	<0.5	<20	12.20	NP	0.00	37.46	25.26
07/08/98	<50	<0.3	<0.3	<0.3	<0.5	<5	9.10	NP	0.00	37.46	28.36
10/22/98	270	2.1	<0.3	3.6	<0.5	190	9.80	NP	0.00	37.46	27.66
01/13/99	<50	<0.3	<0.3	<0.3	<0.5	<20	10.10	NP	0.00	37.46	27.36
04/29/99	<50	<0.3	<0.3	<0.3	<0.5	<5	11.35	NP	0.00	37.46	26.11
<b>Monitoring Well AR-2</b>											
03/30/93	390	4.1	1.6	<0.5	47	-	11.53	NP	0.00	38.39	26.86
04/14/93	310	18	<0.5	0.67	36	-	11.87	NP	0.00	38.39	26.52
08/12/93	130	16	<0.5	1.7	0.57	-	13.59	NP	0.00	38.39	24.80
10/26/93	110	15	<0.5	1.8	<0.5	-	14.25	NP	0.00	38.39	24.14
02/17/94	130	2.9	<0.5	15	0.8	-	12.76	NP	0.00	37.98	25.22

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #052, HAYWARD, CA**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	Ethylbenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
05/03/94	<50	<0.5	<0.5	<0.5	<0.5	-	12.60	NP	0.00	37.98	25.38
08/17/94	3,000	140	140	220	91	-	13.86	NP	0.00	38.18	24.32
11/18/94	623	10.5	10.5	27.9	8.0	-	13.33	NP	0.00	38.18	24.85
09/26/95	ND	ND	ND	ND	ND	-	11.67	NP	0.00	37.98	26.31
12/06/95	320	12	12	23	2.1	-	12.32	NP	0.00	37.98	25.66
02/14/96	ND	ND	ND	ND	0.76	-	10.74	NP	0.00	37.98	27.24
10/29/96	ND	ND	ND	ND	ND	-	11.95	NP	0.00	37.98	26.03
01/29/97	<50	<0.3	<0.3	<0.3	<0.5	<20	11.35	NP	0.00	37.98	26.63
04/30/97	<20	<0.3	<0.3	<0.3	<0.5	<50	12.15	NP	0.00	37.98	25.83
07/31/97	<50	<0.3	<0.3	<0.3	<0.5	<20	11.20	NP	0.00	37.98	26.78
10/22/97	<50	<0.3	<0.3	<0.3	<0.5	<20	12.14	NP	0.00	37.98	25.84
01/28/98	<50	<0.3	<0.3	<0.3	<0.5	<20	10.05	NP	0.00	37.98	27.93
04/22/98	<50	<0.3	<0.3	<0.3	<0.5	<20	12.10	NP	0.00	37.98	25.88
07/08/98	<50	<0.3	<0.3	<0.3	<0.5	<5	9.50	NP	0.00	37.98	28.48
10/22/98	<50	<0.3	<0.3	<0.3	<0.5	<5	10.45	NP	0.00	37.98	27.53
01/13/99	<50	<0.3	0.40	<0.3	0.53	<20	10.50	NP	0.00	37.98	27.48
04/29/99	<50	<0.3	<0.3	<0.3	0.82	<5	11.48	NP	0.00	37.98	26.50
<b>Monitoring Well #MW-1</b>											
08/08/86	7,040	132	8.7	439	230	-	11.25	NP	0.00	38.36	27.11
12/24/91	2,200	190	8.5	6.9	2.6	-	16.12	NP	0.00	38.36	22.24
03/10/92	2,800	270	29	56	39	-	13.34	NP	0.00	38.36	25.02
06/09/92	2,900	960	27	99	63	-	14.12	NP	0.00	38.36	24.24
09/14/92	2,600	450	<5.0	45	21	-	15.34	NP	0.00	38.36	23.02
11/12/92	1,600	310	7.2	22	8.9	-	15.46	NP	0.00	38.36	22.90
02/11/93	4,000	510	47	200	91	-	11.95	NP	0.00	38.36	26.41
04/14/93	1,700	260	20	100	70	-	11.65	NP	0.00	38.36	26.71
08/12/93	830	60	3.8	39	3.6	-	12.93	NP	0.00	38.36	25.43
10/26/93	8,800	140	<10	41	<10	-	14.13	NP	0.00	38.36	24.23
02/17/94	1,200	130	12	54	58	-	11.86	NP	0.00	37.26	25.40
05/03/94	-	-	-	-	-	-	11.58	NP	0.00	37.26	25.68
08/17/94	3,900	86	5.1	78	9.4	-	12.78	NP	0.00	37.33	24.55

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #052, HAYWARD, CA**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
11/18/94	6,350	112	8.4	107	35	-	12.31	NP	0.00	37.33	25.02
09/26/95	ND	ND	ND	ND	ND	-	11.26	NP	0.00	37.26	26.00
12/06/95	4,100	0.86	0.46	0.38	0.92	-	12.16	NP	0.00	37.26	25.10
02/14/96	ND	ND	0.56	ND	0.82	-	8.53	NP	0.00	37.26	28.73
10/29/96	130	ND	ND	ND	ND	-	10.23	NP	0.00	37.26	27.03
01/29/97	<50	<0.3	<0.3	<0.3	<0.5	<20	8.15	NP	0.00	37.26	29.11
04/30/97	<20	<0.3	<0.3	<0.3	<0.5	<50	8.05	NP	0.00	37.26	29.21
07/31/97	<50	<0.3	<0.3	<0.3	<0.5	<20	10.50	NP	0.00	37.26	26.76
10/22/97	<50	<0.3	<0.3	<0.3	<0.5	<20	11.15	NP	0.00	37.26	26.11
01/28/98	<50	<0.3	<0.3	<0.3	<0.5	<20	4.95	NP	0.00	37.26	32.31
04/22/98	<50	<0.3	<0.3	<0.3	<0.5	<20	8.10	NP	0.00	37.26	29.16
07/08/98	<50	<0.3	<0.3	<0.3	<0.5	40	8.02	NP	0.00	37.26	29.24
10/22/98	230	0.43	1.9	0.99	0.99	33	9.70	NP	0.00	37.26	27.56
01/13/99	<50	0.43	<0.3	<0.3	<0.5	<20	9.60	NP	0.00	37.26	27.66
04/29/99	<50	<0.3	<0.3	<0.3	<0.5	*3L/17	8.05	NP	0.00	37.26	29.21
<b>Monitoring Well #MW-2</b>											
08/08/86	1,910	20.1	2.8	1.8	-	-	11.62	NP	0.00	38.58	26.96
12/24/91	23,000	1,500	1,100	480	1,400	-	16.50	NP	0.00	38.58	22.08
03/10/92	210,000	44,000	3,900	1,700	5,800	-	13.50	NP	0.00	38.58	25.08
06/09/92	33,000	2,300	370	780	2,600	-	14.52	NP	0.00	38.58	24.06
09/14/92	16,000	3,700	10	470	1,000	-	15.78	NP	0.00	38.58	22.80
11/12/92	16,000	3,800	86	470	910	-	15.98	NP	0.00	38.58	22.60
02/11/93	27,000	3,500	720	1,600	380	-	12.27	NP	0.00	38.58	26.31
04/14/93	27,000	3,500	220	2,200	5,100	-	12.01	NP	0.00	38.58	26.57
08/12/93	16,000	1,600	27	1,300	1,200	-	13.81	NP	0.00	38.58	24.77
10/26/93	12,000	1,200	<25	510	330	-	14.53	NP	0.00	38.58	24.05
02/17/94	15,000	1,800	21	850	540	-	12.81	NP	0.00	38.58	25.77
05/03/94	-	-	-	-	-	-	12.63	NP	0.00	38.58	25.95
08/17/94	14,000	850	13	640	270	-	13.69	NP	0.00	37.99	24.30
11/18/94	14,900	640	3.4	532	156	-	13.18	NP	0.00	38.06	24.88
09/26/95	5,100	40	25	2.5	18	-	12.23	NP	0.00	37.99	25.76

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #052, HAYWARD, CA**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
12/06/95	810	34	23	11	11	-	12.82	NP	0.00	37.99	25.17
02/14/96	420	0.75	0.54	0.64	0.53	-	10.87	NP	0.00	37.99	27.12
10/29/96	670	1.7	1.3	0.6	0.8	-	12.95	NP	0.00	37.99	25.04
01/29/97	<50	<0.3	<0.3	<0.3	<0.5	<20	11.15	NP	0.00	37.99	26.84
04/30/97	<20	<0.3	<0.3	<0.3	<0.5	<50	11.09	NP	0.00	37.99	26.90
07/31/97	330	<0.3	0.58	0.53	<0.5	<20	11.70	NP	0.00	37.99	26.29
10/22/97	<50	<0.3	<0.3	<0.3	<0.5	<20	11.05	NP	0.00	37.99	26.94
01/28/98	<50	<0.3	<0.3	<0.3	<0.5	<20	9.50	NP	0.00	37.99	28.49
04/22/98	<50	<0.3	<0.3	<0.3	<0.5	<20	11.15	NP	0.00	37.99	26.84
07/08/98	78	<0.3	<0.3	<0.3	<0.5	97	10.20	NP	0.00	37.99	27.79
10/22/98	270	0.37	2.0	0.91	0.73	26	11.10	NP	0.00	37.99	26.89
01/13/99	650	5.8	1.0	1.4	1.1	<20	11.10	NP	0.00	37.99	26.89
04/29/99	<50	<0.3	<0.3	<0.3	<0.5	* 25 / 16	11.05	NP	0.00	37.99	26.94
<b>Monitoring Well #MCW-3</b>											
08/08/86	7,450	510	549	409	1,380	-	10.61	NP	0.00	37.77	27.16
12/24/91	6,800	450	10	610	45	-	15.60	NP	0.00	37.77	22.17
03/10/92	11,000	2,500	75	400	560	-	12.90	NP	0.00	37.77	24.87
06/09/92	16,000	2,000	69	1,300	2,600	-	13.60	NP	0.00	37.77	24.17
09/14/92	14,000	630	<50	1,500	2,400	-	14.78	NP	0.00	37.77	22.99
11/12/92	7,400	400	<25	860	330	-	14.92	NP	0.00	37.77	22.85
02/11/93	8,600	580	<20	710	300	-	11.65	NP	0.00	37.77	26.12
04/14/93	6,900	300	8.8	580	99	-	11.16	NP	0.00	37.77	26.61
08/12/93	3,400	56	<5	190	<5	-	12.82	NP	0.00	37.77	24.95
10/26/93	2,900	42	<10	76	<10	-	13.60	NP	0.00	37.77	24.17
02/17/94	3,100	160	<10	36	8.6	-	11.53	NP	0.00	36.80	25.27
05/03/94	2,300	44	<2.5	8.0	<2.5	-	11.36	NP	0.00	36.80	25.44
08/17/94	1,900	7.0	<9.5	4.4	<5	-	12.38	NP	0.00	36.87	24.49
11/18/94	909	1.1	<0.5	0.9	4.0	-	11.93	NP	0.00	36.87	24.94
09/26/95	410	1.3	1.9	2.3	3.3	-	10.96	NP	0.00	36.80	25.84
12/06/95	-	0.9	4.6	3.0	4.3	-	11.56	NP	0.00	36.80	25.24
02/14/96	99	ND	0.49	0.46	ND	-	7.47	NP	0.00	36.80	29.33

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #052, HAYWARD, CA**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MIBE (ug/L)					
10/29/96	250	0.7	0.6	ND	ND	-	9.80	NP	0.00	36.80	27.00
01/29/97	170	<0.3	<0.3	<0.3	<0.5	<20	7.50	NP	0.00	36.80	29.30
04/30/97	<20	<0.3	<0.3	<0.3	<0.5	<50	12.10	NP	0.00	36.80	24.70
07/31/97	<50	<0.3	<0.3	<0.3	<0.5	<20	9.90	NP	0.00	36.80	26.90
10/22/97	<50	<0.3	<0.3	<0.3	<0.5	<20	12.10	NP	0.00	36.80	24.70
01/28/98	<50	<0.3	<0.3	<0.3	<0.5	<20	7.50	NP	0.00	36.80	29.30
04/22/98	<50	<0.3	<0.3	<0.3	<0.5	<20	12.30	NP	0.00	36.80	24.50
07/08/98	<50	<0.3	<0.3	<0.3	<0.5	<5	8.30	NP	0.00	36.80	28.50
10/22/98	<50	<0.3	<0.3	<0.3	<0.5	<5	9.10	NP	0.00	36.80	27.70
01/13/99	<50	<0.3	<0.3	<0.3	<0.5	<20	9.50	NP	0.00	36.80	27.30
04/29/99	<50	<0.3	0.35	<0.3	<0.5	<5	5.93	NP	0.00	36.80	30.87
<b>Monitoring Well A-4</b>											
03/06/91	34,000	11,000	870	2,500	2,100	-	13.22	NP	0.00	39.46	26.24
12/24/91	1,900	29	1.9	25	29	-	17.60	NP	0.00	39.86	22.26
03/10/92	7,400	37	<0.60	11	73	-	14.76	NP	0.00	39.86	25.10
06/09/92	4,500	3.2	1.5	37	16	-	15.63	NP	0.00	39.86	24.23
09/14/92	1,300	<2.5	2.5	61	6.8	-	16.83	NP	0.00	39.86	23.03
11/12/92	610	7.2	0.98	34	0.97	-	16.97	NP	0.00	39.86	22.89
02/11/93	740	2.4	<0.5	5.0	3.5	-	13.43	NP	0.00	39.86	26.43
04/14/93	380	<0.5	<0.5	10	1.6	-	13.06	NP	0.00	39.86	26.80
08/12/93	1,200	0.93	<0.5	0.91	<0.5	-	14.94	NP	0.00	39.86	24.92
10/26/93	160	<0.5	<0.5	1.0	<0.5	-	15.52	NP	0.00	39.86	24.34
02/17/94	320	0.5	<0.5	28	0.9	-	14.02	NP	0.00	39.46	25.44
05/03/94	130	<0.5	<0.5	1.1	<0.5	-	13.85	NP	0.00	39.46	25.61
08/17/94	62	<0.5	<0.5	<0.5	<0.5	-	14.95	NP	0.00	39.53	24.58
11/18/94	98	1.3	0.6	<0.5	<0.5	-	14.46	NP	0.00	39.53	25.07
12/06/95	ND	0.6	ND	ND	ND	-	13.82	NP	0.00	39.53	25.71
02/14/96	ND	ND	2.3	ND	0.71	-	11.24	NP	0.00	39.53	28.29
10/29/96	140	ND	ND	ND	ND	-	13.50	NP	0.00	39.53	26.03
01/29/97	<50	<0.3	<0.3	<0.3	<0.5	<20	12.65	NP	0.00	39.53	26.88
04/30/97	<20	<0.3	<0.3	<0.3	<0.5	<50	13.97	NP	0.00	39.53	25.56



**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #052, HAYWARD, CA**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
07/31/97	<50	<0.3	<0.3	<0.3	<0.5	<20	12.70	NP	0.00	39.53	26.83
10/22/97	<50	<0.3	<0.3	<0.3	<0.5	<20	13.95	NP	0.00	39.53	25.58
01/28/98	<50	<0.3	<0.3	<0.3	<0.5	<20	11.90	NP	0.00	39.53	27.63
04/22/98	<50	<0.3	<0.3	<0.3	<0.5	<20	13.92	NP	0.00	39.53	25.61
07/08/98	<50	<0.3	<0.3	<0.3	<0.5	<5	10.80	NP	0.00	39.53	28.73
10/22/98	<50	<0.3	<0.3	<0.3	<0.5	<5	12.60	NP	0.00	39.53	26.93
01/13/99	<50	<0.3	<0.3	<0.3	<0.5	<20	12.60	NP	0.00	39.53	26.93
04/29/99	<50	<0.3	<0.3	<0.3	<0.5	<5	12.61	NP	0.00	39.53	26.92
<b>Monitoring Well A-5</b>											
12/24/91	1,600	21	<0.30	32	52	-	16.85	NP	0.00	38.94	22.09
03/10/92	1,000	1.6	<0.30	43	100	-	13.83	NP	0.00	38.94	25.11
06/09/92	680	34	<1.5	14	16	-	14.91	NP	0.00	38.94	24.03
09/14/92	770	12	<0.30	51	65	-	16.14	NP	0.00	38.94	22.80
11/12/92	520	3.0	<2.5	29	36	-	16.35	NP	0.00	38.94	22.59
02/11/93	150	1.6	0.96	5.1	1.5	-	13.21	NP	0.00	38.94	25.73
04/14/93	190	5.4	<0.5	1.5	0.97	-	12.97	NP	0.00	38.94	25.97
08/12/93	230	1.7	<0.5	5.3	0.94	-	14.12	NP	0.00	38.94	24.82
10/26/93	190	2.8	<0.5	5.5	2.0	-	14.72	NP	0.00	38.94	24.22
02/17/94	340	<0.5	<0.5	13	2.9	-	13.20	NP	0.00	38.47	25.27
05/03/94	170	1.4	<0.5	4.0	1.9	-	13.08	NP	0.00	38.47	25.39
08/17/94	270	0.6	<0.5	7.3	1.1	-	14.18	NP	0.00	38.54	24.36
11/18/94	338	-	<0.5	4.6	<0.5	-	13.73	NP	0.00	38.54	24.81
09/26/95	ND	0.63	1.1	ND	1.2	-	12.44	NP	0.00	38.47	26.03
12/06/95	ND	ND	ND	ND	ND	-	12.92	NP	0.00	38.47	25.55
02/14/96	ND	ND	2.0	ND	1.1	-	10.76	NP	0.00	38.47	27.71
10/29/96	ND	ND	ND	ND	ND	-	12.35	NP	0.00	38.47	26.12
01/29/97	<50	<0.3	<0.3	<0.3	<0.5	<20	10.85	NP	0.00	38.47	27.62
04/30/97	<20	<0.3	<0.3	<0.3	<0.5	<50	13.56	NP	0.00	38.47	24.91
07/31/97	<50	<0.3	<0.3	<0.3	<0.5	<20	11.80	NP	0.00	38.47	26.67
10/22/97	<50	<0.3	<0.3	<0.3	<0.5	<20	12.20	NP	0.00	38.47	26.27
01/28/98	<50	<0.3	<0.3	<0.3	<0.5	<20	10.12	NP	0.00	38.47	28.35

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #052, HAYWARD, CA**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MIBE (ug/L)					
04/22/98	<50	<0.3	<0.3	<0.3	<0.5	<20	13.50	NP	0.00	38.47	24.97
07/08/98	<50	<0.3	<0.3	<0.3	<0.5	<5	10.20	NP	0.00	38.47	28.27
10/22/98	<50	<0.3	<0.3	<0.3	<0.5	<5	11.50	NP	0.00	38.47	26.97
01/13/99	<50	0.32	0.38	<0.3	<0.5	<20	10.15	NP	0.00	38.47	28.32
04/29/99	<50	<0.3	<0.3	<0.3	0.58	<5	11.50	NP	0.00	38.47	26.97
<b>Monitoring Well A-6</b>											
12/24/91	<30	<0.3	<0.3	<0.3	<0.3	-	16.88	NP	0.00	39.07	22.19
03/10/92	<30	<0.3	<0.3	<0.3	<0.3	-	13.73	NP	0.00	39.07	25.34
06/09/92	<30	<0.3	<0.3	<0.3	<0.3	-	14.95	NP	0.00	39.07	24.12
09/14/92	<50	<0.5	<0.5	<0.5	<0.5	-	16.20	NP	0.00	39.07	22.87
11/12/92	<50	<0.5	<0.5	<0.5	<0.5	-	16.35	NP	0.00	39.07	22.72
02/11/93	<50	<0.5	<0.5	<0.5	<0.5	-	13.04	NP	0.00	39.07	26.03
04/14/93	<50	<0.5	<0.5	<0.5	<0.5	-	12.23	NP	0.00	39.07	26.84
08/12/93	<50	<0.5	<0.5	<0.5	<0.5	-	14.18	NP	0.00	39.07	24.89
10/26/93	<50	<0.5	<0.5	<0.5	<0.5	-	14.85	NP	0.00	39.07	24.22
05/03/94	<50	<0.5	<0.5	<0.5	<0.5	-	13.66	NP	0.00	39.07	25.41
08/17/94	<50	<0.5	<0.5	<0.5	<0.5	-	14.34	NP	0.00	38.78	24.44
11/18/94	<50	<0.5	<0.5	<0.5	<0.5	-	13.76	NP	0.00	38.78	25.02
09/26/95	ND	ND	ND	ND	ND	-	12.56	NP	0.00	38.78	26.22
12/06/95	ND	ND	ND	ND	ND	-	13.18	NP	0.00	38.78	25.60
02/14/96	ND	ND	ND	ND	ND	-	12.46	NP	0.00	38.78	26.32
10/29/96	50	ND	ND	ND	ND	-	12.40	NP	0.00	38.78	26.38
01/29/97	<50	<0.3	<0.3	<0.3	<0.5	<20	13.85	NP	0.00	38.78	24.93
04/30/97	<20	<0.3	<0.3	<0.3	<0.5	<50	12.49	NP	0.00	38.78	26.29
07/31/97	<50	<0.3	<0.3	<0.3	<0.5	<20	12.10	NP	0.00	38.78	26.68
10/22/97	<50	<0.3	<0.3	<0.3	<0.5	<20	15.20	NP	0.00	38.78	23.58
01/28/98	<50	<0.3	<0.3	<0.3	<0.5	<20	13.80	NP	0.00	38.78	24.98
04/22/98	<50	<0.3	<0.3	<0.3	<0.5	<20	12.45	NP	0.00	38.78	26.33
07/08/98	<50	<0.3	<0.3	<0.3	<0.5	<5	10.30	NP	0.00	38.78	28.48
10/22/98	<50	<0.3	<0.3	<0.3	<0.5	<5	11.10	NP	0.00	38.78	27.68
01/13/99	<50	<0.3	<0.3	<0.3	<0.5	<20	10.40	NP	0.00	38.78	28.38

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #052, HAYWARD, CA**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
04/29/99	<50	<0.3	<0.3	<0.3	<0.5	<5	13.80	NP	0.00	38.78	24.98
<b>Monitoring Well A-7</b>											
12/24/91	10,000	88	16	170	610	-	18.11	NP	0.00	39.95	21.84
03/10/92	320	9.3	0.54	8.8	34	-	15.30	NP	0.00	39.95	24.65
06/09/92	340	11	1.1	8.9	26	-	16.12	NP	0.00	39.95	23.83
09/14/92	510	12	<2.0	30	51	-	17.35	NP	0.00	39.95	22.60
11/12/92	760	17	0.83	50	73	-	17.47	NP	0.00	39.95	22.48
02/11/93	260	20	1.0	11	21	-	13.80	NP	0.00	39.95	26.15
04/14/93	1,300	89	2.1	48	87	-	13.60	NP	0.00	39.95	26.35
08/12/93	360	9.0	<0.50	13	9.0	-	15.54	NP	0.00	39.95	24.41
10/26/93	99	1.7	<0.50	4.0	3.0	-	16.28	NP	0.00	39.95	23.67
02/17/94	1,300	38	<1	35	25	-	14.44	NP	0.00	39.38	24.94
05/03/94	330	8.1	<0.5	7.8	3.7	-	14.34	NP	0.00	39.38	25.04
08/17/94	350	2.2	<0.5	9.6	3.6	-	15.40	NP	0.00	39.45	24.05
11/18/94	412	1.3	<0.5	6.2	2.0	-	14.95	NP	0.00	39.45	24.50
09/26/95	ND	ND	ND	ND	ND	-	13.92	NP	0.00	39.38	25.46
12/06/95	ND	ND	ND	ND	ND	-	14.42	NP	0.00	39.38	24.96
02/14/96	ND	ND	1.1	ND	0.59	-	12.38	NP	0.00	39.38	27.00
10/29/96	ND	ND	ND	ND	ND	-	12.33	NP	0.00	39.38	27.05
01/29/97	<50	<0.3	<0.3	<0.3	<0.5	<20	13.10	NP	0.00	39.38	26.28
04/30/97	<20	<0.3	<0.3	<0.3	<0.5	<50	11.70	NP	0.00	39.38	27.68
07/31/97	<50	<0.3	<0.3	<0.3	<0.5	<20	13.25	NP	0.00	39.38	26.13
10/22/97	<50	<0.3	<0.3	<0.3	<0.5	<20	14.42	NP	0.00	39.38	24.96
01/28/98	<50	<0.3	<0.3	<0.3	<0.5	<20	13.00	NP	0.00	39.38	26.38
04/22/98	<50	<0.3	<0.3	<0.3	<0.5	<20	11.65	NP	0.00	39.38	27.73
07/08/98	<50	<0.3	<0.3	<0.3	<0.5	<5	11.20	NP	0.00	39.38	28.18
10/22/98	51	<0.3	<0.3	<0.3	<0.5	<5	13.75	NP	0.00	39.38	25.63
01/13/99	<50	<0.3	<0.3	<0.3	<0.5	<20	14.45	NP	0.00	39.38	24.93
04/29/99	<50	<0.3	<0.3	<0.3	<0.5	<5	13.74	NP	0.00	39.38	25.64

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #052, HAYWARD, CA**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
<b>Monitoring Well A-8</b>											
09/14/92	<50	<0.5	<0.5	<0.5	<0.5	-	14.19	NP	0.00	37.23	23.04
11/12/92	<50	<0.5	<0.5	<0.5	<0.5	-	14.35	NP	0.00	37.23	22.88
02/11/93	<50	<0.5	<0.5	<0.5	<0.5	-	11.25	NP	0.00	37.23	25.98
04/14/93	<50	<0.5	<0.5	<0.5	<0.5	-	12.33	NP	0.00	37.23	24.90
08/12/93	<50	<0.5	<0.5	<0.5	<0.5	-	12.41	NP	0.00	37.23	24.82
10/26/93	<50	<0.5	<0.5	<0.5	<0.5	-	13.02	NP	0.00	37.23	24.21
02/17/94	<50	<0.5	<0.5	<0.5	<0.5	-	11.47	NP	0.00	36.76	25.29
05/03/94	<50	<0.5	<0.5	<0.5	<0.5	-	11.35	NP	0.00	36.76	25.41
08/17/94	<50	<0.5	1.7	<0.5	1.4	-	12.34	NP	0.00	36.84	24.50
11/18/94	<50	1.0	<0.5	<0.5	<0.5	-	11.90	NP	0.00	36.84	24.94
09/26/95	ND	ND	ND	ND	ND	-	10.94	NP	0.00	36.76	25.82
12/06/95	ND	ND	ND	ND	ND	-	11.42	NP	0.00	36.76	25.34
02/14/96	ND	ND	0.48	ND	ND	-	8.80	NP	0.00	36.76	27.96
10/29/96	200	ND	ND	ND	ND	-	11.30	NP	0.00	36.76	25.46
01/29/97	<50	<0.3	<0.3	<0.3	<0.5	<20	7.60	NP	0.00	36.76	29.16
04/30/97	<20	<0.3	<0.3	<0.3	<0.5	<50	10.54	NP	0.00	36.76	26.22
07/31/97	<50	<0.3	<0.3	<0.3	<0.5	<20	11.20	NP	0.00	36.76	25.56
10/22/97	<50	<0.3	<0.3	<0.3	<0.5	<20	12.14	NP	0.00	36.76	24.62
01/28/98	<50	<0.3	<0.3	<0.3	<0.5	<20	4.43	NP	0.00	36.76	32.33
04/22/98	<50	<0.3	<0.3	<0.3	<0.5	<20	10.55	NP	0.00	36.76	26.21
07/08/98	<50	<0.3	<0.3	<0.3	<0.5	<5	9.07	NP	0.00	36.76	27.69
10/22/98	<50	<0.3	<0.3	<0.3	<0.5	<5	12.12	NP	0.00	36.76	24.64
01/13/99	<50	<0.3	<0.3	<0.3	<0.5	<20	9.60	NP	0.00	36.76	27.16
04/29/99	<50	<0.3	<0.3	<0.3	1.5	<5	9.08	NP	0.00	36.76	27.68
<b>Monitoring Well A-9</b>											
09/14/92	<50	<0.5	<0.5	<0.5	<0.5	-	16.12	NP	0.00	38.71	22.59
11/12/92	<50	<0.5	<0.5	<0.5	<0.5	-	16.29	NP	0.00	38.71	22.42
02/11/93	<50	<0.5	<0.5	<0.5	<0.5	-	12.31	NP	0.00	38.71	26.40
04/14/93	<50	<0.5	<0.5	<0.5	<0.5	-	12.01	NP	0.00	38.71	26.70
08/12/93	<50	<0.5	<0.5	<0.5	<0.5	-	13.90	NP	0.00	38.71	24.81

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #052, HAYWARD, CA**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	Ethylbenzene (ug/L)	XYLENE (ug/L)	MIBK (ug/L)					
10/26/93	< 50	<0.5	<0.5	<0.5	<0.5	-	14.86	NP	0.00	38.71	23.85
02/17/94	< 50	<0.5	<0.5	<0.5	<0.5	-	12.99	NP	0.00	38.19	25.20
08/17/94	< 50	<0.5	<0.5	<0.5	<0.5	-	14.03	NP	0.00	38.19	24.16
11/18/94	< 50	<0.5	<0.5	<0.5	<0.5	-	13.44	NP	0.00	37.24	23.80
09/26/95	ND	<0.5	ND	ND	ND	-	12.43	NP	0.00	38.24	25.81
12/06/95	ND	<0.5	ND	ND	ND	-	13.14	NP	0.00	38.19	25.05
02/14/96	ND	ND	1.8	0.49	0.82	-	9.05	NP	0.00	38.19	29.14
10/29/96	ND	ND	ND	ND	ND	-	12.85	NP	0.00	38.19	25.34
01/29/97	< 50	<0.3	<0.3	<0.3	<0.5	<20	9.02	NP	0.00	38.19	29.17
04/30/97	< 20	<0.3	<0.3	<0.3	<0.5	<50	12.05	NP	0.00	38.19	26.14
07/31/97	< 50	<0.3	<0.3	<0.3	<0.5	<20	12.18	NP	0.00	38.19	26.01
10/22/97	< 50	<0.3	<0.3	<0.3	<0.5	<20	7.45	NP	0.00	38.19	30.74
01/28/98	< 50	<0.3	<0.3	<0.3	<0.5	<20	21.25	NP	0.00	38.19	16.94
04/22/98	< 50	<0.3	<0.3	<0.3	<0.5	<20	12.10	NP	0.00	38.19	26.09
07/08/98	< 50	<0.3	<0.3	<0.3	<0.5	<5	10.40	NP	0.00	38.19	27.79
10/22/98	< 50	<0.3	<0.3	<0.3	<0.5	<5	13.55	NP	0.00	38.19	24.64
01/13/99	< 50	<0.3	<0.3	<0.3	<0.5	<20	12.05	NP	0.00	38.19	26.14
04/29/99	< 50	<0.3	<0.3	<0.3	<0.5	<5	7.43	NP	0.00	38.19	30.76
<b>Monitoring Well A-10</b>											
12/07/92	660	30	<2.5	<2.5	<2.5	-	16.81	NP	0.00	38.94	22.13
02/11/93	210	<0.5	0.97	<0.5	<0.5	-	13.15	NP	0.00	38.94	25.79
04/14/93	770	<0.5	3.0	0.76	1.9	-	12.19	NP	0.00	38.94	26.75
08/12/93	390	<0.5	<0.5	<0.5	0.84	-	14.87	NP	0.00	38.94	24.07
10/26/93	290	<0.5	<0.5	<0.5	<0.5	-	15.65	NP	0.00	38.94	23.29
02/17/94	52	<0.5	<0.5	<0.5	<0.5	-	14.16	NP	0.00	38.66	24.50
05/03/94	< 50	<0.5	<0.5	<0.5	<0.5	-	14.00	NP	0.00	38.66	24.66
08/17/94	< 50	<0.5	<0.5	<0.5	<0.5	-	15.08	NP	0.00	38.72	23.64
11/18/94	< 50	<0.5	<0.5	<0.5	<0.5	-	14.68	NP	0.00	38.72	24.04
09/26/95	ND	ND	ND	ND	ND	-	13.58	NP	0.00	38.66	25.08
12/06/95	ND	ND	ND	ND	ND	-	14.24	NP	0.00	38.66	24.42
02/14/96	ND	ND	ND	ND	ND	-	6.70	NP	0.00	38.66	31.96

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #052, HAYWARD, CA**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
10/29/96	ND	ND	ND	ND	1.1	-	14.10	NP	0.00	38.66	24.56
01/29/97	<50	0.41	4.8	0.60	4.4	37	11.20	NP	0.00	38.66	27.46
04/30/97	<20	0.40	4.2	0.5	3.8	50	12.66	NP	0.00	38.66	26.00
07/31/97	<50	<0.3	<0.3	<0.3	<0.5	<20	13.20	NP	0.00	38.66	25.46
04/22/98	<50	<0.3	<0.3	<0.3	<0.5	<20	12.60	NP	0.00	38.66	26.06
07/08/98	<50	<0.3	<0.3	<0.3	<0.5	<5	8.08	NP	0.00	38.66	30.58
10/22/98	<50	<0.3	<0.3	<0.3	<0.5	<5	11.15	NP	0.00	38.66	27.51
01/13/99	<50	<0.3	<0.3	<0.3	<0.5	<20	9.60	NP	0.00	38.66	29.06
04/29/99	<50	<0.3	<0.3	<0.3	<0.5	<5	11.15	NP	0.00	38.66	27.51

**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

# APPENDIX A

PURGE DATA

**EARTH MANAGEMENT CO.**  
Environmental Remediation.

PROJECT STATUS REPORT  
THRIFTY OIL CO. S.S. #352  
20200 HESPERIAN BLVD.  
HAYWARD, CALIF. 94541  
DATE: 04-28-99

OBSERVATION WELLS

NO.	DTW	DTP	PT	DTB	DIA.	ODORS			F/P	
						YES	NO	S	YES	NO
A-4	12.61			34.40	3"		X			X
A-5	11.50			29.20	3"		X			X
A-6	13.80			34.25	3"		X			X
A-7	13.74			34.85	3"		X			X
A-8	9.08			33.60	2"		X			X
A-9	7.43			33.50	2"		X			X
A-10	11.15			34.15	2"		X			X
AR-1	11.35			34.00	6"		X			X
AR-2	11.48			34.60	6"		X			X
MW-1	8.05			28.00	2"		X			X
MW-2	11.05			26.40	2"		X			X
MW-3	5.93			27.40	2"		X			X

EXPLANATION

DTW - DEPTH TO WATER FROM SURFACE S - SLIGHT DTP - DEPTH TO PRODUCT FROM SURFACE  
 PT - PRODUCT THICKNESS DTB - DEPTH TO BOTTOM DIA. - DIAMETER  
 MEASUREMENTS IN FEET

REMARKS: R.W-3

FREE PRODUCT REMOVED: APPROX.      GALLONS WATER REMOVED: APPROX. 470 GALLONS

DATA RECORDED BY: [Signature] INPUT BY:



### FIELD DATA - GROUNDWATER SAMPLING PROGRAM

Site: <u>#052</u>	Date: <u>04-29-1999</u>
Address: _____	
Personnel: <u>SERBATA</u>	Weather: <u>SUNNY DAY</u>
Well No: <u>A-10</u>	Equip: <u>BAILER</u>

**Before Purging:**

Total Well Depth: (ft.) <u>34.15</u>	Well Diameter <u>24</u>
Depth to Water (ft.) <u>11.15</u>	Est. Purge Volume: <u>15</u>

**Sampling Data:**

Initial Turbidity:

Final Turbidity:

	7:17	7:19	7:21	7:23	7:25	7:27	7:30
Time							
EC	1810	1820	1810	1790	1770	1770	1750
pH	6.03	6.01	5.97	5.94	5.94	5.91	5.90
Temp	71.2	71.0	70.9	70.7	70.5	70.5	70.3
Gal.	2	4	6	8	10	12	15
Time							
EC							
pH							
Temp							
Gal.							

**After Purging/Before Sample Collection**

Depth to Water (ft.) <u>10.10</u>	Total Well Depth (ft.) <u>34.15</u>
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**FIELD DATA - GROUNDWATER SAMPLING PROGRAM**

Site: <u>052</u>	Date: <u>4-24-94</u>
Address: _____	
Personnel: <u>SPRUELL</u>	Weather: <u>SUNNY DAY</u>
Well No: <u>A-7</u>	Equip: <u>BOTTLER</u>

<b>Before Purging:</b>			
Total Well Depth: (ft.)	<u>34.85</u>	Well Diameter	<u>3"</u>
Depth to Water (ft)	<u>13.74</u>	Est. Purge Volume:	<u>31</u>

<b>Sampling Data:</b>							
<b>Initial Turbidity:</b>				<b>Final Turbidity:</b>			
Time	<u>7:43</u>	<u>7:47</u>	<u>7:52</u>	<u>7:56</u>	<u>8:01</u>	<u>8:05</u>	<u>8:10</u>
EC	<u>1910</u>	<u>1890</u>	<u>1870</u>	<u>1870</u>	<u>1860</u>	<u>1840</u>	<u>1830</u>
pH	<u>6.25</u>	<u>6.21</u>	<u>6.19</u>	<u>6.19</u>	<u>6.14</u>	<u>6.11</u>	<u>6.09</u>
Temp	<u>71.4</u>	<u>71.2</u>	<u>70.9</u>	<u>70.9</u>	<u>70.7</u>	<u>70.6</u>	<u>70.3</u>
Gal.	<u>4</u>	<u>8</u>	<u>13</u>	<u>17</u>	<u>22</u>	<u>26</u>	<u>31</u>
Time							
EC							
pH							
Temp							
Gal.							

<b>After Purging/Before Sample Collection</b>	
Depth to Water (ft.)	<u>11.60</u> Total Well Depth(ft.) <u>34.85</u>

FIELD DATA -GROUNDWATER SAMPLING PROGRAM

Site: <u>30 052</u>	Date: <u>4-29-1999</u>
Address: _____	
Personnel: <u>DERBAN</u>	Weather: <u>SUNNY DAY</u>
Well No: <u>A-9</u>	Equip: <u>BATIFER</u>

<b>Before Purging:</b>			
Total Well Depth: (ft.)	<u>33.50</u>	Well Diameter	<u>24</u>
Depth to Water (ft)	<u>7.43</u>	Est. Purge Volume:	<u>17</u>

<b>Sampling Data:</b>							
Initial Turbidity:				Final Turbidity:			
Time	8:15	8:17	8:20	8:22	8:25	8:27	8:30
EC	610	590	570	540	540	510	510
pH	6.04	<del>6.01</del>	6.01	5.94	5.91	5.91	5.87
Temp	21.2	21.0	21.0	20.4	20.7	20.5	20.3
Gal.	2	4	7	9	12	14	17
Time							
EC							
pH							
Temp							
Gal.							

<b>After Purging/Before Sample Collection</b>	
Depth to Water (ft.)	<u>6.20</u> Total Well Depth(ft). <u>33.50</u>

FIELD DATA - GROUNDWATER SAMPLING PROGRAM

Site:	052	Date:	4-29-99
Address:			
Personnel:	DFRBA	Weather:	SUNNY DAY
Well No:	A-6	Equip:	BATLER

Before Purging:			
Total Well Depth: (ft.)	34.25	Well Diameter	34
Depth to Water (ft)	13.80	Est. Purge Volume:	30

Initial Turbidity:				Final Turbidity:			
Time	8:42	8:46	8:50	8:56	8:59	9:05	9:10
EC	230	210	690	680	670	670	640
pH	6.12	6.08	6.03	6.03	5.97	6.94	6.91
Temp	71.1	71.1	70.9	70.8	70.7	70.7	70.6
Gal.	4	8	12	17	21	25	30
Time							
EC							
pH							
Temp							
Gal.							

After Purging/Before Sample Collection	
Depth to Water (ft.)	11.10
Total Well Depth (ft.)	34.25

FIELD DATA -GROUNDWATER SAMPLING PROGRAM

Site:	→ 052	Date:	4-29-1949
Address:			
Personnel:	JERBON	Weather:	SUNNY DAY
Well No:	A-4	Equip:	BAILER

<b>Before Purging:</b>			
Total Well Depth: (ft.)	34.40	Well Diameter	3 <sup>4</sup>
Depth to Water (ft)	12.61	Est. Purge Volume:	32

<b>Sampling Data:</b>							
Initial Turbidity:				Final Turbidity:			
Time	9:17	9:22	9:26	9:31	9:35	9:40	9:45
EC	1470	1460	1440	1430	1430	1410	1410
pH	6.23	6.18	6.17	6.16	6.13	6.09	6.07
Temp	70.4	70.2	70.1	70.1	69.9	69.7	69.5
Gal.	4	9	13	18	22	27	32
Time							
EC							
pH							
Temp							
Gal.							

<b>After Purging/Before Sample Collection</b>			
Depth to Water (ft.)	10.60	Total Well Depth(ft.)	34.40

FIELD DATA -GROUNDWATER SAMPLING PROGRAM

Site: <u>30 052</u>	Date: <u>4-29-99</u>
Address: _____	
Personnel: <u>SFRBNA</u>	Weather: <u>SUNNY DAY</u>
Well No: <u>A-5</u>	Equip: <u>BAILER</u>

<b>Before Purging:</b>			
Total Well Depth: (ft.)	<u>29.20</u>	Well Diameter	<u>3<sup>4</sup></u>
Depth to Water (ft)	<u>11.50</u>	Est. Purge Volume:	<u>26</u>

<b>Sampling Data:</b>							
<b>Initial Turbidity:</b>				<b>Final Turbidity:</b>			
Time	<u>9:47</u>	<u>9:51</u>	<u>9:55</u>	<u>9:58</u>	<u>10:02</u>	<u>10:06</u>	<u>10:10</u>
EC	<u>1680</u>	<u>1640</u>	<u>1660</u>	<u>1660</u>	<u>1670</u>	<u>1680</u>	<u>1670</u>
pH	<u>6.18</u>	<u>6.66</u>	<u>6.01</u>	<u>6.01</u>	<u>5.98</u>	<u>5.94</u>	<u>5.91</u>
Temp	<u>71.3</u>	<u>71.1</u>	<u>70.9</u>	<u>70.7</u>	<u>70.5</u>	<u>70.3</u>	<u>70.3</u>
Gal.	<u>3</u>	<u>7</u>	<u>11</u>	<u>14</u>	<u>18</u>	<u>22</u>	<u>26</u>
Time							
EC							
pH							
Temp							
Gal.							

<b>After Purging/Before Sample Collection</b>	
Depth to Water (ft.) <u>9.60</u>	Total Well Depth(ft.) <u>29.20</u>

FIELD DATA -GROUNDWATER SAMPLING PROGRAM

Site: <u>052</u>	Date: <u>4-29-99</u>
Address: _____	
Personnel: <u>BERNARD</u>	Weather: <u>SUNNY DAY</u>
Well No: <u>AR-2</u>	Equip: <u>BAUER</u>

<b>Before Purging:</b>			
Total Well Depth: (ft.)	<u>34.60</u>	Well Diameter	<u>6"</u>
Depth to Water (ft)	<u>11.48</u>	Est. Purge Volume:	<u>136</u>

<b>Sampling Data:</b>							
<b>Initial Turbidity:</b>				<b>Final Turbidity:</b>			
Time	<u>10:34</u>	<u>10:48</u>	<u>11:02</u>	<u>11:16</u>	<u>11:31</u>	<u>11:44</u>	<u>11:58</u>
EC	<u>1820</u>	<u>1810</u>	<u>1810</u>	<u>1790</u>	<u>1780</u>	<u>1770</u>	<u>1760</u>
pH	<u>6.19</u>	<u>6.17</u>	<u>6.17</u>	<u>6.13</u>	<u>6.09</u>	<u>6.07</u>	<u>6.06</u>
Temp	<u>71.1</u>	<u>70.9</u>	<u>70.8</u>	<u>70.6</u>	<u>70.4</u>	<u>70.3</u>	<u>70.3</u>
Gal.	<u>13</u>	<u>27</u>	<u>40</u>	<u>54</u>	<u>68</u>	<u>81</u>	<u>95</u>
Time	<u>12:12</u>	<u>12:26</u>	<u>12:40</u>				
EC	<u>1720</u>	<u>1720</u>	<u>1710</u>				
pH	<u>6.03</u>	<u>6.03</u>	<u>6.01</u>				
Temp	<u>70.1</u>	<u>70.1</u>	<u>69.9</u>				
Gal.	<u>108</u>	<u>122</u>	<u>136</u>				

<b>After Purging/Before Sample Collection</b>	
Depth to Water (ft.)	<u>9.40</u> Total Well Depth(ft.) <u>34.60</u>

FIELD DATA - GROUNDWATER SAMPLING PROGRAM

Site:	052	Date:	4-29-99
Address:			
Personnel:	SERBINA	Weather:	SUNNY BM
Well No:	MW-2	Equip:	BRILAR

<b>Before Purging:</b>			
Total Well Depth: (ft.)	26.40	Well Diameter	2"
Depth to Water (ft)	11.05	Est. Purge Volume:	10

<b>Sampling Data:</b>							
<b>Initial Turbidity:</b>				<b>Final Turbidity:</b>			
Time	12:48	12:50	12:52	12:54	12:56	12:58	13:00
EC	1710	1710	1690	1670	1660	1660	1640
pH	6.11	6.11	6.08	6.06	6.06	6.03	6.03
Temp	71.4	71.4	71.2	71.0	70.9	70.8	70.7
Gal.	1	2	4	5	7	8	10
Time							
EC							
pH							
Temp							
Gal.							

<b>After Purging/Before Sample Collection</b>			
Depth to Water (ft.)	9.20	Total Well Depth(ft).	26.40



FIELD DATA -GROUNDWATER SAMPLING PROGRAM

Site:	SD 052	Date:	4-29-99
Address:			
Personnel:	JERBAW	Weather:	SUNNY DAY
Well No:	AR-1	Equip:	BAILER

<b>Before Purging:</b>			
Total Well Depth: (ft.)	34.00	Well Diameter	6"
Depth to Water (ft)	11.35	Est. Purge Volume:	133

<b>Sampling Data:</b>							
<b>Initial Turbidity:</b>				<b>Final Turbidity:</b>			
Time	13:32	13:45	13:58	14:11	14:24	14:32	14:50
EC	1820	1810	1740	1740	1770	1740	1740
pH	6.21	6.20	6.18	6.18	6.13	6.09	6.09
Temp	71.2	71.1	71.1	70.9	70.7	70.7	70.6
Gal.	13	26	39	53	66	79	93
Time	15:03	15:16	15:30				
EC	1730	1730	1710				
pH	6.07	6.09	6.03				
Temp	70.3	70.1	70.1				
Gal.	106	119	133				

<b>After Purging/Before Sample Collection</b>			
Depth to Water (ft.)	10.20	Total Well Depth(ft).	34.00

FIELD DATA -GROUNDWATER SAMPLING PROGRAM

Site: <u>      #052      </u>	Date: <u>      4-29-99      </u>
Address: _____	
Personnel: <u>      SERBAA      </u>	Weather: <u>      SUNNY DAY      </u>
Well No: <u>      MW-1      </u>	Equip: <u>      BAUER      </u>

<b>Before Purging:</b>			
Total Well Depth: (ft.)	<u>      28.00      </u>	Well Diameter	<u>      2"      </u>
Depth to Water (ft)	<u>      8.05      </u>	Est. Purge Volume:	<u>      13      </u>

<b>Sampling Data:</b>							
Initial Turbidity:				Final Turbidity:			
Time	15:33	15:35	15:37	15:39	15:41	15:43	15:45
EC	1710	1690	1670	1670	1640	1630	1620
pH	6.07	6.07	6.07	5.98	5.93	5.91	5.92
Temp	71.1	71.1	70.9	70.9	70.7	70.5	70.3
Gal.	1	3	5	7	9	11	13
Time							
EC							
pH							
Temp							
Gal.							

<b>After Purging/Before Sample Collection</b>			
Depth to Water (ft.)	<u>      6.10      </u>	Total Well Depth(ft.)	<u>      28.00      </u>

FIELD DATA -GROUNDWATER SAMPLING PROGRAM

Site:	→ 052	Date:	4-29-99
Address:			
Personnel:	SERBAM	Weather:	SUNNY DAY
Well No:	MW-3	Equip:	BAILER

<b>Before Purging:</b>			
Total Well Depth: (ft.)	27.40	Well Diameter	2"
Depth to Water (ft)	5.93	Est. Purge Volume:	14

<b>Sampling Data:</b>							
Initial Turbidity:				Final Turbidity:			
Time	15:48	15:50	15:52	15:54	15:56	15:58	16:00
EC	1640	1630	1630	1640	1590	1570	1570
pH	6.09	6.04	5.98	5.93	5.93	5.88	5.88
Temp	71.3	71.1	71.0	70.9	70.7	70.6	70.4
Gal.	2	4	6	8	10	12	14
Time							
EC							
pH							
Temp							
Gal.							

<b>After Purging/Before Sample Collection</b>			
Depth to Water (ft.)	3.40	Total Well Depth(ft).	27.40

FIELD DATA -GROUNDWATER SAMPLING PROGRAM

Site: <u>00 052</u>	Date: <u>4-29-1999</u>
Address: _____	
Personnel: <u>SERBAN</u>	Weather: <u>SUNNY DAY</u>
Well No: <u>A-8</u>	Equip: <u>BAILER</u>

<b>Before Purging:</b>			
Total Well Depth: (ft.)	<u>33.60</u>	Well Diameter	<u>2'</u>
Depth to Water (ft)	<u>9.07</u>	Est. Purge Volume:	<u>16</u>

<b>Sampling Data:</b>							
Initial Turbidity:				Final Turbidity:			
Time	<u>16:06</u>	<u>16:08</u>	<u>16:10</u>	<u>16:13</u>	<u>16:15</u>	<u>16:17</u>	<u>16:20</u>
EC	<u>1720</u>	<u>1710</u>	<u>1710</u>	<u>1690</u>	<u>1670</u>	<u>1670</u>	<u>1640</u>
pH	<u>6.09</u>	<u>6.07</u>	<u>6.05</u>	<u>6.03</u>	<u>6.03</u>	<u>6.01</u>	<u>6.01</u>
Temp	<u>71.4</u>	<u>71.2</u>	<u>71.0</u>	<u>71.0</u>	<u>70.9</u>	<u>70.7</u>	<u>70.5</u>
Gal.	<u>2</u>	<u>4</u>	<u>6</u>	<u>9</u>	<u>11</u>	<u>13</u>	<u>16</u>
Time							
EC							
pH							
Temp							
Gal.							

<b>After Purging/Before Sample Collection</b>	
Depth to Water (ft.)	<u>7.10</u>
Total Well Depth(ft).	<u>33.60</u>

# **APPENDIX B**



**LABORATORY ANALYSIS RESULTS**

Client: Thrifty Oil Company  
Project No.: N/A  
Project Name: SS# 052  
Sample Matrix: Water  
Method: EPA 8015M (Gasoline)

AA Project No.: A135052-14  
Date Received: 05/04/99  
Date Reported: 05/17/99  
Units: ug/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	Results	MRL
87222	A-10	04/29/99	05/06/99	<50	50
87223	A-7	04/29/99	05/06/99	<50	50
87224	A-9	04/29/99	05/06/99	<50	50
87225	A-6	04/29/99	05/06/99	<50	50
87226	A-4	04/29/99	05/06/99	<50	50
87227	A-5	04/29/99	05/06/99	<50	50
87228	AR-2	04/29/99	05/06/99	<50	50
87229	MW-2	04/29/99	05/06/99	<50	50
87230	AR-1	04/29/99	05/06/99	<50	50
87231	MW-1	04/29/99	05/06/99	<50	50
87232	MW-3	04/29/99	05/06/99	<50	50
87233	A-8	04/29/99	05/06/99	<50	50
87234	Trip Blank	04/29/99	05/06/99	<50	50

MRL: Method Reporting Limit

<: Not detected at or above the value of the concentration indicated.

  
George Havallas  
Laboratory Director



**LABORATORY ANALYSIS RESULTS**

Client: Thrifty Oil Company  
Project No.: N/A  
Project Name: SS# 052  
Sample Matrix: Water  
Method: EPA 8020 (BTEX)

AA Project No.: A135052-14  
Date Received: 05/04/99  
Date Reported: 05/17/99  
Units: ug/L

Date Sampled:	04/29/99	04/29/99	04/29/99	04/29/99	
Date Analyzed:	05/06/99	05/06/99	05/06/99	05/06/99	
AA ID No.:	87222	87223	87224	87225	
Client ID No.:	A-10	A-7	A-9	A-6	MRL
<b>Compounds:</b>					
Benzene	<0.3	<0.3	<0.3	<0.3	0.3
Ethylbenzene	<0.3	<0.3	<0.3	<0.3	0.3
Toluene	<0.3	<0.3	<0.3	<0.3	0.3
Xylenes	<0.5	<0.5	<0.5	<0.5	0.5

  
\_\_\_\_\_  
George Havalias  
Laboratory Director



LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Company  
Project No.: N/A  
Project Name: SS# 052  
Sample Matrix: Water  
Method: EPA 8020 (BTEX)

AA Project No.: A135052-14  
Date Received: 05/04/99  
Date Reported: 05/17/99  
Units: ug/L

	04/29/99	04/29/99	04/29/99	04/29/99	
Date Sampled:	04/29/99	04/29/99	04/29/99	04/29/99	
Date Analyzed:	05/06/99	05/06/99	05/06/99	05/06/99	
AA ID No.:	87226	87227	87228	87229	
Client ID No.:	A-4	A-5	AR-2	MW-2	MRL
<b>Compounds:</b>					
Benzene	<0.3	<0.3	<0.3	<0.3	0.3
Ethylbenzene	<0.3	<0.3	<0.3	<0.3	0.3
Toluene	<0.3	<0.3	<0.3	<0.3	0.3
Xylenes	<0.5	0.58	0.82	<0.5	0.5

  
\_\_\_\_\_  
George Havalias  
Laboratory Director





**LABORATORY ANALYSIS RESULTS**

Client: Thrifty Oil Company  
Project No.: N/A  
Project Name: SS# 052  
Sample Matrix: Water  
Method: EPA 8020 (BTEX)

AA Project No.: A135052-14  
Date Received: 05/04/99  
Date Reported: 05/17/99  
Units: ug/L

	04/29/99	04/29/99	04/29/99	04/29/99	
Date Sampled:	04/29/99	04/29/99	04/29/99	04/29/99	
Date Analyzed:	05/06/99	05/06/99	05/06/99	05/06/99	
AA ID No.:	87230	87231	87232	87233	
Client ID No.:	AR-1	MW-1	MW-3	A-8	MRL
<b>Compounds:</b>					
Benzene	<0.3	<0.3	<0.3	<0.3	0.3
Ethylbenzene	<0.3	<0.3	<0.3	<0.3	0.3
Toluene	<0.3	<0.3	0.35	<0.3	0.3
Xylenes	<0.5	<0.5	<0.5	1.5	0.5

George Havalias  
Laboratory Director



**LABORATORY ANALYSIS RESULTS**

Client: Thrifty Oil Company  
Project No.: N/A  
Project Name: SS# 052  
Sample Matrix: Water  
Method: EPA 8020 (BTEX)

AA Project No.: A135052-14  
Date Received: 05/04/99  
Date Reported: 05/17/99  
Units: ug/L

---

Date Sampled:	04/29/99	
Date Analyzed:	05/06/99	
AA ID No.:	87234	
Client ID No.:	Trip Blank	MRL
<b>Compounds:</b>		
Benzene	<0.3	0.3
Ethylbenzene	<0.3	0.3
Toluene	<0.3	0.3
Xylenes	<0.5	0.5

---

MRL: Method Reporting Limit  
<: Not detected at or above the value of the concentration indicated.

  
\_\_\_\_\_  
George Havalias  
Laboratory Director



## LABORATORY ANALYSIS RESULTS

Page 1

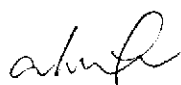
Client: Thrifty Oil Company  
Project No.: N/A  
Project Name: SS# 052  
Sample Matrix: Water  
Method: MTBE (EPA 8020)

AA Project No.: A135052-14  
Date Received: 05/04/99  
Date Reported: 05/17/99  
Units: ug/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	Results	MRL
87222	A-10	04/29/99	05/06/99	<5	5
87223	A-7	04/29/99	05/06/99	<5	5
87224	A-9	04/29/99	05/06/99	<5	5
87225	A-6	04/29/99	05/06/99	<5	5
87226	A-4	04/29/99	05/06/99	<5	5
87227	A-5	04/29/99	05/06/99	<5	5
87228	AR-2	04/29/99	05/06/99	<5	5
87229	MW-2	04/29/99	05/06/99	23	5
87230	AR-1	04/29/99	05/06/99	<5	5
87231	MW-1	04/29/99	05/06/99	31	5
87232	MW-3	04/29/99	05/06/99	<5	5
87233	A-8	04/29/99	05/06/99	<5	5

MRL: Method Reporting Limit

<: Not detected at or above the value of the concentration indicated.

  
George Havalias  
Laboratory Director



LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Company  
Project No.: N/A  
Project Name: SS# 052 ✓  
Sample Matrix: Water  
Method: MTBE (EPA 8260)

AA Project No.: A135052-14 ✓  
Date Received: 05/04/99  
Date Reported: 05/17/99  
Units: ug/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	Results	MRL
87229	MW-2	04/29/99	05/10/99	16	5
87231	MW-1	04/29/99	05/10/99	17	5

MRL: Method Reporting Limit  
<: Not detected at or above the value of the concentration indicated.

George Havalias  
Laboratory Director



LABORATORY QA/QC REPORT

Client: Thrifty Oil Company  
Project Name: SS# 052  
Method: EPA 8020 (BTEX)  
Sample ID: Matrix Spike  
Concentration: 20 ug/L

AA ID No.: 87222  
Project No.: N/A  
AA Project No.: A135052-14  
Date Analyzed: 05/06/99  
Date Reported: 05/10/99

---

Compounds	Result (ug/L)	Spike Recovery (%)	Dup. Result (ug/L)	Spike/Dup. Recovery (%)	RPD (%)	Accept. Rec. Range (%)
Benzene	19.81	99	21.45	107	8	65 - 135
Ethylbenzene	18.39	92	19.50	98	6	77 - 123
Toluene	19.46	97	21.11	106	9	66 - 134
Xylenes	17.81	89	19.23	96	8	73 - 127

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George Havalias  
Laboratory Director

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LABORATORY QA/QC REPORT

Client: Thrifty Oil Company  
Project Name: SS# 052  
Method: EPA 8015M (Gasoline)  
Sample ID: Matrix Spike  
Concentration: 500 ug/L

AA ID No.: 87222  
Project No.: N/A  
AA Project No.: A135052-14  
Date Analyzed: 05/06/99  
Date Reported: 05/10/99

Compounds	Result (ug/L)	Spike Recovery (%)	Dup. Result (ug/L)	Spike/Dup. Recovery (%)	RPD (%)	Accept. Rec. Range (%)
Gasoline Range Organics	460	92	430	86	7	59 - 149

George Havalias  
Laboratory Director



# AMERICAN ANALYTICS CHAIN-OF-CUSTODY RECORD

9765 ETON AVE., CHATSWORTH, CA 91311

(818) 998-5547    (818) 998-5548    1-800-533-TEST    1-800-533-8378    FAX (818) 998-7258

DATE: 04-29-99

PAGE 1 OF 9

AA Client <b>T.O.C.</b>	Phone <b>(562) 921-3580</b>	Sampler's Name <b>STEPHEN P.</b>
Project Manager <b>JEFF SURYAKUSUMA</b>	P.O. No.	Sampler's Signature <i>[Signature]</i>
Project Name <b>Q.W.S.</b>	Project No.	Project Manager's Signature

Job Name and Address <b>2020 HESPERITH BLVD. HAYWARD, CA 94541</b>	<b>ANALYSIS REQUIRED</b>																																										
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">Detection Limits</td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> </tr> <tr> <td>Test Name</td> <td>TPH</td> <td>BTEX</td> <td>MTBE</td> <td>MTBE</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">Test Requirements</td> </tr> </table>	Detection Limits																				Test Name	TPH	BTEX	MTBE	MTBE																	Test Requirements
Detection Limits																																											
Test Name	TPH	BTEX	MTBE	MTBE																	Test Requirements																						

AA ID.#	Client's ID.	Date	Time	Sample Type	Number of Containers	TPH	BTEX	MTBE	MTBE													
87222	A-10	04-29-99	7:30	WATER	3	X	X	X														
87223	A-7	↑	7:40	↑	3	X	X	X														
87224	A-9	↑	7:50	↑	3	X	X	X														
87225	A-6	↑	8:00	↑	3	X	X	X														
87226	A-4	↑	8:05	↑	3	X	X	X														
87227	A-5	↑	8:10	↑	3	X	X	X														
87228	AR-2	↑	8:20	↑	3	X	X	X														
87229	MW-2	↑	8:30	↑	3	X	X	X														
87230	AR-1	↑	8:35	↑	3	X	X	X														
87231	MW-1	↑	8:40	↑	3	X	X	X														
87232	MW-3	↑	8:45	↑	3	X	X	X														
87233	A-8	↓	8:50	↓	3	X	X	X														
87234	TRIP BATTERY	↓	7:30	↓	2	X	X															
					<b>38</b>																	

IF MTBE DETECTION CONFORM WITH 8260 -

<b>SAMPLE INTEGRITY TO BE FILLED IN BY RECEIVING LAB</b> Samples Intact    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Samples Properly Cooled    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Samples Accepted    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Not Why: _____  AA Project No. <b>A135052-14</b>	Relinquished by: <i>[Signature]</i>	Date	Time	Received by: <b>CA. OVERNIGHT</b>
	Relinquished by: <b>CA. OVERNIGHT</b>	Date <b>5/1/99</b>	Time <b>1000</b>	Received by: <i>[Signature]</i>
	Relinquished by:	Date	Time	Received by:
	Relinquished by:	Date	Time	Received by:

# APPENDIX C





LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Company  
Project No.: N/A  
Project Name: SS# 052 ✓  
Sample Matrix: Soil  
Method: EPA 8015M (Gasoline)

AA Project No.: A135052-15 ✓  
Date Received: 05/28/99  
Date Reported: 06/02/99  
Units: mg/Kg

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	Results	MRL
88644	6E	05/27/99	06/01/99	<1	1
88645	7E	05/27/99	06/01/99	<1	1
88646	8E	05/27/99	06/01/99	8.4	1
88647	8N	05/27/99	06/01/99	2400	1

MRL: Method Reporting Limit  
<: Not detected at or above the value of the concentration indicated.

  
\_\_\_\_\_  
George Havalias  
Laboratory Director



LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Company  
Project No.: N/A  
Project Name: SS# 052  
Sample Matrix: Soil  
Method: EPA 8020 (BTEX)

AA Project No.: A135052-15  
Date Received: 05/28/99  
Date Reported: 06/02/99  
Units: mg/Kg

Date Sampled:	05/27/99	05/27/99	05/27/99	05/27/99	
Date Analyzed:	06/01/99	06/01/99	06/01/99	06/01/99	
AA ID No.:	88644	88645	88646	88647	
Client ID No.:	6E	7E	8E	8N	MRL
<u>Compounds:</u>					
Benzene	<0.005	<0.005	<0.005	0.38	0.005
Ethylbenzene	<0.005	<0.005	<0.005	9.8	0.005
Toluene	<0.005	<0.005	<0.005	18	0.005
Xylenes	<0.01	<0.01	0.038	210	0.01

MRL: Method Reporting Limit

<: Not detected at or above the value of the concentration indicated.

George Havalias  
Laboratory Director



LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Company  
Project No.: N/A  
Project Name: SS# 052  
Sample Matrix: Soil  
Method: MTBE (EPA 8020)

AA Project No.: A135052-15  
Date Received: 05/28/99  
Date Reported: 06/02/99  
Units: ug/Kg

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	Results	MRL
88644	6E	05/27/99	06/01/99	<20	20
88645	7E	05/27/99	06/01/99	<20	20
88646	8E	05/27/99	06/01/99	8100	20
88647	8N	05/27/99	06/01/99	13000	20

MRL: Method Reporting Limit  
<: Not detected at or above the value of the concentration indicated.

George Havalias  
Laboratory Director



LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Company  
Project No.: N/A  
Project Name: SS# 052  
Sample Matrix: Soil  
Method: MTBE (EPA 8260)

AA Project No.: A135052-15  
Date Received: 05/28/99  
Date Reported: 06/10/99  
Units: ug/Kg

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	Results	MRL
88646	8E	05/27/99	06/07/99	2200	10
88647	8N	05/27/99	06/07/99	10000	10

MRL: Method Reporting Limit  
<: Not detected at or above the value of the concentration indicated.

A handwritten signature in cursive script, appearing to read 'George Havalias'.

George Havalias  
Laboratory Director



LABORATORY QA/QC REPORT

Client: Thrifty Oil Company  
Project Name: SS# 052  
Method: EPA 8020 (BTEX)  
Sample ID: Matrix Spike  
Concentration: 0.04 mg/Kg

AA ID No.: 88644  
Project No.: N/A  
AA Project No.: A135052-15  
Date Analyzed: 06/01/99  
Date Reported: 06/02/99

Compounds	Result (mg/Kg)	Spike Recovery (%)	Dup. Result (mg/Kg)	Spike/Dup. Recovery (%)	RPD (%)	Accept.Rec. Range (%)
Benzene	0.0387	97.00	0.0387	97.00	0.00	65 - 135
Ethylbenzene	0.0373	93.00	0.0388	97.00	4.21	77 - 123
Toluene	0.0369	92.00	0.0385	96.00	4.26	66 - 134
Xylenes	0.0375	94.00	0.0392	98.00	4.17	73 - 126

George Havalias  
Laboratory Director



LABORATORY QA/QC REPORT

Client: Thrifty Oil Company  
Project Name: SS# 052  
Method: EPA 8015M (Gasoline)  
Sample ID: Matrix Spike  
Concentration: 1 mg/Kg

AA ID No.: 88644  
Project No.: N/A  
AA Project No.: A135052-15  
Date Analyzed: 06/01/99  
Date Reported: 06/02/99

Compounds	Result (mg/Kg)	Spike Recovery (%)	Dup. Result (mg/Kg)	Spike/Dup. Recovery (%)	RPD (%)	Accept.Rec. Range (%)
Gasoline Range Organics	0.98	98	1.02	102	4	51 - 149

  
\_\_\_\_\_  
George Havalias  
Laboratory Director



# AMERICAN ANALYTICS CHAIN-OF-CUSTODY RECORD

9765 ETON AVE., CHATSWORTH, CA 91311

(818) 998-5547

(818) 998-5548

1-800-533-TEST

1-800-533-8378

FAX (818) 998-7258

DATE: 5/27/99

PAGE 1 OF 1

AA Client: <u>Thrifty Oil Co.</u>	Phone: <u>(562) 921-3551</u>	Sampler's Name: <u>Raymond C. Friedrichsen</u>
Project Manager: <u>Ray C. Friedrichsen</u>	P.O. No.	Sampler's Signature: <u>[Signature]</u>
Project Name: <u>TOE SSA# 52</u>	Project No.: <u>52</u>	Project Manager's Signature: <u>[Signature]</u>

Job Name and Address: <u>TOE #52</u> <u>26200 Hesperian Blvd.</u> <u>Hayward, Ca</u>	ANALYSIS REQUIRED	Test Requirements
	Detection Limits	
	Test Name	

AA ID.#	Client's ID.	Date	Time	Sample Type	Number of Containers	EPAS05	EPAS020 MTH	19703 LAD										
88644	6E	5/27/99	AM	Soil	1	X	X											
88645	7E			Soil	1	X	X											
88646	8E			Soil	1	X	X											
88647	8N	5/27/99	AM	Soil	1	X	X											

NOTE: IF MTH IS Detected Confirm with EPA Method 8260-

<b>SAMPLE INTEGRITY-TO BE FILLED IN BY RECEIVING LAB</b>				Relinquished by: <u>[Signature]</u>	Date: <u>5/27/99</u>	Time: <u>0930</u>	Received by: <u>[Signature]</u>
Sample Intact	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Relinquished by: <u>[Signature]</u>	Date: <u>5/28</u>	Time: <u>1030</u>	Received by: <u>[Signature]</u>
Sample Property Cooled	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Relinquished by:	Date:	Time:	Received by:
Sample Accepted	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Relinquished by:	Date:	Time:	Received by:
If Not Why: _____				Relinquished by:	Date:	Time:	Received by:
AA Project No. <u>A135052-15</u>				Relinquished by:	Date:	Time:	Received by: