BP OIL

BP Oil Company
Environmental Resources Management
Building 13, Suite N
295 SW 41st Street
Renton, Washington 98055-4931
(206) 251-0667
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January 5, 1996

3878

Ms. Susan Hugo
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway Room 250
Oakland CA 94621

RE: BP OIL FACILITY #11132
3201 - 35th Street
Oakland, CA

Dear Ms. Hugo:

Attached please find our **GROUNDWATER MONITORING AND SAMPLING REPORT DATED September 6, 1995,** for the above referenced facility. Plans for the upcoming include the solicitation of bids for vapor extraction or high vacuum testing.

If you should have any questions regarding this site, I may be reached at (206) 251-0689.

Respectfully,

Scott T. Hooton
Environmental Resources Management
Group Leader

STH:aa msword\ERM11132

cc: Mr. Eddy So, California Regional Water Quality Control Board, San Francisco Bay Region, 2101 Webster St. Suite 500, Oakland CA 94612

Mr. Brady Nagle, Alisto Engineering Group, 1777 Oakland Blvd., Suite 200, Walnut Creek, CA 94596

Mr. Larry Silva, TOSCO Northwest, 601 Union Street, Suite 2500, Seattle WA 98101

Site File

GROUNDWATER MONITORING AND SAMPLING REPORT

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

Project No. 10-024-05-004

Prepared for:

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

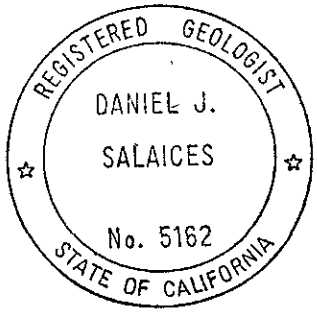
Prepared by:

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

September 6, 1995

Ken Simas
Project Manager

Dan Salaices
Registered Geologist



GROUNDWATER MONITORING AND SAMPLING REPORT

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

Project No. 10-024-05-004

September 6, 1995

INTRODUCTION

This report presents the results and findings of the June 8, 1995 groundwater monitoring and sampling conducted by Alisto Engineering Group at BP Oil Company Service Station No. 11132, 3201 35th Avenue, 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, electrical conductivity, and dissolved oxygen. Groundwater samples were collected for laboratory analysis by lowering a bottom-fill, disposable bailer to just below the 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-1, 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.

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 (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	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-1	08/01/94	169.75	24.11	0.35	145.90	---	---	---	---	---	---	---
MW-1	12/23/94	169.75	18.19	0.29	151.78	---	---	---	---	---	---	---
MW-1	01/26/95	169.75	16.25	1.10	154.33	---	---	---	---	---	---	---
MW-1	06/08/95	169.75	22.92	1.20	147.73	---	---	---	---	---	---	---
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-2	08/01/94	168.14	22.24	0.04	145.93	---	---	---	---	---	---	---
MW-2	12/23/94	168.14	16.25	0.03	151.91	---	---	---	---	---	---	---
MW-2	01/26/95	168.14	14.55	0.39	153.88	---	---	---	---	---	---	---
MW-2	06/08/95	168.14	21.18	0.43	147.28	---	---	---	---	---	---	---

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 (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	DO (ppm)	LAB
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
MW-3	08/01/94	167.17	20.74	—	146.43	99	6.2	1.1	4.5	5 2	1.4	PACE
QC-1 (c)	08/01/94	—	—	—	—	120	7.7	1 6	5.9	6 7	—	PACE
MW-3	12/23/94	167.17	14.70	—	152.47	ND<50	ND<0 5	0.78	ND<0.5	ND<0.5	1.7	PACE
QC-1 (c)	12/23/94	—	—	—	—	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0 5	—	PACE
MW-3	01/26/95	167.17	12.89	—	154.28	190	16	0.5	35	24	6.6	ATI
MW-3	06/08/95	167.17	19.95	—	147.22	330	21	4.0	34	32	7.0	ATI
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	2.8	—	—
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<50	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<50	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<50	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<50	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<50	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<50	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<50	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<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.2	PACE
MW-4	08/01/94	170.36	23.01	—	147.35	ND<50	ND<0 5	ND<0.5	ND<0.5	ND<0.5	1.9	PACE
MW-4	12/23/94 (d)	170.36	17.03	—	153.33	—	—	—	—	—	—	—
MW-4	01/26/95	170.36	17.42	—	152.94	ND<50	ND<0 5	ND<0.5	ND<0.5	ND<1	7.5	ATI
MW-4	06/08/95 (d)	170.36	21.55	—	148.81	—	—	—	—	—	—	—

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 (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	DO (ppm)	LAB
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-5	08/01/94	165.14	17.53	—	147.61	170	44	1 6	0.9	2.7	0.9	PACE
MW-5	12/23/94	165.14	11.63	—	153.51	630	180	1.9	0.66	1 9	1.4	PACE
MW-5	01/26/95	165.14	11.25	—	153 89	160	68	ND<0.5	ND<0.5	22	5.9	ATI
MW-5	06/08/95	165.14	16.80	—	148 34	2000	630	58	61	180	6.5	ATI
QC-1 (c)	06/08/95	—	—	—	—	1700	560	51	55	170	—	ATI
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 (e)	03/07/91	165.40	—	—	—	—	—	—	—	—	—	—
MW-6 (e)	06/27/91	165.40	—	—	—	—	—	—	—	—	—	—
MW-6 (e)	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<50	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<50	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<50	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<50	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<50	ND<0.5	ND<0.5	ND<0.5	0 7	—	PACE
MW-6	10/21/93	165.40	19.98	—	145.42	ND<50	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<50	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<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.0	PACE
MW-6	08/01/94	165.40	18.90	—	146.50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0 5	1.5	PACE
MW-6 (d)	12/23/94	165.40	12 94	—	152 46	—	—	—	—	—	—	—
MW-6	01/26/95	165.40	10.46	—	154.94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1	7.3	ATI
MW-6 (d)	06/08/95	165.40	16 84	—	148.56	—	—	—	—	—	—	—

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 (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	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<50	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<50	ND<0.5	ND<0.5	ND<0.5	1 5	---	ANA
MW-7	01/13/93	167.61	15.41	---	152.20	ND<50	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<50	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<50	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<50	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<50	ND<0.5	ND<0 5	ND<0.5	ND<0 5	---	PACE
QC-1 (c)	01/21/94	---	---	---	---	ND<50	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<50	ND<0.5	ND<0.5	ND<0 5	ND<0.5	1.5	PACE
MW-7	08/01/94	167.61	20.99	---	146 62	ND<50	0.7	ND<0.5	ND<0.5	ND<0 5	1.9	PACE
MW-7 (d)	12/23/94	167.61	15.00	---	152 61	---	---	---	---	---	---	---
MW-7	01/26/95	167.61	14.69	---	152 92	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1	7 0	ATI
MW-7 (d)	06/08/95	167.61	19.87	---	147.74	---	---	---	---	---	---	---
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 87	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 48	26000	1700	4100	960	4000	1 1	PACE
MW-8	08/01/94	165.74	---	---	---	---	---	---	---	---	---	---
MW-8	12/23/94	165.74	13.81	0.03	151.95	---	---	---	---	---	---	---
MW-8 (d)	01/26/95	165.74	---	---	---	---	---	---	---	---	---	---
MW-8	06/08/95	165.74	17.82	0.29	148 14	---	---	---	---	---	---	---

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 (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	DO (ppm)	LAB
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
MW-9	08/01/94	166.20	20.18	0.05	146.06	---	---	---	---	---	---	---
MW-9	12/23/94	166.20	14.22	0.02	152.00	---	---	---	---	---	---	---
MW-9	01/26/95	166.20	11.85	0.13	154.45	---	---	---	---	---	---	---
MW-9	06/08/95	166.20	18.33	0.80	148.47	---	---	---	---	---	---	---
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	8800	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	0.06	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	144.63	---	---	---	---	---	---	---
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
MW-10	08/01/94	167.01	22.00	0.28	145.22	---	---	---	---	---	---	---
MW-10	12/23/94	167.01	16.08	0.25	151.12	---	---	---	---	---	---	---
MW-10	01/26/95	167.01	13.68	0.80	153.93	---	---	---	---	---	---	---
MW-10	06/08/95	167.01	19.08	0.75	148.49	---	---	---	---	---	---	---

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 (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	DO (ppm)	LAB
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	20.66	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	—	—	—	—	—	—	—
RW-1	08/01/94	168.01	21.70	—	146.31	29000	580	950	300	7800	1.1	PACE
RW-1	12/23/94	168.01	16.02	—	151.99	1300	25	8.6	1.4	69	1.8	PACE
RW-1	01/26/95	168.01	13.78	—	154.23	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1	—	ATI
QC-1 (c)	01/26/95	—	—	—	—	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1	—	ATI
RW-1	06/08/95	168.01	20.05	—	147.96	1300	130	ND<1.0	ND<1.0	36	—	ATI
QC-2 (f)	10/05/92	—	—	—	—	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	ANA
QC-2 (f)	01/13/93	—	—	—	—	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	PACE
QC-2 (f)	04/23/93	—	—	—	—	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	PACE
QC-2 (f)	07/12/93	—	—	—	—	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	PACE
QC-2 (f)	10/21/93	—	—	—	—	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	PACE
QC-2 (f)	01/21/94	—	—	—	—	ND<50	ND<0.5	2.1	ND<0.5	2.1	—	PACE
QC-2 (f)	04/20/94	—	—	—	—	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	PACE
QC-2 (f)	04/20/94	—	—	—	—	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	PACE
QC-2 (f)	12/23/94	—	—	—	—	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	ATI
QC-2 (f)	01/26/95	—	—	—	—	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1	—	ATI
QC-2 (f)	06/08/95	—	—	—	—	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	—	ATI

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
DO	Dissolved oxygen
ug/l	Micrograms per liter
ppm	Parts per million
—	Not analyzed/available/applicable/measurable
ND	Not detected above reported detection limit
PACE	Pace, Inc.
ANA	Anametrix, Inc.
ATI	Analytical Technologies, 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) Monitoring well sampled semi-annually.

(e) Inaccessible due to car parked over well.

(f) Travel blank.

E:\0\10-024-05-004

TABLE 2 - PRODUCT REMOVAL STATUS
BP OIL COMPANY SERVICE STATION NO. 11132
3201 35TH STREET, OAKLAND, CALIFORNIA

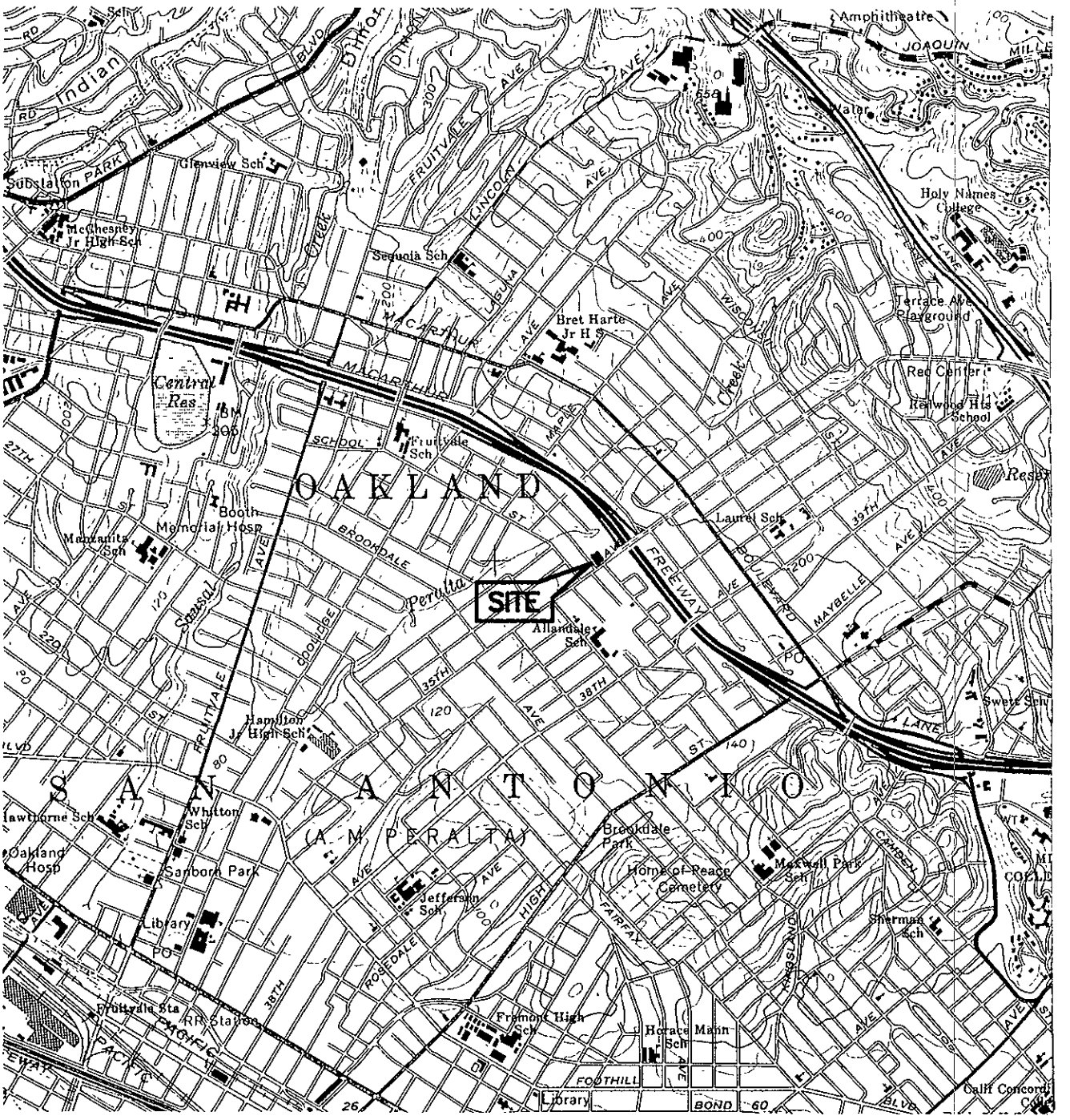
ALISTO PROJECT NO. 10-024

WELL ID	DATE	PRODUCT REMOVED (Gallons)	PRODUCT REMOVED CUMULATIVE (Gallons)
MW-1	01/26/95	3.00	3.00
	06/08/95	0.60	3.60
	06/28/95	0.10	3.70
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	0.30	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
	10/26/94	0.76	1.83
	11/12/94	0.08	1.91
	12/12/94	0.03	1.94
	01/26/95	0.19	2.13
	06/08/95	Sheen	2.13
	06/28/95	0.05	2.18
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
	05/27/94	<0.01	0.80
	10/26/94	0.10	0.90
	11/12/94	0.02	0.92
	12/12/94	0.01	0.93
	06/08/95	Sheen	0.93

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-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
	10/26/94	0.15	0.67
	11/12/94	<0.01	0.67
	12/12/94	<0.01	0.67
	01/26/95	0.10	0.77
	06/28/95	<0.01	0.77
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
	05/27/94	<0.01	7.94
	10/26/94	0.60	8.54
	11/12/94	0.43	8.97
	12/12/94	0.26	9.23
	01/26/95	0.13	9.36
	06/28/95	0.10	9.46



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

N

0 1000' 2000'

FIGURE 1

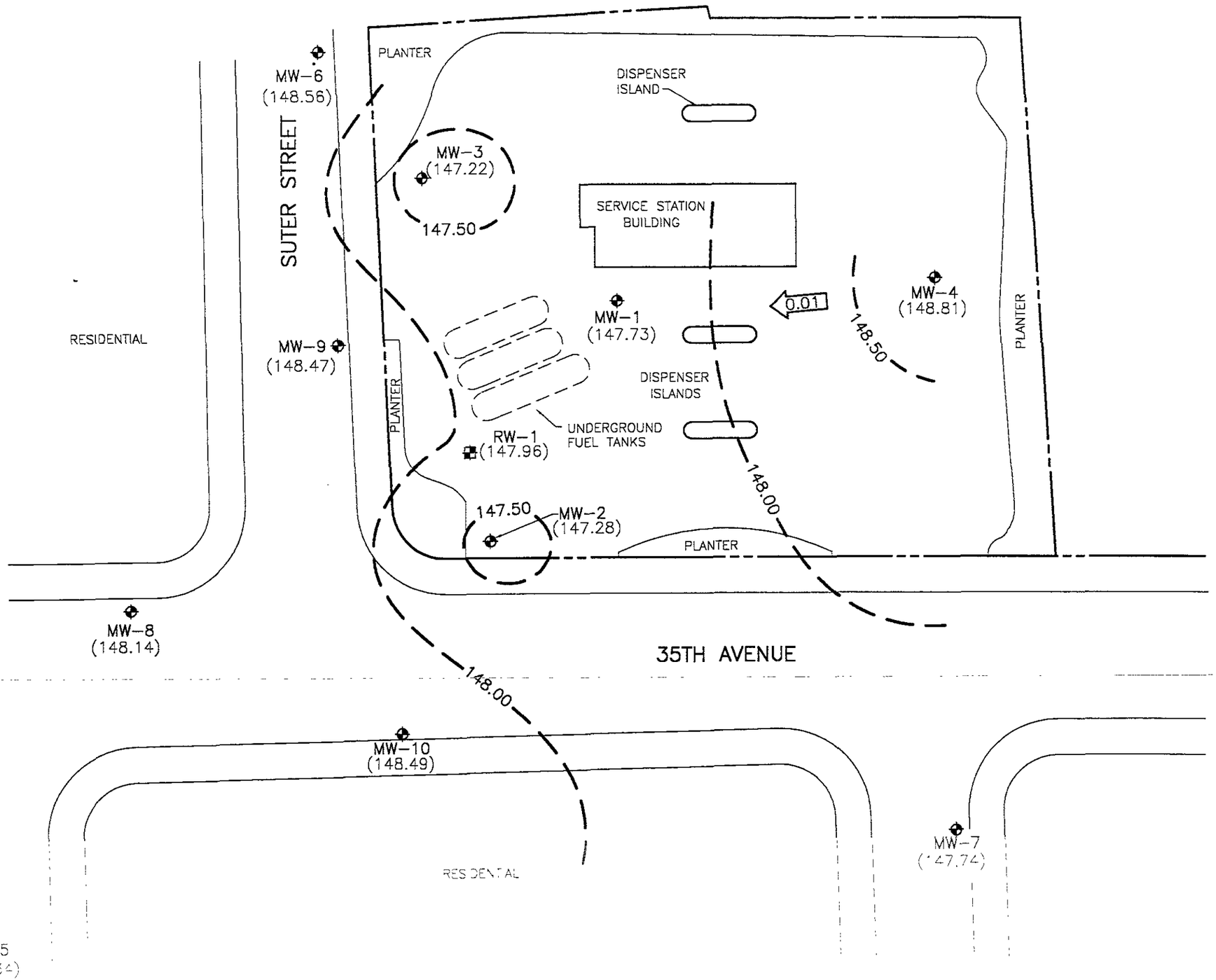
SITE VICINITY MAP

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

PROJECT NO. 10-024

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10024B--DWG 2-28-94 RKW 1=1



LEGEND

- ⊕ GROUNDWATER MONITORING WELL
- ⊞ GROUNDWATER RECOVERY WELL
- (148.81) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 148.50 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL–0.50 FOOT)
- 0.01 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 2

POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP

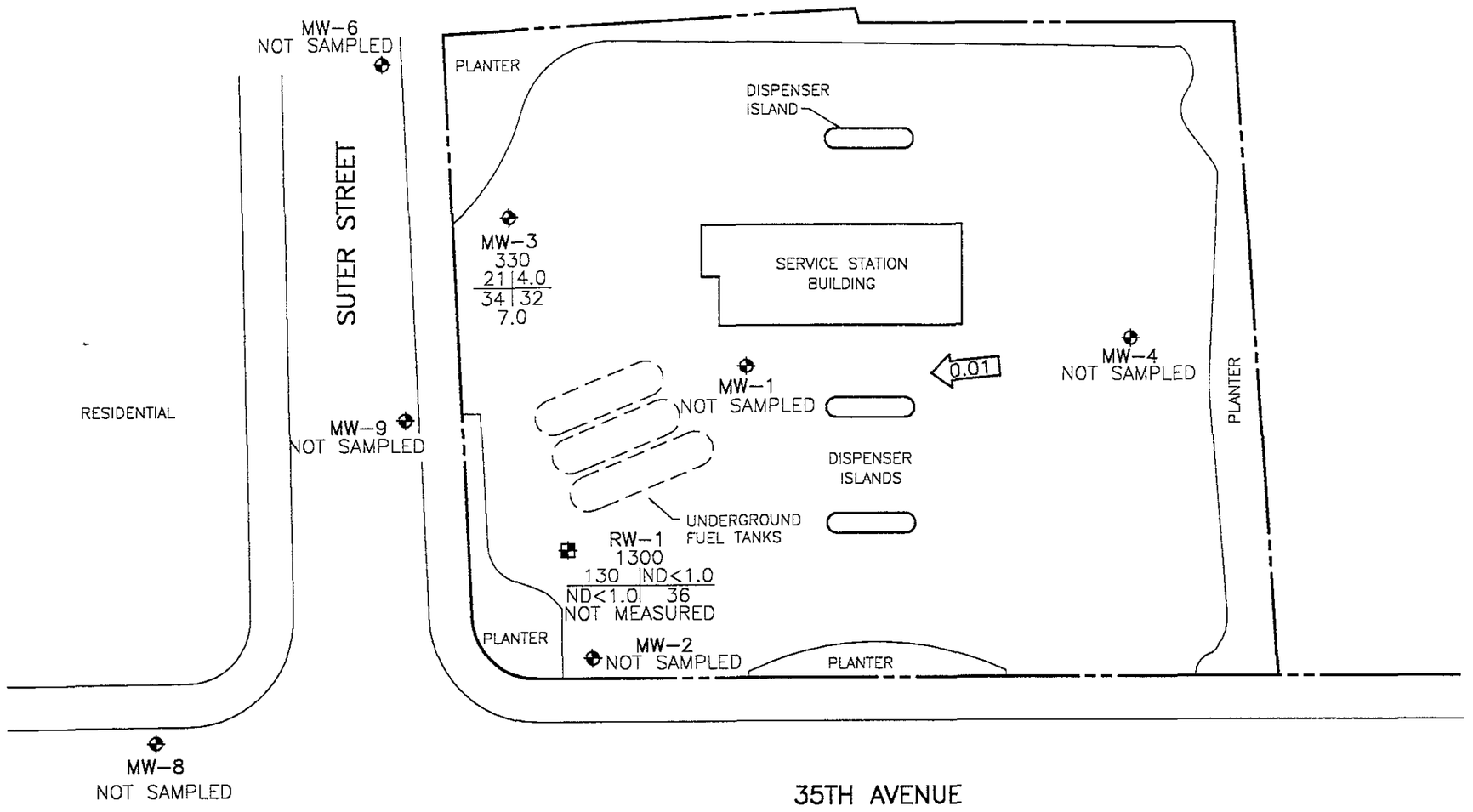
JUNE 8, 1995

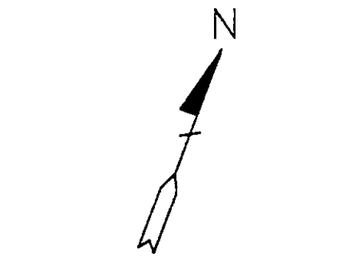
BP OIL SERVICE STATION NO. 11132
3201 35TH AVENUE
OAKLAND, CALIFORNIA

PROJECT NO. 10–024

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10240 N DWG 9 12 95 MAP 1=30





LEGEND

◆	GROUNDWATER MONITORING WELL
■	GROUNDWATER RECOVERY WELL
TPH-G / B | T / E | X / DO	CONCENTRATION OF CONSTITUENTS IN MICROGRAMS PER LITER, EXCEPT DISSOLVED OXYGEN, WHICH IS IN PARTS PER MILLION
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
⟵ 0.01	CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 3

CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER

JUNE 8, 1995

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

PROJECT NO. 10-024

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

APPENDIX A

WATER SAMPLING FIELD SURVEY FORMS

ALISTO

ENGINEERING
GROUP
1575 TREAT BOULEVARD, SUITE 201
WALNUT CREEK CA 94596 (510) 295-1650 FAX 295-1823

Field Report / Sampling Data Sheet

Project No. 10-024-05-004 Date: 6/8/95
Address 3201 35th Ave. Day: M T W (TH) F
Contract No. G317872 City: Oakland
Station No. 11132 Sampler: JC

DEPTH TO GROUNDWATER SUMMARY

WELL ID	SAMPLE ID	DEPTH TO WATER	TIME	COMMENTS:
MW-1	not	22.92	1325	product
MW-2	not	21.18	1305	product
MW-3	S-1	19.95	1217	
MW-4	not (Semi)	21.55	1207	JULY SEMI ANNUAL
MW-5	S-2	16.80	1222	
MW-6	not (Semi)	16.84'	1200	JULY SEMI ANNUAL
MW-7	not (Semi)	19.87'	1212	JULY SEMI ANNUAL
MW-8	not	17.82	1251	product
MW-9	not	18.33	1243	product
MW-10	not	19.08	1254	product
RW-1	S-3	20.05	1231	

FIELD INSTRUMENT CALIBRATION DATA

Ph METER ~~Hydac~~ 4.00 ✓ 7.00 ✓ 10.00 _____ TEMPERATURE COMPENSATED (Y) N TIME 1400

D.O. METER Ion ZERO d.O. SOLUTION ✓ BAROMETRIC PRESSURE 765 TEMP 72°F WEATHER Sunny

CONDUCTIVITY METER Hydac 10,000 ✓ TURBIDITY METER _____ 5.0 NTU _____ OTHER _____

Well ID	epth to Wat	Diam	Cap/Lock	Product Dept	Irridensence	Gal.	Time	Temp °F	pH	E.C.	D.O.
MW-3	19.95	2"	OV	9	Y (N)	2.5	1418	75.4	7.87	0.63	6.2
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge	PurgeVol.			5	1422	71.5	7.71	0.62	
34.58 - 19.95 = 14.63 x .16 = 2.34 x 3 = 7.02						7	1426	70.9	7.70	0.61	7.0
Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) OSys Port											
Comments:											

O EPA 601 _____
~~O~~ TPH-G/BTEX ~~Hydac~~
O TPH Diesel _____
O TOG 5520 _____

TIME/SAMPLE ID
1430

ALISTO

Field Report / Sampling Data Sheet

ENGINEERING
GROUP
1575 TREAT BOULEVARD, SUITE 201
WALNUT CREEK CA 94596 (510) 295-1650 FAX 295-1823

Project No. 10-024-05-004 Date: 6/8/95
Address 3201 35th Ave. Day: M T W (TH) F
Contract No. G317872 City: Oakland
Station No. 11132 Sampler: DC

Well ID	Depth to Wate	Diam	Cap/Lock	Product Depth	Irridensence	Gal.	Time	Temp *F	pH	E.C.	D.O.
MW-5	16.80	2"	OK	ϕ	Y (N)	2.5	1442	70.6	7.37	0.58	6.7
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge	PurgeVol.			5	1447	70.0	7.33	0.55	
30.89 - 16.80 =	14.09 x .16 =	2.25 x3	=6.76			7	1453	69.4	7.28	0.54	6.5

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port
Comments: QC-1 from this well (S-4)

O EPA 601_____
⊗ TPH-G/BTEX 1hr
O TPH Diesel____
O TOG 5520 ___
TIME/SAMPLE ID
1500 /S-2

Well ID	Depth to Wate	Diam	Cap/Lock	Product Depth	Irridensence	Gal.	Time	Temp *F	pH	E.C.	D.O.
RW-1	20.05	6"	OK	ϕ	Y (N)						
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge	PurgeVol.								
38.41 - 20.05 = 1											

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) 1 OSys Port
Comments: Well is pumping; dipped bailer in for sample dry; took it from influent

O EPA 601_____
⊗ TPH-G/BTEX 1hr
O TPH Diesel____
O TOG 5520 ___
TIME/SAMPLE ID
1520 /S-3

Well ID	Depth to Wate	Diam	Cap/Lock	Product Depth	Irridensence	Gal.	Time	Temp *F	pH	E.C.	D.O.
MW-9	19.33	2"	OK	18.31	(Y) N						
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge	PurgeVol.								
NM											

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port
Comments: PRS empty.

O EPA 601_____
O TPH-G/BTEX___
O TPH Diesel____
O TOG 5520 ___
TIME/SAMPLE ID
Not

Well ID	Depth to Wate	Diam	Cap/Lock	Product Depth	Irridensence	Gal.	Time	Temp *F	pH	E.C.	D.O.
MW-8	17.82	2"	replaced	17.53	(Y) N						
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge	PurgeVol.								
NM											

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port
Comments: PRS 1/4 gal 11 of H20 w/ Strean; VALVE broken needs new PRS

O EPA 601_____
O TPH-G/BTEX___
O TPH Diesel____
O TOG 5520 ___
TIME/SAMPLE ID
Not

Well ID	Depth to Wate	Diam	Cap/Lock	Product Depth	Irridensence	Gal.	Time	Temp *F	pH	E.C.	D.O.
MW-2	21.18	2"	OK	20.75	(Y) N						
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge	PurgeVol.								
NM											

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port
Comments: PRS had 1/4 gal of H20 w/Strean

O EPA 601_____
O TPH-G/BTEX___
O TPH Diesel____
O TOG 5520 ___
TIME/SAMPLE ID
Not

ALISTO

Field Report / Sampling Data Sheet

ENGINEERING
GROUP
1575 TREAT BOULEVARD, SUITE 201
WALNUT CREEK CA 94596 (510) 295-1650 FAX 295-1823

Project No. 10-024-05-004 | Date: 6/8/95
Address 3201 35th Ave. | Day: M T W (TH) F
Contract No. G317872 | City: Oakland
Station No. 11132 | Sampler: [signature]

Well ID	Depth to Water	Diam	Cap/Lock	Product Dept	Irridensence	Gal.	Time	Temp *F	pH	E.C.	D.O.
MW-10	19.08	2"	OK	18.33	(Y) N						

Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge= PurgeVol.

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port

Comments: ORCS had 1/4 gall of Free product in it

O EPA 601___ O TPH-G/BTEX___ O TPH Diesel___ O TOG 5520___

TIME/SAMPLE ID: NOT

Well ID	Depth to Water	Diam	Cap/Lock	Product Dept	Irridensence	Gal.	Time	Temp *F	pH	E.C.	D.O.
MW-1	22.92	2"	OK	21.72	(Y) N						

Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge= PurgeVol.

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port

Comments: ORCS had 1/4 gall of product; bailed 2 gall; ≈ .5 gall was FP

O EPA 601___ O TPH-G/BTEX___ O TPH Diesel___ O TOG 5520___

TIME/SAMPLE ID:

Well ID	Depth to Water	Diam	Cap/Lock	Product Dept	Irridensence	Gal.	Time	Temp *F	pH	E.C.	D.O.
					Y N						

Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge= PurgeVol.

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port

Comments:

O EPA 601___ O TPH-G/BTEX___ O TPH Diesel___ O TOG 5520___

TIME/SAMPLE ID:

Well ID	Depth to Water	Diam	Cap/Lock	Product Dept	Irridensence	Gal.	Time	Temp *F	pH	E.C.	D.O.
					Y N						

Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge= PurgeVol.

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port

Comments:

O EPA 601___ O TPH-G/BTEX___ O TPH Diesel___ O TOG 5520___

TIME/SAMPLE ID:

Well ID	Depth to Water	Diam	Cap/Lock	Product Dept	Irridensence	Gal.	Time	Temp *F	pH	E.C.	D.O.
					Y N						

Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge= PurgeVol.

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port

Comments:

O EPA 601___ O TPH-G/BTEX___ O TPH Diesel___ O TOG 5520___

TIME/SAMPLE ID:

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD

Analytical**Technologies,** Inc. Corporate Offices: 5550 Morehouse Drive San Diego, CA 92121 (619) 458-9141

ATI I.D.: 506123

June 22, 1995

ALISTO ENGINEERING
1777 OAKLAND BOULEVARD, SUITE 200
WALNUT CREEK, CA 94596

Project Name: BP SITE#11132/3201 35TH AVE, OAKLAND, CA
Project # : G317872/10-024-05-004

Attention: BILL HOWELL

Analytical Technologies, Inc. has received the following sample(s):

Date Received	Quantity	Matrix
June 10, 1995	5	WATER

The sample(s) were analyzed with EPA methodology or equivalent methods as specified in the enclosed analytical schedule. The symbol for "less than" indicates a value below the reportable detection limit. If any flags appear next to the analytical data in this report, please see the attached list of flag definitions.

The results of these analyses and the quality control data are enclosed. Please note that the Sample Condition Upon Receipt Checklist is included at the end of this report.

GARY STEWART
VOLATILES SUPERVISOR

ALAN J. KLEINSCHMIDT
LABORATORY MANAGER

RECEIVED
JUN 23 1995

Analytical Technologies, Inc.

SAMPLE CROSS REFERENCE

Client : ALISTO ENGINEERING
Project # : G317872/10-024-05-004
Project Name: BP SITE#11132/3201 35TH AVE, OAKLAND, CA

Report Date: June 22, 1995
ATI I.D. : 506123

ATI #	Client Description	Matrix	Date Collected
1	S-1	WATER	08-JUN-95
2	S-2	WATER	08-JUN-95
3	S-3	WATER	08-JUN-95
4	S-4	WATER	08-JUN-95
5	S-5	WATER	08-JUN-95

---TOTALS---

Matrix	# Samples
WATER	5

ATI STANDARD DISPOSAL PRACTICE

The sample(s) from this project will be disposed of in twenty-one (21) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

Analytical Technologies, Inc.

ANALYTICAL SCHEDULE

Client : ALISTO ENGINEERING
Project # : G317872/10-024-05-004
Project Name: BP SITE#11132/3201 35TH AVE, OAKLAND, CA

ATI I.D.: 506123

Analysis	Technique/Description
MOD EPA 8015-CDOHS/8020 (HYDROCARBONS C6-C12/BTXE)	GC/FLAME ION./PHOTO IONIZATION DETECTOR

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

Test : MOD EPA 8015-CDOHS/8020 (HYDROCARBONS C6-C12/BTXE)
Client : ALISTO ENGINEERING ATI I.D. : 506123
Project # : G317872/10-024-05-004
Project Name: BP SITE#11132/3201 35TH AVE, OAKLAND, CA

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
1	S-1	WATER	08-JUN-95	N/A	20-JUN-95	1.00
2	S-2	WATER	08-JUN-95	N/A	20-JUN-95	10.00
3	S-3	WATER	08-JUN-95	N/A	20-JUN-95	2.00

Parameter	Units	1	2	3
BENZENE	UG/L	21	630	130
TOLUENE	UG/L	4.0	58	<1.0
ETHYLBENZENE	UG/L	34	61	<1.0
XYLENES (TOTAL)	UG/L	32	180	36
FUEL HYDROCARBONS	UG/L	330	2000	1300
HYDROCARBON RANGE		C6-C12	C6-C12	C6-C12
HYDROCARBONS QUANTITATED USING		GASOLINE	GASOLINE	GASOLINE
SURROGATES				
TRIFLUOROTOLUENE	%	107	99	99

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

Test : MOD EPA 8015-CDOHS/8020 (HYDROCARBONS C6-C12/BTXE)
Client : ALISTO ENGINEERING ATI I.D. : 506123
Project # : G317872/10-024-05-004
Project Name: BP SITE#11132/3201 35TH AVE, OAKLAND, CA

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
4	S-4	WATER	08-JUN-95	N/A	20-JUN-95	10.00
5	S-5	WATER	08-JUN-95	N/A	20-JUN-95	1.00

Parameter	Units	4	5
BENZENE	UG/L	560	<0.50
TOLUENE	UG/L	51	<0.50
ETHYLBENZENE	UG/L	55	<0.50
XYLENES (TOTAL)	UG/L	170	<1.0
FUEL HYDROCARBONS	UG/L	1700	<50
HYDROCARBON RANGE		C6-C12	C6-C12
HYDROCARBONS QUANTITATED USING		GASOLINE	GASOLINE
SURROGATES			
TRIFLUOROTOLUENE	%	86	80

GAS CHROMATOGRAPHY - QUALITY CONTROL

REAGENT BLANK

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS/BTXE)
Blank I.D. : 35782
Client : ALISTO ENGINEERING
Project # : G317872/10-024-05-004
Project Name: BP SITE#11132/3201 35TH AVE, OAKLAND, CA

ATI I.D. : 506123
Date Extracted: N/A
Date Analyzed : 20-JUN-95
Dil. Factor : 1.00

Parameters	Units	Results
BENZENE	UG/L	<0.50
TOLUENE	UG/L	<0.50
ETHYLBENZENE	UG/L	<0.50
XYLENES (TOTAL)	UG/L	<1.0
FUEL HYDROCARBONS	UG/L	<50
HYDROCARBON RANGE		C6-C12
HYDROCARBONS QUANTITATED USING		GASOLINE
SURROGATES		
TRIFLUOROTOLUENE	%	99

GAS CHROMATOGRAPHY - QUALITY CONTROL

MSMSD

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS/BTXE)
MSMSD # : 76543
Client : ALISTO ENGINEERING

Project # : G317872/10-024-05-004
Project Name: BP SITE#11132/3201 35TH AVE, OAKLAND, CA

ATI I.D. : 506123
Date Extracted: N/A
Date Analyzed : 21-JUN-95
Sample Matrix : WATER
REF I.D. : 506100-01

Parameters	Units	Sample Result	Conc Spike	Spiked Sample	% Rec	Dup Spike	Dup % Rec	RPD
BENZENE	UG/L	<0.50	5.0	4.6	92	4.9	98	6
TOLUENE	UG/L	<0.50	5.0	4.7	94	5.0	100	6

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative % Difference) = (Spiked Sample Result - Duplicate Spike Result)*100/Average Result

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - QUALITY CONTROL

BLANK SPIKE

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS/BTXE)
Blank Spike #: 57211
Client : ALISTO ENGINEERING
Project # : G317872/10-024-05-004
Project Name : BP SITE#11132/3201 35TH AVE, OAKLAND, CA

ATI I.D. : 506123
Date Extracted: N/A
Date Analyzed : 20-JUN-95
Sample Matrix : WATER

Parameters	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
BENZENE	UG/L	<0.50	4.7	5.0	94
TOLUENE	UG/L	<0.50	4.8	5.0	96

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative % Difference) = (Spiked Sample - Blank Result)*100/Average Result

ACCESSION #: 506123 INITIALS: LY

ATI-SanDiego
SAMPLE CONDITION UPON RECEIPT CHECKLIST
(FOR RE-ACCESSIONS, COMPLETE #7 THRU #9)

1	Does this project require special handling according to NFESC Levels C, D, AFCEE or CLP protocols? If yes, complete a) and b) a) pH sample aliquoted: yes /no /na b) Either 1) Record Bottle Lot #'s: Or 2) Attach Sample Kit Request Form(s)	YES	(NO)
2	Number of Coolers Received If more than one cooler received attach Multiple Cooler Documentation Form (MCD) Indicate "see MCD" on Item 11 below	1	
3	Are custody seals required for this project ?	YES	(N/A)
	a) are Custody Seals present on Cooler(s) ?	YES	(NO)
	If yes, are seals intact ?	YES	NO
	b) are Custody Seals present on the sample ?	YES	(NO)
	If yes, are seals intact ?	YES	NO
4	Is there a Chain-Of-Custody (COC)* per cooler ? if not, if a problem is found indicate which samples/test were in the affected cooler on the MCD.	(YES)	NO
5	Is the COC* complete per cooler ? Relinquished: (yes)/no Requested analysis: (yes)/no	(YES)	NO
6	Is the COC* in agreement with the samples received? # Samples: (yes)/no Sample ID's: (yes)/no Date sampled: (yes)/no Matrix: (yes)/no # containers: (yes)/no	(YES)	NO
7	Are the samples preserved correctly?	(YES)	NO
8	Is there enough sample for all the requested analyses?	(YES)	NO
9	Are all samples within holding times for the requested analyses?	(YES)	NO
10	Record cooler temperature. Contact PM if temperature is not 4°C ± 2°C.	2.6 °C	
	Is ice present in cooler?	(YES)	NO
11	Were all sample containers received intact (ie. not broken, leaking, etc.)?	(YES)	NO
12	Are samples requiring no headspace, headspace free? N/A	(YES)	NO
13	Are VOA 1st stickers required?	YES	(NO)
14	Are there special comments on the Chain of Custody which require client contact?	YES	(N/A)
15	If yes, was ATI Project Manager notified?	YES	NO

Describe "no" items: _____

Was client contacted? yes / no

If yes, Date: _____ Name of Person contacted:

Describe actions taken or client instructions: _____

*Or other representative documents, letters, and/or shipping memos

ATI # 506123

CHAIN OF CUSTODY

No. 055817 Page 1 of 1

CONSULTANT'S NAME	ADDRESS	CITY	STATE	ZIP CODE
Alisto Engineering	1575 Treat Blvd	Walnut Creek	CA	94598

BP SITE NUMBER	BP CORNER ADDRESS/CITY	CONSULTANT PROJECT NUMBER
11132	3201 35th Ave, Oakland CA	10-024-05-004

CONSULTANT PROJECT MANAGER	PHONE NUMBER	FAX NUMBER	CONSULTANT CONTRACT NUMBER
Bill Howell	(510) 295 1650	(510) 295 1823	6317872

BP CONTACT	BP ADDRESS	PHONE NUMBER	FAX NO
Scott Hoglund	Renton WA		

LAB CONTACT	LABORATORY ADDRESS	PHONE NUMBER	FAX NO
ATI Inc	San Diego CA		

SAMPLED BY (Please Print Name)	SAMPLED BY (Signature)	SHIPMENT DATE	SHIPMENT METHOD
Dave Cusack			Fed-ex

TAT: ☐ 24 Hours ☐ 48 Hours ☐ 1 Week ☒ Standard 2 Weeks

ANALYSIS REQUIRED

AIRBILL NUMBER 453133 1490

SAMPLE DESCRIPTION	COLLECTION DATE / TIME	MATRIX SOIL/WATER	CONTAINERS NO.	CONTAINERS TYPE (VOL.)	PRESERVATIVE LAB SAMPLE #	TPH Gas BTEX	COMMENTS
S-1 1430	6/1/95	H2O	2	VOA	01	X	
S-2 1500	↓	↓	↓	↓	02	↓	
S-3 1520					03		
S-4 –					04		
S-5 –					05		

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Alisto	6/1/95				
			(ATI)	6-1-95	10:50

ADDITIONAL COMMENTS

26°C

CLV-16722

Distribution: White - Original (with Data)
Yellow - BP
Pink - Lab
Blue - Consultant Field Staff