

THRIFTY OIL CO.

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HAZMAT
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November 26, 1993

Mr. Scott O. Seary
Alameda County
Department of Environmental Health
Hazardous Materials Program
80 Swan Way, Room 200
Oakland, California 94621

RE: Thrifty Oil Co. Station #054
2504 Castro Valley Boulevard
Castro Valley, California
3rd. QUARTER REPORT, 1993

Dear Mr. Seary,

This letter report presents the results of soil/groundwater treatment and site monitoring during the 3rd. quarter of 1993 at the subject site. The approximate location of the on- and off-site monitoring wells are shown on **Figure 1**. The engine of the RSI unit was replaced and was operational the first week in May, 1993. All monitoring is conducted by Earth Management Co. (EMC).

Site Monitoring and Sample Collection

The site was visited on September 14, 1993, by an EMC technician in order to gauge the wells and collect groundwater samples. Water levels were measured in each well from the rim of well cover using a Marine Moisture Tape (nearest 0.01 feet) capable of also measuring the presence of free floating hydrocarbons. *Depth to water* ranged from about 2.81 to 11.33 feet below grade which is consistent with previous data collected, indicating only a slight rise. As of September 14, 1993, none of the twelve wells exhibited noticeable floating product. The depth to water data was used in conjunction with the recent survey data to determine groundwater elevations across the site. The interpretation of groundwater flow across the site is depicted on **Figure 1**. In general, the groundwater flow was to the east with local pumping depressions noted near RE-4 and RE-7.

Prior to collecting groundwater samples from the wells, about 4 well volumes of groundwater was removed using a PVC bailer. No samples were collected from the recovery wells RE-4 and RE-7. During the purging process, the pH, conductivity and temperature were checked and recorded to insure formation water was entering the well to be sampled. About 7 to 34 gallons of water were removed from each well and stored in 55 gallon D.O.T approved drums pending



disposal or discharge through the treatment unit. Groundwater samples were collected with a Teflon bailer. Samples were maintained and transported in 40 milliliter vials placed on ice pending delivery to Smith-Emery, a state certified analytical laboratory headquartered in Los Angeles, California. Field monitoring sheets prepared by EMC personnel are included in **Appendix A**.

Analytical Results

Groundwater samples were analyzed for total hydrocarbons (TPH) and volatile aromatic compounds (BETX) using EPA methods 8015 and 8020, respectively. Copies of the laboratory analysis reports are attached in **Appendix B**. A summary of the results are presented in **Table 1**. The two down-gradient wells, RS-8 and RS-10 continue to indicate less than detectable or acceptable levels of volatile aromatic compounds. Iso-concentration maps of TPH and benzene based on the June sampling event are presented as **Figures 2 and 3**.

In addition, the inlet and outlet to the treatment unit was sampled on August 23, 1993. Analytical results indicated 18 mg/L TPH in the inlet and BETX concentrations ranged from less than 5 ug/L to 5200 ug/L. ~~TPH and BETX~~ was not detected in the outlet.

Treatment Unit Operation Status

Based on the data obtained by EMC, the RSI-SAVE unit operated 631 hours during the reporting period and 5840 hours total. A total of about 3023 gallons of water has been processed by the unit and discharged to the local sanitary sewer to date, September 28, 1993. During this reporting period, a total of 351 gallons of water was processed.

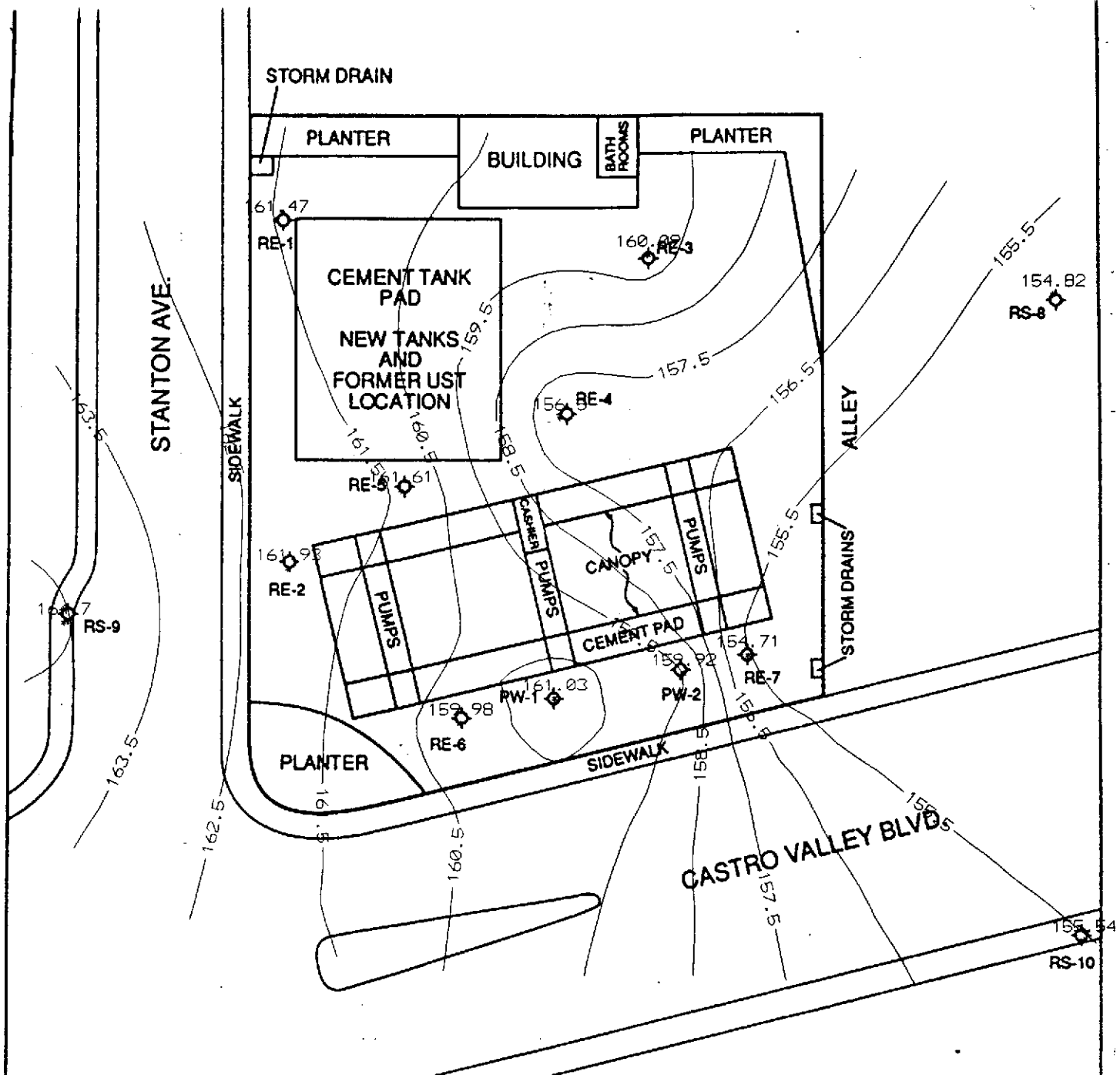
Closing

Thrifty will continue to conduct quarterly groundwater monitoring at the site. If you have any questions please contact me at (310) 923-9876.

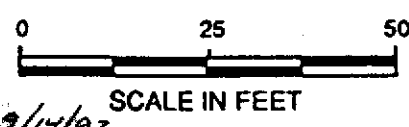
Very truly yours,



Peter D'Amico
Manager
Environmental Affairs



SITE PLAN II
THRIFTY OIL CO. #054
CASTRO VALLEY, CALIFORNIA
 Prepared for
THRIFTY OIL CO.
DOWNEY, CALIFORNIA

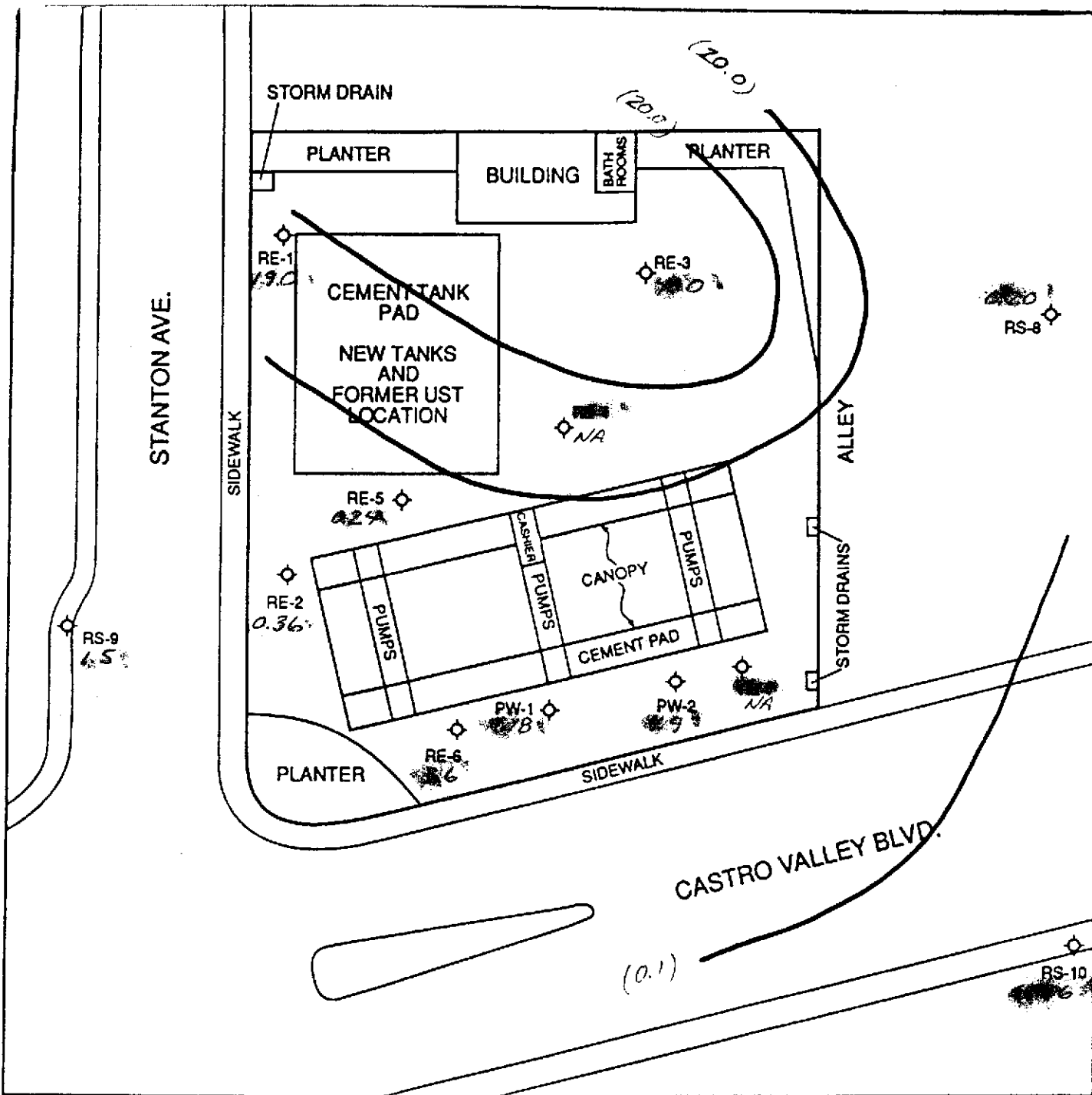


1. GROUNDWATER CONTOUR, 9/14/93

◊ EXISTING MONITORING WELL

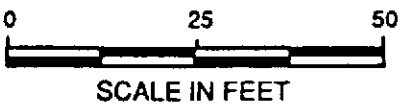


FIGURE 1



TPH 150-CON. MAP 9/14/93

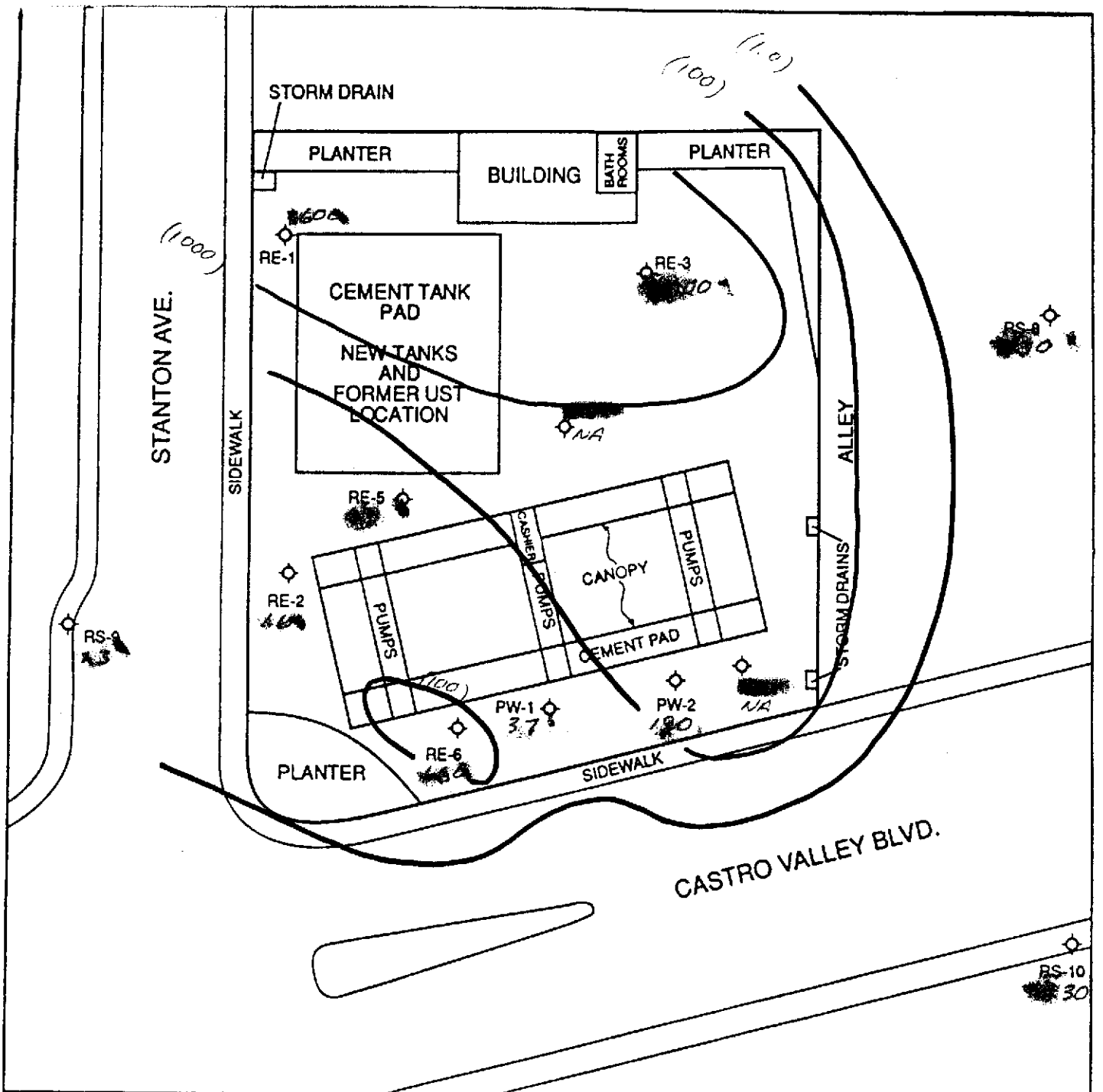
THRIFTY OIL CO. #054
 CASTRO VALLEY, CALIFORNIA
 Prepared for
 THRIFTY OIL CO.
 DOWNEY, CALIFORNIA



- (- TPH 150-CON, ppb
- NA - NO ANALYSIS, RECOVERY WELL
- ◊ EXISTING MONITORING WELL



FIGURE 2



THRIFTY OIL CO. #054
 CASTRO VALLEY, CALIFORNIA
 Prepared for
 THRIFTY OIL CO.
 DOWNEY, CALIFORNIA



◊ EXISTING MONITORING WELL



FIGURE 3

Table 1 - Summary of Analytical Results

I.D	Date	D-Wat	TPH	Benzene	Toluene	E-Benzene	Xylenes
PW-1 (166.46)	4/11/88	--	NSC				
	4/09/90	5.10	230000	600	2700	1000	16000
	10/30/90	6.17	35000	240	970	240	3580
	1/18/91	6.28	37000	43	140	42	1600
	2/12/91	5.88	45000	99	130	25	700
	3/20/91	4.75	1900	0.43	ND	ND	2.8
	5/22/91	5.10	41000	600	730	250	3800
	6/19/91	5.61	NSC				
	7/17/91	5.53(Film)	NSC				
	8/07/91	5.67(Film)	NSC				
	9/24/91	5.57(Film)	NSC				
	10/23/91	6.53(Film)	NSC				
	11/06/91	5.85(Film)	NSC				
	12/04/91	5.91(Film)	NSC				
	1/29/92	5.43(Film)	NSC				
	2/26/92	5.54(Film)	NSC				
	3/19/92	5.47	ND	ND	ND	ND	ND
	4/22/92	5.62(Film)	NSC				
	5/21/92	6.21	1300	19	2.9	0.7	58
	6/25/92	6.94	NSC				
	7/30/92	5.90(Film)	NSC				
	8/20/92	7.12(Film)	NSC				
	9/30/92	6.42	3400	57	ND	26	240
	12/23/92	5.56(Film)	NSC				
	3/10/93	5.65(Film)	NSC				
	6/09/93	5.30	400	<0.5	1.1	<1.0	<1.0
	09/14/93	5.43	180	3.7	3.2	1.5	14.0
PW-2 (166.18)	4/11/88	--	NSC				
	4/09/90	5.81	600000	1300	11000	4600	43000
	10/30/90	6.95	48000	310	51	10	480
	1/18/91	6.92	86000	230	1400	350	8300
	2/12/91	6.78	160000	680	1300	250	7000
	3/20/91	5.54	17000	34	50	ND	1100
	5/22/91	6.07	14000	57	2100	500	8200
	6/19/91	6.37(Film)	NSC				
	7/17/91	6.38(Film)	NSC				
	8/07/91	6.63(Film)	NSC				
	9/24/91	6.42(Film)	NSC				
	10/23/91	7.25(Film)	NSC				
	11/06/91	6.44(Film)	NSC				
	12/04/91	6.65(Film)	NSC				
	1/29/92	6.17(Film)	NSC				
	2/26/92	5.90(Film)	NSC				
	3/19/92	5.80(Film)	NSC				
	4/22/92	5.88(Film)	NSC				
	5/21/92	6.03(Film)	NSC				
	6/25/92	6.57(Film)	NSC				
	7/30/92	6.20(Film)	NSC				
	8/20/92	6.64(Film)	NSC				
	9/30/92	6.88(Film)	NSC				
	12/23/92	6.08(Film)	NSC				
	3/10/93	5.95(Film)	NSC				
	6/09/93	5.38	3400	24	2.2	<0.5	240
	09/14/93	6.26	4900	190	15.0	6.8	480

Results reported in micrograms per liter (ug/L)

- NA - Not Analyzed.
- TPH - Total Petroleum Hydrocarbons as gasoline.
- D-Wat - Depth to Water.
- NSC - No sample collected due to film or sheen of liquid phase hydrocarbons.

Table 1(CONT.) - Summary of Analytical Results

I.D	Date	D-Wat	TPH	Benzene	Toluene	E-Benzene	Xylenes	
RE-1 (166.82)	4/11/88	--	37000	1900	8400	1200	15000	
	4/09/90	4.99	45000	6100	7000	2000	8800	
	10/30/90	5.95	72000	7700	5300	1800	8900	
	1/18/91	5.17	150000	11000	14000	1800	4300	
	2/12/91	4.16	140000	11000	12000	1600	13000	
	3/20/91	4.75	53000	3100	4200	400	5500	
	5/22/91	4.42	85000	8700	10000	1800	12000	
	6/19/91	4.93	110000	8500	9600	2600	16000	
	7/17/91	5.19	5500	950	ND	26	ND	
	8/07/91	5.12	NA	6700	5000	ND	7100	
	9/24/91	5.87	60000	6800	4300	640	6900	
	10/23/91	5.81	79000	7900	8300	450	7100	
	11/06/91	5.56	130000	14000	15000	1100	8800	
	12/04/91	5.35	50000	8000	4700	520	4100	
	1/29/92	4.50	21000	10300	11000	780	6000	
	2/26/92	5.27	38000	8400	10500	720	7100	
	3/19/92	4.47	48000	6200	9700	780	7200	
	4/22/92	4.62	NSC					
	5/21/92	4.98	20000	7600	10100	830	6900	
	6/25/92	5.14(Film)	NSC					
	7/30/92	5.30(Film)	NSC					
	8/20/92	5.28(Film)	NSC					
	9/30/92	5.66(Film)	NSC					
12/23/92	4.81(Film)	NSC						
3/10/93	4.13(Film)	NSC						
6/09/93	4.48(Film)	NSC						
09/14/93	5.35	19000	3600	1100	740	4300		
RE-2 (167.19)	4/11/88	--	NSC					
	4/09/90	4.90	850	5.8	0.5	4.8	1.1	
	10/30/90	5.34	440	2.8	0.91	13	3.14	
	1/18/91	4.90	1100	8.4	3.1	ND	10	
	2/12/91	4.94	1100	5.9	ND	0.77	ND	
	3/20/91	4.32	550	4.3	ND	ND	ND	
	5/22/91	4.43	1000	5.3	3.6	4.4	8.9	
	6/19/91	6.43	700	2.1	1.4	3.8	3.5	
	7/17/91	4.75	880	12.0	8.0	4.3	28.0	
	8/07/91	4.87	NA	3.8	1.6	ND	ND	
	9/24/91	5.50	670	7.2	7.1	ND	23	
	10/23/91	5.63	2700	52	60	22	130	
	11/06/91	5.14	1900	18	61	9.1	83	
	12/04/91	5.26	1100	26	47	4.3	42	
	1/29/92	5.11	900	14	24	5.3	19	
	2/26/92	4.31	500	3.4	3.5	2.7	2.7	
	3/19/92	4.45	1200	14	20	15	18	
	4/22/92	4.78	200	ND	ND	ND	ND	
	5/21/92	5.02	500	7.5	6.8	3.9	7.4	
	6/25/92	5.13	ND	ND	0.9	0.7	ND	
	7/30/92	5.19	500	7.7	8.6	3.2	1.7	
	8/20/92	5.27	1100	6.6	4.5	2.7	2.0	
	9/30/92	5.45	500	5.4	2.4	1.8	4.5	
12/23/92	4.60	800	1.9	ND	ND	2.3		
3/10/93	4.18	1200	ND	1.4	ND	2.1		
6/09/93	4.53	200	ND	ND	ND	ND		
09/14/93	5.26	360	1.6	1.1	3.2	8.9		

Results reported in micrograms per liter (ug/L)

- NA - Not Analyzed.
- TPH - Total Petroleum Hydrocarbons as gasoline.
- D-Wat - Depth to Water.
- NSC - No sample collected due to film or sheen of liquid phase hydrocarbons.

Table 1 (CONT.) - Summary of Analytical Results

I.D.	Date	D-Wat	TPH	Benzene	Toluene	Ethyl-Benzene	Xylenes
RE-3 (167.39)	4/11/88	--	70000	6600	5300	800	13000
	4/09/90	7.15	370000	2300	4900	3200	31000
	10/30/90	7.84	13000	860	660	220	2210
	1/18/91	6.90	42000	4700	4500	21	7700
	2/12/91	6.62	72000	3600	4500	ND	7600
	3/20/91	5.87	65000	2400	9400	50	9800
	5/22/91	5.98(Film)	NSC				
	6/19/91	6.84(Film)	NSC				
	7/17/91	7.10(Film)	NSC				
	8/07/91	7.30(Film)	NSC				
	9/24/91	7.84(Film)	NSC				
	10/23/91	8.07(Film)	NSC				
	11/06/91	7.63(Film)	NSC				
	12/04/91	7.83(Film)	NSC				
	1/29/92	7.17(Film)	NSC				
	2/26/92	5.56(Film)	NSC				
	3/19/92	5.44(Film)	NSC				
	4/22/92	6.56(Film)	NSC				
	5/21/92	6.90(Film)	NSC				
	6/25/92	7.18(Film)	NSC				
7/30/92	6.80(Film)	NSC					
8/20/92	7.25(Film)	NSC					
9/30/92	7.68(Film)	NSC					
12/23/92	6.07(Film)	NSC					
3/10/93	5.66(Film)	NSC					
6/10/93	6.66(Film)	NSC					
09/14/93	7.30	40000	2900	1500	180	6900	
RE-4 (166.94)	4/11/88	--	150000	12000	8000	1000	27000
	4/09/90	--	NSC				
	10/30/90	7.04	87000	7200	10000	1600	12900
	1/18/91	11.62	70000	5000	5400	790	9900
	2/12/91	11.63	87000	5200	2800	240	11000
	3/20/91	11.61	6500	370	230	17	870
	5/22/91	10.3(Film)	NSC				
	6/19/91	11.1(Film)	NSC				
	7/17/91	6.20(Film)	NSC				
	8/07/91	8.15(Film)	NSC				
	9/24/91	10.4(Film)	NSC				
	10/23/91	11.2(Film)	NSC				
	11/06/91	6.62(Film)	NSC				
	12/04/91	11.2(Film)	NSC				
	1/29/92	7.72(Film)	NSC				
	2/26/92	5.13(Film)	NSC				
	3/19/92	5.00(Film)	NSC				
	4/22/92	5.94(Film)	NSC				
	5/21/92	5.40(Film)	NSC				
	6/25/92	5.71(0.02)	NSC				
7/30/92	6.33(Film)	NSC					
8/20/92	5.80(Film)	NSC					
9/30/92	6.34(Film)	NSC					
12/23/92	5.50(Film)	NSC					
3/10/93	4.67(Film)	NSC					
6/09/93	5.12(Film)	NSC					
09/14/93	10.44	NSC					

Results reported in micrograms per liter (ug/L)

- NA - Not Analyzed.
- TPH - Total Petroleum Hydrocarbons as gasoline.
- D-Wat - Depth to Water.
- NSC - No sample collected due to film or sheen of liquid phase hydrocarbons.

Table 1 (CONT.) - Summary of Analytical Results

I.D	Date	D-Wat	TPH	Benzene	Toluene	Ethyl-Benzene	Xylenes
RE-5 (166.51)	4/11/88	--	14000	1300	1100	100	2600
	4/09/90	4.79	3000	690	190	40	270
	10/30/90	5.86	3400	910	48	87	249
	1/18/91	4.40	1400	180	8.6	0.52	48
	2/12/91	4.76	1000	ND	ND	0.65	ND
	3/20/91	5.08	3000	250	53	ND	110
	5/22/91	4.52	2500	330	7.8	5.6	200
	6/19/91	4.39	2000	59	1.6	5.1	110
	7/17/91	5.05(Film)	NSC				
	8/07/91	5.02(Film)	NSC				
	9/24/91	5.86(Film)	NSC				
	10/23/91	5.84(Film)	NSC				
	11/06/91	5.48	9900	2300	37	260	160
	12/04/91	5.43	4500	1000	27	ND	180
	1/29/92	5.12	600	6.1	2.3	ND	47
	2/26/92	4.93	500	5.4	2.7	1.2	14
	3/19/92	4.45	ND	1.7	1.1	ND	5.5
	4/22/92	4.63	1600	240	2.2	ND	160
	5/21/92	4.90	1200	410	37	ND	118
	6/25/92	5.15	ND	1.0	0.8	0.8	0.4
	7/30/92	5.30	ND	2.0	1.8	1.9	6.4
	8/20/92	5.44	300	1.7	3.3	0.7	12
	9/30/92	5.73	1900	140	ND	19	35
	12/23/92	4.75	400	8.0	ND	ND	ND
	3/10/93	4.14	1100	290	9.7	ND	75
	6/09/93	5.42	400	1.5	0.5	ND	12
	09/14/93	5.53	240	6.9	8.8	1.4	67
	RE-6 (166.51)	4/11/88	--	6000	3000	40	80
4/09/90		5.64	3000	990	ND	70	ND
10/30/90		6.68	3400	1000	28	ND	ND
1/18/91		6.61	6300	1200	ND	3	15
2/12/91		6.20	5200	850	8.4	4.9	41
3/20/91		5.62	5800	680	12	8	16
5/22/91		6.05	8500	1700	14	24	6.7
6/19/91		6.12(Film)	NSC				
7/17/91		6.20	12000	9300	13000	2400	16000
8/07/91		6.27	NA	590	5.3	ND	14
9/24/91		6.63	7000	310	11	5.3	35
10/23/91		6.36(Film)	NSC				
11/06/91		6.15	4000	710	18	29	49
12/04/91		6.19	4100	1100	14	33	39
1/29/92		6.70	2600	790	14	ND	49
2/26/92		5.44	3100	950	21	30	33
3/19/92		5.30	2200	630	14	12	40
4/22/92		6.00	NA	730	2.2	ND	40
5/21/92		6.25	1500	840	7.8	7.1	34
6/25/92		6.38	<2000	740	8	27	28
7/30/92		6.42(Film)	NSC				
8/20/92		6.50	2800	630	17	23	22
9/30/92		6.66	7800	540	ND	12	29
12/23/92		5.83	1800	350	ND	7.7	11
3/10/93		5.63	3000	830	5.6	19	16
6/09/93		6.01	4800	920	6.2	3.2	12
09/14/93		6.53	3600	660	7.5	11	27

Results reported in micrograms per liter (ug/L)

- NA - Not Analyzed.
- TPH - Total Petroleum Hydrocarbons as gasoline.
- D-Wat - Depth to Water.
- NSC - No sample collected due to film or sheen of liquid phase hydrocarbons.

Table 1 (CONT.) - Summary of Analytical Results

I.D	Date	E-Wat	TPH	Benzene	Toluene	Ethyl-Benzene	Xylenes
RE-7 (166.04)	4/11/88	--	<50000	17000	4400	600	8400
	4/05/90	5.93	16000	7000	1200	640	1600
	10/30/90	8.21	31000	14000	ND	ND	ND
	1/18/91	11.8(Film)	NSC				
	2/12/91	10.8(Film)	NSC				
	3/20/91	9.96	120000	12000	2800	490	6600
	5/22/91	11.7(Film)	NSC				
	6/19/91	11.5(Film)	NSC				
	7/17/91	7.80(Film)	NSC				
	8/07/91	9.88(0.03)	NSC				
	9/24/91	9.85(0.03)	NSC				
	10/23/91	9.96(Film)	NSC				
	11/06/91	6.77(Film)	NSC				
	12/04/91	10.8(Film)	NSC				
	1/29/92	8.64(Film)	NSC				
	2/26/92	6.00(Film)	NSC				
	3/19/92	5.55(Film)	NSC				
	4/22/92	6.12(Film)	NSC				
	5/21/92	6.40(Film)	NSC				
	6/25/92	6.73(0.02)	NSC				
	7/30/92	6.73(Film)	NSC				
	8/20/92	6.82(Film)	NSC				
	9/30/92	7.26(Film)	NSC				
12/23/92	6.22(Film)	NSC					
3/10/93	5.82(Film)	NSC					
6/09/93	6.17(Film)	NSC					
09/14/93	11.33	NSC					
RS-8 (164.32)	8/07/91	9.68	ND	ND	ND	ND	ND
	9/27/91	9.89	ND	ND	ND	ND	ND
	10/23/91	10.05	ND	ND	ND	ND	ND
	11/06/91	9.71	ND	ND	ND	ND	ND
	12/04/91	10.00	ND	ND	ND	ND	ND
	1/29/92	9.28	ND	2.1	1.0	2.5	3.6
	2/26/92	7.05	ND	ND	0.7	ND	0.7
	3/19/92	7.30	ND	0.5	1.0	1.5	2.7
	4/22/92	8.60	ND	ND	ND	ND	ND
	5/21/92	9.22	ND	ND	ND	ND	ND
	6/25/92	9.49	ND	ND	ND	ND	ND
	7/30/92	9.55	ND	1.1	4.2	ND	3.0
	8/20/92	9.63	ND	2.0	4.7	ND	5.7
	9/30/92	9.90	ND	ND	ND	ND	ND
	12/23/92	9.96	ND	ND	ND	ND	ND
3/10/93	8.95	ND	ND	ND	ND	ND	
6/09/93	9.00	ND	ND	ND	ND	ND	
09/14/93	9.50	0.2	0.3	ND	ND	ND	
RS-9 (167.51)	8/07/91	2.28	NA	0.5	ND	330	1200
	9/27/91	2.77	13000	3.5	3.0	82	140
	10/23/91	3.53	11000	ND	ND	39	340
	11/06/91	2.51	6800	8.4	0.6	22	230
	12/04/91	3.20	6500	6.5	0.7	87	200
	1/29/92	2.65	8100	22	10	140	260
	2/26/92	3.42	13000	40	16	220	600
	3/19/92	3.12	12000	21	12	100	280
	4/22/92	3.24	8600	ND	ND	20	37
	5/21/92	3.75	6000	21	10	53	210
	6/25/92	2.65	370	2.3	1.5	0.7	4.3
	7/30/92	2.70	3600	20	ND	39	80
	8/20/92	2.83	3000	0.7	5.2	2.0	5.3
	9/30/92	2.80	9200	4.8	6.5	12	91
	12/23/92	2.45	2000	17	ND	8.2	18
	3/10/93	2.40	1500	ND	2.6	21	12
	6/09/93	3.55	1300	0.6	1.7	ND	7.5
09/14/93	2.81	1500	1.3	7.6	4.1	14.0	

Results reported in micrograms per liter (ug/L)

NA - Not Analyzed.

TPH - Total Petroleum Hydrocarbons as gasoline.

D-Wat - Depth to Water.

NSC - No sample collected due to film or sheen of liquid phase hydrocarbons.

Table 1(CONT.) - Summary of Analytical Results

I.D	Date	D-Wat	TPH	Benzene	Toluene	Ethyl-Benzene	Xylenes
RS10 (162.89)	8/07/91	6.16	ND	ND	ND	ND	ND
	9/27/01	6.48	ND	ND	ND	ND	ND
	10/23/91	7.37	ND	ND	ND	ND	ND
	11/06/91	6.44	ND	ND	ND	ND	ND
	12/04/91	7.02	ND	ND	ND	ND	ND
	1/29/92	6.78	ND	ND	ND	ND	ND
	2/26/92	8.33	ND	ND	ND	ND	ND
	3/19/92	8.02	ND	ND	ND	ND	0.6
	4/22/92	7.78	ND	ND	ND	ND	ND
	5/21/92	6.21	ND	ND	0.6	ND	1.2
	6/25/92	7.73	ND	ND	ND	ND	ND
	7/30/92	7.84	ND	ND	0.5	ND	1.0
	8/20/92	7.50	ND	ND	ND	ND	ND
	9/30/92	7.63	ND	ND	ND	ND	ND
	12/23/92	7.24	ND	ND	ND	ND	ND
	3/10/93	6.38	ND	ND	ND	ND	ND
	6/09/93	7.98	ND	ND	ND	ND	ND
09/14/93	7.35	ND	ND	ND	ND	ND	

Results reported in micrograms per liter (ug/L):

NA - Not Analyzed.

TPH - Total Petroleum Hydrocarbons as gasoline.

D-Wat - Depth to Water.

NSC - No sample collected due to film or sheen of liquid phase hydrocarbons.



PROJECT STATUS REPORT
 THRIFTY OIL CO. S.S. #054
 2504 CASTRO VALLEY BLVD.
 CASTRO VALLEY, CA 94546
 DATE: 7-9-93

F R E E R E Q .	MONITORING				ODORS			FREE		WELLS CONNECTED TO SYSTEM (W)							
	OBSERVATION WELLS				(S=SLIGHT)			PRODUCT		CONNECT		INTEGRITY		VAPOR		WATER	
	NO.	DTW	DTP	PT	YES	NO	S	YES	NO	YES	NO	OK	NO	ON	OFF	ON	OFF
M	PW-1	6.10				X			X		X	-	X		X		
M	PW-2	5.70				X			X		X	-	X		X		
M	RE-1	5.02				X			X		X	-	X		X		
M	RE-2	5.08				X			X		X	-	X		X		
M	RE-3	7.05	Film						X		X	-	X		X		
M	RE-4	5.62	Sheen						X		X	-	X		X		X
M	RE-5	5.05				X			X		X	-	X		X		
M	RE-6	6.35				X			X		X	-	X		X		
M	RE-7	8.40	Film						X		X	-	X		X		X
M	RS-8	9.08				X			X		-	X		X			
M	RS-9	3.65				X			X		-	X		X			
M	RS-10	7.95				X			X		-	X		X			

SAVE SYSTEM WEEKLY

PARAMETER	U/M	DATA	PARAMETER	U/M	DATA
TIME	AM/PM		AIR FLOW	C F M	
WORKING	YES/NO	No	VAPOR FLOW	C F M	
RESTARTED	YES/NO		FUEL FLOW	C F M/H	
HOURS	#		WELL VACUUM	IN H2O	
ENGINE ROT.	RPM		L P G TANKS	#	#1:
ENGINE VACUUM	IN HG		GAS METER READING	-	N/A
TANK VACUUM	IN HG		WATER FLOWMETER	GALL.	

EXHAUST (By others)					
INLET TO ENGINE					

MAINTENANCE	ES/100/400/800		FOR SPECIFIC OPERATIONS SEE FIELD RECORD
-------------	----------------	--	--

WATER SAMPLING - CHECK () WHEN DONE		
EFFLUENT	INFLUENT	WELLS
()	()	() Q.-SEE C.CUST.

REMARKS: _____

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

DATA RECORDED BY : E. GARMAN INPUT BY: M.M. >\FF\054rsirt

Operating Data

	Parameter	Data
ENGINE	R.P.M.	1700
	Oil Press P.S.I.	45
	Water Temp °F	160
	Volts	13
	Intake Vac. "Hg	8
	Propane Flow cfm	75
	Air Flow cfm	15
FUEL	Well Flow cfm	14
	Well Vac. "H ₂ O	28
	Air Temp °F	82
	Tank Vac. "Hg	5
TANK	Recirc Press P.S.I.	25
	Recirc Temp °F	100
	Inlet °F	
CATALYST	Outlet °F	
	H-C ppm	
EMISSIONS	C-O %	
	CO ₂ %	
	O ₂ %	
	Vapor Wells On/Off	ALL
MANIFOLD	Groundwater Wells On/Off	RE-4 RE-7
	Discharge Flow Meter gals	2761
	Sample air/H ₂ O	NO

Eng. + Tib. : Please identify the vapor connections & mark well ID on each vapor valve.
 • Install a proper water sampling port (Influent)
 • Well Repairs need (Loose bolts, threads, etc.)
 • Section to be a small leak on propane supply line - Please

Maintenance Record

Operation	Each Stop	100 Hours Week	400 Hours 2 Weeks	800 Hours Monthly
Oil, Engine, Check Level	✓			
Coolant, Check Level	✓			
Fuel, Oil, Coolant, Check for Leaks	✓			
Oil, Engine, Change	✓			
Oil, Filter, Change	✓			
Battery, Check Charge and Fluid	✓			
Battery Cables, Clean	✓			
P.T.O. Bearings, Lubricate	✓			
Fan, Alternator Belts, Check & Adjust	✓			
Idle Speed, Check	✓			
SERIAL # 11002067				
Idle V ENERAC MODEL 2000				
Radia COMBUSTION TEST RECORD				
Distrib FOR: THRIFTY OIL CO.				
Ignitio TIME: 15:34:15				
DATE: 07/20/93				
PCV\ FUEL PROPANE: 21680 BTU/LB				
PCV\ COMBUSTION EFFICIENCY: 96.0 %				
Spark AMBIENT TEMPERATURE: 87 °F				
STACK TEMPERATURE: 61 °F				
Points OXYGEN: 89.9 %				
CARBON MONOXIDE: OVER PPM				
CARBON DIOXIDE: 89.4 %				
Oil, Vi COMBUSTIBLE GASES: 0.09 %				
Intake STACK DRAFT (INCHES H2O): + 00.0				
EXCESS AIR: 42 %				
OXIDES of NITROGEN: 17 PPM				
All Nut SULFUR DIOXIDE: 0 PPM				
CARBON MONOXIDE ALARM: 50 PPM				

PROPANE T1

Comments: MODE:PPM OXY_REF= 15%

The engine was not running. We started it up. A leak has been found on the main vapor line. We replaced an elbow (1" PVC) Adjusted water pump unit and checked pump.

Time: 12:00 to 16:15

Date: 07/20/93

Location: SS # 054

Service Tech: EUGEN/TIBERIU

Hour Meter: 2125.2

Done for checking Suburban Propane Co.

PARAMETER	U/M	
TIME		2:00 AM/PM 2.PM
WORKING	YES/NO	N/A
RESTARTED	YES/NO	YES
HOURS	#	2293
ENGINE ROT.	R P M	1700
ENGINE VACUUM	IN HG	11
ENG. OIL PRESS.	P S I	40
ENG. WATER TEMP.	°F	160
ENG. ELECTR. TENS.	VOLTS	13
TANK VACUUM	IN HG	13
TK. REC. PRES.	PSI	40
TK. REC. TEMP.	°F	130°
AIR TEMPERATURE	°F	78
AIR FLOW	C F M	5
VAPOR FLOW	C F M	18
FUEL FLOW	C F M/H	70
WELL VACUUM	IN H20	25
L P G TANKS	%	#1: 23 #2:
GAS METER READING		
WATER FLOWMETER	GALL.	2794
CATALYST IN TEMP.	°F	
CATALYST OUT TEMP.	°F	

MAINTENANCE RECORD				
Operation	Each Stop	100 Hours Week	400 Hours 2 Weeks	800 Hours Monthly
Oil, Engine, Check Level	✓			
Coolant, Check Level	✓			
Fuel, Oil, Coolant, Check for Leaks	✓			
Oil, Engine, Change				
Oil, Filter, Change				
Battery, Check Charge and Fluid				
Battery Cables, Clean				
P.T.O. Bearings, Lubricate				
Fan, Alternator Belts, Check and Adjust		✓		
Idle Speed, Check		✓		
Idle Mixture, Check				
Radiator, Inspect and Clean Exterior		✓		
Distributor, Clean and Check Points				
Ignition Timing, Check and Adjust				
PCV Valve, Replace				
PCV Hoses and Fitting, Check				
Spark Plugs, Replace				
Points, Replace				
Oil, Vacuum Pump, Change				
Intake Manifold Bolts, Torque				
All Nuts and Bolts, Check				

EXHAUST (See permit and PSR for frequency and limits)	BY C.A.	H-C	ppm/%
		CO	%/ppm
		CO2	%
		O2	%
		NOX	%/ppm
	BY	O.V.	ppm
OUTLET FROM ENGINE		O.V.	ppm
INLET TO ENGINE		O.V.	ppm

Comments: _____

READJUST ENGINE PARAMETERS AT LEAST ONCE PER MONTH (IGNITION TIMING, AIR TO FUEL RATIO, EXHAUST O2 AND TEMP., NOX, HC & CO). CHECK HERE () WHEN DONE

INSPECT CATALYST (See permit and PSR for frequency). CHECK HERE (✓) O.K. () NO

CHANGE CATALYST (See permit and PSR for limits). CHECK HERE () WHEN REPLACED

VAPOR WELLS ON: ALL WATER WELLS ON: RS-4 + RS-7

SERVICE TECH: EC DATE: 8-11-93 THRIFTY OIL CO. ss #: 054

PARAMETER	U/M	
TIME	AM/PM	11:45
WORKING	YES/NO	No
RESTARTED	YES/NO	YES
HOURS	#	2446
ENGINE ROT.	R P M	1700
ENGINE VACUUM	IN HG	9
ENG. OIL PRESS.	PSI	50
ENG. WATER TEMP.	°F	160
ENG. ELECTR. TENS.	VOLTS	13
TANK VACUUM	IN HG	9
TK. REC. PRES.	PSI	40
TK. REC. TEMP.	°F	90
AIR TEMPERATURE	°F	85
AIR FLOW	C F M	15
VAPOR FLOW	C F M	17
FUEL FLOW	C F M/H	80
WELL VACUUM	IN H2O	22
L P G TANKS	%	#1: 90% #2: 1
GAS METER READING		
WATER FLOWMETER	GALL.	2920
CATALYST IN TEMP.	°F	
CATALYST OUT TEMP.	°F	

EXHAUST (See permit and PSR for frequency and limits)	BY C.A.	H-C	ppm/%
		CO	%/ppm
		CO2	%
		O2	%
		NOX	%/ppm
	BY	O.V.	ppm
OUTLET FROM ENGINE		O.V.	ppm
INLET TO ENGINE		O.V.	ppm

MAINTENANCE RECORD				
Operation	Each Stop	100 Hours Week	400 Hours 2 Weeks	800 Hours Monthly
Oil, Engine, Check Level				
Coolant, Check Level				
Fuel, Oil, Coolant, Check for Leaks				
Oil, Engine, Change			✓	
Oil, Filter, Change			✓	
Battery, Check Charge and Fluid			✓	
Battery Cables, Clean			✓	
P.T.O. Bearings, Lubricate			✓	
Fan, Alternator Belts, Check and Adjust			✓	
Idle Speed, Check			✓	
Idle Mixture, Check			✓	
Radiator, Inspect and Clean Exterior			✓	
Distributor, Clean and Check Points			✓	
Ignition Timing, Check and Adjust			✓	
PCV Valve, Replace				
PCV Hoses and Fitting, Check				
Spark Plugs, Replace				
Points, Replace				
Oil, Vacuum Pump, Change				
Intake Manifold Bolts, Torque			✓	
All Nuts and Bolts, Check			✓	

Comments: On arrival the engine was not working. For restart need to replaced the coil.

READJUST ENGINE PARAMETERS AT LEAST ONCE PER MONTH (IGNITION TIMING, AIR TO FUEL RATIO, EXHAUST O2 AND TEMP., NOX, HC & CO). CHECK HERE () WHEN DONE

INSPECT CATALYST (See permit and PSR for frequency). CHECK HERE (✓) O.K. () NO

CHANGE CATALYST (See permit and PSR for limits). CHECK HERE () WHEN REPLACED

VAPOR WELLS ON: ALL WATER WELLS ON: RE-4, RE-7

SERVICE TECH: E. GASMAN DATE: 9.8.93 THRIFTY OIL CO. ss #: 054

PARAMETER	U/M	
TIME	AM/PM	9:20A
WORKING	YES/NO	YES
RESTARTED	YES/NO	No
HOURS	#	2588
ENGINE ROT.	R P M	1200
ENGINE VACUUM	IN HG	10
ENG. OIL PRESS.	PSI	40
ENG. WATER TEMP.	°F	160
ENG. ELECTR. TENS.	VOLTS	13
TANK VACUUM	IN HG	10
TK. REC. PRES.	PSI	40
TK. REC. TEMP.	°F	115
AIR TEMPERATURE	°F	75
AIR FLOW	C F M	15
VAPOR FLOW	C F M	17
FUEL FLOW	C F M/H	85
WELL VACUUM	IN H2O	25
L P G TANKS	%	#1: 35% #2:
GAS METER READING		
WATER FLOWMETER	GALL.	2935
CATALYST IN TEMP.	°F	
CATALYST OUT TEMP.	°F	

EXHAUST (See permit and PSR for frequency and limits)	BY C.A.	H-C	ppm/%
		CO	%/ppm
		CO2	%
		O2	%
		NOX	%/ppm
	BY	O.V.	ppm
OUTLET FROM ENGINE		O.V.	ppm
INLET TO ENGINE		O.V.	ppm

MAINTENANCE RECORD

Operation	Each Stop	100 Hours Week	400 Hours 2 Weeks	800 Hours Monthly
Oil, Engine, Check Level				
Coolant, Check Level				
Fuel, Oil, Coolant, Check for Leaks				
Oil, Engine, Change		✓		
Oil, Filter, Change		✓		
Battery, Check Charge and Fluid		✓		
Battery Cables, Clean		✓		
P.T.O. Bearings, Lubricate		✓		
Fan, Alternator Belts, Check and Adjust		✓		
Idle Speed, Check		✓		
Idle Mixture, Check		✓		
Radiator, Inspect and Clean Exterior				
Distributor, Clean and Check Points				
Ignition Timing, Check and Adjust				
PCV Valve, Replace				
PCV Hoses and Fitting, Check				
Spark Plugs, Replace				
Points, Replace				
Oil, Vacuum Pump, Change				
Intake Manifold Bolts, Torque				
All Nuts and Bolts, Check				

Comments: _____

READJUST ENGINE PARAMETERS AT LEAST ONCE PER MONTH (IGNITION TIMING, AIR TO FUEL RATIO, EXHAUST O2 AND TEMP., NOX, HC & CO). CHECK HERE () WHEN DONE

INSPECT CATALYST (See permit and PSR for frequency). CHECK HERE (✓) O.K. () NO

CHANGE CATALYST (See permit and PSR for limits). CHECK HERE () WHEN REPLACED

VAPOR WELLS ON: ALL WATER WELLS ON: RE 4 + RET

SERVICE TECH: E. CASMAN DATE: 9.14.93 THRIFTY OIL CO. ss #: 054

PARAMETER	U/M	
TIME	AM/PM	16:30
WORKING	YES/NO	NO
RESTARTED	YES/NO	YES
HOURS	#	2596
ENGINE ROT.	RPM	1800
ENGINE VACUUM	IN HG	10
ENG. OIL PRESS.	PSI	40
ENG. WATER TEMP.	°F	150
ENG. ELECTR. TENS.	VOLTS	13
TANK VACUUM	IN HG	10
TK. REC. PRES.	PSI	40
TK. REC. TEMP.	°F	90
AIR TEMPERATURE	°F	72
AIR FLOW	CFM	15
VAPOR FLOW	CFM	18
FUEL FLOW	CFM/H	80
WELL VACUUM	IN H2O	20
L P G TANKS	%	#1: 90 #2:
GAS METER READING		
WATER FLOWMETER	GALL.	3017
CATALYST IN TEMP.	°F	
CATALYST OUT TEMP.	°F	

EXHAUST (See permit and PSR for frequency and limits)	BY C.A.	H-C	ppm/%
		CO	%/ppm
		CO2	%
		O2	%
		NOX	%/ppm
	BY	O.V.	ppm
OUTLET FROM ENGINE	O.V.	ppm	
INLET TO ENGINE	O.V.	ppm	

MAINTENANCE RECORD				
Operation	Each Stop	100 Hours Week	400 Hours 2 Weeks	800 Hours Monthly
Oil, Engine, Check Level		✓		
Coolant, Check Level		✓		
Fuel, Oil, Coolant, Check for Leaks		✓		
Oil, Engine, Change		✓		
Oil, Filter, Change		✓		
Battery, Check Charge and Fluid		✓		
Battery Cables, Clean		✓		
P.T.O. Bearings, Lubricate		✓		
Fan, Alternator Belts, Check and Adjust		✓		
Idle Speed, Check		✓		
Idle Mixture, Check		✓		
Radiator, Inspect and Clean Exterior				
Distributor, Clean and Check Points				
Ignition Timing, Check and Adjust				
PCV Valve, Replace				
PCV Hoses and Fitting, Check				
Spark Plugs, Replace				
Points, Replace				
Oil, Vacuum Pump, Change				
Intake Manifold Bolts, Torque				
All Nuts and Bolts, Check				

Comments: _____

READJUST ENGINE PARAMETERS AT LEAST ONCE PER MONTH (IGNITION TIMING, AIR TO FUEL RATIO, EXHAUST O2 AND TEMP., NOX, HC & CO). CHECK HERE () WHEN DONE

INSPECT CATALYST (See permit and PSR for frequency). CHECK HERE () O.K. () NO

CHANGE CATALYST (See permit and PSR for limits). CHECK HERE () WHEN REPLACED

VAPOR WELLS ON: ALL WATER WELLS ON: RE-4, RE-7

SERVICE TECH: E. GARMAN DATE: 9-21-93 THRIFTY OIL CO. ss #: 054

PARAMETER	U/M	
TIME	AM/PM	10:30
WORKING	YES/NO	YES
RESTARTED	YES/NO	NO
HOURS	#	2756
ENGINE ROT.	R P M	1700
ENGINE VACUUM	IN HG	10
ENG. OIL PRESS.	P S I	40
ENG. WATER TEMP.	°F	160
ENG. ELECTR. TENS.	VOLTS	13
TANK VACUUM	IN HG	11
TK. REC. PRES.	PSI	10
TK. REC. TEMP.	°F	100
AIR TEMPERATURE	°F	75
AIR FLOW	C F M	15
VAPOR FLOW	C F M	17
FUEL FLOW	C F M/H	70
WELL VACUUM	IN H2O	25
L P G TANKS	%	#1: 45 #2:
GAS METER READING		
WATER FLOWMETER	GALL.	3023
CATALYST IN TEMP.	°F	
CATALYST OUT TEMP.	°F	

MAINTENANCE RECORD				
Operation	Each Stop	100 Hours Week	400 Hours 2 Weeks	800 Hours Monthly
Oil, Engine, Check Level				
Coolant, Check Level				
Fuel, Oil, Coolant, Check for Leaks				
Oil, Engine, Change		✓		
Oil, Filter, Change		✓		
Battery, Check Charge and Fluid		✓		
Battery Cables, Clean		✓		
P.T.O. Bearings, Lubricate		✓		
Fan, Alternator Belts, Check and Adjust		✓		
Idle Speed, Check		✓		
Idle Mixture, Check		✓		
Radiator, Inspect and Clean Exterior				
Distributor, Clean and Check Points				
Ignition Timing, Check and Adjust				
PCV Valve, Replace				
PCV Hoses and Fitting, Check				
Spark Plugs, Replace				
Points, Replace				
Oil, Vacuum Pump, Change				
Intake Manifold Bolts, Torque				
All Nuts and Bolts, Check				

EXHAUST (See permit and PSR for frequency and limits)	BY C.A.	H-C	ppm/%
		CO	%/ppm
		CO2	%
		O2	%
		NOX	%/ppm
	BY	O.V.	ppm
OUTLET FROM ENGINE	O.V.	ppm	
INLET TO ENGINE	O.V.	ppm	

Comments: _____

READJUST ENGINE PARAMETERS AT LEAST ONCE PER MONTH (IGNITION TIMING, AIR TO FUEL RATIO, EXHAUST O2 AND TEMP., NOX, HC & CO). CHECK HERE () WHEN DONE

INSPECT CATALYST (See permit and PSR for frequency). CHECK HERE (✓) O.K. () NO

CHANGE CATALYST (See permit and PSR for limits). CHECK HERE () WHEN REPLACED

VAPOR WELLS ON: ALL WATER WELLS ON: RE 4 + RE 7

SERVICE TECH: E. CASMAN DATE: 9-28-93 THRIFTY OIL CO. ss #: 054



PROJECT STATUS REPORT
 THRIFTY OIL CO. S.S. #054
 2504 CASTRO VALLEY BLVD.
 CASTRO VALLEY, CA 94546
 DATE: 9.14.1993

F R E E Q .	M O N I T O R I N G				O D O R S			F R E E		W E L L S C O N N E C T E D T O S Y S T E M (W)							
	O B S E R V A T I O N W E L L S				(S = S L I G H T)			P R O D U C T		C O N N E C T		I N T E G R I T Y		V A P O R		W A T E R	
	NO.	DTW	DTP	PT	YES	NO	S	YES	NO	YES	NO	OK	NO	ON	OFF	ON	OFF
M	PW-1	5.43				Y		Y		X	-						
M	PW-2	6.26					X	Y		X	-						
M	RE-1	5.35					X	Y		X	-						
M	RE-2	5.26				Y		Y		X	-						
M	RE-3	7.30					Y	Y		X	-						
M	RE-4	10.44			Y			Y		X	-						
M	RE-5	5.53				X		Y		X	-						
M	RE-6	6.53				X		Y		X	-						
M	RE-7	11.33			X			Y		X	-						
M	RS-8	9.50				X		Y		-	X						
M	RS-9	2.81				X		Y		-	X						
M	RS-10	7.35				Y		Y		-	X						

S A V E S Y S T E M W E E K L Y

PARAMETER	U/M	DATA	PARAMETER	U/M	DATA
TIME	AM/PM		AIR FLOW	C F M	15
WORKING	YES/NO	YES	VAPOR FLOW	C F M	17
RESTARTED	YES/NO	No	FUEL FLOW	C F M/H	85
HOURS	#	2588	WELL VACUUM	IN H2O	25
ENGINE ROT.	RPM	1200	L P G TANKS	%	#1: 35%
ENGINE VACUUM	IN HG	10	GAS METER READING	-	N/A
TANK VACUUM	IN HG	10	WATER FLOWMETER	GALL.	2935

EXHAUST (By others)				
INLET TO ENGINE				

MAINTENANCE	ES/100/400/800		FOR SPECIFIC OPERATIONS SEE FIELD RECORD
W A T E R S A M P L I N G - C H E C K (<input checked="" type="checkbox"/>) W H E N D O N E			
EFFLUENT		INFLUENT	
()	(<input checked="" type="checkbox"/>)	(<input checked="" type="checkbox"/>)	(<input checked="" type="checkbox"/>) Q.-SEE C.CUST.

REMARKS:

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

DATA RECORDED BY: E. CASMAN INPUT BY: M.M. >\FF\054rsirt

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

DATE 9.14.1993 STATION NO. 054
 PERSONNEL E. GASMAN, T. ROSU
 WELL NO. RE 3 WEATHER SUNNY
 SAMPLE EQUIPMENT TEFLON BAILER

Before Sampling

Total Well Depth 17.60 Ft. Well Diameter 4"
 Depth to Water 7.30 Ft. Purge Volume 27 gall.

Sampling Data

Time	<u>1:50</u>	<u>1:53</u>	<u>1:52</u>	<u>2:01</u>	<u>2:03</u>	<u>2:07</u>	_____
EC	<u>1190</u>	<u>1220</u>	<u>1220</u>	<u>1220</u>	<u>1230</u>	<u>1230</u>	_____
pH	<u>7.36</u>	<u>7.24</u>	<u>7.19</u>	<u>7.16</u>	<u>7.15</u>	<u>7.15</u>	_____
Temp	<u>70.4</u>	<u>70.7</u>	<u>71</u>	<u>71.5</u>	<u>72</u>	<u>72</u>	_____
Gal.	<u>4</u>	<u>8</u>	<u>14</u>	<u>18</u>	<u>23</u>	<u>27</u>	_____
Time	_____	_____	_____	_____	_____	_____	_____
EC	_____	_____	_____	_____	_____	_____	_____
pH	_____	_____	_____	_____	_____	_____	_____
Temp	_____	_____	_____	_____	_____	_____	_____
Gal.	_____	_____	_____	_____	_____	_____	_____

After Sampling

Depth to Water 8.10 Ft. Total Well Depth 17.60 Ft.

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

DATE 9.14.1993 STATION NO. 054
PERSONNEL E. GARMAN, T. ROSU
WELL NO. PW 2 WEATHER SUNNY
SAMPLE EQUIPMENT TETRON BAILER

Before Sampling

Total Well Depth 14.40 Ft. Well Diameter 4"
Depth to Water 6.26 Ft. Purge Volume 21 gall

Sampling Data

Time	<u>1:20</u>	<u>1:22</u>	<u>1:24</u>	<u>1:26</u>	<u>1:29</u>	<u>1:32</u>	<u>1:35</u>
EC	<u>660</u>	<u>650</u>	<u>640</u>	<u>640</u>	<u>650</u>	<u>640</u>	<u>640</u>
pH	<u>7.05</u>	<u>6.92</u>	<u>6.87</u>	<u>6.84</u>	<u>6.85</u>	<u>6.84</u>	<u>6.84</u>
Temp	<u>73</u>	<u>74.5</u>	<u>75.7</u>	<u>76.3</u>	<u>77.2</u>	<u>77.5</u>	<u>77.5</u>
Gal.	<u>4</u>	<u>2</u>	<u>10</u>	<u>12</u>	<u>16</u>	<u>19</u>	<u>21</u>
Time	_____	_____	_____	_____	_____	_____	_____
EC	_____	_____	_____	_____	_____	_____	_____
pH	_____	_____	_____	_____	_____	_____	_____
Temp	_____	_____	_____	_____	_____	_____	_____
Gal.	_____	_____	_____	_____	_____	_____	_____

After Sampling

Depth to Water 7.05 Ft. Total Well Depth 14.40 Ft.

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

DATE 9.14.1993 STATION NO. 054
PERSONNEL E. GASMAN, J. ROSE
WELL NO. PW-1 WEATHER SUNNY
SAMPLE EQUIPMENT TEFLON BAILER

Before Sampling

Total Well Depth 14.10 Ft. Well Diameter 4"
Depth to Water 5.43 Ft. Purge Volume 23 gallons

Sampling Data

Time	<u>12:50</u>	<u>12:53</u>	<u>12:56</u>	<u>12:58</u>	<u>1:00</u>	<u>1:02</u>	<u>1:05</u>
EC	<u>590</u>	<u>540</u>	<u>540</u>	<u>540</u>	<u>550</u>	<u>550</u>	<u>550</u>
pH	<u>7.50</u>	<u>7.37</u>	<u>7.25</u>	<u>7.20</u>	<u>7.15</u>	<u>7.11</u>	<u>7.11</u>
Temp	<u>73.9</u>	<u>74.3</u>	<u>74.9</u>	<u>75</u>	<u>75</u>	<u>75</u>	<u>75</u>
Gal.	<u>4</u>	<u>2</u>	<u>12</u>	<u>15</u>	<u>12</u>	<u>20</u>	<u>23</u>
Time	_____	_____	_____	_____	_____	_____	_____
EC	_____	_____	_____	_____	_____	_____	_____
pH	_____	_____	_____	_____	_____	_____	_____
Temp	_____	_____	_____	_____	_____	_____	_____
Gal.	_____	_____	_____	_____	_____	_____	_____

After Sampling

Depth to Water 6.10 Ft. Total Well Depth 14.10 Ft.

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

DATE 9.14.1993 STATION NO. 054
 PERSONNEL E. GASMAN, T. ROHU
 WELL NO. RE-6 WEATHER SUNNY
 SAMPLE EQUIPMENT TEFLON BAILER

Before Sampling

Total Well Depth 13.25 Ft. Well Diameter 4"
 Depth to Water 6.53 Ft. Purge Volume 18 galls.

Sampling Data

Time	<u>12:25</u>	<u>12:27</u>	<u>12:29</u>	<u>12:32</u>	<u>12:35</u>	<u>12:37</u>	<u>12:39</u>
EC	<u>1190</u>	<u>1200</u>	<u>1200</u>	<u>1190</u>	<u>1190</u>	<u>1170</u>	<u>1170</u>
pH	<u>7.17</u>	<u>7.14</u>	<u>7.05</u>	<u>7</u>	<u>6.93</u>	<u>6.94</u>	<u>6.92</u>
Temp	<u>74</u>	<u>74</u>	<u>74</u>	<u>74</u>	<u>74</u>	<u>74</u>	<u>74</u>
Gal.	<u>2</u>	<u>4</u>	<u>6</u>	<u>10</u>	<u>14</u>	<u>16</u>	<u>18</u>
Time	_____	_____	_____	_____	_____	_____	_____
EC	_____	_____	_____	_____	_____	_____	_____
pH	_____	_____	_____	_____	_____	_____	_____
Temp	_____	_____	_____	_____	_____	_____	_____
Gal.	_____	_____	_____	_____	_____	_____	_____

After Sampling

Depth to Water 7.40 Ft. Total Well Depth 13.25 Ft.

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

DATE 9.14.1993 STATION NO. 054
 PERSONNEL E. GASMAN, T. ROSE
 WELL NO. RE 5 WEATHER SUNNY
 SAMPLE EQUIPMENT TEFLON BAILER

Before Sampling

Total Well Depth 18.25 Ft. Well Diameter 4"
 Depth to Water 5.53 Ft. Purge Volume 33 gallons

Sampling Data

Time	<u>11:55</u>	<u>11:57</u>	<u>11:59</u>	<u>12:02</u>	<u>12:05</u>	<u>12:08</u>	<u>12:10</u>
EC	<u>1030</u>	<u>1070</u>	<u>1070</u>	<u>1070</u>	<u>1080</u>	<u>1070</u>	<u>1070</u>
pH	<u>7.55</u>	<u>7.40</u>	<u>7.30</u>	<u>7.32</u>	<u>7.31</u>	<u>7.32</u>	<u>7.30</u>
Temp	<u>71.5</u>	<u>72.4</u>	<u>72.4</u>	<u>72.9</u>	<u>72.9</u>	<u>73</u>	<u>73</u>
Gal.	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>33</u>
Time	_____	_____	_____	_____	_____	_____	_____
EC	_____	_____	_____	_____	_____	_____	_____
pH	_____	_____	_____	_____	_____	_____	_____
Temp	_____	_____	_____	_____	_____	_____	_____
Gal.	_____	_____	_____	_____	_____	_____	_____

After Sampling

Depth to Water 6.40 Ft. Total Well Depth 18.25 Ft.

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

DATE 9.14.93 STATION NO. 054
PERSONNEL E. GASMAN, T. ROW
WELL NO. RE-2 WEATHER SUNNY
SAMPLE EQUIPMENT TEFLON BAILEY

Before Sampling

Total Well Depth 17.10 Ft. Well Diameter 4"
Depth to Water 5.26 Ft. Purge Volume 30 gallons

Sampling Data

Time	11:25	11:28	11:31	11:34	11:37	11:40	
EC	1090	1080	1080	1050	1050	1050	
pH	7.44	7.36	7.28	7.24	7.25	7.25	
Temp	72	73	73	73	73	73	
Gal.	5	10	15	20	25	30	
Time							
EC							
pH							
Temp							
Gal.							

After Sampling

Depth to Water 5.95 Ft. Total Well Depth 17.10 Ft.

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

DATE 9.14.93 STATION NO. 054
PERSONNEL E. GASMAN, T. ROSE
WELL NO. RE1 WEATHER SUNNY
SAMPLE EQUIPMENT TEFLON BAITER

Before Sampling

Total Well Depth 19.85 Ft. Well Diameter 4"
Depth to Water 5.35 Ft. Purge Volume 38 gallons

Sampling Data

Time	10:50	10:53	10:56	10:59	11:03	11:05	11:10
EC	1140	1150	990	980	970	950	950
PH	7.60	7.43	7.30	7.25	7.22	7.21	7.21
Temp	71.7	71.2	71	71	71.2	71	71
Gal.	10	15	20	25	30	34	38
Time	_____	_____	_____	_____	_____	_____	_____
EC	_____	_____	_____	_____	_____	_____	_____
PH	_____	_____	_____	_____	_____	_____	_____
Temp	_____	_____	_____	_____	_____	_____	_____
Gal.	_____	_____	_____	_____	_____	_____	_____

After Sampling

Depth to Water 6.42 Ft. Total Well Depth 19.85 Ft.

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

DATE 9.14.1993 STATION NO. 054
PERSONNEL E. CASMAN, T. ROSU
WELL NO. RS-2 WEATHER SUNNY
SAMPLE EQUIPMENT TEFLON BAILER

Before Sampling

Total Well Depth 25.20 Ft. Well Diameter 2"
Depth to Water 9.50 Ft. Purge Volume 10 gallons

Sampling Data

Time	10:15	10:17	10:19	10:21	10:22	10:24	10:26
EC	1210	1160	1100	1060	1080	1060	1070
pH	7.60	7.38	7.30	7.30	7.26	7.29	7.30
Temp	71	71.5	72	72	72	72	72
Gal.	2	3	4	6	7	9	10
Time	_____	_____	_____	_____	_____	_____	_____
EC	_____	_____	_____	_____	_____	_____	_____
pH	_____	_____	_____	_____	_____	_____	_____
Temp	_____	_____	_____	_____	_____	_____	_____
Gal.	_____	_____	_____	_____	_____	_____	_____

After Sampling

Depth to Water 10.07 Ft. Total Well Depth 25.20 Ft.

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

DATE 9. 14. 1993 STATION NO. 054
PERSONNEL E. GASMAN, T. ROBU
WELL NO. RS-9 WEATHER SUNNY
SAMPLE EQUIPMENT TEFLON BAILER

Before Sampling

Total Well Depth 15 Ft. Well Diameter 2"
Depth to Water 2.21 Ft. Purge Volume 8 gallons

Sampling Data

Time	<u>9:55</u>	<u>9:56</u>	<u>9:57</u>	<u>9:58</u>	<u>9:59</u>	<u>10:00</u>	<u>10:02</u>
EC	<u>1170</u>	<u>930</u>	<u>920</u>	<u>920</u>	<u>910</u>	<u>910</u>	<u>910</u>
pH	<u>7.70</u>	<u>7.50</u>	<u>7.40</u>	<u>7.38</u>	<u>7.38</u>	<u>7.38</u>	<u>7.36</u>
Temp	<u>72.5</u>	<u>74</u>	<u>74</u>	<u>75</u>	<u>74</u>	<u>73</u>	<u>73</u>
Gal.	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
Time	_____	_____	_____	_____	_____	_____	_____
EC	_____	_____	_____	_____	_____	_____	_____
pH	_____	_____	_____	_____	_____	_____	_____
Temp	_____	_____	_____	_____	_____	_____	_____
Gal.	_____	_____	_____	_____	_____	_____	_____

After Sampling

Depth to Water 4.00 Ft. Total Well Depth 15 Ft.

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

DATE 9.14.93 STATION NO. D54
PERSONNEL E GARMAN, T. ROSU
WELL NO. RS-10 WEATHER SUNNY
SAMPLE EQUIPMENT TEFLON BOTTLES

Before Sampling

Total Well Depth 24.45 Ft. Well Diameter 2"
Depth to Water 7.35 Ft. Purge Volume 11 gallons

Sampling Data

Time	<u>9:30</u>	<u>9:52</u>	<u>9:39</u>	<u>9:56</u>	<u>9:58</u>	<u>9:40</u>	
EC	<u>4920</u>	<u>4780</u>	<u>4750</u>	<u>4850</u>	<u>4860</u>	<u>4860</u>	
pH	<u>7.17</u>	<u>7.08</u>	<u>7.06</u>	<u>7.05</u>	<u>7.04</u>	<u>7.04</u>	
Temp	<u>75</u>	<u>74</u>	<u>74</u>	<u>73</u>	<u>73</u>	<u>73</u>	
Gal.	<u>3</u>	<u>4</u>	<u>6</u>	<u>8</u>	<u>10</u>	<u>11</u>	
Time							
EC							
pH							
Temp							
Gal.							

After Sampling

Depth to Water 8.40 Ft. Total Well Depth 24.45 Ft.



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Thrifty Oil Co.
File# 72546
10000 Lakewood Blvd.
Downey, CA 90240

09/23/93

Attn: Michael S. Cosby
310/923/9876

T.O.C.# 54
Chain of custody

Sample #: 3259203501
Received: 09/16/93
Type: Water

Collector: Client
Sampling Date & Time: 09/14/93, 1300
Method: Submitted By Client

I.D.: RS - 10

CONSTITUENT	METHOD	RESULT	UNIT	MDL
Extraction Method/Date	EPA 5030	09/17/93		
Analysis Date		09/17/93		
EPA 8015M/602, Combination		*		
TPH-Gasoline	EPA 8015M	ND	mg/l	0.06 mg/l
Benzene	EPA 602	ND	ug/l	0.3 ug/l
Toluene	EPA 602	ND	ug/l	0.3 ug/l
Ethylbenzene	EPA 602	ND	ug/l	0.3 ug/l
Xylenes	EPA 602	ND	ug/l	0.6 ug/l
Surrogate		*		
Trifluorotoluene	EPA 602	101	Percent	

Sample #: 3259203502
Received: 09/16/93
Type: Water

Collector: Client
Sampling Date & Time: 09/14/93, 1335
Method: Submitted By Client

I.D.: RS - 9

CONSTITUENT	METHOD	RESULT	UNIT	MDL
Extraction Method/Date	EPA 5030	09/17/93		
Analysis Date		09/17/93		
EPA 8015M/602, Combination		*		
TPH-Gasoline	EPA 8015M	1.5	mg/l	0.06 mg/l
Benzene	EPA 602	1.3	ug/l	0.3 ug/l
Toluene	EPA 602	7.6	ug/l	0.3 ug/l
Ethylbenzene	EPA 602	4.1	ug/l	0.3 ug/l

OCT 4 1993

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CONSTITUENT	METHOD	RESULT	UNIT	MDL
Xylenes	EPA 602	14	ug/l	0.6 ug/l
Surrogate Trifluorotoluene	EPA 602	112	Percent	

Sample #: 3259203503
Received: 09/16/93
Type: Water

Collector: Client
Sampling Date & Time: 09/14/93, 1400
Method: Submitted By Client

I.D.: RS - 8

Extraction Method/Date	EPA 5030	09/17/93		
Analysis Date		09/17/93		
EPA 8015M/602, Combination		*		
TPH-Gasoline	EPA 8015M	0.2	mg/l	0.06 mg/l
Benzene	EPA 602	0.30	ug/l	0.3 ug/l
Toluene	EPA 602	ND	ug/l	0.3 ug/l
Ethylbenzene	EPA 602	ND	ug/l	0.3 ug/l
Xylenes	EPA 602	ND	ug/l	0.6 ug/l
Surrogate Trifluorotoluene	EPA 602	100	Percent	

Sample #: 3259203504
Received: 09/16/93
Type: Water

Collector: Client
Sampling Date & Time: 09/14/93, 1420
Method: Submitted By Client

I.D.: RE - 1

Extraction Method/Date	EPA 5030	09/21/93		
Analysis Date		09/21/93		
EPA 8015M/602, Combination		*		
TPH-Gasoline	EPA 8015M	19	mg/l	2.6 mg/l
Benzene	EPA 602	3600	ug/l	13 ug/l
Toluene	EPA 602	1100	ug/l	13 ug/l
Ethylbenzene	EPA 602	740	ug/l	13 ug/l
Xylenes	EPA 602	4300	ug/l	26 ug/l

OCT 4 1993
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CONSTITUENT	METHOD	RESULT	UNIT	MDL
Surrogate Trifluorotoluene	EPA 602		99 Percent	*

Sample #: 3259203505
Received: 09/16/93
Type: Water

Collector: Client
Sampling Date & Time: 09/14/93, 1445
Method: Submitted By Client

I.D.: RE - 2

Extraction Method/Date	EPA 5030	09/21/93		
Analysis Date		09/21/93		
EPA 8015M/602, Combination		*		
TPH-Gasoline	EPA 8015M	0.36 mg/l		0.06 mg/l
Benzene	EPA 602	1.6 ug/l		0.3 ug/l
Toluene	EPA 602	1.1 ug/l		0.3 ug/l
Ethylbenzene	EPA 602	3.2 ug/l		0.3 ug/l
Xylenes	EPA 602	8.9 ug/l		0.6 ug/l
Surrogate Trifluorotoluene	EPA 602		88 Percent	*

Sample #: 3259203506
Received: 09/16/93
Type: Water

Collector: Client
Sampling Date & Time: 09/14/93, 1450
Method: Submitted By Client

I.D.: RE - 5

Extraction Method/Date	EPA 5030	09/20/93		
Analysis Date		09/20/93		
EPA 8015M/602, Combination		*		
TPH-Gasoline	EPA 8015M	0.24 mg/l		0.06 mg/l
Benzene	EPA 602	6.9 ug/l		0.3 ug/l
Toluene	EPA 602	8.8 ug/l		0.3 ug/l
Ethylbenzene	EPA 602	1.4 ug/l		0.3 ug/l
Xylenes	EPA 602	67 ug/l		0.6 ug/l

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CONSTITUENT	METHOD	RESULT	UNIT	MDL
Surrogate Trifluorotoluene	EPA 602	*	116 Percent	

Sample #: 3259203507
Received: 09/16/93
Type: Water

Collector: Client
Sampling Date & Time: 09/14/93, 1500
Method: Submitted By Client

I.D.: RE - 6

Extraction Method/Date	EPA 5030	09/21/93		
Analysis Date		09/21/93		
EPA 8015M/602, Combination		*		
TPH-Gasoline	EPA 8015M	3.6 mg/l		0.15 mg/l
Benzene	EPA 602	660 ug/l		0.75 ug/l
Toluene	EPA 602	7.5 ug/l		0.75 ug/l
Ethylbenzene	EPA 602	11 ug/l		0.75 ug/l
Xylenes	EPA 602	27 ug/l		1.5 ug/l
Surrogate Trifluorotoluene	EPA 602	*	93 Percent	

Sample #: 3259203508
Received: 09/16/93
Type: Water

Collector: Client
Sampling Date & Time: 09/14/93, 1515
Method: Submitted By Client

I.D.: PW 1

Extraction Method/Date	EPA 5030	09/20/93		
Analysis Date		09/20/93		
EPA 8015M/602, Combination		*		
TPH-Gasoline	EPA 8015M	0.18 mg/l		0.06 mg/l
Benzene	EPA 602	3.7 ug/l		0.3 ug/l
Toluene	EPA 602	3.2 ug/l		0.3 ug/l
Ethylbenzene	EPA 602	1.5 ug/l		0.3 ug/l
Xylenes	EPA 602	14 ug/l		0.6 ug/l
Surrogate		*		

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CONSTITUENT	METHOD	RESULT	UNIT	MDL
Trifluorotoluene	EPA 602	120	Percent	

Sample #: 3259203509
Received: 09/16/93
Type: Water

Collector: Client
Sampling Date & Time: 09/14/93, 1530
Method: Submitted By Client

I.D.: PW 2

Extraction Method/Date	EPA 5030	09/21/93		
Analysis Date		09/21/93		
EPA 8015M/602, Combination		*		
TPH-Gasoline	EPA 8015M	4.9 mg/l		0.75 mg/kg
Benzene	EPA 602	190 ug/l		3.8 ug/kg
Toluene	EPA 602	15 ug/l		3.8 ug/kg
Ethylbenzene	EPA 602	6.8 ug/l		3.8 ug/kg
Xylenes	EPA 602	480 ug/l		7.6 ug/kg
Surrogate		*		
Trifluorotoluene	EPA 602	92	Percent	

Sample #: 3259203510
Received: 09/16/93
Type: Water

Collector: Client
Sampling Date & Time: 09/14/93, 1545
Method: Submitted By Client

I.D.: RE 3

Extraction Method/Date	EPA 5030	09/20/93		
Analysis Date		09/20/93		
EPA 8015M/602, Combination		*		
TPH-Gasoline	EPA 8015M	40 mg/l		2.6 mg/l
Benzene	EPA 602	2900 ug/l		13 ug/l
Toluene	EPA 602	1500 ug/l		13 ug/l
Ethylbenzene	EPA 602	180 ug/l		13 ug/l
Xylenes	EPA 602	6900 ug/l		26 ug/l
Surrogate		*		
Trifluorotoluene	EPA 602	110	Percent	

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=====CONSTITUENT===== =====METHOD===== =====RESULT===== =====UNIT===== =====MDL=====

Sample #: 3259203511
 Received: 09/16/93
 Type: Water

Collector: Client
 Sampling Date & Time: 09/14/93, 1555
 Method: Submitted By Client

I.D.: Effluent

Extraction Method/Date	EPA 5030	09/20/93		
Analysis Date		09/20/93		
EPA 8015M/602, Combination		*		
TPH-Gasoline	EPA 8015M	ND mg/l		0.06 mg/l
Benzene	EPA 602	ND ug/l		0.3 ug/l
Toluene	EPA 602	ND ug/l		0.3 ug/l
Ethylbenzene	EPA 602	ND ug/l		0.3 ug/l
Xylenes	EPA 602	ND ug/l		0.6 ug/l
Surrogate		*		
Trifluorotoluene	EPA 602	85 Percent		

Sample #: 3259203512
 Received: 09/16/93
 Type: Water

Collector: Client
 Sampling Date & Time: 09/14/93, 1605
 Method: Submitted By Client

I.D.: Influent

Extraction Method/Date	EPA 5030	09/20/93		
Analysis Date		09/20/93		
EPA 8015M/602, Combination		*		
TPH-Gasoline	EPA 8015M	0.93 mg/l		0.06 mg/l
Benzene	EPA 602	26 ug/l		0.3 ug/l
Toluene	EPA 602	23 ug/l		0.3 ug/l
Ethylbenzene	EPA 602	2.6 ug/l		0.3 ug/l
Xylenes	EPA 602	140 ug/l		0.6 ug/l
Surrogate		*		
Trifluorotoluene	EPA 602	113 Percent		

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Sample #: 3259203513
Received: 09/16/93
Type: Water

Collector: Client
Sampling Date & Time: 09/14/93, 0700
Method: Submitted By Client

I.D.: Trip Blank

CONSTITUENT	METHOD	RESULT	UNIT	MDL
Extraction Method/Date	EPA 5030	09/20/93		
Analysis Date		09/20/93		
EPA 8015M/602, Combination		*		
TPH-Gasoline	EPA 8015M	0.46	mg/l	0.06 mg/l
Benzene	EPA 602	4.5	ug/l	0.3 ug/l
Toluene	EPA 602	4.2	ug/l	0.3 ug/l
Ethylbenzene	EPA 602	2.1	ug/l	0.3 ug/l
Xylenes	EPA 602	13	ug/l	0.6 ug/l
Surrogate		*		
Trifluorotoluene	EPA 602	120	Percent	

Respectfully Submitted,

Shahid Noori

Shahid Noori, Manager Chemical Lab

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September 27, 1993

Quality Control Report Matrix Spike and Duplicate Spike

Client: Thrifty Oil Co.
File No: 72546
Report No: 32592035
Matrix: Water
Method: EPA 602
Lab No: 3259135801
Batch No: 3260602-1

<u>PARAMETER</u>		<u>SAMPLE RESULTS</u> (ug/l)	<u>AMOUNT SPIKED</u> (ug/l)	<u>AMOUNT RECOVERED</u> (ug/l)	<u>% REC</u>	<u>SPIKE RECOVERY ACCEPTANCE RANGE(%)</u>	<u>R. P. D.</u>
Benzene	(S)	ND	16	14.1	88		
Benzene	(DS)	ND	16	15.2	95	64-125	8%
Toluene	(S)	ND	16	13.3	83		
Toluene	(DS)	ND	16	14.6	91	70-118	10%
Ethyl Benzene	(S)	ND	16	12.3	77		
Ethyl Benzene	(DS)	ND	16	13.7	85	70-121	11%
Xylene	(S)	ND	48	32	67		
Xylene	(DS)	ND	48	36	75	67-126	11%

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ACCTS. PAY. P/D

S = Spike
DS = Duplicate Spike
R.P.D. = Relative Percent Difference
ND = None Detected



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September 27, 1993

Quality Control Report Matrix Spike and Duplicate Spike

Client: Thrifty Oil Co.
File No: 72546
Report No: 32592035
Matrix: Water
Method: EPA 602
Lab No: 3259203511
Batch No: 3263602-1

<u>PARAMETER</u>		<u>SAMPLE RESULTS</u> (ug/l)	<u>AMOUNT SPIKED</u> (ug/l)	<u>AMOUNT RECOVERED</u> (ug/l)	<u>% REC</u>	<u>SPIKE RECOVERY ACCEPTANCE RANGE(%)</u>	<u>R. P. D.</u>
Benzene	(S)	ND	16	14.7	92		
Benzene	(DS)	ND	16	16.2	101	64-125	9%
Toluene	(S)	ND	16	14.4	90		
Toluene	(DS)	ND	16	15.7	98	70-118	9%
Ethyl Benzene	(S)	ND	16	13.8	86		
Ethyl Benzene	(DS)	ND	16	15.0	92	70-121	6%
Xylene	(S)	ND	48	38	78		
Xylene	(DS)	ND	48	39	82	67-126	4%

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ACCTS. PAY. P/D

S = Spike
DS = Duplicate Spike
R.P.D. = Relative Percent Difference
ND = None Detected



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September 27, 1993

Quality Control Report Matrix Spike and Duplicate Spike

Client: Thrifty Oil Co.
File No: 72546
Report No: 32592035
Matrix: Water
Method: EPA 602
Lab No: 3263131201
Batch No: 3263602-2

<u>PARAMETER</u>		<u>SAMPLE RESULTS</u> (ug/l)	<u>AMOUNT SPIKED</u> (ug/l)	<u>AMOUNT RECOVERED</u> (ug/l)	<u>% REC</u>	<u>SPIKE RECOVERY ACCEPTANCE RANGE(%)</u>	<u>R.P.D.</u>
Benzene	(S)	ND	22.7	17.9	79		
Benzene	(DS)	ND	22.7	19.2	85	64-125	7%
Toluene	(S)	ND	22.7	18.8	83		
Toluene	(DS)	ND	22.7	18.5	81	70-118	2%
Ethyl Benzene	(S)	ND	22.7	22.0	97		
Ethyl Benzene	(DS)	ND	22.7	19.4	85	70-121	13%
Xylene	(S)	ND	68.1	67.7	99		
Xylene	(DS)	ND	68.1	51.4	84	67-126	16%

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ROUTS. PAY. P/D

S = Spike
DS = Duplicate Spike
R.P.D. = Relative Percent Difference
ND = None Detected



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September 27, 1993

Quality Control Report Matrix Spike and Duplicate Spike

Client: Thrifty Oil Co.
File No: 72546
Report No: 32592035
Matrix: Water
Method: EPA 602
Lab No: 3260083215
Batch No: 3264602-1

<u>PARAMETER</u>		<u>SAMPLE RESULTS</u> (ug/l)	<u>AMOUNT SPIKED</u> (ug/l)	<u>AMOUNT RECOVERED</u> (ug/l)	<u>% REC</u>	<u>SPIKE RECOVERY ACCEPTANCE RANGE(%)</u>	<u>R. P. D.</u>
Benzene	(S)	ND	16	15.3	95		
Benzene	(DS)	ND	16	15.5	97	64-125	2%
Toluene	(S)	ND	16	14.9	93		
Toluene	(DS)	ND	16	15.3	96	70-118	2%
Ethyl Benzene	(S)	ND	16	14.1	88		
Ethyl Benzene	(DS)	ND	16	14.7	92	70-121	4%
Xylene	(S)	ND	48	38	79		
Xylene	(DS)	ND	48	40	83	67-126	5%

RECEIVED

OCT 4 1993

ACCTS. PAY. P/D

S = Spike
DS = Duplicate Spike
R.P.D. = Relative Percent Difference
ND = None Detected



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CHAIN OF CUSTODY AND ANALYSIS REQUEST

DATE: 9.14.93 PAGE 2 OF 2
FILE NO. 72546 LAB NO. 3259203507

CLIENT NAME: THRIFTY OIL CO

ANALYSES REQUESTED:

REMARKS:

PROJECT NAME: SS # 054 PROJECT NO. _____ P.O. NO. _____

ADDRESS: 2504 CASTRO VALLEY BLVD C.V. CA 94546

PROJECT MANAGER: MICHAEL COBURN PHONE #: (415) 923-9876 FAX #: _____

SAMPLER NAME: E. GARMAN *Eugene Gorman*
(Printed) (Signature)

TAT (Analytical Turn Around Time) 0 = Same Day, 1 = 24 Hour, 2 = 48 Hour, (Etc.)

CONTAINER TYPES: B = Brass, G = Glass, P = Plastic, V = Voa Vial, O = Other:

8015M GAS <input type="checkbox"/> DIESEL <input type="checkbox"/>	602/8020 BTEX	418.1																	

SAMPLE CONDITION/ COMMENTS:

SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX				TAT	CONTAINER		8015M GAS	602/8020 BTEX	418.1							
				WATER	SOIL	SLUDGE	OTHER		#	TYPE										
	9.14.93	1:00 P	RS-10	X					2	V	X	X								
	9.14.93	1:35 P	RS-9	X					2	V	X	X								
	9.14.93	2:00 P	RS-8	X					2	V	X	X								
	9.14.93	2:20 P	RE-1	X					2	V	X	X								
	9.14.93	2:35 P	RE-2	X					2	V	X	X								
	9.14.93	2:50 P	RE-5	X					2	V	X	X								
	9.14.93	3:00 P	RE-6	X					2	V	X	X								
	9.14.93	3:15 P	RV 1	X					2	V	X	X								
	9.14.93	3:30 P	RV 2	X					2	V	X	X								
	9.14.93	3:45 P	RV 3	X					2	V	X	X								

Relinquished By: (Signature and Printed Name) E. GARMAN Eugene Gorman Received By: (Signature and Printed Name) J. G. ... Date: 9/14/93 Time: 9:30 AM

Relinquished By: (Signature and Printed Name) _____ Received By: (Signature and Printed Name) _____ Date: _____ Time: _____

Relinquished By: (Signature and Printed Name) _____ Received By: (Signature and Printed Name) _____ Date: _____ Time: _____

SAMPLE DISPOSITION:

1. Samples returned to client? YES NO

2. Samples will not be stored over 30 days, unless additional storage time is requested.

3. Storage time requested: _____ days

By _____ Date _____

SPECIAL INSTRUCTIONS:



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CHAIN OF CUSTODY AND ANALYSIS REQUEST

DATE: 9.14.93 PAGE 2 OF 2
FILE NO. 72546 LAB NO. 3259203507

CLIENT NAME: TOC

ANALYSES REQUESTED:

REMARKS:

PROJECT NAME: SS #054 PROJECT NO. _____ P.O. NO. _____

ADDRESS: _____

PROJECT MANAGER: MICHAEL COSBY PHONE: (310) 923-9876 FAX #: _____

SAMPLER NAME: EUGENIU GASMAN *Eugeniu Gasman*
(Printed) (Signature)

TAT (Analytical Turn Around Time) 0 = Same Day, 1 = 24 Hour, 2 = 48 Hour, (Etc.)

CONTAINER TYPES: B = Brass, G = Glass, P = Plastic, V = Voa Vial, O = Other:

SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX				TAT	CONTAINER		8015M GAS <input checked="" type="checkbox"/> DIESEL <input type="checkbox"/>	602/8020 BTEX	418.1							SAMPLE CONDITION/ COMMENTS:
				WATER	SOIL	SLUDGE	OTHER		#	TYPE										
	9.14.93	3:55P	EFFLUENT	X					2	V	X	X								
	9.14.93	4:05P	INFLUENT	X					2	V	X	X								
	9.14.93	7:00A	TRIP BLANK	X					2	V	X	X								

Relinquished By: (Signature and Printed Name) E. GASMAN *Eugeniu Gasman*

Received By: (Signature and Printed Name) Juan Schmitt Date: 9/16/93 Time: 3:30 Am

Relinquished By: (Signature and Printed Name) _____

Received By: (Signature and Printed Name) _____ Date: _____ Time: _____

Relinquished By: (Signature and Printed Name) _____

Received By: (Signature and Printed Name) _____ Date: _____ Time: _____

SAMPLE DISPOSITION:
 1. Samples returned to client? YES NO
 2. Samples will not be stored over 30 days, unless additional storage time is requested.
 3. Storage time requested: _____ days
 By _____ Date _____

SPECIAL INSTRUCTIONS:




LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Company
Project No.: N/A
Project Name: TOC #054
Sample Matrix: Water
Method: EPA 8020 (BTEX)

AA Project No.: A135054-10
Date Received: 08/20/93
Date Reported: 08/27/93
Units: ug/L

	08/17/93	08/17/93	08/17/93	
Date Sampled:	08/17/93	08/17/93	08/17/93	
Date Analyzed:	08/23/93	08/23/93	08/23/93	
AA ID No.:	17381	17382	17383	
Client ID No.:	Effluent	Influent	Trip Blank	MRL
Compounds:				
Benzene	<0.5	5200	<0.5	0.5
Ethylbenzene	<0.5	<5	<0.5	0.5
Toluene	<0.5	370	<0.5	0.5
Xylenes	<1	2400	<1	1

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



George Havalias
Laboratory Director

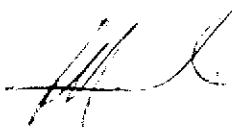


LABORATORY QA/QC REPORT

Client: Thrifty Oil Company
Project Name: TOC #054
Method: EPA 8020 (BTEX)
Sample ID: Matrix Spike
Concentration: 20 ug/L

AA ID No.: 17384
Project No.: N/A
AA Project No.: A135054-10
Date Analyzed: 08/23/93
Date Reported: 08/26/93

Compounds	Result (ug/L)	Spike Recovery (%)	Dup. Result (ug/L)	Spike/Dup. Recovery (%)	RPD (%)	Accept. Rec. Range (%)
Benzene	21	106	20.2	101	5	65 - 135
Ethylbenzene	22	110	21.0	105	5	77 - 123
Toluene	22	109	20.8	104	5	66 - 134
Xylenes	22	110	20.8	104	6	73 - 127



George Havallas
Laboratory Director



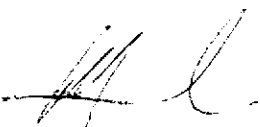
LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Company
Project No.: N/A
Project Name: TOC #054
Sample Matrix: Water
Method: EPA 8015M (Gasoline)

AA Project No.: A135054-10
Date Received: 08/20/93
Date Reported: 08/27/93
Units: mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	Results	MRL
17381	Effluent	08/17/93	08/23/93	<0.1	0.1
17382	Influent	08/17/93	08/23/93	18	0.1
17383	Trip Blank	08/17/93	08/23/93	<0.1	0.1

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



George Havalias
Laboratory Director

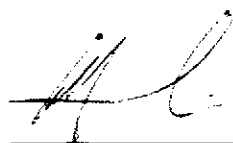


LABORATORY QA/QC REPORT

Client: Thrifty Oil Company
Project Name: TOC #054
Method: EPA 8015M (Gasoline)
Sample ID: Matrix Spike
Concentration: 0.5 mg/L

AA ID No.: 17384
Project No.: N/A
AA Project No.: A135054-10
Date Analyzed: 08/23/93
Date Reported: 08/26/93

Compounds	Result (mg/L)	Spike Recovery (%)	Dup. Result (mg/L)	Spike/Dup. Recovery (%)	RPD (%)	Accept. Rec. Range (%)
Gasoline Range Organics	0.535	107.0	0.52	104.0	2.8	51 - 149



George Havallas
Laboratory Director



AMERICAN ANALYTICS CHAIN-OF-CUSTODY RECORD

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(818) 998-5547

(818) 998-5548

1-800-533-TEST

1-800-533-8378

FAX (818) 998-7258

DATE: 8.17.93

PAGE 1 OF 1

AA Client THRIFTY OIL CO	Phone	Sampler's Name EUGENIU GARMAN
Project Manager MICHAEL COSBY	P.O. No.	Sampler's Signature <i>Eugeniu Gorman</i>
Project Name TOC SS # 054	Project No.	Project Manager's Signature <i>[Signature]</i>

						ANALYSIS REQUIRED										Test Requirements						
Job Name and Address						Detection Limits	/ / / / / / / / / / / / / / / /															
AA ID.#	Client's ID.	Date	Time	Sample Type	Number of Containers	Test Name	H	P	T	B	X											
17381	EFFLUENT	8-17-93	2:30P	GRAB	3		X	X														
17382	INFLUENT	8-17-93	2:55P	GRAB	3		X	X														
17383	TRIP BLANK	8-17-93	7:00A		2		X	X														

SAMPLE INTEGRITY-TO BE FILLED IN BY RECEIVING LAB				Relinquished by: <i>Eugeniu Gorman</i>	Date 8/20/93	Time 11:00	Received by: <i>Rohan Hal</i>	A.A.
Samples Intact Yes _____ No _____				Relinquished by:	Date	Time	Received by:	
Samples Properly Cooled Yes _____ No _____				Relinquished by:	Date	Time	Received by:	
Samples Accepted Yes _____ No _____				Relinquished by:	Date	Time	Received by:	
If Not Why: _____				Relinquished by:	Date	Time	Received by:	
AA Project No. A135054-10				Relinquished by:	Date	Time	Received by:	