



BP OIL

BP Oil Company
Environmental Remediation Management
295 SW 41st Street
Renton, Washington 98055-4931
(425) 251-0667
Fax No: (425) 251-0736

August 1, 1998

Alameda County Health Care Services Agency
Attention Mr. Barney Chan
1131 Harbor Bay Parkway, Room 250
Alameda, CA 94502-6577

RE: Former BP Oil Site No. 11109
4280 Foothill Boulevard (at High Street)
Oakland, CA

Dear Mr. Chan:

Enclosed please find 16 July 1998 Groundwater Monitoring and Sampling Report. The report summarizes groundwater monitoring and sampling data obtained since 1990.

Upon review of the results reported this quarter, you will note that an accumulation of liquid petroleum hydrocarbon measuring 0.22 feet in thickness was measured in well MW-5 on 12 March 1998. The well was sampled after the hydrocarbon accumulation was removed, and aromatic hydrocarbons were detected by the laboratory. After the sample was obtained, a product recovery canister was placed in the well.

BP plans to continue groundwater monitoring and product collection efforts at this time.

Please give me a call if you have any questions, comments or concerns regarding this matter. I can be reached at (425) 251-0689.

Sincerely,

Scott Hooton
Environmental Remediation Management

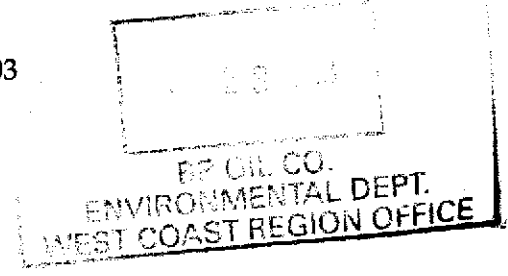
attachment

cc: CRWQCB-SFBR, Attention Mr. E. So, 2101 Webster Street, Ste. 500, Oakland,
CA 94612 (w/attachment)
site file
Brady Nagle - Alisto Engineering Group
Phil Briggs - Chevron Products Company, P.O. Box 5004, San Ramon, CA 94583-0804
(w/attachment)

GROUNDWATER MONITORING AND SAMPLING REPORT

BP Oil Company Service Station No. 11109
4280 Foothill Boulevard
Oakland, California

Project No. 10-014-08-003



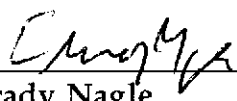
Prepared for:

BP Oil Company
Environmental Resources Management
295 S.W. 41st Street
Building 13, Suite N
Renton, Washington

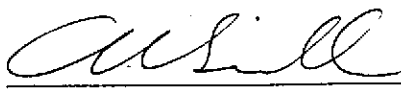
Prepared by:

Alisto Engineering Group
1575 Treat Boulevard, Suite 201
Walnut Creek, California

July 16, 1998



Brady Nagle
Project Manager



Al Sevilla, P.E.
Principal



FREE PRODUCT MONITORING AND RECOVERY

A product removal program has been initiated to recover liquid-phase product from Monitoring Well MW-5. Product thicknesses measured during this and previous monitoring events are presented in Table 1. The volume of free product recovered from the well is presented in Table 2.



TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11109
 4280 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-014

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	(a)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (Feet)	(b)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	HVOC (ug/l)	DO (ppm)	LAB
MW-1	01/31/90	38.19		15.41	--	22.78		--	--	--	--	--	--	--	--	--	--	--
MW-1 (c)	02/05/90	38.19		--	--	--		--	--	--	--	--	--	--	--	--	--	--
MW-2	02/05/90	41.22		21.90	--	19.31		1300	--	14	ND<0.1	9	13	--	--	--	--	SUP
MW-2	02/14/91	41.22		21.16	--	20.06		ND<50	ND<10000	ND<0.3	ND<0.3	ND<0.3	ND<0.3	--	ND<5000	51	(d)	SUP
MW-2	05/13/91	41.22		21.32	--	19.90		ND<50	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	--	6000	0.5	(e)	SUP
MW-2	07/24/91	41.22		22.92	--	18.30		--	--	--	--	--	--	--	--	--	--	--
MW-2	10/03/91	41.22		24.90	--	16.32		ND<50	ND<50	ND<0.3	0.8	ND<0.3	ND<0.3	--	ND<5000	0.7	(e)	SUP
MW-2	10/15/91	41.22		24.10	--	17.12		--	--	--	--	--	--	--	--	--	--	--
MW-2 (f)	12/04/91	41.22		--	--	--		--	--	--	--	--	--	--	--	--	--	--
MW-2	12/16/91	41.22		23.95	--	17.27		--	--	--	--	--	--	--	--	--	--	--
MW-2	01/06/92	41.22		23.30	--	17.92		ND<50	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	--	ND<5000	ND	--	ANA
MW-2	01/22/92	41.22		23.14	--	18.08		--	--	--	--	--	--	--	--	--	--	--
MW-2	01/28/92	41.22		22.99	--	18.23		--	--	--	--	--	--	--	--	--	--	--
MW-2	02/05/92	41.22		22.63	--	18.59		--	--	--	--	--	--	--	--	--	--	--
MW-2	02/12/92	41.22		22.04	--	19.18		--	--	--	--	--	--	--	--	--	--	--
MW-2	02/17/92	41.22		20.84	--	20.38		--	--	--	--	--	--	--	--	--	--	--
MW-2	04/03/92	41.22		18.29	--	22.93		--	--	--	--	--	--	--	--	--	--	--
MW-2	04/08/92	41.22		18.86	--	22.36		ND<50	63	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	ND<5000	ND	--	ANA
MW-2	04/14/92	41.22		19.45	--	21.77		--	--	--	--	--	--	--	--	--	--	--
MW-2	04/29/92	41.22		20.36	--	20.87		--	--	--	--	--	--	--	--	--	--	--
MW-2	05/07/92	41.22		20.84	--	20.38		--	--	--	--	--	--	--	--	--	--	--
MW-2	07/03/92	41.22		22.34	--	18.88		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	ANA
MW-2	10/08/92	41.22		23.73	--	17.49		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	ANA
MW-2	12/31/92	41.22		21.12	--	20.10		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	ANA
MW-2	04/21/93	41.22		17.68	--	23.54		ND<50	ND<50 (g)	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	ND<5000	ND	--	PACE
MW-2	07/07/93	41.22		20.30	--	20.92		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	1.0	(e)	PACE
MW-2	09/21/93	41.22		21.93	--	19.29		ND<50	--	0.9	0.7	0.7	2.6	--	--	--	--	PACE
MW-2	12/17/93	41.22		21.48	--	19.74		--	--	--	--	--	--	--	--	--	--	--
MW-2	12/23/93	41.22		--	--	--		ND<50	--	ND<0.5	ND<0.5	ND<0.5	0.7	--	--	--	--	PACE
MW-2	04/07/94	41.22		20.25	--	20.97		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	5.9	PACE
MW-2	07/06/94	41.22		20.59	--	20.63		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	3.1	PACE
MW-2	10/07/94	41.22		22.04	--	19.18		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	2.8	PACE
MW-2	01/27/95	41.22		26.12	--	15.10		ND<50	440	ND<0.5	ND<0.5	ND<0.5	ND<1	--	ND<5000	--	4.8	ATI
MW-2	03/30/95	41.22		12.34	--	28.88		ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	--	7.2	ATI
MW-2	06/20/95	41.22		16.42	--	24.80		ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	--	6.0	ATI
MW-2	10/03/95	41.22		20.06	--	21.16		ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	--	--	5.7	ATI
MW-2	12/06/95	41.22		21.31	--	19.91		ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	46	--	--	5.4	ATI
MW-2	03/21/96	41.22		12.28	--	28.94		ND<50	--	ND<0.5	ND<1	ND<1	ND<1	ND<10	--	--	7.4	SPL
MW-2	06/21/96	41.22		13.28	--	27.94		ND<50	--	ND<0.5	ND<1	ND<1	ND<1	ND<10	--	--	7.3	SPL
MW-2	09/06/96	41.22		13.94	--	27.28		--	--	--	--	--	--	--	--	--	--	--
MW-2	09/09/96	41.22		--	--	--		ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	--	7.4	SPL
MW-2	12/19/96	41.22		12.19	--	29.03		ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	--	7.9	SPL
MW-2	03/17/97	41.22		11.59	--	29.63		--	--	--	--	--	--	--	--	--	--	--
MW-2	08/12/97	41.22		13.21	--	28.01		--	--	--	--	--	--	--	--	--	--	--
MW-2	12/10/97	41.22		12.34	--	28.88		--	--	--	--	--	--	--	--	--	--	--
MW-2	03/12/98	41.22		11.04	--	30.18		--	--	--	--	--	--	--	--	--	--	--

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11109
 4280 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-014

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	HVOC (ug/l)	DO (ppm)	LAB
MW-4	02/05/90	40.11	20.75	--	19.38	620	--	ND<0.5	9	ND<0.5	10	--	--	--	--	SUP
MW-4	02/14/91	40.11	21.73	--	18.38	180	--	ND<0.3	ND<0.3	0.4	2	--	--	--	--	SUP
MW-4	05/13/91	40.11	18.55	--	21.56	72	--	0.7	ND<0.3	ND<0.3	ND<0.3	--	--	--	--	SUP
MW-4	07/24/91	40.11	21.31	--	18.80	--	--	--	--	--	--	--	--	--	--	--
MW-4	10/03/91	40.11	22.57	--	17.54	57	--	ND<0.3	ND<0.3	ND<0.3	ND<0.3	--	--	--	--	SUP
MW-4	10/15/91	40.11	22.88	--	17.23	--	--	--	--	--	--	--	--	--	--	--
MW-4	12/04/91	40.11	22.54	--	17.57	--	--	--	--	--	--	--	--	--	--	--
MW-4	12/16/91	40.11	22.59	--	17.52	--	--	--	--	--	--	--	--	--	--	--
MW-4	01/06/92	40.11	22.00	--	18.11	480	--	0.8	3.2	1.9	7.7	--	--	--	--	ANA
MW-4	01/22/92	40.11	21.58	--	18.53	--	--	--	--	--	--	--	--	--	--	--
MW-4	01/28/92	40.11	21.42	--	18.69	--	--	--	--	--	--	--	--	--	--	--
MW-4	02/05/92	40.11	21.10	--	19.01	--	--	--	--	--	--	--	--	--	--	--
MW-4	02/12/92	40.11	20.74	--	19.37	--	--	--	--	--	--	--	--	--	--	--
MW-4	02/17/92	40.11	19.78	--	20.33	--	--	--	--	--	--	--	--	--	--	--
MW-4	04/03/92	40.11	16.80	--	23.31	--	--	--	--	--	--	--	--	--	--	--
MW-4	04/08/92	40.11	17.13	--	22.98	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	ANA
MW-4	04/14/92	40.11	17.74	--	22.37	--	--	--	--	--	--	--	--	--	--	--
MW-4	04/29/92	40.11	18.56	--	21.55	--	--	--	--	--	--	--	--	--	--	--
MW-4	05/07/92	40.11	19.10	--	21.01	--	--	--	--	--	--	--	--	--	--	--
MW-4	07/03/92	40.11	20.71	--	19.40	ND<50	--	0.6	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	ANA
MW-4	10/08/92	40.11	22.43	--	17.68	270	--	ND<0.5	2.1	2.5	3.2	--	--	--	--	ANA
MW-4	12/31/92	40.11	19.58	--	20.53	150	--	ND<0.5	ND<0.5	ND<0.5	1.3	--	--	--	--	ANA
MW-4	04/21/93	40.11	17.79	--	22.32	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	PACE
MW-4	07/07/93	40.11	18.44	--	21.67	160	--	1.2	5.4	3.8	19	--	--	--	--	PACE
MW-4	09/21/93	40.11	20.14	--	19.97	71	--	ND<0.5	1.9	ND<0.5	2.1	--	--	--	--	PACE
MW-4	12/17/93	40.11	19.80	--	20.31	--	--	--	--	--	--	--	--	--	--	--
MW-4	12/23/93	40.11	--	--	--	ND<50	--	3.1	1.6	0.8	3.8	--	--	--	--	PACE
MW-4	04/07/94	40.11	19.12	--	20.99	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	6.6	PACE
MW-4	07/08/94	40.11	19.90	--	20.21	62	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	4.1	PACE
MW-4	10/07/94	40.11	20.07	--	20.04	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	3.6	PACE
MW-4	01/27/95	40.11	13.72	--	26.39	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	--	--	--	2.7	ATI
MW-4	03/30/95	40.11	11.46	--	28.65	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	--	8.3	ATI
MW-4	06/20/95	40.11	14.78	--	25.33	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	--	--	ATI
MW-4	10/03/95	40.11	19.62	--	20.49	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	5.0	--	--	5.8	ATI
MW-4	12/06/95	40.11	19.91	--	20.20	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	47	--	--	5.7	ATI
MW-4	03/21/96	40.11	11.12	--	28.99	ND<50	--	ND<0.5	ND<1	ND<1	ND<1	ND<10	--	--	7.8	SPL
MW-4	06/21/96	40.11	12.21	--	27.90	ND<50	--	ND<0.5	ND<1	ND<1	ND<1	ND<10	--	--	7.9	SPL
MW-4	09/06/96	40.11	12.89	--	27.22	--	--	--	--	--	--	--	--	--	--	--
MW-4	09/09/96	40.11	--	--	--	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	--	7.2	SPL
MW-4	12/19/96	40.11	11.01	--	29.10	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	--	8.4	SPL
MW-4	03/17/97	40.11	10.42	--	29.69	--	--	--	--	--	--	--	--	--	--	--
MW-4	08/12/97	40.11	12.77	--	27.34	--	--	--	--	--	--	--	--	--	--	--
MW-4	12/10/97	40.11	11.22	--	28.89	--	--	--	--	--	--	--	--	--	--	--
MW-4	03/12/98	40.11	10.81	--	29.30	--	--	--	--	--	--	--	--	--	--	--

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11109
 4280 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-014

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	(a)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (Feet)	(b)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	HVOC (ug/l)	DO (ppm)	LAB
MW-6	10/03/91	41.59		20.73	--	20.86		ND<50	--	0.7	0.8	ND<0.3	1.3	--	--	--	--	SUP
MW-6	10/15/91	41.59		21.20	--	20.39		--	--	--	--	--	--	--	--	--	--	--
MW-6	12/04/91	41.59		21.26	--	20.33		--	--	--	--	--	--	--	--	--	--	--
MW-6	12/16/91	41.59		21.12	--	20.47		--	--	--	--	--	--	--	--	--	--	--
MW-6	01/06/92	41.59		20.29	--	21.30		ND<50	--	ND<0.5	ND<0.5	ND<0.5	1.6	--	--	--	--	ANA
MW-6	01/22/92	41.59		20.12	--	21.47		--	--	--	--	--	--	--	--	--	--	--
MW-6	01/28/92	41.59		20.20	--	21.39		--	--	--	--	--	--	--	--	--	--	--
MW-6	02/05/92	41.59		20.09	--	21.50		--	--	--	--	--	--	--	--	--	--	--
MW-6	02/12/92	41.59		19.15	--	22.44		--	--	--	--	--	--	--	--	--	--	--
MW-6	02/17/92	41.59		18.02	--	23.57		--	--	--	--	--	--	--	--	--	--	--
MW-6	04/03/92	41.59		16.62	--	24.97		--	--	--	--	--	--	--	--	--	--	--
MW-6	04/08/92	41.59		17.06	--	24.53		ND<50	--	0.6	ND<0.5	0.8	ND<0.5	--	--	--	--	ANA
MW-6	04/14/92	41.59		17.23	--	24.36		--	--	--	--	--	--	--	--	--	--	--
MW-6	04/29/92	41.59		18.12	--	23.47		--	--	--	--	--	--	--	--	--	--	--
MW-6	05/07/92	41.59		18.52	--	23.07		--	--	--	--	--	--	--	--	--	--	--
MW-6	07/03/92	41.59		19.71	--	21.88		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	ANA
MW-6	10/08/92	41.59		21.22	--	20.37		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	ANA
QC-1 (h)	10/08/92	--		--	--	--		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	ANA
MW-6	12/31/92	41.59		21.33	--	20.26		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	ANA
MW-6	04/21/93	41.59		16.45	--	25.14		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	ANA
MW-6	07/07/93	41.59		18.68	--	22.91		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	29 (i)	--	--	PACE
MW-6	09/21/93	41.59		19.64	--	21.95		ND<50	--	ND<0.5	ND<0.5	ND<0.5	1.6	--	--	--	--	PACE
MW-6	12/17/93	41.59		21.08	--	20.51		--	--	--	--	--	--	--	--	--	--	--
MW-6	12/23/93	41.59		--	--	--		ND<50	--	ND<0.5	0.5	ND<0.5	0.6	--	--	--	--	PACE
MW-6	04/07/94	41.59		21.27	--	20.32		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	6.1	PACE
MW-6	07/08/94	41.59		19.81	--	21.78		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	4.0	PACE
QC-1 (h)	07/06/94	--		--	--	--		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	PACE
MW-6	10/07/94	41.59		21.25	--	20.34		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	24 (j)	--	3.5	PACE
MW-6	01/27/95	41.59		12.39	--	29.20		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	--	--	--	4.2	ATI
MW-6	03/30/95	41.59		11.34	--	30.25		ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	--	6.1	ATI
MW-6	06/20/95	41.59		15.12	--	26.47		ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	--	ATI	
MW-6	10/03/95	41.59		20.68	--	20.91		ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	66	--	--	6.4	ATI
MW-6	12/06/95	41.59		23.77	--	17.82		ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	45	--	--	5.7	ATI
MW-6	03/21/96	41.59		11.55	--	30.04		ND<50	--	ND<0.5	ND<1	ND<1	ND<1	41	--	--	9.1	SPL
MW-6	06/21/96	41.59		12.60	--	28.99		ND<50	--	ND<0.5	ND<1	ND<1	ND<1	ND<10	--	--	8.6	SPL
MW-6	09/06/96	41.59		13.25	--	28.34		--	--	--	--	--	--	--	--	--	--	--
MW-6	09/09/96	41.59		--	--	--		ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	22/22 (k)	--	--	7.9	SPL
MW-6	12/19/96	41.59		11.45	--	30.14		ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	--	7.7	SPL
MW-6	03/17/97	41.59		10.80	--	30.79		--	--	--	--	--	--	--	--	--	--	--
MW-6	08/12/97	41.59		13.11	--	28.48		--	--	--	--	--	--	--	--	--	--	--
MW-6	12/10/97	41.59		13.84	--	27.75		--	--	--	--	--	--	--	--	--	--	--
MW-6	03/12/98	41.59		11.17	--	30.42		--	--	--	--	--	--	--	--	--	--	--

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11109
 4280 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-014

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	(a)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (Feet)	(b)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	HVOC (ug/l)	DO (ppm)	LAB
MW-7	10/03/91	40.64		14.93	---	25.71		360	---	62	13	3.4	20	---	---	---	---	SUP
MW-7	10/15/91	40.64		15.16	---	25.48		---	---	---	---	---	---	---	---	---	---	---
MW-7	12/04/91	40.64		15.41	---	25.23		---	---	---	---	---	---	---	---	---	---	---
MW-7	12/16/91	40.64		15.21	---	25.43		---	---	---	---	---	---	---	---	---	---	---
MW-7	01/06/92	40.64		14.56	---	26.08		1100	---	170	ND<0.5	24	23	---	---	---	---	ANA
MW-7	01/22/92	40.64		14.63	---	26.01		---	---	---	---	---	---	---	---	---	---	---
MW-7	01/28/92	40.64		14.73	---	25.91		---	---	---	---	---	---	---	---	---	---	---
MW-7	02/05/92	40.64		14.58	---	26.06		---	---	---	---	---	---	---	---	---	---	---
MW-7	02/12/92	40.64		13.94	---	26.70		---	---	---	---	---	---	---	---	---	---	---
MW-7	02/17/92	40.64		13.10	---	27.54		---	---	---	---	---	---	---	---	---	---	---
MW-7	04/03/92	40.64		12.66	---	27.98		---	---	---	---	---	---	---	---	---	---	---
MW-7	04/08/92	40.64		12.77	---	27.87		750	---	150	ND<0.5	23	9.9	---	---	---	---	ANA
MW-7	04/14/92	40.64		13.02	---	27.62		---	---	---	---	---	---	---	---	---	---	---
MW-7	04/29/92	40.64		13.59	---	27.05		---	---	---	---	---	---	---	---	---	---	---
MW-7	05/07/92	40.64		13.95	---	26.69		---	---	---	---	---	---	---	---	---	---	---
MW-7	07/03/92	40.64		14.73	---	25.91		660	---	210	ND<2.5	33	8	---	---	---	---	ANA
MW-7	10/09/92	40.64		15.75	---	24.89		320	---	49	1.4	13	6.2	---	---	---	---	ANA
MW-7	12/31/92	40.64		13.57	---	27.07		900	---	100	ND<2.5	28	4.3	---	---	---	---	ANA
MW-7	04/21/93	40.64		14.56	---	26.08		510	---	83	1.2	10	5.8	---	---	---	---	PACE
MW-7	07/07/93	40.32	(i)	13.40	---	26.92		1100	---	160	2.0	27	4.0	---	---	---	---	PACE
QC-1 (h)	07/07/93	---	---	---	---	---		1100	---	170	1.9	29	2.8	---	---	---	---	PACE
MW-7	09/21/93	40.32		14.40	---	25.92		690	---	150	3.1	26	5.7	---	---	---	---	PACE
QC-1 (h)	09/21/93	---	---	---	---	---		640	---	140	1.7	23	2.4	---	---	---	---	PACE
MW-7	12/17/93	40.32		13.65	---	26.67		---	---	---	---	---	---	---	---	---	---	---
MW-7	12/23/93	40.32		---	---	---		250	---	64	1.2	9.0	1.8	---	---	---	---	PACE
MW-7	04/07/94	40.32		30.62	---	9.70		140	---	32	1.4	ND<0.5	ND<0.5	---	---	---	---	PACE
MW-7	07/06/94	40.32		16.88	---	23.44		410	---	94	1.3	10	3.5	---	---	---	4.4	PACE
MW-7	10/07/94	40.32		25.59	---	14.73		ND<50	---	9.2	ND<0.5	ND<0.5	ND<0.5	---	---	---	4.9	PACE
MW-7	01/27/95	40.32		9.82	---	30.50		810	---	570	3	60	17	---	---	---	0	ATI
QC-1 (h)	01/27/95	---	---	---	---	---		930	---	620	4	77	21	---	---	---	---	ATI
MW-7	03/30/95	40.32		9.15	---	31.17		180	---	65	0.53	2.0	ND<1.0	---	---	---	7.8	ATI
MW-7	06/20/95	40.32		11.38	---	28.94		2800	---	980	ND<5.0	ND<5.0	43	---	---	---	---	ATI
MW-7	10/03/95	40.32		29.95	---	10.37		ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	---	ATI
MW-7	12/06/95	40.32		29.85	---	10.47		ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	---	ATI
MW-7	03/21/96	40.32		9.76	---	30.56		1000	---	390	2	40	13	ND<10	---	---	---	SPL
MW-7	06/21/96	40.32		11.01	---	29.31		ND<250	---	40	ND<5	ND<5	ND<5	ND<50	---	---	7.4	SPL
MW-7	09/06/96	40.32		11.68	---	28.64		---	---	---	---	---	---	---	---	---	---	---
MW-7	09/09/96	40.32		---	---	---		ND<250	---	13	ND<5.0	ND<5.0	ND<5.0	ND<50	---	---	7.2	SPL
MW-7	12/19/96	40.32		10.78	---	29.54		70	---	1.2	ND<1.0	1.4	ND<1.0	ND<10	---	---	8.3	SPL
MW-7	03/17/97	40.32		9.96	---	30.36		---	---	---	---	---	---	---	---	---	---	---
MW-7	08/12/97	40.32		11.44	---	28.88		---	---	---	---	---	---	---	---	---	---	---
MW-7	12/10/97	40.32		10.42	---	29.90		---	---	---	---	---	---	---	---	---	---	---
MW-7	03/12/98	40.32		9.51	---	30.81		---	---	---	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11109
 4280 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-014

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	(a)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (Feet)	(b)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	HVOC (ug/l)	DO (ppm)	LAB
MW-8	10/03/91	38.18		22.37	--	15.81		ND<50	--	ND<0.3	0.6	ND<0.3	0.9	--	--	--	--	SUP
MW-8	10/15/91	38.18		22.70	--	15.48		--	--	--	--	--	--	--	--	--	--	--
MW-8	12/04/91	38.18		22.44	--	15.74		--	--	--	--	--	--	--	--	--	--	--
MW-8	12/16/91	38.18		22.47	--	15.71		--	--	--	--	--	--	--	--	--	--	--
MW-8	01/06/92	38.18		21.94	--	16.24		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	ANA
MW-8	01/22/92	38.18		21.44	--	16.74		--	--	--	--	--	--	--	--	--	--	--
MW-8	01/28/92	38.18		21.20	--	16.98		--	--	--	--	--	--	--	--	--	--	--
MW-8	02/05/92	38.18		20.88	--	17.30		--	--	--	--	--	--	--	--	--	--	--
MW-8	02/12/92	38.18		20.54	--	17.64		--	--	--	--	--	--	--	--	--	--	--
MW-8	02/17/92	38.18		19.99	--	18.19		--	--	--	--	--	--	--	--	--	--	--
MW-8	04/03/92	38.18		16.75	--	21.43		--	--	--	--	--	--	--	--	--	--	--
MW-8	04/08/92	38.18		16.57	--	21.61		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	ANA
MW-8 (f)	04/14/92	38.18		--	--	--		--	--	--	--	--	--	--	--	--	--	--
MW-8	04/29/92	38.18		18.61	--	19.57		--	--	--	--	--	--	--	--	--	--	--
MW-8	05/07/92	38.18		18.41	--	19.77		--	--	--	--	--	--	--	--	--	--	--
MW-8	07/03/92	38.18		20.35	--	17.83		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	ANA
MW-8 (f)	10/08/92	38.18		21.74	--	16.44		--	--	--	--	--	--	--	--	--	--	--
MW-8	12/31/92	38.18		19.09	--	19.09		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	ANA
MW-8	04/21/93	38.18		18.92	--	19.26		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	PACE
MW-8	07/07/93	38.18		17.76	--	20.42		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	PACE
MW-8	09/21/93	38.18		19.71	--	18.47		ND<50	--	2.9	2.2	2.2	7.1	--	--	--	--	PACE
MW-8	12/17/93	38.18		21.33	--	16.85		--	--	--	--	--	--	--	--	--	--	--
MW-8	12/23/93	38.18		--	--	--		ND<50	--	ND<0.5	ND<0.5	ND<0.5	0.6	--	--	--	--	PACE
MW-8	04/07/94	38.18		21.51	--	16.67		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	6.8	PACE
MW-8	07/06/94	38.18		17.41	--	20.77		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	4.4	PACE
MW-8	10/07/94	38.18		19.20	--	18.98		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	3.7	PACE
MW-8	01/27/95	38.18		12.25	--	25.93		ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	--	--	--	2.9	ATI
MW-8	03/30/95	38.18		10.35	--	27.83		ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	--	8.3	ATI
MW-8	06/20/95	38.18		13.37	--	24.81		ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	--	6.9	ATI
MW-8 (f)	10/03/95	38.18		--	--	--		--	--	--	--	--	--	--	--	--	--	--
MW-8	12/06/95	38.18		18.42	--	19.76		ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	47	--	--	5.3	ATI
MW-8 (f)	03/21/96	38.18		--	--	--		--	--	--	--	--	--	--	--	--	--	--
MW-8	06/21/96	38.18		13.03	--	25.15		ND<50	--	ND<0.5	ND<1	ND<1	ND<1	ND<10	--	--	7.0	SPL
MW-8	09/06/96	38.18		13.70	--	24.48		--	--	--	--	--	--	--	--	--	--	--
MW-8	09/09/96	38.18		--	--	--		ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	--	7.0	SPL
MW-8	12/19/96	38.18		11.93	--	26.25		ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	--	7.6	SPL
MW-8	03/17/97	38.18		11.29	--	26.89		--	--	--	--	--	--	--	--	--	--	--
MW-8	06/12/97	38.18		13.73	--	24.45		--	--	--	--	--	--	--	--	--	--	--
MW-8	12/10/97	38.18		11.88	--	26.30		--	--	--	--	--	--	--	--	--	--	--
MW-8	03/12/98	38.18		11.89	--	26.29		--	--	--	--	--	--	--	--	--	--	--

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 BP OIL COMPANY SERVICE STATION NO. 11109
 4280 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-014

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	(a)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (Feet) (b)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	HVOC (ug/l)	DO (ppm)	LAB
MW-9	10/03/91	41.25		14.12	---	27.13	ND<50	---	ND<0.3	0.4	ND<0.3	ND<0.3	---	---	---	---	SUP
MW-9	10/15/91	41.25		14.27	---	26.98	---	---	---	---	---	---	---	---	---	---	---
MW-9	12/04/91	41.25		13.84	---	27.41	---	---	---	---	---	---	---	---	---	---	---
MW-9	12/16/91	41.25		14.18	---	27.07	---	---	---	---	---	---	---	---	---	---	---
MW-9	01/06/92	41.25		13.42	---	27.83	ND<50	---	ND<0.5	ND<0.5	ND<0.5	0.9	---	---	---	---	ANA
MW-9	01/22/92	41.25		13.75	---	27.50	---	---	---	---	---	---	---	---	---	---	---
MW-9	01/28/92	41.25		14.76	---	26.49	---	---	---	---	---	---	---	---	---	---	---
MW-9	02/05/92	41.25		13.38	---	27.87	---	---	---	---	---	---	---	---	---	---	---
MW-9	02/12/92	41.25		11.86	---	29.39	---	---	---	---	---	---	---	---	---	---	---
MW-9	02/17/92	41.25		10.78	---	30.47	---	---	---	---	---	---	---	---	---	---	---
MW-9	04/03/92	41.25		11.63	---	29.62	---	---	---	---	---	---	---	---	---	---	---
MW-9	04/08/92	41.25		12.25	---	29.00	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	ANA
MW-9	04/14/92	41.25		12.32	---	28.93	---	---	---	---	---	---	---	---	---	---	---
MW-9	04/29/92	41.25		13.07	---	28.18	---	---	---	---	---	---	---	---	---	---	---
MW-9	05/07/92	41.25		14.43	---	26.82	---	---	---	---	---	---	---	---	---	---	---
MW-9	07/03/92	41.25		13.85	---	27.40	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	ANA
MW-9	10/08/92	41.25		14.89	---	26.36	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	ANA
MW-9	12/31/92	41.25		11.90	---	29.35	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	ANA
MW-9	04/21/93	41.25		13.68	---	27.57	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	PACE
MW-9	07/07/93	41.25		13.12	---	28.13	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	PACE
MW-9	09/21/93	41.25		14.00	---	27.25	ND<50	---	ND<0.5	ND<0.5	ND<0.5	0.9	---	---	---	---	PACE
MW-9	12/17/93	41.25		12.98	---	28.27	---	---	---	---	---	---	---	---	---	---	---
MW-9	12/23/93	41.25		---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	0.9	---	---	---	---	PACE
MW-9	04/07/94	41.25		13.24	---	28.01	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	4.7 PACE
MW-9	07/06/94	41.25		13.77	---	27.48	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	3.9 PACE
MW-9	10/07/94	41.25		14.80	---	26.65	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	3.0 PACE
MW-9	01/27/95	41.25		8.47	---	32.78	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	2.5 ATI
MW-9	03/30/95	41.25		8.19	---	33.06	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	8.4 ATI
MW-9	06/20/95	41.25		11.25	---	30.00	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	8.1 ATI
MW-9	10/03/95	41.25		14.68	---	26.57	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	---	6.0 ATI
MW-9	12/06/95	41.25		16.07	---	25.18	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	46	---	---	---	5.4 ATI
MW-9	03/21/96	41.25		9.60	---	31.65	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	---	8.0 SPL
MW-9	06/21/96	41.25		10.86	---	30.39	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	---	7.8 SPL
MW-9	08/06/96	41.25		11.52	---	29.73	---	---	---	---	---	---	---	---	---	---	---
MW-9	09/09/96	41.25		---	---	---	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	20/21 (k)	---	---	---	7.3 SPL
MW-9	12/19/96	41.25		10.43	---	30.82	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	7.3 SPL
MW-9	03/17/97	41.25		9.87	---	31.38	---	---	---	---	---	---	---	---	---	---	---
MW-9	08/12/97	41.25		11.44	---	29.81	---	---	---	---	---	---	---	---	---	---	---
MW-9	12/10/97	41.25		10.44	---	30.81	---	---	---	---	---	---	---	---	---	---	---
MW-9	03/12/98	41.25		9.50	---	31.75	---	---	---	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11109
 4280 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-014

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	(a)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (Feet)	(b)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	HVOC (ug/l)	DO (ppm)	LAB
QC-2 (f)	10/08/92	---		---	---	---		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	ANA
QC-2 (f)	12/31/92	---		---	---	---		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	ANA
QC-2 (f)	04/21/93	---		---	---	---		---	---	---	---	---	---	---	---	ND	---	PACE
QC-2 (f)	07/07/93	---		---	---	---		ND<50	---	ND<0.5	ND<0.5	ND<0.5	0.6	---	---	---	---	PACE
QC-2 (f)	09/21/93	---		---	---	---		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	PACE
QC-2 (f)	12/23/93	---		---	---	---		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	PACE
QC-2 (f)	04/07/94	---		---	---	---		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	PACE
QC-2 (f)	07/06/94	---		---	---	---		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	PACE
QC-2 (f)	10/07/94	---		---	---	---		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	PACE
QC-2 (f)	01/27/95	---		---	---	---		ND<50	---	ND<0.5	0.5	ND<0.5	ND<1	---	---	---	---	ATI
QC-2 (f)	03/30/95	---		---	---	---		ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	ATI
QC-2 (f)	08/20/95	---		---	---	---		ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	ATI
QC-2 (f)	10/03/95	---		---	---	---		ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	---	ATI
QC-2 (f)	12/08/95	---		---	---	---		ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	---	ATI
QC-2 (f)	03/21/96	---		---	---	---		ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	---	SPL
QC-2 (f)	06/21/96	---		---	---	---		ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	---	SPL

ABBREVIATIONS:

TPH-G Total petroleum hydrocarbons as gasoline
 TPH-D Total petroleum hydrocarbons as diesel
 B Benzene
 T Toluene
 E Ethylbenzene
 X Total xylenes
 MTBE Methyl tert butyl ether
 TOG Total oil and grease
 HVOC Halogenated volatile organic compounds
 DO Dissolved oxygen
 ug/l Micrograms per liter
 ppm Parts per million
 --- Not analyzed/measured/applicable
 ND Not detected above reported detection limit
 SUP Superior Analytical Laboratory
 ANA Anamatrix, Inc.
 PACE Pace, Inc.
 ATI Analytical Technologies, Inc.
 SPL Southern Petroleum Laboratories

NOTES:

- (a) Top of casing elevations surveyed in feet above mean sea level, relative to the NGVD (1929).
- (b) Groundwater elevations adjusted assuming a specific gravity of 0.75 for free product.
- (c) Well destroyed during tank removal in November 1990.
- (d) Methylene chloride.
- (e) 1,2-Dichloroethane.
- (f) Well inaccessible.
- (g) Sample collected from MW-2 for TPH-D analysis received in laboratory 7 days after collection; sample exceeded EPA recommended holding time for TPH-D on a water matrix.
- (h) Blind duplicate.
- (i) Top of casing lowered.
- (j) A copy of the documentation for this data is included in Appendix C of Alisto report 10-014-07-001.
- (k) EPA Methods 8020/8260 used.
- (l) Travel blank.

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TABLE 2 - PRODUCT REMOVAL STATUS
BP OIL COMPANY SERVICE STATION NO. 11109
4280 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-014

WELL ID	DATE OF SAMPLING	PRODUCT THICKNESS (Feet)	PRODUCT REMOVED (Gallons)	PRODUCT REMOVED CUMULATIVE (Gallons)
MW-5	03/12/98	0.22	0.20	0.20

TABLE 3 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING
 CHEVRON U.S.A. SERVICE STATION NO. 9-0076
 4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-014

WELL ID	DATE OF MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)
C-1	07/14/92	38.41	27.61	---	10.80
C-1	10/08/92	38.41	24.44	---	13.97
C-1	09/21/93	38.41	21.42	---	16.99
C-1	03/30/95	38.41	12.02	---	26.39
C-1	06/20/95	38.41	14.40	---	24.01
C-1	03/21/96	38.41	11.65	---	26.76
C-1	09/06/96	38.41	16.75	---	21.66
C-1	12/19/96	38.41	13.98	---	24.43
C-1	03/17/97	38.41	12.78	---	25.63
C-1	06/11/97	38.41	15.16	---	23.25
C-1	09/17/97	38.41	16.94	---	21.47
C-1	12/10/97	38.41	13.18	---	25.23
C-1	03/12/98	38.41	9.49	---	28.92
C-2	07/14/92	37.47	---	---	---
C-2	10/08/92	37.47	---	---	---
C-2	09/21/93	37.47	26.29	---	11.18
C-2	03/30/95	37.47	17.18	---	20.29
C-2	06/20/95	37.47	18.95	---	18.52
C-2	03/21/96	37.47	16.17	---	21.30
C-2	09/06/96	37.47	21.14	0.04	16.36
C-2	12/19/96	37.47	17.55	0.03	19.94
C-2	03/17/97	37.47	18.59	---	18.88
C-2	06/11/97	37.47	21.30	---	16.17
C-2	09/17/97	37.47	23.14	---	14.33
C-2	12/10/97	37.47	17.21	---	20.26
C-2	03/12/98	37.47	14.17	---	23.30
C-3	07/14/92	38.37	27.87	---	10.50
C-3	10/08/92	38.37	28.55	---	9.82
C-3	09/21/93	38.37	26.22	---	12.15
C-3	03/30/95	38.37	18.42	---	19.95
C-3	06/20/95	38.37	19.79	---	18.58
C-3	03/21/96	38.37	17.85	---	20.52
C-3	09/06/96	38.37	21.63	---	16.74
C-3	12/19/96	38.37	22.30	---	16.07
C-3	03/17/97	38.37	18.95	---	19.42
C-3	06/11/97	38.37	21.15	---	17.23
C-3	09/17/97	38.37	22.41	---	15.96
C-3	12/10/97	38.37	22.26	---	16.11
C-3	03/12/98	38.37	18.35	---	20.02

TABLE 3 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING
 CHEVRON U.S.A. SERVICE STATION NO. 9-0076
 4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-014

WELL ID	DATE OF MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)
C-4	07/14/92	36.49	26.89	---	9.60
C-4	10/08/92	36.49	27.79	---	8.70
C-4	09/21/93	36.49	25.51	---	10.98
C-4	03/30/95	36.49	14.86	---	21.63
C-4	06/20/95	36.49	16.90	---	19.59
C-4	03/21/96	36.49	14.10	---	22.39
C-4	09/06/96	36.49	20.13	---	16.36
C-4	12/19/96	36.49	16.92	---	19.57
C-4	03/17/97	36.49	17.40	---	19.09
C-4	06/11/97	36.49	18.34	---	18.15
C-4	09/17/97	36.49	21.46	---	15.03
C-4	12/10/97	36.49	16.65	---	19.84
C-4	03/12/98	36.49	16.59	---	19.90
C-5	07/14/92	38.50	28.00	---	10.50
C-5	10/08/92	38.50	28.65	---	9.85
C-5	09/21/93	38.50	26.36	---	12.14
C-5	03/30/95	38.50	18.54	---	19.96
C-5	06/20/95	38.50	20.13	---	18.37
C-5	03/21/96	38.50	18.40	---	20.10
C-5	09/06/96	38.50	21.90	---	16.60
C-5	12/19/96	38.50	21.15	---	17.35
C-5	03/17/97	38.50	19.84	---	18.66
C-5	06/11/97	38.50	21.60	---	16.90
C-5	09/17/97	38.50	27.83	---	10.67
C-5	12/10/97	38.50	21.00	---	17.50
C-5	03/12/98	38.50	16.42	---	22.08
C-6	07/14/92	35.40	38.89	---	-3.49
C-6	10/08/92	35.40	38.67	---	-3.27
C-6	09/21/93	35.40	33.98	---	1.42
C-6	03/30/95	35.40	26.38	---	9.02
C-6	06/20/95	35.40	25.01	---	10.39
C-6	03/21/96	35.40	23.12	---	12.28
C-6	09/06/96	35.40	24.83	---	10.57
C-6	12/19/96	35.40	24.50	---	10.90
C-6	03/17/97	35.40	22.59	---	12.81
C-6	06/11/97	35.40	23.76	---	11.64
C-6	09/17/97	35.40	24.74	---	10.66
C-6	12/10/97	35.40	24.65	---	10.75
C-6	03/12/98	35.40	27.12	---	8.28

TABLE 3 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING
 CHEVRON U.S.A. SERVICE STATION NO. 9-0076
 4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-014

WELL ID	DATE OF MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)
C-7	07/14/92	35.19	39.77	---	-4.58
C-7	10/08/92	35.19	39.14	---	-3.95
C-7	09/21/93	35.19	35.46	---	-0.27
C-7	03/30/95	35.19	27.60	---	7.59
C-7	06/20/95	35.19	27.87	---	7.32
C-7	03/21/96	35.19	27.85	---	7.34
C-7	09/06/96	35.19	28.35	---	6.84
C-7	12/19/96	35.19	29.11	---	6.08
C-7	03/17/97	35.19	27.14	---	8.05
C-7	06/11/97	35.19	28.05	---	7.14
C-7	09/17/97	35.19	29.00	---	6.19
C-7	12/10/97	35.19	29.26	---	5.93
C-7	03/12/98	35.19	24.92	---	10.27
C-8	07/14/92	34.68	39.02	---	-4.34
C-8	10/08/92	34.68	38.68	---	-4.00
C-8	09/21/93	34.68	35.30	---	-0.62
C-8	03/30/95	34.68	29.24	---	5.44
C-8	06/20/95	34.68	28.34	---	6.34
C-8	03/21/96	34.68	28.65	---	6.03
C-8	09/06/96	34.68	28.70	---	5.98
C-8	12/19/96	34.68	29.70	---	4.98
C-8	03/17/97	34.68	27.76	---	6.92
C-8	06/11/97	34.68	28.81	---	5.87
C-8	09/17/97	34.68	29.36	---	5.32
C-8	12/10/97	34.68	29.80	---	4.88
C-8	03/12/98	34.68	25.73	---	8.95
C-9	03/17/97	30.68	27.56	---	3.12
C-9	06/11/97	30.68	28.27	---	2.41
C-9	09/17/97	30.68	28.63	---	2.05
C-9	12/10/97	30.68	29.43	---	1.25
C-9	03/12/98	30.68	25.62	---	5.06

NOTES:

- (a) Top of casing elevations surveyed relative to 1929 NGVD.
Measured in feet above mean sea level.
- (b) Groundwater elevations in feet above mean sea level.
-
- Not measured/available.

Source: Blaine Tech Services Inc.

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TABLE 4 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING
SHELL SERVICE STATION
4411 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-014

WELL ID	DATE OF MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	TPH-MO (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	LAB
S-1	03/30/95	38.31	6.09	32.22	---	---	---	---	---	---	---	---	---
S-1	06/20/95	38.31	7.30	31.01	---	---	---	---	---	---	---	---	---
S-1	12/06/95	38.31	11.64	26.67	---	---	---	---	---	---	---	---	---
S-1	03/21/96	38.31	6.87	31.44	---	---	---	---	---	---	---	---	---
S-1	06/21/96	38.31	8.65	29.66	---	---	---	---	---	---	---	---	---
S-1	09/06/96	38.31	10.50	27.81	---	---	---	---	---	---	---	---	---
S-1	12/19/96	38.31	8.24	30.07	---	---	---	---	---	---	---	---	---
S-1	03/17/97	38.31	7.26	31.05	---	---	---	---	---	---	---	---	---
S-1	06/11/97	38.31	10.69	27.62	---	---	---	---	---	---	---	---	---
S-1	09/17/97	38.31	10.26	28.05	---	---	---	---	---	---	---	---	---
S-1	12/11/97	38.31	6.96	31.35	---	---	---	---	---	---	---	---	---
S-1	03/12/98	38.31	6.00	32.31	25000	2500	510	250	820	670	5000	ND<125	SEQ
DUP (c)	03/12/98	---	---	---	26000	---	---	250	840	720	5100	ND<125	SEQ
S-2	03/30/95	38.79	7.86	30.93	---	---	---	---	---	---	---	---	---
S-2	06/20/95	38.79	9.51	29.28	---	---	---	---	---	---	---	---	---
S-2	12/06/95	38.79	10.52	28.27	---	---	---	---	---	---	---	---	---
S-2	03/21/96	38.79	8.60	30.19	---	---	---	---	---	---	---	---	---
S-2	06/21/96	38.79	9.95	28.84	---	---	---	---	---	---	---	---	---
S-2	09/06/96	38.79	10.50	28.29	---	---	---	---	---	---	---	---	---
S-2	12/19/96	38.79	9.40	29.39	---	---	---	---	---	---	---	---	---
S-2	03/17/97	38.79	9.82	28.97	---	---	---	---	---	---	---	---	---
S-2	06/11/97	38.79	10.18	28.61	---	---	---	---	---	---	---	---	---
S-2	09/17/97	38.79	9.90	28.89	---	---	---	---	---	---	---	---	---
S-2	12/11/97	38.79	8.27	30.52	---	---	---	---	---	---	---	---	---
S-2	03/12/98	38.79	7.97	30.82	1100	---	---	830	48	ND<10	ND<10	4700/4800 (d)	SEQ
S-3	03/30/95	37.33	7.06	30.27	---	---	---	---	---	---	---	---	---
S-3	06/20/95	37.33	8.15	29.18	---	---	---	---	---	---	---	---	---
S-3	12/06/95	37.33	10.53	26.80	---	---	---	---	---	---	---	---	---
S-3	03/21/96	37.33	7.32	30.01	---	---	---	---	---	---	---	---	---
S-3	06/21/96	37.33	8.85	28.48	---	---	---	---	---	---	---	---	---
S-3	09/06/96	37.33	10.10	27.23	---	---	---	---	---	---	---	---	---
S-3	12/19/96	37.33	8.36	28.97	---	---	---	---	---	---	---	---	---
S-3	03/17/97	37.33	8.57	28.76	---	---	---	---	---	---	---	---	---
S-3	06/11/97	37.33	9.26	28.07	---	---	---	---	---	---	---	---	---
S-3	09/17/97	37.33	9.62	27.71	---	---	---	---	---	---	---	---	---
S-3	12/11/97	37.33	7.34	29.99	---	---	---	---	---	---	---	---	---
S-3	03/12/98	37.33	5.75	31.58	29000	---	---	840	810	1700	6000	ND<250	SEQ
EB (e)	03/12/98	---	---	---	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	SEQ

ABBREVIATIONS:

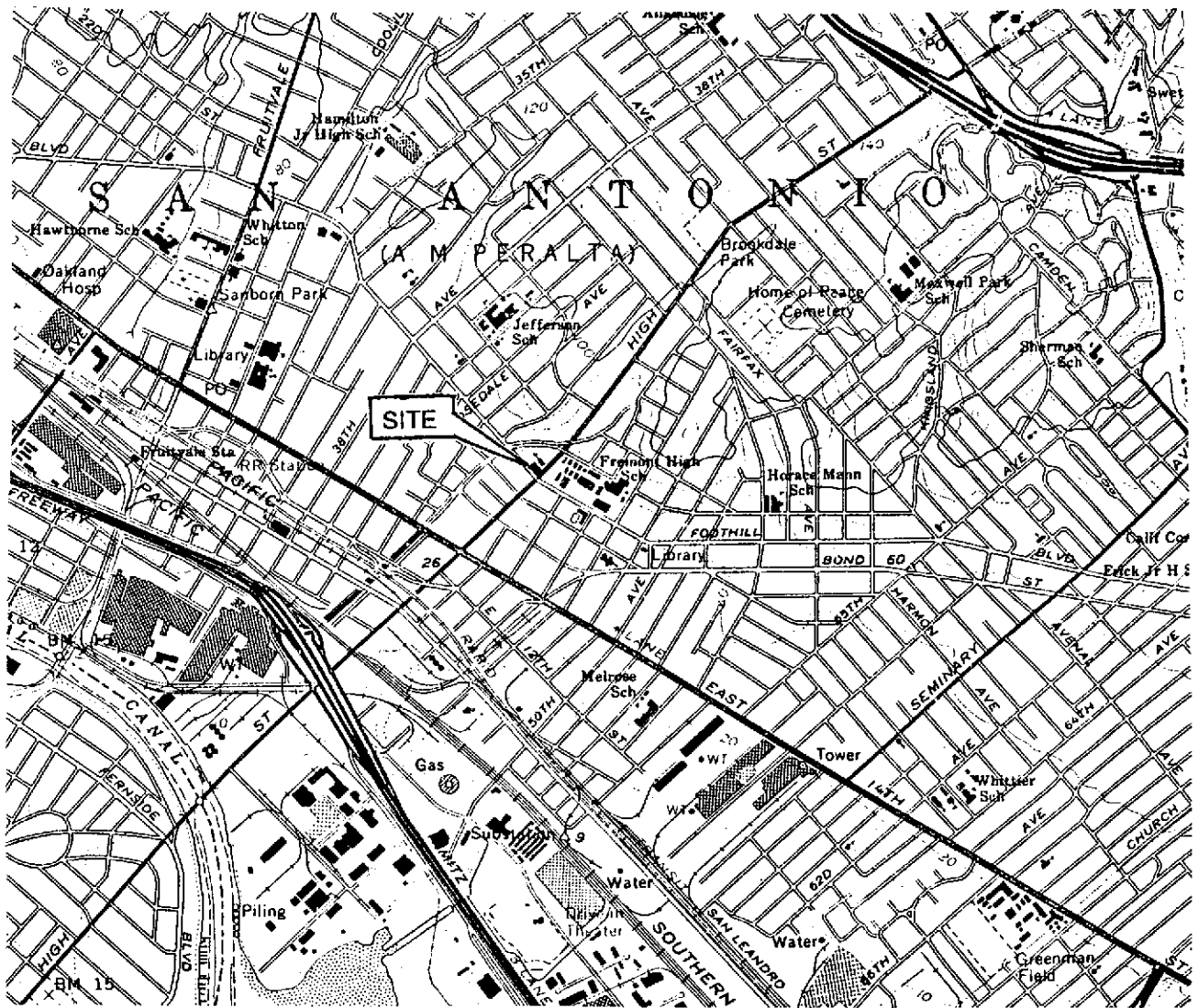
TPH-G Total petroleum hydrocarbons as gasoline
 TPH-D Total petroleum hydrocarbons as diesel
 TPH-MO Total petroleum hydrocarbons as motor oil
 B Benzene
 T Toluene
 E Ethylbenzene
 X Total xylenes
 MTBE Methyl tert butyl ether
 ug/l Micrograms per liter
 --- Not analyzed/measured/applicable
 ND Not detected above reported detection limit
 SEQ Sequoia Analytical

NOTES:

- (a) Top of casing elevations surveyed relative to 1929 NGVD. Measured in feet above mean sea level.
- (b) Groundwater elevations in feet above mean sea level.
- (c) Blind duplicate.
- (d) EPA Methods 8020/8260 used for MTBE analysis.
- (e) Trip blank.

SOURCE: Weiss Associates and Elaine Tech.

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SOURCE:
 USGS MAP, OAKLAND EAST QUADRANGLE,
 CALIFORNIA, 7.5 MINUTE SERIES, 1959.
 PHOTOREVISED 1980.

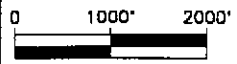
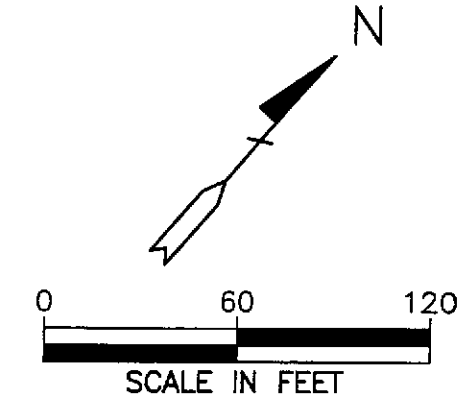
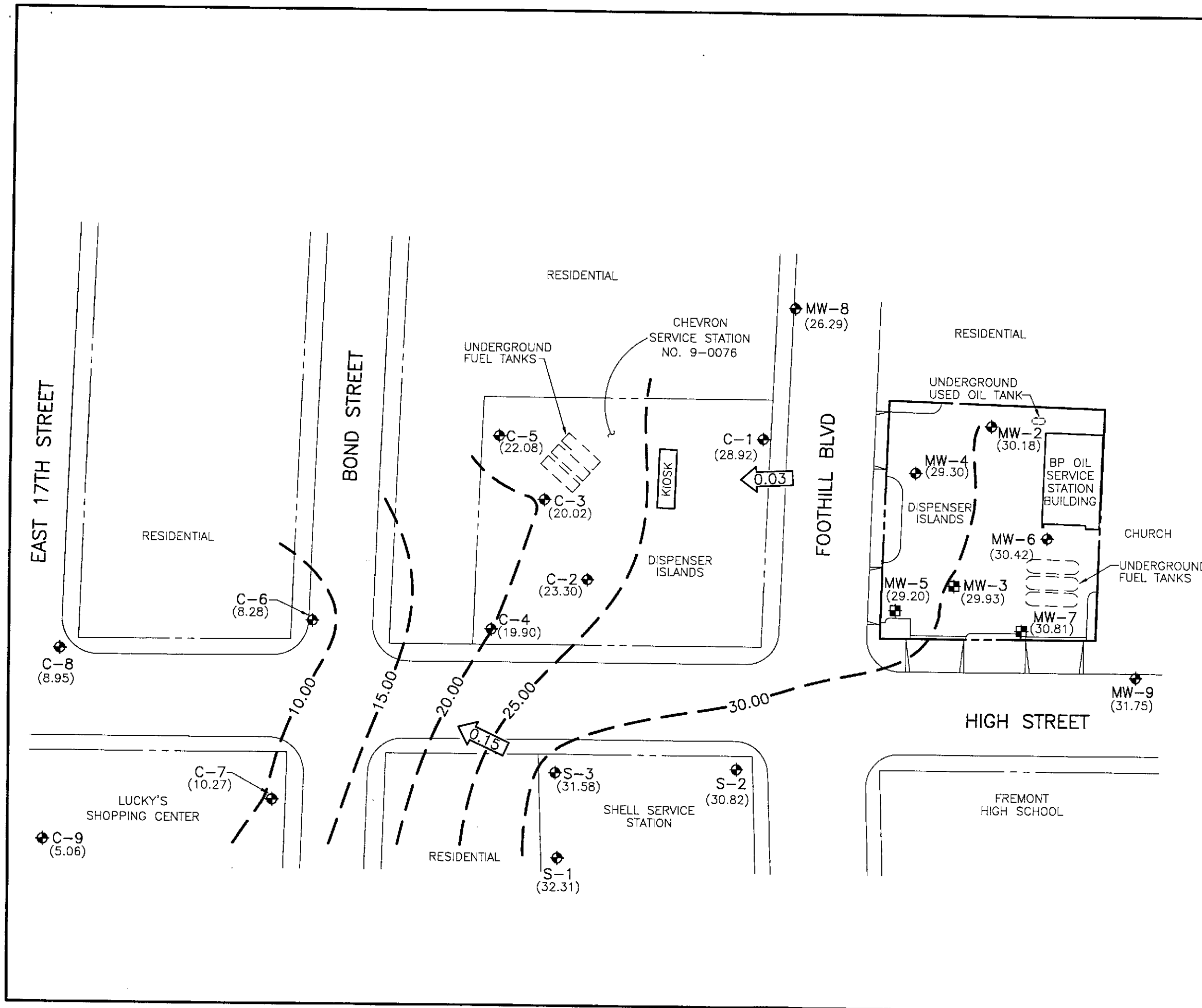


FIGURE 1
SITE VICINITY MAP

BP OIL SERVICE STATION NO. 11109
 4280 FOOTHILL BOULEVARD
 OAKLAND, CALIFORNIA
 PROJECT NO. 10-014





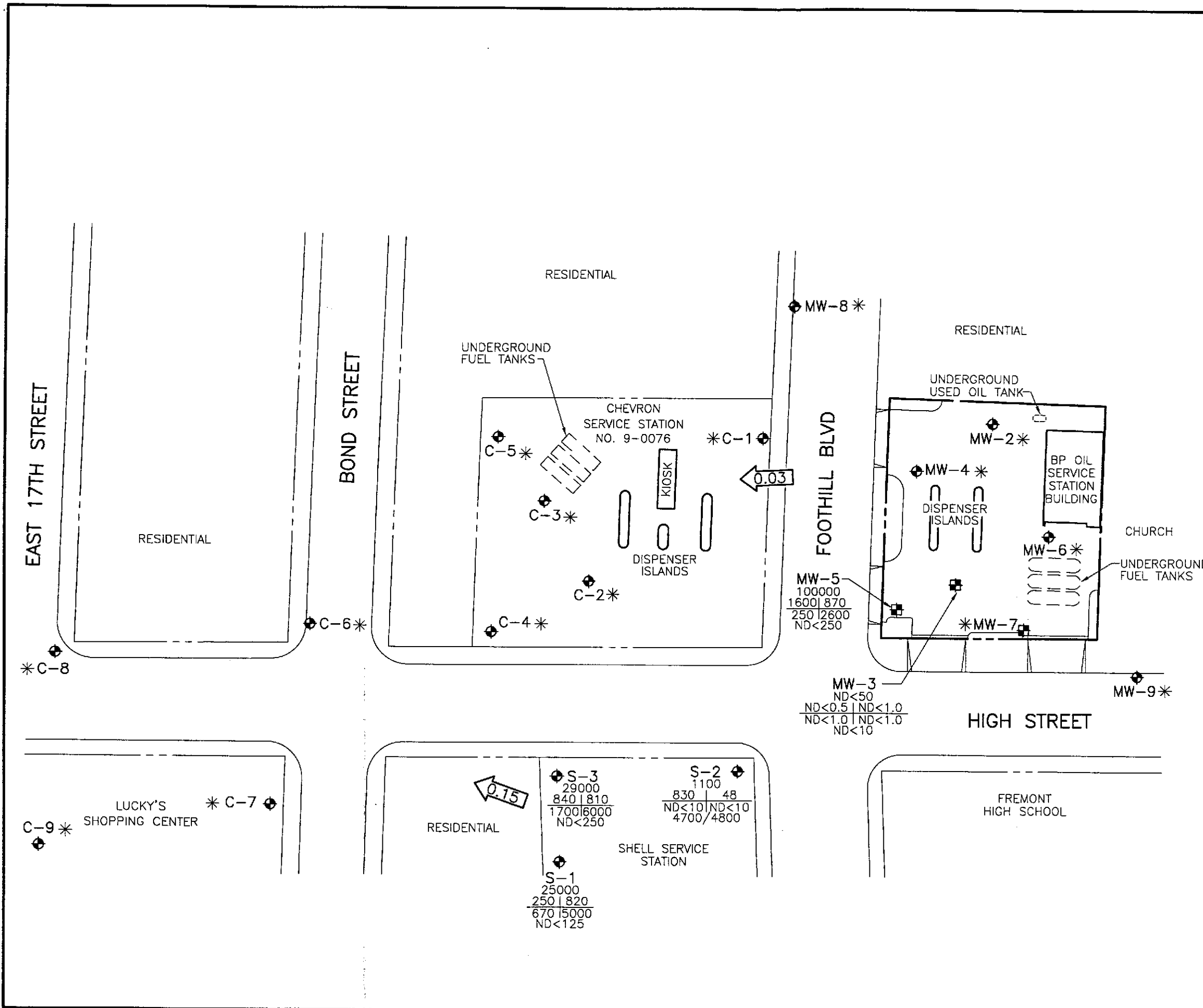
- LEGEND**
- ◆ GROUNDWATER MONITORING WELL
 - GROUNDWATER RECOVERY WELL
 - (8.28) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
 - - - 10.00 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL-5.00 FEET)
 - ← 0.15 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

NOTE:
 Potentiometric groundwater elevation contours were generated with Quicksurf using the Kriging method with a spherical variogram on a triangulated grid surface.

FIGURE 2
POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP
MARCH 12, 1998
 BP OIL SERVICE STATION NO. 11109
 4280 FOOTHILL BOULEVARD
 OAKLAND, CALIFORNIA
 PROJECT NO. 10-014



10014B-Y.DWG 6-8-98 TAH 1-80



LEGEND

- ◆ GROUNDWATER MONITORING WELL
- GROUNDWATER RECOVERY WELL
- * DATA NOT AVAILABLE
- TPH-G CONCENTRATION OF CONSTITUENTS IN MICROGRAMS PER LITER
- B | T | E | X
- MTBE
- TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
- B BENZENE
- T TOLUENE
- E ETHYLBENZENE
- X TOTAL XYLENES
- MTBE METHYL TERT BUTYL ETHER
- ND NOT DETECTED ABOVE REPORTED DETECTION LIMIT
- ← 0.15 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT
- * NOT SAMPLED

FIGURE 3
CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER
MARCH 12, 1998
 BP OIL SERVICE STATION NO. 11109
 4280 FOOTHILL BOULEVARD
 OAKLAND, CALIFORNIA
 PROJECT NO. 10-014

APPENDIX A
WATER SAMPLING FIELD SURVEY FORMS

ALISTO

Field Report / Sampling Data Sheet

ENGINEERING

GROUP

1575 TREAT BOULEVARD, SUITE 201

WALNUT CREEK, CA 94598 (510)295-1650 FAX295-1823

Project No.

10-014-08-003

Address

4280 Foothill Blvd

Contract No.

H176522

Station No.

BP 11109

Date:

3/12/18

Day:

MTWTF

City:

Oakland

Sampler:

DEPTH TO GROUNDWATER SUMMARY

WELL ID	SAMPLE ID	WELL DIAM	TOTAL DEPTH	DEPTH TO WATER	PRODUCT THICKNESS	TIME MONITORED	COMMENTS:
MW-2	N/S	2"	30.10	11.04	∅		Not Sampled
MW-3	S-1	4"	31.80	10.20	↓		QC-1 (S-3) From this well
MW-4	N/S	4"	34.28	10.81	↓		Not Sampled
MW-5	S-2	4"	35.00	10.11	.22		
MW-6	N/S	4"	34.28	11.17	∅		Not Sampled
MW-7	↓	6"	33.42	9.51	↓		Not Sampled
MW-8	↓	2"	29.71	11.89	↓		Not Sampled
MW-9	↓	2"	29.31	9.50	↓		Not Sampled

FIELD INSTRUMENT CALIBRATION DATA

pH METER ILM 4.00 4 7.00 7 10.00 10 TEMPERATURE COMPENSATED Y N TIME 1545

D.O. METER ILM ZERO d.O. SOLUTION _____ BAROMETRIC PRESSURE 760 TEMP 63 WEATHER Clear

CONDUCTIVITY METER ILM 10,000 _____ TURBIDITY METER _____ 5.0 NTU _____ OTHER _____

LEAK DETECTOR: _____ ALARM MODE X NON ALARM MODE _____

Well ID	Depth to Water	Diam	Cap/Lock	Product Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.	
MW-3	10.20	4"	OK	∅	Y (N)	14	1620	61.1	7.21	1.19 _w	5.9	<input type="checkbox"/> EPA 601 _____
Total Depth - Water Level = x Well Vol. Factor = xivol. to Purge PurgeVol.						28		62.0	7.11	1.24 _w		<input checked="" type="checkbox"/> TPH-G/BTEX _____
31.80 - 10.20 = 21.60 x .65 = 14.04 x 3 = 42.12						43	1650	62.6	7.13	1.27 _w	6.3	<input type="checkbox"/> TPH Diesel _____
Purge Method: <u>✓</u> Surface Pump ODsp. Tube OWinch ODsp. Bailer(s) _____ OSys Port												<input type="checkbox"/> TOG 5520 _____
Comments:											TIME/SAMPLE ID	
											1655	

ALISTO

Field Report / Sampling Data Sheet

ENGINEERING

Project No.

10-014-08-003

Date:

3/12/98

GROUP

Address

4280 Foothill Blvd

Day:

MTWTF

1575 TREAT BOULEVARD, SUITE 201

Contract No.

H176522

City:

Oakland

WALNUT CREEK CA 94598 (510) 295-1650 FAX 295-1823

Station No.

BP 11109

Sampler:

CB

Well ID	Depth to Water	Diam	Cap/Lock	Product Depl	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.						
MW-5	10.11	4"	OK	9.89	Y N	16	1701	60.7	7.36	867µs	6.0						
Total Depth - Water Level=						x Well Vol. Factor=						x#vol. to Purge PurgeVol.					
~35.00-10.11=24.89x.65=16.18x3=48.54						38		61.3	7.21	878µs							
						49	1745	61.9	7.17	889µs	6.1						
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp.Tube <input type="checkbox"/> Winch <input type="checkbox"/> Disp. Baller(s) <input type="checkbox"/> Sys Port																	
Comments: Remand .20 gal FP																	

- EPA 601 _____
- TPH-G/BTEX _____
- TPH Diesel _____
- TOG 5520 _____

TIME/SAMPLE ID

1756

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

March 25, 1998

Mr. Scott Hooton
BP OIL COMPANY
295 SW 41st St., Bldg 13, Ste. N
Renton, WA 98055


The following report contains analytical results for the sample(s) received at Southern Petroleum Laboratories (SPL) on March 17, 1998. The sample(s) was assigned to Certificate of Analysis No.(s) 9803819 and analyzed for all parameters as listed on the chain of custody.

Any data flag or quality control exception associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s).

If you have any questions or comments pertaining to this data report, please do not hesitate to contact me. Please reference the above Certificate of Analysis No. during any inquiries.

Again, SPL is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

Southern Petroleum Laboratories



Joel Grice
Project Manager

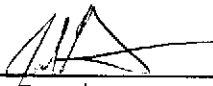


HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number: 98-03-819

Approved for Release by:



Joel Grice, Project Manager

Date: 3/25/98

Greg Grandits
Laboratory Director

Cynthia Schreiner
Quality Assurance Officer

The attached analytical data package may not be reproduced except in full without the express written approval of this laboratory.



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9803819-01

BP Oil Company
295 SW 41st St, Bldg 13, Ste N
Renton, WA 98055
ATTN: Scott Hooton

P.O.#
H176522, COC#089195
DATE: 03/23/98

PROJECT: #11109, N/A
SITE: Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-1

PROJECT NO: 10-014-8-3
MATRIX: WATER
DATE SAMPLED: 03/12/98
DATE RECEIVED: 03/17/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	10 P	ug/L
Benzene	ND	0.5 P	ug/L
Toluene	ND	1.0 P	ug/L
Ethylbenzene	ND	1.0 P	ug/L
Total Xylene	ND	1.0 P	ug/L

Surrogate % Recovery
1,4-Difluorobenzene 100
4-Bromofluorobenzene 90
Method 8020A***
Analyzed by: VHZ
Date: 03/22/98

Gasoline Range Organics ND 0.05 P mg/L

Surrogate % Recovery
1,4-Difluorobenzene 93
4-Bromofluorobenzene 107
California LUFT Manual for Gasoline
Analyzed by: TB
Date: 03/19/98 11:49:00

ND - Not detected.

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0901

Certificate of Analysis No. H9-9803819-02

BP Oil Company
 295 SW 41st St, Bldg 13, Ste N
 Renton, WA 98055
 ATTN: Scott Hooton

P.O.#
 H176522, COC#089195
 DATE: 03/23/98

PROJECT: #11109, N/A
 SITE: Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-2

PROJECT NO: 10-014-8-3
 MATRIX: WATER
 DATE SAMPLED: 03/12/98
 DATE RECEIVED: 03/17/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	250 P	ug/L
Benzene	1600	12 P	ug/L
Toluene	870	25 P	ug/L
Ethylbenzene	250	25 P	ug/L
Total Xylene	2600	25 P	ug/L

Surrogate

% Recovery

1,4-Difluorobenzene 110
 4-Bromofluorobenzene 97

Method 8020A***

Analyzed by: VHZ

Date: 03/22/98

Gasoline Range Organics 100 25 P mg/L

Surrogate

% Recovery

1,4-Difluorobenzene 100
 4-Bromofluorobenzene 120

California LUFT Manual for Gasoline

Analyzed by: TB

Date: 03/20/98 12:14:00

ND - Not detected.

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
 **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
 ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
 SPL California License # 1903



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0901

Certificate of Analysis No. H9-9803819-03

BP Oil Company
 295 SW 41st St, Bldg 13, Ste N
 Renton, WA 98055
 ATTN: Scott Hooton

P.O.#
 H176522, COC#089195
 DATE: 03/23/98

PROJECT: #11109, N/A
 SITE: Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-3

PROJECT NO: 10-014-8-3
 MATRIX: WATER
 DATE SAMPLED: 03/12/98
 DATE RECEIVED: 03/17/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	10 P	ug/L
Benzene	ND	0.5 P	ug/L
Toluene	ND	1.0 P	ug/L
Ethylbenzene	ND	1.0 P	ug/L
Total Xylene	ND	1.0 P	ug/L

Surrogate

% Recovery

1,4-Difluorobenzene
 4-Bromofluorobenzene

97
 90

Method 8020A***

Analyzed by: VHZ

Date: 03/22/98

Gasoline Range Organics

ND 0.05 P

mg/L

Surrogate

% Recovery

1,4-Difluorobenzene
 4-Bromofluorobenzene

93
 107

California LUFT Manual for Gasoline

Analyzed by: TB

Date: 03/19/98 11:23:00

ND - Not detected.

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
 **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
 ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
 SPL California License # 1903

9803819

QUALITY CONTROL
DOCUMENTATION



Batch Id: VARE980321202800

Units: µg/L

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
MTBE	ND	50	41	82.0	72 - 128
Benzene	ND	50	45	90.0	61 - 119
Toluene	ND	50	45	90.0	65 - 125
EthylBenzene	ND	50	45	90.0	70 - 118
O Xylene	ND	50	45	90.0	72 - 117
M & P Xylene	ND	100	91	91.0	72 - 116

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits(***) (Advisory)	
			Result <1>	Recovery <4>	Result <1>	Recovery <5>		RPD Max.	Recovery Range
MTBE	ND	20	16	80.0	20	100	22.2 *	20	39 - 150
BENZENE	ND	20	16	80.0	18	90.0	11.8	21	32 - 164
TOLUENE	ND	20	16	80.0	18	90.0	11.8	20	38 - 159
ETHYLBENZENE	ND	20	16	80.0	18	90.0	11.8	19	52 - 142
O XYLENE	ND	20	17	85.0	18	90.0	5.71	18	53 - 143
M & P XYLENE	ND	40	31	77.5	36	90.0	14.9	17	53 - 144

* = Values outside QC Range due to Matrix Interference (except RPD)

* = Data outside Method Specification limits.

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = [(<1> - <2>) / <3>] x 100

LCS % Recovery = (<1> / <3>) x 100

Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100

(**) = Source: SPL-Houston Historical Data (1st Q '97)

(***) = Source: SPL-Houston Historical Data (1st Q '97)

Analyst: VH2

Sequence Date: 03/21/98

SPL ID of sample spiked: 9803A23-02A

Sample File ID: E_C3279.TX0

Method Blank File ID:

Blank Spike File ID: E_C3274.TX0

Matrix Spike File ID: E_C3276.TX0

Matrix Spike Duplicate File ID: E_C3307.TX0

SAMPLES IN BATCH(SPL ID):
 9803635-05A 9803635-10A 9803873-01A 9803873-02A
 9803873-03A 9803873-04A 9803873-06A 9803873-07A
 9803760-06A 9803760-05A 9803760-01A 9803819-01A
 9803819-02A 9803819-03A 9803A23-04B 9803A23-02A
 9803A23-01A



SPL BATCH QUALITY CONTROL REPORT **

California LUFT Manual for Gasoline

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Batch Id: VARE980319122700

Units: mg/L

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
Gasoline Range Organics	ND	1.0	0.95	95.0	64 - 131

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits(***) (Advisory)	
			Result <1>	Recovery <4>	Result <1>	Recovery <5>		RPD Max.	Recovery Range
			GASOLINE RANGE ORGANICS	ND	0.90	0.82	91.1	0.79	87.8

* = Values outside QC Range due to Matrix Interference (except RPD)

* = Data outside Method Specification limits.

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = $[(<1> - <2>) / <3>] \times 100$

LCS % Recovery = $(<1> / <3>) \times 100$

Relative Percent Difference = $[(<4> - <5>) / [(<4> + <5>) \times 0.5]] \times 100$

(**) = Source: SPL-Houston Historical data (1st Q '97)

(***) = Source: SPL-Houston Historical Data (1st Q '97)

Analyst: TB

Sequence Date: 03/19/98

SPL ID of sample spiked: 9803760-04A

Sample File ID: EEC3172.TX0

Method Blank File ID:

Blank Spike File ID: EEC3165.TX0

Matrix Spike File ID: EEC3168.TX0

Matrix Spike Duplicate File ID: EEC3169.TX0

SAMPLES IN BATCH(SPL ID):

9803760-01A 9803819-03A 9803819-01A 9803819-02A
9803760-06A 9803760-05A 9803760-04A 9803760-02A

CHAIN OF CUSTODY
AND
SAMPLE RECEIPT CHECKLIST

SPL Houston Environmental Laboratory

Sample Login Checklist

Date: 3/17/98	Time: 1000
---------------	------------

SPL Sample ID: 9803819

		Yes	No
1	Chain-of-Custody (COC) form is present.	<input checked="" type="checkbox"/>	
2	COC is properly completed.	<input checked="" type="checkbox"/>	
3	If no, Non-Conformance Worksheet has been completed.		
4	Custody seals are present on the shipping container.	<input checked="" type="checkbox"/>	
5	If yes, custody seals are intact.	<input checked="" type="checkbox"/>	
6	All samples are tagged or labeled.	<input checked="" type="checkbox"/>	
7	If no, Non-Conformance Worksheet has been completed.		
8	Sample containers arrived intact	<input checked="" type="checkbox"/>	
9	Temperature of samples upon arrival:		4c
10	Method of sample delivery to SPL:	SPL Delivery	
		Client Delivery	
		FedEx Delivery (airbill #)	384 48472386
		Other:	
11	Method of sample disposal:	SPL Disposal	<input checked="" type="checkbox"/>
		HOLD	
		Return to Client	

Name: <i>Mulen Etal</i>	Date: 3/17/98
-------------------------	---------------



9803819

CHAIN OF CUSTODY

No. 089195

Page 1 of 1

CONSULTANT'S NAME Alisto Engineering		CONSULTANT'S ADDRESS 1575 Trent Blvd #201, W.C., Ca 94598			
BP SITE NUMBER 11109	BP SITE / FACILITY ADDRESS Oakland, Ca			CONSULTANT PROJECT NUMBER 10-014-8-3	
CONSULTANT PROJECT MANGER Brady Naylor		PHONE NUMBER (510) 295-1650	FAX NUMBER 295-1823		CONSULTANT CONTRACT NUMBER H176522
BP CONTACT Scott Hooton	BP ADDRESS Renton, WA			PHONE NUMBER -	
LAB CONTACT SPL	LABORATORY ADDRESS Texas			PHONE NUMBER -	
BP CONTACT REQUESTING RUSH TAT (Print BP Contact Name)		RUSH REQUESTED OF (Print Consultant Contact Name)		DATE/TIME 3/16/98	SHIPMENT DATE 3/16/98
SHIPMENT METHOD Fed Ex					

TAT: 24 Hours 48 Hours 72 Hours Standard 7 or 14 Days

ANALYSIS REQUIRED

SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS		PRESERVATIVE	ANALYSIS REQUIRED										COMMENTS			
				NO.	TYPE (VOL.)		LAB SAMPLE #													
S-1	3/12/98		W	3	HL															
S-2																				
S-3																				

TPH-61
 SXE
 MIBE
 X X X
 X X X

SAMPLED BY (Please Print Name) _____ SAMPLED BY (Signature) _____ ADDITIONAL COMMENTS _____

RELINQUISHED BY / AFFILIATION (Print Name / Signature)	DATE	TIME	ACCEPTED BY / AFFILIATION (Print Name / Signature)	DATE	TIME
	3/13/98	1200	Patricia Lynton	3/13/98	1200
Patricia Lynton	3/13/98	1400	Helen C...	3/17/98	1000

**BP EXPLORATION & OIL, INC.
ENVIRONMENTAL RESOURCE MANAGEMENT
DATA REVIEW CHECKLIST**

BP Site Number: 11109
 ERM Contact: H176522
 Sampling Date: 3/12/98
 Matrix Description: Water
 Date Final Report Received: 3/25/98 and 7/14/98 (QC)
 Laboratory & Location: SPL, Houston, Texas

	Yes	No	N/A
1. Is BP contract release number consistent with analytical report?	<u> X </u>	<u> </u>	<u> </u>
2. Was report submitted within the specified timeframe?	<u> </u>	<u> X </u>	<u> </u>
3. Does report agree with the COC?	<u> X </u>	<u> </u>	<u> </u>
4. Are units consistent with the given matrix?	<u> X </u>	<u> </u>	<u> </u>
5. Were any target analytes/compounds detected in blanks (i.e., trip or equipment)?	<u> </u>	<u> </u>	<u> X </u>
6. Are duplicate water samples within 30%?	<u> X </u>	<u> </u>	<u> </u>
7. Are holding times met?	<u> X </u>	<u> </u>	<u> </u>
8. Are surrogates within limits using laboratory criteria?	<u> X </u>	<u> </u>	<u> </u>
9. Are MS/MSD acceptable using laboratory criteria?	See Below	<u> </u>	<u> </u>
10. Are LCS results acceptable using laboratory criteria?	<u> X </u>	<u> </u>	<u> </u>

MS/MSD relative % difference values for MTBE in the matrix spike was outside QC limits due to matrix interference. MS/MSD limits are advisory only; as stated in SW-846, Section 8.7 to 8.8, if the MS/MSD results fall outside the advisable ranges, a laboratory control samples (LCS) must be analyzed and fall within those ranges. LCS results are within quality control limits.

Data Validation Completed by: Brady Nagle

(signature): *Brady Nagle*
 Date: 7/14/98