

Khatri, Paresh, Env. Health

From: Phillips, Hollis [Hollis.Phillips@arcadis-us.com]
Sent: Wednesday, November 25, 2009 6:35 AM
To: Khatri, Paresh, Env. Health
Subject: Site 11120
Attachments: CLOS_L_1999-03-15[1].pdf

Paresh:

It appears Station 11120 is closed. Can you confirm this based on the attached letter.

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

StID 2095

March 15, 1999

Mr. Scott Hooton
BP Oil
295 SW 41st Street
Renton, WA 98055-4931

Re: Fuel Leak Site Case Closure for BP Station No. 11120, 6400 Dublin Blvd, Dublin, CA

Dear Mr. Hooton:

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 2,700ppm TPH as gasoline and 3.2ppm benzene exists in soil beneath the site;
- up to 520ppb TPHg and 0.52ppb benzene exists in groundwater beneath the site; and,
- a site safety plan must be prepared for construction workers in the event of 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

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

c: James Sorenson, Alameda Planning Dept, QIC 50506
files (bpdublin1-7)



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REMEDIAL ACTION COMPLETION CERTIFICATION

**StID 2095 - 6400 Dublin Blvd, Dublin, CA 94568, CA
(1-12K, 1-10K, 1-8K and 1-500 gallon tanks removed on April 3, 1996)**

March 15, 1999

Mr. Scott Hooton
BP Oil
295 SW 41st Street
Renton, WA 98055-4931

Dear Mr. Hooton:

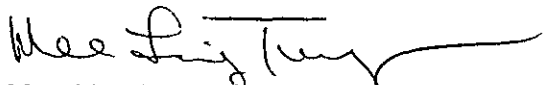
This letter confirms the completion of site investigation and remedial action for the underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the 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, no further action related to the underground tank release is required.

This notice is issued pursuant to a regulation contained in Title 23, Section 2721(e) of the California Code of Regulations.

Please contact our office if you have any questions regarding this matter.

Sincerely,


Mee Ling Tung, Director

cc: Richard Pantages, Chief of Division of Environmental Protection
Chuck Headlee, RWQCB
Dave Deaner, SWRCB
Bill McCammon, Alameda County Fire Department, QIC 41401
files-ec (bpdublin-6)

Rb # 01-1556

ENVIRONMENTAL PROTECTION

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

DEC 18 PM 3:46

CALIFORNIA REGIONAL WATER

QUALITY CONTROL BOARD

DEC 14 1998

I. AGENCY INFORMATION

Date: October 30, 1998

Agency name: Alameda County-HazMat
City/State/Zip: Alameda, CA 94502
Responsible staff person: Eva Chu

Address: 1131 Harbor Bay Pkwy
Phone: (510) 567-6700
Title: Hazardous Materials Spec.

II. CASE INFORMATION

Site facility name: BP Station No. 11120
Site facility address: 6400 Dublin Blvd, Dublin, CA 94568
RB LUSTIS Case No: N/A Local Case No./LOP Case No.: 2095
URF filing date: 2/2/93 SWEEPS No: N/A

<u>Responsible Parties:</u>	<u>Addresses:</u>	<u>Phone Numbers:</u>
Scott Hooton BO Oil	295 SW 41 st Street Renton, WA 98055-4931	425/251-0667

<u>Tank No:</u>	<u>Size in gal.:</u>	<u>Contents:</u>	<u>Closed in-place or removed?:</u>	<u>Date:</u>
1	12,000	Gasoline	Removed	4/3/96
2	10,000	"	"	"
3	8,000	"	"	"
4	500	Waste Oil	"	"

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **Unknown**
Site characterization complete? **YES**
Date approved by oversight agency: **10/19/98**
Monitoring Wells installed? **Yes** Number: **7**
Proper screened interval? **No, but adequate. Well MW-3 is screened from 14' to 19'bgs**
Highest GW depth below ground surface: **4.39'** Lowest depth: **8.43' in MW-3**
Flow direction: **SE**
Most sensitive current use: **Commercial**
Are drinking water wells affected? **No** Aquifer name: **Dublin 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 Pkwy
Alameda, CA 94502

Treatment and Disposal of Affected Material:

<u>Material</u>	<u>Amount (include units)</u>	<u>Action (Treatment or Disposal w/destination)</u>	<u>Date</u>
Tank Soil	4 USTs 1,370 cy	Disposed at BFI Landfill, Livermore	Apr-June 1996

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	Before ¹	After ²	Before ³	After ⁴
TPH (Gas)	2,700		14,000	520
TPH (Diesel)	570		6,200	ND
Benzene	3.2		500	0.52
Toluene	21		1,600	ND
Ethylbenzene	34		280	ND
Xylenes	180		2,100	ND
MTBE	NA		37,000 ⁵	ND ⁶
Other Tetrachloroethene (PCE)	0.0076		6.7	ND

- NOTE: 1. soil samples collected at time of UST removal at 10' bgs, 4/96 (PCE from waste oil pit)
 2. no overexcavation performed at the site after the tanks were removed
 3. grab groundwater sample collected from gasoline tank pit at time of removal, 4/96 (PCE from gasoline pit)
 4. most recent groundwater sampling results, 6/98 (PCE conc. from well MW-1 in 10/92)
 5. maximum concentration measured using Method 8020 from well MW-3 in 9/95
 6. results using EPA Method 8260, 6/98 (see attached Table 7)

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, hydrocarbon contamination in soil must be addressed/re-evaluated if site use changes or a building is to be constructed over the area of residual contamination.**

Monitoring wells Decommissioned: **No, pending site closure**

Number Decommissioned: **0** Number Retained: **7. MW-1 is inaccessible (building built over it)**


List enforcement actions taken: **None**

List enforcement actions rescinded: **NA**

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Eva Chu

Title: Haz Mat Specialist

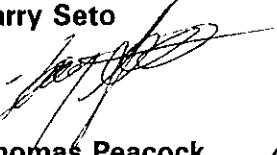
Signature: 

Date: 11/24/98

Reviewed by

Name: Larry Seto

Title: Senior Haz Mat Specialist

Signature: 

Date: 10-30-98

Name: Thomas Peacock

Title: Supervisor

Signature: 

Date: 11-9-98

VI. RWQCB NOTIFICATION

Date Submitted to RB: 11/20/98

RB Response: *concur*

RWQCB Staff Name: Chuck Headlee

Title: EG

Signature: 

Date: 12/14/98

VII. ADDITIONAL COMMENTS, DATA, ETC.

The site is currently an active gasoline service station.

In October 1992 four exploratory borings (B-1 through B-4) were drilled at the site and converted into groundwater monitoring wells MW-1 through MW-4, respectively. Groundwater was first encountered at 16' to 17' bgs, stabilizing at ~9' bgs. Groundwater appeared to be under confined conditions, thus, the wells were screened from ~14' to 19' bgs. Two soil samples were collected from each boring and analyzed for TPHg, TPHd, BTEX, TOG, and HVOC. Groundwater was analyzed for TPHg, TPHd, and BTEX. Water from well MW-1, near the used oil UST, was also analyzed for HVOC and TOG. Hydrocarbon constituents were identified in soil and groundwater from borings B-3/MW-3 and B-4/MW-4. (See Figs 1, 2, and Tables 1, 2)

In April 1993 three additional groundwater monitoring wells, MW-5 through MW-7, were drilled to further define the extent of soil and groundwater contamination. In addition, an exploratory boring, LB-1, was drilled and logged continuously from 9.5' to 30.5' bgs to better characterize the first water bearing zone. No significant levels of hydrocarbons were detected in soil and groundwater from these borings. Groundwater was initially encountered at ~16.5' to 20.5' bgs and stabilized at ~5' bgs. A second water bearing zone was encountered in boring LB-1 at 29' bgs. A step draw-down aquifer test was performed on well MW-6. The results of the draw-down test indicate that the maximum sustainable yield from MW-6 is approximately 2.0 gpm. (See Fig 3 and Table 3)

Quarterly groundwater monitoring began in October 1992 through December 1995. There appeared to be an increase in TPHg concentration in well MW-3 beginning in June 1994 (from ~2,000ppb to 8,000 to 18,000ppb. MTBE analysis commenced in September 1995, identifying 37,000ppb. (See Table 6)

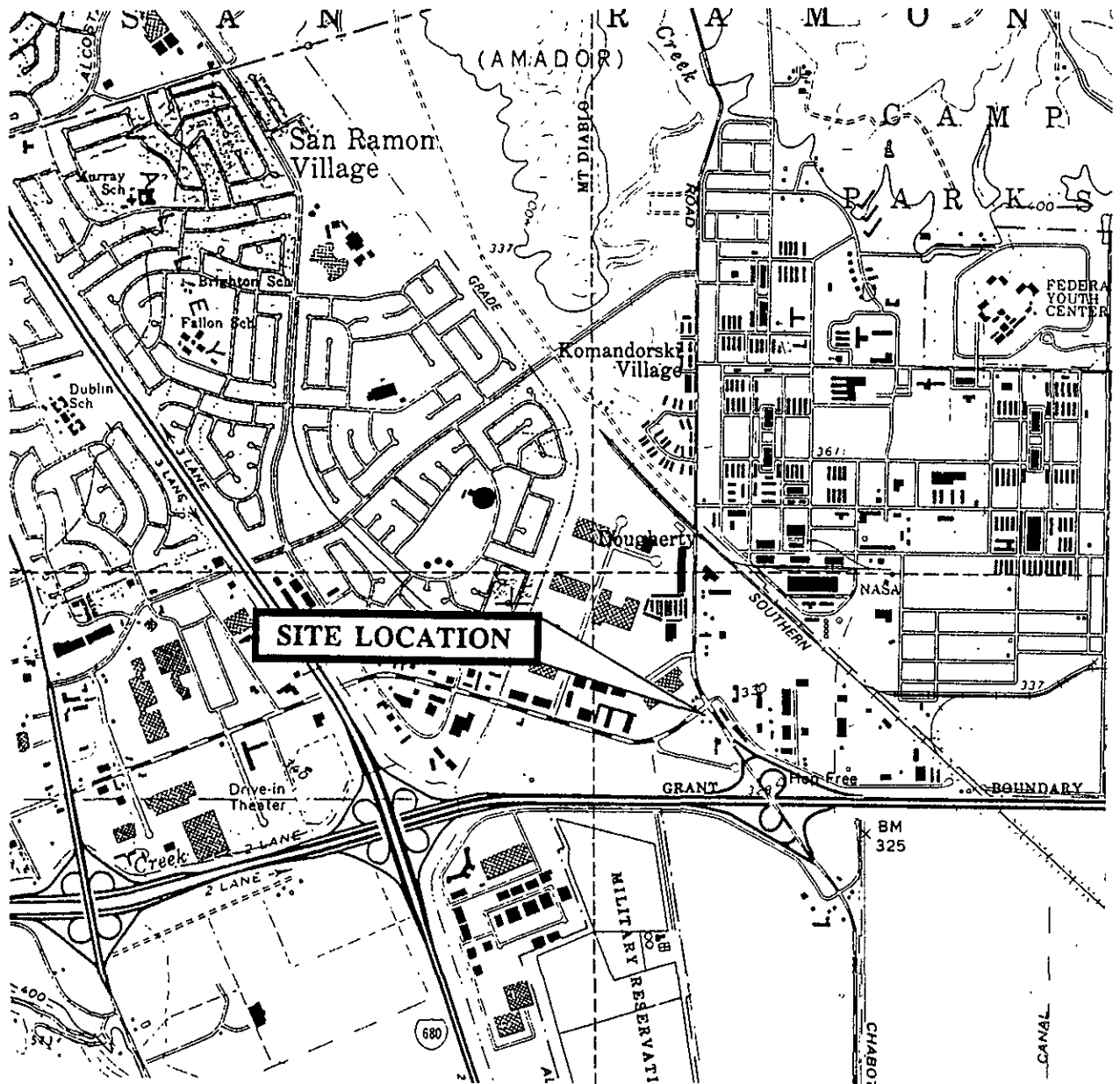
In April 1996 four USTs (1-12K, 1-10K, 1-8K gallon gasoline USTs and 1-550 gallon waste oil UST) were removed. Approximately 160' of piping and two hydraulic lifts and a wastewater clarifier were also removed. New USTs were installed in a newly excavated pit. Groundwater was in the main gasoline pit at ~10'bgs (suggesting that groundwater may not be confined, rather, it may be semi-confined or in a zone of slow recharge). Discolored soils and hydrocarbon odors were noted along the southern wall of the UST pit. Stained soils were also observed beneath the product line piping trench and fuel islands. Sidewall soil samples (S-1 through S-6 and S-13) were collected from the gasoline pit at ~10'bgs. Soil samples were also collected at ~3'bgs beneath the piping trench and dispensers (S-7 through S-12 and S-16). And soil samples S-18 and S-19 were collected from below the waste oil UST at ~8'bgs. (See Fig 4)

Soil samples from the main UST excavation contained up to 2,700 ppm TPHg, 3.2ppm benzene and 570 ppm TPHd. A grab groundwater sample contained 14,000ppb TPHg, 500ppb benzene, and 6,200ppb TPHd. Low levels of PCE were also detected in soil and groundwater. The former gasoline pit and piping trenches were not overexcavated. Residual hydrocarbons and PCE in soil, however, should not pose a risk to human health under current use scenario (active gasoline service station). (See Tables 4 and 5)

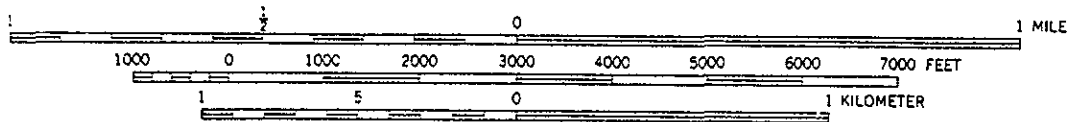
Groundwater has been sampled from October 1992 to June 1998. Hydrocarbon concentrations have declined over the years, probably due to natural bioattenuation. Current levels do not pose a risk to human health or the environment. Continued monitoring is not warranted.

In summary, case closure is recommended because:

- o the leak and ongoing sources have been removed;
- o the site has been adequately characterized;
- o the dissolved plume is not migrating;
- o no water wells, surface water, or other sensitive receptors are likely to be impacted; and,
- o the site presents no significant risk to human health or the environment.



SOURCE:
 USGS QUADRANGLE, 7.5 MINUTE SERIES
 ENTITLED "DUBLIN, CA"
 SCALE 1: 24 000



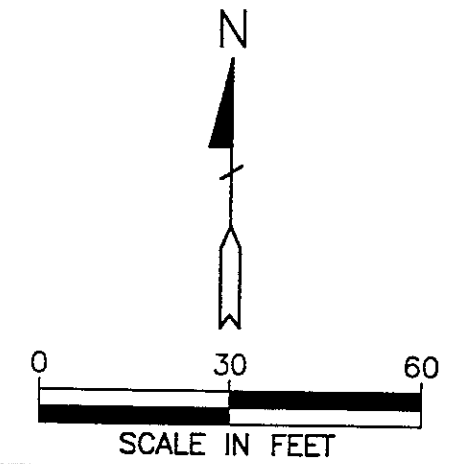
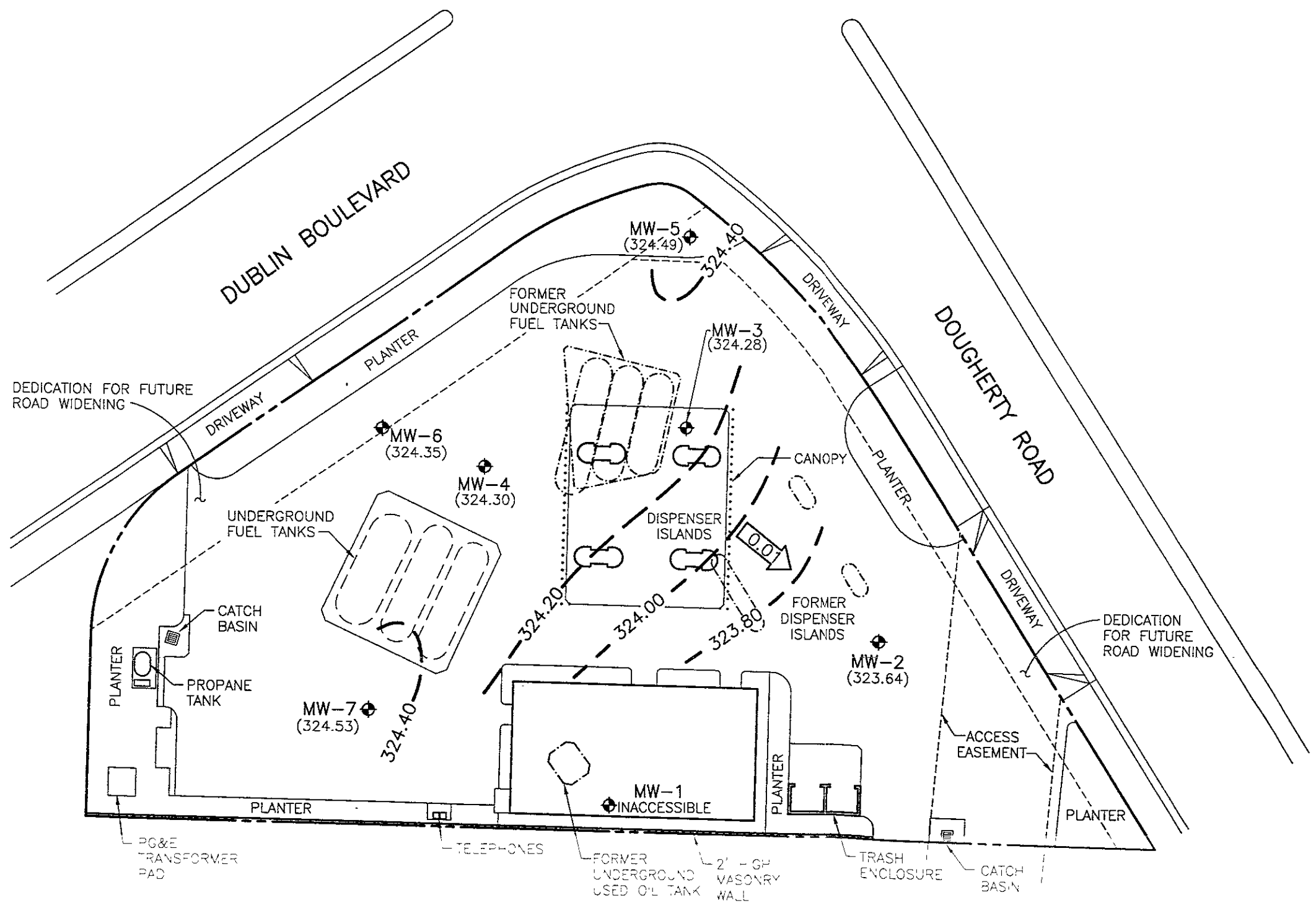
North



HYDR 
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TECHN  **LOGIES, INC.**

Site Location Map
 BP Service Station No. 11120
 6400 Dublin Boulevard
 Dublin, California

Job No.
 9-040
 Figure
1



- LEGEND**
- ◆ GROUNDWATER MONITORING WELL
 - (323.64) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
 - 323.80 - GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL - 0.20 FOOT)
 - ← 0.01 → CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

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

FIGURE 2
POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP
 JUNE 26, 1998
 BP OIL SERVICE STATION NO. 11120
 6400 DUBLIN BOULEVARD
 DUBLIN, CALIFORNIA
 PROJECT NO. 10-170

31/007-2.DWG 8 19 98 1A1 1-30

Table 1

SOIL SAMPLES
SUMMARY OF ANALYTICAL RESULTS

BP Service Station No. 11120
6400 Dublin Boulevard
Dublin, California

Sample Description	TPHg (ppm)	TPHd (ppm)	B (ppm)	T (ppm)	E (ppm)	X (ppm)	HVO (ppm)	TOG (ppm)
B-1-5.5'	ND	ND	ND	ND	ND	ND	ND	ND
B-1-10.5'	ND	ND	ND	ND	ND	ND	ND	ND
B-2-5.5'	ND	ND	ND	ND	ND	ND	ND	ND
B-2-10.5'	ND	ND	ND	ND	ND	ND	ND	ND
B-3-5.5'	10	ND	0.069	0.58	0.23	1.8	ND	ND
B-3-10.5'	22	ND	0.043	0.26	0.41	1.8	ND	ND
B-4-5.5'	350	140	0.80	7.9	5.8	31	ND	380
B-4-10.5'	2.9	7.9	0.030	0.11	0.10	0.44	ND	63
MDL	1	5	0.005	0.005	0.005	0.005	0.005-0.02	50

TPHg = Total petroleum hydrocarbons as gasoline by EPA Method 8015

TPHd = Total petroleum hydrocarbons as diesel by EPA Method 8015

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total Xylenes

BTEX by EPA Method 8020

HVO = Halogenated volatile organics by EPA Method 8010

TOG = Total oil and grease by Standard Method 5520

NT = Not tested

ND = Not detected in concentrations exceeding laboratory method detection limits

MDL = Laboratory method detection limits for all analyses where results are ND

Table 2

**GROUND WATER SAMPLES
SUMMARY OF ANALYTICAL RESULTS**

BP Service Station No. 11120
6400 Dublin Boulevard
Dublin, California

Sample Description	TPHg (ppb)	TPHd (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	HVO (ppb)	TOG (ppb)
MW-1	ND	ND	ND	ND	ND	ND	ND	ND
MW-2	ND	ND	ND	ND	ND	ND	NT	NT
MW-3	210	ND	3.0	0.7	0.9	30	NT	NT
MW-4	2,300	190	23	54	50	320	NT	NT
MDL	50	50	0.5	0.5	0.5	0.5	0.5-2.0	5,000

TPHg = Total petroleum hydrocarbons as gasoline by EPA Method 8015

TPHd = Total petroleum hydrocarbons as diesel by EPA Method 8015

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total Xylenes

BTEX by EPA Method 8020

HVO = Halogenated volatile organics by EPA Method 8010

TOG = Total oil and grease by Standard Method 5520

NT = Not tested

ND = Not detected in concentrations exceeding laboratory method detection limits

MDL = Laboratory method detection limits for all analyses where results are ND



DUBLIN BOULEVARD


DOUGHERTY ROAD


LEGEND


MW-1 ⊕ = Monitoring Well

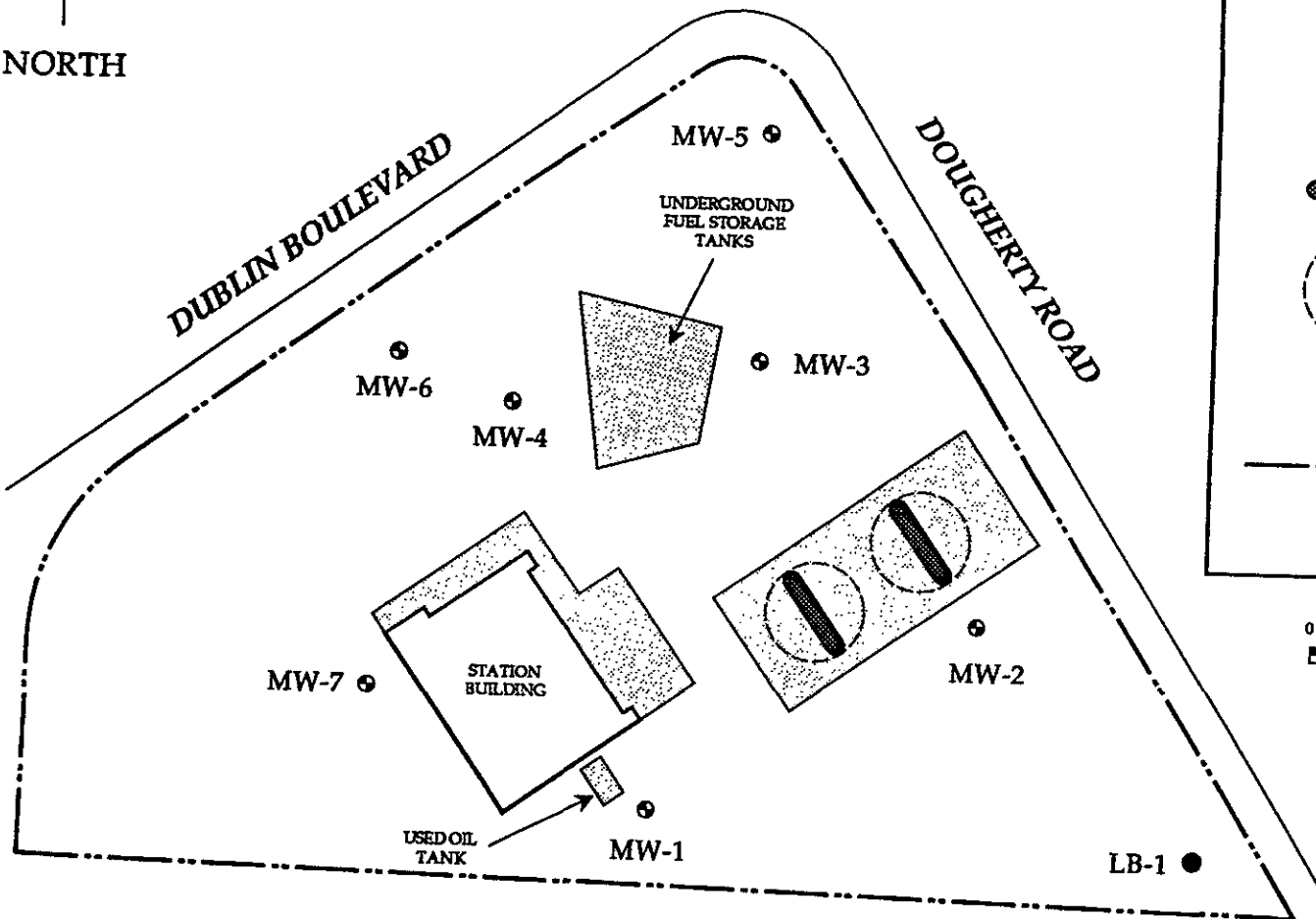
LB-1 ● = Soil Boring

 = Dispenser Island

 = Canopy

 = Concrete Pad

 = Property Boundary



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SITE PLAN

BP Service Station No. 11120
6400 Dublin Boulevard
Dublin, California

Figure

3

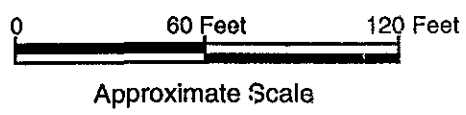
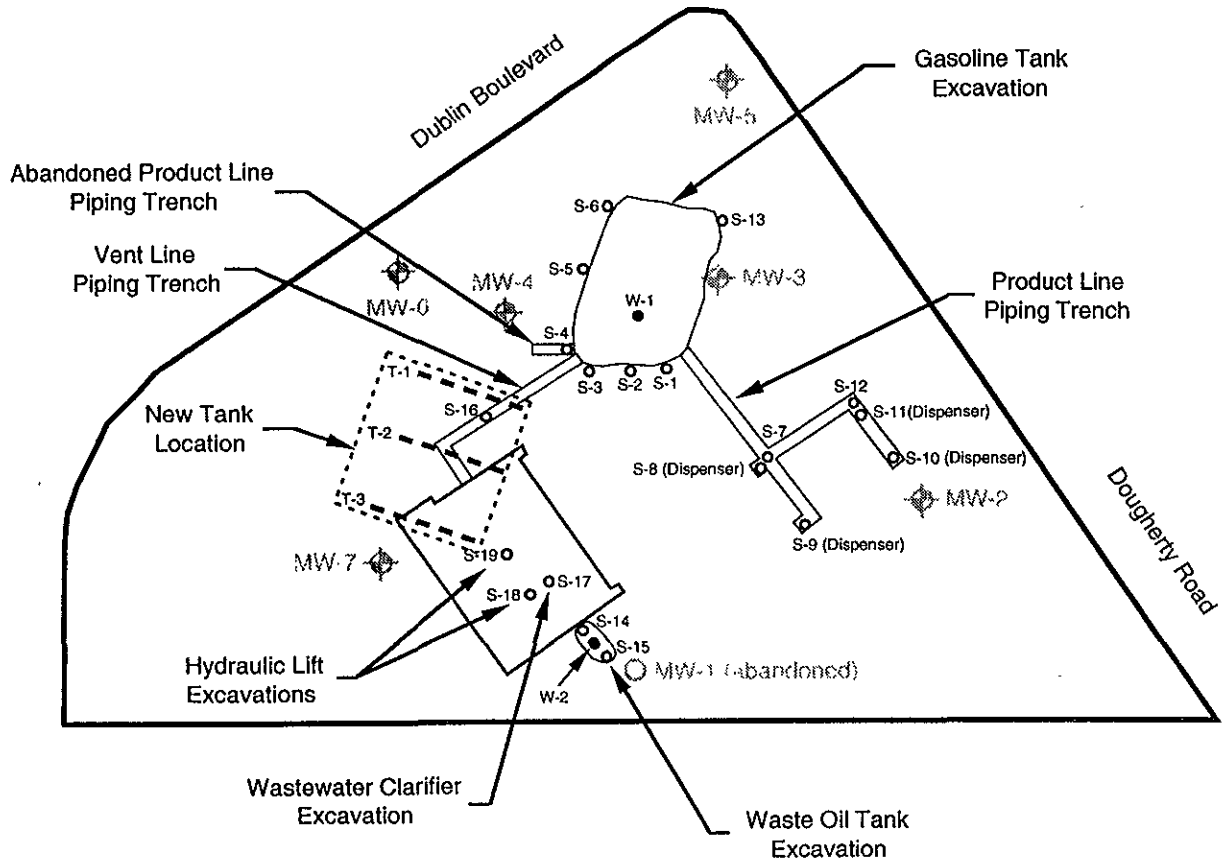
9-040.1 6/93

Table 3
Summary of Soil Sample Analytical Results
 BP Service Station No. 11120
 6400 Dublin Boulevard
 Dublin, California

Sample	Date	TPHd (ppm)	TPHg (ppm)	B (ppm)	T (ppm)	E (ppm)	X (ppm)
MW-5-5.5'	4/6/93	ND<5.0	ND<1.0	0.017	ND<0.005	ND<0.005	ND<0.005
MW-5-15.5'	4/6/93	ND<5.0	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005
MW-6-5.5'	4/6/93	ND<5.0	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005
MW-6-10.5'	4/6/93	ND<5.0	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005
MW-7-5.5'	4/6/93	ND<5.0	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005
MW-7-15.5'	4/6/93	ND<5.0	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005

Notes:

Sample: Soil boring designation and soil sample collection depth (ft)
 Date: Soil sample collection date
 TPHd : Total petroleum hydrocarbons as diesel by EPA Method 8015 (modified)
 TPHg : Total petroleum hydrocarbons as gasoline by EPA Method 8015 (modified)
 BTEX : Benzene, Toluene, Ethylbenzene and total Xylenes by EPA Method 8020 (modified)
 ND : Not detected in concentrations exceeding the indicated laboratory method detection limit






- Legend**
-  Monitoring Well
 -  Soil Sample
 -  Water Sample

FIGURE 4

APPROXIMATE SAMPLE LOCATIONS

Tosco Oil Facility No. 11120
6400 Dublin Boulevard
Dublin, California

ITSI TOSCO CORPORATION

INNOVATIVE TECHNICAL SOLUTIONS, INC.

Source. Adapted from Figure A-1, Emcon Northwest, Inc., dated 12-16-94

TABLE 4

SUMMARY OF LABORATORY RESULTS FOR CONFIRMATION SAMPLES
TOSCO FACILITY NO. 11120
DUBLIN, CALIFORNIA

A. SOILS

Sample Number	Depth (feet)	TPHg (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	TPHd (mg/kg)	TPHh (mg/kg)	O&G (mg/kg)	Cd (mg/kg)	Cr (mg/kg)	Pb (mg/kg)	Ni (mg/kg)	Zn (mg/kg)
Gasoline tank, piping and dispenser samples														
S-1	10	14	0.12	0.045	0.12	0.14	1.5					3.5		
S-2	10	2,700	3.2	21	34	180	570					<2.5		
S-3	10	1,100	0.90	11	11	71	140					2.6		
S-4	10	470	2.1	<0.25	10	13	34					<2.5		
S-5	10	1,800	<5	<5	11	97	480					<2.5		
S-6	10	40	0.11	0.086	0.89	0.44	1.6					<2.5		
S-7	3	42	0.68	0.61	1.4	8.2	<10					4.8		
S-8	3	<1.0	0.059	0.0074	0.011	0.34	<10					5.5		
S-9	3	4	<0.005	<0.005	0.073	0.44	75					5.3		
S-10	3	11	0.015	0.26	0.15	1.8	1.0					7.7		
S-11	3	14	0.032	<0.012	0.25	0.21	2.1					9.7		
S-12	3	23	0.14	0.21	0.52	2.8	3.1					<2.5		
S-13	10	610	1.2	5.4	9.3	58	25					<2.5		
S-16	3	20	0.18	0.0092	0.37	2.1	56					21		
Waste oil tank samples														
S-14 ^{1,2}	8	<1.0	<0.005	<0.005	<0.005	<0.005	1.2		<50	<0.5	22	<1.0	28	28
S-15 ^{2,3}	8	<1.0	<0.005	<0.005	<0.005	<0.005	<1.0		<50	<0.5	25	<1.0	33	30

TABLE 4 (Continued)

SUMMARY OF LABORATORY RESULTS FOR CONFIRMATION SAMPLES
 TOSCO FACILITY NO. 11120
 DUBLIN, CALIFORNIA

Sample Number	Depth (feet)	TPHg (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	TPHd (mg/kg)	TPHh (mg/kg)	O&G (mg/kg)	Cd (mg/kg)	Cr (mg/kg)	Pb (mg/kg)	Ni (mg/kg)	Zn (mg/kg)
Wastewater clarifier samples														
S-17 ^{2,3}	4	<1.0	<0.005	<0.005	<0.005	<0.005	<1.0		<50	<0.5	37	11	90	73
Hydraulic hoist samples														
S-18	8							<10						
S-19	8							<10						
New tank location samples														
T-1 (a-d)	4 & 8	<1.0	0.019	<0.005	<0.005	0.015	<1.0			<0.5	24	<1.0	34	31
T-2 (a-d)	4 & 8	<1.0	<0.005	<0.005	<0.005	<0.005	<1.0			<0.5	19	<1.0	23	26
T-3 (a-d)	4 & 8	<1.0	<0.005	<0.005	<0.005	<0.005	<1.0			<0.5	19	<1.0	28	28
Stockpile samples														
SP-1 ^{2,4,5} (a-d)	-	<1.0	<0.005	<0.005	<0.005	0.0068	67 ⁶			<0.5	29	<1.0	34	45
SP-2 (a-d)	-	6.8	<0.005	0.012	0.037	0.22						<2.5		
SP-2 (e-h)	-	30	0.0061	0.047	0.27	1.8						<2.5		
SP-2 (i-l)	-	22	0.027	0.11	0.40	2.0						<2.5		
SP-2 (m-p)	-	<1.0	<0.005	<0.005	<0.005	0.0062						<2.5		
SP-2 (q-t)	-	<1.0	<0.005	<0.005	<0.005	<0.005						4.4		

TABLE 4 (Continued)

SUMMARY OF LABORATORY RESULTS FOR CONFIRMATION SAMPLES
 TOSCO FACILITY NO. 11120
 DUBLIN, CALIFORNIA

B. GROUNDWATER

Sample Number	Depth (feet)	TPHg (µg/l)	B (µg/l)	T (µg/l)	E (µg/l)	X (µg/l)	TPHd (µg/l)	TPHh (µg/l)	O&G (µg/l)	Cu (µg/l)	Cr (µg/l)	Pb (µg/l)	Ni (µg/l)	Zn (µg/l)
W-1 ⁷	10	14,000	500	1,600	280	2,100	6,200	7.6	<5.0	<0.01	0.015	<0.02	0.046	0.071
W-2 ³	7	130	<0.5	2.6	2.5	24	130	6.7	<5.0	<0.01	<0.01	<0.02	<0.02	0.033

¹ Concentration of 7.6 µg/kg tetrachloroethene reported by EPA Method 8010. *sol*
² No compounds reportedly detected by EPA Method 8270.
³ No compounds reportedly detected by EPA Method 8010.
⁴ No compounds reportedly detected by EPA Method 8240.
⁵ CAM 17 metals analyzed for this sample, no significant concentrations reported.
⁶ Quantified as motor oil (C16 +)
⁷ Concentration of 6.7 µg/l tetrachloroethene reported by EPA Method 8010

SVOCs were also identified in W-1 and W-2 (water)



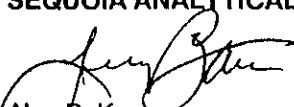
Innovative Technical Solutions, Inc.	Client Project ID:	Tosco, 6400 Dublin Blvd., Dublin	Sampled:	Apr 3, 1996
2855 Mitchell Drive, Suite 118	Sample Descript:	Soil, S-14	Received:	Apr 3, 1996
Walnut Creek, CA 94598	Analysis Method:	EPA 5030/8010	Analyzed:	Apr 4, 1996
Attention: Jeff Hess	Lab Number:	604-0331	Reported:	Apr 5, 1996

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane.....	5.0	N.D.
Bromoform.....	5.0	N.D.
Bromomethane.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	10	N.D.
2-Chloroethylvinyl ether.....	10	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	10	N.D.
Dibromochloromethane.....	5.0	N.D.
1,2-Dichlorobenzene.....	5.0	N.D.
1,3-Dichlorobenzene.....	5.0	N.D.
1,4-Dichlorobenzene.....	5.0	N.D.
1,1-Dichloroethane.....	5.0	N.D.
1,2-Dichloroethane.....	5.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.
cis-1,2-Dichloroethene.....	5.0	N.D.
trans-1,2-Dichloroethene.....	5.0	N.D.
1,2-Dichloropropane.....	5.0	N.D.
cis-1,3-Dichloropropene.....	5.0	N.D.
trans-1,3-Dichloropropene.....	5.0	N.D.
Methylene chloride.....	50	N.D.
1,1,2,2-Tetrachloroethane.....	5.0	N.D.
Tetrachloroethene.....	5.0	7.6
1,1,1-Trichloroethane.....	5.0	N.D.
1,1,2-Trichloroethane.....	5.0	N.D.
Trichloroethene.....	5.0	N.D.
Trichlorofluoromethane.....	5.0	N.D.
Vinyl chloride.....	10	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL, #1271


Alan B. Kemp
Project Manager



Sequoia Analytical

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Cont. Table 5

Innovative Technical Solutions, Inc.
2855 Mitchell Drive, Suite 118
Walnut Creek, CA 94598
Attention: Jeff Hess

Client Project ID: Tosco, 6400 Dublin Blvd., Dublin
Sample Descript: Soil, S-15
Analysis Method: EPA 5030/8010
Lab Number: 604-0332

Sampled: Apr 3, 1996
Received: Apr 3, 1996
Analyzed: Apr 4, 1996
Reported: Apr 5, 1996

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane.....	5.0	N.D.
Bromoform.....	5.0	N.D.
Bromomethane.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	10	N.D.
2-Chloroethylvinyl ether.....	10	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	10	N.D.
Dibromochloromethane.....	5.0	N.D.
1,2-Dichlorobenzene.....	5.0	N.D.
1,3-Dichlorobenzene.....	5.0	N.D.
1,4-Dichlorobenzene.....	5.0	N.D.
1,1-Dichloroethane.....	5.0	N.D.
1,2-Dichloroethane.....	5.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.
cis-1,2-Dichloroethene.....	5.0	N.D.
trans-1,2-Dichloroethene.....	5.0	N.D.
1,2-Dichloropropane.....	5.0	N.D.
cis-1,3-Dichloropropene.....	5.0	N.D.
trans-1,3-Dichloropropene.....	5.0	N.D.
Methylene chloride.....	50	N.D.
1,1,2,2-Tetrachloroethane.....	5.0	N.D.
Tetrachloroethene.....	5.0	N.D.
1,1,1-Trichloroethane.....	5.0	N.D.
1,1,2-Trichloroethane.....	5.0	N.D.
Trichloroethene.....	5.0	N.D.
Trichlorofluoromethane.....	5.0	N.D.
Vinyl chloride.....	10	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL, #1271

Alan B. Kemp
Alan B. Kemp
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cont. Table 5

Innovative Technical Solutions, Inc. Client Project ID: Tosco, 6400 Dublin Blvd., Dublin
 2855 Mitchell Drive, Suite 118 Sample Descript: Water, W-1
 Walnut Creek, CA 94598 Analysis Method: EPA 5030/8010
 Attention: Jeff Hess Lab Number: 604-0337

Sampled: Apr 3, 1996
 Received: Apr 3, 1996
 Analyzed: Apr 4, 1996
 Reported: Apr 5, 1996

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane.....	5.0	N.D.
Bromoform.....	5.0	N.D.
Bromomethane.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	10	N.D.
2-Chloroethylvinyl ether.....	10	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	10	N.D.
Dibromochloromethane.....	5.0	N.D.
1,3-Dichlorobenzene.....	5.0	N.D.
1,4-Dichlorobenzene.....	5.0	N.D.
1,2-Dichlorobenzene.....	5.0	N.D.
1,1-Dichloroethane.....	5.0	N.D.
1,2-Dichloroethane.....	5.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.
cis-1,2-Dichloroethene.....	5.0	N.D.
trans-1,2-Dichloroethene.....	5.0	N.D.
1,2-Dichloropropane.....	5.0	N.D.
cis-1,3-Dichloropropene.....	5.0	N.D.
trans-1,3-Dichloropropene.....	5.0	N.D.
Methylene chloride.....	50	N.D.
1,1,2,2-Tetrachloroethane.....	5.0	N.D.
Tetrachloroethene.....	5.0	6.7
1,1,1-Trichloroethane.....	5.0	N.D.
1,1,2-Trichloroethane.....	5.0	N.D.
Trichloroethene.....	5.0	N.D.
Trichlorofluoromethane.....	5.0	N.D.
Vinyl chloride.....	10	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL, #1271

Alan B. Kemp
 Alan B. Kemp
 Project Manager

6
 TABLE 6 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11120
 6400 DUBLIN BOULEVARD, DUBLIN, CALIFORNIA

ALISTO PROJECT NO. 10-170

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)	DO (ppm)	LAB
MW-1	(c) 10/27/92	328.96	8.19	320.77	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	PACE
MW-1	04/09/93	328.96	4.79	324.17	ND<50	100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	PACE
MW-1	08/25/93	328.96	6.85	322.11	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	PACE
MW-1	11/22/93	328.96	7.38	321.58	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	PACE
MW-1	03/07/94	328.96	5.89	323.07	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	4.3	PACE
MW-1	06/09/94	328.96	6.42	322.54	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	8.8	PACE
MW-1	09/12/94	328.96	7.33	321.63	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	7.8	PACE
MW-1	12/20/94	328.96	6.34	322.62	--	--	--	--	--	--	--	--	--
MW-1	03/16/95	328.96	4.37	324.59	ND<50	ND<500	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	5.6	ATI
MW-1	06/28/95	328.96	5.35	323.61	--	--	--	--	--	--	--	--	--
MW-1	09/06/95	328.96	6.44	322.52	ND<50	340	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	7.4	ATI
MW-1	12/22/95	328.96	6.04	322.92	--	--	--	--	--	--	--	--	--
MW-1	08/20/96	328.96	5.65	323.31	--	--	--	--	--	--	--	--	--
MW-1	08/21/96	328.96	--	--	ND<50	160	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.8	SPL
MW-1	10/31/96	328.96	5.99	322.97	--	--	--	--	--	--	--	--	--
MW-1	(d) 12/02/96	328.96	--	--	--	--	--	--	--	--	--	--	--
MW-1	(d) 06/26/98	328.96	--	--	--	--	--	--	--	--	--	--	--
MW-2	10/27/92	328.50	7.64	320.86	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	PACE
MW-2	04/09/93	328.50	4.12	324.38	ND<50	80	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	PACE
MW-2	08/25/93	328.50	6.31	322.19	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	PACE
MW-2	11/22/93	328.50	7.12	321.38	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	PACE
MW-2	03/07/94	328.50	5.60	322.90	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	4.3	PACE
MW-2	06/09/94	328.50	5.91	322.59	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	8.2	PACE
MW-2	09/12/94	328.50	6.87	321.63	ND<50	160	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	7.5	PACE
MW-2	12/20/94	328.50	5.86	322.64	--	--	--	--	--	--	--	--	--
MW-2	03/16/95	328.50	3.77	324.73	ND<50	ND<500	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	6.6	ATI
MW-2	03/16/95	328.50	3.77	324.73	ND<50	ND<500	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	6.6	ATI
MW-2	06/28/95	328.50	4.33	324.17	--	--	--	--	--	--	--	--	--
MW-2	09/06/95	328.50	5.85	322.65	ND<50	210	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	7.0	ATI
MW-2	12/22/95	328.50	5.50	323.00	--	--	--	--	--	--	--	--	--
MW-2	08/20/96	328.50	5.07	323.43	--	--	--	--	--	--	--	--	--
MW-2	08/21/96	328.50	--	--	ND<50	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	7.0	SPL
MW-2	10/31/96	328.50	5.44	323.06	--	--	--	--	--	--	--	--	--
MW-2	12/02/96	328.50	5.50	323.00	--	--	--	--	--	--	--	--	--
MW-2	03/27/97	328.50	4.61	323.89	ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.8	SPL
MW-2	06/03/97	328.50	7.14	321.36	--	--	--	--	--	--	--	--	--
MW-2	09/16/97	328.50	6.10	322.40	ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.2	SPL
MW-2	12/03/97	328.50	6.22	322.28	--	--	--	--	--	--	--	--	--
MW-2	06/26/98	328.50	4.86	323.64	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.6	SPL

TABLE 6. SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11120
 6400 DUBLIN BOULEVARD, DUBLIN, CALIFORNIA

ALISTO PROJECT NO. 10-170

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)	DO (ppm)	LAB
MW-3	10/27/92	329.36	8.43	320.93	210	ND<50	3	0.7	0.9	30	—	—	PACE
MW-3	04/09/93	329.36	4.90	324.46	400	260	6.1	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-3	08/25/93	329.36	7.13	322.23	2000	440	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-3	11/22/93	329.36	7.60	321.76	1800	360	ND<2.5	ND<2.5	ND<2.5	ND<2.5	3300	(e)	PACE
MW-3	03/07/94	329.36	6.08	323.28	1300	5000	22	4.0	2.2	3.8	910	(e)	PACE
MW-3	06/09/94	329.36	6.51	322.85	8500	2600	25	8.3	0.5	15	7200	(e)	PACE
QC-1 (f)	06/09/94	—	—	—	8800	—	23	6.3	0.5	10	13000	(e)	PACE
MW-3	09/12/94	329.36	7.63	321.73	2100	3200	ND<5.0	ND<5.0	8.8	20	3800	(e)	PACE
QC-1 (f)	09/12/94	—	—	—	1800	—	ND<5.0	ND<5.0	8.0	10	3900	(e)	PACE
MW-3	12/20/94	329.36	6.41	322.95	18000	9600	79	28	89	9.3	—	—	PACE
QC-1 (f)	12/20/94	—	—	—	17000	—	79	33	80	ND<2.5	—	—	PACE
MW-3	03/16/95	329.36	4.39	324.97	6300	7000	470	ND<5.0	210	9.9	—	—	PACE
QC-1 (f)	03/16/95	—	—	—	6300	—	500	ND<5.0	230	13	—	—	ATI
MW-3	06/28/95	329.36	5.50	323.86	9000	3000	(g) ND<10	ND<10	ND<10	ND<20	—	—	ATI
QC-1 (f)	06/28/95	—	—	—	8800	—	(g) ND<10	ND<10	ND<10	ND<20	—	—	ATI
MW-3	09/06/95	329.36	6.66	322.70	10000	2800	ND<50	ND<50	ND<50	ND<100	37000	—	ATI
QC-1 (f)	09/06/95	—	—	—	9700	—	ND<50	ND<50	ND<50	ND<100	36000	—	ATI
MW-3	12/22/95	329.36	6.31	323.05	9200	2500	ND<50	ND<50	ND<50	ND<100	29000	—	ATI
MW-3	08/20/96	329.36	5.87	323.49	—	—	—	—	—	—	—	—	ATI
MW-3	08/21/96	329.36	—	—	3700	1900	ND<25	ND<50	ND<50	ND<50	4100	6.8	ATI
QC-1 (f)	08/21/96	—	—	—	3500	—	ND<25	ND<50	ND<50	ND<50	4000	—	SPL
MW-3	10/31/96	329.36	6.20	323.16	ND<250	ND<500	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	—	SPL
QC-1 (f)	10/31/96	—	—	—	ND<250	—	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	—	SPL
MW-3	12/02/96	329.36	6.27	323.09	ND<250	50	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	—	ATI
QC-1 (f)	12/02/96	—	—	—	ND<250	—	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	6.4	SPL
MW-3	03/27/97	329.36	5.39	323.97	470	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	490	—	ATI
MW-3	06/03/97	329.36	7.92	321.44	ND<250	100	ND<2.5	ND<5.0	ND<5.0	ND<5.0	84	5.9	SPL
QC-1 (f)	06/03/97	—	—	—	ND<250	—	ND<2.5	ND<5.0	ND<5.0	ND<5.0	74.0	—	ATI
MW-3	09/16/97	329.36	6.67	322.69	ND<50	330	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	5.5	SPL
MW-3	12/03/97	329.36	6.81	322.55	ND<50	ND<200	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.0	SPL
QC-1 (f)	12/03/97	—	—	—	ND<50	—	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	—	SPL
MW-3	06/26/98	329.36	5.08	324.28	ND<250	—	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	4.8	SPL

TABLE 6 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11120
 6400 DUBLIN BOULEVARD, DUBLIN, CALIFORNIA

ALISTO PROJECT NO. 10-170

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet) (a)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet) (b)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-4	10/27/92	329.45	8.61	320.84	2300	190	23	54	50	320	---	---	PACE
MW-4	04/09/93	329.45	5.25	324.20	1600	500	78	3.5	68	1.0	---	---	PACE
MW-4	08/25/88	329.45	7.32	322.13	1800	380	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2100	(e)	PACE
QC-1	(f) 08/25/93	---	---	---	1600	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2100	(e)	PACE
MW-4	11/22/93	329.45	7.83	321.62	610	260	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-1	(f) 11/22/93	---	---	---	1700	---	ND<2.5	ND<2.5	ND<2.5	ND<2.5	3500	(e)	PACE
MW-4	03/07/94	329.45	6.29	323.16	710	1400	0.5	0.8	ND<0.5	ND<0.5	5900	(e)	PACE
QC-1	(f) 03/07/94	---	---	---	1600	---	ND<0.5	ND<0.5	1.4	0.6	4200	(e)	PACE
MW-4	06/09/94	329.45	6.76	322.69	6400	1800	ND<10	ND<10	ND<10	ND<10	10000	(e)	PACE
MW-4	09/12/94	329.45	7.83	321.62	2000	2700	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4200	(e)	PACE
MW-4	12/20/94	329.45	6.68	322.77	9200	2400	ND<5.0	ND<5.0	ND<5.0	ND<5.0	---	---	PACE
MW-4	03/16/95	329.45	4.66	324.79	1400	960	140	ND<2.5	58	14	---	---	ATI
MW-4	06/28/95	329.45	5.93	323.52	5000	5400	(g) 240	ND<5.0	220	ND<10	---	---	ATI
MW-4	09/06/95	329.45	6.83	322.62	4400	4500	ND<13	ND<13	ND<13	ND<25	12000	---	ATI
MW-4	12/22/95	329.45	6.42	323.03	3800	4700	15	ND<13	ND<13	ND<25	9200	---	ATI
QC-1	(f) 12/22/95	---	---	---	3900	---	16	ND<13	ND<13	ND<25	8600	---	ATI
MW-4	08/20/96	329.45	6.01	323.44	---	---	---	---	---	---	---	---	---
MW-4	08/21/96	329.45	---	---	ND<250	470	ND<12	ND<25	ND<25	ND<25	ND<250	---	---
MW-4	10/31/96	329.45	6.37	323.08	ND<250	1600	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	7.7	SPL
MW-4	12/02/96	329.45	6.71	322.74	ND<50	13000	ND<5	ND<10	ND<10	ND<10	2200	7.1	SPL
MW-4	03/27/97	329.45	5.70	323.75	8300	1500	44	ND<25	ND<25	ND<25	8000	6.2	SPL
QC-1	(f) 03/27/97	---	---	---	6900	---	51	ND<25	ND<25	ND<25	8500	---	SPL
MW-4	06/03/97	329.45	8.37	321.08	2800	270	62	ND<1.0	ND<1.0	ND<1.0	7000	7.1	SPL
MW-4	09/16/97	329.45	6.91	322.54	110	1800	0.80	ND<1.0	ND<1.0	ND<1.0	7700	6.2	SPL
QC-1	(f) 09/16/97	---	---	---	130	---	1.2	ND<1.0	ND<1.0	1.1	7100	---	SPL
MW-4	12/03/97	329.45	7.16	322.29	ND<50	ND<200	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.0	SPL
MW-4	06/26/98	329.45	5.15	324.30	520	---	0.52	ND<1.0	ND<1.0	ND<1.0	1100	5.3	SPL
MW-5	04/09/93	329.60	5.18	324.42	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-5	08/25/93	329.60	7.28	322.32	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-5	11/22/93	329.60	7.82	321.78	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-5	03/07/94	329.60	6.27	323.33	ND<50	120	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-5	06/09/94	329.60	6.73	322.87	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-5	09/12/94	329.60	7.78	321.82	ND<50	120	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-5	12/20/94	329.60	6.63	322.97	---	---	---	---	---	---	---	---	---
MW-5	03/16/95	329.60	4.65	324.95	ND<50	ND<500	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
MW-5	06/28/95	329.60	5.69	323.91	---	---	---	---	---	---	---	---	---
MW-5	09/06/95	329.60	6.82	322.78	ND<50	200	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	7.3	ATI
MW-5	12/22/95	329.60	6.40	323.20	---	---	---	---	---	---	---	---	---
MW-5	08/20/96	329.60	5.98	323.62	---	---	---	---	---	---	---	---	---
MW-5	08/21/96	329.60	---	---	ND<50	ND<50	ND<0.50	ND<1.0	ND<1.0	ND<1.0	ND<10	6.9	SPL
MW-5	10/31/96	329.60	6.29	323.31	---	---	---	---	---	---	---	---	---
MW-5	12/02/96	329.60	6.37	323.23	---	---	---	---	---	---	---	---	---
MW-5	03/27/97	329.60	5.33	324.27	ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.8	SPL
MW-5	06/03/97	329.60	8.00	321.60	---	---	---	---	---	---	---	---	---
MW-5	09/16/97	329.60	6.89	322.71	ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	27	5.4	SPL
MW-5	12/03/97	329.60	6.99	322.61	---	---	---	---	---	---	---	---	---
MW-5	06/26/98	329.60	5.11	324.49	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.7	SPL

TABLE 6 SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11120
 6400 DUBLIN BOULEVARD, DUBLIN, CALIFORNIA

ALISTO PROJECT NO. 10-170

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)	DO (ppm)	LAB
MW-6	04/09/93	329.55	5.37	324.18	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-6	08/25/93	329.55	7.42	322.13	ND<50	170	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-6	11/22/93	329.55	7.93	321.62	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-6	03/07/94	329.55	6.25	323.30	ND<50	90	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-6	06/09/94	329.55	6.85	322.70	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	4.2	PACE
MW-6	09/12/94	329.55	7.91	321.64	ND<50	240	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	7.0	PACE
MW-6	12/20/94	329.55	6.82	322.73	—	—	—	—	—	—	—	6.7	PACE
MW-6	03/16/95	329.55	4.78	324.77	ND<50	ND<500	ND<0.50	ND<0.50	ND<0.50	ND<1.0	—	—	—
MW-6	06/28/95	329.55	5.97	323.58	—	—	—	—	—	—	—	6.1	ATI
MW-6	09/06/95	329.55	6.94	322.61	ND<50	340	ND<0.50	ND<0.50	—	—	—	—	—
MW-6	12/22/95	329.55	6.53	323.02	—	—	—	—	ND<0.50	ND<1.0	ND<5.0	7.2	ATI
MW-6	08/20/96	329.55	6.18	323.37	—	—	—	—	—	—	—	—	—
MW-6	08/21/96	329.55	—	—	ND<50	120	ND<0.5	ND<1.0	—	—	—	—	—
MW-6	10/31/96	329.55	6.52	323.03	—	—	—	—	ND<1.0	ND<1.0	ND<1.0	—	SPL
MW-6	12/02/96	329.55	6.55	323.00	—	—	—	—	—	—	—	—	—
MW-6	03/27/97	329.55	5.50	324.05	ND<50	ND<100	ND<0.5	ND<1.0	—	—	—	—	—
MW-6	06/03/97	329.55	8.19	321.36	—	—	—	—	ND<1.0	ND<1.0	ND<1.0	6.3	SPL
MW-6	09/16/97	329.55	6.95	322.60	ND<250	680	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<5.0	—	—
MW-6	12/03/97	329.55	7.22	322.33	—	—	—	—	—	—	—	5.5	SPL
MW-6	06/26/98	329.55	5.20	324.35	ND<50	—	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	4.6	SPL
MW-7	04/09/93	329.49	5.36	324.13	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-7	08/25/93	329.49	7.44	322.05	ND<50	150	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-7	11/22/93	329.49	7.92	321.57	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-7	03/07/94	329.49	6.20	323.29	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-7	06/09/94	329.49	6.89	322.60	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	3.7	PACE
MW-7	09/12/94	329.49	7.87	321.62	ND<50	50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	6.8	PACE
MW-7	12/20/94	329.49	6.77	322.72	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	6.8	PACE
MW-7	03/16/95	329.49	4.77	324.72	ND<50	ND<500	ND<0.50	ND<0.50	ND<0.50	ND<1.0	—	6.5	PACE
MW-7	06/28/95	329.49	5.94	323.55	ND<50	320	ND<0.50	ND<0.50	ND<0.50	ND<1.0	—	5.9	ATI
MW-7	09/06/95	329.49	6.98	322.51	ND<50	240	ND<0.50	ND<0.50	ND<0.50	ND<1.0	—	7.8	ATI
MW-7	12/22/95	329.49	6.65	322.84	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	8.5	7.5	ATI
MW-7	08/20/96	329.49	6.22	323.27	—	—	—	—	ND<0.50	ND<1.0	7.2	6.9	ATI
MW-7	08/21/96	329.49	—	—	ND<50	ND<50	ND<0.5	ND<1.0	—	—	—	—	—
MW-7	10/31/96	329.49	6.56	322.93	ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	—	SPL
MW-7	12/02/96	329.49	6.13	323.36	ND<50	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	86	6.8	SPL
MW-7	03/27/97	329.49	5.08	324.41	ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	59	7.3	SPL
MW-7	06/03/97	329.49	7.80	321.69	650	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	6.6	SPL
MW-7	09/16/97	329.49	6.50	322.99	120	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	630	6.8	SPL
MW-7	12/03/97	329.49	6.66	322.83	ND<50	ND<200	ND<0.5	ND<1.0	ND<1.0	ND<1.0	2200	6.0	SPL
MW-7 (h)	06/26/98	329.49	4.96	324.53	ND<50	—	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	5.0	SPL
												5.1	SPL

7
TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING FOR EPA METHOD 8260 ANALYSIS
 BP OIL COMPANY SERVICE STATION NO. 11120
 6400 DUBLIN BOULEVARD, DUBLIN, CALIFORNIA

ALISTO PROJECT NO. 10-170

WELL ID	DATE OF SAMPLING/ MONITORING	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DIPE (ug/l)	ETBE (ug/l)	TBA (ug/l)	TAME (ug/l)	LAB
MW-4	06/26/98	ND<5	ND<5	ND<5	ND<5	ND<10	ND<10	ND<10	ND<500	ND<10	SPL
MW-7	06/26/98	ND<5	ND<5	ND<5	ND<5	ND<10	ND<10	ND<10	ND<500	ND<10	SPL

ABBREVIATIONS:

B Benzene
 T Toluene
 E Ethylbenzene
 X Total xylenes
 MTBE Methyl tert butyl ether
 DIPE Di-isopropyl ether
 ETBE Ethyl t-butyl ether
 TBA t-butyl ether
 TAME tert-amyl methyl ether
 ug/l Micrograms per liter
 ND Not detected above reported detection limit
 SPL Southern Petroleum Laboratories

F:\01\10-170\10-170EC.WQ2

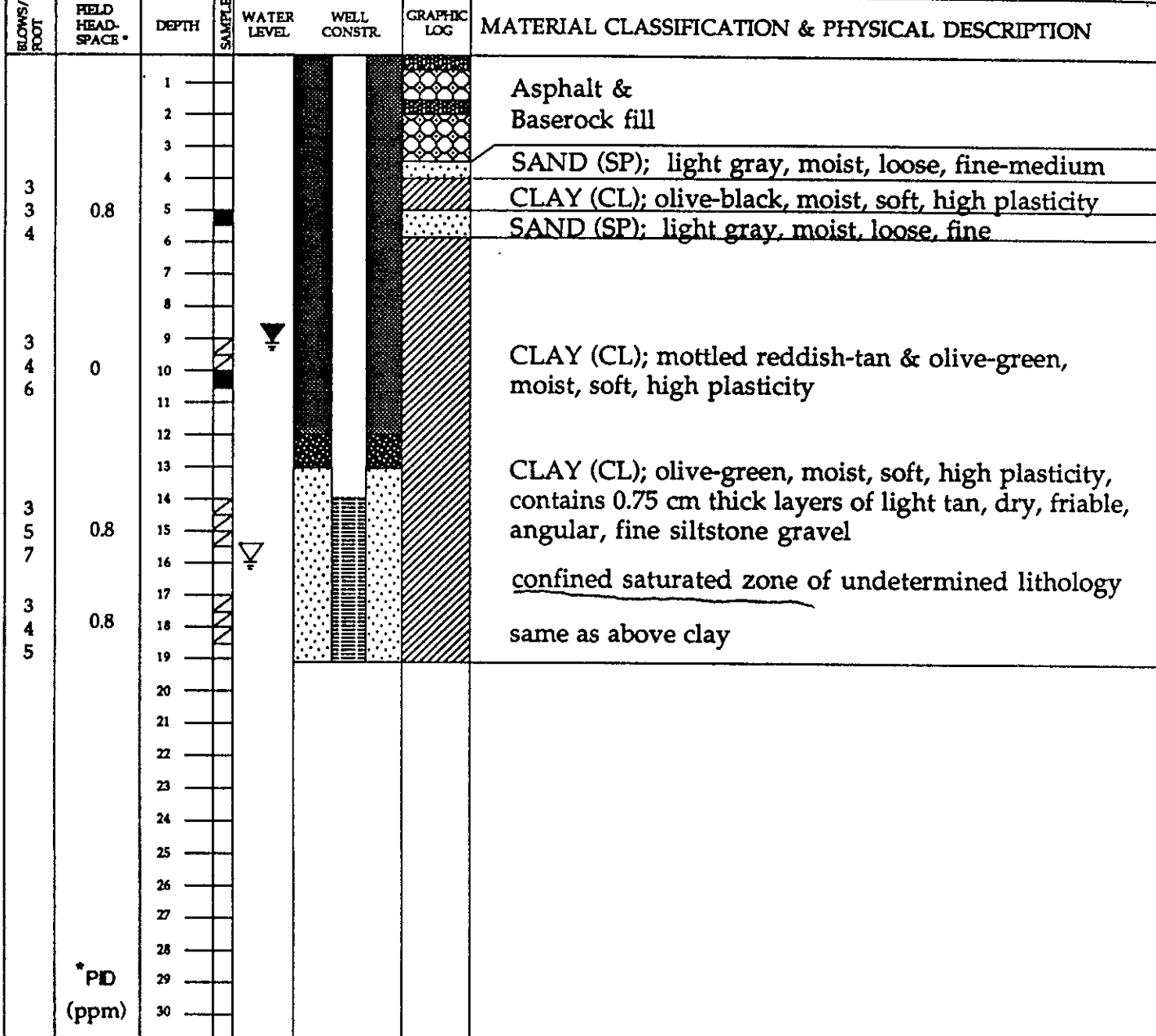
SITE/LOCATION 6400 Dublin Blvd., Dublin, CA		BEGUN 10/13/92	BORING DIAMETER 8 Inches	ANGLE/BEARING 90 Degrees	BORING NO B-1
DRILLING CONTRACTOR Bayland Drilling		COMPLETED 10/13/92	FIRST ENCOUNTERED WATER DEPTH 17 Feet		
OPERATOR Tom Schmidt		LOGGED BY H. Hurkmans	STATIC WATER DEPTH/DATE 10 Feet/10-13-92		
DRILL MAKE & MODEL CME 75		SAMPLING METHOD California modified split-spoon			BOTTOM OF BORING 19 Feet
WELL MATERIAL Sch. 40 PVC	SLOT SIZE 0.010	FILTER PACK #2/12	BORING SEAL Neat cement		WELL NO. MW-1

BLOWS/ FOOT	FIELD HEAD- SPACE *	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION
		1					Asphalt & Baserock fill
		2					
		3					
5		4					
6	0	5					CLAY (CL); olive-black, moist, soft, high plasticity
12		6					SAND (SP); rust, moist, loose, fine-medium
		7					
		8					
2		9					
5	0.8	10		▽			CLAY (CL); olive-black, moist, firm, high plasticity, 5% mm-size, reddish roots
8		11					
		12					
4		13					CLAY (CL); olive, moist, firm, high plasticity, 1% light tan, friable, angular, fine gravel
6		14					
9	0	15					CLAY (CL); olive-green, moist, firm, high plasticity, 10% light tan, friable, angular, fine gravel
8		16					
11		17		▽			
15	0	18					<u>confined saturated zone of undetermined lithology</u>
		19					
		20					
		21					
		22					
		23					
		24					
		25					
		26					
		27					
		28					
		29					
		30					

HYDRO- ENVIRONMENTAL TECHNOLOGIES, INC.	SOIL BORING LOG B-1 AND WELL CONSTRUCTION LOG MW-1	PLATE A-1
	BP Oil Station No. 11120 6400 Dublin Blvd. Dublin, CA	JOB NO. 9-040
DATE: 10/16/92		
APPROVED BY: John Turney		

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SITE/LOCATION 6400 Dublin Blvd., Dublin, CA		BEGUN 10/13/92	BORING DIAMETER 8 Inches	ANGLE/BEARING 90 Degrees	BORING NO B-2
DRILLING CONTRACTOR Bayland Drilling		COMPLETED 10/13/92	FIRST ENCOUNTERED WATER DEPTH 16 Feet		
OPERATOR Tom Schmidt		LOGGED BY H. Hurkmans	STATIC WATER DEPTH/DATE 9 Feet/10-13-92		
DRILL MAKE & MODEL CME 75		SAMPLING METHOD California modified split-spoon			BOTTOM OF BORING 19 Feet
WELL MATERIAL Sch. 40 PVC	SLOT SIZE 0.010	FILTER PACK #2/12	BORING SEAL Neat cement		WELL NO. MW-2



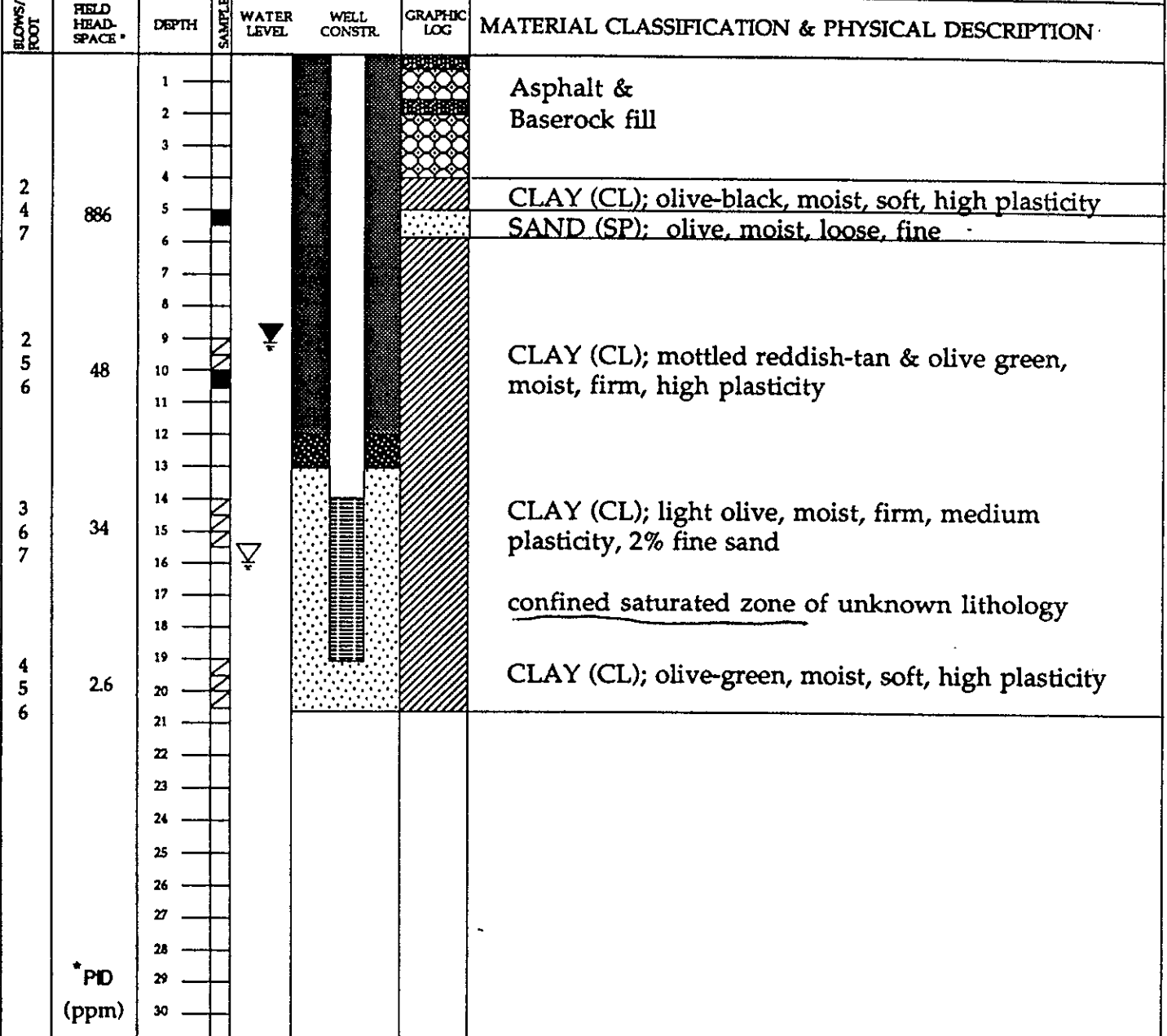
**HYDR-
ENVIRONMENTAL
TECHNOLOGIES, INC.**

DATE: 10/16/92
APPROVED BY: John Turney

**SOIL BORING LOG B-2
AND
WELL CONSTRUCTION
LOG MW-2**
BP Oil Station No. 11120
6400 Dublin Blvd.
Dublin, CA

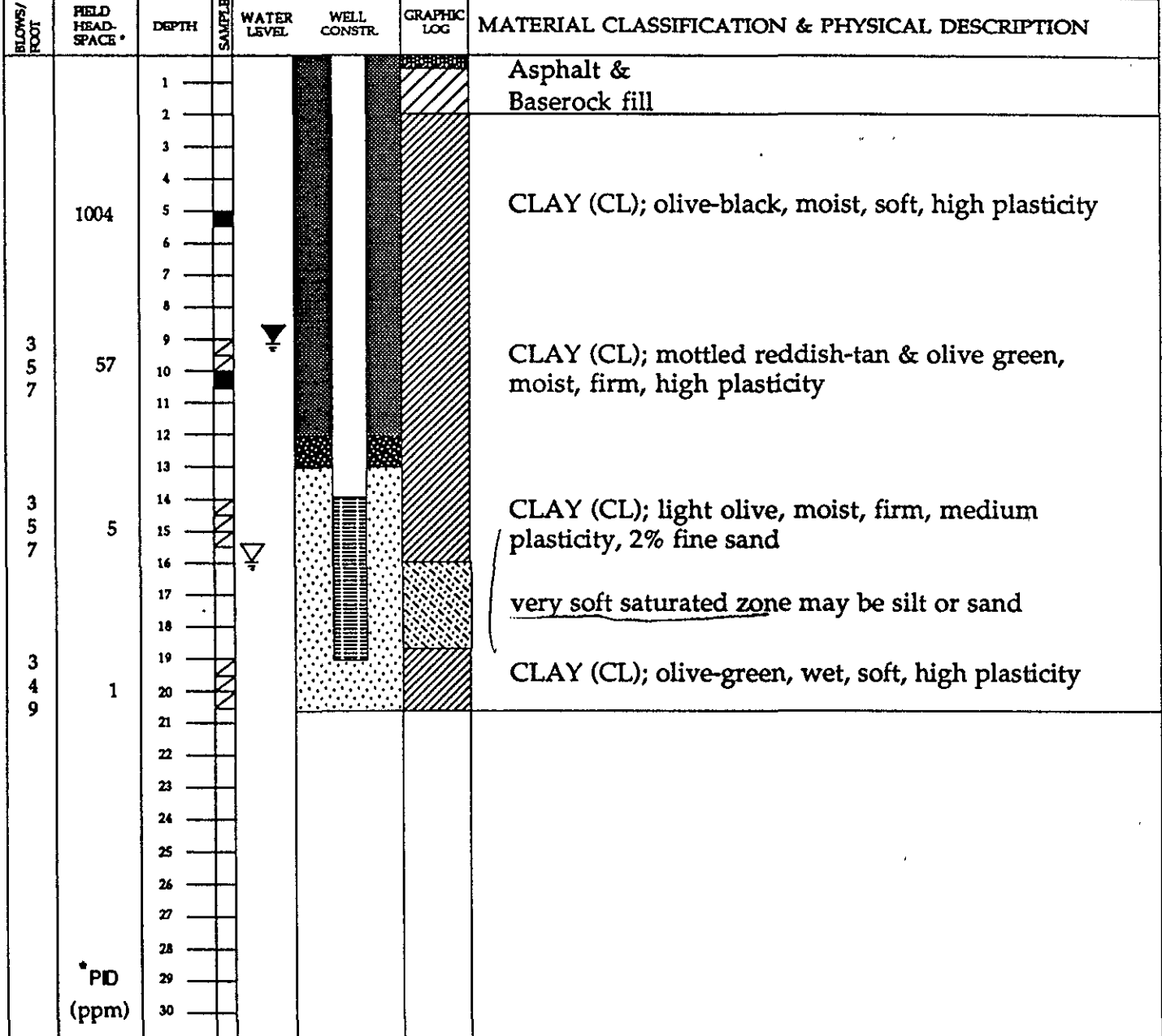
PLATE
A-2
JOB NO.
9-040

SITE/LOCATION 6400 Dublin Blvd., Dublin, CA		BEGUN 10/13/92	BORING DIAMETER 8 Inches	ANGLE/BEARING 90 Degrees	BORING NO B-3
DRILLING CONTRACTOR Bayland Drilling		COMPLETED 10/13/92	FIRST ENCOUNTERED WATER DEPTH 16 Feet		
OPERATOR Tom Schmidt		LOGGED BY H. Hurkmans	STATIC WATER DEPTH/DATE 9 Feet/10-13-92		
DRILL MAKE & MODEL CME 75		SAMPLING METHOD California modified split-spoon			BOTTOM OF BORING 20.5 Feet
WELL MATERIAL Sch. 40 PVC	SLOT SIZE 0.010	FILTER PACK #2/12	BORING SEAL Neat cement		WELL NO. MW-3



HYDR- ENVIRONMENTAL TECHNOLOGIES, INC.	SOIL BORING LOG B-3 AND WELL CONSTRUCTION LOG MW-3	PLATE A-3
	BP Oil Station No. 11120 6400 Dublin Blvd. Dublin, CA	JOB NO. 9-040
DATE: 10/16/92		
APPROVED BY: John Turney		

SITE/LOCATION 6400 Dublin Blvd., Dublin, CA		BEGUN 10/13/92	BORING DIAMETER 8 Inches	ANGLE/BEARING 90 Degrees	BORING NO B-4
DRILLING CONTRACTOR Bayland Drilling		COMPLETED 10/13/92	FIRST ENCOUNTERED WATER DEPTH 16 Feet		
OPERATOR Tom Schmidt		LOGGED BY H. Hurkmans	STATIC WATER DEPTH/DATE 9 Feet/10-13-92		
DRILL MAKE & MODEL CME 75		SAMPLING METHOD California modified split-spoon			BOTTOM OF BORING 20.5 Feet
WELL MATERIAL Sch. 40 PVC	SLOT SIZE 0.010	FILTER PACK #2/12	BORING SEAL Neat cement		WELL NO. MW-4



**HYDR-
ENVIRONMENTAL
TECHNOLOGIES, INC.**

DATE: 10/16/92
APPROVED BY: John Turney

**SOIL BORING LOG B-4
AND
WELL CONSTRUCTION
LOG MW-4**
BP Oil Station No. 11120
6400 Dublin Blvd.
Dublin, CA

PLATE
A-4

JOB NO.
9-040

Blvd., Dublin, CA

CONTRACTOR
Hazmat Drilling Corp.

Logg
Wright

MAKE & MODEL
ME 75

WELL MATERIAL
2" dia. sch. 40 pvc

SLOT SIZE
0.020

FILTER PACK
#3 sand

BORING SEAL
Neat cement over hydrated bentonite

BEGUN
4/6/93

COMPLETED
4/6/93

LOGGED BY
H. Hurkmans

SAMPLING METHOD
California modified split-spoon

BORING DIAMETER
8 Inches

ANGLE/BEARING
90 Degrees

BORING NO
MW-5

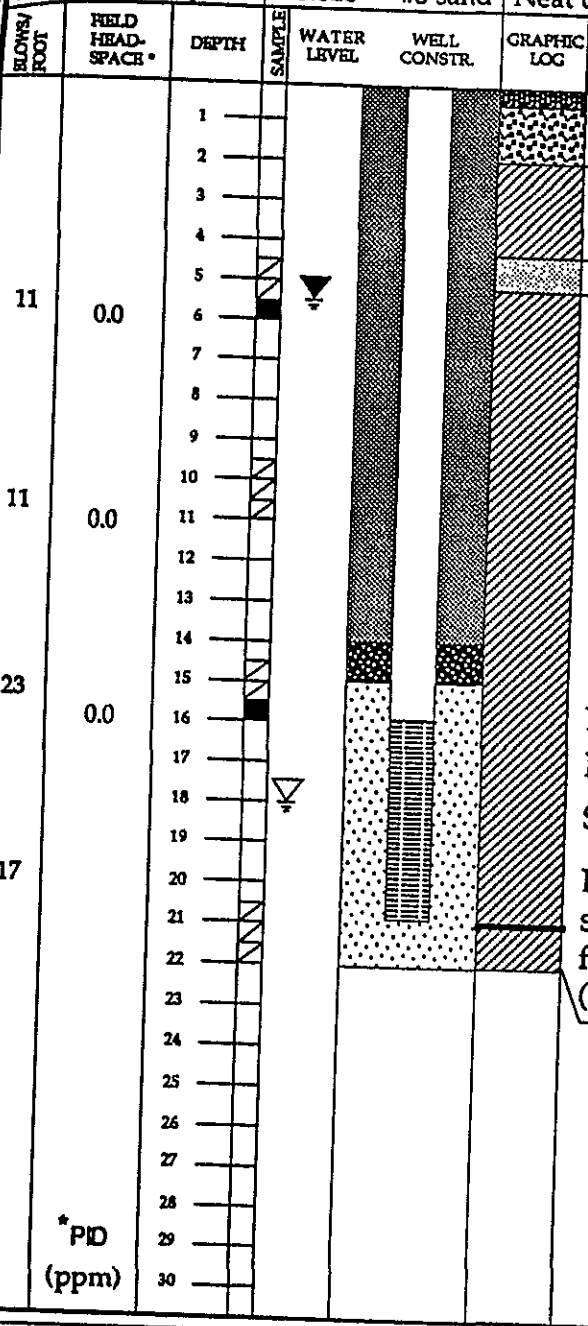
FIRST ENCOUNTERED WATER DEPTH
Between 16.5-20.5 Feet

BOTTOM OF BORING
22.0 Feet

STATIC WATER DEPTH/DATE
5.18 Feet/4-9-93

BOTTOM OF WELL
21.0 Feet

WELL NO.
MW-5



MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION

Asphalt & Baserock fill

Lean CLAY (CL); brown, damp, low plasticity, silty

Poorly-graded SAND (SP); olive, moist, fine-medium gr.

Lean CLAY (CL); blue-gray, moist, stiff, medium plasticity, silty

Lean CLAY (CL); mottled tan & olive-green, moist, stiff, medium plasticity

Lean CLAY (CL); olive, moist, very stiff, low-medium plasticity

Saturated zone

Lean CLAY (CL); mottled olive & green-olive, moist, stiff, medium plasticity; trace 1 cm dia. pockets of white, friable, material; at 21 ft contains a thin lamination (2cm) of black clay containing burned wood fragments

**HYDRO-
ENVIRONMENTAL
TECHNOLOGIES, INC.**

**SOIL BORING AND
WELL CONSTRUCTION LOG
MW-5**

**PLATE
A-3
SHEET 1 OF 1**

BP Oil Station No. 11120
6400 Dublin Blvd.
Dublin, California

**JOB NO.
9-040.1**

DATE:
APPROVED BY: Owen C. Ratchye

6400 Dublin Blvd., Dublin, CA

BEGUN
4/6/93

BORING DIAMETER
10 Inches

ANGLE/BEARING
90 Degrees

BORING NO
MW-6

CONTRACTOR
Hazmat Drilling Corp.

COMPLETED
4/6/93

FIRST ENCOUNTERED WATER DEPTH
16 Feet

BOTTOM OF BORING
22.0 Feet

FOR
Thomas Wright

LOGGED BY
H. Hurkmans

STATIC WATER DEPTH/DATE
5.37 Feet/4-9-93

WELL MAKE & MODEL
CME 75

SAMPLING METHOD
California modified split-spoon

BOTTOM OF WELL
20.0 Feet

WELL MATERIAL
4" dia. sch. 40 pvc

SLOT SIZE
0.020

FILTER PACK
#3 sand

BORING SEAL
Neat cement over hydrated bentonite

WELL NO.
MW-6

FEET/FOOT	FIELD HEAD-SPACE	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION
		1					Red pumice/planter box fill
		2					Baserock fill
		3					
		4					
18	0.0	5		▽			Lean CLAY with gravel (CL); tan with rust, damp, stiff; 20% subrounded gravel
		6					
		7					
		8					
		9					
20	0.0	10					similar to above
		11					Silty SAND (SM), gray, moist-wet, fine, sub-rounded
		12					
		13					
26	0.0	14					
		15		▽			Lean CLAY (CL); olive, moist, very stiff, high plasticity
		16					saturated
		17					
		18					
25		19					
		20					
		21					Lean CLAY (CL); olive, moist, very stiff, high plasticity; trace white, coarse sand
		22					
		23					
		24					
		25					
		26					
		27					
		28					
		29					
		30					

**HYDR-
ENVIRONMENTAL
TECHNOLOGIES, INC.**

**SOIL BORING AND
WELL CONSTRUCTION LOG
MW-6**

**PLATE
A-4
SHEET 1 OF 1**

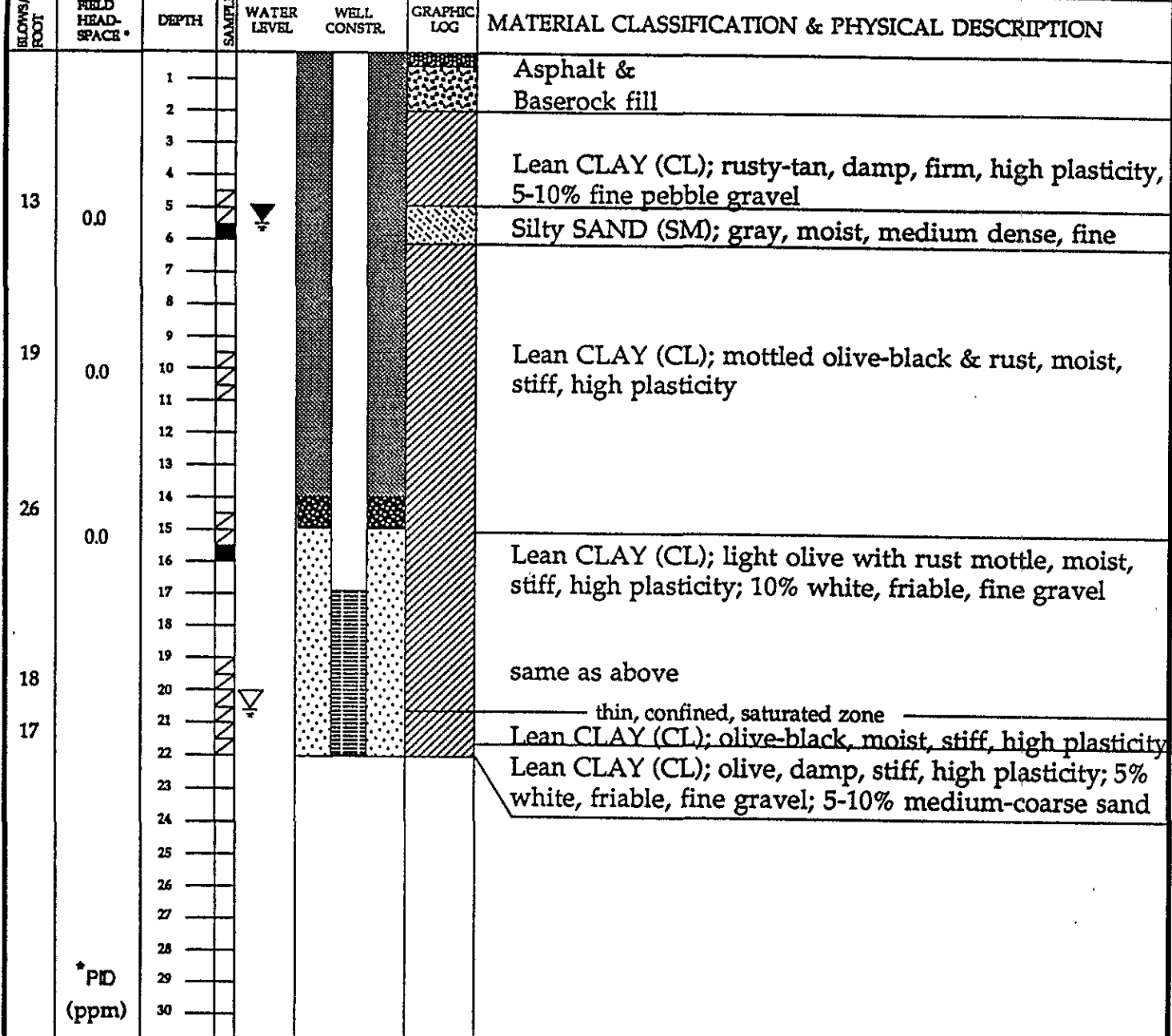
BP Oil Station No. 11120
6400 Dublin Blvd.
Dublin, California

**JOB NO.
9-040.1**

DATE:

APPROVED BY: Owen C. Ratchye

6400 Dublin Blvd., Dublin, CA	BEGUN 4/6/93	BORING DIAMETER 8 Inches	ANGLE/BEARING 90 Degrees	BORING NO MW-7
CONTRACTOR Hazmat Drilling Corp.	COMPLETED 4/6/93	FIRST ENCOUNTERED WATER DEPTH 20.5 Feet	BOTTOM OF BORING 22.0 Feet	
FOR Thomas Wright	LOGGED BY H. Hurkmans	STATIC WATER DEPTH/DATE 5.36 Feet/4-9-93		
WELL MAKE & MODEL IME 75	SAMPLING METHOD California modified split-spoon			BOTTOM OF WELL 22.0 Feet
WELL MATERIAL 2" dia. sch. 40 pvc	SLOT SIZE 0.020	FILTER PACK #3 sand	BORING SEAL Neat cement over hydrated bentonite	
				WELL NO. MW-7



**HYDR-
ENVIRONMENTAL
TECHNOLOGIES, INC.**

DATE:

APPROVED BY: Owen C. Ratchye

**SOIL BORING AND
WELL CONSTRUCTION LOG
MW-7**

BP Oil Station No. 11120
6400 Dublin Blvd.
Dublin, California

**PLATE
A-5
SHEET 1 OF 1**

**JOB NO.
9-040.1**

6400 Dublin Blvd., Dublin, CA

CONTRACTOR
Hazmat Drilling Corp.

OPERATOR
Dimitris Wright

WELL MAKE & MODEL
CME 75

WELL MATERIAL
N/A

SLOT SIZE
N/A

FILTER PACK
N/A

BORING SEAL
Neat cement

BEGUN
4/6/93

COMPLETED
4/6/93

LOGGED BY
H. Hurkmans

SAMPLING METHOD
California modified split-spoon

BORING DIAMETER
8 Inches

FIRST ENCOUNTERED WATER DEPTH
17-18 Feet

SECOND ENCOUNTERED WATER DEPTH
29 Feet

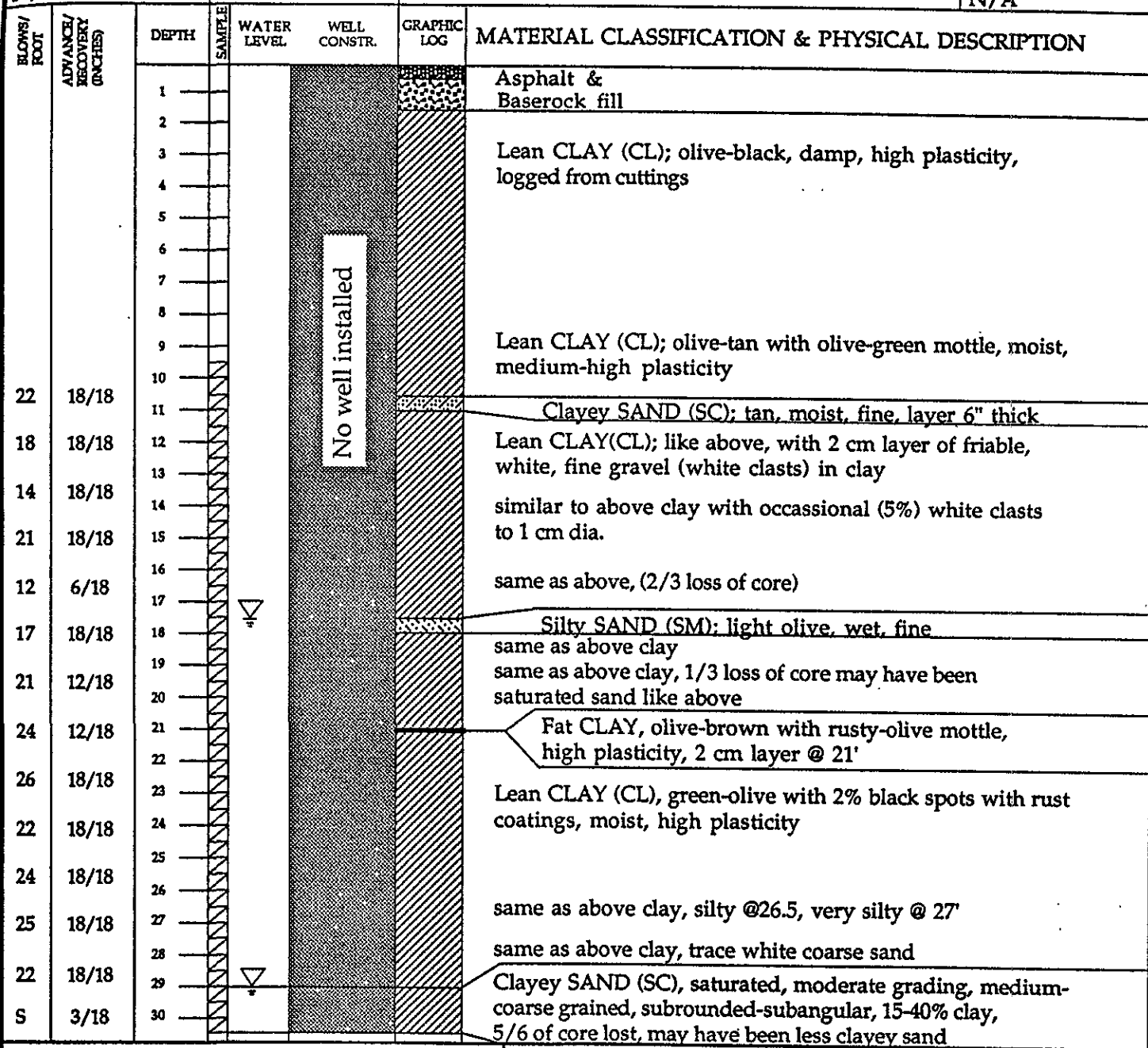
ANGLE/BEARING
90 Degrees

BORING NO
LB-1

BOTTOM OF BORING
30.5 Feet

BOTTOM OF WELL
N/A

WELL NO.
N/A



**HYDRO-
ENVIRONMENTAL
TECHNOLOGIES, INC.**

**SOIL BORING
LOG LB-1**

**PLATE
A-2
SHEET 1 OF 1**

BP Oil Station No. 1120
6400 Dublin Blvd.
Dublin, California

**JOB NO.
9-040.1**

DATE:

APPROVED BY: Owen C. Ratchye