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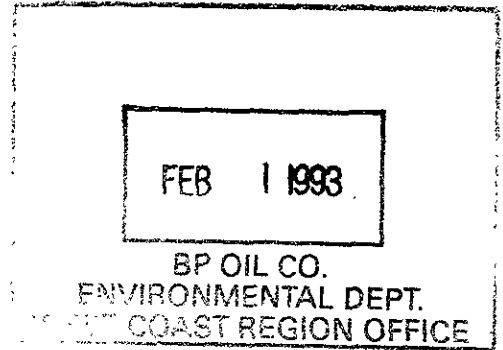
GROUNDWATER MONITORING AND SAMPLING REPORT

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

Project No. 10-017

Prepared for:

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Environmental Resource Management
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January 27, 1993

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GROUNDWATER MONITORING AND SAMPLING REPORT

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INTRODUCTION

This report presents the results and findings of the November 10, 1992 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 California Regional Water Quality Control Board, San Francisco Bay Region, and Alameda County Health Care Services Agency.

Before purging and sampling, the groundwater level in each well was measured from a permanent mark on the 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.

Results of depth to groundwater measurements, performed concurrently with the neighboring Unocal Corporation service station at 7375 Amador Valley Boulevard, the Shell Oil Company service station at 7194 Amador Valley Boulevard, and the Arco Products Company service station at 7249 Village Parkway, are presented in Tables 2, 3, and 4.

Before sample collection, each well was purged of 3 casing volumes, while recording field readings of pH, temperature, and electrical conductivity, unless the monitoring well would not produce sufficient groundwater. 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 for this and previous quarters at the BP Oil Company site are summarized in Table 1. The potentiometric groundwater elevations as interpreted from the results of this coordinated 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.

SUMMARY OF FINDINGS

The findings of the November 10, 1992 groundwater monitoring and sampling event are summarized as follows:

- No free product or sheen was detected in any of the monitoring wells.
- Groundwater elevation data indicate a gradient of approximately 0.002 foot per foot in a general southeasterly direction across the BP Oil Company site.
- Dissolved-phase total petroleum hydrocarbons as gasoline (TPH-G), and benzene, toluene, ethylbenzene, and total xylenes (BTEX) constituents were detected in the groundwater samples from Monitoring Wells AW-5 and AW-6 at concentrations of up to 450 parts per billion (ppb) TPH-G and 120 ppb benzene.

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)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet) (b)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	TPH-D (ppb)	TOG (ppb)	HVOC (ppb)	LAB
MW-1	10/12/90	335.17	9.92	325.25	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	ND<5,000	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	ND<0.3	ND<0.3	ND<0.3	ND<0.3	50	ND<5,000	41 (c)	SUP
MW-1	05/14/91	335.17	8.43	326.74	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	7,500	ND	SUP
MW-1	08/23/91	335.17	9.98	325.19	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5,000	ND	ANA
MW-1	11/13/91	335.17	10.09	325.08	ND<30	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5,000	ND	SEQ
MW 1	02/25/92	335.17	8.28	326.89	ND<30	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5,000	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<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	ND<5,000	ND	ANA
MW 1	08/12/92	335.17	10.01	325.16	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	ND<5,000	ND (d)	ANA
MW 1	11/10/92	335.17	10.67	324.50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	ND<5,000	ND (d)	ANA
MW-2	10/12/90	334.58	9.60	324.98	93	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	ND<5,000	ND	ANA
MW 2	11/15/90	334.58	9.68	324.90	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	ND<0.3	ND<0.3	ND<0.3	ND<0.3	60 (e)	ND<5,000	45 (c)	SUP
MW 2	05/14/91	334.58	7.74	326.84	130 (e)	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	6,000	ND	SUP
MW 2	08/23/91	334.58	9.81	324.77	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5,000	ND	ANA
MW 2	11/13/91	334.58	9.73	324.85	ND<30	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5,000	ND	SEQ
MW 2	02/25/92	334.58	7.55	327.03	ND<30	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5,000	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<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	ND<5,000	ND	ANA
MW 2	08/12/92	334.58	9.62	324.96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	ND<5,000	ND (d)	ANA
MW-2	11/10/92	334.58	10.27	324.31	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	ND<5,000	ND (d)	ANA

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)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	TPH-D (ppb)	TOG (ppb)	HVOC (ppb)	LAB
MW-3	10/12/90	335.13	10.08	325.05	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	ND<5,000	ND	ANA
MW 3	11/15/90	335.13	10.12	325.01	76	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<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5,000	ND	SUP
MW 3	05/14/91	335.13	8.40	326.73	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5,000	ND	SUP
MW 3	08/23/91	335.13	10.27	324.86	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5,000	ND	ANA
MW 3	11/13/91	335.13	10.27	324.86	ND<30	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5,000	ND	SEQ
MW-3	02/25/92	335.13	8.15	326.98	ND<30	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<50	ND<5,000	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<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	ND<5,000	ND	ANA
MW 3	08/12/92	335.13	10.18	324.95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	ND<5,000	ND (d)	ANA
MW 3	11/10/92	335.13	10.78	324.35	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	ND<5,000	ND (d)	ANA
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	6.26	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	8.45	324.96	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

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)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	TPH-D (ppb)	TOG (ppb)	HVOC (ppb)	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	8.64	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	---	---	---	86	ND<0.5	ND<0.5	ND<0.5	0.7	---	---	---	ANA
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	9.59	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
QC 2 (g)	11/10/92	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	ANA

ABBREVIATIONS

TPH-G	Total petroleum hydrocarbons as gasoline
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
TPH-D	Total petroleum hydrocarbons as diesel
TOG	Total oil and grease
HVOC	Halogenated volatile organic compounds
ppb	Parts per billion
ND	Not detected above reported detection limit
ANA	Anamatrix, Inc
SUP	Superior Analytical Laboratory
SEQ	Sequoia Analytical Laboratory

NOTES:

- (a) Top of casing elevation for all wells surveyed in reference to the City of Dublin Monument in the intersection of Village Parkway and Armandor Valley Boulevard, with an elevation of 335.92 feet above mean sea level.
- (b) In feet above mean sea level
- (c) Methylene chloride.
- (d) HVOC not detected at or above reported detection limits of 0.5 or 1.0 ppb.
- (e) Typical chromatogram patterns not present.
- (f) Blind duplicate of sample collected from MW-5.
- (g) Travel blank.

GW Sampling

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-2	08/12/92	337.36	11.48	325.88
MW-2	11/10/92	337.36	12.15	325.21
MW-3	08/12/92	337.53	11.64	325.89
MW-3	11/10/92	337.53	12.33	325.20
MW-4	08/12/92	337.00	11.62	325.38
MW-4	11/10/92	337.00	12.32	324.68

NOTES:

- (a) Top of casing elevations for all wells surveyed to the nearest 0.01 foot above mean sea level.
- (b) Groundwater elevation in feet above mean sea level.

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 (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)
MW-1	08/12/92	334.83	9.15	325.68
MW-1	11/10/92	334.83	10.04	324.79
MW-2	08/12/92	336.96	11.58	325.38
MW-2	11/10/92	336.96	12.05	324.91
MW-3	08/12/92	336.93	10.94	325.99
MW-3	11/10/92	336.93	11.84	325.09
MW-4	08/12/92	337.14	11.36	325.78
MW-4	11/10/92	337.14	12.12	325.02
MW-5	08/12/92	334.96	9.40	325.56
MW-5	11/10/92	334.96	9.65	325.31
MW-6	08/12/92	335.42	9.72	325.70
MW-6	11/10/92	335.42	10.56	324.86
MW-7	08/12/92	333.23	8.65	324.58
MW-7	11/10/92	333.23	8.82	324.41
MW-8	08/12/92	335.80	9.82	325.98
MW-8	11/10/92	335.80	10.41	325.39
MW-9	08/12/92	334.57	8.97	325.60
MW-9	11/10/92	334.57	9.61	324.96
MW-10 (c)	--	--	--	--
MW-11	08/12/92	334.20	8.75	325.45
MW-11	11/10/92	334.20	9.47	324.73
MW-12	08/12/92	332.53	9.83	322.70
MW-12	11/10/92	332.53	8.32	324.21
MW-13	08/12/92	335.64	10.91	324.73
MW-13	11/10/92	335.64	10.69	324.95
RW-1 (d)	08/12/92	--	--	--
RW-1 (d)	11/10/92	--	--	--

NOTES:

- (a) Top of casing elevation for all wells surveyed to the nearest 0.01 foot above mean sea level.
- (b) Groundwater elevation in feet above mean sea level.
- (c) Monitoring Well MW-10 was destroyed.
- (d) Data not available

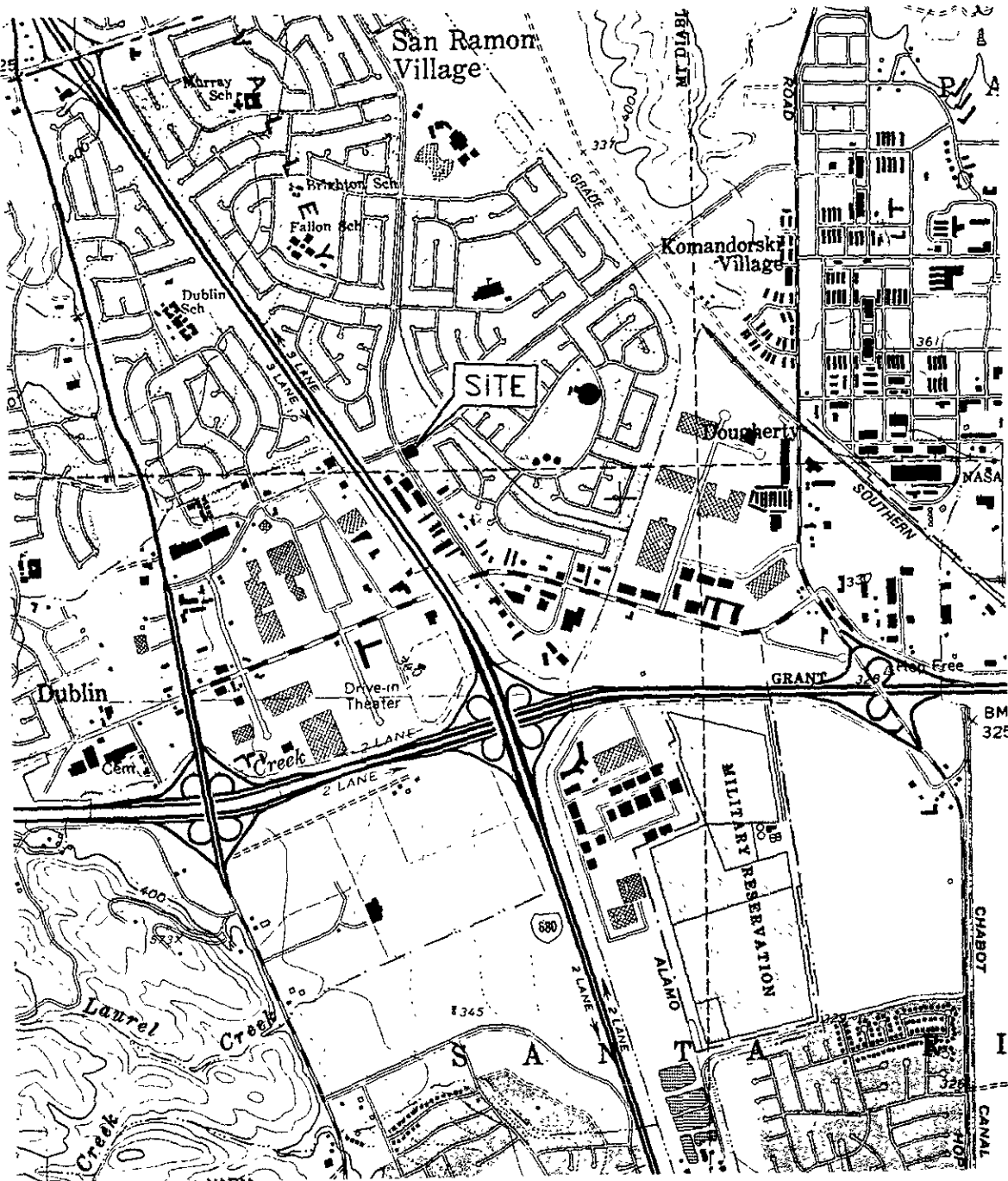
TABLE 4 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING
 ARCO PRODUCTS SERVICE STATION 6041
 7249 VILLAGE PARKWAY, DUBLIN, CALIFORNIA

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-2	11/10/92	334.80	10.12	324.68
MW-3	11/10/92	335.53	10.72	324.81
MW-4	11/10/92	334.22	9.58	324.64
MW-5	11/10/92	335.87	11.02	324.85
MW-6	11/10/92	335.84	11.03	324.81

NOTES:

- (a) Top of casing elevations for all well surveyed to the nearest 0.01 foot above mean sea level.
- (b) Groundwater elevation in feet above mean sea level.

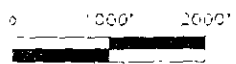


SOURCE:
 USGS MAP, DUBLIN QUADRANGLE, CALIFORNIA.
 7.5 MINUTE SERIES. 1961. PHOTOREVERSED 1980.

FIGURE 1

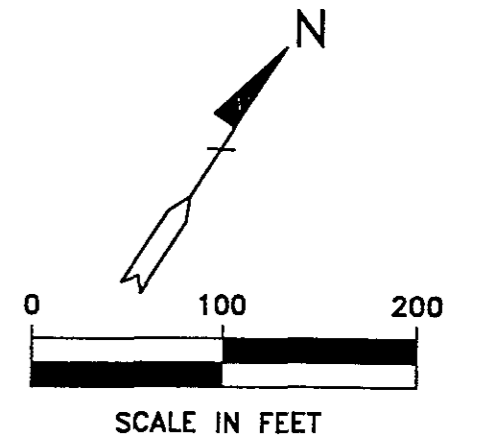
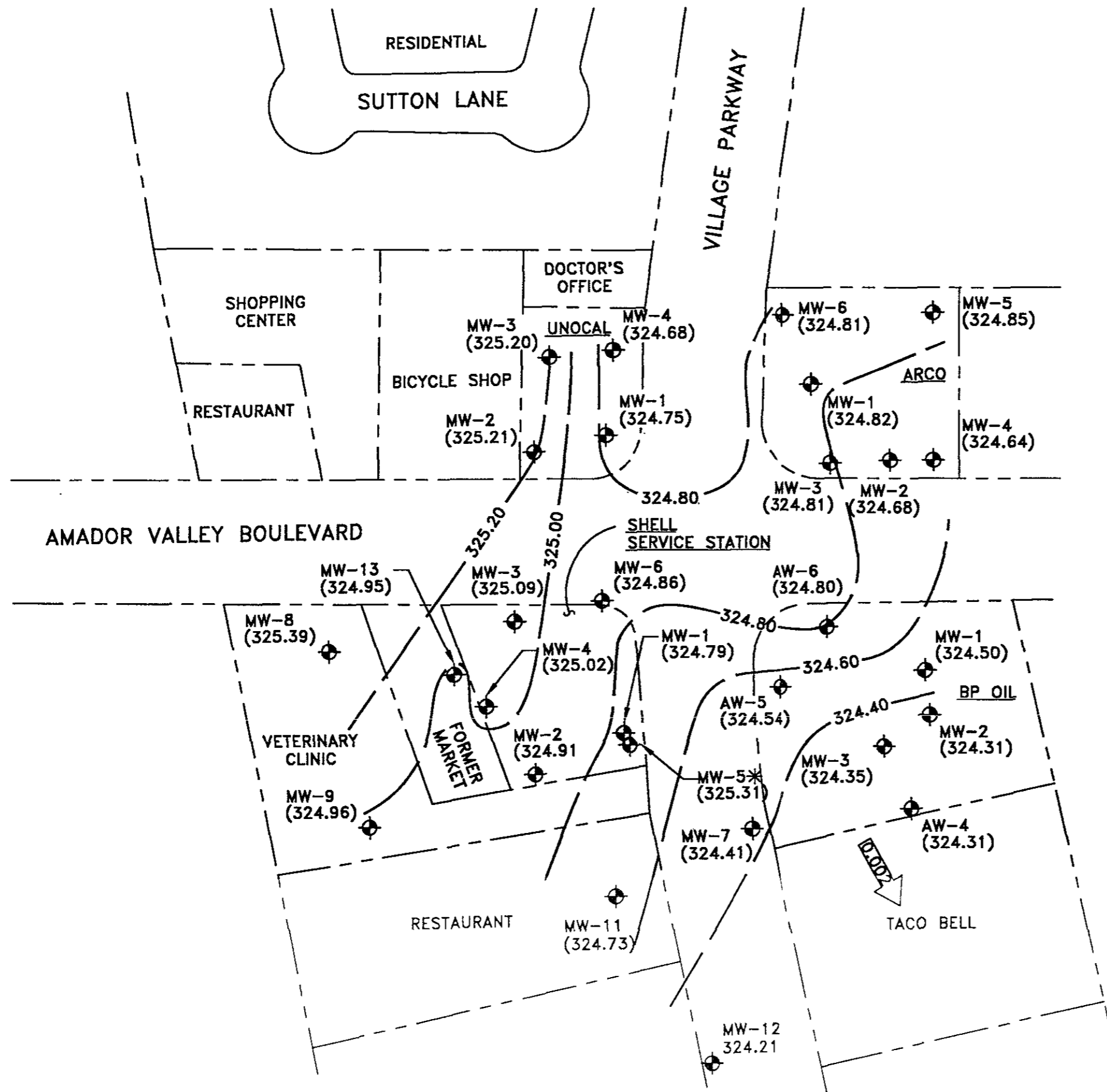
SITE VICINITY MAP

BP OIL SERVICE STATION NO. 11116
 7197 VILLAGE PARKWAY
 DUBLIN, CALIFORNIA



ALISTO PROJECT NO. 10-017

ALISTO ENGINEERING GROUP
 CONCORD, CALIFORNIA



LEGEND:


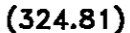
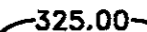


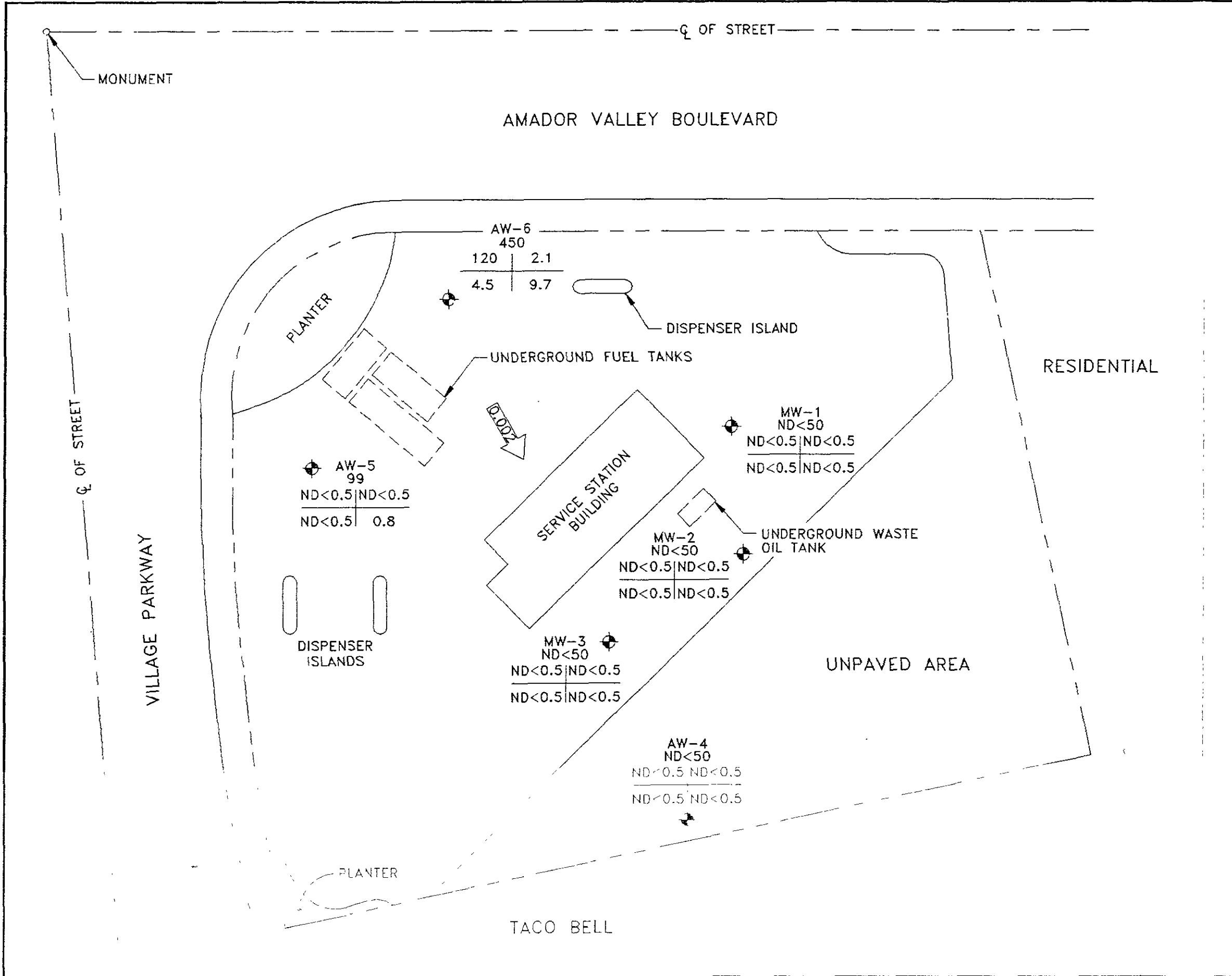
-  GROUNDWATER MONITORING WELL
-  (324.81) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
-  325.00 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL - 0.20 FOOT)
-  0.002 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE
-  * ANOMALOUS DATA

FIGURE 2
POTENTIOMETRIC GROUNDWATER
ELEVATION CONTOUR MAP
(NOVEMBER 10, 1992)

BP OIL SERVICE STATION NO. 11116
 7197 VILLAGE PARKWAY
 DUBLIN, CALIFORNIA

PROJECT NO. 10-017



LEGEND:

- GROUNDWATER MONITORING WELL
- TPH-G
B | T
E | X
CONCENTRATION OF CONSTITUENTS IN PARTS PER BILLION (PPB)
- TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
- B BENZENE
- T TOLUENE
- E ETHYLBENZENE
- X TOTAL XYLENES
- ND NOT DETECTED ABOVE REPORTED DETECTION LIMIT
- CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 3
CONCENTRATION OF PETROLEUM HYDROCARBONS IN GROUNDWATER (NOVEMBER 10, 1992)

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

1021001.DWG T R 93 JWB 1-360

APPENDIX A
WATER SAMPLING FIELD SURVEY FORMS

Field Report / Data Sheet

Groundwater Sampling Groundwater Monitoring Well Development Drill Support Stockpile Sampling

116 Liberty st Santa Cruz, Ca 95060 (408) 459-0718	Firm: ALUSTO	Date: 11/10/92	Station #: BP/1116	Day: M <input checked="" type="radio"/> Tu <input type="radio"/> W <input type="radio"/> Th <input type="radio"/> F
	Project Number: 10-017	Field Technician: DAN BIRCH	Address: 7197 Village Parkway DUBLIN	Weather: Clear, cal Milage: _____ mi

Equipment List:	<input checked="" type="checkbox"/> Water Gauge (<u>1</u>) day	<input checked="" type="checkbox"/> Honda Pump (<u>1</u>) day	Travel Time: <u>2.5</u> hrs
	<input checked="" type="checkbox"/> Parameter Kit (<u>1</u>) day	<input checked="" type="checkbox"/> Poly Tubing (<u>170</u> ft)	
<input type="checkbox"/> Disposable Bailers (<u>6</u>)	<input type="checkbox"/> Dolphin Lock(s) (_____)	<input checked="" type="checkbox"/> Nitrile Gloves (<u>1</u> pair)	Total Time: <u>8.0</u> hrs
<input type="checkbox"/> Plug(s) (_____) (<u>in</u>)			

DIW order	Well ID	Diam	Lock	Exp Cap	Total Depth (feet)	1st Depth to Water (feet)	2nd Depth to Water (feet)	Depth to Product (feet)	Product Thickness	Comments
	MW-1	2	ok	ok	25.90	10.67	10.67			
	MW-2	2	ok	ok	25.70	10.27	10.27			
	MW-3	2	ok	ok	25.44	10.78	10.78			
	AW-4	4	ok	ok	34.24	9.10	9.10			AW-4, off site well
	AW-5	4	ok	ok	33.14	10.27	10.27			
	AW-6	4	ok	ok	16.81	10.10	10.10			

Notes: Travel 11-12, arrive, open wells, let them breathe then measure DTW. Start on paperwork then walk over to Exxon and Oil Changers and check our water probes. The water meter used at the Exxon and my water meter indicated identical measurements of 10.12' and the probe used at Oil changers indicated 10.14'. Sampled the wells as shown on attached forms and left site at 5:00. Turn over samples to Anamix at 5:30 travel to office at 6:30.

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8010
 ANAMETRIX, INC. (408)432-8192

Project ID : 10-017
 Sample ID : VBLANK
 Matrix : WATER
 Date Sampled : 0/ 0/ 0
 Date Analyzed : 11/17/92
 Instrument ID : HP14

Anamatrix ID : 14B1117H01
 Analyst : KC
 Supervisor : CW
 Dilution Factor : 1.0
 Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
75-71-8	Freon 12	1.0	ND	U
74-87-3	Chloromethane	1.0	ND	U
75-01-4	Vinyl Chloride	.50	ND	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50	ND	U
75-69-4	Freon 11	.50	ND	U
76-13-1	Freon 113	.50	ND	U
75-35-4	1,1-DCE	.50	ND	U
75-09-2	Methylene Chlor	1.0	ND	U
156-60-5	Trans-1,2-DCE	.50	ND	U
75-34-3	1,1-DCA	.50	ND	U
156-59-2	Cis-1,2-DCE	.50	ND	U
67-66-3	Chloroform	.50	ND	U
71-55-6	1,1,1-TCA	.50	ND	U
56-23-5	Carbon Tet	.50	ND	U
107-06-2	1,2-DCA	.50	ND	U
79-01-6	Trichloroethene	.50	ND	U
78-87-5	1,2-DCPA	.50	ND	U
75-27-4	Bromodichlorome	.50	ND	U
110-75-8	Chloroethylvinl	1.0	ND	U
10061-01-5	Cis-1,3-DCPE	.50	ND	U
10061-02-6	Trans-1,3-DCPE	.50	ND	U
79-00-5	1,1,2-TCA	.50	ND	U
127-18-4	PCE	.50	ND	U
124-48-1	Dibromochlorome	.50	ND	U
108-90-7	Chlorobenzene	.50	ND	U
75-25-2	Bromoform	.50	ND	U
79-34-5	1,1,2,2-PCA	.50	ND	U
541-73-1	1,3-DCB	1.0	ND	U
106-46-7	1,4-DCB	1.0	ND	U
95-50-1	1,2-DCB	1.0	ND	U

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD

RECEIVED
NOV 24 1992



MR. BRADY NAGLE
ALISTO ENGINEERING GROUP
1000 BURNETT AVENUE, SUITE 150
CONCORD, CA 94520

Workorder # : 9211151
Date Received : 11/10/92
Project ID : 10-017
Purchase Order: N/A

The following samples were received at Anamatrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9211151- 1	MW-1
9211151- 2	MW-2
9211151- 3	MW-3
9211151- 4	AW-4
9211151- 5	AW-5
9211151- 6	AW-6
9211151- 7	QC-1
9211151- 8	QC-2

This report consists of 24 pages not including the cover letter, and is organized in sections according to the specific Anamatrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anamatrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anamatrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anamatrix.

Sarah Schoen, Ph.D.
Laboratory Director

Date

ANAMETRIX REPORT DESCRIPTION

GC

Organic Analysis Data Sheets (OADS)

OADS forms contain tabulated results for target compounds. The OADS are grouped by method and, within each method, organized sequentially in order of increasing Anamatrix ID number.

Surrogate Recovery Summary (SRS)

SRS forms contain quality assurance data. An SRS form will be printed for each method, if the method requires surrogate compounds. They will list surrogate percent recoveries for all samples and any method blanks. Any surrogate recovery outside the established limits will be flagged with an "*", and the total number of surrogates outside the limits will be listed in the column labelled "Total Out".

Matrix Spike Recovery Form (MSR)

MSR forms contain quality assurance data. They summarize percent recovery and relative percent difference information for matrix spikes and matrix spike duplicates. This information is a statement of both accuracy and precision. Any percent recovery or relative percent difference outside established limits will be flagged with an "*", and the total number outside the limits will be listed at the bottom of the page. Not all reports will contain an MSR form.

Qualifiers

Anamatrix uses several data qualifiers (Q) in its report forms. These qualifiers give additional information on the compounds reported. They should help a data reviewer to verify the integrity of the analytical results. The following is a list of qualifiers and their meanings:

- U - Indicates that the compound was analyzed for, but was not detected at or above the specified reporting limit.
- B - Indicates that the compound was detected in the associated method blank.
- J - Indicates that the compound was detected at an amount below the specified reporting limit. Consequently, the amount should be considered an approximate value. Tentatively identified compounds will always have a "J" qualifier because they are not included in the instrument calibration.
- E - Indicates that the amount reported exceeded the linear range of the instrument calibration.
- D - Indicates that the compound was detected in an analysis performed at a secondary dilution.

Absence of a qualifier indicates that the compound was detected at a concentration at or above the specified reporting limit.

REPORTING CONVENTIONS

- ◆ Due to a size limitation in our data processing step, only the first eight (8) characters of your project ID and sample ID will be printed on the report forms. However, the report cover letter and report summary pages display up to twenty (20) characters of your project and sample IDs
- ◆ Amounts reported are gross values, i.e., not corrected for method blank contamination.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. BRADY NAGLE
ALISTO ENGINEERING GROUP
1000 BURNETT AVENUE, SUITE 150
CONCORD, CA 94520

Workorder # : 9211151
Date Received : 11/10/92
Project ID : 10-017
Purchase Order: N/A
Department : GC
Sub-Department: VOA

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9211151- 1	MW-1	WATER	11/10/92	8010
9211151- 2	MW-2	WATER	11/10/92	8010
9211151- 3	MW-3	WATER	11/10/92	8010

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. BRADY NAGLE
ALISTO ENGINEERING GROUP
1000 BURNETT AVENUE, SUITE 150
CONCORD, CA 94520

Workorder # : 9211151
Date Received : 11/10/92
Project ID : 10-017
Purchase Order: N/A
Department : GC
Sub-Department: VOA

QA/QC SUMMARY :

- No QA/QC problems encountered for the sample.

Coimmet Khan 11/20/92
Department Supervisor Date

Michelle Young 11/20/92
Chemist Date

DESCRIPTIONS FOR SPECIFIC COMPOUNDS ANALYZED
EPA METHOD 601/8010

<u>CAS #</u>	<u>COMPOUND NAME</u>	<u>ABBREVIATED NAME</u>
74-87-3	Chloromethane	Chloromethane
74-83-9	Bromomethane	Bromoethane
75-71-8	Dichlorodifluoromethane	Freon 12
75-01-4	Vinyl Chloride	Vinyl Chloride
75-00-3	Chloroethane	Chloroethane
75-09-2	Methylene Chloride	Methylene Chlor
75-69-4	Trichlorofluoromethane	Freon 11
75-35-4	1,1-Dichloroethene	1,1-DCE
75-34-3	1,1-Dichloroethane	1,1-DCA
156-59-2	Cis-1,2-Dichloroethene	Cis-1,2-DCE
156-60-5	Trans-1,2-Dichloroethene	Trans-1,2-DCE
67-66-3	Chloroform	Chloroform
76-13-1	Trichlorotrifluoroethane	Freon 113
107-06-2	1,2-Dichloroethane	1,2-DCA
71-55-6	1,1,1-Trichloroethane	1,1,1-TCA
56-23-5	Carbon Tetrachloride	Carbon Tet
75-27-4	Bromodichloromethane	BromodichloroMe
78-87-5	1,2-Dichloropropane	1,2-DCPA
10061-02-6	Trans-1,3-Dichloropropene	Trans-1,3-DCPE
79-01-6	Trichloroethene	TCE
124-48-1	Dibromochloromethane	DibromochloroMe
79-00-5	1,1,2-Trichloroethane	1,1,2-TCA
10061-01-5	Cis-1,3-Dichloropropene	Cis-1,3-DCPE
110-75-8	2-Chloroethylvinylether	Chloroethylvinl
75-25-2	Bromoform	Bromoform
127-18-4	Tetrachloroethene	PCE
79-34-5	1,1,2,2-Tetrachloroethane	PCA
108-90-7	Chlorobenzene	Chlorobenzene
95-50-1	1,2-Dichlorobenzene	1,2-DCB
541-73-1	1,3-Dichlorobenzene	1,3-DCB
106-46-7	1,4-Dichlorobenzene	1,4-DCB
352-33-0	p-Chlorofluorobenzene	Chlorofluoroben

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8010
 ANAMETRIX, INC. (408)432-8192

Project ID : 10-017
 Sample ID : MW-1
 Matrix : WATER
 Date Sampled : 11/10/92
 Date Analyzed : 11/18/92
 Instrument ID : HP14

Anamatrix ID : 9211151-01
 Analyst : KK
 Supervisor : CP
 Dilution Factor : 1.0
 Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
75-71-8	Freon 12	1.0	ND	U
74-87-3	Chloromethane	1.0	ND	U
75-01-4	Vinyl Chloride	.50	ND	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50	ND	U
75-69-4	Freon 11	.50	ND	U
76-13-1	Freon 113	.50	ND	U
75-35-4	1,1-DCE	.50	ND	U
75-09-2	Methylene Chlor	1.0	ND	U
156-60-5	Trans-1,2-DCE	.50	ND	U
75-34-3	1,1-DCA	.50	ND	U
156-59-2	Cis-1,2-DCE	.50	ND	U
67-66-3	Chloroform	.50	ND	U
71-55-6	1,1,1-TCA	.50	ND	U
56-23-5	Carbon Tet	.50	ND	U
107-06-2	1,2-DCA	.50	ND	U
79-01-6	Trichloroethene	.50	ND	U
78-87-5	1,2-DCPA	.50	ND	U
75-27-4	Bromodichlorome	.50	ND	U
110-75-8	Chloroethylvinl	1.0	ND	U
10061-01-5	Cis-1,3-DCPE	.50	ND	U
10061-02-6	Trans-1,3-DCPE	.50	ND	U
79-00-5	1,1,2-TCA	.50	ND	U
127-18-4	PCE	.50	ND	U
124-48-1	Dibromochlorome	.50	ND	U
108-90-7	Chlorobenzene	.50	ND	U
75-25-2	Bromoform	.50	ND	U
79-34-5	1,1,2,2-PCA	.50	ND	U
541-73-1	1,3-DCB	1.0	ND	U
106-46-7	1,4-DCB	1.0	ND	U
95-50-1	1,2-DCB	1.0	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8010
 ANAMETRIX, INC. (408)432-8192

Project ID : 10-017
 Sample ID : MW-2
 Matrix : WATER
 Date Sampled : 11/10/92
 Date Analyzed : 11/18/92
 Instrument ID : HP14

Anamatrix ID : 9211151-02
 Analyst : *KC*
 Supervisor : *CP*
 Dilution Factor : 1.0
 Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
75-71-8	Freon 12	1.0	ND	U
74-87-3	Chloromethane	1.0	ND	U
75-01-4	Vinyl Chloride	1.0	ND	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50	ND	U
75-69-4	Freon 11	.50	ND	U
76-13-1	Freon 113	.50	ND	U
75-35-4	1,1-DCE	.50	ND	U
75-09-2	Methylene Chlor	.50	ND	U
156-60-5	Trans-1,2-DCE	1.0	ND	U
75-34-3	1,1-DCA	.50	ND	U
156-59-2	Cis-1,2-DCE	.50	ND	U
67-66-3	Chloroform	.50	ND	U
71-55-6	1,1,1-TCA	.50	ND	U
56-23-5	Carbon Tet	.50	ND	U
107-06-2	1,2-DCA	.50	ND	U
79-01-6	Trichloroethene	.50	ND	U
78-87-5	1,2-DCPA	.50	ND	U
75-27-4	Bromodichlorome	.50	ND	U
110-75-8	Chloroethylvinl	.50	ND	U
10061-01-5	Cis-1,3-DCPE	1.0	ND	U
10061-02-6	Trans-1,3-DCPE	.50	ND	U
79-00-5	1,1,2-TCA	.50	ND	U
127-18-4	PCE	.50	ND	U
124-48-1	Dibromochlorome	.50	ND	U
108-90-7	Chlorobenzene	.50	ND	U
75-25-2	Bromoform	.50	ND	U
79-34-5	1,1,2,2-PCA	.50	ND	U
541-73-1	1,3-DCB	.50	ND	U
106-46-7	1,4-DCB	1.0	ND	U
95-50-1	1,2-DCB	1.0	ND	U
		1.0	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8010
 ANAMETRIX, INC. (408)432-8192

Project ID : 10-017
 Sample ID : MW-3
 Matrix : WATER
 Date Sampled : 11/10/92
 Date Analyzed : 11/18/92
 Instrument ID : HP14

Anamatrix ID : 9211151-03
 Analyst : KK
 Supervisor : *GP*
 Dilution Factor : 1.0
 Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
75-71-8	Freon 12	1.0	ND	U
74-87-3	Chloromethane	1.0	ND	U
75-01-4	Vinyl Chloride	.50	ND	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50	ND	U
75-69-4	Freon 11	.50	ND	U
76-13-1	Freon 113	.50	ND	U
75-35-4	1,1-DCE	.50	ND	U
75-09-2	Methylene Chlor	1.0	ND	U
156-60-5	Trans-1,2-DCE	.50	ND	U
75-34-3	1,1-DCA	.50	ND	U
156-59-2	Cis-1,2-DCE	.50	ND	U
67-66-3	Chloroform	.50	ND	U
71-55-6	1,1,1-TCA	.50	ND	U
56-23-5	Carbon Tet	.50	ND	U
107-06-2	1,2-DCA	.50	ND	U
79-01-6	Trichloroethene	.50	ND	U
78-87-5	1,2-DCPA	.50	ND	U
75-27-4	Bromodichlorome	.50	ND	U
110-75-8	Chloroethylvinl	1.0	ND	U
10061-01-5	Cis-1,3-DCPE	.50	ND	U
10061-02-6	Trans-1,3-DCPE	.50	ND	U
79-00-5	1,1,2-TCA	.50	ND	U
127-18-4	PCE	.50	ND	U
124-48-1	Dibromochlorome	.50	ND	U
108-90-7	Chlorobenzene	.50	ND	U
75-25-2	Bromoform	.50	ND	U
79-34-5	1,1,2,2-PCA	.50	ND	U
541-73-1	1,3-DCB	1.0	ND	U
106-46-7	1,4-DCB	1.0	ND	U
95-50-1	1,2-DCB	1.0	ND	U

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. BRADY NAGLE
ALISTO ENGINEERING GROUP
1000 BURNETT AVENUE, SUITE 150
CONCORD, CA 94520

Workorder # : 9211151
Date Received : 11/10/92
Project ID : 10-017
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9211151- 1	MW-1	WATER	11/10/92	TPHd
9211151- 2	MW-2	WATER	11/10/92	TPHd
9211151- 3	MW-3	WATER	11/10/92	TPHd
9211151- 1	MW-1	WATER	11/10/92	TPHg/BTEX
9211151- 2	MW-2	WATER	11/10/92	TPHg/BTEX
9211151- 3	MW-3	WATER	11/10/92	TPHg/BTEX
9211151- 4	AW-4	WATER	11/10/92	TPHg/BTEX
9211151- 5	AW-5	WATER	11/10/92	TPHg/BTEX
9211151- 6	AW-6	WATER	11/10/92	TPHg/BTEX
9211151- 7	QC-1	WATER	11/10/92	TPHg/BTEX
9211151- 8	QC-2	WATER	11/10/92	TPHg/BTEX

SURROGATE RECOVERY SUMMARY -- EPA METHOD 8010
ANAMETRIX, INC. (408)432-8192

Project ID : 10-017
Matrix : LIQUID

Anamatrix ID : 9211151
Analyst : KK
Supervisor : CP

	SAMPLE ID	SU1	SU2	SU3
1	VBLANK	103		
2	MW-3	98		
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

QC LIMITS

SU1 = CHLOROFLUOROBEN

(51-136)

* Values outside of Anamatrix QC limits

LABORATORY CONTROL SAMPLE
 EPA METHOD 601/8010
 ANAMETRIX, INC. (408)432-8192

Project/Case : LABORATORY CONTROL SAMPLE	Anamatrix I.D. : WO11892
Matrix : WATER	Analyst : KC
SDG/Batch : N/A	Supervisor : C
Date analyzed : 11/18/92	Instrument I.D.: HP14

COMPOUND	SPIKE AMOUNT (ug/L)	AMOUNT RECOVERED (ug/L)	PERCENT RECOVERY	%RECOVERY LIMITS
FREON 113	10	7.1	71%	34 - 128
1,1-DICHLOROETHENE	10	9.7	97%	63 - 133
trans-1,2-DICHLOROETHENE	10	12.7	127%	55 - 145
1,1-DICHLOROETHANE	10	11.6	116%	49 - 121
cis-1,2-DICHLOROETHENE	10	11.7	117%	66 - 168
1,1,1-TRICHLOROETHANE	10	11.7	117%	72 - 143
TRICHLOROETHENE	10	14.0	140%	63 - 147
TETRACHLOROETHENE	10	13.0	130%	60 - 133
CHLOROBENZENE	10	11.8	118%	70 - 148
1,3-DICHLOROBENZENE	10	13.1	131%	49 - 139
1,4-DICHLOROBENZENE	10	12.7	127%	70 - 133
1,2-DICHLOROBENZENE	10	13.0	130%	69 - 140

* Limits based on data generated by Anamatrix, Inc., August, 1992.

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8010
 ANAMETRIX, INC. (408)432-8192

Project ID : 10-017
 Sample ID : VBLANK
 Matrix : WATER
 Date Sampled : 0/ 0/ 0
 Date Analyzed : 11/18/92
 Instrument ID : HP14

Anamatrix ID : 14B1118H01
 Analyst : *KL*
 Supervisor : *Q*
 Dilution Factor : 1.0
 Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
75-71-8	Freon 12	1.0	ND	U
74-87-3	Chloromethane	1.0	ND	U
75-01-4	Vinyl Chloride	.50	ND	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50	ND	U
75-69-4	Freon 11	.50	ND	U
76-13-1	Freon 113	.50	ND	U
75-35-4	1,1-DCE	.50	ND	U
75-09-2	Methylene Chlor	1.0	ND	U
156-60-5	Trans-1,2-DCE	.50	ND	U
75-34-3	1,1-DCA	.50	ND	U
156-59-2	Cis-1,2-DCE	.50	ND	U
67-66-3	Chloroform	.50	ND	U
71-55-6	1,1,1-TCA	.50	ND	U
56-23-5	Carbon Tet	.50	ND	U
107-06-2	1,2-DCA	.50	ND	U
79-01-6	Trichloroethene	.50	ND	U
78-87-5	1,2-DCPA	.50	ND	U
75-27-4	Bromodichlorome	.50	ND	U
110-75-8	Chloroethylvinl	1.0	ND	U
10061-01-5	Cis-1,3-DCPE	.50	ND	U
10061-02-6	Trans-1,3-DCPE	.50	ND	U
79-00-5	1,1,2-TCA	.50	ND	U
127-18-4	PCE	.50	ND	U
124-48-1	Dibromochlorome	.50	ND	U
108-90-7	Chlorobenzene	.50	ND	U
75-25-2	Bromoform	.50	ND	U
79-34-5	1,1,2,2-PCA	.50	ND	U
541-73-1	1,3-DCB	1.0	ND	U
106-46-7	1,4-DCB	1.0	ND	U
95-50-1	1,2-DCB	1.0	ND	U

SURROGATE RECOVERY SUMMARY -- EPA METHOD 8010
ANAMETRIX, INC. (408)432-8192

Project ID : 10-017
Matrix : LIQUID

Anamatrix ID : 9211151
Analyst : KF
Supervisor : LP

	SAMPLE ID	SU1	SU2	SU3
1	VBLANK	94		
2	MW-1	79		
3	MW-2	81		
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

QC LIMITS

(51-136)

SU1 = CHLOROFLUOROBEN

* Values outside of Anamatrix QC limits

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. BRADY NAGLE
ALISTO ENGINEERING GROUP
1000 BURNETT AVENUE, SUITE 150
CONCORD, CA 94520

Workorder # : 9211151
Date Received : 11/10/92
Project ID : 10-017
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- The concentrations reported as TPHg for samples AW-5 and QC-1 are primarily due to the presence of a discrete hydrocarbon peak not indicative of gasoline.

Cheryl Bauman 11/23/92
Department Supervisor Date

Reggie Dawson 11/23/92
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9211151
Matrix : WATER
Date Sampled : 11/10/92

Project Number : 10-017
Date Released : 11/19/92

Reporting Limit	Sample I.D.# MW-1	Sample I.D.# MW-2	Sample I.D.# MW-3	Sample I.D.# AW-4	Sample I.D.# AW-5
COMPOUNDS (ug/L)	-01	-02	-03	-04	-05
Benzene	0.5	ND	ND	ND	ND
Toluene	0.5	ND	ND	ND	ND
Ethylbenzene	0.5	ND	ND	ND	ND
Total Xylenes	0.5	ND	ND	ND	0.8
TPH as Gasoline	50	ND	ND	ND	99
% Surrogate Recovery	86%	86%	135%	113%	120%
Instrument I.D.	HP21	HP21	HP21	HP21	HP21
Date Analyzed	11/14/92	11/14/92	11/16/92	11/16/92	11/16/92
RLMF	1	1	1	1	1

- ND - Not detected at or above the practical quantitation limit for the method.
- TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
- RLMF - Reporting Limit Multiplication Factor.

Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Reggie Dawson 11/19/92
Analyst Date

Cheryl Balmer 11/19/92
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9211151
Matrix : WATER
Date Sampled : 11/10/92

Project Number : 10-017
Date Released : 11/19/92

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# AW-6	Sample I.D.# QC-1	Sample I.D.# QC-2	Sample I.D.# BN1301E2	Sample I.D.# BN1601E2
Benzene	0.5	120	ND	ND	ND	ND
Toluene	0.5	2.1	ND	ND	ND	ND
Ethylbenzene	0.5	4.5	ND	ND	ND	ND
Total Xylenes	0.5	9.7	0.7	ND	ND	ND
TPH as Gasoline	50	450	86	ND	ND	ND
% Surrogate Recovery		57%	109%	71%	117%	120%
Instrument I.D.		HP21	HP21	HP21	HP21	HP21
Date Analyzed		11/17/92	11/16/92	11/14/92	11/13/92	11/16/92
RLMF		2	1	1	1	1

- ND - Not detected at or above the practical quantitation limit for the method.
- TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
- RLMF - Reporting Limit Multiplication Factor.

Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Reggie Dawson 11/19/92
Analyst Date

Cheryl Balmer 11/19/92
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9211151
Matrix : WATER
Date Sampled : N/A

Project Number : 10-017
Date Released : 11/19/92

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# BN1701E2 BLANK
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Total Xylenes	0.5	ND
TPH as Gasoline	50	ND
% Surrogate Recovery		82%
Instrument I.D.		HP21
Date Analyzed		11/17/92
RLMF		1

- ND - Not detected at or above the practical quantitation limit for the method.
- TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
- RLMF - Reporting Limit Multiplication Factor.

Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Reggie Dawson 11/1/92
Analyst Date

Charles Baine 11/19/92
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS DIESEL
ANAMETRIX, INC. (408) 432-8192

Anamatrix W.O.: 9211151
Matrix : WATER
Date Sampled : 11/10/92
Date Extracted: 11/13/92

Project Number : 10-017
Date Released : 11/19/92
Instrument I.D.: HP23

Anamatrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (ug/L)	Amount Found (ug/L)
9211151-01	MW-1	11/16/92	50	ND
9211151-02	MW-2	11/16/92	50	ND
9211151-03	MW-3	11/16/92	50	ND
DWBL111392	METHOD BLANK	11/16/92	50	ND

Note : Reporting limit is obtained by multiplying the dilution factor times 50 ug/L.

ND - Not detected at or above the practical quantitation limit for the method.

TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following sample extraction by EPA Method 3510.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Reggie Dawson 11/17/92
Analyst Date

Cynthia Balmer 11/16/92
Supervisor Date

BTEX LABORATORY CONTROL SAMPLE REPORT
 EPA METHOD 5030 WITH GC/PID
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE Anametrix I.D.: LCSW1116
 Matrix : WATER Analyst : ED
 Date Sampled : N/A Supervisor :
 Date Analyzed : 11/16/92 Date Released : 11/19/92
 Instrument ID : HP21

COMPOUND	SPIKE AMT. (ug/L)	LCS (ug/L)	REC LCS	%REC LIMITS
Benzene	10.0	10.0	100%	49-159
Toluene	10.0	11.0	110%	53-156
Ethylbenzene	10.0	11.0	110%	54-151
TOTAL Xylenes	10.0	12.0	120%	56-157
P-BFB			96%	53-147

* Limits established by Anametrix, Inc.

TOTAL EXTRACTABLE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
 EPA METHOD 3510 WITH GC/FID
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE	Anamatrix I.D. : LCSW1113
Matrix : WATER	Analyst : SP
Date Sampled : N/A	Supervisor : SP
Date Extracted: 11/13/92	Date Released : 11/19/92
Date Analyzed : 11/16/92	Instrument I.D.: HP23

COMPOUND	SPIKE AMT (ug/L)	LCS REC (ug/L)	% REC LCS	LCSD REC (ug/L)	% REC LCSD	RPD	% REC LIMITS
DIESEL	1250	1520	122%	1490	119%	-2%	63-130

*Quality control established by Anamatrix, Inc.

REPORT SUMMARY
 ANAMETRIX, INC. (408)432-8192

MR. BRADY NAGLE
 ALISTO ENGINEERING GROUP
 1000 BURNETT AVENUE, SUITE 150
 CONCORD, CA 94520

Workorder # : 9211151
 Date Received : 11/10/92
 Project ID : 10-017
 Purchase Order: N/A
 Department : PREP
 Sub-Department: PREP

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9211151- 1	MW-1	WATER	11/10/92	5520BF
9211151- 2	MW-2	WATER	11/10/92	5520BF
9211151- 3	MW-3	WATER	11/10/92	5520BF

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. BRADY NAGLE
ALISTO ENGINEERING GROUP
1000 BURNETT AVENUE, SUITE 150
CONCORD, CA 94520

Workorder # : 9211151
Date Received : 11/10/92
Project ID : 10-017
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

QA/QC SUMMARY :

- No QA/QC problems encountered for samples.

Cheryl Maltzman 11/19/92
Department Supervisor Date

R. Patel 11-18-92
Chemist Date

ANALYSIS DATA SHEET - TOTAL OIL AND GREASE
 ANAMETRIX, INC. (408) 432-8192

Project I.D. : 10-017
 Matrix : WATER
 Date sampled : 11/10/92
 Date ext. TOG : 11/13/92
 Date anl. TOG : 11/13/92

Anamatrix I.D. : 9211151
 Analyst : *HRP*
 Supervisor : *CM*
 Date released : 11/18/92

Workorder #	Sample I.D.	Reporting Limit (mg/L)	Amount Found (mg/L)
9211151-01	MW-1	5	ND
9211151-02	MW-2	5	ND
9211151-03	MW-3	5	ND
GWBL111392	METHOD BLANK	5	ND

ND - Not detected at or above the practical quantitation limit for the method.

TOG - Total Oil & Grease is determined by Standard Method 5520BF.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

TOTAL OIL AND GREASE LAB CONTROL SAMPLE REPORT
 STANDARD METHOD 5520BF
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
 Matrix : WATER
 Date sampled : N/A
 Date extracted : 11/13/92
 Date analyzed : 11/13/92

Anamatrix I.D. : LCSW1113
 Analyst :
 Supervisor : *APC*
 Date Released : 11/18/92

COMPOUND	SPIKE AMT. (mg/L)	LCS (mg/L)	%REC LCS	LCSD (mg/L)	%REC LCSD	%RPD	%REC LIMITS
Motor Oil	50	42	84%	41	82%	2%	54-106%

* Quality control limits established by Anamatrix, Inc.



921151

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER		PROJECT NAME				Number of Cntrs	Type of Containers	Type of Analysis				Condition of Samples	Initial
10-017		BP11116											
Send Report Attention of:			Report Due		Verbal Due								
BRADY NAGLE			/ /		/ /								
Sample Number	Date	Time	Comp	Matrix	Station Location								
① MW-1	11/10/92	1429		W	Dublin		8	VOAS AMBERS	X	X	X	X	
② MW-2		1350					8	AMBERS VOAS	X	X	X	X	
③ MW-3		1441					3	VOAS	X	X	X	X	
④ AW-4		1650							X				
⑤ AW-5		1515							X				
⑥ AW-6		1540							X				
⑦ QC-1		1520							X				
⑧ QC-2	✓	1525	✓	✓	✓				X				
Relinquished by: (Signature)			Date/Time		Received by: (Signature)		Date/Time		Remarks: NORMAL TURN AROUND				
[Signature]			11/10/92 17:30		[Signature]		11/10/92 17:30						
Relinquished by: (Signature)			Date/Time		Received by: (Signature)		Date/Time						
Relinquished by: (Signature)			Date/Time		Received by Lab:		Date/Time		COMPANY: ALISTO ENGINEERING GROUP				
									ADDRESS: 510 798 4070 FAX: 798 4099				
									PHONE: 510 798 4070 FAX: 798 4099				