



1386 EAST BEAMER: STREET WOODLAND CA 95776-6003 0 17(\$30) 668-5300, FAX (530) 662-0273 Wege@mother.com

February 23, 1998

Mr. John Rutherford
Desert Petroleum
P.O. Box 1601
Oxnard, California 93032
(805) 644-6784 FAX (805) 654-0720

Dear Mr. Rutherford:

The following report documents the Fourth Quarter 1997 collection and certified laboratory analysis of groundwater samples from five monitoring wells and three water recovery wells associated with former Desert Petroleum Station #793.

1.0 SITE LOCATION AND DESCRIPTION

Former Desert Petroleum #793 is a non-active service station, located on the northwest corner of the intersection of Park Blvd. and Hampel Street at 4035 Park Blvd., Oakland, California (Figure 1). The site is located in projected section 32; T1S; R3W; MDB&M at an approximate elevation of 210 feet above mean sea level (Figure 2).

2.0 LOCAL GEOLOGY

2.1 Geomorphology

The site is located on the western slope of the Berkeley Hills. The Berkeley Hills are a northwest-southeast trending range within the Coastal Range Province of California. Erosion of the Coastal Ranges has filled the valleys within and bordering the Coastal Range with sequences of gravels, silts, sands, and clays.



2.2 Stratigraphy

The native soil from surface to 13 feet below ground surface (BGS) consists of dark brown silty clay. The dark brown clay is underlain by light brown stiff clay that includes surrounded to rounded metavolcanic gravel. This clay extends to approximately 23 feet BGS at the northwest corner of the site. A fine to medium sand, clayey sand, and silty sand underlies the gravel and clay.

3.0 COLLECTION AND ANALYSIS OF GROUNDWATER SAMPLES, 9/2/97

WEGE and LTT (Lawrence Tank Testing) personnel conducted a quarterly groundwater monitoring round at the site on November 24, 1997. Water samples were collected from monitor wells MW1, RS-2, RS-5, and RS-6 located on-site and RS-7 located in the center of Brighton Avenue to the northeast of the site (Figure 3). Water samples were also collected from the three on-site water recovery wells (R1 and R2). No water sample was collected from on-site recovery well R3, due to lack of recoverable water. See Appendix A for QA/QC, details, methods, procedures, abbreviations, and acronyms used in sampling and analysis.

3.1 Depth to Water Measurements

Depth to water was measured at all monitor wells and the three on-site water recovery wells (R1-R3). The depth to water measurements were made using a product/water interface probe. Measurements were made from the surveyed elevation at the top of casing at each well. Table 1 shows the elevation of groundwater with respect to mean sea level for all monitor wells on September 2, 1997.

3.2 Purging of Monitor Wells

Lawrence Tank Testing using a truck mounted vacuum lift pump and one-inch diameter PVC tubing purged the monitor wells of three volumes of water. The specific volume of water removed from each well is recorded on the well sampling data sheets (Appendix B).

3.3 Collection and Certified Analysis of Groundwater Samples

After purging, the wells were allowed to recover to at least 80% of their original well volumes. A groundwater sample was then collected from each well with a disposable polyethylene bailer and decanted, with no headspace, into two 40 ml VOA vials containing 0.5 ml HCL acid as a preservative. North State Environmental Laboratories analyzed all water samples for concentrations of TPH-G, BTEX, and MTBE using EPA methods 5030/8015M/8020 (Appendix C). The presence of MTBE was verified with EPA Method 8260.

3.4 Disposition of Waste Water

The wastewater generated from the purging of the monitor wells during sampling was contained on-site in labeled 55 gallon DOT approved drums. The drummed wastewater will be removed from the site and transported to a recycling facility by Evergreen Environmental Services.

4.0 RESULTS OF QUARTERLY GROUNDWATER MONITORING

4.1 Groundwater Gradient and Flow Direction

Figure 4 shows the groundwater elevation gradients and flow direction that were derived from the depth to water measurements from on-site monitor wells on November 24, 1997. The groundwater elevation has risen by an average of 1.0 feet in the monitor wells since the previous quarterly monitoring round on September 2, 1997. (Table 1).

The current flow direction is to north and northwest. The hydraulic gradient averages 0.11 feet/linear foot downgradient from the overexcavated area at the site (Figure 4). The current flow direction and hydraulic gradient is consistent with previous gradient determinations by WEGE.

4.2 Results of Certified Analysis of Groundwater Samples

The results of the certified analyses of groundwater samples collected on September 2, 1997 are shown in Table 1 and Figure 5. Copies of the laboratory reports are included as Appendix C of this report.

TPH-G concentrations in water samples from the five monitor wells and three recovery wells ranged from a maximum of 45,000 ug/l at monitor well RS-5 to less than laboratory detection limits (50 ug/l) in monitor wells MW1 and RS-2. Benzene concentrations ranged from a maximum of 15,000 ug/l in water recovery well R-2 to less than laboratory detection limits (0.5 ug/l) in monitor wells MW1 and RS-2.

MTBE was below lower laboratory detection limits of 0.5 ug/l in all wells. Figure 5 shows the areal distribution of TPH-G, BTEX, and MTBE in groundwater in ug/l as determined from groundwater samples collected from the monitor wells on November 24, 1997.

5.0 LIMITATIONS

This report is based upon the following:

- A. The observations of field personnel.
- B. The results of laboratory analyses performed by a state certified laboratory.
- C. Referenced documents.
- D. Our understanding of the regulations of the State of California, Alameda County and the City of Oakland.
- E. Changes in groundwater conditions can occur due to variations in rainfall, temperature, local and regional water use, and local construction practices.
- F. In addition, variations in the soil and groundwater conditions could exist beyond the points explored in this investigation.

State Certified Laboratory analytical results are included in this report. This laboratory follows EPA and State of California approved procedures; however, WEGE is not responsible for errors in these laboratory results. Western Geo-Engineers is a corporation under California Registered Geologist #3037 and/or Contractors License #513857. The services performed by Western Geo-Engineers have been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the State of California and the Oakland area. Our work and/or supervision of remediation and/or abatement operations, active or preliminary, at this site is in no way meant to imply that we are owners or operators of this site. Known or suspected contamination of soil and/or groundwater must be reported to the appropriate agencies in a timely manner. No other warranty, expressed or implied, is made.

Sincerely,

George Converse

Geologist

Jack E. Napper

NAPPER

Ca. Reg. Geologist #3037

cc: Mr.Tom Peacock, Alameda County Health (510) 567-6774

TABLE 1
GROUNDWATER ELEVATIONS AND CERTIFIED ANALYTICAL LABAORATAORY RESULTS FROM WATER SAMPLES
DESERT PETROLEUM, INC. SITE #793
4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

				m bares ber	billion [ug/	n' bboll				
		(AMSL = Abo	ve mean se	a level)						
ID#	DATE	WELL	DEPTH TO	GROUND	TPH-G	BENZENE	TOLUENE	ETHYL-	XYLENES	MTBE
	SAMPLED	CASING	GROUND	WATER	100			BENZENE		
		ELEVATION	WATER	ELEVATION						
		(FEET AMSL)	(FEET)	(FEET AMSL)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
RS-1	12/14/89	240	24.25	215.75	19000	2600	2700	200	1200	
RS-1	12/90				15000	3500	330	170	760	
RS-1	2/91				6900	910	200	39	540	
RS-1	6/91				1600	56	180.000	12	26	
RS-1	9/91				4100	730	7.6	5.1	24	
RS-1	12/91				8300	950	160	71	190	
RS-1	11/09/92	100.18	17.05	83.13	1700	730	9.6	16	14	
RS-1	04/07/94	100.18	13	87.18	860	84	12	16	110	
RS-1	06/19/94	228.15	13.37	214.78	1400	150	12	52	87	
RS-1	09/17/94	228.15	16.33	211.82	310	30	1.8	2.8	3.9	
RS-1	03/12/95	228.15	4.66	223.49	ND	ND	ND	ND	ND	
		DESTROYED B	Y OVER-EXC	AVATION OF	UST-DISPENSE	AREAS (3/14/95			
		REPLACED WI	TH MW-1 9/	5/95.						
MW-1	10/04/95	232.57	12.38	220.19	ND	ND	ND	ND	ND	
MW-1	12/21/95	232.57	13.40	219.17	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.
MW-1	03/27/96	232.57	5.53	227.04	< 50	< 0.5	< 0.5	< 0.5	< 2	< 5
MW-1	06/11/96	232.57	9.02	223.55	< 50	< 0.5	< 0.5	< 0.5	< 2	< 5
MW-1	09/04/96	232.57	11.84	220.73	< 50	< 0.5	< 0.5	< 0.5	< 2	<
MW-1	12/11/96	232.57	12.98	219.59	< 50	< 0.5	0.9	< 0.5	< 1	< 0.
MW-1	2/21/97	232.57	9.50	223.07	< 50	< 0.5	0.9	< 0.5	< 1	< 0.5
MW-1	5/28/97	232.57	11.18	221.39	< 50	3	3	< 0.5	< 1	< 0.5
MW-1	9/2/97	232.57	13.00	219.57	< 50	5	< 0.5	< 0.5	< 1	< 0.5
MW-1	11/24/97	232.57	14.12	218.45	< 50	5	< 0.5	< 0.5	< 1	< 0.5

TABLE 1
GROUNDWATER ELEVATIONS AND CERTIFIED ANALYTICAL LABAORATAORY RESULTS FROM WATER SAMPLES
DESERT PETROLEUM, INC. SITE #793
4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

		(All concen	trations i	in parts per	billion [ug/	L, ppb])				
l		(AMSL = Abo			normal property of the state of	er-reconstruction				
ID#	DATE	WELL	DEPTH TO	GROUND	TPH-G	BENZENE	TOLUENE	ETHYL-	XYLENES	MTBE
	SAMPLED	CASING	GROUND	WATER				BENZENE		
		ELEVATION	WATER	ELEVATION				l 1		
		(FEET AMSL)	(FEET)	(FEET AMSL)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
RS-2	06/19/94	227.19	10.89	216.3	140	9.2	34	4.3	24.0	
RS-2	03/12/95	227.19	5.26	221.93	ND	ND	ND	ND	ND	
RS-2	10/04/95	230.43	15.05	215.38	ND	ND	ND	ND	ND	
RS-2	12/21/95	230.43	9.95	220.48	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
RS-2	03/27/96	230.43	6.28	224.15	< 50	< 0.5	< 0.5	< 0.5	< 2	< 50
RS-2	06/11/96	230.43	8.00	222.43	< 50	1.2	2.8	< 0.5	< 2	< 50
RS-2	09/04/96	230.43	9.89	220.54	< 50	< 0.5	< 0.5	< 0.5	< 2	< 5
RS-2	12/11/96	230.43	8.38	222.05	< 50	< 0.5	< 0.5	< 0.5	< 1	6
RS-2	2/21/97	230.43	6.96	223.47	< 50	< 0.5	< 0.5	< 0.5	< 1	< 0.5*
RS-2	5/28/97	230.43	10.02	220.41	< 50	3	3	< 0.5	< 1	< 0.5*
RS-2	9/2/97	230,43	11.46	218.97	< 50	< 0.5	< 0.5	< 0.5	< 1	< 0.5*
RS-2	11/24/97	230.43	10.43	220	< 50	< 0.5	1	< 0.5	3	< 0.5*
RS-5	12/14/89	241.26	25.97	215.29	57000	3100	4300	670	3400	
RS-5	2/91				FLOATIN	G PRODUCT				
RS-5	6/91					G PRODUCT				
RS-5	9/91					G PRODUCT				
RS-5	12/91					G PRODUCT				
RS-5	11/09/92	98.99	20.73	78.26	50000	650	4800	1100	15000	
RS-5	04/07/94	98.99	18.16	80.83	27000	5000	8700	550	2800	
RS-5	06/19/94	227.65	18.11	209.54	20000	2100	5300	470	2500	
RS-5	09/17/94	227.65	19.63	208.02	9300	230	340	110	700	
R\$-5	03/12/95	227.65	14.54	213.11	93000	6400	2000	19000	10000	
RS-5	10/04/95	230.64	17.53	213.11	16000	420	2100	320	1800	
RS-5	12/21/95	230.64	17.47	213.17	48000	3500	9200	840	4800	56

TABLE 1
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DESERT PETROLEUM, INC. SITE #793
4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

		(All concen	trations i	n parts per	billion [ug/	L, ppb])				
		(AMSL = Abo	ve mean se	a level)						
ID#	DATE	WELL	DEPTH TO	GROUND	TPH-G	BENZENE	TOLUENE	ETHYL-	XYLENES	MTBE
	SAMPLED	CASING	GROUND	WATER				BENZENE		
		ELEVATION	WATER	ELEVATION		1				
		(FEET AMSL)	(FEET)	(FEET AMSL)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
RS-5	03/27/96	230.64	13.51	217.13	68000	4900	18000	1700	11000	< 3000
RS-5	06/11/96	230.64	14.25	216.39	66000	6300	20000	2100	12000	< 3000
RS-5	09/04/96	230.64	16.50	214.14	31000	2100	11000	1100	6800	400
RS-5	12/11/96	230.64	15.88	214.76	85000	7000	21000	1800	8900	570
RS-5	2/21/97	230.64	13.76	216.88	100000	5000	22000	1700	7300	<0.5*
RS-5	5/28/97	230.64	15.77	214.87	52000	4500	19000	2100	10000	<0.5*
RS-5	9/2/97	230.64	17.47	213.17	38000	2200	9400	1300	5800	<0.5*
RS-5	11/24/97	230.64	18.67	211.97	45000	_A-0-0-0	16000	1900	9700	<0.5*
RS-6	12/14/89	240.23	22.52	217.71	11000	1400	1700	160	860	
RS-6	2/91				FLOATIN	G PRODUCT				
RS-6	6/91				95000	4200	4200	650	3700	
RS-6	9/91				FLOATIN	G PRODUCT				
RS-6	12/91				64000	3700	2300	730	4100	
RS-6	11/09/92	99.27	19.43	79.84	19000	1600	710	500	1600	
RS-6	04/07/94	99.27	14.42	84.85	16000	1200	1300	290	1100	
RS-6	06/19/94	227.22	14.45	212.77	23000	1300	2200	590	2200	
RS-6	09/17/94	227.22	19.52	207.7	24000	630	790	250	1100	
RS-6	03/12/95	227.22	8.90	218.32	3200	450	13	82	230	
RS-6	10/04/95	230.22	17.78	212.44	3700	170	250	38	290	
RS-6	12/21/95	230.22	14.98	215.24	3100	120	30	16	150	58
RS-6	03/27/96	230.22	10.00	220.22	6900	180	440	79	360	< 300
RS-6	06/11/96	230.22	12.00	218.22	7400	220	150	30	100	<1000
RS-6	09/04/96	230.22	15.00	215.22	1400	68	2.6	7.7	9.2	14
RS-6	12/11/96	230.22	12.36	217.86	1800	39	16	10	18	< 0.5

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DESERT PETROLEUM, INC. SITE #793
4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

					billion [ug/	L. ppb])				
		(AMSL = Abov	ve mean se							NAMES TO
ID#	DATE	WELL	DEPTH TO	GROUND	TPH-G	BENZENE	TOLUENE	ETHYL-	XYLENES	MTBE
	SAMPLED	CASING	GROUND	WATER			4	BENZENE		
	1 1	ELEVATION	WATER	ELEVATION			((-)	(770 (7.)	/TYC! /T \	(110 /T)
		(FEET AMSL)	(FEET)	(FEET AMSL)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
RS-6	2/21/97	230.22	10.00	220.22	2100	71	85	25	40	< 0.5
RS-6	5/28/97	230.22	13.56	216.66	1700	34	12	11	16	< 0.5
RS-6	9/2/97	230.22	16.35	213.87	940	34	71	9	55	< 0.51
RS-6	11/24/97	230.22	15.72	214.5	490	9	6	1	7	< 0.5*
RS-7	7/90				5600000	24000	210000	50000	740000	
RS-7	2/91				FLOATIN	G PRODUCT				
RS-7	6/91				FLOATIN	IG PRODUCT				
RS-7	9/91				FLOATIN	IG PRODUCT				
RS-7	12/91				270000		22000	2000	13000	
RS-7	11/09/92	67.88	4.62	63.26	81000	12000	16000	1900	13000	
RS-7	04/07/94	67.88	4.03	63.85	74000	16000	16000	1400	8500	
RS-7	06/19/94	195.92	4.07	191.85	83000	22000	19000	1500	9500	
RS-7	09/17/94	195.92	4.05	191.87	270000	13000	15000	2100	1100	
RS-7	03/12/95	195.92	3.72		35000	5100	560		3600	
RS-7	10/04/95	199.35	4.03	195.32	96000		14000	1300	7000	
RS-7	12/21/95	199.35	3.95		70000		12000			21
RS-7	03/27/96	199.35	3.80				14000			< 300
RS-7	06/11/96	199.35	3.79							<500
RS-7	09/04/96						2100			10
RS-7	12/11/96	199.35	3.78				-			18
RS-7	2/21/97									<0.5
RS-7	5/28/97									
RS-7	9/2/97	199.35								
RS-7	11/24/97	199.35	3.70	195.59	18000	4300	5900	600	2900	<0.5

TABLE 1
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DESERT PETROLEUM, INC. SITE #793
4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

	1 5	(AMSL = Abov	e mean se	n parts per b a level)			TOLUENE	ETHYL-	XYLENES	MTBE
ID#	DATE SAMPLED	WELL CASING	DEPTH TO	GROUND WATER ELEVATION	TPH-G	BENZENE	TOLOEND	BENZENE		
		ELEVATION (FEET AMSL)	WATER (FEET)	(FEET AMSL)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
					1800	1100	3	29	< 10	< 30
ECOVERY 1	09/04/96	230.73	15.00	215.73	<50	<0.5	< 0.5	< 0.5	< 1	4
ECOVERY 1	12/11/96	230.73	10.30	220.43		670	9	3	13	<0.5*
ECOVERY 1	2/21/97	230.73	11.88	218.85	2500	4300	36	2000	370	<0.5*
ECOVERY 1	5/28/97	230.73	14.03		24000	320	6	340	72	20
ECOVERY 1	9/2/97	230.73	14.98		4400	320		18	10	<0.5
ECOVERY 1	11/24/97	230.73	14.06	216.67	100	33	_			
ECOTERT -						7600	<10	170	190	<100
RECOVERY 2	09/04/96	230.68	13.44		14000	300		< 0.5	30	16
RECOVERY 2	12/11/96		12.42		488			2	10	3*
RECOVERY 2	2/21/97		10.50		5700	2100		260	220	<0.5
RECOVERY 2	5/28/97		13.10		36000	14000		1000		47
RECOVERY 2	9/2/97		14.16		30000	-			-	
RECOVERY 2	11/24/97		14.71	215.97	41000	15000	830	1500		
RECOVERT 2	12/22/03						<0.5	<0.5	<2	<
RECOVERY 3	09/04/96	230.32	9.90		<50					
RECOVERY 3	12/11/96		8.1		< 50	_				<0.5
	2/21/97		6.7	6 223.56	340				<1	<0.5
RECOVERY 3	5/28/97			8 220.34	<50					
RECOVERY 3	9/2/9			6 219.46	<50	* 1	4 <0.5		lepth. No s	
RECOVERY 3	11/24/9		_	0 219.12	well filled	with gray	/er at II	. 73 2000 0	The state of the s	

TABLE 1
GROUNDWATER ELEVATIONS AND CERTIFIED ANALYTICAL LABAORATAORY RESULTS FROM WATER SAMPLES
DESERT PETROLEUM, INC. SITE #793
4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

		(AMSL = Abo	ve mean se	a level)						
ID#	DATE	WELL	DEPTH TO	GROUND	TPH-G	BENZENE	TOLUENE	ETHYL-	XYLENES	ľΜ
•	SAMPLED	CASING	GROUND	WATER				BENZENE		
		ELEVATION	WATER	ELEVATION						
	1	(FEET AMSL)	(FEET)	(FEET AMSL)	(UG/L)	(na\r)	(UG/L)	(UG/L)	(UG/L)	(00

TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE

MTBE results confirmed by EPA Method 8260 (GC/MS)

DESERT STATION #793 4035 Park Blvd. Oakland, California

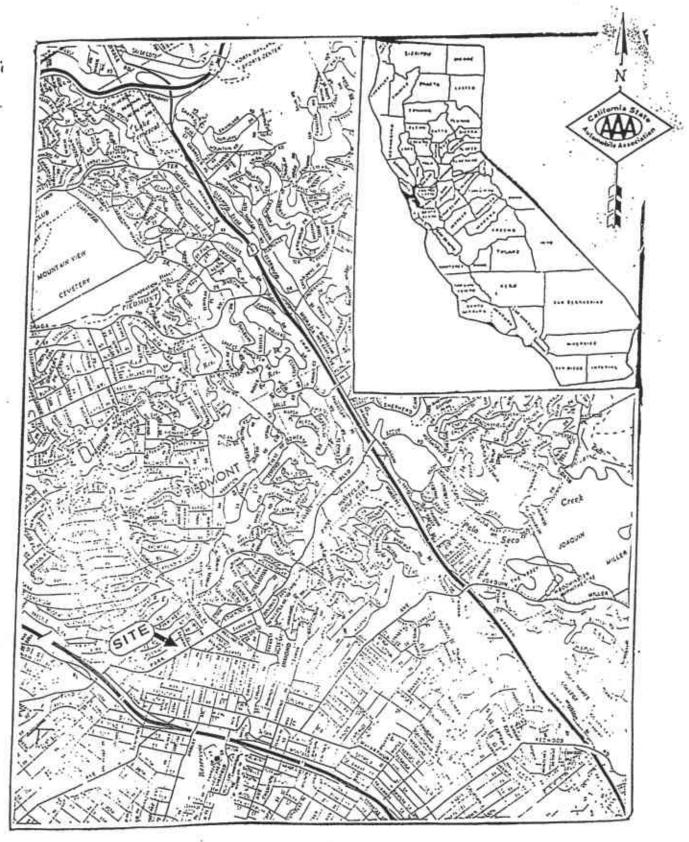


FIGURE 1

Location (AAA Map)



DESERT STATION #793 4035 Park Blvd. Oakland, California

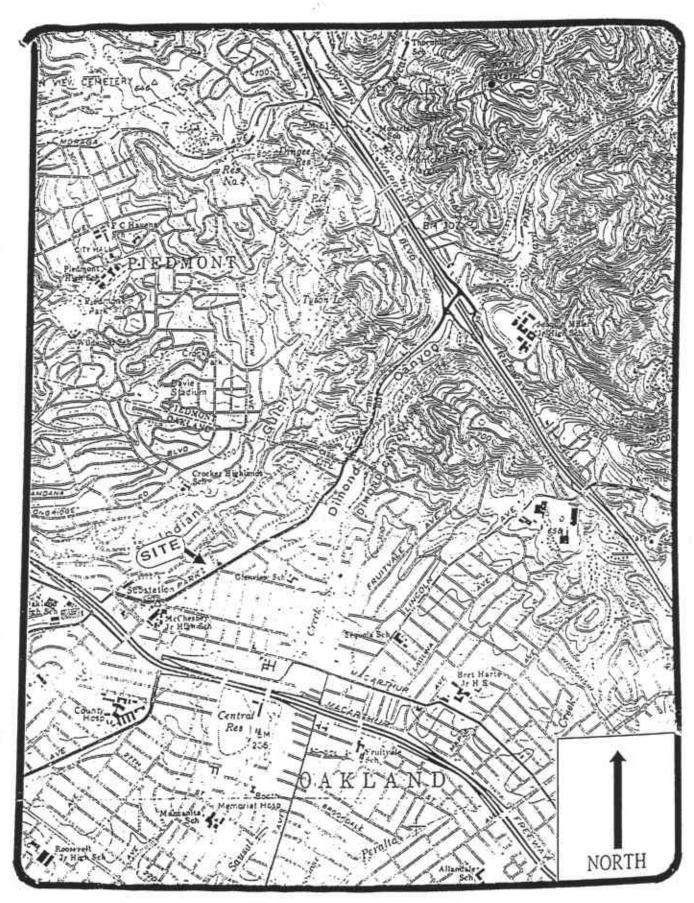
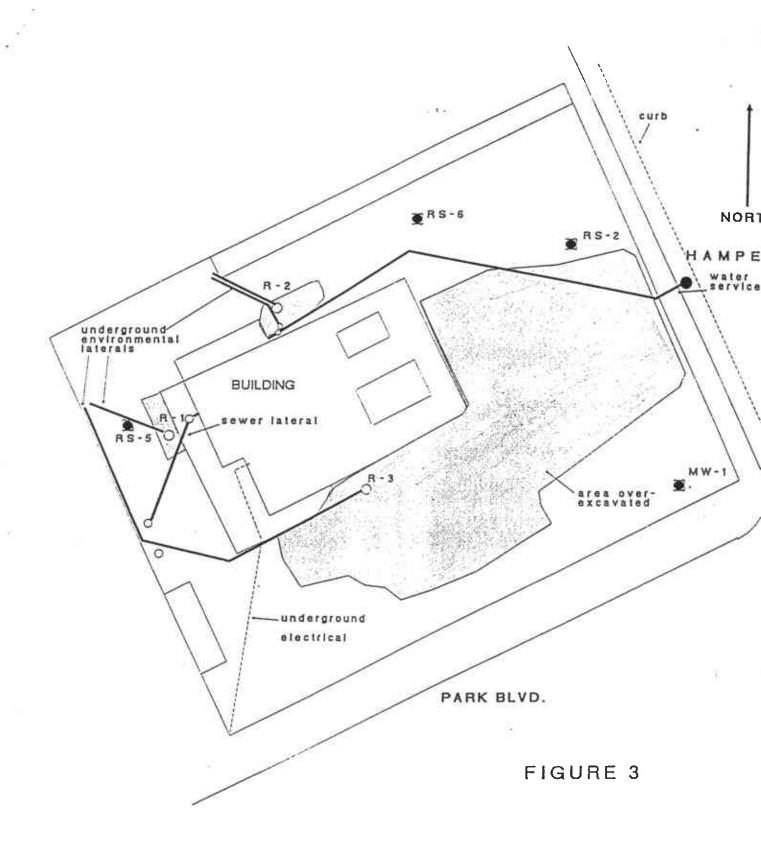
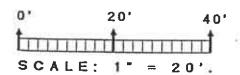


FIGURE 2,, USGS TOPOGRAPHIC MAP

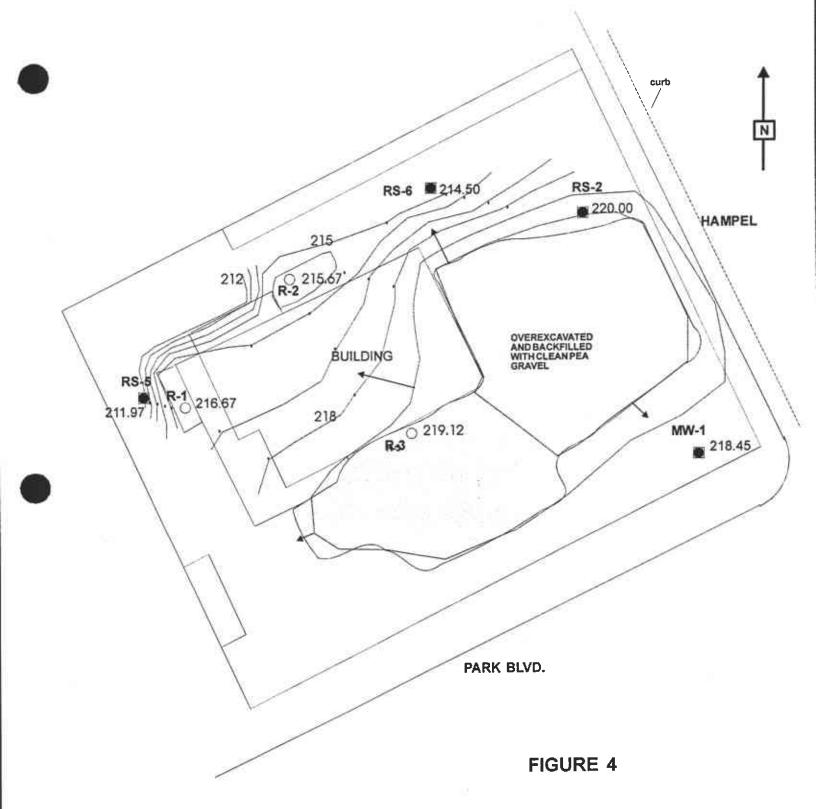


SITE BASE MAP

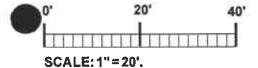


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DESERT PETROLEUM STATION *793 4035 PARK BLVD.. OAKLAND, CALIFORNIA 94602

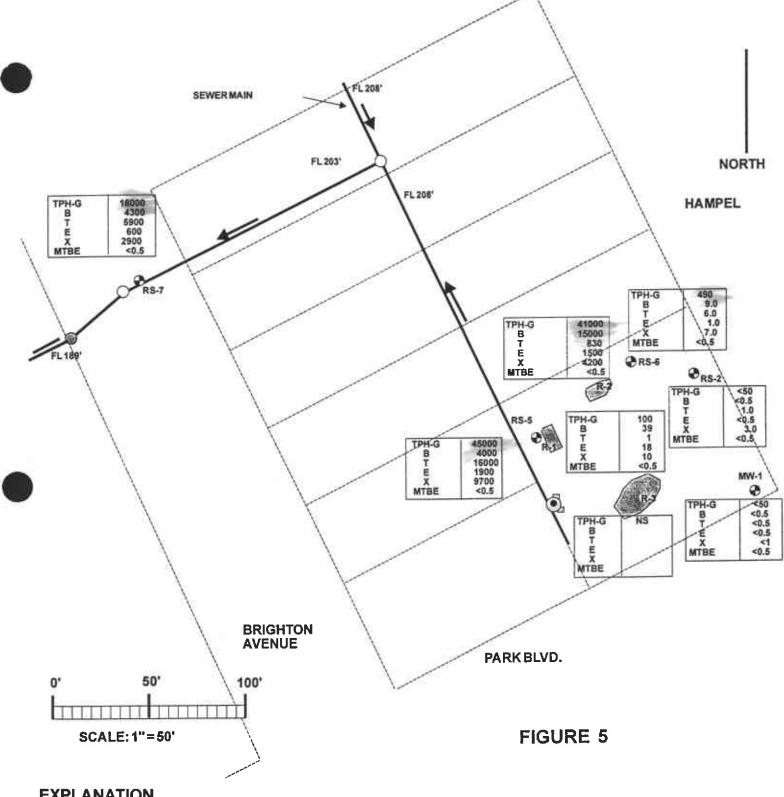


GROUNDWATER ELEVATION CONTOUR INTERVAL EQUALS ONE FOOT, ELEVATIONS ARE MEASURED IN FEET AMSL



GROUNDWATER ELEVATION GRADIENTS AND FLOW DIRECTION FOR 11/24/97

DESERT PETROLEUM STATION #793 4035 PARK BLVD. OAKLAND, CALIFORNIA 94602



EXPLANATION

MONITOR WELL LOCATION WITH ID# AND GROUNDWATER ANALYTICAL RESULTS. ALL CONCENTRATIONS IN UG/L.

TPH-G = TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
B = BENZENE
T = TOLUENE
E = ETHYLBENZENE
X = XYLENES

MTBE = METHYL tertiary-BUTYLETHER

R-1

INJECTION/RECOVERY TRENCHES AND RECOVERY WELLS

ANALTICAL RESULTS FROM **GROUND WATER SAMPLES** COLLECTED FROM MONITOR **WELLS ON 11/24/97**

DESERT PETROLEUM STATION #793 4035 PARK BLVD. OAKLAND, CALIFORNIA

APPENDIX A

QA/QC METHODS & PROCEDURES

APPENDIX A: METHODS AND PROCEDURES QA/QC

This Appendix documents the specific methods, procedures, and materials used to collect and analyze groundwater samples.

GAUGING AND MEASURING MONITOR WELLS

Prior to sampling a well, WEGE personnel obtain three measurements:

1. the depth to groundwater (DTW);

2. the product thickness using a battery powered depth to water-product interface probe and/or by using a specially designed bailer;

3. the total depth of casing, to calculate the total water volume in the well.

The DTW-product interface probe is lowered into the well casing until the instrument signals when the top of free phase floating product (if present) and/or the top of water is reached. The distance from the top of free phase floating product and/or water to the top of casing is read from the tape that is attached to the probe. The probe is then lowered to the bottom of the well and the tape is read again. The tape is calibrated in 0.01-foot intervals for accuracy to 0.01 foot. The measured distance is subtracted from the established elevation at the top of casing to determine the elevation of groundwater with respect to mean sea level and the difference between the top of groundwater and the base of the well is noted to establish water volume in the well. The probe and tape is washed with TSP (Tri Sodium Phosphate) and rinsed in distilled water before each measurement. WEGE has designed and built bailers that will collect a sample of the contents of a well to show the exact thickness of any floating product. Some of the abbreviations used in water sampling and or measuring or monitoring are: BGS, Below Ground Surface; DTW, Depth to Water (from surface reference i.e. usually TOC); TOC, Top of Casing; MSL, Mean Sea Level; AMSL and BMSL, Above and Below MSL; BS, Below Surface; TOW, Top of Water, TSP, Tri Sodium Phosphate.

PURGING STANDING WATER FROM MONITOR WELLS

If no product is present, WEGE personnel purge the well by removing groundwater until the water quality parameters (temperature, pH, and conductivity) stabilize, or until the well is emptied of water. Periodic measurements of groundwater temperature, pH, and conductivity are taken with a Hydac Monitor or other meter and recorded along with the volume of groundwater removed from the well. Purging is done by one or more methods singularly or in combination. Bailers, pneumatic or electric sample pumps, or vacuum pump tanks or trucks may be used. The usual amount of water removed is three borehole volumes, unless otherwise stated.

$BV = (7.48/4) \times (CD2+P (BD2-CD) 2) \times (WD-GW)$

BV borehole volume (gallons) CD casing diameter (feet) GW depth to groundwater (feet) BD borehole diameter (feet)
WD well depth (feet)
P porosity of the gravel pack, 25%

Table of Common Boring and Casing Diameters

Boring diameter inches	Casing diameter inches	Volume gallons/ foot	3 VolumesX (WD-GW) gallons /foot
4 6 6 8 8 10	1 1 2 2 4 2 4	0.042 0.082 0.173 0.277 0.671 0.572 0.844	0.126 0.246 0.519 0.831 2.013 1.716 2.532

EXAMPLE: An 8 inch boring with 2 inch casing requires removal of 0.831 gallons of water per foot of water column.

The water collected during purging is either safely stored on- site in 55 gallon DOT 17H drums for later disposition, transported to an approved on-site/off-site treatment facility or to a sewer discharge system.

COLLECTION OF WATER SAMPLE FOR ANALYSIS

The groundwater in the well is allowed to recover to at least 80% of its volume prior to purging, if practical, before the groundwater sample is collected.

Percent Recovery = (1 - <u>Residual drawdown</u>) x 100. Maximum drawdown

A fresh bailer is used to collect enough water for the requirements of the laboratory for the analyses needed or required. The water samples are decanted from the bailer into the appropriate number and size containers. These containers are furnished pre-cleaned to exact EPA protocols, with and without preservatives added, by the analytical laboratory or a chemical supply company. The bottles are filled, with no headspace, and then capped with plastic caps with teflon liners.

The vials or bottles containing the groundwater samples are labeled with site name, station, date, time, sampler, and analyses to be performed, and documented on a chain of

custody form. They are placed in ziplock bags and stored in a chest cooled to 4 °C with ice. The preserved samples are COC (chain of custody) delivered to the chosen laboratory.

ANALYTICAL RESULTS

TPH is the abbreviations used for Total Petroleum Hydrocarbons used by the laboratories for water and soil analyses. The letter following TPH indicates a particular distinction or grouping for the results. The letters "g", "d", "k", or "o" indicate gasoline, diesel, kerosene, or oil, respectively, i.e. TPH-d for diesel ranges TPH.

BTEX or MTBE are acronyms or abbreviations used for Benzene, Toluene, Ethylbenzene and all of the Xylenes (BTEX) and Methyl tertiary-Butyl Ether (MTBE), respectively. MBTEX is the designation for the combination of the above five compounds.

Laboratory lower detection limits unless otherwise noted, due to matrix interference or elevated concentrations of target compounds, are as follows:

TPHg	50 ug/L	MTBE	0.5 ug/L
Benzene	0.5 ug/L	Toluene	0.5 ug/L
Ethyl Benzer	ne 0.5 ug/L	Total Xylene	s 1.0 ug/L

The less than symbol, <, used with a "parts per value" indicates the lower detection limit for a given analytical result and the level, if present, of that particular analyte is below or less than that lower detection limit.

Other abbreviations commonly used are ppm, ppb, mg/Kg, ug/Kg, ml/l and ul/l are parts per million, parts per billion, milligrams per kilogram, micrograms per kilogram, milliliters per liter, microliters per liter, respectively.

CHAIN OF CUSTODY DOCUMENTATION

All water samples that are collected by WEGE and transported to a certified analytical laboratory are accompanied by chain-of- custody (COC) documentation. This documentation is used to record the movement and custody of a sample from collection in the field to final analysis and storage. Samples to be analyzed at the certified laboratory were logged on the COC sheet provided by the laboratory. The same information provided on the sample labels (site name, sample location, date, time, and analysis to be performed) is also noted on the COC form. Each person relinquishing custody of the sample set signs the COC form indicating the date and time of the transfer to the recipient. A copy of the COC follows the samples or their extracts throughout the laboratory to aid the analyst in identifying the samples and to assure analysis within holding times. Copies of the COC documentation are included with the laboratory results in Appendix C of the sampling report.

APPENDIX B



SITE DP 79	3 DATE /	1-24-97	TIME	9:26	
WELL MW	1 7 1 7 7 7 7 7	EDBY.	m		
_	·		7		
WELL ELEY					
		1.1. 14.12	060-103		
	VATION	W. 17.12	DIB: 183	2 /	
BAILER TY		le Bailer			
PUMP	David LTT				
	MALL DI	RGING R	ECORD ·		
TIME	VOLUME	TEMP.		COND.	
I HATTS	REMOVED	11-1711.	PII	COND.	
9:57	15t bailer	74.8	10.83	17	 <u>X1</u> 000
10:13	2 9.1	72.4	11.18	./7	1
10:15		73.8	11.47	./6	4-
10:16		74.3	//. 44	. 15	╀.
10:18		74.7	//. 37 //. 42	,/5	+
10:19		74.8	11.16	, 15	 _
		5	any//		
					T
					<u>T</u>
			· · · · · · · · · · · · · · · · · · ·		
FINAL VOLI		3/4	gal		
TIME SAMP					 -
	. MW- /	0 1000		<u> </u>	
<u>SAMPLE CO</u> ANALYSIS T		2 1095	X / MTB.	E	
LABORATO		NSE			
	st bailer		2 0000		

SITE DP 79	3 DATE /	1-24-97	TIME	452
WELL R:1	SAMPL	ED BY.	p	
WELL ELE				
*****	THICKNESS			·
DEPTH TO		W: 14.06	DIB: 16.	92
	VATION			
BAILER TY		le Bailer		
PUMP	David LTT	·	 -	
	WELL PU	RGING R	RECORD .	
TIME	VOLUME REMOVED	TEMP.	7	COND.
11:13	15r boiler	70.0	10.22	.10 ×1000
(1:28	15 991	69.4	10.25	.10
11:31		79.2	10.27	.09
//: 32	•	70.2	10.26	.09
//: 33		70.3	[0.25]	.09
11:34	-	70.2	10.24	.09
	1		Som	9
		•	/	
				<u> </u>
TIME SAMP SAMPLE ID SAMPLE CO	NTAINERS OBERUN 7	2 <i>V095</i>		E
	st bailer		ull's lihe	a sewer
.101,00	JI 04)1(1)	<u> </u>	10113	
			<u> </u>	
				



1386 EAST BEAMER WOODLAND, CALIFORNIA (916) 668-5300, FAX (916) i

SITE DP 79	DATE /	1-24-97	TIME	9:47	
WELL R-2	SAMPL	ED BY.	m		
WINT T TO TO			7		
WELL ELE					
	THICKNESS		· ·		
DEPTH TO	VATION	W: 14.71	DTB: 16	<u>. 20 </u>	
BAILER TY	755.55	1 8 1 0		·	
PUMP	David LTT	le Bailer			
·	WELL PU	RGING R	ECORD .		
TIME	VOLUME REMOVED	TEMP.	pН	COND).
10:57	150 bailer	68.8	9.95	./7	X1000
10:59	9 99/	68.9	9.85	.18	
(1:01		69.2	9.77	.18	<u> </u>
11:02		69.7	9.67	./8	
11:03		69.7	9.62	./8	<u> </u>
11:04		69.7	9.65	./8	
11:05		69.7	9.66	.18	
			ang/+		
			/		
					<u> </u>
FINAL VOL	UME PURGEL) 103/4	gal		
TIME SAMP	LED //:06		J		
SAMPLE ID	1. R-2				
SAMPLE CO	NTAINERS	2 VO95			<u> </u>
ANALYSIS	TO BERUN 7	TPHa/BIE	X / MTB.	<u>E</u>	
LABORATO	RY	NSE			
NOTES:	1st bailer	clear 5	ewer odo	r tait	



1386 EAST BEAMER ROODLAND, CALIFORNIA (916) 668-5300, PAX (916) .

SITE DP 79	3 DATE	1-24-97	TIME	9:54
WELL R'-		ED BY.	m	
DEPTH TO	THICKNESS WATER <i>Of</i> VATION	W: [1.20 le Bailer	1 DIB: 11.	7.5
	WELL DI	RGING	ECORD .	
TIME	VOLUME REMOVED	TEMP.	1	COND.
11:40	1st bailer	71.6	9.70	18 ×1000
•	90/			
		11/1-4	1-0	<u> </u>
		W //	7	
		1/0	1051	
		119	-CN	7/14
		·/\/	0 3	
	1	<u> </u>		
FINAL VOLI	IME PIRGEI)	99/	· · · · · · · · · · · · · · · · · · ·
TIME SAMP			- Ju i	
SAMPLE ID	. R-3			
SAMPLE CO		2 1095		
ANALYSIS I			X / MTB.	<u> </u>
LABORATO		NSE N		
NOTES:	st bailer	clear No	odas.	
<u> </u>				

1386 BAST BBAMBR ROODLAND, CALIFORNIA (916) 668-5300, FAX (916) (

SITE DP 79	?	DA'	TE /	11-24-97	TIME	9:41	
WELL RS-	<u> </u>	SAMPLED BY. M			m		
1, 200	<u></u>				4		
WELL ELE	VAT:	ON		· 			
PRODUCT	THIC	KNE	ESS		· • •		
DEPTH TO	WAI	ER	DI	W: 10. 43	DIB: 18.	40	
FLUID ELE	VAT	ION					
BAILER TY	PE	Disi	00596	le Bailer	<u> </u>		
PUMP	Davi	d					
				JRGING F			
TIME	1	LUM		TEMP.	pH	COND	' .
	KE	NOA	<u>ED</u>		10 15	 	
10:25	/	Sr ba			10.67		<u> </u>
		16	991	73.3	10.27	,22	
10:31	<u> </u>			73.1	10.21	, 2/	- -
10:33	<u> </u>			73.2	10.19	.21	
10:35		<u> </u>		72.8	10.22	,2/	+
10:37	<u>l</u>			73.2		, 2/	+_
					ans	red	+-
	<u>l</u> 1						
	<u> </u>						- -
	<u> </u>						
TO 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	t D. CD	DIT	CE	D 171/2			
FINAL VOL	OWE	PUR /a	(<u>UE)</u>	<u>U 1172</u>	gal		
TIME SAMP		-	, <u>)]</u>	***			
SAMPLE ID			D C	2 1/005	· · · · · · · · · · · · · · · · · · ·		
SAMPLE CO	LOD. IIA Y W	C DI.	ואן דאן	4011 1066	x / mrs	3E	
ANALYSIS (DV DV		i.	NSE NSE	A / MIL	<u></u>	
<u>LABORATO</u> NOTES:				clear No	ad. c	· · · · · · · · · · · · · · · · · · ·	
NULES.	137	0911	<u> </u>	() CH IVO	- U a1		
			···				
							
	•						

WELL SAMPLING DATA SHEET

11.1	מואועט בובונ			111111
SITE DP 79	7 DATE	11-24-97	TIME	9:50
WELL RS-	5 SAMPI	ED BY.	m	
			7	
WELL ELE	VATION			
PRODUCT	THICKNESS	'	•	
DEPTH TO	<u></u>	W: 18.67	DIB: 39.	20
	VATION			
BAILER TY	PE Disposa	ble Bailer		
PUMP	David LTI			
	TYPET T D	menic'i	DECORD :	
mr. C		TEMP.	RECORD	COND.
TIME	VOLUME REMOVED	1	hu	COND.
	 	1 /0 2.	9.87	15.
//://	1st bailer	67.3	9.98	1.15 x100
/1: 20 //: 22	35 gel	68.8	9.9/	. 14
11:22	 	69.0	9.5/	. 14
11:24		69.2	9.9/	. 14
11:25		69.2	9.96	14
11:26		69.3	9.92	14
1 / 0				d
FINAL VOL	IME PURGE	D 363/4	gal	
TIME SAMP				
	. RS-5	. '		
SAMPLE CO	NTAINERS	2 1095		
	TO BE RUN		X / MTB	E
ABORATO		NSE		
NOTES:	1st boiler		mells li	Mc 9 Sever
		·; ! · · · · · · · · · · · · · · · · · ·		

49

YYL	TINO THE	DITIO I		
SITE DP 79	3 DATE	1-24-97	TIME	9:45
WELL RS.	6 SAMPL	ED BY.	m	
			<i>1</i>	
WELL ELE		<u></u>		
 - ·	THICKNESS		• •	
	WATER PIL	W: 15.72	DIB: 34.	02
FLUID ELE	VATION			
BAILER TY	PE Disposab	le Bailer		
PUMP	David LTT			· · · · · · · · · · · · · · · · · · ·
	TYPET I DI	mania'n	ECODD:	······································
		RGING R		
TIME	VOLUME	TEMP.	pН	COND.
·	REMOVED			
. 0 . 2 ()		770 7	10 10 5	/c .

WELL PURGING RECORD									
TIME	VOLUME	TEMP.	pH	COND.					
	REMOVED								
10:39	1st bailer	72.3	(9.19	1,19 X1000					
10:40	16 991	70.1	9.95	. /9					
10:45	5	69.2	9.97	.13 .					
10:48	9	68.7	9.92	.18					
19:50		69.3	9.94	.18					
(0:52	·	69.0	9.92	.18					
10:54		69.2	9.93	.18					
			Samo	led					
		4	- '/2						

FINAL VC	LUMEP	<u>URGED</u>	313/	1 gal	
TIMESAN	<u> 1PLED</u>	0:55			
SAMPLE	ID. RS-6	<u>.</u>			· · · · · · · · · · · · · · · · · · ·
SAMPLE (CONTAIN	VERS :	2 1095	·	<u>.</u>
ANALYSI	S TO BE	RUN 1	PHa /BI	EX / MI	TBE
LABORAT	ORY _	N.	5 <u>£</u>	·	
NOTES:	15+ b	ailer.	clear	No odo	

1386 BAST BBAMER WOODLAND, CALIFORNIA (916) 668-5300, FAX (916) :

SITE DP 79	DATE /	1-24-97	TIME	//:.55
WELL RS:		CT DY		
11 232 11	/ 0		sp	
WELL ELE	VATION			·· ·······
1	THICKNESS		• .	
DEPTH TO		V: 374	DIB: 7.	0
FLUID ELE	VATION	<u>, , , , , , , , , , , , , , , , , , , </u>		
BAILER TY	PE Disposah	le Bailer		
PUMP	David LTT			
	WELL PU	RGING R	ECORD .	
TIME	VOLUME	TEMP.		COND.
	REMOVED		1	
11:56	1st bailer	70,4	9.69	./6 ×1000
11:58	6 991	70.4	9.80	.15
12.09		69.7	9:78	1.15
12:92	•	69.6	7.78	./5
12:03		69.Z	9.77	.15
12:04		69.5	9. 77	.15
12:05		70.2	9.77	-25
			SOM	100
				-
	<u> </u>			
		7 3/4		
FINAL VOL	<u>UME PURGEI</u>	, , ,	gal	
TIMESAMP	LED <u>(2:06</u>	<u> </u>	<u></u>	
SAMPLE ID	. 1(S-7	0 .1000	· · · · · · · · · · · · · · · · · · ·	
SAMPLE CO	NTAINERS	2 1095	X / MTB	E
ANALISIS		PHg/BIE	<u> </u>	
LABORATO		VSE	ell's little a	sower
NOTES:	1st bailer (ilear sm	ells //19e a	3000 01
				
				

Г	1. Generato	r's US EPA ID No.	2. Page 1	3. Docume	nt Number	
	NON-HAZARDOUS	of	NH-N	. 44	70	
L	WASTE MANIFEST CADO	1			70	
1	4. Generator's Name and Mailing Address DESERT P		EES 19			
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. :	OFFICE	-H-1-1404				
	0,000					
	Generator's Phone (916) 666-5300 5. Transporter Company Name	6. US EPA ID Number	7. Transporte	r Phone		
1		6. US EPA 10 Number	7. Hansporte	7 FIIOIIO		
	EVERGREEN ENVIRONMENTAL SERVICES	CAD982413262	81	00-972-528	14	
	8. Designated Facility Name and Site Address	9. US EPA ID Number	10. Facility's			
	European Oil Inc					
	Evergreen Oil, Inc. 6880 Smith Avenue					
		} CAD980887418	5.	10-795-440	11	
	11 Wests Shinoing Name and Description			ontainers	13. Total	14, Unit
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F	b.					
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	45 O will be directed and Additional Information		Honding Con	les for Wastes	Lietad Abovo	<u></u>
	15. Special Handling Instructions and Additional Information		11a	1	11b.	
		**	-			
'	Profile #	-				
	Do not ingest	•				÷
	Wear protective clothing	3000	Invoice: 🛵			
	In case of emergency call: CHEMTREC 800-424-9 DOT ERG 171	3300	Sales Order	: 96798	505	
	DOTERIA 171					
11	16. GENERATOR'S CERTIFICATION 1. Certify the state descrip		r federaf regulations for	reporting prope	edisposal of Hazal	dous Waste
14	Printed/Typed Name	Signature				
F	Mari Fon -11	11/24	1		Month	Day Year
ĺ	17. Transporter Acknowledgement of Receipt of Malarias			Tan Alston		
A NOT OF THE	Printed/Typed Name	Signature				A SPECIAL SECTION SECT
Į					Month	Day Year
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LAWRENCE TANK TESTING, INC.

PO BOX 407, DOWNIEVILLE, CALIFORNIA 95936 PHONE 916-289-3109 - FAX 916-289-3322

WELL SHEET

7	` .		INVOI	CE NO	. 975	157
TECHNICIAN	AUID			NO		1997
SITE NAME DP 7	93		CUSTOMER	(NES	Traw	CEO K
ADDRESS PAR			ADDRESS	: 		
CITY OAKLAN	O STAT	E	CITY		STATE	
PHONE			PHONE			
WELL NO. DESCRIPTION OF THE PROPERTY OF THE PR	LIPTION OF		FORMED ONS			
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EPARTURE TIME	/2	<i>15</i>		100	J _	
OTAL TEME AT SITE			TOTAL OF LABOR		s_	
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OTAL MILEAGE					······································	*====
			<u></u>		s	
				JOB TO	TAL S	



North State Environmental Analytical Laboratory Phone: (415) 588-9652 Fax: (415) 588-1950

Chain of Cust	ody / Request for .	Analys	sis
Lab Job No.:	Page _ /	of /	,

Client: Western	Geo. In	Tineer's	Repor	t to: Jame			Phone: Turna			Turnaround Time			
Mailing Address: 138	36 E. Be	anner si.	Billing	to: /_			Fax:				January .		
Wood	land	CA.	×	to: Same			PO# /	Billing F	Referenc	e:	Date:	te: 11 - 26-57	
		1957/6		, ,							Samp	ler: M	
Project / Site Address:	4035 Klend	Port Ph. C.A.	d.	Analys Requested	is the state of th	1							
Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time		12/6						/Comments/Hazards	
MW.I	7	2/1005	1100	10:24:57/10:20	V							Continue myes + long	
K - 1				11:35	V								
11 - 2				11.06	V 6	/	- 						
119-2				10:39	VV								
ING-5				11:27	1 1	/							
13.6				10:55	V	/							
155-7	ı		1	12.06	v V								
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Relinquished by:				ate: Time:		eceive			- · · · · · · · · · · · · · · · · · · ·			-	

APPENDIX C

LABORATORY RESULTS



Lab Number:

97-1170

Client:

Western Geo-Engineers

Project:

DP 793/4035 Park Blvd, Oakland, CA

Date Reported: 12/05/97

Gasoline, BTEX and MTBE by Methods 8015M and 8020

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 97-11	70-01 Clier	t ID: MW-1		11/24/97	WATER
asoline	8015M	ND			12/04/97
Benzene	8020	ND ·			
Ethylbenzene	8020	ND			
MTBE	8020	*ND			
Toluene	8020	ND			
Xylenes	8020	ND			
Sample: 97-11	70-02 Clier	nt ID: R-1		11/24/97	WATER
Gasoline	8015M	100	ug/L		12/04/97
Benzene	8020	39	ug/L		
Ethylbenzene	8020	18	ug/L		
MTBE	8020	ND			
Toluene	8020	1	ug/L		
Xylenes	8020	10	ug/L		
Sample: 97-11	70-03 Clier	nt ID: R-2		11/24/97	WATER
Gasoline	8015M	41000	ug/L		12/04/97
Benzene	8020	15000	${\tt ug/L}$		
Ethylbenzene	8020	1500	ug/L		
MTBE	8020	*ND			
Toluene	8020	830	ug/L		
vlenes	8020	4200	ug/L		

^{*}Confirmed by GC/MS method 8260.



Lab Number:

97-1170

Client:

Western Geo-Engineers

Project:

DP 793/4035 Park Blvd, Oakland, CA

Date Reported: 12/05/97

Gasoline, BTEX and MTBE by Methods 8015M and 8020

Analyte 1	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 97-11	70-04 Clien	t ID: RS-2		11/24/97	WATER
asoline	8015M	ND			12/04/97
Benzene	8020	ND			
Ethylbenzene	8020	ND			
MTBE	8020	ND			
Toluene	8020	1	ug/L		
Xylenes	8020	3	ug/L		
Sample: 97-11	70-05 Clien	t ID: RS-5		11/24/97	WATER
Gasoline	8015M	45000	ug/L		12/04/97
Benzene	8020	4000	ug/L	•	
Ethylbenzene	8020	1900	ug/L		
MTBE	8020	*ND			
Toluene	8020	16000	ug/L		
Xylenes	8020	9700	ug/L		
Sample: 97-11	70-06 Clien	t ID: RS-6		11/24/97	WATER
Gasoline	8015M	490	ug/L		12/04/97
Benzene	8020	9	ug/L		
Ethylbenzene	8020	1	ug/L		
MTBE	8020	ND			
Toluene	8020	6	ug/L		
ylenes	8020	7	ug/L		

^{*}Confirmed by GC/MS method 8260.



Lab Number:

97-1170

Client:

Western Geo-Engineers

Project:

DP 793/4035 Park Blvd, Oakland, CA

Date Reported: 12/05/97

Gasoline, BTEX and MTBE by Methods 8015M and 8020

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 97-1	170-07 Cli	ent ID: RS-	7	11/24/97	WATER
asoline	8015M	18000	ug/L		12/04/97
Benzene	8020	4300	ug/L		
Ethylbenzene	e 8020	600	ug/L		
MTBE	8020	*ND			
Toluene	8020	5900	ug/L		
Xylenes	8020	2900	ug/L	′	



Quality Control/Quality Assurance

Lab Number:

97-1170

Client:

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Date Reported:12/05/97

Gasoline, BTEX and MTBE by Methods 8015M and 8020

	· · · · · · · · · · · · · · · · · · ·	Reporting	M\$/M\$D						
Analyte	Method	Limit	Unit	Blank	Recovery	RPD			
asoline	8015M	50	ug/L	ND	90	2			
Benzene	8020	0.5	ug/L	ND	99	8			
Ethylbenzene	8020	0.5	ug/L	ND	99	5			
Toluene	8020	0.5	ug/L	ND	99	5			
Xylenes	8020	1.0	ug/L	ND	99	3			
MTBE	8020	0.5	ug/L	ND	108	2			

ELAP Certificate NO:1753

Reviewed and Approved

John A.Murphy, Laboratory Director

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North State Environmental Analytical Laboratory Phone: (415) 588-9652 Fax: (415) 588-1950

	17 11 10
Chain of Custody / I	Request for Analysis
Lab Job No.:	Page <u>/</u> of <u>/</u>

Client: Western	Geo. En	gineer's	Repor	t to: Same			Phone	9;				Turnaround Time
Mailing Address: /3	86 E. B	eamer st.	Billing	to: Same		-	Fax:				1	
Woodland C.A. \$ 95776				347.10			PO# / Billing Reference:				Date: //- 26-97	
Project / Site Address: 4035 Park Bla Qakland C.A.			1 ,								Sampler:	
Project / Site Address:	9035 all land	C.A.	id.	DP Analys Requested	1118 BT. T. 1818	17.8E	' / '					
Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time		4	/					/Comments/Hazards
Mw-1	7	2/1095	HCL	11-2497/10:20	V	/						MIBE TO 8260 mg
<u> </u>				11:35	V .							
R·2				11:06	V (/						
RS-2				10:39	V 1							
RS-5				//:27	/ 1							
R5-6				10:55	V							
R 5 - 7				12:06	VV	_						
		,										
Relinquished by:	2 att. F	Penich	D	 ate://_26-97ime: 9	/35m/ B	eceive	ed by:	11	4 h	7 15	<u> </u>	Lab Comments
Relinquished by:				vate: Time:		eceive		t		#		
Relinquished by:			D	ate: Time:	R	eceive	d by:					1