THRIFTY OIL CO.

July 7, 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
2nd. QUARTER REPORT, 1993

Dear Mr. Seary,

This letter report presents the results of soil/groundwater treatment and site monitoring during the 2nd. quarter of 1993 at the subject site. The approximate location of the on- and off-site monitoring wells are shown on **Figure 1. During the reporting period, 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 June 9, 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 *3.55 to 9.00* feet below grade** which is consistent with previous data collected, only a slight drop noted. **As of June 9, 1993, four of the twelve wells exhibited noticeable floating product that was measurable only as a sheen or film.** 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* at a gradient of about 4 feet per 100 feet. **No pumping depressions were noted as the unit was not yet operational.**

Prior to collecting groundwater samples from the wells that did not exhibit free floating hydrocarbons, about 4 well volumes of groundwater was removed using a PVC bailer. 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 American Analytics, a state certified analytical laboratory headquartered in Chatsworth, 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 no detectable hydrocarbons. Iso-concentration maps of TPH and benzene based on the June sampling event are presented as **Figures 2 and 3.**

Treatment Unit Operation Status

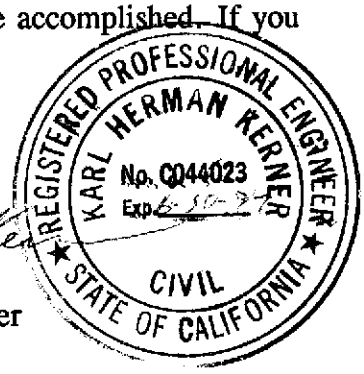
Based on the data obtained by EMC, **the RSI-SAVE unit has operated a total of 3209 hours. The unit did not operate this quarter.** A total of about 2672 gallons of water has been processed by the unit and discharged to the local sanitary sewer to date. However, no discharge of water occurred this period.

Although the treatment unit has been repaired and is operational, start-up has not been accomplished. EMC has ordered some monitoring equippment for the unit, ENERAC 2000, and when the equippent is recieved the unit will be placed back on-line.

Closing

Thrifty will continue to conduct quarterly groundwater monitoring at the site. In addition, the RSI-SAVE system will be restarted and appropriate monitoring will be accomplished. If you have any questions please contact me at (310) 923-9876.

Very truly yours,



Peter D'Amico
Manager
Environmental Affairs

Karl H. Kerner
Engineer
Environmental Affairs

Table 1 - Summary of Analytical Results

I.D	Date	D-Wat	TPH	Benzene	Toluene	E-Benzene	Xylenes
PW-1	4/11/88	--	NSC				
(166.46)	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
PW-2	4/11/88	--	NSC				
(166.18)	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

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	4/11/88	--	37000	1900	8400	1200	15000
(166.82)	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				
RE-2	4/11/88	--	NSC				
(167.19)	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

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	4/11/88	--	70000	6600	5300	800	13000
(167.39)	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				
RE-4	4/11/88	--	150000	12000	8000	1000	27000
(166.94)	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	670
	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				

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	4/11/88	--	14000	1300	1100	100	2600
(166.51)	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
RE-6	4/11/88	--	6000	3000	40	80	140
(166.51)	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	120000	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

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	4/11/88	--	<50000	17000	4400	600	8400
(166.04)	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				
RS-8	8/07/91	9.68	ND	ND	ND	ND	ND
(164.32)	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
RS-9	8/07/91	2.28	NA	0.5	ND	330	1200
(167.51)	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

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	8/07/91	6.16	ND	ND	ND	ND	ND
(162.89)	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

Results reported in micrograms per liter (ug/L)

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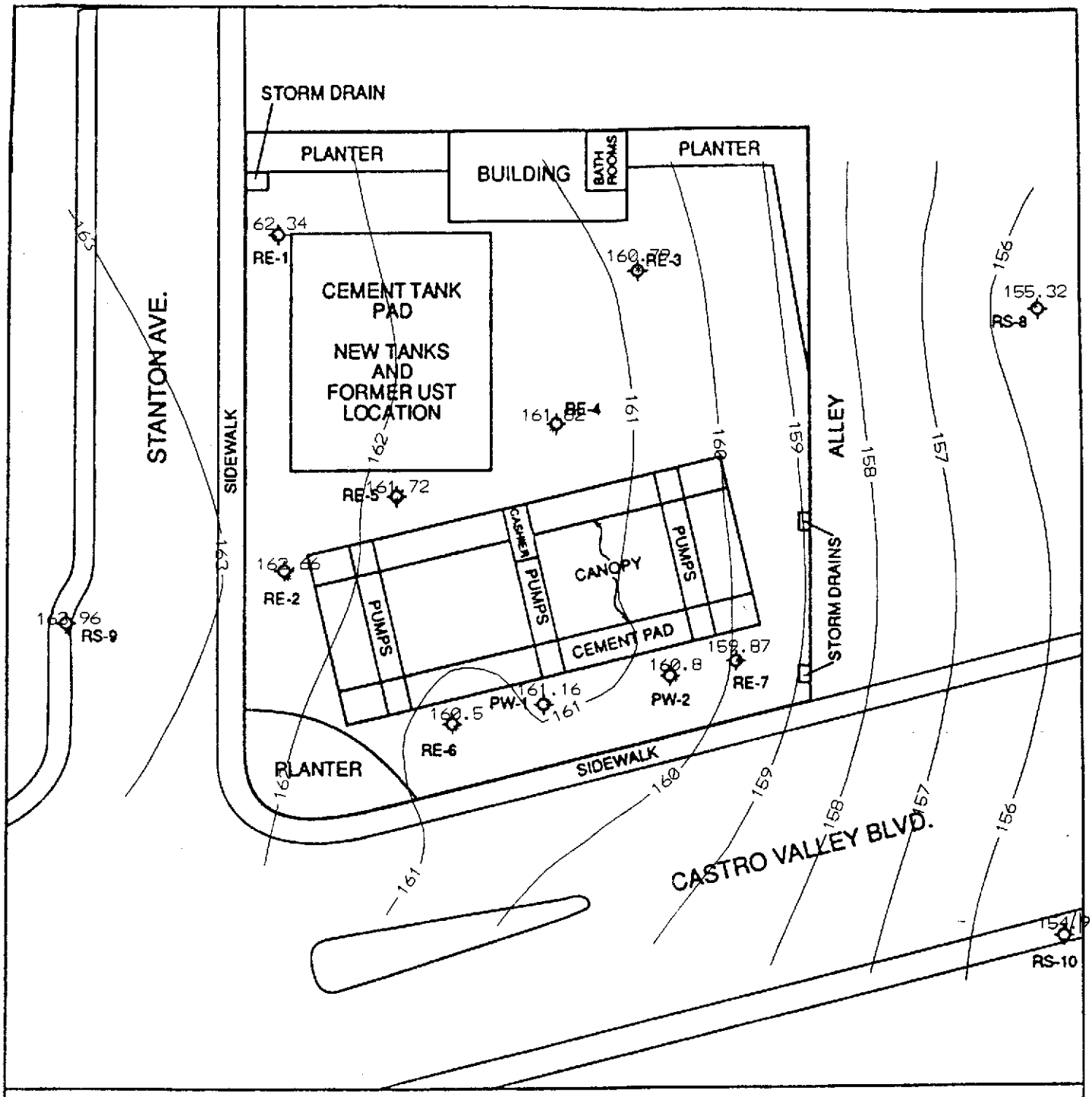
TPH - Total Petroleum Hydrocarbons as gasoline.
D-Wat - Depth to Water.
NSC - No sample collected due to film or sheen of liquid phase hydrocarbons.



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

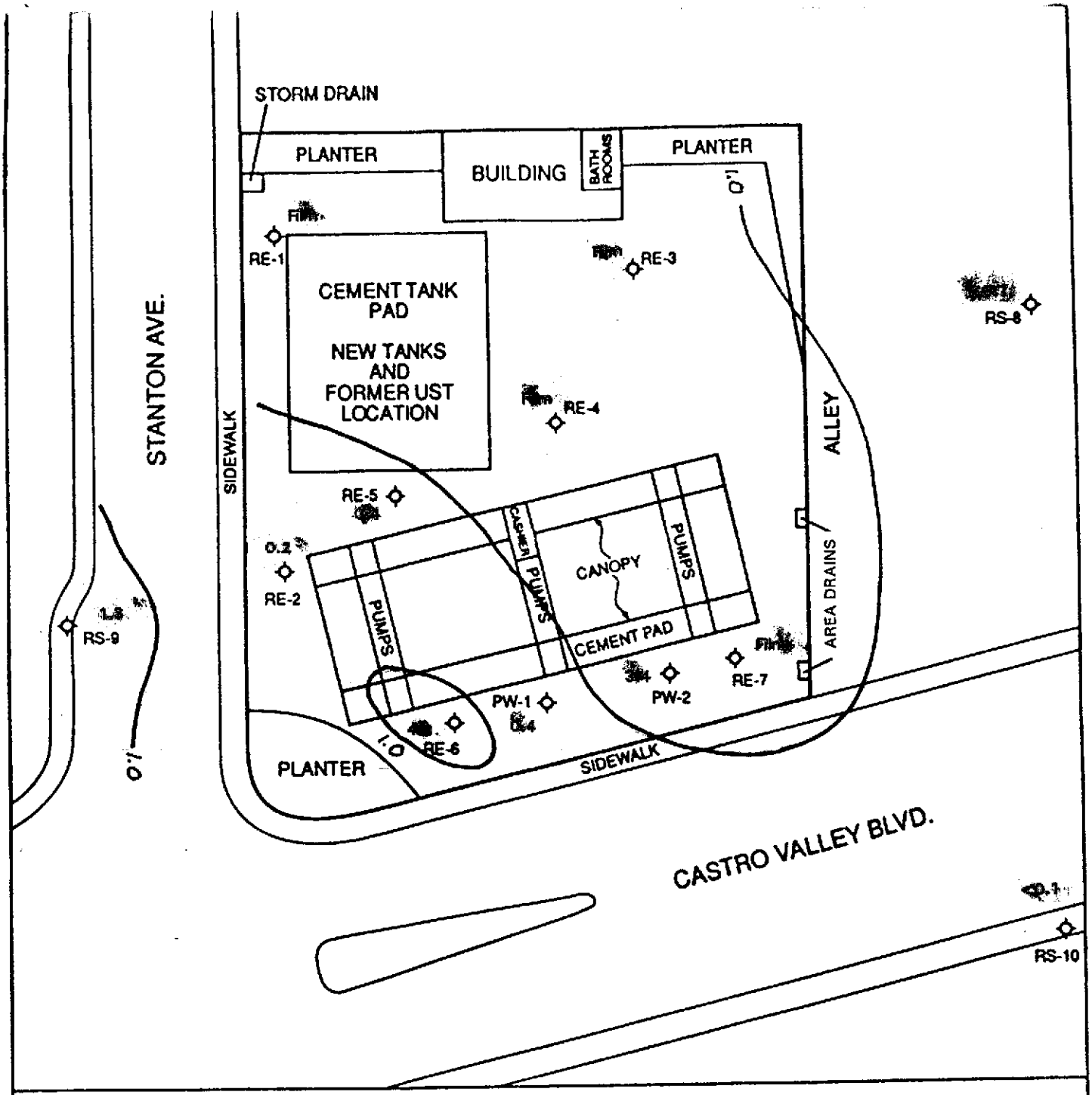
0 25 50
SCALE IN FEET

N

GROUNDWATER CONTOUR (6/9/93)

EXISTING MONITORING WELL

FIG. 1



TPH
~~BENZENE~~ ISO-CON MAP

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

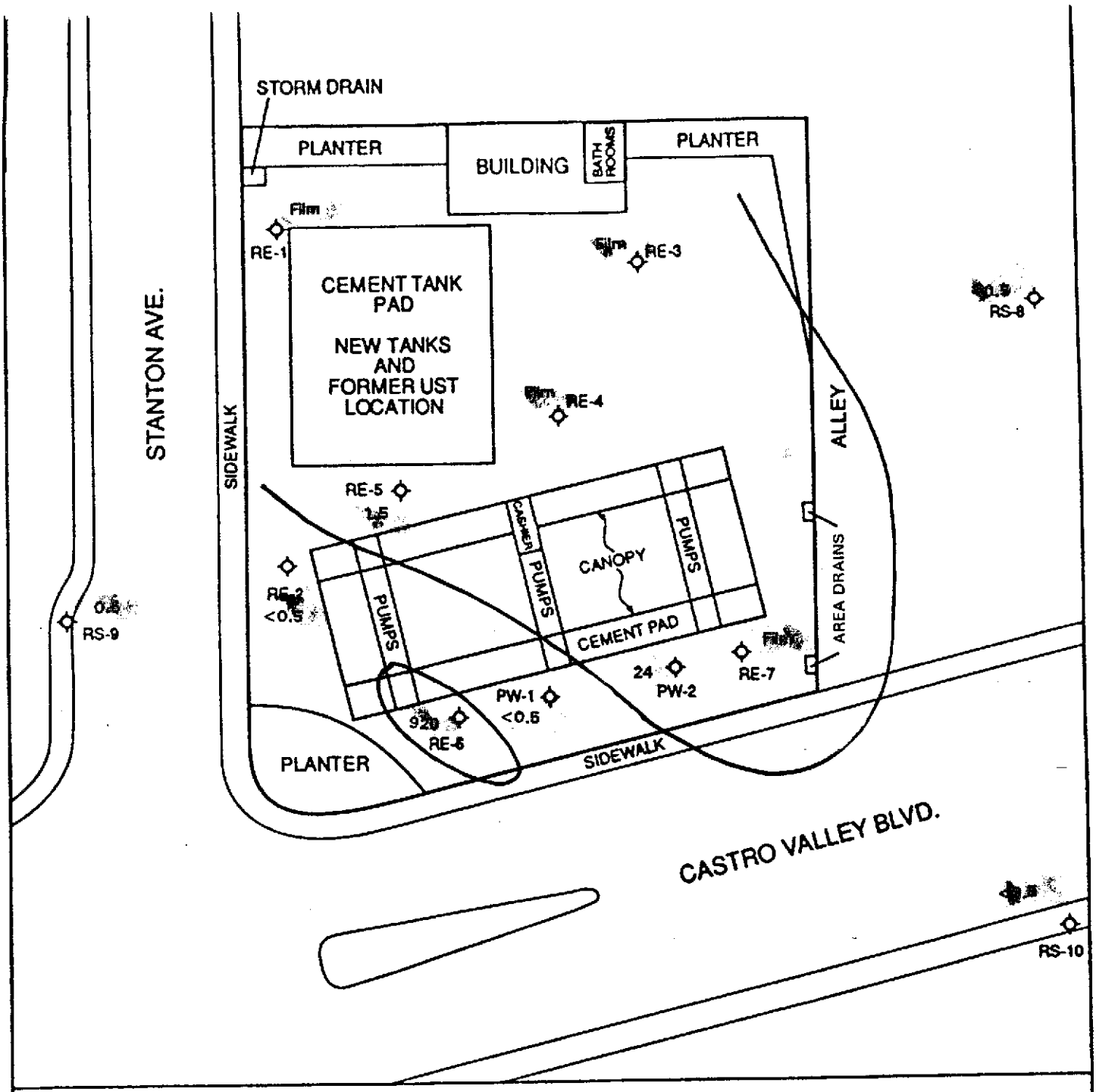
0 25 50
SCALE IN FEET

N

TPH iso-con., 6/9/93, ppm

EXISTING MONITORING WELL

FIG. 2



BENZENE

~~TPH~~ ISO-CON MAP

THRIFTY OIL CO. #054

CASTRO VALLEY, CALIFORNIA

Prepared for

THRIFTY OIL CO.

DOWNEY, CALIFORNIA

0 25 50

SCALE IN FEET

N

/ - Benzene Isocon., 6/9/93, ppb

◇ EXISTING MONITORING WELL

FIG. 3

EARTH MANAGEMENT CO.
Environmental Remediation

PROJECT STATUS REPORT
THRIFTY OIL CO. S.S. #054
2504 CASTRO VALLEY BLVD.
CASTRO VALLEY, CA 94546
DATE: 6.9.93

FREQ.	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	5.30				X			X	X	-						
M	PW-2	5.38				X			X	X	-						
M	RE-1	4.48	SHEEN				X		X	X	-						
M	RE-2	4.53				X			X	X	-						
M	RE-3	6.60	SHEEN				X		X	X	-						
M	RE-4	5.12	Film				X		X	X	-						
M	RE-5	5.42				X			X	X	-						
M	RE-6	6.01				X			X	X	-						
M	RE-7	6.17	Film				X		X	X	-						
M	RS-8	9.00				X			X	-	X						
M	RS-9	3.55				X			X	-	X						
M	RS-10	7.98				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	N/O	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. GASMAN INPUT BY: M.M. >\FF\054rsirt

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

DATE 6.9.93 STATION NO. 054

PERSONNEL E. CASMAN T. ROSU

WELL NO. # PW2 WEATHER SUNNY

SAMPLE EQUIPMENT TEFLON BAILER

Before Sampling

Total Well Depth 14.40 Ft. Well Diameter 4"

Depth to Water 5.38 Ft. Purge Volume 24 gallons

Sampling Data

Time	2:40	2:45	2:50	2:55	2:57	3:02	3:07
EC	382	327	304	292	294	292	292
pH	7.28	6.97	6.90	6.90	6.86	6.86	6.85
Temp	74.	74	74	73.7	73.7	73.6	73.6
Gal.	4	8	10	12	16	20	24
Time							
EC							
pH							
Temp							
Gal.							

After Sampling

Depth to Water 5.81 Ft. Total Well Depth 14.40 Ft.

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

DATE 6 [illegible] STATION NO. 051

PERSONNEL E. GARMAN, T. ROSU

WELL NO. PW-1 WEATHER SUNNY

SAMPLE EQUIPMENT TEFLON BAILER

Before Sampling

Total Well Depth 14.10 Ft. Well Diameter 4"

Depth to Water 5.30 Ft. Purge Volume 23 gallons

Sampling Data

Time	2:00	2:05	2:10	2:15	2:20	2:25	2:30
EC	334	336	338	342	342	342	342
pH	7.26	7.24	7.23	7.18	7.14	7.14	7.12
Temp	73.6	73.4	73	72.6	72.3	71.8	71.8
Gal.	3	7	10	14	17	20	23
Time							
EC							
pH							
Temp							
Gal.							

After Sampling

Depth to Water 6.00 Ft. Total Well Depth 14.10 Ft.

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

DATE 6.9.93 STATION NO. 054

PERSONNEL E. GAEMAN, T. ROSU

WELL NO. RE 6 WEATHER SUNNY

SAMPLE EQUIPMENT TEFLON BAILER

Before Sampling

Total Well Depth 13.25 Ft. Well Diameter 4"

Depth to Water 6.01 Ft. Purge Volume 19 gallons

Sampling Data

Time	1:25	1:30	1:35	1:40	1:45	1:50	1:55
EC	1240	1230	1220	1210	1210	1210	1210
pH	7.23	6.96	6.89	6.87	6.86	6.87	6.87
Temp	75	74.2	74	73.5	73	73	72.9
Gal.	5	7	10	12	15	17	19
Time							
EC							
pH							
Temp							
Gal.							

After Sampling

Depth to Water 6.15 Ft. Total Well Depth 13.25 Ft.

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

DATE 6.9.93 STATION NO. 054

PERSONNEL E. GARMAN, T. ROSU

WELL NO. RE-5 WEATHER SUNNY

SAMPLE EQUIPMENT TEFLON BAILER

Before Sampling

Total Well Depth 18.25 Ft. Well Diameter 4"

Depth to Water 5.42 Ft. Purge Volume 34 gallons

Sampling Data

Time	12:45	12:50	12:55	1:00	1:05	1:10	1:15
EC	1040	1060	1040	1030	1020	1020	1020
pH	6.96	6.94	6.87	6.88	6.92	6.96	6.96
Temp	7.26	72	71.4	71	70.6	70.4	70.4
Gal.	5	10	15	20	25	30	34
Time							
EC							
pH							
Temp							
Gal.							

After Sampling

Depth to Water 6.10 Ft. Total Well Depth 18.25 Ft.

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

DATE 6.9.93 STATION NO. 054

PERSONNEL E. GARMAN, T. ROSS

WELL NO. RE 2 WEATHER SUNNY

SAMPLE EQUIPMENT TEFLON BAILER

Before Sampling

Total Well Depth 17.10 Ft. Well Diameter 4'

Depth to Water 4.53 Ft. Purge Volume 33 gallons

Sampling Data

Time	12:05	12:10	12:15	12:20	12:25	12:30	12:35
EC	840	840	837	840	845	845	840
pH	7.43	7.30	7.20	7.13	7.06	7.06	7.06
Temp	71.8	71.6	71.7	71	70	69.6	69.6
Gal.	5	10	15	20	25	30	33
Time							
EC							
pH							
Temp							
Gal.							

After Sampling

Depth to Water 4.82 Ft. Total Well Depth 17.10 Ft.

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

DATE 6.9.93 STATION NO. 054

PERSONNEL E. GARMAN, T. ROSU

WELL NO. RS-9 WEATHER SUNNY

SAMPLE EQUIPMENT TEFLON BAILER

Before Sampling

Total Well Depth 15 Ft. Well Diameter 2"

Depth to Water 3.55 Ft. Purge Volume 7 gallons

Sampling Data

Time	11:35	11:37	11:40	11:42	11:44	11:47	11:50
EC	899	890	873	870	871	870	870
pH	7.60	7.43	7.36	7.34	7.30	7.31	7.30
Temp	74.2	73.3	72.4	72	71.7	71.6	71.7
Gal.	1	2	3	4	5	6	7
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 6.9.93 STATION NO. 054

PERSONNEL E. GARMAN, T. ROW

WELL NO. R.S-8 WEATHER SUNNY

SAMPLE EQUIPMENT TEFLON BAILER

Before Sampling

Total Well Depth 25.20 Ft. Well Diameter 2"

Depth to Water 9.00 Ft. Purge Volume 11 gallons

Sampling Data

Time	11:05	11:07	11:09	11:11	11:14	11:16	11:20
EC	1340	1210	1140	1130	1130	1130	1130
pH	7.50	7.34	7.29	7.34	7.24	7.23	7.23
Temp	72.8	71.6	71.2	70.7	69.9	69.9	69.8
Gal.	1	3	4	6	8	10	11
Time							
EC							
pH							
Temp							
Gal.							

After Sampling

Depth to Water 9.15 Ft. Total Well Depth 25.20 Ft.

FIELD DATA - GROUNDWATER WELL SAMPLING PROGRAM

DATE 6.9.1993 STATION NO. 054

PERSONNEL E.GASMAN, T. ROSU

WELL NO. R.S-10 WEATHER SUNNY

SAMPLE EQUIPMENT TEFLON BAILER

Before Sampling

Total Well Depth 24.45 Ft. Well Diameter 2"

Depth to Water 7.98 Ft. Purge Volume 11 gallons

Sampling Data

Time	10:40	10:42	10:44	10:46	10:48	10:50	10:53
EC	499	492	491	489	490	489	490
pH	7.22	7.07	7.04	7.01	6.99	7.01	7.02
Temp	73.8	72.6	71.8	71	70.7	70.6	70.6
Gal.	1	3	5	7	8	10	11
Time							
EC							
pH							
Temp							
Gal.							

After Sampling

Depth to Water 8.03 Ft. Total Well Depth 24.45 Ft.

AMERICAN ANALYTICS

LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Company
Project No.: N/A
Project Name: TOC #054
Sample Matrix: Water
Method: EPA 8020 (BTEX)/8015M (Gasoline)

AA Project No.: A135054-9
Date Sampled: 6/9/93
Date Received: 6/14/93
Date Reported: 6/17/93

Date Analyzed:	**6/15/93**	**6/15/93**	**6/15/93**	**6/15/93**		
AA I.D. #:	**15991**	**15992**	**15993**	**15994**	**Reporting**	
Client I.D. #:	**PW 1**	**PW 2**	**RE 2**	**RE 5**	**Detection Limits**	**Units**
Compounds						
Benzene	<0.5	24	<0.5	1.5	0.5	µg/L
Toluene	1.1	2.2	<0.5	0.5	0.5	µg/L
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	0.5	µg/L
Xylenes	<1	240	<1	12	1	µg/L
Gasoline Range Organics	0.4	3.4	0.2	0.4	0.1	mg/L

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

George Havalias
Laboratory Director

mls

American Analytics • 9765 Eton Avenue, Chatsworth, California 91311
Tel: (818) 998-5547 • (800) 533-8378 • Fax: (818) 998-7258

AMERICAN ANALYTICS

LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Company
Project No.: N/A
Project Name: TOC #054
Sample Matrix: Water
Method: EPA 8020 (BTEX)/8015M (Gasoline)

AA Project No.: A135054-9
Date Sampled: 6/9/93
Date Received: 6/14/93
Date Reported: 6/17/93

Date Analyzed:	**6/15/93**	**6/15/93**	**6/15/93**	**6/15/93**		
AA I.D. #:	**15995**	**15996**	**15997**	**15998**	**Reporting**	
Client I.D. #:	**RE 6**	**RS 8**	**RS 9**	**RS 10**	**Detection Limits**	**Units**
Compounds						
Benzene	920	<0.5	0.6	<0.5	0.5	µg/L
Toluene	6.2	<0.5	1.7	<0.5	0.5	µg/L
Ethylbenzene	3.2	<0.5	<0.5	<0.5	0.5	µg/L
Xylenes	12	<1	7.5	<1	1	µg/L
Gasoline Range Organics	4.8	<0.1	1.3	<0.1	0.1	mg/L

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

George Havalias
Laboratory Director

mls

AMERICAN ANALYTICS

LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Company
Project No.: N/A
Project Name: TOC #054
Sample Matrix: Water
Method: EPA 8020 (BTEX)/8015M (Gasoline)

AA Project No.: A135054-9
Date Sampled: 6/9/93
Date Received: 6/14/93
Date Reported: 6/17/93

Date Analyzed:	**6/15/93**		
AA I.D. #:	**15999**		
Client I.D. #:	**Trip Blank**	**Reporting Detection Limits**	**Units**
Compounds			
Benzene	<0.5	0.5	µg/L
Toluene	<0.5	0.5	µg/L
Ethylbenzene	<0.5	0.5	µg/L
Xylenes	<1	1	µg/L
Gasoline Range Organics	<0.1	0.1	mg/L

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

George Havalias
Laboratory Director

mls

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AMERICAN ANALYTICS

LABORATORY QA/QC REPORT

Client: Thrifty Oil Company
Method: EPA 8020 (BTEX)/8015M (Gasoline)
Sample ID: Matrix Spike

A.A. Project No.: A135054-9
Sample Matrix: Water
Date Analyzed: 6/15/93
Date Reported: 6/18/93

Compounds	Spike Recovery (%)	Spike/Duplicate Recovery (%)	RPD (%)
Benzene	104	101	3
Toluene	99	98	1
Ethylbenzene	102	101	1
Total Xylenes	102	102	0
Gasoline Range Organics	98	96	2

RPD: Relative Percent Difference

George Havalias
Laboratory Director

mls

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: 6-9-93

PAGE 1 OF 1

AA Client: THRIFTY OIL CO	Phone: 213 923 9876	Sampler's Name: EUGENIU GARMAN	
Project Manager: MICHAEL COSBY	P.O. No.	Sampler's Signature: Eugeniu Garman	
Project Name: TOC 35 # 0054	Project No.	Project Manager's Signature	
Job Name and Address: TOC 35 # 0054			

ANALYSIS REQUIRED

A.A. I.D.#	Client's I.D.	Date	Time	Sample Type	Number of Containers	Detection Limits / Test Name: TPH	BTEX	Test Requirements
15991	PW 1	6-9-93	1:00 P	GRAB	3	X	X	
15992	PW 2	6-9-93	1:30 P	GRAB	3	X	X	
15993	RE 2	6-9-93	2:45 P	GRAB	3	X	X	
15994	RE 5	6-9-93	3:05 P	GRAB	3	X	X	
15995	RE 6	6-9-93	3:35 P	GRAB	3	X	X	
15996	RS 8	6-9-93	1:15 P	GRAB	3	X	X	
15997	RS 9	6-9-93	2:20 P	GRAB	3	X	X	
15998	RS 10	6-9-93	1:30 P	GRAB	3	X	X	
15999	TRIP BLANK	6-9-93	7:00 A		2	X	X	

SAMPLE INTEGRITY-TO BE FILLED IN BY RECEIVING LAB	
Samples Intact	Yes ____ No ____
Samples Properly Cooled	Yes ____ No ____
Samples Accepted	Yes ____ No ____
If Not Why:	
AA Project No.	A13S054-9

Relinquished by:	Date	Time	Received by:
Eugeniu Garman	6/14/93	15:00	Karen Hol A.A.
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:

DISTRIBUTION: White - Laboratory, Canary - Laboratory, Pink - Account Executive, Gold - Client

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: 3-10-93

PAGE 1 OF 1

AA Client: THRIFTY OIL CO		Phone: 310-923-9876	Sampler's Name: EUGENIU GASMAN
Project Manager: MICHAEL COSBY		P.O. No.	Sampler's Signature: Eugeniu Gasman
Project Name: SS # 054		Project No.	Project Manager's Signature
Job Name and Address: SS # 054			

ANALYSIS REQUIRED

AA I.D.#	Client's I.D.	Date	Time	Sample Type	Number of Containers	Detection Limits / Test Name: TPH	BTEX								Test Requirements
14140	RS-10	3-10-93	2:10P	GRAB	2	X	X								
14141	RS-9	3-10-93	2:45P	GRAB	2	X	X								
14142	RS-8	3-10-93	2:30P	GRAB	2	X	X								
14143	RE 6	3-10-93	3:45P	GRAB	2	X	X								
14144	RE 5	3-10-93	3:05P	GRAB	2	X	X								
14145	RE 2	3-10-93	3:30P	GRAB	2	X	X								
14146	TRIP BLANK	3-10-93	7:00A		2	X	X								

SAMPLE INTEGRITY-TO BE FILLED IN BY RECEIVING LAB

Samples Intact Yes ____ No ____

Samples Properly Cooled Yes ____ No ____

Samples Accepted Yes ____ No ____

If Not Why: ____

AA Project No. A135054-8

Relinquished by:	Date	Time	Received by:
Eugeniu Gasman	3-12-93	10:00	Robin Hall

DISTRIBUTION: White - Laboratory, Canary - Laboratory, Pink - Account Executive, Gold - Client

END

OF

REPORT