

MAR 15 1995

BP OIL CO.
ENVIRONMENTAL DEPT.
WEST COAST REGION OFFICE

GROUNDWATER MONITORING AND SAMPLING REPORT

**BP Oil Company Service Station No. 11116
7197 Village Parkway
Dublin, California**

Project No. 10-017-03-003

Prepared for:

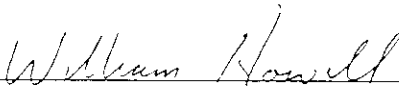
**BP Oil Company
Environmental Resources Management
295 S.W. 41st Street
Building 13, Suite N
Renton, Washington**

Prepared by:

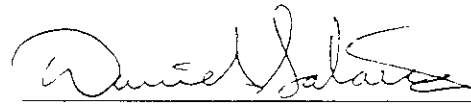
**Alisto Engineering Group
1777 Oakland Boulevard, Suite 200
Walnut Creek, California**

ENVIRONMENTAL
REGISTRATION
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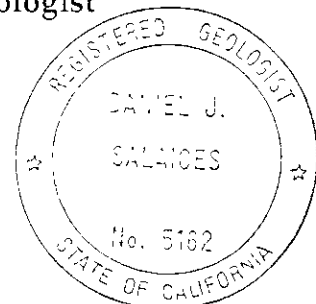
March 7, 1995



**William Howell
Project Manager**



**Dan Salaices
Registered Geologist**





BP OIL

BP Oil Company
Environmental Resources Management
Brent Hills Office
2965 Brent Hills Drive
Renton, Washington 98055-4900
206-251-1689

April 26, 1995

Ms. Juliet Shin
Alameda County Health Care Services Agency
80 Swan Way, Room 200
Oakland CA 94621

RE: BP OIL FACILITY #11116
7197 - 7194 Village Parkway
Dublin CA

Dear Ms. Shin:

Attached please find our **GROUNDWATER MONITORING AND SAMPLING REPORT DATED March 7, 1995** for the above referenced facility.

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:mu msword\ERM11116

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. 11116
7197 Village Parkway
Dublin, California

Project No. 10-017-03-003

March 7, 1995

INTRODUCTION

This report presents the results and findings of the November 18 and 21, 1994 groundwater monitoring and sampling conducted by Alisto Engineering Group at BP Oil Company Service Station No. 11116, 7197 Village Parkway, Dublin, 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.

Concurrent groundwater monitoring was conducted at the Unocal Corporation service station, 7375 Amador Valley Boulevard, and at the Arco Products Company service station, 7249 Village Parkway, November 18, 1994. Groundwater monitoring was also conducted on November 23, 1994 at the Shell Oil Company service station, 7194 Amador Valley Boulevard. The results of groundwater monitoring at these sites are presented in Tables 2, 3, and 4.

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. The survey data and groundwater elevation measurements collected to date are presented in Table 1.

Before sample collection, each well was purged of 3 casing volumes, while recording field readings of pH, temperature, and electrical conductivity. Groundwater samples were collected for laboratory analysis by lowering a bottom-fill, disposable bailer to just below 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 collected during this and previous quarters are summarized in Table 1. The potentiometric groundwater elevation contour map is 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.

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11116
 7197 VILLAGE PARKWAY, DUBLIN, CALIFORNIA

ALISTO PROJECT NO. 10-017

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ppb)	TPH-D (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	TOG (ppb)	HVOC (ppb)	DO (ppm)	LAB
MW-1	10/12/90	335.17	9.92	325.25	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000	ND	--	ANA
MW-1	11/15/90	335.17	10.16	325.01	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	ANA
MW-1	12/11/90	335.17	9.97	325.20	--	--	--	--	--	--	--	--	--	--
MW-1	02/15/91	335.17	9.89	325.28	ND<50	50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<5000	41 (c)	--	SUP
MW-1	05/14/91	335.17	8.43	326.74	ND<50	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	7800	ND	--	SUP
MW-1	08/23/91	335.17	9.88	325.19	ND<50	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<5000	ND	--	ANA
MW-1	11/13/91	335.17	10.09	325.08	ND<30	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<5000	ND	--	SEQ
MW-1	02/25/92	335.17	8.28	326.89	ND<30	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<5000	ND	--	SEQ
MW-1	04/15/92	335.17	8.50	326.67	--	--	--	--	--	--	--	--	--	--
MW-1	06/03/92	335.17	9.06	326.11	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000	ND	--	ANA
MW-1	08/12/92	335.17	10.01	325.16	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000	ND	--	ANA
MW-1	11/10/92	335.17	10.67	324.50	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000	ND	--	ANA
MW-1	02/10/93	335.17	5.25	329.92	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000	ND	--	PACE
MW-1	05/21/93	335.17	5.73	329.44	--	--	--	--	--	--	--	--	--	--
MW-1	08/12/93	335.17	8.99	326.18	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	PACE
MW-1	11/11/93	335.17	9.65	325.52	--	--	--	--	--	--	--	--	--	--
MW-1	02/11/94	335.17	8.72	326.45	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000	ND	--	PACE
MW-1	05/17/94	335.17	8.17	327.00	--	--	--	--	--	--	--	--	--	--
MW-1	06/20/94	335.17	8.37	326.80	--	--	--	--	--	--	--	--	--	--
MW-1	10/04/94	335.17	9.88	325.51	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	6.5	PACE
MW-1 (d)	11/18/94	335.17	8.65	326.52	--	--	--	--	--	--	--	--	--	--
MW-2	10/12/90	334.58	9.60	324.98	93	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000	ND	--	ANA
MW-2	11/15/90	334.58	9.68	324.80	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	ANA
MW-2	12/11/90	334.58	9.47	325.11	--	--	--	--	--	--	--	--	--	--
MW-2	02/15/91	334.58	9.28	325.30	ND<50	60	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<5000	45 (c)	--	SUP
MW-2	05/14/91	334.58	7.74	326.84	130	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	6000	ND	--	SUP
MW-2	08/23/91	334.58	9.81	324.77	ND<50	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<5000	ND	--	ANA
MW-2	11/13/91	334.58	9.73	324.85	ND<30	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<5000	ND	--	SEQ
MW-2	02/25/92	334.58	7.65	327.03	ND<30	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<5000	ND	--	SEQ
MW-2	04/15/92	334.58	8.00	326.58	--	--	--	--	--	--	--	--	--	--
MW-2	06/03/92	334.58	8.56	326.02	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000	ND	--	ANA
MW-2	08/12/92	334.58	9.62	324.96	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000	ND	--	ANA
MW-2	11/10/92	334.58	10.27	324.31	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000	ND	--	ANA
MW-2	02/10/93	334.58	6.48	328.12	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	PACE
MW-2	05/21/93	334.58	6.98	327.62	--	--	--	--	--	--	--	--	--	--
MW-2	08/12/93	334.58	8.58	326.00	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	PACE
MW-2	11/11/93	334.58	9.28	325.30	--	--	--	--	--	--	--	--	--	--
MW-2	02/11/94	334.58	8.10	326.48	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	PACE
MW-2	05/17/94	334.58	7.71	326.87	--	--	--	--	--	--	--	--	--	--
MW-2	06/20/94	334.58	7.93	326.65	--	--	--	--	--	--	--	--	--	--
MW-2	10/04/94	334.58	9.27	325.31	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	5.3	PACE
MW-2 (d)	11/18/94	334.58	8.15	326.43	--	--	--	--	--	--	--	--	--	--

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11116
 7197 VILLAGE PARKWAY, DUBLIN, CALIFORNIA

ALISTO PROJECT NO. 10-017

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ppb)	TPH-D (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	TOG (ppb)	HVOC (ppb)	DO (ppm)	LAB
MW-3	10/12/90	335.13	10.08	325.05	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000	ND	---	ANA
MW-3	11/15/90	335.13	10.12	325.01	78	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	ANA
MW-3	12/11/90	335.13	9.92	325.21	---	---	---	---	---	---	---	---	---	---
MW-3	02/15/90	335.13	9.84	325.29	ND<50	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<5000	ND	---	SUP
MW-3	05/14/91	335.13	8.40	326.73	ND<50	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<5000	ND	---	SUP
MW-3	08/23/91	335.13	10.27	324.86	ND<50	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<5000	ND	---	ANA
MW-3	11/13/91	335.13	10.27	324.86	ND<30	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<5000	ND	---	SEQ
MW-3	02/25/92	335.13	8.15	326.98	ND<30	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<5000	ND	---	SEQ
MW-3	04/15/92	335.13	8.63	326.50	---	---	---	---	---	---	---	---	---	---
MW-3	06/03/92	335.13	9.18	325.95	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000	ND	---	ANA
MW-3	08/12/92	335.13	10.18	324.95	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000	ND	---	ANA
MW-3	11/10/92	335.13	10.78	324.35	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000	ND	---	ANA
MW-3	02/10/93	335.13	7.16	327.97	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000	ND	---	PACE
MW-3	05/21/93	335.13	7.69	327.44	---	---	---	---	---	---	---	---	---	---
MW-3	08/12/93	335.13	9.11	326.02	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
MW-3	11/11/93	335.13	9.78	325.35	---	---	---	---	---	---	---	---	---	---
MW-3	02/11/94	335.13	8.60	326.53	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
MW-3	05/17/94	335.13	8.34	326.79	---	---	---	---	---	---	---	---	---	---
MW-3	06/20/94	335.13	7.45	327.68	---	---	---	---	---	---	---	---	---	---
MW-3	10/04/94	335.13	9.81	325.32	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	7.5	PACE
MW-3 (d)	11/18/94	335.13	8.62	326.51	---	---	---	---	---	---	---	---	---	---
AW-4	11/15/90	333.41	8.51	324.90	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	ANA
AW-4	12/11/90	333.41	9.19	324.22	---	---	---	---	---	---	---	---	---	---
AW-4	02/15/91	333.41	8.32	325.09	ND<50	---	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	---	SUP
AW-4	05/14/91	333.41	6.97	326.44	ND<50	---	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	---	SUP
AW-4	08/23/91	333.41	8.59	324.82	ND<50	---	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	---	ANA
AW-4	11/13/91	333.41	8.57	324.84	ND<30	---	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	---	SEQ
AW-4	02/25/92	333.41	8.26	327.15	ND<30	---	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	---	SEQ
AW-4	04/15/92	333.41	7.05	326.36	---	---	---	---	---	---	---	---	---	---
AW-4	06/03/92	333.41	7.41	326.00	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	ANA
AW-4	08/12/92	333.41	8.46	324.86	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	ANA
AW-4	11/10/92	333.41	9.10	324.31	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	ANA
AW-4 (e)	02/10/93	333.41	---	---	---	---	---	---	---	---	---	---	---	---
AW-4 (e)	05/21/93	333.41	---	---	---	---	---	---	---	---	---	---	---	---
AW-4 (e)	08/12/93	333.41	---	---	---	---	---	---	---	---	---	---	---	---
AW-4	11/11/93	333.41	8.00	325.41	---	---	---	---	---	---	---	---	---	---
AW-4	11/15/93	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
AW-4	02/11/94	333.41	6.84	326.57	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
AW-4	05/17/94	333.41	6.54	326.87	---	---	---	---	---	---	---	---	---	---
AW-4	06/20/94	333.41	5.70	327.71	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	2.0	PACE
AW-4	10/04/94	333.41	8.04	325.37	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	8.1	PACE
AW-4 (d)	11/18/94	333.41	6.80	326.61	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	2.3	PACE

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11118
 7197 VILLAGE PARKWAY, DUBLIN, CALIFORNIA

ALISTO PROJECT NO. 10-017

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ppb)	TPH-D (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	TOG (ppb)	HVOC (ppb)	DO (ppm)	LAB
AW-5	11/15/90	334.81	9.67	325.14	ND<50	--	1.3	ND<0.5	ND<0.5	1.0	--	--	--	ANA
AW-5	12/11/90	334.81	9.44	325.37	--	--	--	--	--	--	--	--	--	--
AW-5	02/15/91	334.81	10.00	324.81	ND<50	--	ND<0.3	ND<0.3	ND<0.3	ND<0.3	--	--	--	SUP
AW-5	05/14/91	334.81	8.84	326.17	ND<50	--	ND<0.3	ND<0.3	ND<0.3	ND<0.3	--	--	--	SUP
AW-5	08/23/91	334.81	9.58	325.23	ND<50	--	ND<0.3	ND<0.3	ND<0.3	ND<0.3	--	--	--	ANA
AW-5	11/13/91	334.81	9.80	325.01	100	--	ND<0.3	ND<0.3	ND<0.3	ND<0.3	--	--	--	SEQ
AW-5	02/25/92	334.81	7.89	326.92	ND<30	--	ND<0.3	ND<0.3	ND<0.3	ND<0.3	--	--	--	SEQ
AW-5	04/15/92	334.81	8.54	326.27	--	--	--	--	--	--	--	--	--	--
AW-5	06/03/92	334.81	8.97	325.84	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	ANA
AW-5	08/12/92	334.81	9.73	325.08	61	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	ANA
AW-5	11/10/92	334.81	10.27	324.54	99	--	ND<0.5	ND<0.5	ND<0.5	0.8	--	--	--	ANA
QC-1 (f)	11/10/92	--	--	--	88	--	ND<0.5	ND<0.5	ND<0.5	0.7	--	--	--	ANA
AW-5	02/10/93	334.81	7.29	327.52	82	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	PACE
AW-5	05/21/93	334.81	7.77	327.04	--	--	--	--	--	--	--	--	--	--
AW-5	08/12/93	334.81	8.87	325.94	130	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	PACE
AW-5	11/11/93	334.81	9.13	325.68	--	--	--	--	--	--	--	--	--	--
AW-5	11/12/93	--	--	--	180	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	PACE
AW-5	02/11/94	334.81	8.20	326.61	210	--	16	ND<0.5	ND<0.5	ND<0.5	--	--	--	PACE
AW-5	05/17/94	334.81	8.16	326.65	--	--	--	--	--	--	--	--	--	--
AW-5	06/20/94	334.81	8.26	326.55	1300	--	0.9	ND<0.5	0.5	2.2	--	--	2.5	PACE
AW-5	10/04/94	334.81	8.70	326.11	670	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	6.0	PACE
AW-5 (d)	11/18/94	334.81	8.20	326.61	640	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	4.1	PACE
QC-1 (d)(f)	11/18/94	--	--	--	660	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	PACE
AW-6	11/15/90	334.90	9.58	325.32	230	--	25	ND<0.5	ND<0.5	0.8	--	--	--	ANA
AW-6	12/11/90	334.90	9.58	325.32	--	--	--	--	--	--	--	--	--	--
AW-6	02/15/91	334.90	9.66	325.24	ND<50	--	ND<0.3	ND<0.3	ND<0.3	ND<0.3	--	--	--	SUP
AW-6	05/14/91	334.90	8.38	326.52	90	--	2	ND<0.3	ND<0.3	ND<0.3	--	--	--	SUP
AW-6	08/23/91	334.90	9.61	325.29	57	--	ND<0.5	0.7	1.3	4.6	--	--	--	ANA
AW-6	11/13/91	334.90	9.58	325.32	200	--	ND<0.3	ND<0.3	ND<0.3	0.94	--	--	--	SEQ
AW-6	02/25/92	334.90	8.00	326.90	19000	--	8000	4700	600	2400	--	--	--	SEQ
AW-6	03/05/92	334.90	7.98	326.92	14000	--	5200	2500	550	2200	--	--	--	SEQ
AW-6	04/15/92	334.90	8.33	326.57	1100	--	400	ND<3.0	30	ND<3.0	--	--	--	SEQ
AW-6	06/03/92	334.90	8.91	325.99	77	--	4.4	ND<0.5	ND<0.5	ND<0.5	--	--	--	ANA
AW-6	08/12/92	334.90	9.61	325.29	80	--	4.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	ANA
AW-6	11/10/92	334.90	10.10	324.80	450	--	120	2.1	4.5	9.7	--	--	--	ANA
AW-6	02/10/93	334.90	7.13	327.77	14000	--	610	17	15	720	--	--	--	PACE
QC-1 (f)	02/10/93	--	--	--	12000	--	520	15	13	610	--	--	--	PACE
AW-6	05/21/93	334.90	7.64	327.26	7900	--	900	ND<12	20	ND<12	--	--	--	PACE
QC-1 (f)	05/21/93	--	--	--	7500	--	620	ND<10	13	ND<10	--	--	--	PACE
AW-6	08/12/93	334.90	8.64	326.26	28000	--	450	14	250	48	--	--	--	PACE
QC-1 (f)	08/12/93	--	--	--	27000	--	510	43	270	42	--	--	--	PACE
AW-6	11/11/93	334.90	8.67	326.23	--	--	--	--	--	--	--	--	--	--
AW-6	11/12/93	--	--	--	62000	--	4600	420	310	1100	--	--	--	PACE
QC-1 (f)	11/12/93	--	--	--	63000	--	4100	360	290	1000	--	--	--	PACE
AW-6	02/11/94	334.90	8.04	328.66	140000	--	21000	25000	1100	13000	--	--	--	PACE
QC-1 (f)	02/11/94	--	--	--	110000	--	17000	21000	770	10000	--	--	--	PACE
AW-6	05/17/94	334.90	7.68	327.22	--	--	--	--	--	--	--	--	--	--
AW-6	06/20/94	334.90	7.82	327.08	42000	--	2700	1300	1900	9100	--	--	2.1	PACE
QC-1 (f)	06/20/94	--	--	--	41000	--	2800	1400	1900	8900	--	--	--	PACE
AW-6	10/04/94	334.90	9.33	325.57	14000	--	2100	77	1000	760	--	--	6.1	PACE
QC-1 (f)	10/04/94	--	--	--	14000	--	2100	77	1100	790	--	--	--	PACE
AW-6 (d)	11/18/94	334.90	7.17	327.73	50000	--	550	8500	2500	14000	--	--	3.3	PACE

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11118
 7197 VILLAGE PARKWAY, DUBLIN, CALIFORNIA

ALISTO PROJECT NO. 10-017

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ppb)	TPH-D (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	TOG (ppb)	HVOC (ppb)	DO (ppm)	LAB
QC-2	(g) 11/10/92	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	ANA
QC-2	(g) 02/10/93	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2	(g) 05/21/93	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2	(g) 08/12/93	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2	(g) 11/12/93	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2	(g) 02/11/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2	(g) 06/20/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2	(g) 10/04/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2	(d)(g) 11/18/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE

ABBREVIATIONS

TPH-G	Total petroleum hydrocarbons as gasoline
TPH-D	Total petroleum hydrocarbons as diesel
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
TOG	Total oil and grease
HVOC	Halogenated volatile organic compounds
DO	Dissolved oxygen
ppb	Parts per billion
ppm	Parts per million
ND	Not detected above reported detection limit
---	Not applicable/analyzed/measured
ANA	Anametrix, Inc
SUP	Suponor Analytical Laboratory
SEQ	Sequoia Analytical laboratory
PACE	Pace, Inc

NOTES:

- (a) Top of casing elevations surveyed in reference to the City of Dublin monument at the intersection of Village Parkway and Amador Valley Boulevard, with an elevation of 335.92 feet above mean sea level.
- (b) Groundwater elevations in feet above mean sea level.
- (c) Methylene chloride.
- (d) Groundwater samples collected on November 21, 1994.
- (e) Well buried.
- (f) Blind duplicate.
- (g) Travel blank.

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TABLE 2 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING
 UNOCAL CORPORATION SERVICE STATION
 7375 AMADOR VALLEY BOULEVARD, DUBLIN, CALIFORNIA

ALISTO PROJECT NO. 10-017

WELL ID	DATE OF MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)
MW-1	08/12/92	336.72	11.32	325.40
MW-1	11/10/92	336.72	11.97	324.75
MW-1	02/10/93	336.72	8.63	328.09
MW-1	05/10/93	336.72	9.57	327.15
MW-1	08/12/93	336.72	10.55	326.17
MW-1	11/11/93	336.72	10.17	326.55
MW-1	02/11/94	336.07	9.72	326.35
MW-1	05/17/94	336.07	9.26	326.81
MW-1	08/25/94	336.07	10.58	325.49
MW-1	11/18/94	336.07	9.69	326.38
MW-2	08/12/92	337.36	11.48	325.88
MW-2	11/10/92	337.36	12.15	325.21
MW-2	02/10/93	337.36	8.81	328.55
MW-2	05/10/93	337.36	9.75	327.61
MW-2	08/12/93	337.36	10.69	326.67
MW-2	11/11/93	337.36	10.51	326.85
MW-2	02/11/94	336.78	9.85	326.93
MW-2	05/17/94	336.78	9.31	327.47
MW-2	08/25/94	336.78	10.75	326.03
MW-2	11/18/94	336.78	9.95	326.83
MW-3	08/12/92	337.53	11.64	325.89
MW-3	11/10/92	337.53	12.33	325.20
MW-3	02/10/93	337.53	8.95	328.58
MW-3	05/10/93	337.53	9.91	327.62
MW-3	08/12/93	337.53	10.89	326.64
MW-3	11/11/93	337.53	10.64	326.89
MW-3	02/11/94	336.98	10.01	326.97
MW-3	05/17/94	336.98	9.49	327.49
MW-3	08/25/94	336.98	10.93	326.05
MW-3	11/18/94	336.98	10.15	326.83
MW-4	08/12/92	337.00	11.62	325.38
MW-4	11/10/92	337.00	12.32	324.68
MW-4	02/10/93	337.00	8.94	328.06
MW-4	05/10/93	337.00	9.90	327.10
MW-4	08/12/93	337.00	10.90	326.10
MW-4	11/11/93	337.00	10.48	326.52
MW-4	02/11/94	336.43	10.10	326.33
MW-4	05/17/94	336.43	9.63	326.80
MW-4	08/25/94	336.43	10.94	325.49
MW-4	11/18/94	336.43	10.10	326.33
MW-5	02/11/94	335.96	10.08	325.88
MW-5	05/17/94	335.96	9.24	326.72
MW-5	08/25/94	335.96	10.43	325.53
MW-5	11/18/94	335.96	10.09	325.87

NOTES:

(a) Top of casing elevations surveyed to the nearest 0.01 foot relative to a County of Alameda benchmark with an elevation of 337.40 feet above mean sea level

(b) Groundwater elevations in feet above mean sea level

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TABLE 3 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING
 SHELL OIL COMPANY SERVICE STATION
 7194 AMADOR VALLEY BOULEVARD, DUBLIN, CALIFORNIA

ALISTO PROJECT NO. 10-017

WELL ID	DATE OF MONITORING	CASING ELEVATION (Feet)	(a)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet) (b)
MW-1	08/12/92	334.83		9.15	325.68
MW-1	11/10/92	334.83		10.04	324.79
MW-1	02/10/93	334.83		7.24	327.59
MW-1	05/10/93	334.83		7.78	327.05
MW-1	08/12/93	334.83		8.54	326.29
MW-1	11/11/93	334.83		8.56	326.27
MW-1	02/11/94	334.83		8.62	326.21
MW-1	05/17/94	334.83		7.96	326.87
MW-1	08/25/94	334.83		9.24	325.59
MW-1	11/23/94	334.83		8.74	326.09
MW-2	08/12/92	336.96		11.58	325.38
MW-2	11/10/92	336.96		12.05	324.91
MW-2	02/10/93	336.96		9.28	327.68
MW-2	05/10/93	336.96		9.65	327.31
MW-2	08/12/93	336.96		10.70	326.26
MW-2	11/11/93	336.96		11.36	325.60
MW-2	02/11/94	336.96		11.04	325.92
MW-2	05/17/94	336.96		10.29	326.67
MW-2	08/25/94	336.96		11.29	325.67
MW-2	11/23/94	336.96		10.92	326.04
MW-3	08/12/92	336.93		10.94	325.99
MW-3	11/10/92	336.93		11.84	325.09
MW-3	02/10/93	336.93		8.82	328.11
MW-3	05/10/93	336.93		8.88	328.05
MW-3	08/12/93	336.93		10.36	326.57
MW-3	11/11/93	336.93		10.64	326.29
MW-3	02/11/94	336.93		10.68	326.25
MW-3	05/17/94	336.93		9.92	327.01
MW-3	08/25/94	336.93		11.30	325.63
MW-3	11/23/94	336.93		10.48	326.45
MW-4	08/12/92	337.14		11.36	325.78
MW-4	11/10/92	337.14		12.12	325.02
MW-4	02/10/93	337.14		9.40	327.74
MW-4	05/10/93	337.14		9.54	327.60
MW-4	08/12/93	337.14		10.68	326.46
MW-4	11/11/93	337.14		11.97	325.17
MW-4	02/11/94	337.14		10.71	326.43
MW-4	05/17/94	337.14		10.30	326.84
MW-4	08/25/94	337.14		10.84	326.30
MW-4	11/23/94	337.14		10.78	326.36
MW-5	08/12/92	334.96		9.40	325.56
MW-5	11/10/92	334.96		9.65	325.31
MW-5	02/10/93	334.96		7.97	326.99
MW-5	05/10/93	334.96		7.76	327.20
MW-5	08/12/93	334.96		8.75	326.21
MW-5	11/11/93	334.96		9.32	325.64
MW-5	02/11/94	334.96		8.97	325.99
MW-5	05/17/94	334.96		8.12	326.84
MW-5	08/25/94	334.96		9.19	325.77
MW-5	11/23/94	334.96		8.75	326.18

TABLE 3 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING
 SHELL OIL COMPANY SERVICE STATION
 7194 AMADOR VALLEY BOULEVARD, DUBLIN, CALIFORNIA

ALISTO PROJECT NO. 10-017

WELL ID	DATE OF MONITORING	CASING ELEVATION (Feet)	(a)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet)	(b)
MW-6	08/12/92	335.42		9.72	325.70	
MW-6	11/10/92	335.42		10.56	324.86	
MW-6	02/10/93	335.42		7.65	327.77	
MW-6	05/10/93	335.42		8.10	327.32	
MW-6	08/12/93	335.42		9.18	326.24	
MW-6	11/11/93	335.42		9.38	326.04	
MW-6	02/11/94	335.42		9.02	326.40	
MW-6	05/17/94	335.42		8.58	326.84	
MW-6	08/25/94	335.42		9.79	325.63	
MW-6	11/23/94	335.42		9.20	326.22	
MW-7	08/12/92	333.23		8.65	324.58	
MW-7	11/10/92	333.23		8.82	324.41	
MW-7	02/10/93	333.23		6.06	327.17	
MW-7	05/10/93	333.23		6.65	326.58	
MW-7	08/12/93	333.23		6.83	326.40	
MW-7	11/11/93	333.23		6.90	326.33	
MW-7	02/11/94	333.23		6.12	327.11	
MW-7	05/17/94	333.23		6.06	327.17	
MW-7	08/25/94	333.23		6.76	326.47	
MW-7	11/23/94	333.23		6.75	326.48	
MW-8	08/12/92	335.80		9.82	325.98	
MW-8	11/10/92	335.80		10.41	325.39	
MW-8	02/10/93	335.80		7.35	328.45	
MW-8	05/10/93	335.80		8.00	327.80	
MW-8	08/12/93	335.80		9.00	326.80	
MW-8	11/11/93	335.80		9.47	326.33	
MW-8	02/11/94	335.80		8.80	327.00	
MW-8	05/17/94	335.80		8.21	327.59	
MW-8	08/25/94	335.80		9.52	326.28	
MW-8	11/23/94	335.80		9.08	326.72	
MW-9	08/12/92	334.57		8.97	325.60	
MW-9	11/10/92	334.57		8.97	325.60	
MW-9	02/10/93	334.57		7.20	327.37	
MW-9	05/10/93	334.57		7.56	327.01	
MW-9	08/12/93	334.57		8.25	326.32	
MW-9	11/11/93	334.57		10.30	324.27	
MW-9	02/11/94	334.57		8.88	325.69	
MW-9	05/17/94	334.57		8.06	326.51	
MW-9	08/25/94	334.57		8.79	325.78	
MW-9	11/23/94	334.57		8.65	325.92	
MW-11	08/12/92	334.20		8.75	325.45	
MW-11	11/10/92	334.20		9.47	324.73	
MW-11	02/10/93	334.20		6.79	327.41	
MW-11	05/10/93	334.20		7.18	327.02	
MW-11	08/12/93	334.20		8.10	326.10	
MW-11	11/11/93	334.20		8.56	325.64	
MW-11	02/11/94	334.20		8.21	325.99	
MW-11	05/17/94	334.20		7.61	326.59	
MW-11	08/25/94	334.20		8.68	325.52	
MW-11	11/23/94	334.20		8.27	325.93	

TABLE 3 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING
SHELL OIL COMPANY SERVICE STATION
7194 AMADOR VALLEY BOULEVARD, DUBLIN, CALIFORNIA

ALISTO PROJECT NO. 10-017

WELL ID	DATE OF MONITORING	CASING ELEVATION (Feet)	(a)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet)	(b)
MW-12	08/12/92	332.53		9.83	322.70	
MW-12	11/10/92	332.53		8.32	324.21	
MW-12	02/10/93	332.53		6.75	325.78	
MW-12	(c) 05/10/93	332.53		—	—	
MW-12	08/12/93	332.53		6.23	326.30	
MW-12	11/11/93	332.53		7.43	325.10	
MW-12	02/04/94	332.53		7.18	325.35	
MW-12	05/17/94	332.53		6.80	325.73	
MW-12	08/25/94	332.53		7.24	325.29	
MW-12	11/23/94	332.53		7.16	325.37	
MW-13	08/12/92	335.64		10.91	324.73	
MW-13	11/10/92	335.64		10.69	324.95	
MW-13	02/10/93	335.64		7.49	328.15	
MW-13	05/10/93	335.64		8.06	327.58	
MW-13	08/12/93	335.64		8.73	326.91	
MW-13	11/11/93	335.64		9.15	326.49	
MW-13	02/11/94	335.64		9.12	326.52	
MW-13	05/17/94	335.64		8.62	327.02	
MW-13	08/25/94	335.64		9.32	326.32	
MW-13	11/23/94	335.64		9.37	326.27	
RW-1	(d) 08/12/92	—		—	—	
RW-1	(d) 11/10/92	—		—	—	
RW-1	(d) 08/12/93	—		—	—	
RW-1	(d) 11/11/93	—		—	—	
RW-1	(d) 02/11/94	—		9.98	—	
RW-1	(d) 05/17/94	—		9.29	—	
RW-1	(d) 08/25/94	—		10.56	—	
RW-1	(d) 11/23/94	—		10.07	—	

NOTES:

- (a) Top of casing elevations surveyed to the nearest 0.01 foot above mean sea level.
- (b) Groundwater elevations in feet above mean sea level.
- (c) Well inaccessible due to parked car.
- (d) Data not available.

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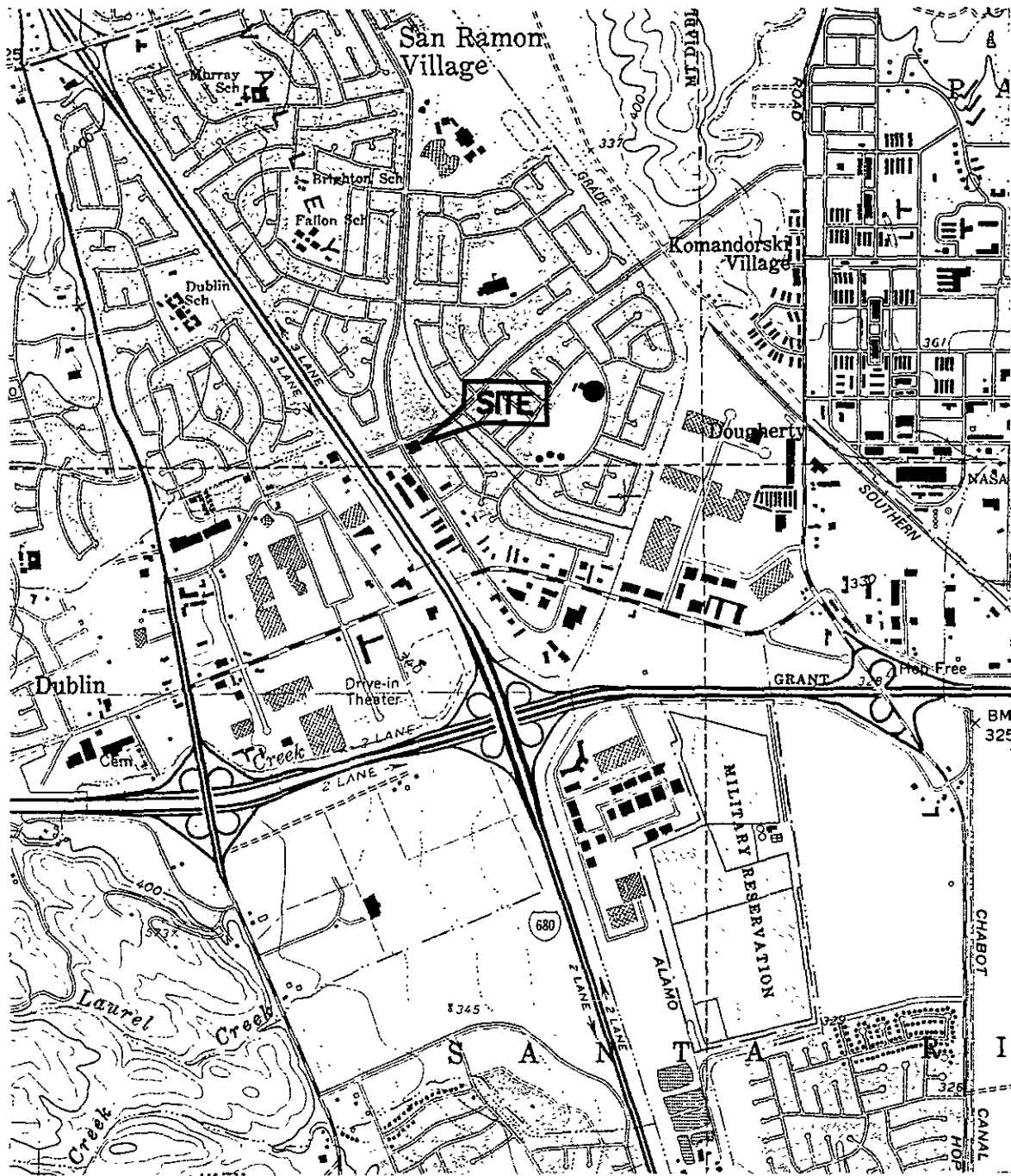
TABLE 4 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING
 ARCO PRODUCTS SERVICE STATION 6041
 7249 VILLAGE PARKWAY, DUBLIN, CALIFORNIA

ALISTO PROJECT NO. 10-017

WELL ID	DATE OF MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)
MW-1	11/10/92	336.56	11.74	324.82
MW-1	02/10/93	336.56	9.66	326.90
MW-1	05/10/93	336.56	9.50	327.06
MW-1 (c)	08/12/93	336.56	—	—
MW-1	11/11/93	336.56	10.70	325.86
MW-1	02/11/94	336.56	10.35	326.21
MW-1	05/27/94	336.56	10.40	326.16
MW-1 (c)	08/25/94	336.56	—	—
MW-1	11/18/94	336.56	10.25	326.31
MW-2	11/10/92	334.80	10.12	324.68
MW-2	02/10/93	334.80	7.30	327.50
MW-2	05/10/93	334.80	7.40	327.40
MW-2 (c)	08/12/93	334.80	—	—
MW-2	11/11/93	334.80	9.02	325.78
MW-2	02/11/94	334.80	8.59	326.21
MW-2	05/27/94	334.80	8.51	326.29
MW-2 (c)	08/25/94	334.80	—	—
MW-2	11/18/94	334.80	8.70	326.10
MW-3	11/10/92	335.53	10.72	324.81
MW-3	02/10/93	335.53	7.87	327.66
MW-3	05/10/93	335.53	9.91	325.62
MW-3 (c)	08/12/93	335.53	—	—
MW-3	11/11/93	335.53	9.81	325.72
MW-3	02/11/94	335.53	9.60	325.93
MW-3	05/27/94	335.53	9.51	326.02
MW-3 (c)	08/25/94	335.53	—	—
MW-3	11/18/94	335.53	9.79	325.74
MW-4	11/10/92	334.22	9.58	324.64
MW-4	02/10/93	334.22	6.80	327.42
MW-4	05/10/93	334.22	9.90	324.32
MW-4 (c)	08/12/93	334.22	—	—
MW-4	11/11/93	334.22	8.48	325.74
MW-4	02/11/94	334.22	8.15	326.07
MW-4	05/27/94	334.22	7.83	326.39
MW-4 (c)	08/25/94	334.22	—	—
MW-4	11/18/94	334.22	8.31	325.91
MW-5	11/10/92	335.87	11.02	324.85
MW-5	02/10/93	335.87	8.00	327.87
MW-5	05/10/93	335.87	8.64	327.23
MW-5 (c)	08/12/93	335.87	—	—
MW-5	11/11/93	335.87	10.09	325.78
MW-5	02/11/94	335.87	9.63	326.24
MW-5	05/27/94	335.87	9.60	326.27
MW-5 (c)	08/25/94	335.87	—	—
MW-5	11/18/94	335.87	9.65	326.22
MW-6	11/10/92	335.84	11.03	324.81
MW-6	02/10/93	335.84	8.22	327.62
MW-6	05/10/93	335.84	8.85	326.99
MW-6 (c)	08/12/93	335.84	—	—
MW-6	11/11/93	335.84	10.02	325.82
MW-6	02/11/94	335.84	9.66	326.18
MW-6	05/27/94	335.84	9.69	326.15
MW-6 (c)	08/25/94	335.84	—	—
MW-6	11/18/94	335.84	9.54	326.30

NOTES

- (a) Top of casing elevations surveyed to the nearest 0.01 foot above mean sea level
- (b) Groundwater elevations in feet above mean sea level
- (c) Data not available



SOURCE:
 USGS MAP, DUBLIN QUADRANGLE,
 CALIFORNIA 7.5 MINUTE SERIES '96'
 PHOTO-REVISED 1980

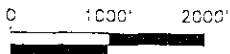
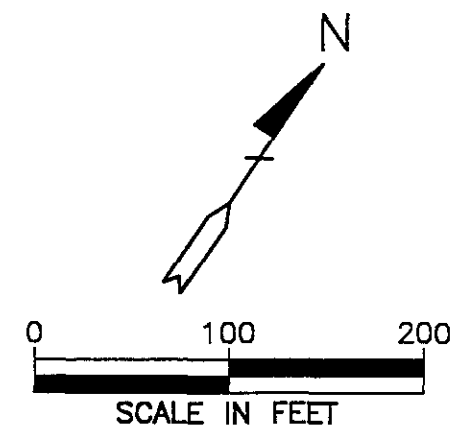
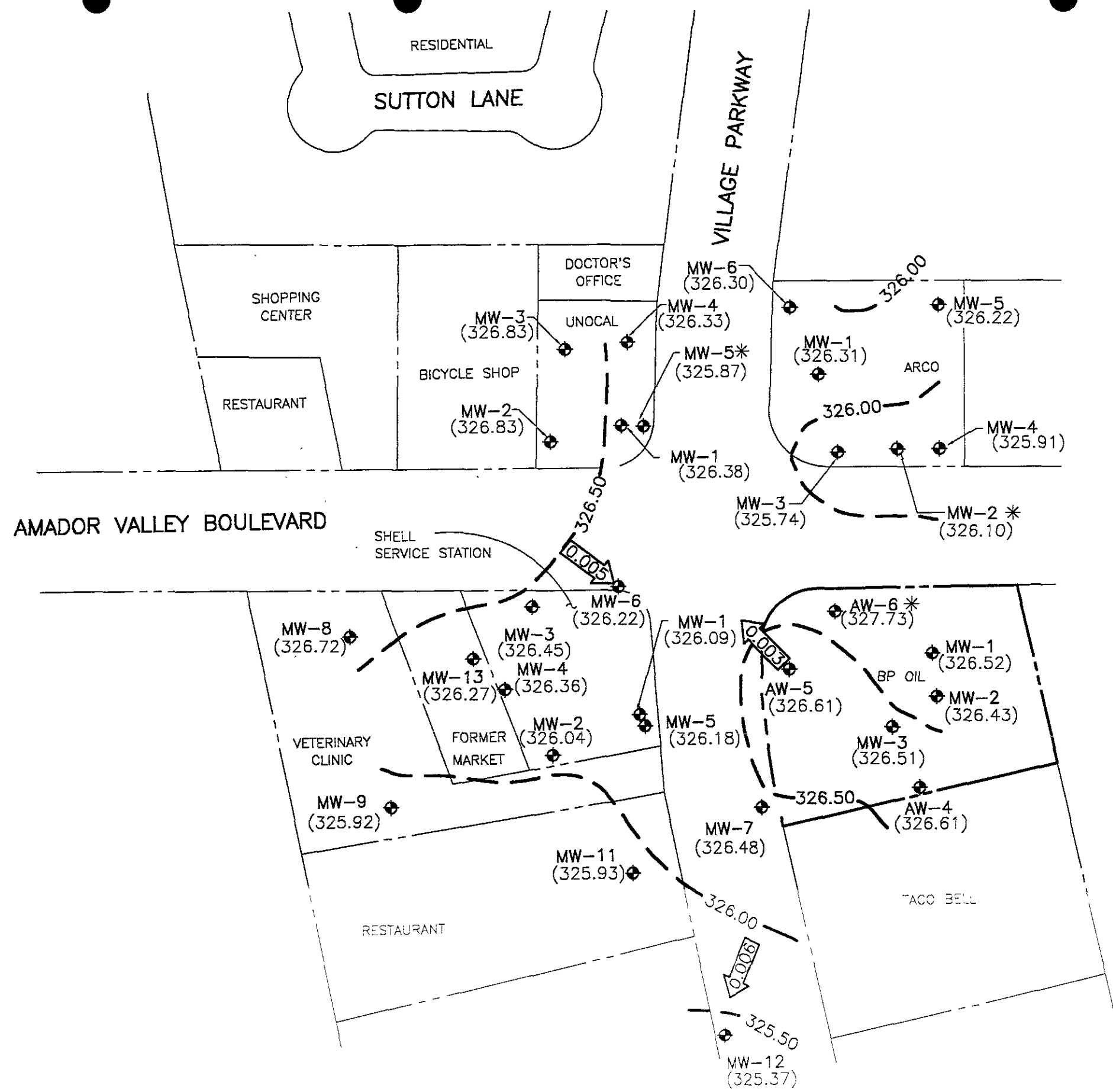


FIGURE 1
SITE VICINITY MAP

BP OIL SERVICE STATION NO. 11116
 7197 VILLAGE PARKWAY
 DUBLIN, CALIFORNIA
 PROJECT NO. 10-017



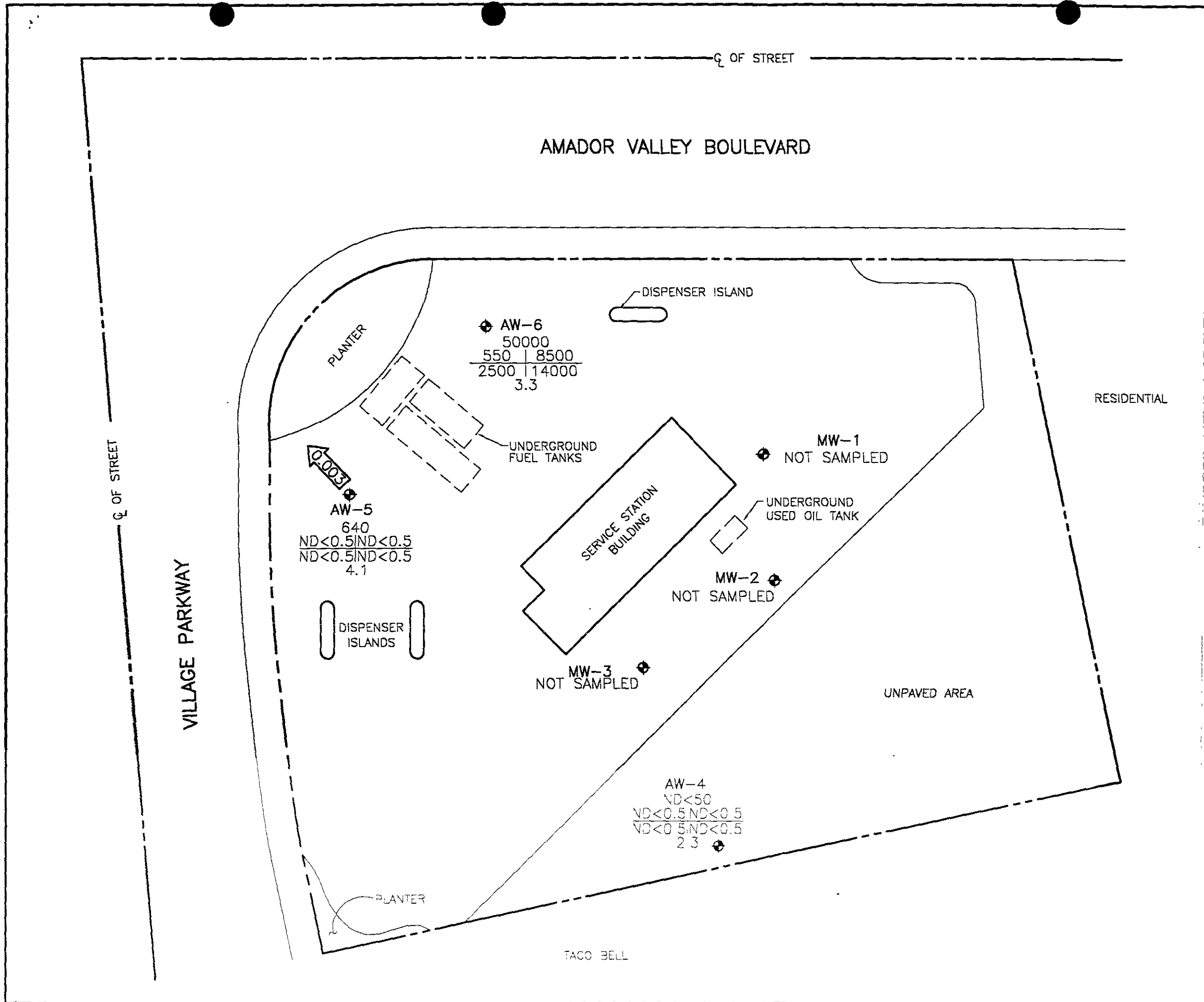
ALISTO ENGINEERING GROUP
 WALNUT CREEK, CALIFORNIA



- LEGEND**
- ◆ GROUNDWATER MONITORING WELL
 - (326.52) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
 - 326.50 - GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL-0.50 FOOT)
 - ← 0.003 → CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT
 - * GROUNDWATER ELEVATION NOT USED IN PREPARING CONTOURS

NOTE: GROUNDWATER ELEVATION DATA WERE COLLECTED ON NOVEMBER 23, 1994 AT THE SHELL SERVICE STATION.

FIGURE 2
POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP
 NOVEMBER 18, 1994
 BP OIL SERVICE STATION NO. 11116
 7197 VILLAGE PARKWAY
 DUBLIN, CALIFORNIA
 PROJECT NO. 10-017



LEGEND

- ◆ GROUNDWATER MONITORING WELL
- TPH-G CONCENTRATION OF CONSTITUENTS IN PARTS PER BILLION, EXCEPT DISSOLVED OXYGEN, WHICH IS IN PARTS PER MILLION
- B | T
- E | X
- DO
- 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
- ←0.003 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

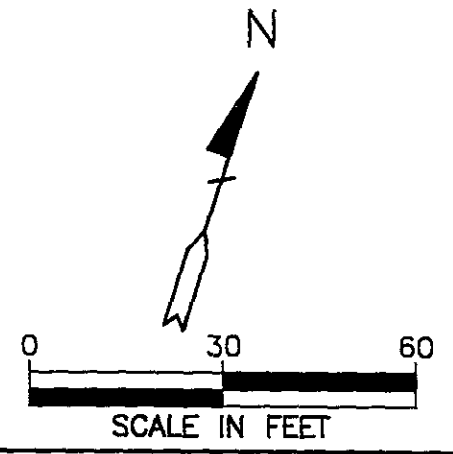


FIGURE 3
CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER
 NOVEMBER 21, 1994
 BP OIL SERVICE STATION NO. 11116
 7197 VILLAGE PARKWAY
 DUBLIN, CALIFORNIA
 PROJECT NO. 10-017

100724 DMC 7-14 85 RHW 1-30

APPENDIX A
WATER SAMPLING FIELD SURVEY FORMS

ALISTO

ENGINEERING

GROUP

1777 OAKLAND BLVD, STE 200

WALNUT CREEK CA 94596 (510) 295-1650 FAX 295-1823

Field Report / Sampling Data Sheet

Groundwater Monitoring
 Groundwater Sampling

Date: 11-18-94
11-21-94

Project No. 10-017-03-03

Day: M T W Th F

Facility No. 11116

Temp. 60

Address 7197 Village Pkwy, Dublin

SAMPLER: John D.

Barometric pres. _____

Well ID	SAMPLE #	WATER	time	Well ID	SAMPLE #	WATER/	time	Well ID	SAMPLE	WATER / time
AW-4	S-1	6.80	1723	AW-6	S-3	7.17	1752			
MW-3		8.62	1731							
MW-2		8.15	1735	AW-5D	S-4					
MW-1		8.65	1742	TB	S-5					
AW-5	S-2	8.20	1747							

FIELD INSTRUMENT CALIBRATION DATA

PH METER HY 9306 4.00 _____ 7.00 10.00 TIME 1430 TEMPERATURE COMPENSATED Y N

TURBIDI METER _____ 5.0 NTU STANDARD _____ OTHER _____

D.O. meter ICM 31250 Air calibrated 1445

CONDUCTIVITY METER HY 9306 10,000 OTHER _____

Well ID	Depth to Water	Diam	Cap/Lock	Depth to prod.	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.	
AW-4	6.80	4"	OK	∅	Y N	10	1500	56.8	6.78	10830	3.3	<input type="checkbox"/> EPA 601 _____
Total Depth - Water Level = x Well Vol Factor = x#vol. to Purge = PurgeVol.						20	1510	54.2	6.73	10170		<input type="checkbox"/> TPH-G/BTEX _____
$32.2 - 6.80 = 25.4 \times .65 = 16.5 \times 3 = 49.5$						30	1520	58.0	6.74	10880		<input type="checkbox"/> TPH Diesel _____
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp Tube <input type="checkbox"/> Winch <input checked="" type="checkbox"/> Disp. Bailor(s) <input type="checkbox"/> Sys Port						40	1530	58.5	6.77	11000		<input type="checkbox"/> TOG 6520 _____
Comments: _____						50	1540	58.3	6.68	11990	2.3	Time/Sample <u>1555</u>

Well ID	Depth to Water	Diam	Cap/Lock	Depth to prod.	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.	
AW-5	8.20	4"	OK	∅	Y N	10	1608	58.7	6.67	3200	2.7	<input type="checkbox"/> EPA 601 _____
Total Depth - Water Level = x Well Vol Factor = x#vol. to Purge = PurgeVol.						20	1618	56.8	6.51	2830		<input type="checkbox"/> TPH-G/BTEX _____
$32.9 - 8.20 = 24.7 \times .65 = 16.1 \times 3 = 48.2$						30	1629	57.1	6.64	2950		<input type="checkbox"/> TPH Diesel _____
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp Tube <input type="checkbox"/> Winch <input checked="" type="checkbox"/> Disp. Bailor(s) <input type="checkbox"/> Sys Port						38	1635	dry				<input type="checkbox"/> TOG 6520 _____
Comments: <u>Duplicate Sample collected at 1655</u>						50	1648	57.3	6.68	2960	4.1	Time/ Sample <u>1650</u>

Well ID	Depth to Water	Diam	Cap/Lock	Depth to prod.	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.	
AW-6	7.17	4"	OK	∅	Y N	2	1704	53.8	6.57	1060	2.2	<input type="checkbox"/> EPA 601 _____
Total Depth - Water Level = x Well Vol Factor = x#vol. to Purge = PurgeVol.						6	1710	60.6	6.66	970		<input type="checkbox"/> TPH-G/BTEX _____
$16.5 - 7.17 = 9.33 \times .65 = 6.1 \times 3 = 18.2$						10	1715	60.6	6.63	970		<input type="checkbox"/> TPH Diesel _____
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp Tube <input type="checkbox"/> Winch <input checked="" type="checkbox"/> Disp. Bailor(s) <input type="checkbox"/> Sys Port						14	1720	60.0	6.57	970		<input type="checkbox"/> TOG 6520 _____
Comments: _____						19	1725	60.0	6.54	960	3.3	Time /Sample <u>1730</u>

MPDS-UN5366-04
Page 1 of 7

TABLE 1

**SUMMARY OF MONITORING DATA
UNOCAL MONITORING WELLS**

Well #	Ground Water Elevation (feet)	Depth to Water (feet) †	Total Well Depth (feet) †	Product Thickness (feet)	Sheen	Water Burged (gallons)
(Monitored and Sampled November 18, 1994)						
MW1	326.38	9.69	19.49	0	No	7
MW2*	326.83	9.95	19.26	0	--	0
MW3*	326.83	10.15	18.91	0	--	0
MW4*	326.33	10.10	19.44	0	--	0
MW5	325.87	10.09	19.99	0	No	7
(Monitored and Sampled August 25, 1994)						
MW1	325.49	10.58	19.49	0	No	6.5
MW2*	326.03	10.75	19.27	0	--	0
MW3*	326.05	10.93	18.94	0	--	0
MW4*	325.49	10.94	19.43	0	--	0
MW5	325.53	10.43	20.00	0	No	7
(Monitored and Sampled on May 17, 1994)						
MW1	326.81	9.26	19.50	0	No	8
MW2*	327.47	9.31	19.26	0	--	0
MW3*	327.49	9.49	18.94	0	--	0
MW4*	326.80	9.63	19.44	0	--	0
MW5	326.72	9.24	20.00	0	No	8
(Monitored and Sampled on February 11, 1994)						
MW1	326.35	9.72	19.46	0	No	7
MW2	326.93	9.85	19.23	0	No	6.5
MW3	326.97	10.01	18.90	0	No	6.5
MW4	326.33	10.10	19.40	0	No	6.5
MW5	325.88	10.08	19.96	0	No	7

WELL GAUGING DATA

204 - 2217 - 0105

Project # 941123J3

Date 11/23/94

Client SHELL

Site 7194 AMADOR VLY. BL. DUBLIN, CA.

Well I.D.	Well Size (in.)	Sheen/Odor	Depth to Immiscible Liquid (feet)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to Water (feet)	Depth to Well Bottom (feet)	Survey Point: TOB or TOC
W MW-1	4					8.74	25.10	TOC
W MW-2	4					10.92	24.49	
W MW-3	4					10.48	24.18	
W MW-4	4					10.78	24.69	
W MW-5	4					8.78	44.58	
W MW-6	4					9.20	22.80	
W MW-7	4					8.75	16.42	
W MW-8	4					9.08	16.04	
W MW-9	4					8.65	17.80	
W MW-11	4					8.27	16.29	
W MW-12	4					7.16	17.08	
W MW-13	4					9.37	16.97	
L BW-1	6					10.07	30.92	V

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD



REPORT OF LABORATORY ANALYSIS

Alisto Engineering Group
1777 Oakland Blvd, Ste. 200
Walnut Creek, CA 94596

December 07, 1994
PACE Project Number: 441123508

Attn: Mr. Brady Nagle

Client Reference: BP Site #11116 10-017-03

PACE Sample Number: 70 0446694
Date Collected: 11/21/94
Time Collected: 15:55
Date Received: 11/23/94
Client Sample ID: S-1

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
------------------	--------------	------------	----------------------

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS

TOTAL FUEL HYDROCARBONS, (LIGHT):			-	12/02/94
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	ND	12/02/94
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			-	12/02/94
Benzene	ug/L	0.5	ND	12/02/94
Toluene	ug/L	0.5	ND	12/02/94
Ethylbenzene	ug/L	0.5	ND	12/02/94
Xylenes, Total	ug/L	0.5	ND	12/02/94



REPORT OF LABORATORY ANALYSIS

Mr. Brady Nagle
Page 2

December 07, 1994
PACE Project Number: 441123508

Client Reference: BP Site #11116 10-017-03

PACE Sample Number: 70 0446708
Date Collected: 11/21/94
Time Collected: 16:50
Date Received: 11/23/94
Client Sample ID: S-2

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
------------------	--------------	------------	----------------------

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS

TOTAL FUEL HYDROCARBONS, (LIGHT):		-	12/05/94
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	640
PURGEABLE AROMATICS (BTXE BY EPA 8020M):		-	12/05/94
Benzene	ug/L	0.5	ND
Toluene	ug/L	0.5	ND
Ethylbenzene	ug/L	0.5	ND
Xylenes, Total	ug/L	0.5	ND



REPORT OF LABORATORY ANALYSIS

Mr. Brady Nagle
Page 3

December 07, 1994
PACE Project Number: 441123508

Client Reference: BP Site #11116 10-017-03

PACE Sample Number: 70 0446716
Date Collected: 11/21/94
Time Collected: 17:30
Date Received: 11/23/94
Client Sample ID: S-3

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
------------------	--------------	------------	----------------------

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS

TOTAL FUEL HYDROCARBONS, (LIGHT):		-	12/02/94
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	5000	50000
12/02/94			
PURGEABLE AROMATICS (BTXE BY EPA 8020M):		-	12/02/94
Benzene	ug/L	50	550
12/02/94			
Toluene	ug/L	50	8500
12/02/94			
Ethylbenzene	ug/L	50	2500
12/02/94			
Xylenes, Total	ug/L	50	14000
12/02/94			



REPORT OF LABORATORY ANALYSIS

Mr. Brady Nagle
Page 4

December 07, 1994
PACE Project Number: 441123508

Client Reference: BP Site #11116 10-017-03

PACE Sample Number: 70 0446724
Date Collected: 11/21/94
Time Collected: 16:55
Date Received: 11/23/94
Client Sample ID: S-4

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
------------------	--------------	------------	----------------------

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS

TOTAL FUEL HYDROCARBONS, (LIGHT):			-	12/02/94
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	660	12/02/94
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			-	12/02/94
Benzene	ug/L	0.5	ND	12/02/94
Toluene	ug/L	0.5	ND	12/02/94
Ethylbenzene	ug/L	0.5	ND	12/02/94
Xylenes, Total	ug/L	0.5	ND	12/02/94



REPORT OF LABORATORY ANALYSIS

Mr. Brady Nagle
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December 07, 1994
PACE Project Number: 441123508

Client Reference: BP Site #11116 10-017-03

PACE Sample Number: 70 0446732
Date Collected: 11/21/94
Date Received: 11/23/94
Client Sample ID: S-5

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
------------------	--------------	------------	----------------------

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS			
TOTAL FUEL HYDROCARBONS, (LIGHT):		-	12/05/94
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	ND 12/05/94
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			
Benzene	ug/L	0.5	ND 12/05/94
Toluene	ug/L	0.5	ND 12/05/94
Ethylbenzene	ug/L	0.5	ND 12/05/94
Xylenes, Total	ug/L	0.5	ND 12/05/94

These data have been reviewed and are approved for release.

Darrell C. Cain
Regional Director



REPORT OF LABORATORY ANALYSIS

Mr. Brady Nagle
Page 6

FOOTNOTES
for pages 1 through 5

December 07, 1994
PACE Project Number: 441123508

Client Reference: BP Site #11116 10-017-03

MDL Method Detection Limit
ND Not detected at or above the MDL.



REPORT OF LABORATORY ANALYSIS

Mr. Brady Nagle
Page 7

QUALITY CONTROL DATA

December 07, 1994
PACE Project Number: 441123508

Client Reference: BP Site #11116 10-017-03

PURGEABLE FUELS AND AROMATICS
Batch: 70 36817
Samples: 70 0446716, 70 0446724

METHOD BLANK:

Parameter	Units	MDL	Method Blank
TOTAL FUEL HYDROCARBONS, (LIGHT):			-
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020M)			-
Benzene	ug/L	0.5	ND
Toluene	ug/L	0.5	ND
Ethylbenzene	ug/L	0.5	ND
Xylenes, Total	ug/L	0.5	ND

SPIKE AND SPIKE DUPLICATE:

Parameter	Units	MDL	700446180	Spike	Spike Recv	Spike Dupl Recv	RPD
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	820	1000	90%	89%	1%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	1000	98%	97%	1%



REPORT OF LABORATORY ANALYSIS

Mr. Brady Nagle
Page 8

QUALITY CONTROL DATA

December 07, 1994
PACE Project Number: 441123508

Client Reference: BP Site #11116 10-017-03

PURGEABLE FUELS AND AROMATICS

Batch: 70 36828
Samples: 70 0446694

METHOD BLANK:

Parameter	Units	MDL	Method Blank
TOTAL FUEL HYDROCARBONS, (LIGHT):			-
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020M)			-
Benzene	ug/L	0.5	ND
Toluene	ug/L	0.5	ND
Ethylbenzene	ug/L	0.5	ND
Xylenes, Total	ug/L	0.5	ND

SPIKE AND SPIKE DUPLICATE:

Parameter	Units	MDL	700446694		Spike		RPD
			S-1	Spike	Recv	Dupl Recv	
Benzene	ug/L	0.5	ND	100	96%	98%	2%
Toluene	ug/L	0.5	ND	100	97%	99%	2%
Ethylbenzene	ug/L	0.5	ND	100	99%	103%	4%
Xylenes, Total	ug/L	0.5	ND	300	100%	104%	4%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference		Dupl		RPD
			Value	Recv	Recv	RPD	
Benzene	ug/L	0.5	100	102%	113%	10%	
Toluene	ug/L	0.5	100	105%	113%	7%	
Ethylbenzene	ug/L	0.5	100	108%	113%	5%	
Xylenes, Total	ug/L	0.5	300	109%	113%	4%	



REPORT OF LABORATORY ANALYSIS

Mr. Brady Nagle
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QUALITY CONTROL DATA

December 07, 1994
PACE Project Number: 441123508

Client Reference: BP Site #11116 10-017-03

PURGEABLE FUELS AND AROMATICS
Batch: 70 36890
Samples: 70 0446708, 70 0446732

METHOD BLANK:

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>Method Blank</u>
INDIVIDUAL PARAMETERS			
Methyl tert-butyl ether	ug/L	5.0	ND
PURGEABLE FUELS AND AROMATICS			
TOTAL FUEL HYDROCARBONS, (LIGHT):			
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020M)			
Benzene	ug/L	0.5	ND
Toluene	ug/L	0.5	ND
Ethylbenzene	ug/L	0.5	ND
Xylenes, Total	ug/L	0.5	ND

SPIKE AND SPIKE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	700446694 <u>S-1</u>	<u>Spike</u>	<u>Spike Recv</u>	<u>Spike Dupl Recv</u>	<u>RPD</u>
Benzene	ug/L	0.5	ND	100	96%	98%	2%
Toluene	ug/L	0.5	ND	100	97%	99%	2%
Ethylbenzene	ug/L	0.5	ND	100	99%	103%	4%
Xylenes, Total	ug/L	0.5	ND	300	100%	104%	4%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>Reference Value</u>	<u>Recv</u>	<u>Dupl Recv</u>	<u>RPD</u>
Benzene	ug/L	0.5	100	102%	113%	10%
Toluene	ug/L	0.5	100	105%	113%	7%
Ethylbenzene	ug/L	0.5	100	108%	113%	5%
Xylenes, Total	ug/L	0.5	300	109%	113%	4%

