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**BP OIL**

BP Oil Company  
Environmental Resources Management  
Building 13, Suite N  
295 SW 41st Street  
Renton, Washington 98055-4931  
(206) 251-0667

August 8, 1994

Alameda County Health Care Services Agency  
Division of Hazardous Materials  
Attention Mr. Ron Owcarz  
80 Swan Way, Room 200  
Oakland, CA 94621

California Regional Water Quality Control Board  
Attention Mr. Eddie So  
San Francisco Bay Region  
2101 Webster Street, Suite 500  
Oakland, CA 94612

RE: BP Oil Site No. 11132  
3201 35th Street  
Oakland, CA

Greetings:

Attached please find a Groundwater Sampling and Monitoring Report dated May 25, 1994. Based upon the results of this, as well as previous sampling efforts, we plan to amend the sampling regime and sample monitoring wells MW-4, 6 and 7 on a semi-annual basis. We will, however, continue to obtain groundwater elevation measurements on a quarterly basis. Please note that fuel constituents have not been detected at concentrations exceeding California Maximum Contaminant Levels since 1991.

Please give me a call in the event you wish to discuss this matter further. I can be reached at (206) 251-0689.

Sincerely,

Scott T. Hooton  
Environmental Resources Management

attachment

cc: site file  
B. Nagle - Alisto

TABLE 2 - PRODUCT REMOVAL STATUS

BP OIL COMPANY SERVICE STATION NO. 11132  
3201 35TH STREET, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-024

WELL ID	DATE	PRODUCT REMOVED (Gallons)	PRODUCT REMOVED CUMULATIVE (Gallons)	
MW-2	09/29/93	0.10	0.10	
	10/05/93	0.10	0.20	
	10/14/93	0.10	0.30	
	10/20/93	0.25	0.55	
	11/02/93	0.10	0.65	
	12/07/93	0.05	0.70	
	12/17/93	<0.01	0.70	
	12/23/93	0.3	1.00	
	01/12/94	0.05	1.05	
	02/02/94	0.01	1.06	
	02/11/94	0.01	1.07	
	03/18/94	<0.01	1.07	
	MW-8	11/02/93	0.25	0.25
		11/10/93	0.10	0.35
		11/16/93	0.10	0.45
11/23/93		0.10	0.55	
11/30/93		0.10	0.65	
12/17/93		<0.01	0.65	
12/23/93		<0.01	0.65	
01/12/94		0.01	0.66	
02/02/94		0.05	0.71	
02/11/94		0.08	0.79	
02/18/94		<0.01	0.79	
03/18/94		0.01	0.80	
04/27/94		<0.01	0.80	
MW-9	11/02/93	0.10	0.10	
	11/10/93	0.10	0.20	
	11/16/93	0.10	0.30	
	12/23/93	<0.01	0.30	
	01/12/94	0.01	0.31	
	01/20/93	0.05	0.36	
	02/02/94	0.05	0.41	
	02/11/94	0.01	0.42	
	02/18/94	<0.01	0.42	
	03/18/94	0.10	0.52	
	MW-10	09/07/93	0.10	0.10
09/14/93		0.10	0.20	
09/29/93		0.10	0.30	
10/05/93		1.60	1.90	
10/14/93		2.10	4.00	
10/20/93		1.00	5.00	
10/27/93		1.00	6.00	
11/02/93		0.30	6.30	
11/10/93		0.20	6.50	
11/16/93		0.10	6.60	
11/23/93		0.10	6.70	
11/30/93		0.30	7.00	
12/07/93		0.20	7.20	
12/17/93		0.30	7.50	
12/23/93		<0.01	7.50	
01/04/94		0.01	7.51	
01/12/94		0.01	7.52	
01/20/94		0.20	7.72	
02/02/94		0.01	7.73	
02/11/94		0.01	7.74	
02/18/94		0.20	7.94	

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING  
 BP OIL COMPANY SERVICE STATION NO. 11132  
 3201 35TH AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-024

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	DO (ppm)	LAB
MW-10	03/07/91	167.01	18.09	---	148.92	1.6	120	190	32	230	---	---
MW-10	06/27/91	167.01	---	---	---	12000	7300	500	150	300	---	---
MW-10	09/27/91	167.01	---	---	---	57	12000	7200	1400	4600	---	---
MW-10	12/18/91	167.01	---	---	---	5.3	2500	120	36	79	---	---
MW-10	04/01/91	167.01	13.92	---	153.09	ND	ND	ND	ND	ND	---	---
MW-10	07/03/92	167.01	19.92	---	147.09	8600	5100	1300	180	690	---	ANA
MW-10	10/05/92	167.01	21.92	0.19	145.23	---	---	---	---	---	---	---
MW-10	01/13/93	167.01	14.43	0.03	152.60	---	---	---	---	---	---	---
MW-10	04/23/93	167.01	15.26	0.08	151.80	---	---	---	---	---	---	---
MW-10	07/12/93	167.01	19.78	0.45	147.57	---	---	---	---	---	---	---
MW-10	10/21/93	167.01	22.90	0.69	144.83	---	---	---	---	---	---	---
MW-10	01/21/94	167.01	20.25	0.06	146.81	---	---	---	---	---	---	---
MW-10	04/20/94	167.01	20.74	---	146.27	100000	12000	24000	2400	14000	1.0	PACE
RW-1	07/09/90	168.01	---	1.21	---	---	---	---	---	---	---	---
RW-1	12/21/90	168.01	---	0.01	---	---	---	---	---	---	---	---
RW-1	03/07/91	168.01	17.62	SHEEN	150.39	---	---	---	---	---	---	---
RW-1	06/27/91	168.01	---	0.04	---	---	---	---	---	---	---	---
RW-1	09/27/91	168.01	---	0.02	---	---	---	---	---	---	---	---
RW-1	12/18/91	168.01	---	0.02	---	---	---	---	---	---	---	---
RW-1	04/01/91	168.01	14.40	0.11	153.69	---	---	---	---	---	---	---
RW-1	07/03/92	168.01	20.68	SHEEN	147.35	---	---	---	---	---	---	---
RW-1	10/05/92	168.01	23.34	0.08	144.73	---	---	---	---	---	---	---
RW-1	01/13/93	168.01	16.59	0.05	151.46	---	---	---	---	---	---	---
RW-1	04/23/93	168.01	16.17	0.18	151.98	---	---	---	---	---	---	---
RW-1	07/12/93	168.01	20.18	0.06	147.88	---	---	---	---	---	---	---
RW-1	10/21/93	168.01	25.70	0.56	142.73	---	---	---	---	---	---	---
RW-1	01/21/94	168.01	21.24	0.40	147.07	---	---	---	---	---	---	---
RW-1	04/20/94	168.01	32.20	---	135.81	---	---	---	---	---	---	---
QC-2 (e)	10/05/92	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	ANA
QC-2 (e)	01/13/93	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
QC-2 (e)	04/23/93	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
QC-2 (e)	07/12/93	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
QC-2 (e)	10/21/93	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
QC-2 (e)	01/21/94	---	---	---	---	ND<50	ND<0.5	2.1	ND<0.5	2.1	---	PACE
QC-2 (e)	04/20/94	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE

ABBREVIATIONS:

TPH-G Total petroleum hydrocarbons as gasoline  
 B Benzene  
 T Toluene  
 E Ethylbenzene  
 X Total xylenes  
 DO Dissolved oxygen  
 ppb Parts per billion  
 ppm Parts per million  
 --- Not analyzed/available/applicable/measurable  
 ND Not detected above reported detection limit  
 ANA Anamatrix, Inc.  
 PACE Pace Inc.

NOTES:

(a) Casing elevations surveyed to the nearest 0.01 foot relative to mean sea level.  
 (b) Groundwater elevations adjusted assuming a specific gravity of 0.75 for free product.  
 (c) Blind duplicate.  
 (d) Not sampled due to an abandoned vehicle parked over well.  
 (e) Travel blank.

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING  
 BP OIL COMPANY SERVICE STATION NO. 11132  
 3201 35TH AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-024

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	DO (ppm)	LAB
MW-7	07/09/90	167.61	---	---	---	ND	ND	ND	ND	ND	---	---
MW-7	12/21/90	167.61	---	---	---	ND	ND	ND	ND	ND	---	---
MW-7	03/07/91	167.61	19.04	---	148.57	ND	ND	0.4	0.3	2.4	---	---
MW-7	06/27/91	167.61	---	---	---	70	17	4	0.8	2.2	---	---
MW-7	09/27/91	167.61	---	---	---	ND	0.4	ND	ND	0.4	---	---
MW-7	12/18/91	167.61	---	---	---	ND	0.7	2.9	0.8	3.3	---	---
MW-7	04/01/91	167.61	15.18	---	152.43	ND	ND	ND	ND	ND	---	---
MW-7	07/03/92	167.61	20.28	---	147.33	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	ANA
MW-7	10/05/92	167.61	21.56	---	146.05	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.5	---	ANA
MW-7	01/13/93	167.61	15.41	---	152.20	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-7	04/23/93	167.61	15.84	---	151.77	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-7	07/12/93	167.61	19.84	---	147.77	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-7	10/21/93	167.61	21.61	---	146.00	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-7	01/21/94	167.61	20.49	---	147.12	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
QC-1 (c)	01/21/94	---	---	---	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-7	04/20/94	167.61	20.54	---	147.07	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.5	PACE
MW-8	03/07/91	165.74	16.72	---	149.02	2.7	780	450	64	310	---	---
MW-8	06/27/91	165.74	---	---	---	12000	3400	1100	240	750	---	---
MW-8	09/27/91	165.74	---	---	---	41	5700	5200	1100	4300	---	---
MW-8	12/18/91	165.74	---	---	---	3.2	990	150	120	250	---	---
MW-8	04/01/91	165.74	12.54	---	153.20	15000	3600	2600	410	1900	---	---
MW-8	07/03/92	165.74	18.78	---	146.96	72000	19000	32000	3000	15000	---	ANA
MW-8	10/05/92	165.74	20.48	0.01	145.27	---	---	---	---	---	---	---
MW-8	01/13/93	165.74	12.67	0.01	152.88	---	---	---	---	---	---	---
MW-8	04/23/93	165.74	13.90	SHEEN	151.84	---	---	---	---	---	---	---
MW-8	07/12/93	165.74	18.30	SHEEN	147.44	---	---	---	---	---	---	---
MW-8	10/21/93	165.74	21.91	0.95	144.54	---	---	---	---	---	---	---
MW-8	01/21/94	165.74	19.12	0.03	146.64	---	---	---	---	---	---	---
MW-8	04/20/94	165.74	19.28	0.03	146.46	28000	1700	4100	960	4000	1.1	PACE
MW-9	03/07/91	166.20	16.79	---	149.41	7.1	220	4	2.4	2400	---	---
MW-9	06/27/91	166.20	---	---	---	3600	520	400	85	310	---	---
MW-9	09/27/91	166.20	---	---	---	3.2	720	150	50	180	---	---
MW-9	12/18/91	166.20	---	---	---	ND	2.5	1.1	0.3	5.8	---	---
MW-9	04/01/91	166.20	12.89	---	153.31	12000	2000	2600	360	1600	---	---
MW-9	07/03/92	166.20	18.89	---	147.31	5700	17000	840	230	800	---	ANA
MW-9	10/05/92	166.20	20.52	---	145.68	1400	440	17	14	100	---	ANA
MW-9	01/13/93	166.20	12.92	---	153.28	11000	1200	1700	340	1400	---	PACE
QC-1 (c)	01/13/93	---	---	---	0.00	11000	1200	1600	330	1300	---	PACE
MW-9	04/23/93	166.20	14.08	---	152.12	24000	2800	4500	730	3400	---	PACE
MW-9	07/12/93	166.20	18.44	---	147.76	13000	1400	1100	360	1400	---	PACE
QC-1 (c)	07/12/93	---	---	---	---	10000	1200	900	310	1200	---	PACE
MW-9	10/21/93	166.20	21.81	0.89	145.06	---	---	---	---	---	---	---
MW-9	01/21/94	166.20	19.28	---	146.92	---	---	---	---	---	---	---
MW-9	04/20/94	166.20	19.72	---	146.48	43000	2800	6800	1300	7900	1.7	PACE
QC-1 (c)	04/20/94	---	---	---	---	45000	2700	6800	1200	8200	---	PACE

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING  
 BP OIL COMPANY SERVICE STATION NO. 11132  
 3201 35TH AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-024

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	DO (ppm)	LAB
MW-4	07/09/90	170.36	--	--	--	ND	ND	ND	ND	ND	--	--
MW-4	12/21/90	170.36	--	--	--	ND	ND	ND	ND	0.8	--	--
MW-4	03/07/91	170.36	20.72	--	149.64	ND	2.2	3.8	1.5	2.6	--	--
MW-4	06/27/91	170.36	--	--	--	ND	6.3	1.8	0.4	1.0	--	--
MW-4	09/27/91	170.36	--	--	--	ND	ND	ND	ND	ND	--	--
MW-4	12/18/91	170.36	--	--	--	ND	ND	ND	ND	ND	--	--
MW-4	04/01/91	170.36	17.49	--	152.87	ND	ND	ND	ND	ND	--	--
MW-4	07/03/92	170.36	22.16	--	148.20	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	ANA
MW-4	10/05/92	170.36	23.38	--	146.98	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	ANA
MW-4	01/13/93	170.36	17.58	--	152.78	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	PACE
MW-4	04/23/93	170.36	15.72	--	154.64	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	PACE
MW-4	07/12/93	170.36	21.74	--	148.62	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	PACE
MW-4	10/21/93	170.36	23.84	--	146.52	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	PACE
MW-4	01/21/94	170.36	22.42	--	147.94	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	PACE
MW-4	04/20/94	170.36	22.66	--	147.70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.2	PACE
MW-5	07/09/90	165.14	--	--	--	280	200	210	46	290	--	--
MW-5	12/21/90	165.14	--	--	--	0.69	300	34	8.4	39	--	--
MW-5	03/07/91	165.14	16.60	--	148.54	ND	17	0.9	0.7	1.6	--	--
MW-5	06/27/91	165.14	--	--	--	330	120	10	12	8	--	--
MW-5	09/27/91	165.14	--	--	--	0.73	230	16	20	22	--	--
MW-5	12/18/91	165.14	--	--	--	ND	ND	ND	ND	ND	--	--
MW-5	04/01/91	165.14	11.99	--	153.15	800	250	54	11	60	--	--
MW-5	07/03/92	165.14	18.65	--	146.49	150	36	ND<0.5	ND<0.5	1.1	--	ANA
MW-5	10/05/92	165.14	20.32	--	144.82	270	79	4	1.7	2.9	--	ANA
MW-5	01/13/93	165.14	13.03	--	152.11	180	59	6.0	1.8	7.6	--	PACE
MW-5	04/23/93	165.14	13.51	--	151.63	8700	440	96	35	136	--	PACE
MW-5	07/12/93	165.14	18.06	--	147.08	250	57	2.9	2.1	6.0	--	PACE
MW-5	10/21/93	165.14	20.41	--	144.73	210	82	1.5	ND<0.5	1.4	--	PACE
MW-5	01/21/94	165.14	18.86	--	146.28	110	36	1.2	ND<0.5	0.7	--	PACE
MW-5	04/20/94	165.14	17.30	--	147.84	690	230	4.5	1.6	11	1.3	PACE
MW-6	07/09/90	165.40	--	--	--	ND	ND	ND	ND	ND	--	--
MW-6	12/21/90	165.40	--	--	--	0.17	2.6	7.0	4.9	26	--	--
MW-6 (d)	03/07/91	165.40	--	--	--	--	--	--	--	--	--	--
MW-6 (d)	06/27/91	165.40	--	--	--	--	--	--	--	--	--	--
MW-6 (d)	09/27/91	165.40	--	--	--	--	--	--	--	--	--	--
MW-6	12/18/91	165.40	--	--	--	ND	1.3	22	ND	2.7	--	--
MW-6	04/01/91	165.40	11.79	--	153.61	ND	ND	ND	ND	ND	--	--
MW-6	07/03/92	165.40	17.77	--	147.63	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	ANA
MW-6	10/05/92	165.40	19.46	--	145.94	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	ANA
MW-6	01/13/93	165.40	11.34	--	154.06	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	PACE
MW-6	04/23/93	165.40	12.92	--	152.48	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	PACE
MW-6	07/12/93	165.40	17.36	--	148.04	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.7	--	PACE
MW-6	10/21/93	165.40	19.98	--	145.42	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	PACE
MW-6	01/21/94	165.40	18.10	--	147.30	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	PACE
MW-6	04/20/94	165.40	18.68	--	146.72	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.0	PACE

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 BP OIL COMPANY SERVICE STATION NO. 11132  
 3201 35TH AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-024

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	DO (ppm)	LAB
MW-1	07/09/90	169.75	---	0.22	---	---	---	---	---	---	---	---
MW-1	12/21/90	169.75	---	0.58	---	---	---	---	---	---	---	---
MW-1	03/07/91	169.75	20.59	---	---	---	---	---	---	---	---	---
MW-1	06/27/91	169.75	---	0.18	---	---	---	---	---	---	---	---
MW-1	09/27/91	169.75	---	0.27	---	---	---	---	---	---	---	---
MW-1	12/18/91	169.75	---	0.28	---	---	---	---	---	---	---	---
MW-1	04/01/91	169.75	16.51	0.15	153.35	---	---	---	---	---	---	---
MW-1	07/03/92	169.75	22.30	0.27	147.65	---	---	---	---	---	---	---
MW-1	10/05/92	169.75	23.98	0.24	145.95	---	---	---	---	---	---	---
MW-1	01/13/93	169.75	17.03	0.24	152.90	---	---	---	---	---	---	---
MW-1	04/23/93	169.75	18.10	0.42	151.97	---	---	---	---	---	---	---
MW-1	07/12/93	169.75	22.02	0.49	148.10	---	---	---	---	---	---	---
MW-1	10/21/93	169.75	25.12	1.09	145.45	---	---	---	---	---	---	---
MW-1	01/21/94	169.75	23.02	0.76	147.30	---	---	---	---	---	---	---
MW-1	04/20/94	169.75	24.54	1.80	146.56	---	---	---	---	---	---	---
MW-2	07/09/90	168.14	---	0.10	---	---	---	---	---	---	---	---
MW-2	12/21/90	168.14	---	0.48	---	---	---	---	---	---	---	---
MW-2	03/07/91	168.14	19.18	---	---	---	---	---	---	---	---	---
MW-2	06/27/91	168.14	---	0.19	---	---	---	---	---	---	---	---
MW-2	09/27/91	168.14	---	0.15	---	---	---	---	---	---	---	---
MW-2	12/18/91	168.14	---	0.36	---	---	---	---	---	---	---	---
MW-2	04/01/91	168.14	15.21	0.10	153.01	---	---	---	---	---	---	---
MW-2	07/03/92	168.14	20.93	0.03	147.23	---	---	---	---	---	---	---
MW-2	10/05/92	168.14	22.74	0.21	145.56	---	---	---	---	---	---	---
MW-2	01/13/93	168.14	15.55	0.02	152.61	---	---	---	---	---	---	---
MW-2	04/23/93	168.14	16.54	0.21	151.76	---	---	---	---	---	---	---
MW-2	07/12/93	168.14	20.46	0.06	147.73	---	---	---	---	---	---	---
MW-2	10/21/93	168.14	24.91	0.31	143.46	---	---	---	---	---	---	---
MW-2	01/21/94	168.14	21.20	---	146.94	---	---	---	---	---	---	---
MW-2	04/20/94	168.14	22.44	---	145.70	1800	140	370	54	290	1.7	PACE
MW-3	07/09/90	167.17	---	---	---	140	5.3	4.6	2.0	3.8	---	---
MW-3	12/21/90	167.17	---	---	---	0.19	100	6.0	0.9	27	---	---
MW-3	03/07/91	167.17	17.40	---	149.77	0.4	69	22	6.1	57	---	---
MW-3	06/27/91	167.17	---	---	---	380	28	26	13	46	---	---
MW-3	09/27/91	167.17	---	---	---	0.07	7.9	ND	0.4	1.1	---	---
MW-3	12/18/91	167.17	---	---	---	0.26	34	24	0.8	28	---	---
MW-3	04/01/91	167.17	13.69	---	153.48	ND	ND	ND	ND	ND	---	---
MW-3	07/03/92	167.17	19.59	---	147.58	71	9.4	0.9	5.0	13	---	ANA
MW-3	10/05/92	167.17	21.22	---	145.95	67	5.1	1.1	6.1	8.1	---	ANA
QC-1 (c)	10/05/92	---	---	---	---	ND<50	2.2	ND<0.5	1.5	2.8	---	ANA
MW-3	01/13/93	167.17	13.63	---	153.54	830	50	34	42	89	---	PACE
MW-3	04/23/93	167.17	15.02	---	152.15	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
QC-1 (c)	04/23/93	---	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-3	07/12/93	167.17	19.16	---	148.01	250	12	4.2	12	16	---	PACE
MW-3	10/21/93	167.17	21.81	---	145.36	52	4.4	1.4	4.7	3.3	---	PACE
QC-1 (c)	10/21/93	---	---	---	---	65	7.4	1.0	6.9	4.2	---	PACE
MW-3	01/21/94	167.17	19.94	---	147.23	57	3.0	3.4	3.6	9.0	---	PACE
MW-3	04/20/94	167.17	20.24	---	146.93	600	26	23	33	88	1.8	PACE



# GROUNDWATER MONITORING AND SAMPLING REPORT

BP Oil Company Service Station No. 11132  
3201 35th Street  
Oakland, California

Project No. 10-024-03-004

May 25, 1994

## INTRODUCTION

This report presents the results and findings of the April 20, 1994 groundwater monitoring and sampling conducted by Allisto Engineering Group at BP Oil Company Service Station No. 11132, 3201 35th Street, Oakland, California. A site vicinity map is shown in Figure 1.

## FIELD PROCEDURES

Field activities were performed in accordance with the procedures and guidelines of the Alameda County Health Care Services Agency and the California Regional Water Quality Control Board, San Francisco Bay Region.

Before purging and sampling, the groundwater level in each well was measured from a permanent mark on top of the casing to the nearest 0.01 foot using an electronic sounder. The depth to groundwater and top of casing elevation data were used to calculate the groundwater elevation in each well relative to mean sea level. The survey data and groundwater elevation measurements collected to date are presented in Table 1.

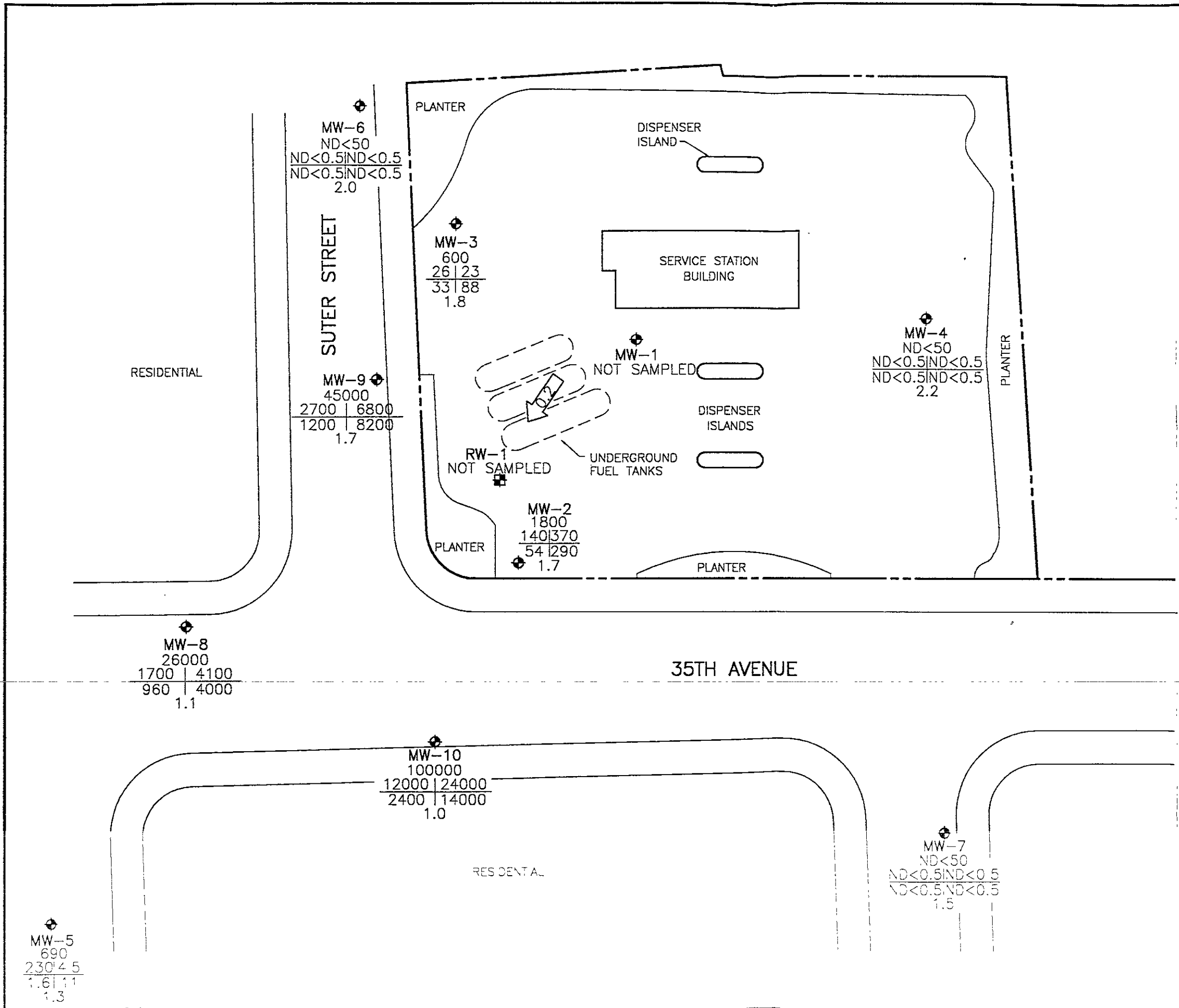
Before sample collection, each well was purged of 3 casing volumes, while recording field readings of pH, temperature, and electrical conductivity. Groundwater samples were collected for laboratory analysis by lowering a bottom-fill, disposable bailer to just below water level in the well. The samples were transferred from the bailer into laboratory-supplied containers. The water sampling field survey forms are presented in Appendix A.

## SAMPLING AND ANALYTICAL RESULTS

The results of monitoring and laboratory analysis of the groundwater samples for this and previous quarters are summarized in Table 1. The potentiometric groundwater elevations as interpreted from the results of this monitoring event are shown in Figure 2. The results of groundwater analysis are shown in Figure 3. The laboratory report and chain of custody record are presented in Appendix B.

## FREE PRODUCT MONITORING AND RECOVERY

Product recovery canisters have been installed in Monitoring Wells MW-2, MW-8, MW-9, and MW-10 to recover liquid-phase product. Product thicknesses measured during this and previous monitoring events are presented in Table 1. The volume of free product recovered from the wells is presented in Table 2.



**LEGEND**

- ◆ GROUNDWATER MONITORING WELL
- GROUNDWATER RECOVERY WELL
- TPH-G CONCENTRATION OF CONSTITUENTS IN PARTS PER BILLION, EXCEPT DISSOLVED OXYGEN, WHICH IS IN PARTS PER MILLION
- B | T
- E | X
- DO
- ND
- ← 0.2 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE

B BENZENE

T TOLUENE

E ETHYLBENZENE

X TOTAL XYLENES

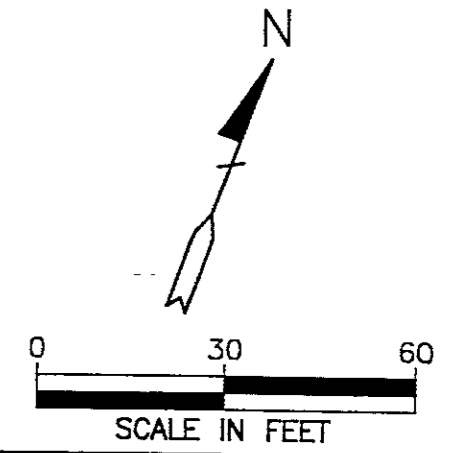
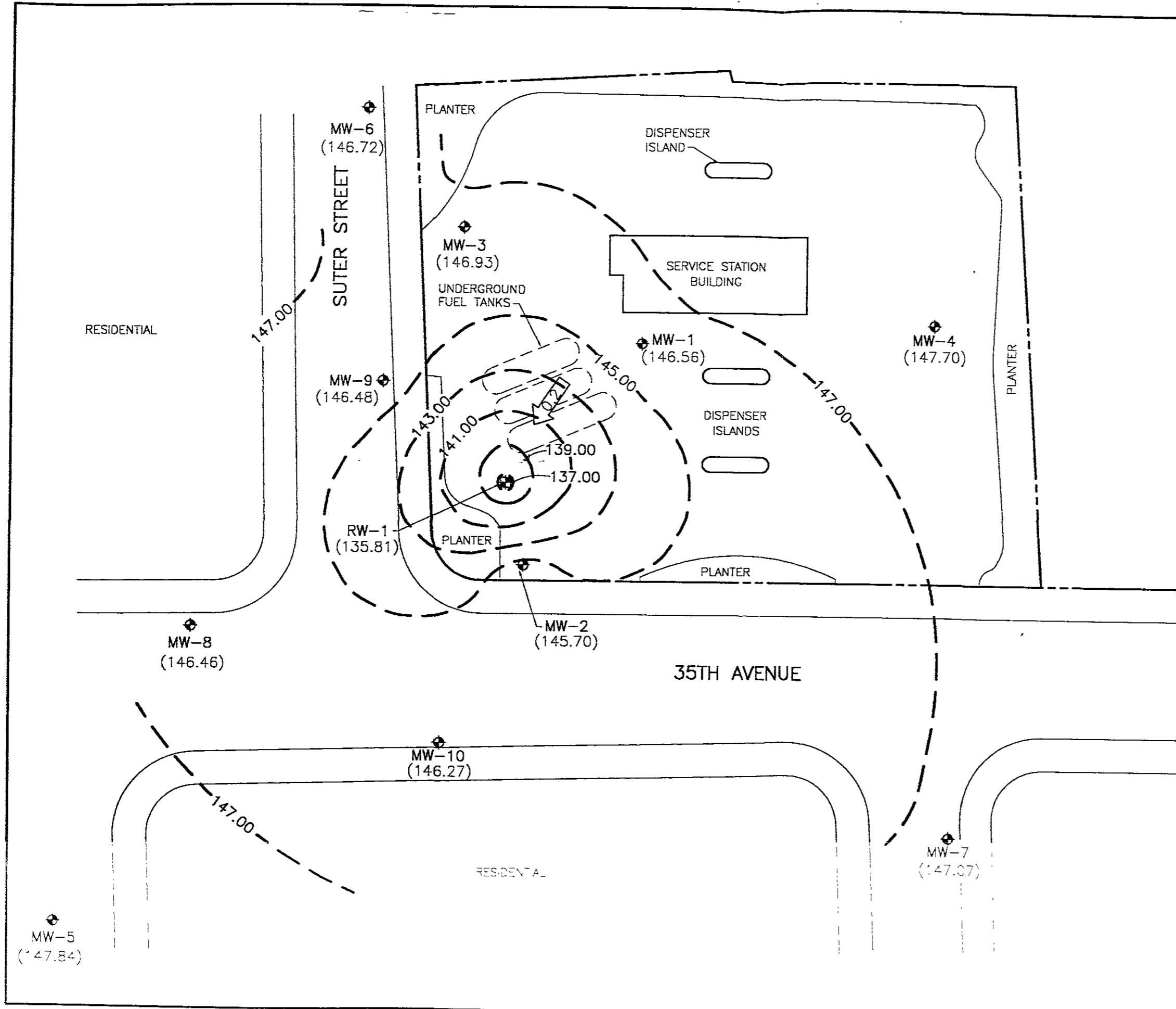
DO DISSOLVED OXYGEN

ND NOT DETECTED ABOVE REPORTED DETECTION LIMIT

**FIGURE 3**  
**CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER**  
 APRIL 20, 1994  
 BP OIL SERVICE STATION NO. 11132  
 3201 35TH STREET  
 OAKLAND, CALIFORNIA  
 PROJECT NO. 10-024

100241-3.DWG 5-18-94 RW 1-30





- LEGEND**
- ◆ GROUNDWATER MONITORING WELL
  - ⊕ GROUNDWATER RECOVERY WELL
  - (147.70) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
  - 147.00 - GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL - 2.00 FEET)
  - ← 0.2 → CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

**FIGURE 2**  
**POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP**  
 APRIL 20, 1994  
 BP OIL SERVICE STATION NO. 11132  
 3201 35TH STREET  
 OAKLAND, CALIFORNIA  
 PROJECT NO. 10-024

1001210 J.D.W.C. 5.23.94 R.W. 1-50