ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

RO0000211

March 11, 2002

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

Mr. Dave DeWitt
Tosco/Phillips 66
2000 Crow Canyon Rd
San Ramon, CA 94583

Re: Fuel Leak Site Case Closure for 7197 Village Parkway, Dublin, CA

Dear Messrs. Hooton and DeWitt:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Protection Division is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- up to 540ppm TPH as gasoline, 0.46ppm MtBE, and 1.8ppm benzene exists in soil beneath the site at 9.0 feet bgs;
- up to 440ppb TPHg, and 508pbb MtBE exists in groundwater beneath the site; and,
- a site safety plan must be prepared in the event excavation/trenching is proposed in the vicinity of residual soil and groundwater contamination.

If you have any questions, please contact me at (510) 567-6762.

eva chu
Hazardous Materials Specialist

enlosures: 1. Case Closure Letter 2. Case Closure Summary

c: Dennis Carrington, City of Dublin, 100 Civic Plaza, P.O. Box 2340, Dublin, CA 94568
files (bp11116-5)

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REMEDIAL ACTION COMPLETION CERTIFICATION

RO-211 - 7197 Village Parkway, Dublin, CA
(1 UST removed in December 1988 and 4 USTs removed in July 1998)

March 11, 2002

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

Mr. Dave DeWitt
Tosco/Phillips 66
2000 Crow Canyon Rd
San Ramon, CA 94583

Dear Messrs. Hooton and DeWitt:

This letter confirms the completion of site investigation and corrective action for the underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tanks are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank site is in compliance with the requirements of subdivisions (a) and (b) of Section 25299.37 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.77 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code. Please contact our office if you have any questions regarding this matter.

Sincerely,

Mee Ling Tung, Director

cc: Chuck Headlee, RWQCB
Dave Deaner, SWRCB
William McCammon, Alameda County Fire (QIC 41401)
files-ec (bp11116-4)

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: **June 28, 2001**

Agency name: **Alameda County-HazMat**
Address: **1131 Harbor Bay Pkwy**
City/State/Zip: **Alameda, CA 94502**
Phone: **(510) 567-6700**
Responsible staff person: **Eva Chu**
Title: **Hazardous Materials Spec.**

II. CASE INFORMATION

Site facility name: **BP Oil Service Station No. 11116**
Site facility address: **7197 Village Pkwy, Dublin, CA**
RB LUSTIS Case No: **N/A**
Local Case No./LOP Case No.: **RO-211/StID 2043**
URF filing date: **12/16/88**
SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
Scott Hooton **BP Oil** **295 SW 41st St. Bldg 13 Ste N** **Renton, WA 98055** **(425) 251-0689**	**Dave DeWitt** **Tosco** **2000 Crow Canyon Rd** **San Ramon, CA 94583** **(925) 277-2384**	

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	280	Waste Oil	Removed	12/1988
2	10,000	Gasoline	"	7/1998
3	8,000	"	"	"
4	6,000	"	"	"
5	1,000	Waste Oil	"	"

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **Unknown**
Site characterization complete? **YES**
Date approved by oversight agency: **6/18/2001**
Monitoring Wells installed? **Yes** Number: **6**
Proper screened interval? **Adequate**
Highest GW depth below ground surface: 4.50 Lowest depth: 10.10' in AW-6
Flow direction: Southeast at .004 ft/ft
Most sensitive current use: **Commercial**
Are drinking water wells affected? **No** Aquifer name: **Amador Subbasin**
Is surface water affected? **No** Nearest affected SW name: **NA**
Off-site beneficial use impacts (addresses/locations): **None**

Report(s) on file? **YES** Where is report(s) filed? **Alameda County**
1131 Harbor Bay
Alameda, CA 94502

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment or Disposal w/destination)	Date
Tank	**4 USTs**	**Disposed by ECI in Richmond, CA**	**7/1998**
	1-280 gal UST	**Unknown disposal destination**	**12/1988**
Soil	***250 cy***	***Unknown disposal destination***	**1989**
	2284 tons	**Disposed at Forward, Inc, in Manteca, CA**	**9/1998**
Groundwater	**28,000 gallons**	**Recycled at Tosco Refinery, in Rodeo, CA**	**1998**

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	Before[1]	After[2]	Before[3]	After[4]
TPH (Gas)	**130**	**540**	**140,000**	**440**
TPH (Diesel)	**36**	**1**	**60**	**ND**
Benzene	**ND**	**1.8**	**21,000**	**ND**
Toluene	**0.14**	**0.96**	**25,000**	**ND**
Ethylbenzene	**0.57**	**8.7**	**2,500**	**ND**
Xylenes	**0.38**	**23.6**	**14,000**	**ND**
MTBE	**0.26**	**0.46**	**50,000**	**508**
Heavy Metals	**within geogenic levels**		**see Note 5**	
TOG	**4,000**	**79**	**7,500**	**<5000**
Other HVOCs	**ND**	**NA**	**ND**	**NA**

NOTE 1 soil sample from product piping trench (7/98), except TPHd and TOG from boring MW2, advanced adjacent to waste oil tank pit, 8/89
2 final soil samples collected after overexcavation of fuel tank pit, 8/98
3 maximum historic concentrations detected from groundwater monitoring wells
4 latest sampling event from tank cavity well (TC-1), 3/01, except TOG is from MW-3, 8/92
5 ND for Cd, Cr, Pb and 30ppb Ni, 1,160ppb Zn in grab groundwater sample from waste oil pit, 7/98

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? _____
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? _____

Does corrective action protect public health for current land use? **YES**
Site management requirements: **A site safety plan must be prepared for construction workers in the event excavation/trenching is proposed in the vicinity of residual soil and groundwater contamination.**
Should corrective action be reviewed if land use changes? **YES**
Monitoring wells Decommissioned: Yes, others to be decommissioned, pending site closure
Number Decommissioned: **2** Number Retained: **4 (pending site closure)**
List enforcement actions taken: **NA**
List enforcement actions rescinded: **NA**

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: **Eva Chu** Title: **Haz Mat Specialist**

Signature: Date: 10/5/01

Reviewed by

Name: **Scott Seery** Title: **Haz Mat Specialist**

Signature: Date: 10-5-01

Name: **Susan Hugo** Title: **Acting Supervisor**

Signature: Susan L. Hugo Date: 10/04/01

VI. RWQCB NOTIFICATION

Date Submitted to RB: 10/12/01 RB Response: Concur

RWQCB Staff Name: **Chuck Headlee** Title: **AEG**

Signature: Chuck Headlee Date: 10/17/01

VII. ADDITIONAL COMMENTS, DATA, ETC.

The site is located on the southeast corner of the intersection of Village Parkway and Amador Valley Boulevard in Dublin, CA. Until recently, the site consisted of an active gasoline service station. The property is up for sale and no business is currently operating at the site. (See Fig 1)

In December 1988 a 280-gallon waste oil tank, located behind the service station building, was removed and replaced with a new waste oil UST. Several holes were observed in the old tank. Two soil samples (WO-1 and WO-2) were collected beneath the tank at 10 and 18 feet bgs, respectively. Up to 550ppm TOG was detected at 10 feet bgs (see Fig 2). The pit was overexcavated laterally in two phases in December 1988. Final confirmatory soil samples (SW-1, SW-2, SW-3A, and SW-4) contained a maximum of 79ppm TOG and 20ppm TPHd at 10 feet bgs (see Fig 3 and Table 1).

In August 1989 three groundwater monitoring wells (MW1 through MW3) were installed around the former waste oil tank. Soil samples collected from the boreholes at 10' and 13'bgs contained up to 4,000ppm TOG. TPHg, TPHd, and BTEX levels were unremarkable. Groundwater samples also contained low levels of petroleum hydrocarbons, including 8.9ppm TOG. (See Fig 4 and Table 2)

In October 1990 eight temporary wells (TW-1 through TW-8) were drilled to 20'bgs. Grab groundwater samples were collected to assess the extent of the hydrocarbon plume and to determine possible locations for permanent wells. Based on this shallow groundwater survey, locations for three additional monitoring wells (AW-4 through AW-6) were selected. The wells were installed in October and November 1990, and three exploratory borings (B-1 through B-3) were also drilled in the vicinity of the former waste oil tank for the purpose of assessing the extent of TOG remaining is the soil at the site. (See Fig 5)

Soil analytical results did not identify TOG in any of the borings. Groundwater from TW-1, TW-7 and AW-6 contained benzene above the MCLs. The data appeared to demonstrate that the hydrocarbon release from the waste oil tank was limited in extent. However, the detection of benzene in boring TW-7 and AW-6 suggests there may have been a release from the fuel USTs. (See Tables 3 and 4)

Groundwater at the site was first encountered at various depths during drilling of the soil borings, depending on the permeability of the subsurface material encountered. With the exception of boring AW-6, the groundwater throughout the site appeared to be semi-confined by overlying silty clay to a depth of approximately 20 feet bgs. Groundwater stabilized at approximately 9 to 10 feet bgs. Boring AW-6 encountered a poorly graded sand at 4 to 15.5 feet bgs. (See Fig 6)

In July 1998, 1-10K, 1-8K, and 1-6K gallon gasoline USTs and 1-1000 gallon waste oil UST were removed. Groundwater was encountered at 10 feet bgs in the gasoline tank pit and at 9 feet in the waste oil tank pit. Following UST removal one groundwater sample (Water-FT) was collected from the gasoline tank pit, and another (Water–WO) was collected from the waste oil tank pit. Four soil samples (SW1 through SW4) were collected from the sidewalls of the gasoline tank pit at depths of approximately 9.5'bgs. One soil sample (WOSW1(8)) was collected from the west sidewall of the waste oil tank pit at a depth of approximately 9 feet bgs. (See Fig 7)

All soil samples revealed analytes below the laboratory detection limits. However, the groundwater sample from the waste oil tank pit contained 120ppb MTBE (using EPA Method 8020). The groundwater sample from the gasoline tank pit contained 10,000ppb TPHg, 450ppb benzene and 16,000ppb MTBE. (See Table 5)

In July 1998, the product dispensers and current product lines were removed. Five soil samples (P-1 through P-5) were collected in the piping trenches at approximately 4 to 5 feet bgs. TPHg concentrations ranged from 37 to 130ppm. MTBE ranged from ND to 0.26ppm. In August, all former generations of product lines were also removed. Eight soil samples (OP-1 through OP-8) were collected at depths ranging between 3 and 4 feet bgs. Low levels of TPHg, BTEX and MTBE were detected. (See Fig 7 and Table 5)

Approximately 436 tons of soil were excavated during the UST removal activities before the noted soil and water samples were collected. But based on visual observations and field instrument indications, an

additional 1850 tons of soil were removed. Confirmatory soil samples (S-1 through S-8) were collected from the end walls and bottom of the greatly expanded excavation, at 8 to 9 feet bgs. A maximum of 540ppm TPHG, and 1.8, 0.96, 8.7 and 23.6ppm BTEX, respectively, remains in the vicinity of sample S-6. (See Fig 8 and Table 6)

During excavation activities between July 31 and August 27, 1998, approximately 28,200 gallons of groundwater in the gasoline tank pit was removed. A water sample (W-1) was collected in August 2, 1998 after approximately 7,000 gallons of water was removed. Up to 4,400ppb MTBE (using EPA Method 8260) was identified in the water sample.

Before the USTs were removed, in anticipation of the extent of soil excavation that may be required at the site, monitoring wells AW-5 and AW-6 were destroyed. But before the overexcavated pit was filled, a tank cavity well (TC-1), constructed using a 6 inch diameter slotted PVC casing, was installed in the northwest corner of the excavation to facilitate future groundwater extraction, if deemed necessary.

Onsite groundwater monitoring wells were sampled from October 1990 to February 1998. Of significance was the detection of elevated TPHg and/or MTBE in wells AW-5 and AW-6. Over the years hydrocarbon constituents have steadily decreased. After wells AW-5 and AW-6 were destroyed, groundwater from the tank cavity well was sampled. In December 1999, 1,500ppb MTBE was identified. Groundwater was again sampled in March 2001, when 508ppb MTBE was detected. To demonstrate that the plume was stable and limited in extent, groundwater monitoring wells MW-6 and MW-7, owned by Shell Oil and located along Village Parkway, downgradient of the subject site, were sampled. Groundwater from these offsite wells did not contain TPHg, benzene, or MTBE when sampled in February 2001. (See Fig 9, Tables 7 and 8)

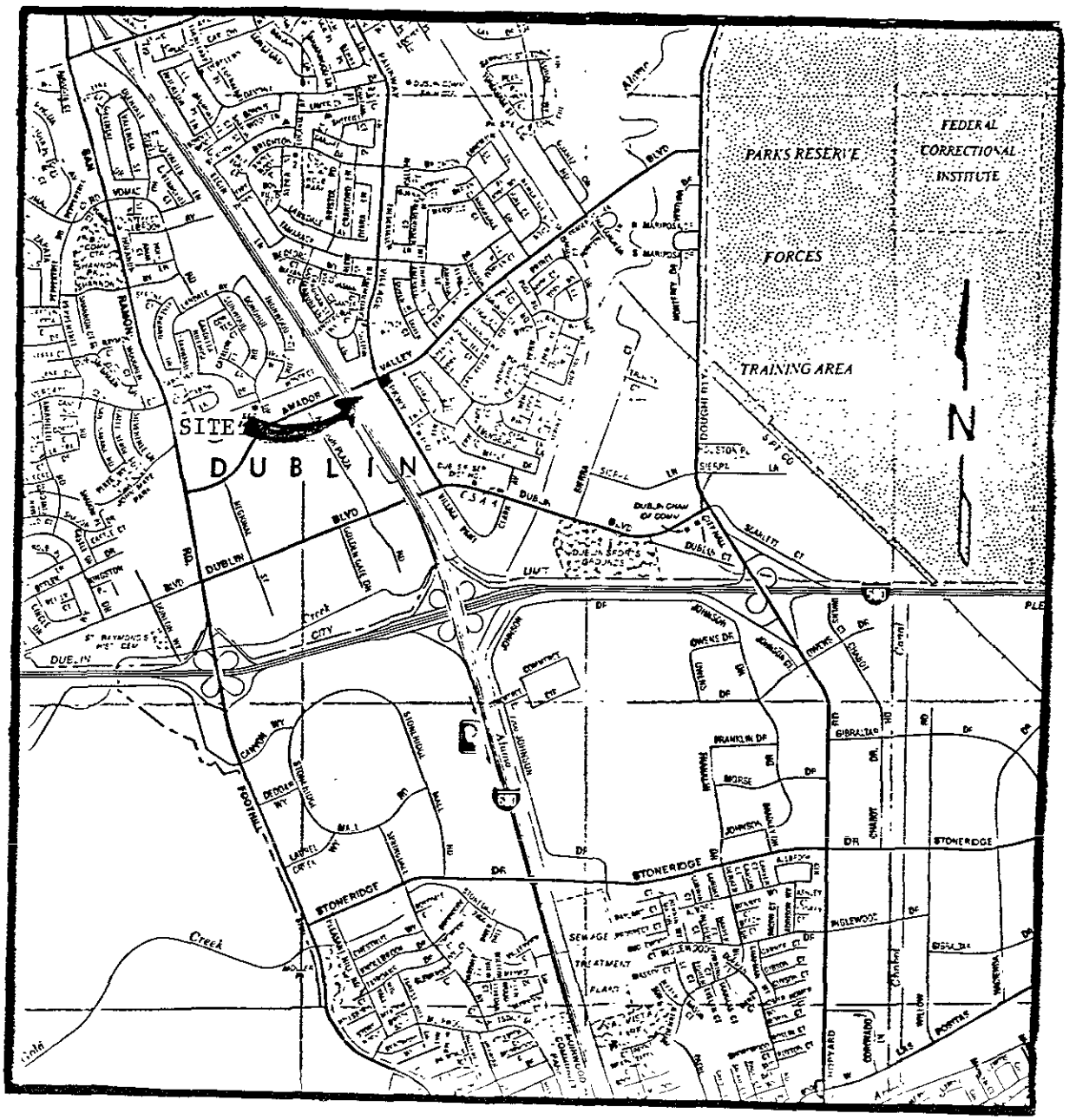
Residual petroleum hydrocarbon concentrations in soil were compared with the Final 2000 Draft RWQCB's Vadose-Zone Soil Screening Levels for Protection of Indoor Air Quality RBSLs (Table E-1). Maximum residual benzene concentration (1.8ppm) exceeded the RWQCB's RBSL for both a residential (0.18ppm) and commercial scenario (0.39ppm), assuming an excess cancer risk of 10^{-6} (see Table 9). However, only a small pocket of soil, at 9 feet bgs (within or below the capillary fringe zone), contained up to 1.8ppm benzene. The average benzene concentration was calculated (using the 8 confirmation soil samples (S-1 through S-8) collected after the former tank pit was overexcavated) at 0.28ppm. The average residual benzene concentration should not pose a risk to human health at a residential or commercial scenario. Residual contaminants in soil should continue to naturally attenuate.

In summary, case closure is recommended because:

- the leak and ongoing sources have been removed;
- the site has been adequately characterized;
- the dissolved hydrocarbon plume is not migrating;
- no preferential pathways exist at the site;
- no water wells, deeper drinking water aquifers, surface water, or other sensitive receptors are likely to be impacted;
  the plume does not extend much beyond the property, thus no likely offsite sensitive receptors
- the site presents no significant risk to human health or the environment.

FIG 1

KAPREALIAN ENGINEERING, INC.
Consulting Engineers
P. O. BOX 913
BENICIA, CA 94510
(415) 676 - 9100 (707) 746 - 6915

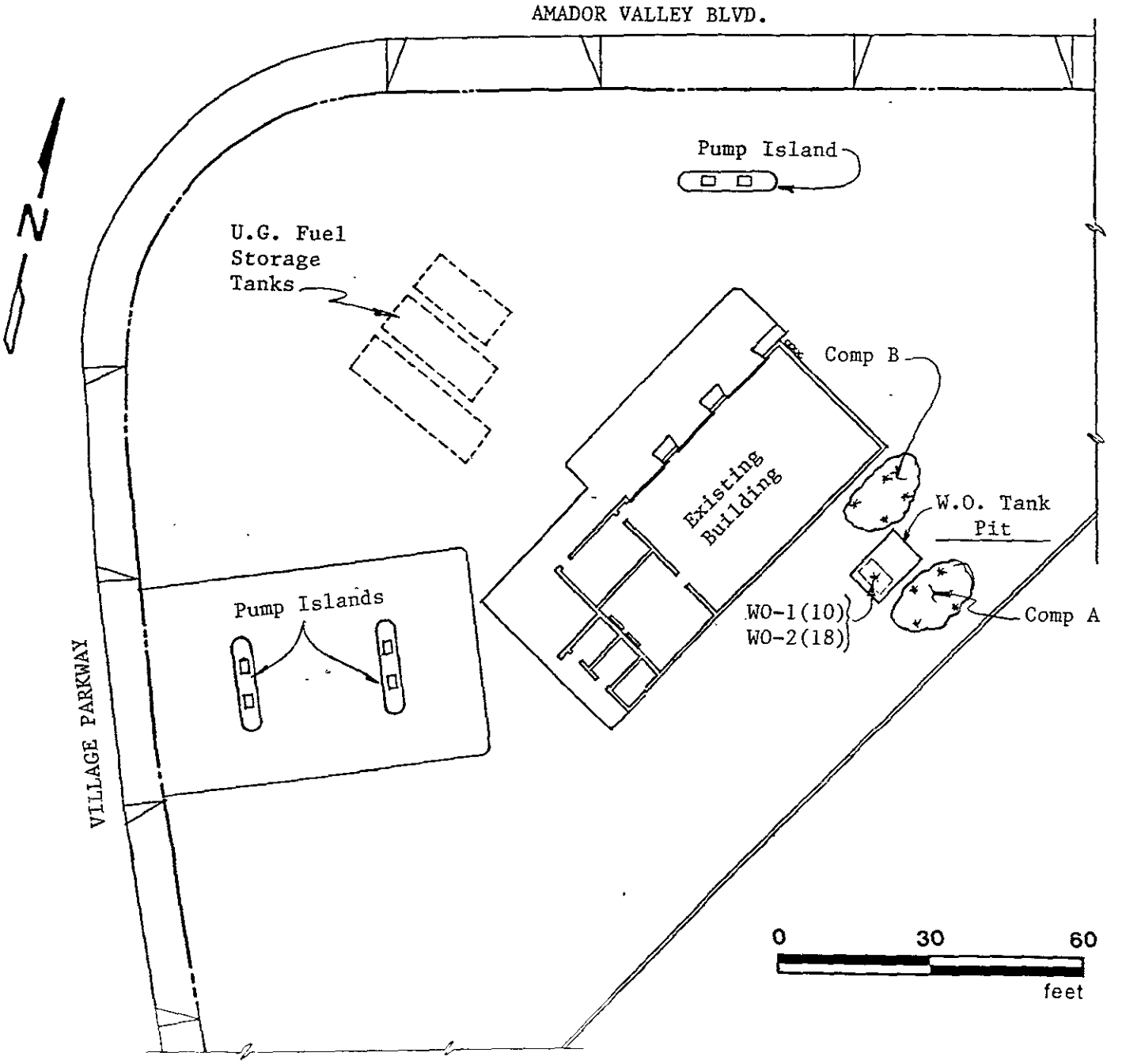


LOCATION MAP

Mobil Service Station #10-KNK
7197 Village Parkway
Dublin, California

FIG 2

KAPREALIAN ENGINEERING, INC.
Consulting Engineers
P. O. BOX 913
BENICIA, CA 94510
(415) 676 - 9100 (707) 746 - 6915



SITE PLAN

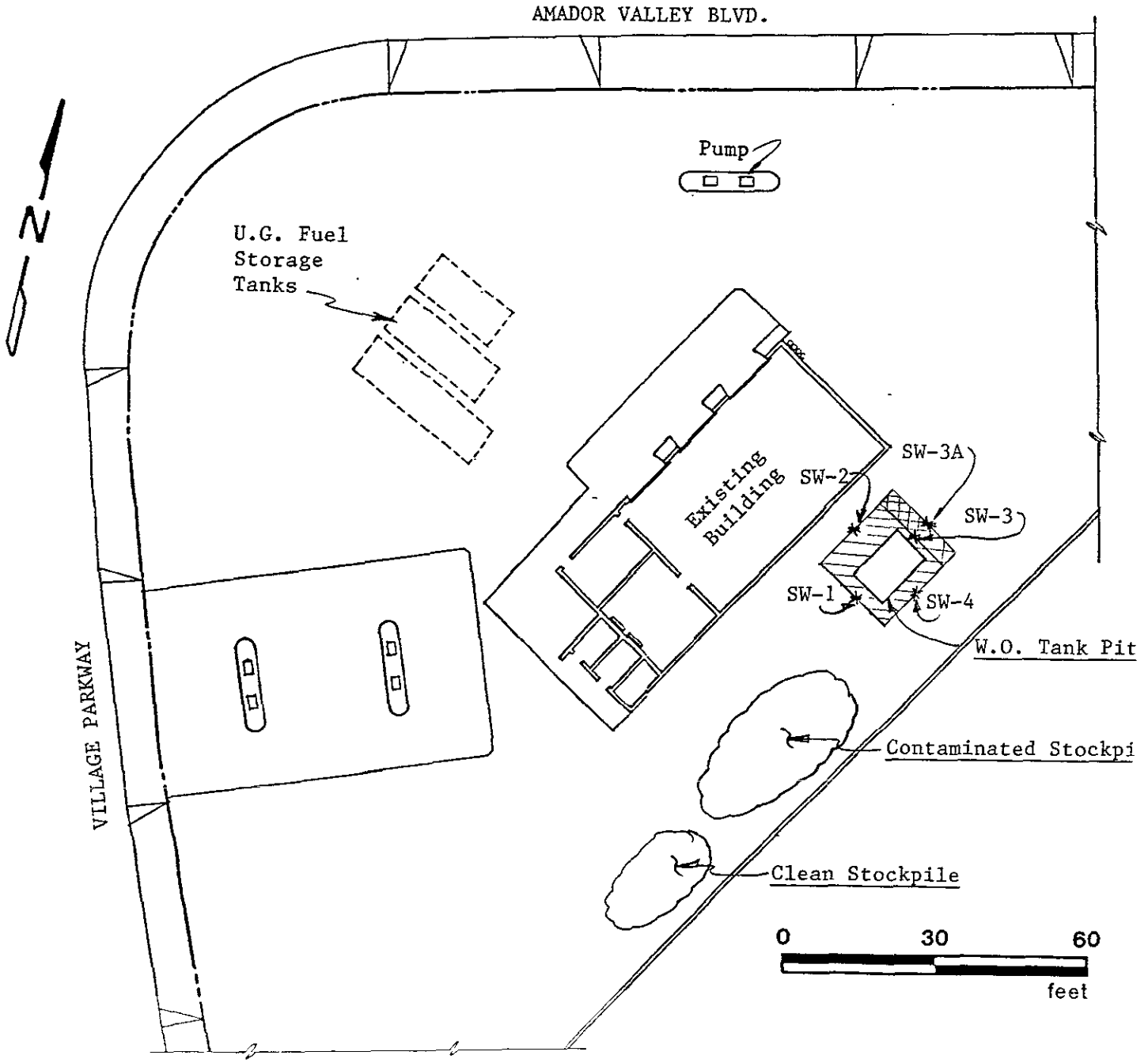
Figure 1

*Sample Point Location

Mobil Service Station #10-KNK
7197 Village Parkway
Dublin, California

FIG 3

KAPREALIAN ENGINEERING, INC.
Consulting Engineers
P. O. BOX 913
BENICIA, CA 94510
(415) 676 - 9100 (707) 746 - 6915



SITE PLAN
Figure 2

* Sample Point Location
Lateral Area Excavated 12/15/88
Lateral Area Excavated 12/20/88

Mobil Service Station #10-KNK
7197 Village Parkway
Dublin, California

TABLE 1

KEI-J88-1206.R1
January 11, 1989

TABLE 1

SUMMARY OF LABORATORY ANALYSES

(Results in ppm)

Sample	Depth (feet)	TPH as Diesel	Total Oil & Grease	Benzene	Toluene	Xylenes	Ethyl-benzene
WO-1(10)*	10	13	550	ND	0.015	0.110	0.055
WO-2(18)*	18	18	110	ND	ND	ND	ND
SW-1	10	4.0	60	--	--	--	--
SW-2	10	2.5	79	--	--	--	--
SW-3	10	20	1100	--	--	--	--
SW-4	10	ND	68	--	--	--	--
SW-3A	10	6.0	2.5	--	--	--	--
Comp A	--	35	17	--	--	--	--
Comp B	--	1.6	6.8	--	--	--	--

ND = Non-detectable

*All EPA 8010 and 8020 constituents were not detectable except as noted.

KAPREALIAN ENGINEERING, INC.
Consulting Engineers
P. O BOX 913
BENICIA CA 94510
(707) 746-8915 (707) 746-8916
FAX: (707) 746-5581

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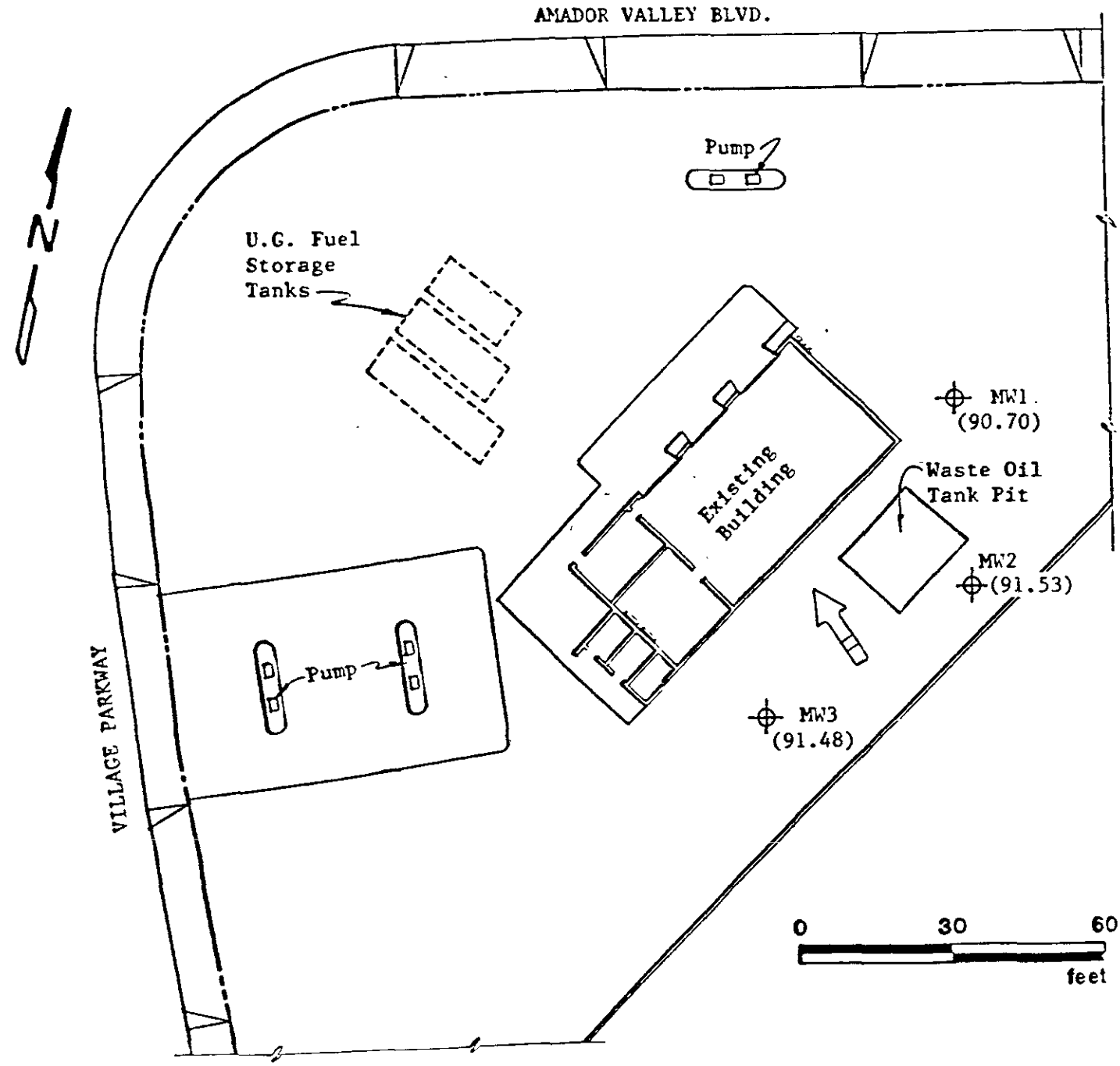


SITE PLAN

⊕ Monitoring Well

( ) Ground water elevation on 9/5/89
Surface elevation at top of MW1
assumed 100' as datum

⇨ Ground water flow direction

Mobil Service Station #10-KNK
7197 Village Parkway
Dublin, California

TABLE 2

KEI-P88-1206.R2
October 17, 1989

TABLE 2

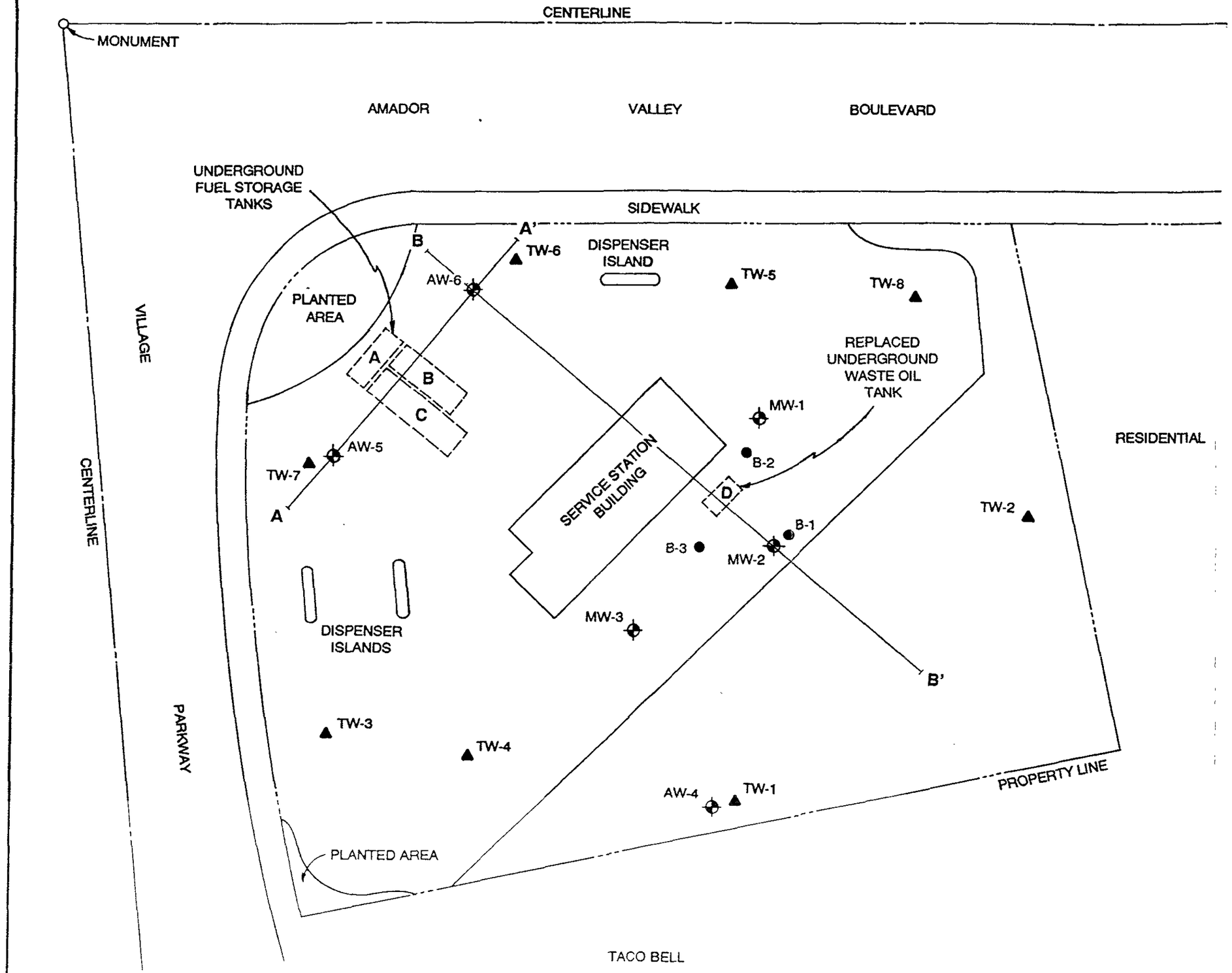
SUMMARY OF LABORATORY ANALYSES
SOIL

(Results in ppm)
(Collected on August 29, 1989)

Sample Number	Depth (feet)	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene	TOG
MW1	10	1.5	ND	ND	ND	ND	ND	490
MW1	13	1.6	ND	ND	ND	ND	ND	630
MW2	10	36	17	ND	ND	0.63	0.20	4,000
MW2	13.5	2.0	3.1	ND	ND	ND	ND	370
MW3	10	ND	4.4	ND	ND	ND	ND	35
MW3	13.5	ND	ND	ND	ND	ND	ND	750
Detection Limits		1.0	1.0	0.05	0.1	0.1	0.1	30

NOTE: EPA 8010 was non-detectable for all samples.

ND = Non-detectable.



N

SCALE: 1" = 30'

LEGEND

- GROUND WATER MONITORING WELL
- SOIL BORING
- QUALITATIVE SHALLOW GROUND WATER SURVEY BORING
- A ⟷ A' LINE OF GEOLOGIC CROSS SECTION

UNDERGROUND TANK CAPACITIES AND CONTENTS

A: 6,000 GAL. UNLEADED PREMIUM
B: 8,000 GAL. UNLEADED REGULAR
C: 10,000 GAL. LEADED REGULAR
D: 3,000 GAL. WASTE OIL (REPLACEMENT)

FIGURE 2

SITE PLAN

FORMER MOBIL SERVICE STATION 10-KNK
7197 VILLAGE PARKWAY
DUBLIN, CALIFORNIA

ALTON GEOSCIENCE PROJECT NO. 30-095

ALTON GEOSCIENCE
1000 Burnett Ave., Ste 140
Concord, CA 94520

TABLE 2

SUMMARY OF ANALYTICAL RESULTS OF SOIL SAMPLES

Former Mobil Oil Service Station 10-KNK
7197 Village Parkway
Dublin, California

Concentrations in Parts Per Million

Boring Number	Depth in Feet	TPH[a] as Gasoline	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH as Diesel	TOG[b]	HVOC[c]
Date of Sampling - October 12, 1990									
B-1	11-11.5	ND[d]<0.5	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<10	ND<30	ND
B-1	16-16.5	ND<0.5	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<10	ND<30	ND
B-1	21-21.5	ND<0.5	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<10	ND<30	ND
B-2	11-11.5	ND<0.5	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<10	ND<30	ND
B-2	16-16.5	ND<0.5	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<10	ND<30	ND
B-2	22.5-23	ND<0.5	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<10	ND<30	ND
Date of Sampling - November 6, 1990									
B-3	10.5-11	ND<1.0	ND<0.003	ND<0.003	ND<0.003	ND<0.003	ND<10	ND<20	ND
B-3	16-16.5	ND<1.0	ND<0.003	ND<0.003	ND<0.003	0.013	ND<10	ND<20	ND
B-3	21-21.5	ND<1.0	ND<0.003	ND<0.003	ND<0.003	ND<0.003	ND<10	ND<20	ND
AW-4	6-6.5	ND<1.0	ND<0.003	ND<0.003	ND<0.003	ND<0.003	--[f]	--	--
AW-4	21-21.5	ND<1.0	ND<0.003	ND<0.003	ND<0.003	ND<0.003	--	--	--
AW-5	6-6.5	6.0	0.25	0.018	0.033	0.088	--	--	--
AW-5	11-11.5	ND<1.0	ND<0.003	ND<0.003	ND<0.003	ND<0.003	--	--	--
AW-5	16-16.5	ND<1.0	ND<0.003	ND<0.003	ND<0.003	ND<0.003	--	--	--
AW-5	21-21.5	ND<1.0	ND<0.003	ND<0.003	ND<0.003	ND<0.003	--	--	--
AW-6	6-6.5	ND<1.0	ND<0.003	ND<0.003	ND<0.003	ND<0.003	--	--	--

[a]Represents Total Petroleum Hydrocarbons
[b]Represents Total Oil and Grease
[c]Represents Halogenated Volatile Organic Compounds - Refer to Laboratory Reports for Detection limits
[d]Not Detected above the reported detection limits
[e]Not Analyzed

TABLE 3

TABLE 3

SUMMARY OF ANALYTICAL RESULTS OF GROUND WATER SAMPLES
FROM QUALITATIVE SHALLOW GROUND WATER SURVEY

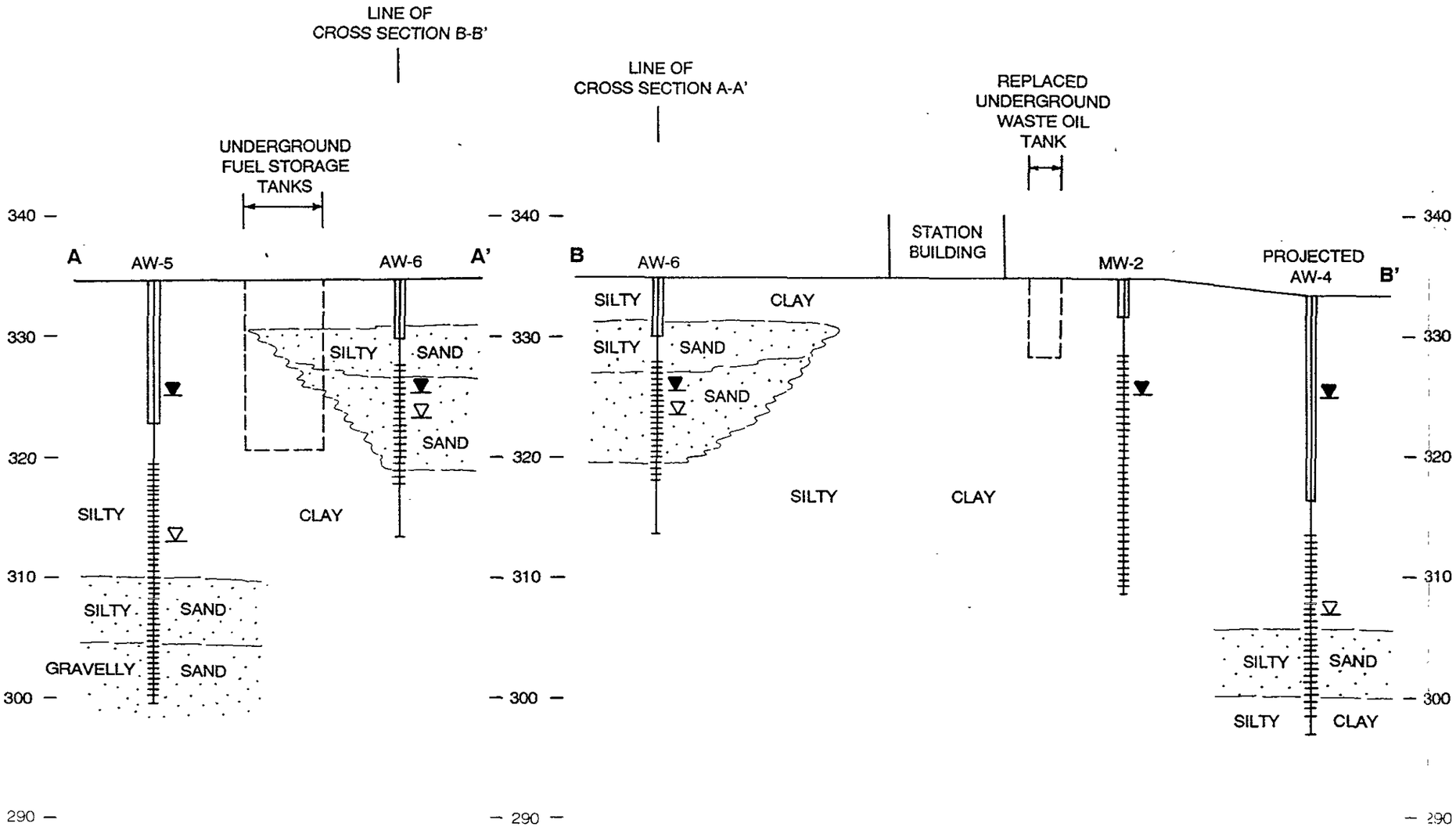
Former Mobil Service Station 10-KNK
7197 Village Parkway
Dublin, California

Concentrations in Parts Per Billion

Well Number	TPH[a] as Gasoline	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH as Diesel	TOG[b]	HVOC[c]
Date of Sampling - October 12, 1990								
MW-1	ND[d]<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	ND<5	ND
MW-2	93	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	ND<5	ND
MW-3	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	ND<5	ND
TW-1	6,100	94	490	92	590	--[e]	ND<5	--
TW-2	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	ND<5	--
TW-3	ND<50	0.8	ND<0.5	ND<0.5	ND<0.5	--	--	--
TW-4	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--
TW-5	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--
TW-6	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--
TW-7	11,000[f]	250	580	344	1,700	--	--	--
TW-8	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--

[a]Represents Total Petroleum Hydrocarbons
[b]Represents Total Oil and Grease
[c]Represents Halogenated Volatile Organic Compounds - Refer to Laboratory Reports for Detection limits
[d]Not detected above the given detection limits
[e]Not analyzed
[f]Estimated value below detection limits

TABLE 4



SCALE: 1" = 30' HORIZONTAL
1" = 10' VERTICAL

DISTANCES AND ELEVATIONS IN FEET

ELEVATIONS RELATIVE TO A MONUMENT WITH AN ASSUMED ELEVATION OF 335.92 FEET ABOVE MEAN SEA LEVEL

LEGEND

- GROUND WATER MONITORING WELL SHOWING SEAL AND SLOTTING
- GEOLOGIC CONTACT
- GROUND WATER ELEVATION AT TIME OF DRILLING
- GROUND WATER ELEVATION ON NOVEMBER 15, 1990
- PERMEABLE MATERIAL

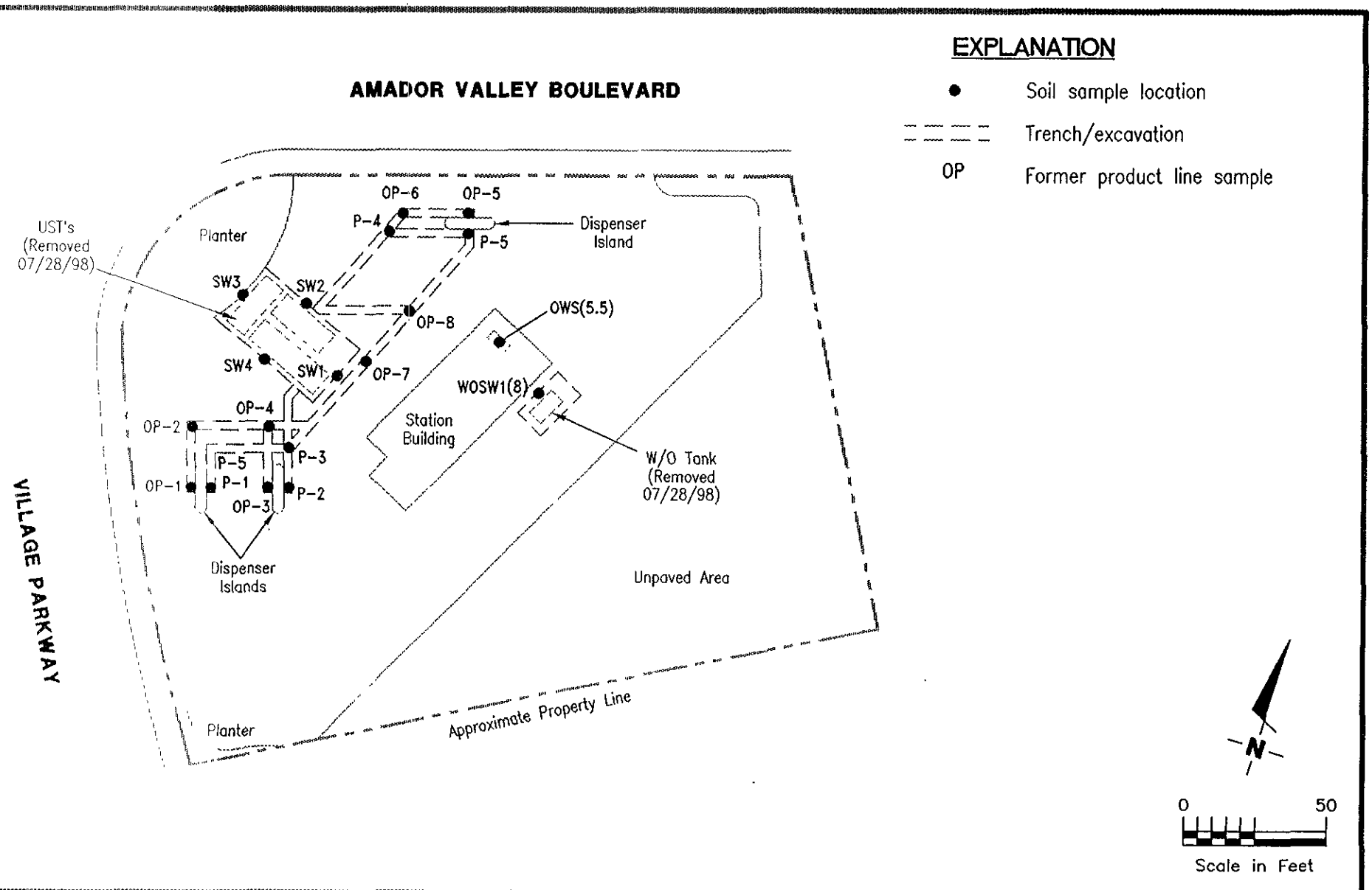
FIGURE 4

GEOLOGIC CROSS SECTIONS A-A' AND B-B'

FORMER MOBIL OIL SERVICE STATION 10-KNK
7197 VILLAGE PARKWAY
DUBLIN, CALIFORNIA

ALTON GEOSCIENCE PROJECT NO. 30-095

ALTON GEOSCIENCE
1000 Burnett Ave., Ste 140
Concord, CA 94520



Gettler - Ryan Inc.

6747 Sierra Ct., Suite J
Dublin, CA 94568
(925) 551-7555

SOIL SAMPLE LOCATION MAP
Former Tosco BP Branded Facility #11116
7197 Village Parkway
Dublin, California

FIGURE
2

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
140188.02		September, 1998	

Fig 7

Table 1 - Chemical Analytical Data

Former Tosco BP Branded Facility No. 11116
7197 Village Parkway
Dublin, California

Sample ID	Date Collected	Sample Depth (feet)	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-Benzene (ppm)	Xylenes (ppm)	MTBE (ppm)	TPHd (ppm)	LEAD (ppm)	HVOCs (ppm)	SVOCs (ppm)
GASOLINE UST PIT EXCAVATION (SOIL)												
SW1	7/28/98	9.5	ND	ND	ND	ND	ND	ND	NR	8.1	NR	NR
SW2	7/28/98	9.5	ND	ND	ND	ND	ND	ND	NR	5.2	NR	NR
SW3	7/28/98	9.5	ND	ND	ND	ND	ND	ND	NR	5.4	NR	NR
SW4	7/28/98	9.5	ND	ND	ND	ND	ND	ND	NR	5.7	NR	NR
WASTE OIL UST PIT EXCAVATION (SOIL)												
WOSW1 (8)	7/28/98	8.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OIL/WATER SEPARATOR (SOIL)												
OWS (5 5)	7/30/98	5.5	260[2]	ND	ND	ND	0.890	ND	470[3]	8.2	ND[4]	ND[5]
PRODUCT PIPING TRENCHES (SOIL)												
P-1	7/30/98	4.5	52[6]	ND	0.11	0.16	0.38	ND	NR	5.0	NR	NR
P-2	7/30/98	4.5	ND	ND	ND	ND	ND	0.053	NR	6.7	NR	NR
P-3	7/30/98	4.5	ND	ND	ND	ND	ND	0.26	NR	5.4	NR	NR
P-4	7/30/98	5.0	130[6]	ND	ND	0.57	0.26	ND	NR	9.4	NR	NR
P-5	7/30/98	4.0	37[6]	ND	0.14	ND	0.27	ND	NR	5.6	NR	NR
FORMER PRODUCT PIPING TRENCHES (SOIL)												
OP-1	8/7/98	4.0	ND	ND	ND	ND	ND	ND	NR	8.9	NR	NR
OP-2	8/7/98	3.0	ND	ND	ND	ND	ND	ND	NR	7.7	NR	NR
OP-3	8/7/98	3.5	ND	ND	ND	ND	ND	0.23	NR	7.5	NR	NR
OP-4	8/7/98	3.0	ND	0.0064	ND	ND	0.035	ND	NR	6.5	NR	NR
OP-5	8/7/98	3.5	6.3	0.18	0 027	0.064	0.13	0.1	NR	10	NR	NR
OP-6	8/7/98	3.5	2.9	0 064	0.017	0.055	0.15	ND	NR	7.9	NR	NR
OP-7	8/7/98	4.0	13	0.36	0.048	1.0	0.42	0.26	NR	550	NR	NR
OP-8	8/7/98	3.0	3 6	0.030	0.013	0.11	0.068	0.0517	NR	6.6	NR	NR

TABLE 5

Table 1 - Chemical Analytical Data

Former Tosco BP Branded Facility No. 11116
7197 Village Parkway
Dublin, California

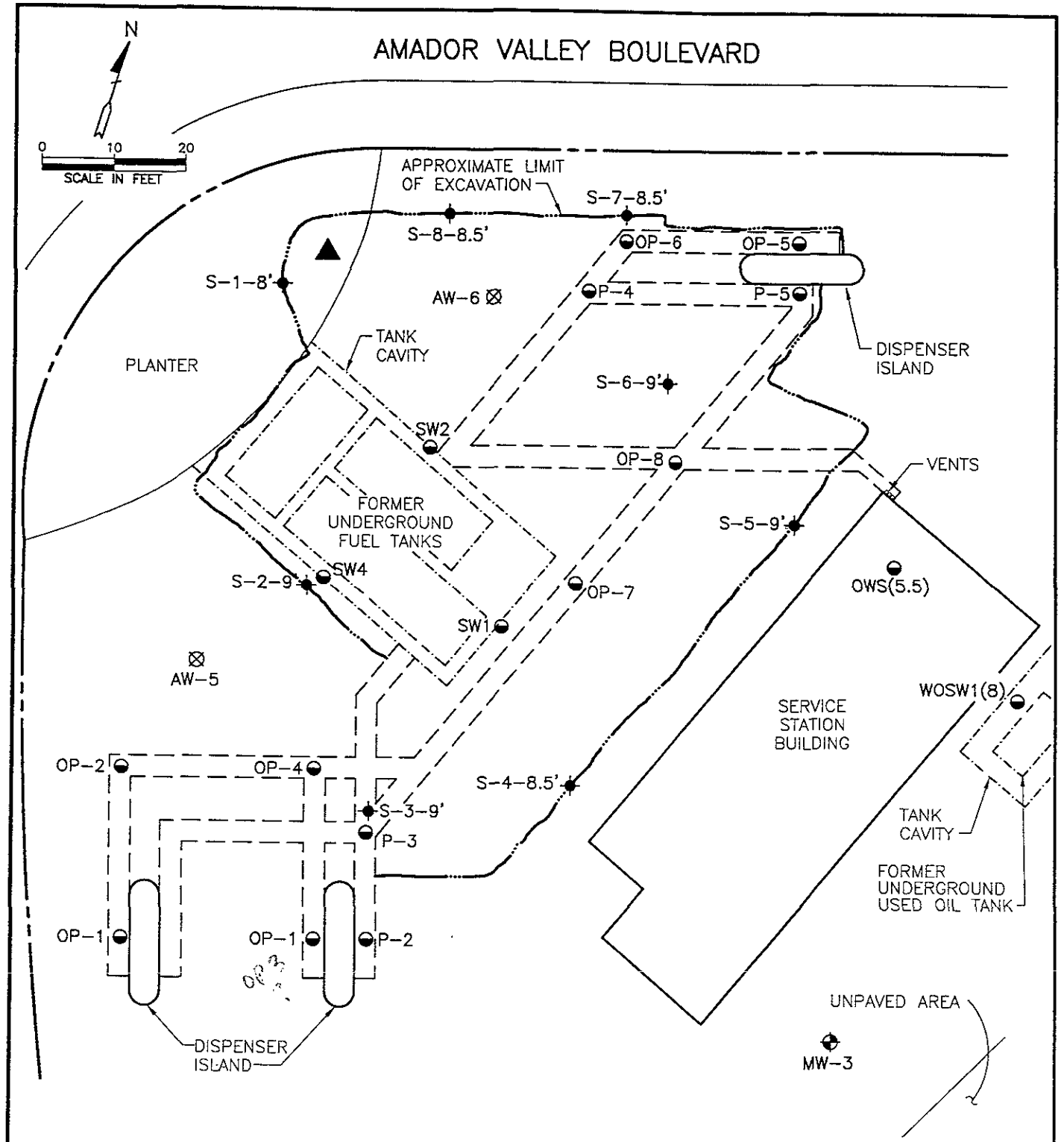
Sample ID	Date Collected	Sample Depth (feet)	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-Benzene (ppm)	Xylenes (ppm)	MTBE (ppm)	TPHd (ppm)	LEAD (ppm)	HVOCs (ppm)	SVOCs (ppm)
WASTE OIL UST PIT STOCKPILE												
Comp WO	7/30/98	NA	ND	ND	ND	ND	ND	ND	ND	5.6	ND	ND
GASOLINE UST PIT STOCKPILE												
Comp A	7/30/98	NA	ND	ND	0.012	ND	0.024	ND	NR	5.5	NR	NR
Comp B	7/30/98	NA	ND	ND	0.0072	ND	0.015	ND	NR	4.1	NR	NR
PRODUCT LINE STOCKPILE												
Comp C	8/7/98	NA	1.0[7]	ND	0.0075	ND	0.24	ND	NR	8.8	NR	NR

Sample ID	Date Collected	Sample Depth (feet)	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-Benzene (ppb)	Xylenes (ppb)	MTBE (ppb)	TPHd (ppb)	LEAD (ppm)	HVOCs (ppb)	SVOCs (ppb)
GASOLINE UST PIT EXCAVATION (WATER)												
Water-FT	7/28/98	NA	10,000	450	2,000	210	1,300	16,000	NR	ND	NR	NR
WASTE OIL UST PIT EXCAVATION (WATER)												
Water-WO	7/28/98	NA	ND	ND	ND	ND	ND	120	270[1]	ND	ND	ND

Sample ID	Date Collected	Sample Depth (feet)	O&G (ppm)	Chromium (ppm)	Nickel (ppm)	Zinc (ppm)	Cadmium (ppm)
WOSW1 (8)	7/28/98	8.0	ND	33	42	38	ND
Water-WO	7/28/98	NA	8.7	0.12	0.20	0.14	ND
OWS (5 5)	7/30/98	5.5	2,700	ND	ND	1.5	ND
Comp WO	7/30/98	NA	ND	6.8	41	28	ND

cont Table 5

FIG 8



LEGEND

- GROUNDWATER MONITORING WELL
- BP OIL SOIL SAMPLE LOCATION
- TOSCO SOIL SAMPLE LOCATION
- TANK CAVITY WELL
- DESTROYED WELL
- PRODUCT LINE TRENCH
- LIMIT OF EXCAVATION

FIGURE 3

SOIL SAMPLE LOCATION MAP

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

PROJECT NO. 10-017

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

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

ALISTO PROJECT NO. 10-017

SOIL SAMPLE ID	SAMPLE DEPTH (feet)	DATE OF SAMPLING	TPH-G (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	MTBE (mg/kg)	LAB
S-1	8	08/19/98	0.05	ND<0.001	ND<0.002	ND<0.002	ND<0.002	ND<0.1	SPL
S-2	9	08/19/98	ND<0.05	ND<0.001	ND<0.002	ND<0.002	ND<0.002	ND<0.1	SPL
S-3	9	08/19/98	1.2	0.13	0.019	0.011	0.0255	0.17	SPL
S-4	8 5	08/19/98	130	0.26	ND<0.2	2.3	10.3	ND<10	SPL
S-5	9	08/25/98	0.73	0.021	ND<0.01	0.012	ND<0.01	0.46	SPL
S-6	9	08/25/98	540	1.8	0.96	8.7	23.6	ND<5.0	SPL
S-7	8.5	08/25/98	1.0	0.0076	0.0037	0.010	0.0185	ND<0.1	SPL
S-8	8 5	08/25/98	ND<0.05	ND<0.001	ND<0.002	ND<0.002	ND<0.002	ND<0.1	SPL

ABBREVIATIONS:

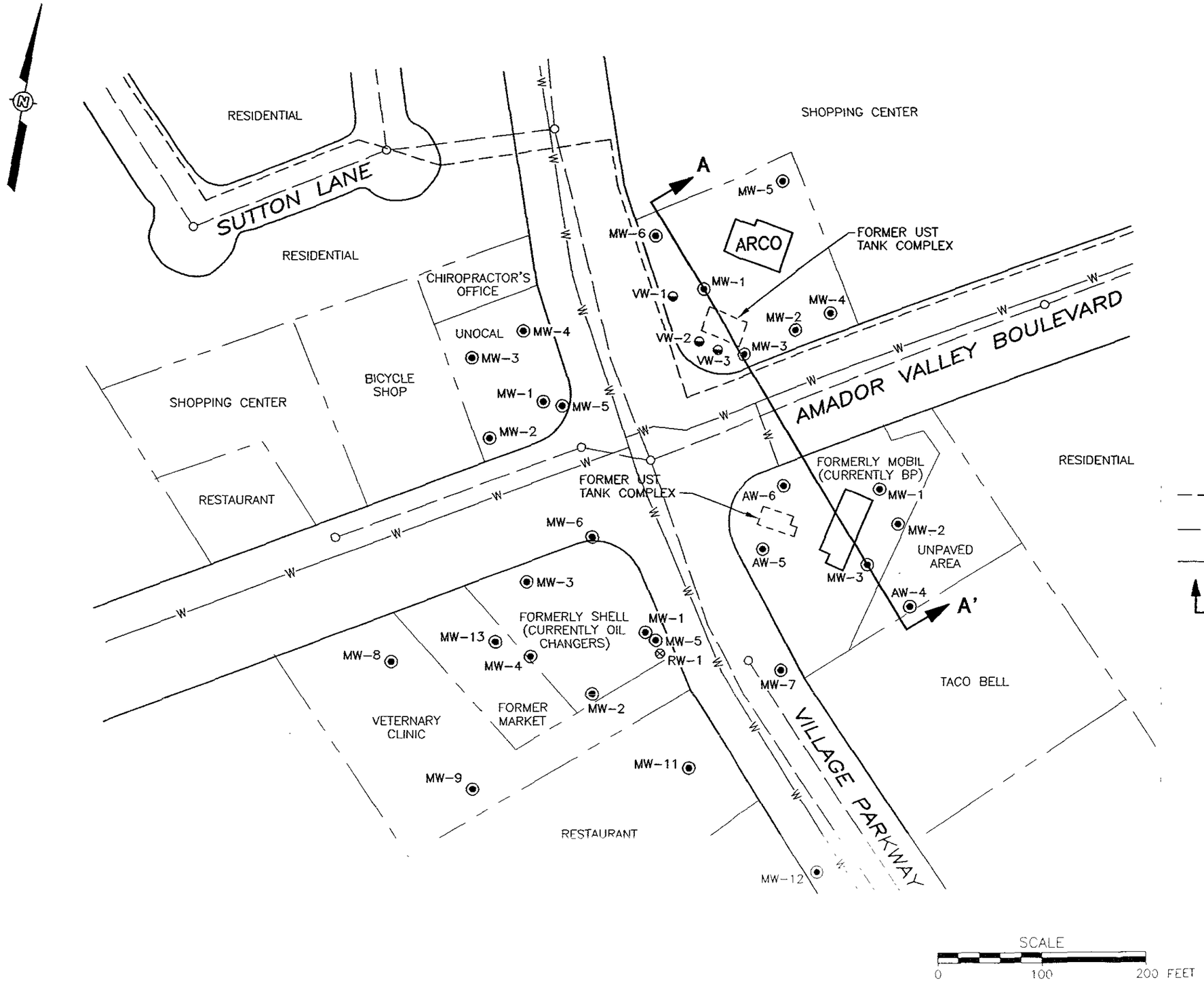
TPH-G	Total petroleum hydrocarbons as gasoline
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
MTBE	Methyl tert butyl ether
mg/kg	Milligrams per kilogram
ND	Not detected above reported detection limit
SPL	Southern Petroleum Laboratories

F\0\10-017\10-017S WQ2

09-Oct-98

TABLE 6

DRAWN BY K Black | 10-11-99 | NUMBER



EXPLANATION

- Groundwater monitoring well
- Vapor extraction well
- Recovery well
- Storm drain
- Sanitary sewer
- Water line
- Line of cross section

IT CORPORATION

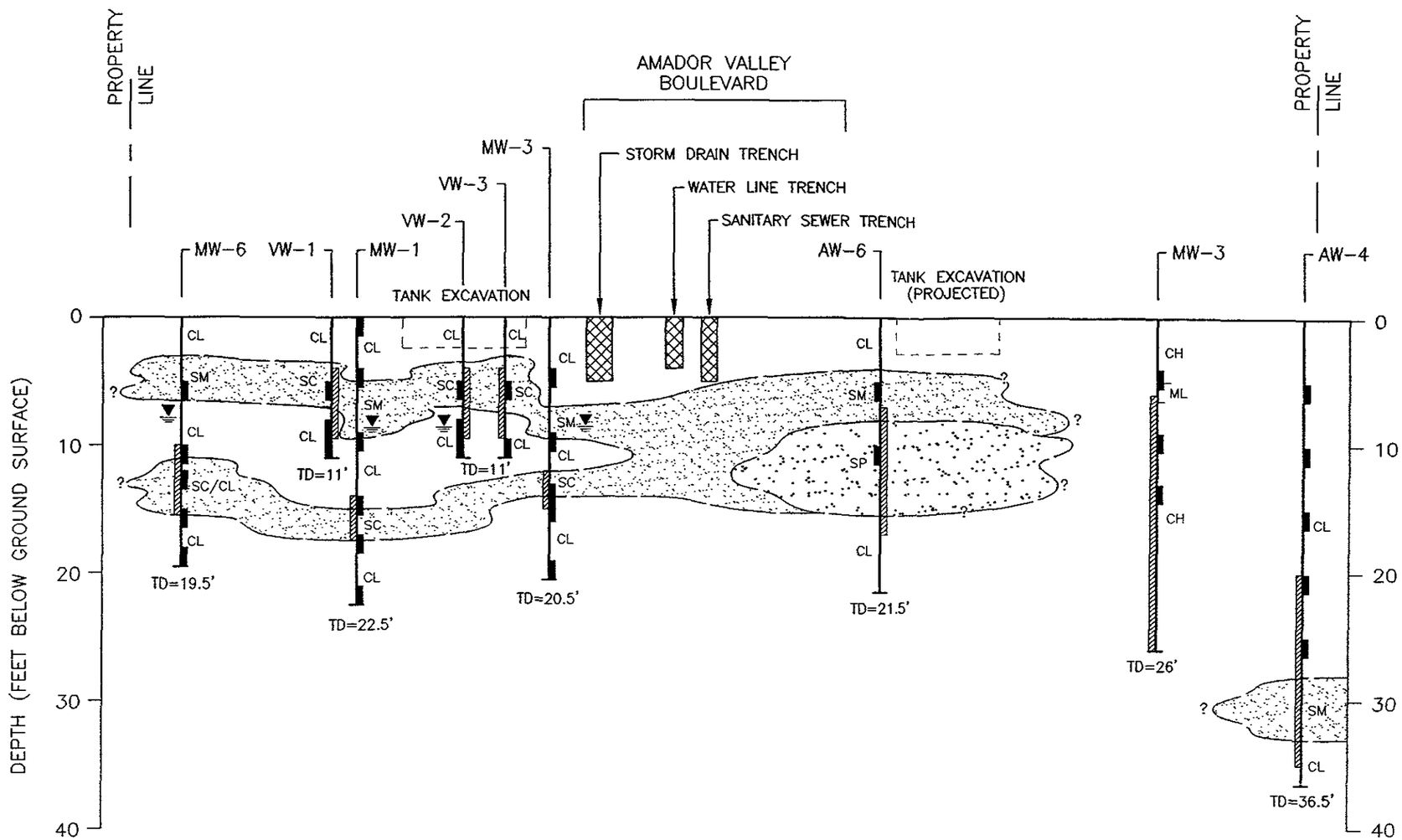
ARCO PRODUCTS COMPANY
SERVICE STATION 6041

FIGURE 1
SITE PLAN

7249 VILLAGE PARKWAY
DUBLIN, CALIFORNIA

FIG 9A

DRAWN BY	PROJECT NUMBER
K Block 10-11-99	791669



EXPLANATION

- CLAY AND SILT (CL, CH, ML)
- SAND WITH FINES (SC, SM)
- SAND (SP)
- Lithologic contact
- MW-3 Boring/well designation
- Bore hole
- Sample interval
- Screened interval
- Static water level
- TD=26' Total depth (feet)

NOTE: Depth to water measurements as of 2-17-99. Recent groundwater monitoring data was not available for all wells.

SCALE
0 50 100 FEET
(HORIZONTAL)

IT CORPORATION

ARCO PRODUCTS COMPANY
SERVICE STATION 6041

FIGURE 2
CROSS SECTION A-A'

7249 VILLAGE PARKWAY
DUBLIN, CALIFORNIA

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 (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	HVOC (ug/l)	DO (ppm)	LAB
MW-1	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	---	7500	ND	---	SUP
MW-1	08/23/91	335.17	9.98	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	9.66	325.51	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---
MW-1 (d)	11/18/94	335.17	8.65	326.52	---	---	---	---	---	---	---	---	---	6.5	PACE
MW-1	02/15/95	335.17	6.56	328.61	ND<50 (e)	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	---
MW-1	05/24/95	335.17	6.80	328.37	---	---	---	---	---	---	---	---	---	---	ATI
MW-1	08/29/95	335.17	8.72	326.45	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0 (f)	---	---	8.7	ATI
MW-1	11/28/95	335.17	9.54	325.63	---	---	---	---	---	---	---	---	---	---	---
MW-1	02/26/96	335.17	5.60	329.57	---	---	---	---	---	---	---	---	---	---	---
MW-1	05/23/96	335.17	7.13	328.04	---	---	---	---	---	---	---	---	---	---	---
MW-1	08/23/96	335.17	6.71	328.46	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	5.7	SPL
MW-1	12/02/96	335.17	8.58	326.59	---	---	---	---	---	---	---	---	---	---	---
MW-1	05/16/97	335.17	7.78	327.39	---	---	---	---	---	---	---	---	---	---	---
MW-1	08/22/97	335.17	8.80	326.37	---	---	---	---	---	---	---	---	---	---	---
MW-1	02/12/98	335.17	4.40	330.77	---	---	---	---	---	---	---	---	---	---	---
MW-1	02/23/98	335.17	4.31	330.86	---	---	---	---	---	---	---	---	---	---	---

Table 1

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 (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	HVOC (ug/l)	DO (ppm)	LAB
MW-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	324.90	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	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	7.55	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	6.46	328.12	ND<50	---	ND<0.5	ND<0 5	ND<0.5	ND<0.5	---	---	---	---	PACE
MW-2	05/21/93	334.58	6.96	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	---	---	---	---	---	---	---	---	---	---	---
MW-2	02/15/95	334.58	5.97	328.61	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	ATI
MW-2	05/24/95	334.58	6.50	328.08	---	---	---	---	---	---	---	---	---	---	---
MW-2	08/29/95	334.58	8.35	326.23	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0 (f)	---	---	8.7	ATI
MW-2	11/28/95	334.58	9.05	325.53	---	---	---	---	---	---	---	---	---	---	---
MW-2	02/26/96	334.58	4.49	330.09	---	---	---	---	---	---	---	---	---	---	---
MW-2	05/23/96	334.58	6.95	327.63	---	---	---	---	---	---	---	---	---	---	---
MW-2	08/23/96	334.58	6.53	328.05	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	5 3	SPL
MW-2	12/02/96	334.58	8.40	326.18	---	---	---	---	---	---	---	---	---	---	---
MW-2	05/16/97	334.58	7.57	327.01	---	---	---	---	---	---	---	---	---	---	---
MW-2	08/22/97	334.58	8.55	326.03	---	---	---	---	---	---	---	---	---	---	---
MW-2	02/12/98	334.58	4.10	330.48	---	---	---	---	---	---	---	---	---	---	---
MW-2	02/23/98	334.58	4.03	330.55	---	---	---	---	---	---	---	---	---	---	---

Cont. Table 1

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 (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	HVOC (ug/l)	DO (ppm)	LAB
MW-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	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<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	---	---	---	---	---
MW-3 (d)	11/18/94	335.13	8.62	326.51	---	---	---	---	---	---	---	---	---	7.5	PACE
MW-3	02/15/95	335.13	6.61	328.52	ND<50 (e)	---	ND<0.50	ND<0.50	ND<0 50	ND<1.0	---	---	---	---	---
MW-3	05/24/95	335 13	6.83	328.30	---	---	---	---	---	---	---	---	---	---	ATI
MW-3	08/29/95	335.13	8.88	326.25	ND<50	---	ND<0.50	ND<0 50	ND<0.50	ND<1.0	ND<5.0 (f)	---	---	---	---
MW-3	11/28/95	335.13	8.57	326.56	---	---	---	---	---	---	---	---	---	9.1	ATI
MW-3	02/26/96	335.13	5.15	329.98	---	---	---	---	---	---	---	---	---	---	---
MW-3	05/23/96	335.13	7.26	327.87	---	---	---	---	---	---	---	---	---	---	---
MW-3	08/23/96	335.13	6.84	328.29	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	6.8	SPL
MW-3	12/02/96	335.13	8.61	326.52	---	---	---	---	---	---	---	---	---	---	---
MW-3	05/16/97	335.13	7.93	327.20	---	---	---	---	---	---	---	---	---	---	---
MW-3	08/22/97	335.13	8.97	326.16	---	---	---	---	---	---	---	---	---	---	---
MW-3	02/12/98	335.13	4.22	330.91	---	---	---	---	---	---	---	---	---	---	---
MW-3	02/23/98	335.13	4.13	331.00	---	---	---	---	---	---	---	---	---	---	---

cont. Table 1

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 (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	HVOC (ug/l)	DO (ppm)	LAB
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
AW-4 (g)	02/10/93	333.41	---	---	---	---	---	---	---	---	---	---	---	---	---
AW-4 (g)	05/21/93	333.41	---	---	---	---	---	---	---	---	---	---	---	---	---
AW-4 (g)	08/12/93	333.41	---	---	---	---	---	---	---	---	---	---	---	---	---
AW 4	11/11/93	333.41	8.00	325.41	---	---	---	---	---	---	---	---	---	---	---
AW-4	11/15/93	---	---	---	---	---	---	---	---	---	---	---	---	---	---
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	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	PACE
AW-4	06/20/94	333.41	5.70	327.71	---	---	---	---	---	---	---	---	---	---	---
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	---	---	---	2.0	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	---	---	---	6.1	PACE
AW-4	02/15/95	333.41	4.91	328.50	ND<50	---	ND<0 5	ND<0.5	ND<0.5	ND<0.5	---	---	---	2.3	PACE
AW-4	05/24/95	333 41	5.32	328.09	ND<50 (e)	---	ND<0.50	ND<0 50	ND<0.50	ND<1.0	---	---	---	---	ATI
AW-4	08/29/95	333.41	7.26	326.15	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	4.9	ATI
AW-4	11/28/95	333.41	7.81	325.60	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0 (f)	---	---	9.1	ATI
AW-4	02/26/96	333.41	3.85	329.56	---	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0 (f)	---	---	5 3	ATI
AW-4	05/23/96	333.41	5.17	328.24	---	---	---	---	---	---	---	---	---	---	---
AW-4	08/23/96	333.41	4.73	328.68	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	5.7	SPL
AW-4	12/02/96	333 41	6.43	326.98	---	---	---	---	---	---	---	---	---	---	---
AW-4	05/16/97	333.41	5.87	327.54	---	---	---	---	---	---	---	---	---	---	---
AW-4	08/22 97	333.41	6.92	326.49	---	---	---	---	---	---	---	---	---	---	---
AW-4	02/12/98	333.41	3.99	329.42	---	---	---	---	---	---	---	---	---	---	---
AW-4	02/23/98	333.41	3.86	329.55	---	---	---	---	---	---	---	---	---	---	---

Cont Table 1

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 (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	HVOC (ug/l)	DO (ppm)	LAB
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 (h)	11/10/92	---	---	---	86	---	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	140 (f)	---	---	---	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	670 (f)	---	---	---	PACE
AW-5	05/17/94	334.81	8.16	326.65	---	---	---	---	---	---	---	---	---	---	---
AW-5	08/20/94	334.81	8.26	326.55	1300	---	0.9	ND<0.5	0.5	2.2	240 (f)	---	---	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 (h)	11/21/94	---	---	---	660	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	PACE
AW-5	02/15/95	334.81	6.65	328.16	220 (e)	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	ATI
AW-5	05/24/95	334.81	7.27	327.54	220 (e)	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	5.2	ATI
AW-5	08/29/95	334.81	8.70	326.11	190	---	ND<1.0	ND<1.0	ND<1.0	ND<2.0	820 (f)	---	---	8.5	ATI
AW-5	11/28/95	334.81	9.32	325.49	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	700 (f)	---	---	4.1	ATI
AW-5	02/26/96	334.81	7.13	327.68	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	670 (f)	---	---	8.1	SPL
AW-5	05/23/96	334.81	8.58	326.23	60	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	620	---	---	4.9	SPL
AW-5	08/23/96	334.81	8.18	326.63	520	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	520	---	---	5.1	SPL
QC-1 (h)	08/23/96	---	---	---	490	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	280	---	---	---	SPL
AW-5	12/02/96	334.81	7.90	326.91	390	---	ND<0.5	ND<1	ND<1	ND<1	600	---	---	5.6	SPL
QC-1 (h)	12/02/96	---	---	---	360	---	ND<0.5	ND<1	ND<1	ND<1	600	---	---	---	SPL
AW-5	05/16/97	334.81	9.24	325.57	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	4.9	SPL
QC-1 (h)	05/16/97	---	---	---	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10 *	---	---	---	SPL
AW-5	08/22/97	334.81	10.27	324.54	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	4.3	SPL
AW-5	02/12/98	334.81	7.57	327.24	---	---	---	---	---	---	---	---	---	---	---
AW-5	02/23/98	334.81	7.45	327.36	5000	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	5600	---	---	3.8	SPL

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 (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	HVOC (ug/l)	DO (ppm)	LAB
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	14000 (f)	---	---	---	PACE
QC-1 (h)	02/10/93	---	---	---	12000	---	520	15	13	610	17000 (f)	---	---	---	PACE
AW-6	05/21/93	334.90	7.64	327.26	7900	---	900	ND<12	20	ND<12	8000 (f)	---	---	---	PACE
QC-1 (h)	05/21/93	---	---	---	7500	---	620	ND<10	13	ND<10	7700 (f)	---	---	---	PACE
AW-6	08/12/93	334.90	8.64	326.26	26000	---	450	14	250	48	---	---	---	---	PACE
QC-1 (h)	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 (h)	11/12/93	---	---	---	63000	---	4100	360	290	1000	---	---	---	---	PACE
AW-6	02/11/94	334.90	8.04	326.86	140000	---	21000	25000	1100	13000	50000 (f)	---	---	---	PACE
QC-1 (h)	02/11/94	---	---	---	110000	---	17000	21000	770	10000	47000 (f)	---	---	---	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	6400 (f)	---	---	2.1	PACE
QC-1 (h)	06/20/94	---	---	---	41000	---	2800	1400	1900	8900	6600 (f)	---	---	---	PACE
AW-6	10/04/94	334.90	9.33	325.57	14000	---	2100	77	1000	760	---	---	---	6.1	PACE
QC-1 (h)	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
AW-6	02/15/95	334.90	6.19	328.71	25000 (e)	---	53	1400	1200	4400	---	---	---	---	ATI
QC-1 (h)	02/15/95	---	---	---	25000 (e)	---	53	1400	1200	4400	---	---	---	---	ATI
AW-6	05/24/95	334.90	6.87	328.03	14000 (e)	---	730	140	570	1100	---	---	---	5.7	ATI
QC-1 (h)	05/24/95	---	---	---	15000 (e)	---	750	140	570	1100	---	---	---	---	ATI
AW-6	08/29/95	334.90	8.38	326.52	8300	---	430	ND<10	340	40	2600 (f)	---	---	8.9	ATI
QC-1 (h)	08/29/95	---	---	---	9400	---	430	12	360	37	2200 (f)	---	---	---	ATI
AW-6	11/28/95	334.90	9.20	325.70	4700	---	300	13	61	ND<20	3600	---	---	3.0	ATI
QC-1 (h)	11/28/95	---	---	---	5200	---	310	12	78	ND<20	3800	---	---	---	ATI
AW-6	02/26/96	334.90	5.78	329.12	3600	---	17	29	110	1100	68	---	---	8.0	SPL
QC-1 (h)	02/26/96	---	---	---	3600	---	17	28	100	1050	63	---	---	---	SPL
AW-6	05/23/96	334.90	6.94	327.96	1800	---	390	ND<2.5	76	49	560	---	---	5.2	SPL
QC-1 (h)	05/23/96	---	---	---	1800	---	380	ND<2.5	72	44	550	---	---	---	SPL
AW-6	08/23/96	334.90	6.50	328.40	2300	---	54	ND<1.0	ND<1.0	ND<1.0	4240	---	---	6.3	SPL
AW-6	12/02/96	334.90	8.46	326.44	1500	---	27	ND<1	ND<1	ND<1	1700	---	---	7.2	SPL
AW-6	05/16/97	334.90	7.55	327.35	110	---	0.5	ND<1.0	ND<1.0	ND<1.0	33	---	---	4.3	SPL
AW-6	08/22/97	334.90	8.58	326.32	100	---	16	ND<1.0	ND<1.0	3	2900	---	---	6.3	SPL
QC-1 (h)	08/22/97	---	---	---	100	---	18	ND<1.0	ND<1.0	ND<1.0	2500 (i)	---	---	---	SPL
AW-6	02/12/98	334.90	4.50	330.40	---	---	---	---	---	---	---	---	---	---	---
AW-6	02/23/98	334.90	5.02	329.88	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	5.7	SPL
QC-1 (h)	02/23/98	---	---	---	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	SPL

cont. Table 1

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

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)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
TC-1	03/21/01	---	10.79	---	---	440	---	ND<0.5	ND<0.5	ND<0.5	ND<1.5	508	---	PACE
QC-2 (j)	11/10/92	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
QC-2 (j)	02/10/93	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (j)	05/21/93	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (j)	08/12/93	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC 2 (j)	11/12/93	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (j)	02/11/94	--	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (j)	06/20/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (j)	10/04/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (j)	11/21/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC 2 (j)	02/15/95	---	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2 (j)	05/24/95	---	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2 (j)	08/29/95	---	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2 (j)	11/28/95	---	---	---	---	ND<50	---	ND<0.50	1.6	ND<0.50	1.2	ND<5.0 (f)	---	ATI
QC-2 (j)	02/26/96	---	---	---	---	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	SPL
QC-2 (j)	05/23/96	--	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<10	---	SPL

Cont. Table 1

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

ABBREVIATIONS

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

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 lev

(b) Groundwater elevations in feet above mean sea level.

(c) Methylene chloride.

(d) Groundwater samples collected on November 21, 1994.

(e) MTBE peak present. See historical MTBE documentation in Appendix C of Alisto report 10-017-06-003.

(f) A copy of the documentation for this data is included in Appendix C of Alisto report 10-017-06-003.

(g) Well buried.

(h) Blind duplicate.

(i) Concentration revised by analytical laboratory after correction of incorrect calculation.

(j) Travel blank.

Blaine Tech Services, Inc. began routine monitoring on March 21, 2001. Previous data supplied by Alisto Engineering Group.

Cont. Table 1

cont. Table 7

TABLE 2 - SUMMARY OF RESULTS OF TANK CAVITY WATER SAMPLING
SERVICE STATION NO. 11116
7197 VILLAGE PARKWAY, DUBLIN, CALIFORNIA

ALISTO PROJECT NO. 10-017

CONSTITUENTS	UNITS	MDL	W-1
DATE OF SAMPLING			08/02/98
Cyanide-Reactive	mg/kg	1	ND
Sulfide-Reactive	mg/kg	10	ND
pH	pH Units	—	7.22
Flash Points	Degree F	—	>210
Antimony, Sb	mg/l	0.1	ND
Arsenic, As	mg/l	0.1	ND
Barium, Ba	mg/l	0.005	0.473
Beryllium, Be	mg/l	0.003	ND
Cadmium, Cd	mg/l	0.005	ND
Chromium, total, Cr	mg/l	0.01	ND
Cobalt, Co	mg/l	0.01	ND
Copper, Cu	mg/l	0.01	0.01
Lead, total, Pb	mg/l	0.005	ND
Mercury, Hg	mg/l	0.0002	ND
Molybdenum, Mo	mg/l	0.02	0.1
Nickel, Ni	mg/l	0.02	0.03
Selenium, Se	mg/l	0.1	ND
Silver, Ag	mg/l	0.01	ND
Thallium, Tl	mg/l	0.1	ND
Vanadium, V	mg/l	0.005	0.02
Zinc, Zn	mg/l	0.02	1.16
Benzene	ug/l	5	18
MTBE	ug/l	250	4400
LAB			SPL

ABBREVIATIONS

mg/l	Milligrams per liter
ug/l	Micrograms per liter
MDL	Method detection limit
MTBE	Methyl tert-butyl ether
—	Not applicable
ND	Not detected above reported detection limit
SPL	SPL Laboratory

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents
1995 - Present**

ARCO Service Station 6041
7249 Village Parkway, Dublin, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation (ft-MSL)	Date Sampled	TPH Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
Shell MW-6	12-27-00	NR	9.13	0.00	NR	12-27-00	74.7	<0.500	<0.500	<0.500	<0.500	<2.50		1.30	P
DUP	12-27-00	NR	NR	NR	NR	12-27-00	79.3	<0.500	<0.500	<0.500	<0.500	<2.50		NR	
Shell MW-6	**02-09-01**	**NR**	**9.05**	**0.00**	**NR**	**02-09-01**	**<50.0**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**<2.50**		**1.29**	**P**
Shell MW-7	12-27-00	NR	6.45	0.00	NR	12-27-00	<50.0	<0.500	0.696	<0.500	0.795	<2.50		1.33	P
Shell MW-7	**02-09-01**	**NR**	**6.39**	**0.00**	**NR**	**02-09-01**	**<50.0**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**<2.50**		**1.13**	**P**

Notes

TOC top of casing

ft-MSL elevation in feet relative to mean sea level

TPH total petroleum hydrocarbons, California DHS LUFT Method

BTEX benzene, toluene, ethylbenzene, total xylenes by EPA method 8021B. (EPA method 8020 prior to 03/01/00).

MTBE Methyl tert-butyl ether

EPA United States Environmental Protection Agency

* EPA method 8020 prior to 03/01/00

µg/L micrograms per liter

mg/L milligrams per liter

ND none detected

NR not reported, data not available or not measurable

not analyzed or not applicable

< denotes concentration not present at or above laboratory detection limit stated to the right.

** For previous historical groundwater elevation and analytical data please refer to Fourth Quarter 1995 Groundwater Monitoring Program Results, ARCO Service Station 6041, Dublin, California, *(UNOCAL, February 26, 1996)*

Table 8

TABLE E-1. VADOSE-ZONE SOIL SCREENING LEVELS FOR PROTECTION OF INDOOR AIR QUALITY (volatile chemicals only)

CHEMICAL	Physical State		Molecular Weight	Henry's Law constant (atm-m^3/mol)	Residental Soil (Coarse Soils) (mg/kg)	Residental Soil (Fine Soils) (mg/kg)	Occupational Soil (Coarse Soils) (mg/kg)	Occupational Soil (Fine Soils) (mg/kg)
ACENAPHTHENE	V	S	154	1.55E-04	1.2E+03	3.3E+05	4.0E+03	>1E+06
ACENAPHTHYLENE	V	S	152	1.45E-03	-	-	-	-
ACETONE	V	L	58	3.88E-05	4.3E+01	3.8E+03	1.4E+02	1.3E+04
ALDRIN	NV	S	365	4.96E-05	-	-	-	-
ANTHRACENE	V	S	178	6.51E-05	7.0E+04	>1E+06	>1000000	>1000000
ANTIMONY	NV	S	122	-	-	-	-	-
ARSENIC	NV	S	75	-	-	-	-	-
BARIUM	NV	S	137	-	-	-	-	-
BENZENE	V	L	78	5.56E-03	**0.18	**0.18	**0.39	**0.39
BENZO(a)ANTHRACENE	NV	S	228	5.50E-03	-	-	-	-
BENZO(b)FLUORANTHENE	NV	S	252	1.22E-05	-	-	-	-
BENZO(k)FLUORANTHENE	NV	S	252	3.87E-05	-	-	-	-
BENZO(g,h,i)PERYLENE	NV	S	276	1.44E-07	-	-	-	-
BENZO(a)PYRENE	NV	S	252	4.90E-07	-	-	-	-
BERYLLIUM	NV	S	9	-	-	-	-	-
BIPHENYL 1,1	V	S	150	3.00E-04	-	-	-	-
BIS(2-CHLOROETHYL)ETHER	V	L	142	1.80E-05	1.5E-02	3.1E+00	6.1E-02	1.3E+01
BIS(2-CHLOROISOPROPYL)ETHER	V	L	171	1.10E-04	-	-	-	-
BIS(2-ETHYLHEXYL)PHTHALATE	NV	S	391	3.00E-07	-	-	-	-
BORON	NV	S	11	-	-	-	-	-
BROMODICHLOROMETHANE	V	L	164	1.60E-03	2.5E-02	9.5E-01	9.8E-02	4.0E+00
BROMOFORM	NV	S	253	5.32E-04	-	-	-	-
BROMOMETHANE	V	G	95	6.20E-03	-	-	-	-
CADMIUM	NV	S	112	-	-	-	-	-
CARBON TETRACHLORIDE	V	L	154	3.00E-02	2.1E-02	5.9E-02	7.4E-02	2.5E-01
CHLORDANE	NV	S	410	4.79E-05	-	-	-	-

Table 9

BORING LOG

Project No. KEI-P88-1206	Boring & Casing Diameter 9" 2"	Logged By D.L.
Project Name Mobil, Dublin, Village Pkwy.	Well Head Elevation N/A	Date Drilled 8/29/89
Boring No. MW1	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (ft) Samples	Stratigraphy USCS	Description
		0		A.C. Pavement Clay, sand and gravel: fill. Gravel to 8".
			CH	Clay, high plasticity, stiff, moist, black.
9/18/24		5	ML SM	Silt, 10-15% clay, stiff, moist, dark gray. Silty sand, dense, moist, dark gray.
6/7/10		10	CH	Clay, high plasticity, stiff, moist, black, with cementation from 9-14', blocky. Color change at 11' to very dark gray.
6/8/9	▼			
		15		Clay, high plasticity, trace-20% silt and sand, stiff, moist, dark olive gray to very dark gray.
		20		

BORING LOG

Project No. KEI-P88-1206	Boring & Casing Diameter 9" 2"	Logged By D.L.
Project Name Mobil, Dublin, Village Pkwy.	Well Head Elevation N/A	Date Drilled 8/29/89
Boring No. MW1	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (ft) Samples	Stratigraphy USCS	Description
			CH	Clay, as above.
				Silty clay, high plasticity, stiff, moist, olive gray.
		25		
		30		
		35		
		40		TOTAL DEPTH 26'

BORING LOG

Project No. KEI-P88-1206	Boring & Casing Diameter 9" 2"	Logged By D.L.
Project Name Mobil, Dublin, Village Pkwy.	Well Head Elevation N/A	Date Drilled 8/29/89
Boring No. MW3	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (ft) Samples	Stratigraphy USCS	Description
		0		A.C. Pavement Clay, sand and gravel: fill.
			CH	Clay, high plasticity, stiff, moist, black, silty above 3'.
10/16/22		5	ML	Silt, 10-15% clay, stiff, moist, dark gray.
				Clay, high plasticity, stiff, moist, very dark gray to black.
5/5/6		10	CH	Sandy clay, high plasticity, soft, moist to very moist, very dark gray, with cemented root holes, increasing with depth.
9/9/12				Silty clay, high plasticity, trace sand, firm, moist, dark olive gray, with cemented root holes, trace gravel below 13'.
4/7/9	▼			
		15		
				Clay, high plasticity, very stiff, moist, dark olive gray to very dark gray.
9/12/17		20		

BORING LOG

Project No. KEI-P88-1206	Boring & Casing Diameter 9" 2"	Logged By D.L.
Project Name Mobil, Dublin, Village Pkwy.	Well Head Elevation N/A	Date Drilled 8/29/89
Boring No. MW3	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (ft) Samples	Stratigraphy USCS	Description
				Clay, as above.
			CH	Silty clay, high plasticity, very stiff, moist, olive gray.
		25		
		30		
		35		
		40		TOTAL DEPTH 26'

ALTON GEOSCIENCE, Inc.
LOG OF EXPLORATORY BORING

PROJECT NO. 30-095 DATE DRILLED 11/6/90
CLIENT Mobil Oil Corporation
LOCATION 7197 Village Pkwy, Dublin
LOGGED BY B. Nagle APPROVED BY

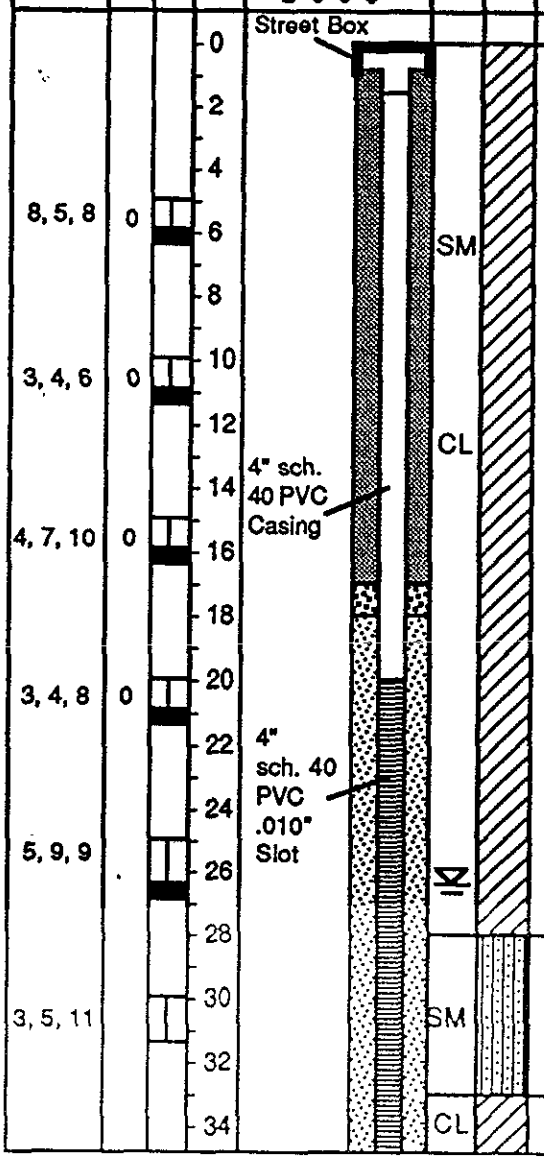
BORING NO. AW-4
WELL NO. AW-4

FIELD SKETCH OF BORING LOCATION

TOP OF CASING ELEVATION 333.44

DRILLING METHOD Hollow stem auger HOLE DIAM. 10"
SAMPLER TYPE Modified split spoon
CASING DATA Perforations: 20-35'
DRILLER West Hazmat

WATER LEVEL	26'	8.51'	
DATE	11/6/90	11/15/90	
TIME	0930		



BLOWS PER FOOT(ft)	CGI (PPM)	SAMPLE	DEPTH	WELL CONSTRUCTION OR BORING CLOSURE	USCS	PROFILE	DESCRIPTION
			0				
			2				
			4				SILTY CLAY; brown, damp to moist, moderate plasticity, stiff; minor lens of silty sand
8, 5, 8	0		6		SM		
			8				
3, 4, 6	0		10				Appearance of abundant rootlets; no sand lens
			12		CL		
			14				
4, 7, 10	0		16				Appearance of occasional gravels to 1/2-inch diameter; no rootlets
			18				
3, 4, 8	0		20				Appearance of minor sand; moisture change to moist
			22				
			24				
5, 9, 9			26				Color change to mottled grayish brown and brown; moisture change to wet
			28				Softer drilling at 28 feet
3, 5, 11			30		SM		SILTY SAND; light brown, wet, medium dense
			32				
			34		CL		SILTY CLAY; brown, damp to moist, low plasticity, very stiff

ALTON GEOSCIENCE, Inc.
LOG OF EXPLORATORY BORING

PROJECT NO. 30-095 DATE DRILLED 11/6/90
CLIENT Mobil Oil Corporation, USA
LOCATION 7197 Village Pkwy, Dublin
LOGGED BY B. Nagle APPROVED BY

BORING NO. AW-4
WELL NO. AW-4

FIELD SKETCH OF BORING LOCATION

TOP OF CASING ELEVATION 333.4

DRILLING METHOD Hollow stem auger HOLE DIAM. 10"
SAMPLER TYPE Modified split spoon
CASING DATA Perforations: 20-35
DRILLER West Hazmat

BLOWS PER FOOT(ft)	OVA (PPM)	SAMPLE	DEPTH	WELL CONSTRUCTION OR BORING CLOSURE	USCS	PROFILE	WATER LEVEL			
							DATE			
							TIME			
							DESCRIPTION			
			34	End Cap			SILTY CLAY; brown, damp to moist, low plasticity, very stiff			
5, 11, 12			36							
			38				Boring termiated at 36.5'			
			40				Free ground water encountered at approximately 26.5 feet below grade.			
			42							
			44							
			46							
			48							
			50							

Portland Cement
Sand #3 Lonestar
Bentonite Pellets
Driven interval
Sample
Water level encountered during

ALTON GEOSCIENCE, Inc.
LOG OF EXPLORATORY BORING

PROJECT NO. 30-095 DATE DRILLED 11/6/90
CLIENT Mobil Oil Corporation
LOCATION 7197 Village Pkwy, Dublin
LOGGED BY B. Nagle APPROVED BY

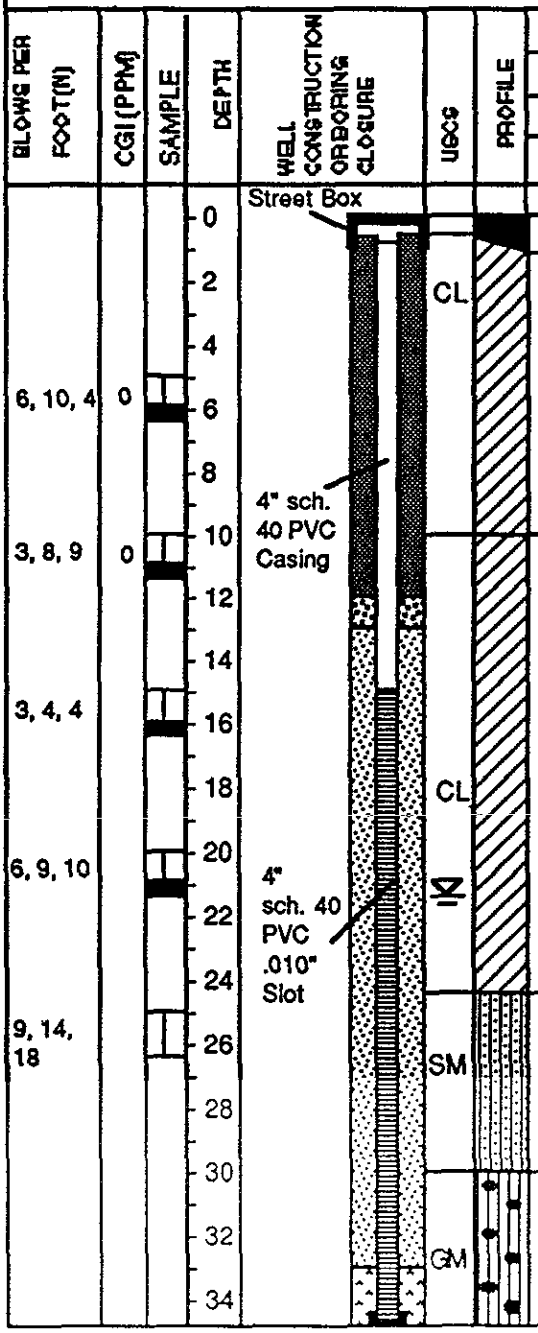
BORING NO. AW-5
WELL NO. AW-5

FIELD SKETCH OF BORING LOCATION

TOP OF CASING ELEVATION 334.81

DRILLING METHOD Hollow stem auger HOLE DIAM. 10"
SAMPLER TYPE Modified split spoon
CASING DATA Perforations: 15-35'
DRILLER West Hazmat

WATER LEVEL	21.5	9.67'	
DATE	11/6/90	11/15/90	
TIME	1200	--	



DESCRIPTION

4" asphalt; 4" base material

SANDY CLAY; dark grayish brown, damp, moderate plasticity, very stiff

SILTY CLAY; very dark brown to black, damp, high plasticity, stiff

Color change to tan; minor coarse sand and rootlets

Color change to dark gray, moisture change to wet at 21.5 feet below grade

SILTY SAND; light brown, wet, medium dense

Unable to sample below 26.5 feet due to flowing sand; abundant gravel in cuttings from below 30 feet

Boring terminated at 35 feet below grade
Free ground water encountered at appoximately 21.5 feet below grade

Portland Cement | Bentonite Pellets | Sample
Sand #3 Lonestar | Native Soil | Driven interval

ALTON GEOSCIENCE, Inc.
LOG OF EXPLORATORY BORING

PROJECT NO. 30-095 DATE DRILLED 11/6/90
CLIENT Mobil Oil Corporation
LOCATION 7197 Village Pkwy, Dublin
LOGGED BY B. Nagle APPROVED BY

BORING NO. AW-6
WELL NO. AW-6

FIELD SKETCH OF BORING LOCATION

TOP OF CASING ELEVATION 334.93

DRILLING METHOD Hollow stem auger HOLE DIAM. 10"
SAMPLER TYPE Modified split spoon
CASING DATA Perforations: 7-17'
DRILLER West Hazmat

WATER LEVEL	11.5'	9.58'	
DATE	11/6/90	11/15/90	
TIME	1400	-	

BLOWS PER FOOT(N)	CGI (PPM)	SAMPLE	DEPTH	WELL CONSTRUCTION OR BORING CLOSURE	USCS	PROFILE	DESCRIPTION
			0	Christy Box			4" asphalt; 4" base material
			2		CL		SILTY CLAY; dark brown, damp, moderate plasticity stiff
			4	4" sch. 40 PVC Casing			
7, 9, 9	0		6		SM		SILTY SAND; light brown, damp, medium dense;very fine grained
			8				
5, 6, 7	0		10				
			12		SP		SAND; gray, wet, loose
			14	4" sch. 40 PVC .010" Slot			
1, 2, 2			16				
			18		CL		SILTY CLAY; brownish-gray, wet, moderate plasticity
			20				
4, 8, 11			22				
			24				
			26				
			28				
			30				
			32				
			34				

Portland Cement
Sand #3 Lonestar
Bentonite Pellets
Driven interval
Sample
Water level encountered during drilling

EXPLORATORY BORING LOG

ensco environmental services, inc.

PROJECT NAME: FORMER SHELL STATION 7194 AMADOR VALLEY BLVD., DUBLIN, CA

BORING NO. MW-6

DATE DRILLED: 8/11/88

LOGGED BY: RAG

PROJECT NUMBER: 1826G

DEPTH (ft.)	SAMPLE No	BLOWS/FOOT 140 ft/lbs.	UNIFIED SOIL CLASSIFICATION	SOIL DESCRIPTION	WATER LEVEL	OVA READING ppm
				Asphalt - 3", baserock - 11"		
1-2			CH	SILTY CLAY, black (10YR 2/1), some fine grained sands, no petroleum odor, high plasticity, moist		
3			CL	SILTY CLAY, very dark gray (10YR 3/1), some dark brown roots, faint petroleum odor, moderate plasticity, stiff, moist		
4			CL-SP	SANDY CLAY and SAND, dark gray 7.5YR 2/0), interbedded, fine grained sands, some roots, faint petroleum odor, stiff to medium dense, moist		0
5	MW-6-1	16				0
6						
7	MW-6-2	10				10
8	MW-6-3	16	CL	SILTY CLAY, black (7.5YR 2/0) with light gray to white claystone/siltstone fragments, some roots, moderate plasticity, petroleum odor, very stiff, moist		130
9				8/26/88, Groundwater level - 9.69 ft.	▼	
10	MW-6-4	18				125
11	MW-6-5	14				
12						
13			CL	SILTY CLAY, dark grayish brown (10YR 4/7), some root holes/burrows, no petroleum odor, moderate plasticity, stiff, very moist		
14				8/11/88, Groundwater encountered - 15 ft.	▽	
15						0
16	MW-6-6	12				
17						
18						
19						0
20	MW-6-7	12				
21						

SUPERVISED AND APPROVED BY R.G./C.E.G. LDP

EXPLORATORY BORING LOG

ensco environmental services, inc.

PROJECT NAME: FORMER SHELL STATION 7194 AMADOR VALLEY BLVD., DUBLIN, CA

BORING NO.: MW-6

DATE DRILLED: 8/11/88

PROJECT NUMBER: 1826G

LOGGED BY: RAG

DEPTH (ft.)	SAMPLE No	BLOWS/FOOT 140 ft/lbs.	UNIFIED SOIL CLASSIFICATION	SOIL DESCRIPTION	WATER LEVEL	OVA READING ppm	
22			CL	SILTY CLAY, dark grayish brown (10YR 4/4), some root hole/burrows, no petroleum odor, moderate plasticity, stiff, very moist			
23							
24	MW-6-8	22	CL	SILTY CLAY, mottled light gray to olive gray (5Y 7/2 to 5Y 5/2), some fine grained sands locally up to 15%, no petroleum odor, moderate plasticity, very stiff, moist		0	
25							
26				*Bottom of boring = 24.5 feet*			
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							

SUPERVISED AND APPROVED BY R.G./C.E.G.

EXPLORATORY BORING LOG

ensco environmental services, inc.

PROJECT NAME: FORMER SHELL STATION
7194 AMADOR VALLEY BLVD., DUBLIN, CA

BORING NO. MW-7

DATE DRILLED: 8/11-12/88

PROJECT NUMBER: 1826G

LOGGED BY: RAG

DEPTH (ft.)	SAMPLE No	BLOWS/FOOT 140 ft/lbs.	UNIFIED SOIL CLASSIFICATION	SOIL DESCRIPTION	WATER LEVEL	OVA READING ppm
0				Asphalt - 3", baserock -11"		
1-2			CL	SANDY CLAY, dark grayish brown (10YR 4/2), fine grained sands up to 40%, no petroleum odor, moderate plasticity, stiff, moist		
3-4			CH	SILTY CLAY, very dark grayish brown (10YR 3/2), some fine to medium grained sands, no petroleum odor, moderately high plasticity, stiff, moist		
5	MW-7-1	9	SC	CLAYEY SAND, light brownish gray (10YR 6/2), fine grained sands up to 50%, rounded gravels up to 0.5" across, no petroleum odor, stiff, moist		0
6-7	MW-7-2	7	CL	SANDY CLAY, light brown (10YR 5/3), fine to medium sands up to 40%, rounded gravels up to 0.5" across, no petroleum odor, stiff, moist	▼	0
8	MW-7-3	9	CL	SILTY CLAY, very dark gray (10YR 3/1) with light gray to white claystone/ siltstone fragments, roots and root holes, no petroleum odor, moderate plasticity, stiff, moist to very moist, some root holes contain "free" water. 8/26/88, Groundwater level - 7.94 ft.		0
9-10	MW-7-4	14				0
11	MW-7-5	11				0
12-13			CL	SILTY CLAY, mottled gray to strong brown (7.5YR 5/0 to 7.5YR 5/6), roots and root holes, no petroleum odor, moderate plasticity, stiff, moist, some root holes contain "free" water. 8/11/88, Groundwater encountered - 14 ft.	▽	
14-16						0
17	MW-7-6	12				
18-21				Bottom of boring =17 feet		

SUPERVISED AND APPROVED BY R.G./C.E.G. [signature]

Depth of boring: 22-1/2 feet Diameter of boring: 10 inches Date drilled: 09/12/91

Well depth: 17-1/2 feet Material type: Sch 40 PVC Casing diameter: 4 inches

Screen interval: 14 to 17-1/2 feet Slot size: 0.020-inch

Drilling Company: Kvilhaug Drilling Driller: Rod and Brian

Method Used: Hollow-Stem Auger Field Geologist: Barbara Sieminski

Signature of Registered Professional: Diane M. Barclay

Registration No.: CEG 1366 State: CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
					Paved area.	
0					Asphalt (6 inches).	
				GP	Gravel, with some sand and clay, brown, damp, dense; baserock.	
2				CL	Sandy clay, with gravel, dark gray, damp, medium plasticity, hard.	
4	S-4.5	10 28 28	34			
				SM	Silty sand, gray, damp, very dense; noticeable product odor.	
6						
8					Moist at 9 feet.	
10	S-9.5	9 22 28	101	CL	Silty clay, black, damp, medium plasticity, hard; obvious product odor.	
12						
14	S-14.5	4 5 10	52		With gypsum crystals.	
				SC	Clayey sand, fine-grained, gray, wet, medium dense; noticeable product odor.	
16						
18	S-17.5	9 15 20	19	CL	Sandy clay, with some gravel, brownish-gray, damp, medium plasticity, hard.	
					(Section continues downward)	

RESNA

PROJECT: 60006.02

LOG OF BORING B-1/MW-1

ARCO Service Station 6041
7249 Village Parkway
Dublin, California

PLATE 4

			BI			
-22	S-21.5	5 15 35		5	CL	Sandy clay, with some gravel, brownish-gray, damp, medium plasticity, hard.
						Total depth = 22-1/2 feet.
-24						
-26						
-28						
-30						
-32						
-34						
-36						
-38						
-40						
-42						
-44						
-46						
-48						
-50						

RESNA

PROJECT 60006.02

LOG OF BORING B-1/MW-1

ARCO Service Station 6041
7249 Village Parkway
Dublin, California

PLATE 5

Depth of boring: 16-1/2 feet Diameter of boring: 10 inches Date drilled: 09/13/91

Well depth: 14 feet Material type: Sch 40 PVC Casing diameter: 4 inches

Screen interval: 10-1/2 to 14 feet Slot size: 0.020-inch

Drilling Company: Kvilhaug Drilling Driller: Rod and Brian

Method Used: Hollow-Stem Auger Field Geologist: Barbara Sieminski

Signature of Registered Professional: Diane M. Barclay

Registration No.: CEG 1366 State: CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
					Concrete slab.	
0					Concrete (4 inches).	
				CH	Clay, black, damp, high plasticity, stiff.	
2				CL	Sandy clay, dark brown, damp, medium plasticity, hard.	
4	S-4.5	10 24 32	160			
6				SP	Sand, medium-grained, gray, damp, very dense; obvious product odor.	
8				CL	Silty clay, with fine gravel, dark gray, damp, medium plasticity, very stiff; obvious product odor.	
	S-9.5	7 9 13	66	▼ ▽	Change to black, moist.	
10	S-11	3 5 5	137	SC	Clayey sand, fine-grained, dark gray, wet, loose; obvious product odor.	
12	S-12.5	3 4 6	7	CL	Sandy clay, with gravel, brownish-gray, wet, medium plasticity, stiff.	
14	S-14	8 10 18	0		Less sand and gravel, damp.	
	S-15.5	10 24 30	0		Hard.	
16					Total depth = 16-1/2 feet.	
18						
20						

RESNA

PROJECT: 60006.02

LOG OF BORING B-2/MW-2

ARCO Service Station 6041
7249 Village Parkway
Dublin, California

PLATE 6

Depth of boring: 20-1/2 feet Diameter of boring: 10 inches Date drilled: 09/12/91

Well depth: 15 feet Material type: Sch 40 PVC Casing diameter: 4 inches

Screen interval: 12 to 15 feet Slot size: 0.020-inch

Drilling Company: Kvilhaug Drilling Driller: Rod and Brian

Method Used: Hollow-Stem Auger Field Geologist: Barbara Sieminski

Signature of Registered Professional: Gilbert M. Barclay

Registration No.: CEG 1366 State: CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
					Paved area.	
0					Asphalt (6 inches).	
				GP	Gravel with sand and clay, brown, damp, medium dense; baserock.	
2				CL	Sandy clay, dark gray, damp, medium plasticity, hard.	
4	S-4.5	7 12 30	3			
6						
				SM	Silty sand, dark gray, damp, medium dense.	
8						
	S-9.5	9 11 15	515	CL	Silty clay, black, damp, medium plasticity, hard; obvious product odor.	
10						
12				SC	Clayey sand, fine-grained, dark gray, wet, loose; obvious product odor.	
	S-13.5	3 6	75			
14				CL	Sandy clay, with gravel, brownish-gray, wet, medium plasticity, stiff; noticeable product odor.	
	S-15	8 4 6	25			
16		10			Moist at 16 feet.	
18						
	S-19.5	8 12 20	5		Less gravel and sand, damp very stiff.	
20					Total depth = 20-1/2 feet	

RESNA

PROJECT: 60006.02

LOG OF BORING B-3/MW-3

ARCO Service Station 6041
7249 Village Parkway
Dublin, California

PLATE 7

Depth of boring: 18 feet Diameter of boring: 12 inches Date drilled: 10/26/92

Well depth: 15 feet Material type: Sch 40 PVC Casing diameter: 4 inches

Screen interval: 8-1/2 to 15 feet Filter pack: #3 Sand Slot size: 0.020-inch

Drilling Company: Exploration GeoServices Driller: John, Mike, and Dan

Method Used: Hollow-Stem Auger Field Geologist: Barbara Sieminski

Signature of Registered Professional: /E Jansen

Registration No.: RCE 044600 State: CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
					Asphalt-covered surface.	
0					Asphalt (4 inches).	
				GP	Sandy gravel, gray, damp, dense: baserock.	
				CL	Sandy clay, brown, damp, medium plasticity, stiff.	
2				SP	Sand, fine- to medium-grained, light brown, damp, medium dense; with roots.	
4						
	S-5.5	6 6 6	NM			
6				CL	Sandy clay, brown, damp, medium plasticity, stiff.	
8						
	S-9.5	4 7 8	NM ▽	▼SC	Clayey sand, fine- to coarse-grained, dark gray mottled white, moist to wet, medium dense; sand composed of gypsum crystals.	
10	S-11	5 6 8	NM			
12						
	S-13.5	5 4 4	NM		Decreasing clay.	
14						
	S-15.5	5 7 8	NM	CL	Sandy clay, trace gravel, brownish-gray, damp, medium plasticity, stiff.	
16		7 8 11	NM			
18					Total depth = 18 feet.	
					NM = Not measured due to OVM failure	
20						

RESNA
Working to Restore Nature

PROJECT 60006.04

LOG OF BORING B-4/MW-4
ARCO Service Station 6041
7249 Village Parkway
Dublin, California

PLATE 4

Depth of boring: 20-1/2 feet Diameter of boring: 12 inches Date drilled: 10/26/92

Well depth: 18 feet Material type: Sch 40 PVC Casing diameter: 4 inches

Screen interval: 11 to 18 feet Filter pack: #3 Sand Slot size: 0.020-inch

Drilling Company: Exploration GeoServices Driller: John, Mike and Dan

Method Used: Hollow-Stem Auger Field Geologist: Barbara Sieminski

Signature of Registered Professional:

Registration No.: RCE 044600 State: CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
					Asphalt-covered surface.	
0					Asphalt (4 inches).	
				GP	Sandy gravel, gray, damp, dense: baserock.	
				CL	Sandy clay, dark brown, damp, medium plasticity, hard.	
2						
4						
	S-5.5	8 18 25	NM		Increasing sand.	
6				SC	Clayey sand, fine-grained, dark gray, damp to moist, dense.	
8					Moist.	
	S-8.5	8 10 13	NM	CL	Silty clay, black, damp, medium plasticity, very stiff.	
10	S-10	8 10 11	NM		Moist, with gypsum crystals.	
	S-11.5	8 10 15	NM		Color change to dark gray.	
12				SC/CL	Clayey sand, fine- to medium-grained, trace gravel, brown, wet, dense; interbedded with sandy clay, brown, moist, medium plasticity, very stiff.	
	S-13.5	8 10 20	NM			
14	S-15	7 8 13	NM			
16						
				CL	Sandy clay, trace gravel, damp, brownish-gray, medium plasticity, very stiff.	
18						
	S-19.5	5 9 15	NM			
20					Total depth = 20-1/2 feet.	
					NM = Not measured due to OVM failure	

RESNA
Working to Restore Nature

PROJECT 60006.04

LOG OF BORING B-5/MW-5

ARCO Service Station 6041
7249 Village Parkway
Dublin, California

PLATE 5

Depth of boring: 19-1/2 feet Diameter of boring: 12 inches Date drilled: 10/26/92

Well depth: 16 feet Material type: Sch 40 PVC Casing diameter: 4 inches

Screen interval: 10 to 16 feet Filter pack: #3 Sand Slot size: 0.020-inch

Drilling Company: Exploration GeoServices Driller: John, Mike, and Dan

Method Used: Hollow-Stem Auger Field Geologist: Barbara Sieminski

Signature of Registered Professional: [signature]

Registration No.: RCE 044600 State: CA

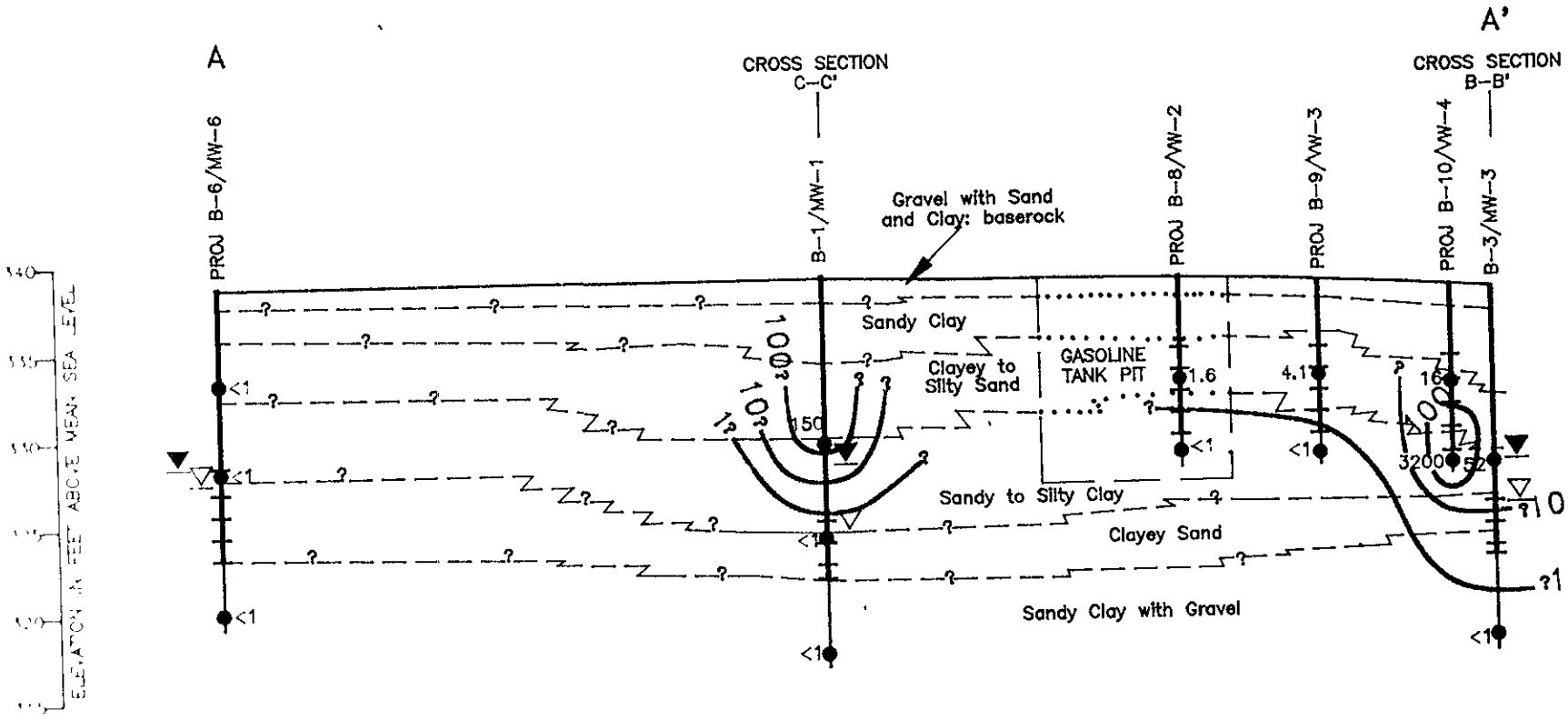
Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
					Asphalt-covered surface.	
0					Asphalt (4 inches).	
				GP	Sandy gravel, gray, damp, dense: baserock.	
2				CL	Sandy clay, dark gray, damp, medium plasticity, stiff.	
4				SM	Silty sand, fine- to medium-grained, gray, damp, medium dense.	
	S-5.5	6 6 6	NM			
6				CL	Silty clay, black, damp, medium plasticity, very stiff; with gypsum crystals.	
8						
10	S-10.5	9 12 18	NM		With sand. Moist.	
			▽ ▼	SC/CL	Clayey sand, fine- to medium-grained, brownish-gray, wet, medium dense, interbedded with sandy clay, brownish-gray, moist, medium plasticity, stiff.	
12	S-12.5	4 5 6	NM			
14						
	S-15.5	8 9 15	NM	CL	Sandy clay, trace fine gravel, brownish-gray, damp, medium plasticity, very stiff.	
16						
18	S-18.5	6 12 13	NM			
20					Total depth = 19-1/2 feet. NM = Not measured due to OVM failure	

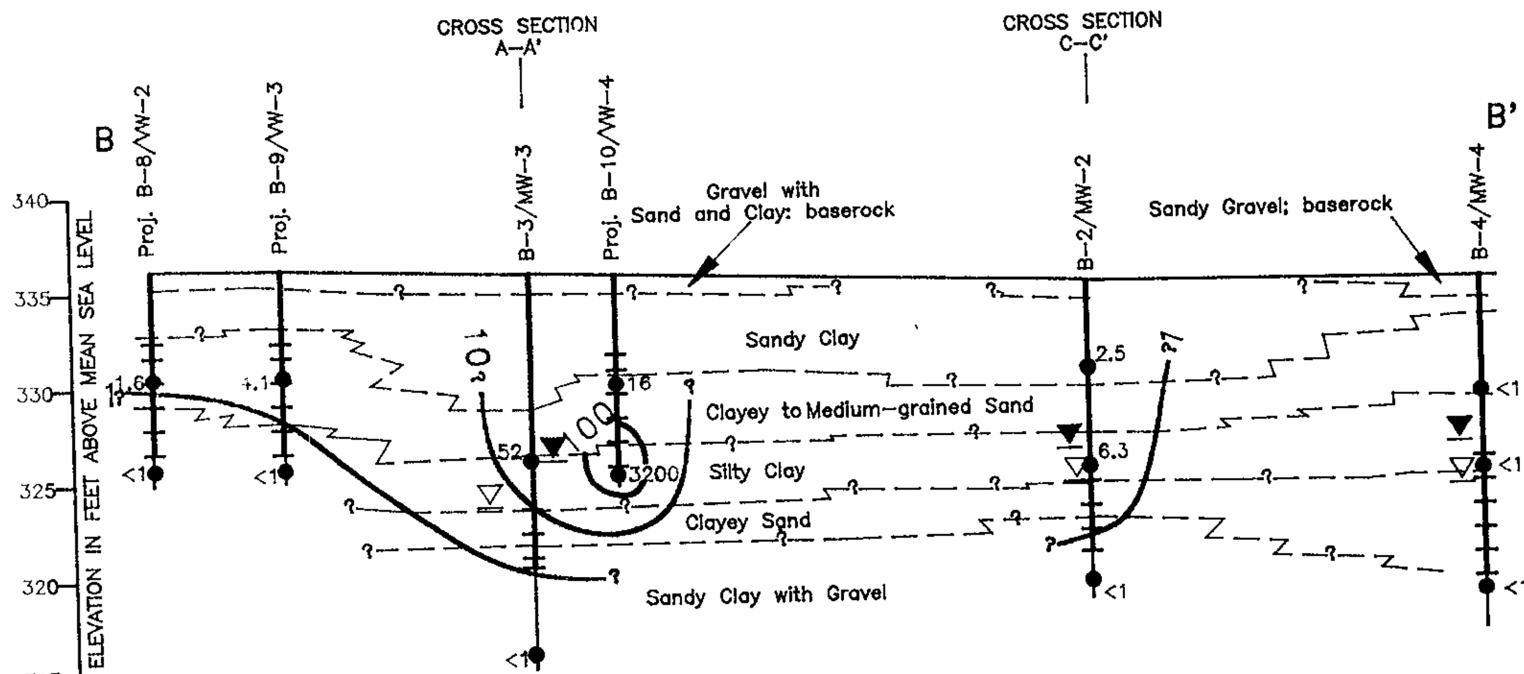
RESNA
Working to Restore Nature

PROJECT 60006.04

LOG OF BORING B-6/MW-6
ARCO Service Station 6041
7249 Village Parkway
Dublin, California

PLATE 6


A
A'
CROSS SECTION C–C'
CROSS SECTION B–B'
PROJ B–6/MW–6
B–1/MW–1
PROJ B–8/VW–2
PROJ B–9/VW–3
PROJ B–10/VW–4
B–3/MW–3
Gravel with Sand and Clay: baserock
Sandy Clay
Clayey to Silty Sand
GASOLINE TANK PIT
Sandy to Silty Clay
Clayey Sand
Sandy Clay with Gravel
ELEVATION IN FEET ABOVE MEAN SEA LEVEL



CROSS SECTION
A–A'
CROSS SECTION
C–C'
B
B'
Proj. B–8/MW–2
Proj. B–9/MW–3
B–3/MW–3
Proj. B–10/MW–4
B–2/MW–2
B–4/MW–4
Gravel with
Sand and Clay; baserock
Sandy Gravel; baserock
Sandy Clay
Clayey to Medium–grained Sand
Silty Clay
Clayey Sand
Sandy Clay with Gravel
ELEVATION IN FEET ABOVE MEAN SEA LEVEL
340
335
330
325
320
315
1.6
4.1
<1
<1
52
16
3200
100
10
2.5
6.3
<1
<1
<1
<1
<1
<1

04/12/01

Groundwater Elevation Contour and Analytical Summary Map

February 9, 2001

EXPLANATION

- MW-1 — Groundwater monitoring well
- VW-3 — Vapor extraction well
- RW-1 — Shell monitoring well
- AS-1 — Air Sparge well
- TP-1 — Tank Pit Observation well
- 325.80 — Groundwater elevation contour line
- Anomalous groundwater elevation not used in contouring

Well ID
ELEV
TPHg
Benzene
MTBE

- Well Designation
- Groundwater Elevation
- Concentration of total petroleum hydrocarbons as gasoline, benzene, and MTBE in groundwater in micrograms per liter (ug/l). Samples collected on 02/09/01
- Approximate goundwater flow direction and gradient

SHOPPING CENTER

AMADOR VALLEY BOULEVARD

BP STATION BUILDING

FORMER USTs

VILLAGE PARKWAY

MW-4
326.25

MW-5
326.22

MW-2
326.30
<50.0
<0.5
9.11

ARCO STATION BUILDING

326.20

326.10

326.00

TP-1

AS-2

MW-3
325.92
28,300
2,500
85,500

EXISTING USTs

MW-1
325.91
2,820
368
23,300

VW-5

VW-3

AS-1

TP-2

VW-2

VW-1

MW-6
326.22

MW-7
<50.0
<0.50
<2.50

OIL CHANGERS
(FORMER SHELL SITE)

MW-6
<50.0
<0.50
<2.50

0 20 40 80

Scale (ft)

UNOCAL SITE

CHIROPRACTOR'S OFFICE

FORMER MARKET

FIGURE

1

ARCO Service Station 6041

7249 Village Parkway

Dublin, California

CAMBRIA

I:\ARCO\6041\FIGURES QMR\2001\1QM01.DWG