

THRIFTY OIL CO.

ENVIRONMENTAL
PROTECTION

98 OCT 29 PM 2:32

O.6399

October 22, 1998

Ms. Juliet Shin
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
Status Report

Dear Ms. Shin:

Presented herewith is the Status Quarterly Monitoring Report (4th Quarter 1997 thru 3rd Quarter 1998) for the above referenced site, submitted for your review and files.

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

Sincerely Yours,



Chris Panaitescu
General Manager
Environmental Affairs

c: ARCO
File



THRIFTY OIL CO.

October 22, 1998

Ms. Juliet Shin
Hazardous Materials Specialist
1131 Harbor Bay Parkway
Suite 250
Alameda, Ca 94502-6577

RE: Thrifty Oil Co. Station #052
20200 Hesperian Boulevard
Hayward, Ca
Status Report

Dear Ms. Shin:

Presented herein is the Status Report for the 4th quarter 1997 through 3rd quarters 1998 prepared for Thrifty Oil Station #052 located at 20200 Hesperian Boulevard, Hayward, Ca 91364 (**Figure 1**). Presented in this report are the results of the quarterly groundwater monitoring program conducted during the period from October 22, 1997 through July 8, 1998 by Earth Management Company (EMC).

GROUNDWATER MONITORING

Depth to groundwater is measured in each monitoring well on a quarterly basis. In general, groundwater occurs under water table conditions beneath the station at depths ranging from 8.02 feet bgs in monitoring well MW-1 to 11.20 feet bgs in monitoring well A-7. A groundwater elevation contour map based upon July 8, 1998 data is presented as Figure 1.

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 October 22, 1997, January 28, April 22, and July 8, 1998. Each sample was collected using a 350 cc Teflon 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 volatile organic hydrocarbons by EPA method 8020, and total petroleum hydrocarbons (TPH) by EPA method 8015 modified for gasoline. A summary of historical analytical sampling results are provided in **Table 1**, and copies of the analytical laboratory reports and Chain-of-Custody are contained in **Appendix A**.

Total Petroleum Hydrocarbons (TPH) concentrations above 50 ug/L were reported in a sample




collected from monitoring well MW-2 (78 ug/L). A TPH isoconcentration map is included in **Figure 2**. Benzene concentrations above 1 ug/L was not detected in any of the monitoring wells. This is shown in **Figure 3**. MTBE was detected in monitoring wells MW-1(40 ug/L), and MW-2 (97 ug/L). An MTBE Isoconcentration map is included in **Figure 4**.

CONCLUSIONS


Thrifty Oil Co. has requested closure of this site on August 22, 1998, and due to the results of the recent groundwater sampling event, Thrifty feels that no further action should be required at this site.

All interpretations 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.

Written by:


Raymond C. Friedrichsen
Project Manager
Environmental Geologist

Reviewed by:


Bryan Van Wagner, RG, CHG
Hydrogeologist

FIGURES



PARKING LOT

A-10
30.58

BUILDING

LANDSCAPING

HESPERIAN BOULEVARD

28.18
A-7

LANDSCAPING

30
29.5
29.0
28.5
28.0

PARKING LOT

A-9 27.79

WEST SUNSET DRIVE

28.0

A-6 28.44

28.5

28.27

TREATMENT SYSTEM ENCLOSURE

STATION BUILDING

SB-3

A-5

SB-4

28.48

AR-2

AS-4

AV-4

AS-3

MW-2

27.74

AS-2

AS-5

APARTMENT

PRODUCT ISLANDS

AV-2

AR-1

28.36

AS-6

AS-5

AV-1

SB-2

AS-1

AS-9

AS-8

AV-3

SB-1

AS-7

A-4

28.73

MW-3

28.50

MW-1

29.24

UNDERGROUND FUEL STORAGE TANKS

BUSINESS

A-8

27.90

PARKING LOT

29.0

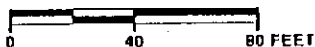
LEGEND

- 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.

SCALE



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

7/8/98

FIGURE:

1

WELL LOCATION MAP



PARKING LOT

A-10
ND



LANDSCAPING

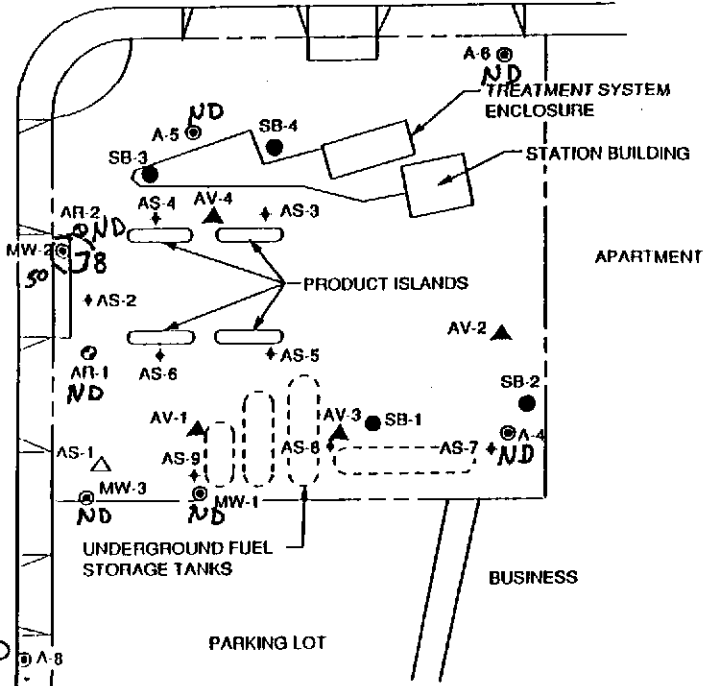
HESPERIAN BOULEVARD

ND
A-7

PARKING LOT

A-9
ND

WEST SUNSET DRIVE

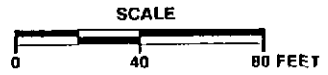


LEGEND

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- AR-1 ● GROUNDWATER EXTRACTION WELL LOCATION AND DESIGNATION
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- AS-1 △ DUAL AIR SPARGE/SOIL VAPOR EXTRACTION WELL LOCATION AND DESIGNATION
- SB-3 ● SOIL BORING LOCATION AND DESIGNATION

TPH ISOCONCENTRATION MAP ug/L

THRIFTY OIL CO.



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

WELL LOCATION MAP

FIGURE:

2



PARKING LOT

⊙ A-10
ND



LANDSCAPING

HESPERIAN BOULEVARD

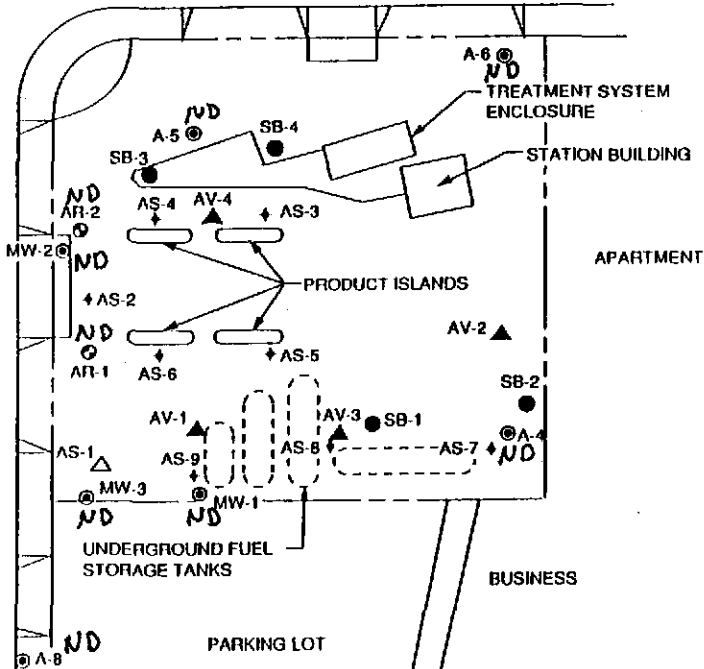
⊙ A-7
ND

LANDSCAPING

PARKING LOT

⊙ A-9
ND

WEST SUNSET DRIVE



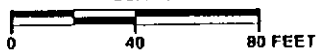
LEGEND

- 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.

SCALE



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

WELL LOCATION MAP

FIGURE:

3



PARKING LOT

A-10
ND



LANDSCAPING

LANDSCAPING

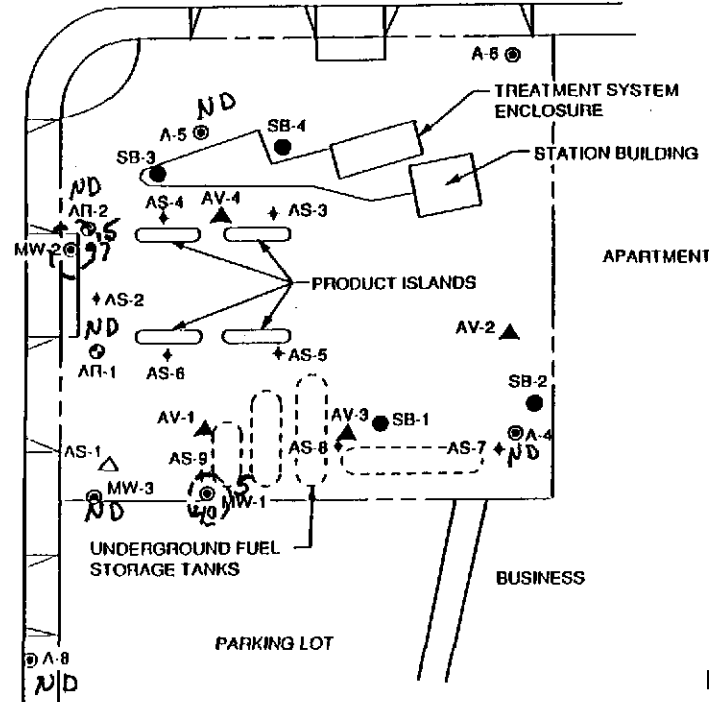
HESPERIAN BOULEVARD

ND
A-7

PARKING LOT

A-9
ND

WEST SUNSET DRIVE

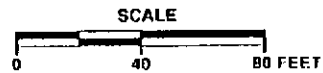


LEGEND

- 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

MTBE ISOCONCENTRATION MAP ug/L

THRIFTY OIL CO.



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

WELL LOCATION MAP

FIGURE:

4

TABLES

**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)					
<i>Monitoring Well AR-1</i>											
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	<0.50	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
<i>Monitoring Well AR-2</i>											
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
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

**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	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
Monitoring Well #MW-1											
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
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

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)
	TFH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
Monitoring Well #MW-2											
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
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
Monitoring Well #MW-3											
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

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)					
04/14/93	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
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
Monitoring Well A-1											
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

**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)					
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
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
Monitoring Well A-5											
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
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

**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)					
<i>Monitoring Well A-6</i>											
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
<i>Monitoring Well A-7</i>											
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

**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)					
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
Monitoring Well A-5											
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

**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)					
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
Monitoring Well A-9											
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
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
Monitoring Well A-10											
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

**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)					
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
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

NOTE:

ND = Nondetectable

NP = No free hydrocarbon product

NS = No sample collected

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



LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Company
Project No.: N/A
Project Name: SS #52
Sample Matrix: Water
Method: EPA 8015M (Gasoline)

AA Project No.: A135052-11
Date Received: 07/13/98
Date Reported: 07/22/98
Units: ~~mg/l~~

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	Results	MRL
73475	A-10	07/08/98	07/15/98	<50	50
73476	A-7	07/08/98	07/15/98	<50	50
73477	A-9	07/08/98	07/15/98	<50	50
73478	A-6	07/08/98	07/15/98	<50	50
73479	A-4	07/08/98	07/15/98	<50	50
73480	A-5	07/08/98	07/15/98	<50	50
73481	AR-2	07/08/98	07/15/98	<50	50
73482	MW-2	07/08/98	07/15/98	78	50
73483	AR-1	07/08/98	07/15/98	<50	50
73484	MW-1	07/08/98	07/15/98	<50	50
73485	MW-3	07/08/98	07/15/98	<50	50
73486	A-8	07/08/98	07/15/98	<50	50
73487	Trip Blank	07/08/98	07/15/98	<50	50

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 #52
Sample Matrix: Water
Method: EPA 8020 (BTEX)

AA Project No.: A135052-11
Date Received: 07/13/98
Date Reported: 07/22/98
Units: ug/L

Date Sampled:	07/08/98	07/08/98	07/08/98	07/08/98	
Date Analyzed:	07/15/98	07/15/98	07/15/98	07/15/98	
AA ID No.:	73475	73476	73477	73478	
Client ID No.:	A-10	A-7	A-9	A-6	MRL
Compounds:					
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 #52
Sample Matrix: Water
Method: EPA 8020 (BTEX)

AA Project No.: A135052-11
Date Received: 07/13/98
Date Reported: 07/22/98
Units: ug/L

Date Sampled:	07/08/98	07/08/98	07/08/98	07/08/98	
Date Analyzed:	07/15/98	07/15/98	07/15/98	07/15/98	
AA ID No.:	73479	73480	73481	73482	
Client ID No.:	A-4	A-5	AR-2	MW-2	MRL
<u>Compounds:</u>					
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 Havallas
Laboratory Director



LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Company
Project No.: N/A
Project Name: SS #52
Sample Matrix: Water
Method: EPA 8020 (BTEX)

AA Project No.: A135052-11
Date Received: 07/13/98
Date Reported: 07/22/98
Units: ug/L

Date Sampled:	07/08/98	07/08/98	07/08/98	07/08/98	
Date Analyzed:	07/15/98	07/15/98	07/15/98	07/15/98	
AA ID No.:	73483	73484	73485	73486	
Client ID No.:	AR-1	MW-1	MW-3	A-8	MRL
Compounds:					
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 Havallas
Laboratory Director



LABORATORY ANALYSIS RESULTS

Page 4

Client: Thrifty Oil Company
Project No.: N/A
Project Name: SS #52
Sample Matrix: Water
Method: EPA 8020 (BTEX)

AA Project No.: A135052-11
Date Received: 07/13/98
Date Reported: 07/22/98
Units: ug/L

Date Sampled:	07/08/98		
Date Analyzed:	07/15/98		
AA ID No.:	73487		
Client ID No.:	Trip Blank		MRL
Compounds:			
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 #52
Sample Matrix: Water
Method: MTBE (EPA 8020)

AA Project No.: A135052-11
Date Received: 07/13/98
Date Reported: 07/22/98
Units: ug/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	Results	MRL
73475	A-10	07/08/98	07/15/98	<5	5
73476	A-7	07/08/98	07/15/98	<5	5
73477	A-9	07/08/98	07/15/98	<5	5
73478	A-6	07/08/98	07/15/98	<5	5
73479	A-4	07/08/98	07/15/98	<5	5
73480	A-5	07/08/98	07/15/98	<5	5
73481	AR-2	07/08/98	07/15/98	<5	5
73482	MW-2	07/08/98	07/15/98	97	5
73483	AR-1	07/08/98	07/15/98	<5	5
73484	MW-1	07/08/98	07/15/98	40	5
73485	MW-3	07/08/98	07/15/98	<5	5
73486	A-8	07/08/98	07/15/98	<5	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 #52
Method: EPA 8020 (BTEX)
Sample ID: Matrix Spike
Concentration: 20 ug/L

AA ID No.: 73475
Project No.: N/A
AA Project No.: A135052-11
Date Analyzed: 07/15/98
Date Reported: 07/22/98

Compounds	Result (ug/L)	Spike Recovery (%)	Dup. Result (ug/L)	Spike/Dup. Recovery (%)	RPD (%)	Accept. Rec. Range (%)
Benzene	29.39	147	28.54	143	3	65 - 135
Ethylbenzene	29.32	147	27.70	139	6	77 - 123
Toluene	29.49	147	28.95	145	1	66 - 134
Xylenes	29.57	148	28.52	143	3	73 - 127

Recovery is very high. What is acceptable range?

George Havalias
Laboratory Director



LABORATORY QA/QC REPORT

Client: Thrifty Oil Company
Project Name: SS #52
Method: EPA 8015M (Gasoline)
Sample ID: Matrix Spike
Concentration: 500 ug/L

AA ID No.: 73475
Project No.: N/A
AA Project No.: A135052-11
Date Analyzed: 07/15/98
Date Reported: 07/22/98

Compounds	Result (ug/L)	Spike Recovery (%)	Dup. Result (ug/L)	Spike/Dup. Recovery (%)	RPD (%)	Accept. Rec. Range (%)
Gasoline Range Organics	600	120	660	132	10	59 - 149

High Recovery

George Havalias
Laboratory Director



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(818) 998-5548

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1-800-533-8378

FAX (818) 998-7258

DATE: 7-09-98

PAGE 1 OF 4

AA Client: T.O.C						Phone: 662/911-3580		Sampler's Name: SERBY R	
Project Manager: JEFF SURVARUSUMA						P.O. No.		Sampler's Signature: [Signature]	
Project Name: Q.W.S.						Project No.		Project Manager's Signature: [Signature]	
Job Name and Address: 20200 HESPERIAN Blvd HAYWARD, CA. 94541- #4052						ANALYSIS REQUIRED			
						Detection Limits			
						Test Name			
						Test Requirements			
AA ID.#	Client's ID.	Date	Time	Sample Type	Number of Containers	TPH	BTEX	MTBE	
73475	A-10	7-09-98	9:00	WATER	3	X	X	X	
73476	A-7	↑	9:10	↑	3	X	X	X	
73477	A-9	↑	9:20	↑	3	X	X	X	
73478	A-6	↑	9:30	↑	3	X	X	X	
73479	A-4	↑	9:35	↑	3	X	X	X	
73480	A-5	↑	9:45	↑	3	X	X	X	
73481	AR-2	↑	9:55	↑	3	X	X	X	
73482	MW-2	↑	10:00	↑	3	X	X	X	
73483	AR-1	↑	10:05	↑	3	X	X	X	
73484	MW-1	↑	10:15	↑	3	X	X	X	
73485	MW-3	↑	10:20	↑	3	X	X	X	
73486	A-8	↑	10:30	↑	3	X	X	X	
73487	TRIP BLANK	↓	7:30	↓	2	X	X		

SAMPLE INTEGRITY-TO BE FILLED IN BY RECEIVING LAB				Relinquished by: [Signature]		Date: 7-13-98	Time: 17:00	Received by: CA. OVERNIGHT	
Samples Intact Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				Relinquished by: CA. OVERNIGHT		Date: 7-13-98	Time: 17:30	Received by: _____	
Samples Properly Cooled Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				Relinquished by: _____		Date: 7/14/98	Time: 1000	Received by: [Signature]	
Samples 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. A/35052-11				Relinquished by: _____		Date: _____	Time: _____	Received by: _____	



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.: A135052-10
Date Received: 04/27/98
Date Reported: 05/15/98
Units: ug/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	Results	MRL
70316	A-10	04/22/98	04/28/98	<50	50
70317	A-7	04/22/98	04/28/98	<50	50
70318	A-9	04/22/98	04/28/98	<50	50
70319	A-6	04/22/98	04/28/98	<50	50
70320	A-4	04/22/98	04/28/98	<50	50
70321	A-5	04/22/98	04/28/98	<50	50
70322	AR-2	04/22/98	04/28/98	<50	50
70323	MW-2	04/22/98	04/28/98	<50	50
70324	AR-1	04/22/98	04/28/98	<50	50
70325	MW-1	04/22/98	04/28/98	<50	50
70326	MW-3	04/22/98	04/28/98	<50	50
70327	A-8	04/22/98	04/28/98	<50	50
70328	Trip Blank	04/22/98	04/28/98	<50	50

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: EPA 8020 (BTEX)

AA Project No.: A135052-10
Date Received: 04/27/98
Date Reported: 05/15/98
Units: ug/L

Date Sampled:	04/22/98	04/22/98	04/22/98	04/22/98	
Date Analyzed:	04/28/98	04/28/98	04/28/98	04/28/98	
AA ID No.:	70316	70317	70318	70319	
Client ID No.:	A-10	A-7	A-9	A-6	MRL
Compounds:					
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.: A135052-10
Date Received: 04/27/98
Date Reported: 05/15/98
Units: ug/L

Date Sampled:	04/22/98	04/22/98	04/22/98	04/22/98	
Date Analyzed:	04/28/98	04/28/98	04/28/98	04/28/98	
AA ID No.:	70320	70321	70322	70323	
Client ID No.:	A-4	A-5	AR-2	MW-2	MRL
Compounds:					
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 Havalas
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.: A135052-10
Date Received: 04/27/98
Date Reported: 05/15/98
Units: ug/L

Date Sampled:	04/22/98	04/22/98	04/22/98	04/22/98	
Date Analyzed:	04/28/98	04/28/98	04/28/98	04/28/98	
AA ID No.:	70324	70325	70326	70327	
Client ID No.:	AR-1	MW-1	MW-3	A-8	MRL
Compounds:					
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.: A135052-10
Date Received: 04/27/98
Date Reported: 05/15/98
Units: ug/L

Date Sampled:	04/22/98	
Date Analyzed:	04/28/98	
AA ID No.:	70328	
Client ID No.:	Trip Blank	
Compounds:		MRL
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: Oxygenates (EPA 8260)

AA Project No.: A135052-10
Date Received: 04/27/98
Date Reported: 05/15/98
Units: mg/L

Date Sampled:	04/22/98	04/22/98	04/22/98	04/22/98	
Date Analyzed:	05/05/98	05/05/98	05/05/98	05/05/98	
AA ID No.:	70316	70317	70318	70319	
Client ID No.:	A-10	A-7	A-9	A-6	MRL
Compounds:					
Di-isopropyl ether	<0.02	<0.02	<0.02	<0.02	0.02
Ethanol	<0.5	<0.5	<0.5	<0.5	0.5
Ethyl tert-Butyl Ether	<0.02	<0.02	<0.02	<0.02	0.02
Methanol	<2	<2	<2	<2	2
Methyl tert-Butyl Ether	<0.02	<0.02	<0.02	<0.02	0.02
Tert-Amyl Methyl Ether	<0.02	<0.02	<0.02	<0.02	0.02
Tert-Butanol	<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: Oxygenates (EPA 8260)

AA Project No.: A135052-10
Date Received: 04/27/98
Date Reported: 05/15/98
Units: mg/L

	04/22/98	04/22/98	04/22/98	04/22/98	
Date Sampled:	04/22/98	04/22/98	04/22/98	04/22/98	
Date Analyzed:	05/05/98	05/05/98	05/05/98	05/05/98	
AA ID No.:	70320	70321	70322	70323	
Client ID No.:	A-4	A-5	AR-2	MW-2	MRL
Compounds:					
Di-isopropyl ether	<0.02	<0.02	<0.02	<0.02	0.02
Ethanol	<0.5	<0.5	<0.5	<0.5	0.5
Ethyl tert-Butyl Ether	<0.02	<0.02	<0.02	<0.02	0.02
Methanol	<2	<2	<2	<2	2
Methyl tert-Butyl Ether	<0.02	<0.02	<0.02	<0.02	0.02
Tert-Amyl Methyl Ether	<0.02	<0.02	<0.02	<0.02	0.02
Tert-Butanol	<0.5	<0.5	<0.5	<0.5	0.5

George Havallas
Laboratory Director



LABORATORY ANALYSIS RESULTS

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

AA Project No.: A135052-10
Date Received: 04/27/98
Date Reported: 05/15/98
Units: mg/L

	04/22/98	04/22/98	04/22/98	04/22/98	
Date Sampled:	04/22/98	04/22/98	04/22/98	04/22/98	
Date Analyzed:	05/05/98	05/05/98	05/05/98	05/05/98	
AA ID No.:	70324	70325	70326	70327	
Client ID No.:	AR-1	MW-1	MW-3	A-8	MRL
Compounds:					
Di-isopropyl ether	<0.02	<0.02	<0.02	<0.02	0.02
Ethanol	<0.5	<0.5	<0.5	<0.5	0.5
Ethyl tert-Butyl Ether	<0.02	<0.02	<0.02	<0.02	0.02
Methanol	<2	<2	<2	<2	2
Methyl tert-Butyl Ether	<0.02	<0.02	<0.02	<0.02	0.02
Tert-Amyl Methyl Ether	<0.02	<0.02	<0.02	<0.02	0.02
Tert-Butanol	<0.5	<0.5	<0.5	<0.5	0.5

MRL: Method Reporting Limit

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

George Havallas
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.: 70325
Project No.: N/A
AA Project No.: A135052-10
Date Analyzed: 04/28/98
Date Reported: 05/15/98

Compounds	Result (ug/L)	Spike Recovery (%)	Dup. Result (ug/L)	Spike/Dup. Recovery (%)	RPD (%)	Accept.Rec. Range (%)
Benzene	19.137	96	20.134	101	5	65 - 135
Ethylbenzene	19.590	98	20.341	102	4	77 - 123
Toluene	19.425	97	20.615	103	6	66 - 134
Xylenes	19.388	97	20.504	103	6	73 - 127

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: 500 ug/L

AA ID No.: 70325
Project No.: N/A
AA Project No.: A135052-10
Date Analyzed: 04/28/98
Date Reported: 05/15/98

Compounds	Result (ug/L)	Spike Recovery (%)	Dup. Result (ug/L)	Spike/Dup. Recovery (%)	RPD (%)	Accept. Rec. Range (%)
Gasoline Range Organics	579	116	526	105	10	59 - 149

George Havalias
Laboratory Director



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FAX (818) 998-7258

DATE: 04-22-98

PAGE 1 OF 4

AA Client THRIFTY OIL COMPANY						Phone 562/921-3580		Sampler's Name SERBAH P.			
Project Manager JEFF SURYAKUSUMA						P.O. No.		Sampler's Signature			
Project Name Q.W.S.						Project No.		Project Manager's Signature			
Job Name and Address 2020 HESPERIAN Blvd - HAYWARD, CA. 94541						ANALYSIS REQUIRED					
						Detection Limits			Test Requirements		
						Test Name					
						T.P.H. BTEX OXIGENATE					
AA ID.#	Client's ID.	Date	Time	Sample Type	Number of Containers						
70316	A-10	04.22.98	12:00	WATER	3	X	X	X			*ANALYSIS REQUIRED FOR OXYGENATE COMPOUNDS USED IN CA. GASOLINE EPA METHOD 8260 1. METHANOL 2. ETHANOL 3. TERTIARY BUTANOL 4. MTBE 5. DIPE 6. ETBE 7. TAME
70317	A-7	↑	12:10	↑	3	X	X	X			
70318	A-9	↑	12:20	↑	3	X	X	X			
70319	A-6	↑	12:30	↑	3	X	X	X			
70320	A-4	↑	12:35	↑	3	X	X	X			
70321	A-5	↑	12:40	↑	3	X	X	X			
70322	AR-2	↑	12:45	↑	3	X	X	X			
70323	MW-2	↑	12:50	↑	3	X	X	X			
70324	AR-1	↑	13:00	↑	3	X	X	X			
70325	MW-1	↑	13:05	↑	3	X	X	X			
70326	MW-3	↑	13:10	↑	3	X	X	X			
70327	A-8	↓	13:15	↓	3	X	X	X			
70328	TRIP BLANK	↓	7:30	↓	2	X	X				
SAMPLE INTEGRITY-TO BE FILLED IN BY RECEIVING LAB						Relinquished by:		Date	Time	Received by: CA-OVERNIGHT	
Samples Intact Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						Relinquished by: CA-OVERNIGHT		Date	Time	Received by:	
Samples Properly Cooled Yes <input type="checkbox"/> No <input type="checkbox"/>						Relinquished by: _____		Date	Time	Received by:	
Samples 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. A135052-10						Relinquished by: _____		Date	Time	Received by:	



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.: A135052-9
Date Received: 01/29/98
Date Reported: 02/13/98
Units: ug/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	Results	MRL
66901	A-7	01/28/98	02/03/98	<50	50
66902	A-9	01/28/98	02/03/98	<50	50
66903	A-6	01/28/98	02/03/98	<50	50
66904	A-4	01/28/98	02/03/98	<50	50
66905	A-5	01/28/98	02/03/98	<50	50
66906	MW-2	01/28/98	02/03/98	<50	50
66907	MW-1	01/28/98	02/03/98	<50	50
66908	MW-3	01/28/98	02/03/98	<50	50
66909	A-8	01/28/98	02/03/98	<50	50
66910	AR-1	01/28/98	02/03/98	<50	50
66911	AR-2	01/28/98	02/03/98	<50	50
66912	Trip Blank	01/28/98	02/03/98	<50	50

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: EPA 8020 (BTEX)

AA Project No.: A135052-9
Date Received: 01/29/98
Date Reported: 02/13/98
Units: ug/L

Date Sampled:	01/28/98	01/28/98	01/28/98	01/28/98	
Date Analyzed:	02/03/98	02/03/98	02/03/98	02/03/98	
AA ID No.:	66901	66902	66903	66904	
Client ID No.:	A-7	A-9	A-6	A-4	MRL
Compounds:					
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.: A135052-9
Date Received: 01/29/98
Date Reported: 02/13/98
Units: ug/L

Date Sampled:	01/28/98	01/28/98	01/28/98	01/28/98	
Date Analyzed:	02/03/98	02/03/98	02/03/98	02/03/98	
AA ID No.:	66905	66906	66907	66908	
Client ID No.:	A-5	MW-2	MW-1	MW-3	MRL
Compounds:					
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

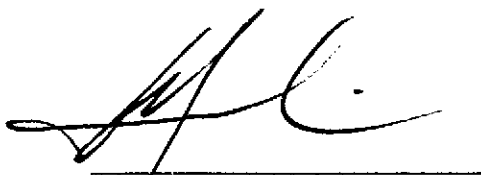
Client: Thrifty Oil Company
Project No.: N/A
Project Name: SS #052
Sample Matrix: Water
Method: EPA 8020 (BTEX)

AA Project No.: A135052-9
Date Received: 01/29/98
Date Reported: 02/13/98
Units: ug/L

	01/28/98	01/28/98	01/28/98	01/28/98	
Date Sampled:	01/28/98	01/28/98	01/28/98	01/28/98	
Date Analyzed:	02/03/98	02/03/98	02/03/98	02/03/98	
AA ID No.:	66909	66910	66911	66912	
Client ID No.:	A-8	AR-1	AR-2	Trip Blank	MRL
Compounds:					
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

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: Oxygenates (EPA 8260)

AA Project No.: A135052-9
Date Received: 01/29/98
Date Reported: 02/13/98
Units: mg/L

Date Sampled:	01/28/98	01/28/98	01/28/98	01/28/98	
Date Analyzed:	02/06/98	02/06/98	02/06/98	02/06/98	
AA ID No.:	66901	66902	66903	66904	
Client ID No.:	A-7	A-9	A-6	A-4	MRL
Compounds:					
Di-isopropyl ether	<0.02	<0.02	<0.02	<0.02	0.02
Ethanol	<0.5	<0.5	<0.5	<0.5	0.5
Ethyl tert-Butyl Ether	<0.02	<0.02	<0.02	<0.02	0.02
Methanol	<2	<2	<2	<2	2
Methyl tert-Butyl Ether	<0.02	<0.02	<0.02	<0.02	0.02
Tert-Amyl Methyl Ether	<0.02	<0.02	<0.02	<0.02	0.02
Tert-Butanol	<0.5	<0.5	<0.5	<0.5	0.5



George Havalias
Laboratory Director



LABORATORY ANALYSIS RESULTS

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

AA Project No.: A135052-9
Date Received: 01/29/98
Date Reported: 02/13/98
Units: mg/L

	01/28/98	01/28/98	01/28/98	01/28/98	
Date Sampled:	01/28/98	01/28/98	01/28/98	01/28/98	
Date Analyzed:	02/06/98	02/06/98	02/06/98	02/06/98	
AA ID No.:	66905	66906	66907	66908	
Client ID No.:	A-5	MW-2	MW-1	MW-3	MRL
<u>Compounds:</u>					
Di-isopropyl ether	<0.02	<0.02	<0.02	<0.02	0.02
Ethanol	<0.5	<0.5	<0.5	<0.5	0.5
Ethyl tert-Butyl Ether	<0.02	<0.02	<0.02	<0.02	0.02
Methanol	<2	<2	<2	<2	2
Methyl tert-Butyl Ether	<0.02	<0.02	<0.02	<0.02	0.02
Tert-Amyl Methyl Ether	<0.02	<0.02	<0.02	<0.02	0.02
Tert-Butanol	<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: Oxygenates (EPA 8260)

AA Project No.: A135052-9
Date Received: 01/29/98
Date Reported: 02/13/98
Units: mg/L

	01/28/98	01/28/98	01/28/98	
Date Sampled:	01/28/98	01/28/98	01/28/98	
Date Analyzed:	02/06/98	02/06/98	02/06/98	
AA ID No.:	66909	66910	66911	
Client ID No.:	A-8	AR-1	AR-2	MRL
Compounds:				
Di-isopropyl ether	<0.02	<0.02	<0.02	0.02
Ethanol	<0.5	<0.5	<0.5	0.5
Ethyl tert-Butyl Ether	<0.02	<0.02	<0.02	0.02
Methanol	<2	<2	<2	2
Methyl tert-Butyl Ether	<0.02	<0.02	<0.02	0.02
Tert-Amyl Methyl Ether	<0.02	<0.02	<0.02	0.02
Tert-Butanol	<0.5	<0.5	<0.5	0.5

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.: 66901
Project No.: N/A
AA Project No.: A135052-9
Date Analyzed: 02/03/98
Date Reported: 02/13/98

Compounds	Result (ug/L)	Spike Recovery (%)	Dup. Result (ug/L)	Spike/Dup. Recovery (%)	RPD (%)	Accept.Rec. Range (%)
Benzene	18.65	93	18.49	92	1	65 - 135
Ethylbenzene	19.04	95	19.00	95	0	77 - 123
Toluene	19.77	99	19.03	95	4	66 - 134
Xylenes	19.06	95	18.67	93	2	73 - 127



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: 500 ug/L

AA ID No.: 66901
Project No.: N/A
AA Project No.: A135052-9
Date Analyzed: 02/03/98
Date Reported: 02/13/98

Compounds	Result (ug/L)	Spike Recovery (%)	Dup. Result (ug/L)	Spike/Dup. Recovery (%)	RPD (%)	Accept. Rec. Range (%)
Gasoline Range Organics	560	112	560	112	0	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: 01-28-98
PAGE 1 of 4

AA Client THRIFTY OIL COMPANY						Phone (362) 421-3580		Sampler's Name SERBAN P-		
Project Manager JEFF SURYAKUSUMA						P.O. No.		Sampler's Signature <i>[Signature]</i>		
Project Name Q.W.S.						Project No.		Project Manager's Signature		
Job Name and Address 25# 052 2020 HESPERIAN BLVD, HAYWARD 94541						ANALYSIS REQUIRED				
						Detection Limits				
						Test Name				
						Test Requirements				
AA ID.#	Client's ID.	Date	Time	Sample Type	Number of Containers	TPX	BTEX	*OXYGENATE		
66901	A-7	01.28.98	16:30	WATER	3	X	X	X	*ANALYSIS REQUIRED FOR OXYGENATE COMPOUNDS USED IN CA. GASOLINE EPA METHOD 8260 1. METHANOL 2. ETHANOL 3. TERTIARY BUTANOL 4. MTBE 5. DIPE 6. ETBE 7. TAME	
66902	A-9	↑	16:40	↑	3	X	X	X		
66903	A-6	↑	16:50	↑	3	X	X	X		
66904	A-4	↑	16:55	↑	3	X	X	X		
66905	A-5	↑	17:00	↑	3	X	X	X		
66906	MW-2	↑	17:10	↑	3	X	X	X		
66907	MW-1	↑	17:15	↑	3	X	X	X		
66908	MW-3	↑	17:20	↑	3	X	X	X		
66909	A-8	↑	17:25	↑	3	X	X	X		
66910	AR-1	↑	17:30	↑	3	X	X	X		
66911	AR-2	↑	17:35	↑	3	X	X	X		
66912	TRIP BLANK	↓	7:30	↓	2	X	X			
SAMPLE INTEGRITY-TO BE FILLED IN BY RECEIVING LAB						Relinquished by: <i>[Signature]</i>		Date	Time	Received by:
Samples Intact Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						Relinquished by: CA-OVERNIGTE		01.29.98	17:00	CA-OVERNITE
Samples Properly Cooled Yes <input type="checkbox"/> No <input type="checkbox"/>						Relinquished by:		01.29.98	17:30	<i>[Signature]</i>
Samples Accepted Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						Relinquished by:				
If Not Why: _____						Relinquished by:				
AA Project No. 1135052-9						Relinquished by:				



LABORATORY ANALYSIS RESULTS

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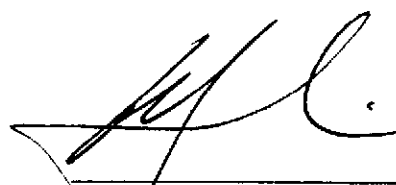
Client: Thrifty Oil Company
Project No.: N/A
Project Name: SS #052
Sample Matrix: Water
Method: EPA 8015M (Gasoline)

AA Project No.: A135052-8
Date Received: 10/24/97
Date Reported: 11/06/97
Units: ug/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	Results	MRL
63767	A-7	10/22/97	10/28/97	<50	50
63768	A-9	10/22/97	10/28/97	<50	50
63769	A-6	10/22/97	10/28/97	<50	50
63770	A-4	10/22/97	10/28/97	<50	50
63771	A-5	10/22/97	10/28/97	<50	50
63772	MW-2	10/22/97	10/28/97	<50	50
63773	MW-1	10/22/97	10/28/97	<50	50
63774	MW-3	10/22/97	10/28/97	<50	50
63775	A-8	10/22/97	10/28/97	<50	50
63776	AR-1	10/22/97	10/28/97	<50	50
63777	AR-2	10/22/97	10/28/97	<50	50
63778	Trip Blank	10/22/97	10/28/97	<50	50

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 8015M (Gasoline)
Sample ID: Matrix Spike
Concentration: 500 ug/L

AA ID No.: 63751
Project No.: N/A
AA Project No.: A135052-8
Date Analyzed: 10/28/97
Date Reported: 11/06/97

Compounds	Result (ug/L)	Spike Recovery (%)	Dup. Result (ug/L)	Spike/Dup. Recovery (%)	RPD (%)	Accept. Rec. Range (%)
Gasoline Range Organics	555	111	553	111	0	59 - 149



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.: A135052-8
Date Received: 10/24/97
Date Reported: 11/06/97
Units: ug/L

	10/22/97	10/22/97	10/22/97	10/22/97	
Date Sampled:	10/22/97	10/22/97	10/22/97	10/22/97	
Date Analyzed:	10/28/97	10/28/97	10/28/97	10/28/97	
AA ID No.:	63767	63768	63769	63770	
Client ID No.:	A-7	A-9	A-6	A-4	MRL
<u>Compounds:</u>					
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.: A135052-8
Date Received: 10/24/97
Date Reported: 11/06/97
Units: ug/L

Date Sampled:	10/22/97	10/22/97	10/22/97	10/22/97	
Date Analyzed:	10/28/97	10/28/97	10/28/97	10/28/97	
AA ID No.:	63771	63772	63773	63774	
Client ID No.:	A-5	MW-2	✓ MW-1	✓ MW-3	MRL
Compounds:					
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.: A135052-8
Date Received: 10/24/97
Date Reported: 11/06/97
Units: ug/L

Date Sampled:	10/22/97	10/22/97	10/22/97	10/22/97	
Date Analyzed:	10/28/97	10/28/97	10/28/97	10/28/97	
AA ID No.:	63775	63776	63777	63778	
Client ID No.:	A-8	AR-1	AR-2	Trip Blank	MRL
Compounds:					
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

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.: 63751
Project No.: N/A
AA Project No.: A135052-8
Date Analyzed: 10/28/97
Date Reported: 11/06/97

Compounds	Result (ug/L)	Spike Recovery (%)	Dup. Result (ug/L)	Spike/Dup. Recovery (%)	RPD (%)	Accept. Rec. Range (%)
Benzene	19.275	96	19.351	97	1	65 - 135
Ethylbenzene	20.457	102	20.221	101	1	77 - 123
Toluene	20.218	101	20.077	100	1	66 - 134
Xylenes	19.348	97	19.483	97	0	73 - 127



George Havallas
Laboratory Director




LABORATORY ANALYSIS RESULTS

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

AA Project No.: A135052-8
Date Received: 10/24/97
Date Reported: 11/17/97
Units: mg/L

	10/22/97	10/22/97	10/22/97	10/22/97	
Date Sampled:	10/22/97	10/22/97	10/22/97	10/22/97	
Date Analyzed:	10/29/97	10/29/97	10/29/97	10/29/97	
AA ID No.:	63767	63768	63769	63770	
Client ID No.:	A-7	A-9	A-6	A-4	MRL
Compounds:					
Di-isopropyl ether	<0.02	<0.02	<0.02	<0.02	0.02
Ethanol	<0.5	<0.5	<0.5	<0.5	0.5
Ethyl tert-Butyl Ether	<0.02	<0.02	<0.02	<0.02	0.02
Methanol	<2	<2	<2	<2	2
Methyl tert-Butyl Ether	<0.02	<0.02	<0.02	<0.02	0.02
Tert-Amyl Methyl Ether	<0.02	<0.02	<0.02	<0.02	0.02
Tert-Butanol	<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: Oxygenates (EPA 8260)

AA Project No.: A135052-8
Date Received: 10/24/97
Date Reported: 11/17/97
Units: mg/L

	10/22/97	10/22/97	10/22/97	10/22/97	
Date Sampled:	10/22/97	10/22/97	10/22/97	10/22/97	
Date Analyzed:	10/29/97	10/29/97	10/29/97	10/29/97	
AA ID No.:	63771	63772	63773	63774	
Client ID No.:	A-5	MW-2	MW-1	MW-3	MRL
Compounds:					
Di-isopropyl ether	<0.02	<0.02	<0.02	<0.02	0.02
Ethanol	<0.5	<0.5	<0.5	<0.5	0.5
Ethyl tert-Butyl Ether	<0.02	<0.02	<0.02	<0.02	0.02
Methanol	<2	<2	<2	<2	2
Methyl tert-Butyl Ether	<0.02	<0.02	<0.02	<0.02	0.02
Tert-Amyl Methyl Ether	<0.02	<0.02	<0.02	<0.02	0.02
Tert-Butanol	<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: Oxygenates (EPA 8260)

AA Project No.: A135052-8
Date Received: 10/24/97
Date Reported: 11/17/97
Units: mg/L

Date Sampled:	10/22/97	10/22/97	10/22/97	
Date Analyzed:	10/29/97	10/29/97	10/29/97	
AA ID No.:	63775	63776	63777	
Client ID No.:	A-8	AR-1	AR-2	MRL
Compounds:				
Di-isopropyl ether	<0.02	<0.02	<0.02	0.02
Ethanol	<0.5	<0.5	<0.5	0.5
Ethyl tert-Butyl Ether	<0.02	<0.02	<0.02	0.02
Methanol	<2	<2	<2	2
Methyl tert-Butyl Ether	<0.02	<0.02	<0.02	0.02
Tert-Amyl Methyl Ether	<0.02	<0.02	<0.02	0.02
Tert-Butanol	<0.5	<0.5	<0.5	0.5

MRL: Method Reporting Limit

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



George Havallas
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: 10-23-97

PAGE 1 OF 4

AA Client THRIFTY OIL COMPANY	Phone (562) 921-3581	Sampler's Name SERRA D.
Project Manager Jeff Suryakusuma	P.O. No.	Sampler's Signature <i>[Signature]</i>
Project Name Q.W.S.	Project No.	Project Manager's Signature

Job Name 35# 052	ANALYSIS REQUIRED	Test Requirements
Job Name and Address 20200 HESPERIAN Blvd - HAYWARD, CA. 94541		

AA ID.#	Client's ID.	Date	Time	Sample Type	Number of Containers	TPH	BTEX	OXYGENATE	Test Name
63767	A-7	10.22.97	13:00	WATER	3	X	X	X	*ANALYSIS REQUIRED FOR OXYGENATE COMPOUNDS USED IN CA. GASOLINE EPA METHOD 8260 1 METHANOL 2 ETHANOL 3 TERTIARY BUTANOL 4 MTBE 5 DIPE 6 ETBE 7 TAME
63768	A-9	↑	13:10	↑	3	X	X	X	
63769	A-6	↑	13:15	↑	3	X	X	X	
63770	A-4	↑	13:20	↑	3	X	X	X	
63771	A-5	↑	13:30	↑	3	X	X	X	
63772	MW-2	↑	13:35	↑	3	X	X	X	
63773	MW-1	↑	13:40	↑	3	X	X	X	
63774	MW-3	↑	13:45	↑	3	X	X	X	
63775	A-8	↑	13:50	↑	3	X	X	X	
63776	AR-1	↑	14:00	↑	3	X	X	X	
63777	AR-2	↓	14:10	↓	3	X	X	X	
63778	TRIP BLANK	↓	7:30	↓	3	X	X		

SAMPLE INTEGRITY-TO BE FILLED IN BY RECEIVING LAB 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 checked="" type="checkbox"/> No <input type="checkbox"/> If Not Why: _____	Relinquished by: <i>[Signature]</i>	Date 10.24.97	Time 17:00	Received by: CA. OVERNIGHT
	Relinquished by: CA. OVERNIGHT	Date 10.24.97	Time 17:30	Received by:
	Relinquished by:	Date 10/24/97	Time 10:00	Received by: <i>[Signature]</i>
	Relinquished by:	Date	Time	Received by:

AA Project No. **A135052-8**