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

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

enlosures: 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

98 DEC 18 PM 3:46

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

DEC 14 1998

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

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**

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

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
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:

Material	Amount (include units)	Action (Treatment or Disposal w/destination)	Date
Tank	**4 USTs**		
Soil	**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: 11/20/98

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)

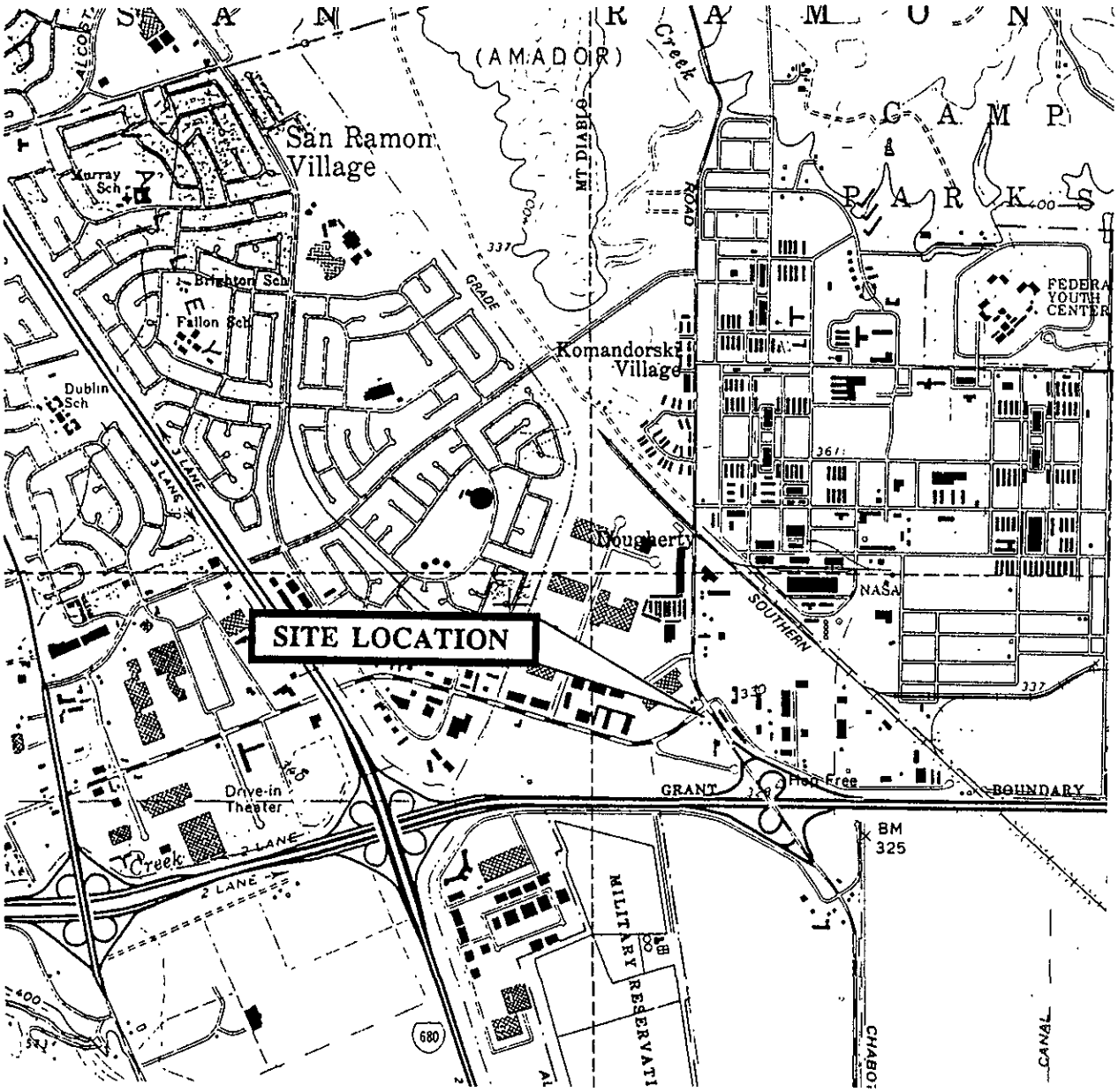
In April 1996 four USTs (1-12K, 1-10K, 1-8K gallon gasoline USTs and 1-550 gallon waste oil UST) were removed. Approximately 160' of piping and two hydraulic lifts and a wastewater clarifier were also removed. New USTs were installed in a newly excavated pit. Groundwater was in the main gasoline pit 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:

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

0 1 MILE

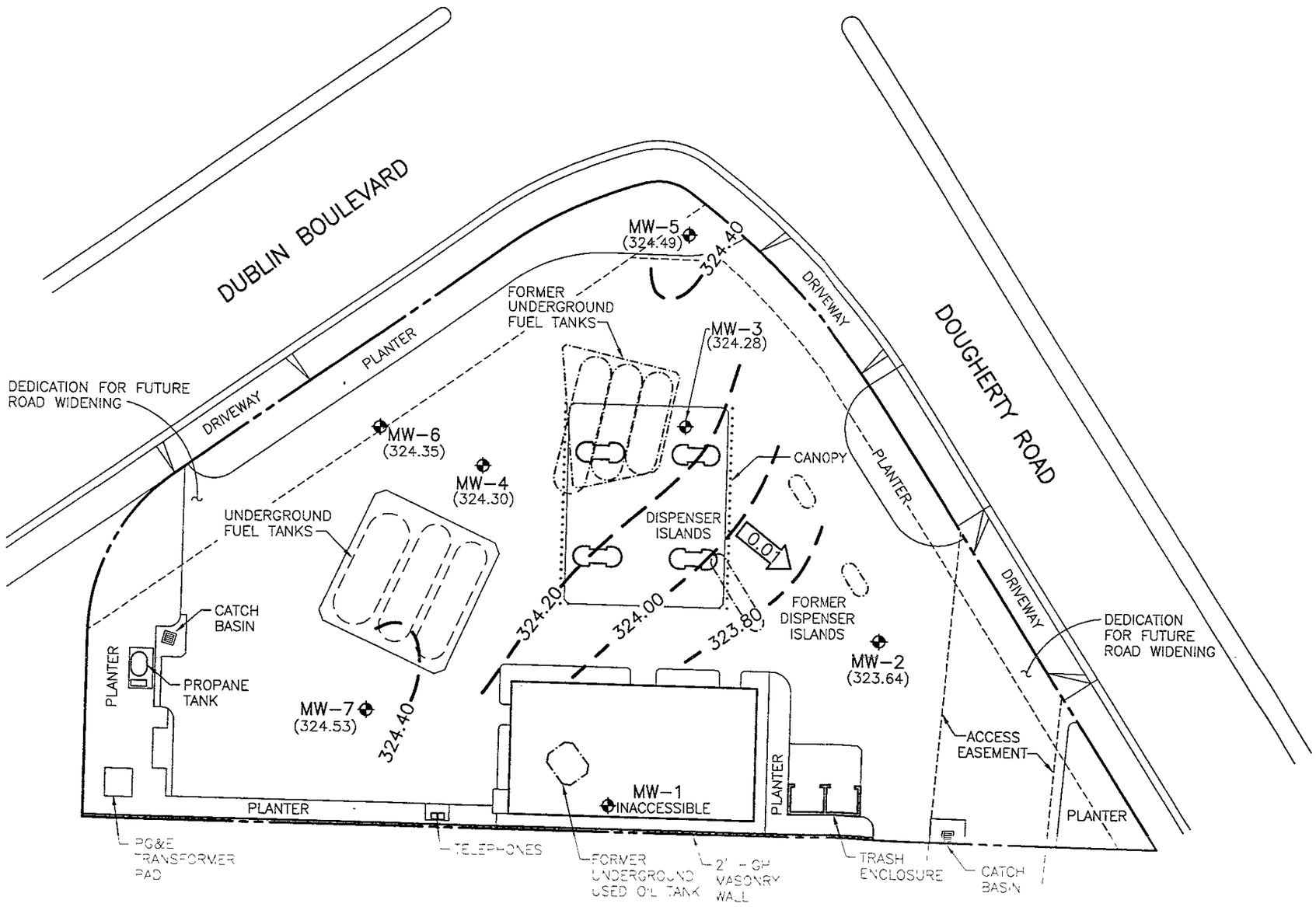
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 5 0 1 KILOMETER

HYDR◆
ENVIR◆MENTAL
TECHN◆LOGIES, INC.

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

Job No.
9-040
Figure
1



N

0 30 60

SCALE IN FEET

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

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

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

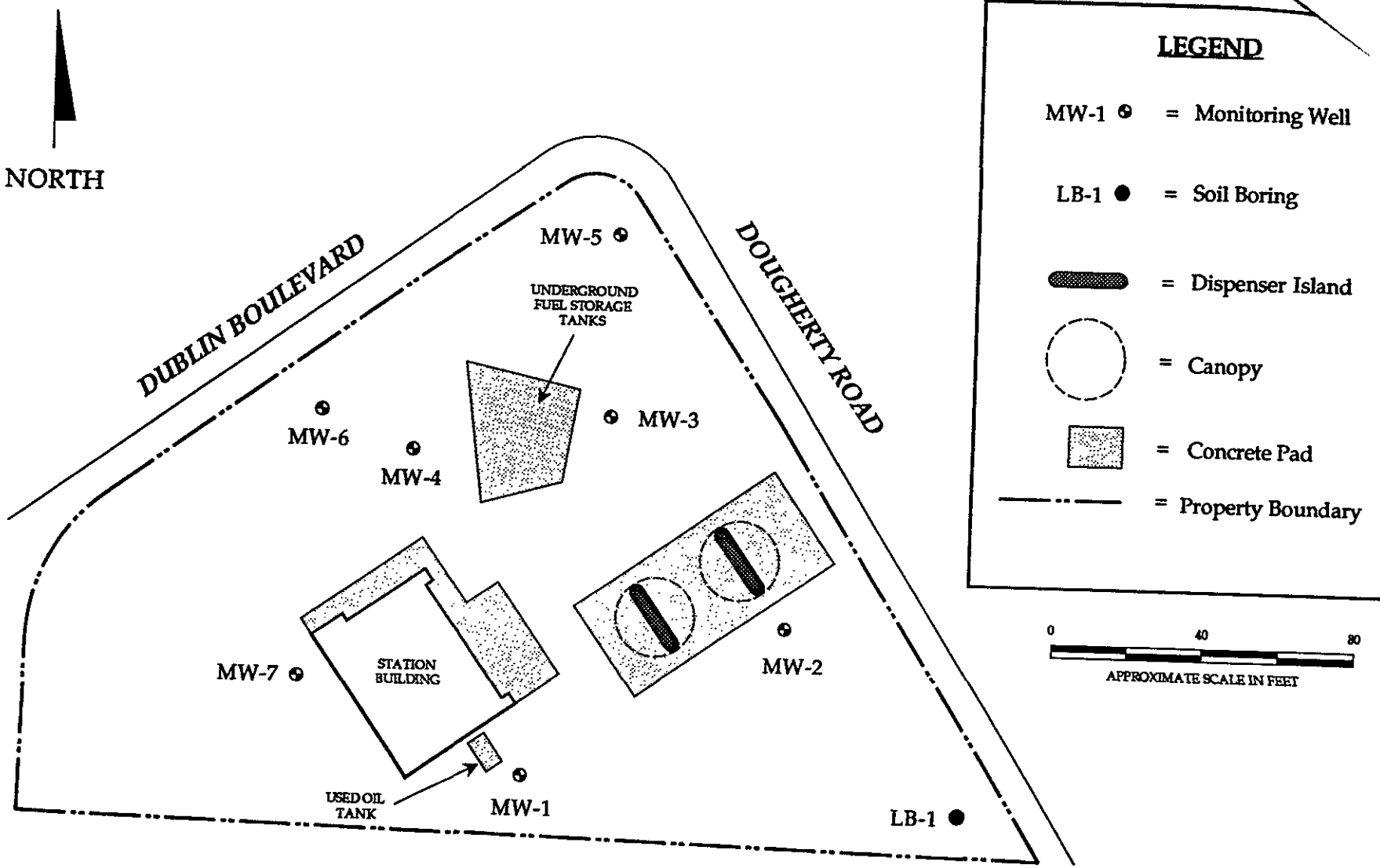
TPHg = Total petroleum hydrocarbons as gasoline by EPA Method 8015

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



HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

SITE PLAN

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

Figure 3

9-040.1 6/93

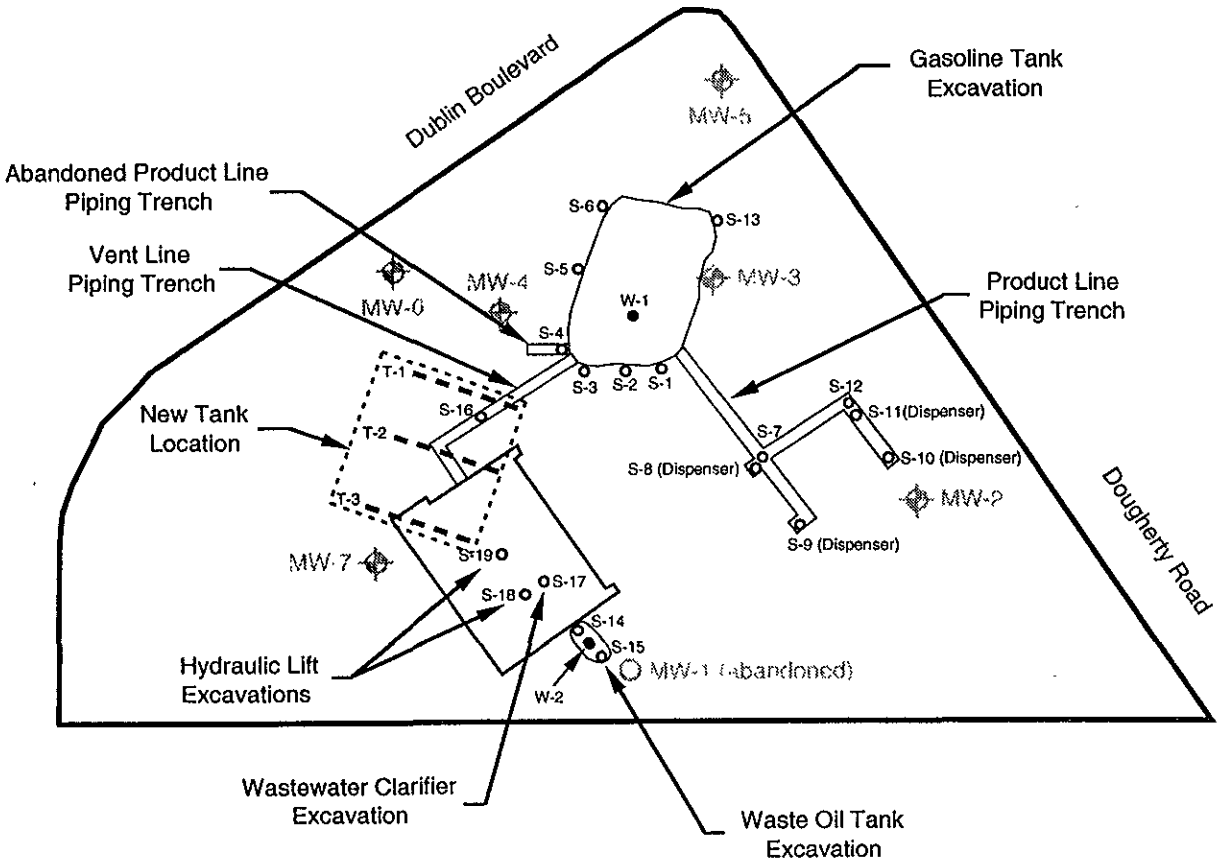
Table 3
Summary of Soil Sample Analytical Results
BP Service Station No. 11120
6400 Dublin Boulevard
Dublin, California

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

96-100/Samples



0 60 Feet 120 Feet

Approximate Scale

Legend

Monitoring Well

S-18 Soil Sample

W-2 Water Sample

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

FIGURE 4

APPROXIMATE SAMPLE LOCATIONS

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

ITSI

TOSCO CORPORATION

INNOVATIVE TECHNICAL SOLUTIONS, INC.

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		<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		<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. Soil
[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)

Tabla 5

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

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

For Alan B. Kemp
Project Manager

cont. Table 5

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

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-15	Received	Apr 3, 1996
Walnut Creek, CA 94598	Analysis Method:	EPA 5030/8010	Analyzed:	Apr 4, 1996
Attention: Jeff Hess	Lab Number:	604-0332	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
Project Manager

cont. Table 5

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Innovative Technical Solutions, Inc.	Client Project ID:	Tosco, 6400 Dublin Blvd., Dublin	Sampled:	Apr 3, 1996
2855 Mitchell Drive, Suite 118	Sample Descript:	Water, W-1	Received:	Apr 3, 1996
Walnut Creek, CA 94598	Analysis Method:	EPA 5030/8010	Analyzed:	Apr 4, 1996
Attention: Jeff Hess	Lab Number:	604-0337	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

For Alan B. Kemp
Project Manager

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	3300 (e)	—	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	910 (e)	—	PACE
MW-3	03/07/94	329.36	6.08	323.28	1300	5000	22	4.0	2.2	3.8	7200 (e)	3.7	PACE
MW-3	06/09/94	329.36	6.51	322.85	8500	2600	25	8.3	0.5	15	13000 (e)	7.2	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)	7.3	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	—	7.3	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	—	5.5	ATI
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	—	7.4	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	7.1	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	6.7	ATI
MW-3	08/20/96	329.36	5.87	323.49	—	—	—	—	—	—	—	—	—
MW-3	08/21/96	329.36	—	—	3700	1900	ND<25	ND<50	ND<50	ND<50	4100	6.8	SPL
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	6.8	SPL
QC-1 (f)	10/31/96	—	—	—	ND<250	—	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	—	—
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	6.4	SPL
QC-1 (f)	12/02/96	—	—	—	ND<250	—	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	—	—
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	6.2	SPL
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	—	—
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 (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-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)	3.8	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)	7.5	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)	7.2	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	—	6.1	PACE
MW-4	03/16/95	329.45	4.66	324.79	1400	960	140	ND<2.5	58	14	—	5.5	ATI
MW-4	06/28/95	329.45	5.93	323.52	5000	5400 (g)	240	ND<5.0	220	ND<10	—	7.4	ATI
MW-4	09/06/95	329.45	6.83	322.62	4400	4500	ND<13	ND<13	ND<13	ND<25	12000	7.6	ATI
MW-4	12/22/95	329.45	6.42	323.03	3800	4700	15	ND<13	ND<13	ND<25	9200	7.1	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	7.7	SPL
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	7.1	SPL
MW-4	12/02/96	329.45	6.71	322.74	ND<50	13000	ND<5	ND<10	ND<10	ND<10	2200	7.3	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	—	5.7	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	—	7.7	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	—	7.2	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	—	4.9	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	—	4.2	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	—	7.0	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	—	6.7	PACE
MW-6	12/20/94	329.55	6.82	322.73	—	—	—	—	—	—	—	—	—
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	—	6.1	ATI
MW-6	06/28/95	329.55	5.97	323.58	—	—	—	—	—	—	—	—	—
MW-6	09/06/95	329.55	6.94	322.61	ND<50	340	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	7.2	ATI
MW-6	12/22/95	329.55	6.53	323.02	—	—	—	—	—	—	—	—	—
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	ND<1.0	ND<1.0	ND<10	—	SPL
MW-6	10/31/96	329.55	6.52	323.03	—	—	—	—	—	—	—	—	—
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	ND<1.0	ND<1 0	ND<10	6.3	SPL
MW-6	06/03/97	329.55	8.19	321.36	—	—	—	—	—	—	—	—	—
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<50	5.5	SPL
MW-6	12/03/97	329.55	7.22	322.33	—	—	—	—	—	—	—	—	—
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<10	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	—	3.7	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	—	6.8	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	—	6.5	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	—	5.9	ATI
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	—	7.8	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	8.5	7.5	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	7.2	6.9	ATI
MW-7	08/20/96	329.49	6.22	323.27	—	—	—	—	—	—	—	—	—
MW-7	08/21/96	329.49	—	—	ND<50	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	—	SPL
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	86	6.8	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	59	7.3	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	ND<10	6.6	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	630	6.8	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	2200	6.0	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	ND<10	5.0	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<10	5.1	SPL

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	BEGUN	BORING DIAMETER	ANGLE/BEARING	BORING NO
6400 Dublin Blvd., Dublin, CA	10/13/92	8 Inches	90 Degrees	B-1
DRILLING CONTRACTOR	**COMPLETED**	**FIRST ENCOUNTERED WATER DEPTH**		
Bayland Drilling	10/13/92	17 Feet		
OPERATOR	**LOGGED BY**	**STATIC WATER DEPTH/DATE**		
Tom Schmidt	H. Hurkmans	10 Feet/10-13-92		
DRILL MAKE & MODEL	**SAMPLING METHOD**			**BOTTOM OF BORING**
CME 75	California modified split-spoon			19 Feet
WELL MATERIAL	**SLOT SIZE**	**FILTER PACK**	**BORING SEAL**	**WELL NO.**
Sch. 40 PVC	0.010	#2/12	Neat cement	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					
6		14					CLAY (CL); olive, moist, firm, high plasticity, 1% light tan, friable, angular, fine gravel
9	0	15					
8		16					CLAY (CL); olive-green, moist, firm, high plasticity, 10% light tan, friable, angular, fine gravel
11		17		▽			
15		18					confined saturated zone of undetermined lithology
	0	19					
		20					
		21					
		22					
		23					
		24					
		25					
		26					
		27					
		28					
	*PID (ppm)	29					
		30					

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

DATE: 10/16/92

APPROVED BY: John Turney

SOIL BORING LOG B-1 AND WELL CONSTRUCTION LOG MW-1

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

PLATE
A-1

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-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	

BLOWS/FOOT	FIELD HEAD-SPACE *	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION
		1					Asphalt & Baserock fill
		2					
		3					
		4					SAND (SP); light gray, moist, loose, fine-medium
3		5					CLAY (CL); olive-black, moist, soft, high plasticity
3	0.8	6					SAND (SP); light gray, moist, loose, fine
4		7					
		8					
3		9		▼			
4	0	10					CLAY (CL); mottled reddish-tan & olive-green, moist, soft, high plasticity
6		11					
		12					
		13					CLAY (CL); olive-green, moist, soft, high plasticity, contains 0.75 cm thick layers of light tan, dry, friable, angular, fine siltstone gravel
3		14					
5	0.8	15					
7		16		▽			confined saturated zone of undetermined lithology
3		17					
4	0.8	18					same as above clay
5		19					
		20					
		21					
		22					
		23					
		24					
		25					
		26					
		27					
		28					
	*PID (ppm)	29					
		30					

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

BLOWS/FOOT	FIELD HEAD-SPACE *	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION
		1–4					Asphalt & Baserock fill
2 4 7	886	5–6	■				CLAY (CL); olive-black, moist, soft, high plasticity
							SAND (SP); olive, moist, loose, fine
2 5 6	48	9–11	■	▼			CLAY (CL); mottled reddish-tan & olive green, moist, firm, high plasticity
3 6 7	34	14–16		▽			CLAY (CL); light olive, moist, firm, medium plasticity, 2% fine sand
							confined saturated zone of unknown lithology
4 5 6	2.6	19–20					CLAY (CL); olive-green, moist, soft, high plasticity
	*PID (ppm)	1–30					

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

DATE: 10/16/92

APPROVED BY: John Turney

SOIL BORING LOG B-3 AND WELL CONSTRUCTION LOG MW-3

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

PLATE
A-3

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-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

BLOWS/FOOT	FIELD HEAD-SPACE *	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION
		1					Asphalt & Baserock fill
		2					
		3					
		4					
	1004	5					CLAY (CL); olive-black, moist, soft, high plasticity
		6					
		7					
		8					
3		9					
5	57	10					CLAY (CL); mottled reddish-tan & olive green, moist, firm, high plasticity
7		11					
		12					
		13					
3		14					
5	5	15					CLAY (CL); light olive, moist, firm, medium plasticity, 2% fine sand
7		16					very soft saturated zone may be silt or sand
		17					
		18					
3		19					
4	1	20					CLAY (CL); olive-green, wet, soft, high plasticity
9		21					
		22					
		23					
		24					
		25					
		26					
		27					
		28					
	*PID (ppm)	29					
		30					

HYDRO-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

n Blvd., Dublin, CA	BEGUN 4/6/93	BORING DIAMETER 8 Inches	ANGLE/BEARING 90 Degrees	BORING NO MW-5
NTRACTOR zmat Drilling Corp.	COMPLETED 4/6/93	FIRST ENCOUNTERED WATER DEPTH Between 16.5-20.5 Feet		BOTTOM OF BORING 22.0 Feet
nas Wright	LOGGED BY H. Hurkmans	STATIC WATER DEPTH/DATE 5.18 Feet/4-9-93		
MAKE & MODEL ME 75	SAMPLING METHOD California modified split-spoon			BOTTOM OF WELL 21.0 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-5

BLOWS/FOOT	FIELD HEAD-SPACE *	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION
		1					Asphalt & Baserock fill
		2					
		3					
		4					Lean CLAY (CL); brown, damp, low plasticity, silty
		5					Poorly-graded SAND (SP); olive, moist, fine-medium gr.
11	0.0	6					Lean CLAY (CL); blue-gray, moist, stiff, medium plasticity, silty
		7					
		8					
		9					
		10					
11	0.0	11					Lean CLAY (CL); mottled tan & olive-green, moist, stiff, medium plasticity
		12					
		13					
		14					
		15					
23	0.0	16					Lean CLAY (CL); olive, moist, very stiff, low-medium plasticity
		17					
		18					Saturated zone
		19					
17		20					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
		21					
		22					
		23					
		24					
		25					
		26					
		27					
		28					
	*PID (ppm)	29					
		30					

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

DATE:

APPROVED BY: Owen C. Ratchye

SOIL BORING AND WELL CONSTRUCTION LOG
MW-5

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

PLATE
A-3
SHEET 1 OF 1

JOB NO.
9-040.1

...in 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
...mas Wright	LOGGED BY H. Hurkmans	STATIC WATER DEPTH/DATE 5.37 Feet/4-9-93		
...ME 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

BLOWS/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					
		5		▼			Lean CLAY with gravel (CL); tan with rust, damp, stiff;
18	0.0	6					20% subrounded gravel
		7					
		8					
		9					
		10					similar to above
20		11					Silty SAND (SM), gray, moist-wet, fine, sub-rounded
	0.0	12					
		13					
		14					
		15					
26		16		▽			Lean CLAY (CL); olive, moist, very stiff, high plasticity
	0.0	17					saturated
		18					
		19					
25		20					
		21					Lean CLAY (CL); olive, moist, very stiff, high plasticity;
		22					trace white, coarse sand
		23					
		24					
		25					
		26					
		27					
		28					
	*PID (ppm)	29					
		30					

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

DATE:

APPROVED BY: Owen C. Ratchye

SOIL BORING AND WELL CONSTRUCTION LOG
MW-6

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

PLATE
A-4
SHEET 1 OF 1

JOB NO.
9-040.1

n 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
OR mas Wright	LOGGED BY H. Hurkmans	STATIC WATER DEPTH/DATE 5.36 Feet/4-9-93		
L MAKE & MODEL ME 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

BLOWS/FOOT	FIELD HEAD-SPACE *	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION
		1					Asphalt & Baserock fill
		2					
		3					
		4					Lean CLAY (CL); rusty-tan, damp, firm, high plasticity, 5-10% fine pebble gravel
13	0.0	5		▼			
		6					Silty SAND (SM); gray, moist, medium dense, fine
		7					
		8					
		9					
19	0.0	10					Lean CLAY (CL); mottled olive-black & rust, moist, stiff, high plasticity
		11					
		12					
		13					
		14					
26	0.0	15					
		16					Lean CLAY (CL); light olive with rust mottle, moist, stiff, high plasticity; 10% white, friable, fine gravel
		17					
		18					
		19					
18		20		▼			same as above
		21					thin, confined, saturated zone
17		22					Lean CLAY (CL); olive-black, moist, stiff, high plasticity
		23					Lean CLAY (CL); olive, damp, stiff, high plasticity; 5% white, friable, fine gravel; 5-10% medium-coarse sand
		24					
		25					
		26					
		27					
		28					
	*PID (ppm)	29					
		30					

HYDRO-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

blin Blvd., Dublin, CA	BEGUN 4/6/93	BORING DIAMETER 8 Inches	ANGLE/BEARING 90 Degrees	BORING NO LB-1
CONTRACTOR Hazmat Drilling Corp.	COMPLETED 4/6/93	FIRST ENCOUNTERED WATER DEPTH 17-18 Feet		BOTTOM OF BORING 30.5 Feet
ATOR omas Wright	LOGGED BY H. Hurkmans	SECOND ENCOUNTERED WATER DEPTH 29 Feet		
RILL MAKE & MODEL CME 75	SAMPLING METHOD California modified split-spoon			BOTTOM OF WELL N/A
WELL MATERIAL N/A	SLOT SIZE N/A / FILTER PACK N/A	BORING SEAL Neat cement		WELL NO. N/A

BLOWS/FOOT	ADVANCE/RECOVERY (INCHES)	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION
		1			No well installed		Asphalt & Baserock fill
		2					
		3					Lean CLAY (CL); olive-black, damp, high plasticity, logged from cuttings
		4					
		5					
		6					
		7					
		8					
		9					Lean CLAY (CL); olive-tan with olive-green mottle, moist, medium-high plasticity
		10					
22	18/18	11					Clayey SAND (SC); tan, moist, fine, layer 6" thick
18	18/18	12					Lean CLAY(CL); like above, with 2 cm layer of friable, white, fine gravel (white clasts) in clay
		13					
14	18/18	14					similar to above clay with occassional (5%) white clasts to 1 cm dia.
21	18/18	15					
		16					
12	6/18	17		▽			same as above, (2/3 loss of core)
17	18/18	18					Silty SAND (SM); light olive, wet, fine
		19					same as above clay
21	12/18	20					same as above clay, 1/3 loss of core may have been saturated sand like above
24	12/18	21					Fat CLAY, olive-brown with rusty-olive mottle, high plasticity, 2 cm layer @ 21'
		22					
26	18/18	23					Lean CLAY (CL), green-olive with 2% black spots with rust coatings, moist, high plasticity
22	18/18	24					
		25					
24	18/18	26					
25	18/18	27					same as above clay, silty @26.5, very silty @ 27'
		28					same as above clay, trace white coarse sand
22	18/18	29		▽			Clayey SAND (SC), saturated, moderate grading, medium-coarse grained, subrounded-subangular, 15-40% clay,
S	3/18	30					5/6 of core lost, may have been less clayey sand

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

DATE:

APPROVED BY: Owen C. Ratchye

SOIL BORING LOG LB-1

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

PLATE A-2

SHEET 1 OF 1

JOB NO. 9-040.1