

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY
DAVID J. KEARS, Agency Director

Alameda County CC4580
Environmental Health Services
1131 Harbor Bay Pkwy., #250
Alameda CA 94502-6577
(510)567-6700 FAX(510)337-9335

REMEDIAL ACTION COMPLETION CERTIFICATION

*LOP REOPENED
IN 1999.*

StID 1129 - 3101 98th Ave, Oakland, CA

July 16, 1996

Mr. Scott Hooton
295 SW 41st Street
Renton, WA 98055

Dear Mr. Hooton:

This letter confirms the completion of site investigation and remedial action during product piping and fuel dispenser replacements in July 1990. Enclosed is the Case Closure Summary for the referenced site for your records.

Based upon the available information, including the current land use, and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the piping and/or dispenser release is required.

This notice is issued pursuant to a regulation contained in Title 23, Division 3, Chapter 16, Section 2721(e) of the California Code of Regulations. If changes in land use, structural configuration, or site activities are proposed such that more conservative exposure scenarios should be evaluated, the owner must promptly notify this agency.

Please contact Ms. Eva Chu at (510) 567-6700 if you have any questions regarding this matter.

Very truly yours,

Mee Ling Tung
Mee Ling Tung, Director

cc: Chief, Division of Environmental Protection
Kevin Graves, RWQCB
Lori Casias, SWRCB (with attachment)
files (bp1122.2)

OLD Closure Certificate

LOP REOPENED

01-0217

in 1999

AG

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

Old Closure Summary

I. AGENCY INFORMATION

Date: May 23, 1996

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

II. CASE INFORMATION

Site facility name: BP Oil Facility #11122
Site facility address: 3101 98th Ave, Oakland 94605
RB LUSTIS Case No: N/A Local Case No./LOP Case No.: 1129
URF filing date: 8/25/93 SWEEPS No: N/A

Responsible Parties: Addresses: Phone Numbers:

BP Oil Co 295 SW 41st Street 206/251-06
Attn. Scott Hooton Renton, WA 98055

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

Not applicable. Fuel release identified during routine dispenser modification.

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: Possible piping leak.
Site characterization complete? YES
Date approved by oversight agency: 5/13/96
Monitoring Wells installed? No
Proper screened interval? NA
Highest GW depth below ground surface: Unknown, greater than 15' bgs.
Flow direction: Unknown
Most sensitive current use: Gasoline service station.
Are drinking water wells affected? No Aquifer name: Unknown
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

96 JUN 15 AM 8:54
ENVIRONMENTAL PROTECTION

Treatment and Disposal of Affected Material:

<u>Material</u>	<u>Amount</u> (include units)	<u>Action (Treatment</u> <u>or Disposal w/destination)</u>	<u>Date</u>
Piping		Piping from tanks to dispensers replaced in July 1990. No record of disposal destination.	
Soil	250 cy	Unknown	

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After
TPH (Gas)	23	23	NA	
TPH (Diesel)	19	19	NA	
Benzene	0.053	0.053	NA	
Toluene	0.480	0.480	NA	
Ethylbenzene	0.520	0.520	NA	
Xylenes	3.0	3.0	NA	
Heavy metals	Total Pb	71	71	NA
Other				

Comments (Depth of Remediation, etc.):

See Section VII, Additional Comments, etc...

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? **Undetermined**

Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? **Undetermined**

Does corrective action protect public health for current land use? **YES**

Site management requirements: **None**

Should corrective action be reviewed if land use changes? **YES**

Monitoring wells Decommissioned: **NA**

List enforcement actions taken: **None**

List enforcement actions rescinded: **NA**

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Eva Chu Title: Haz Mat Specialist

Signature:  Date: 6/6/96

Reviewed by

Name: Juliet Shin Title: Sr. Haz Mat Specialist

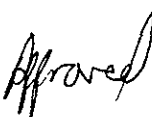
Signature:  Date: 5/23/96

Name: Thomas Peacock Title: Supervisor

Signature:  Date: 6-4-96

VI. RWQCB NOTIFICATION

Date Submitted to RB: 6/7/96

RB Response: 

RWQCB Staff Name: Kevin Graves

Title: AWRCE

Signature:  Date: 7/1/96

VII. ADDITIONAL COMMENTS, DATA, ETC.

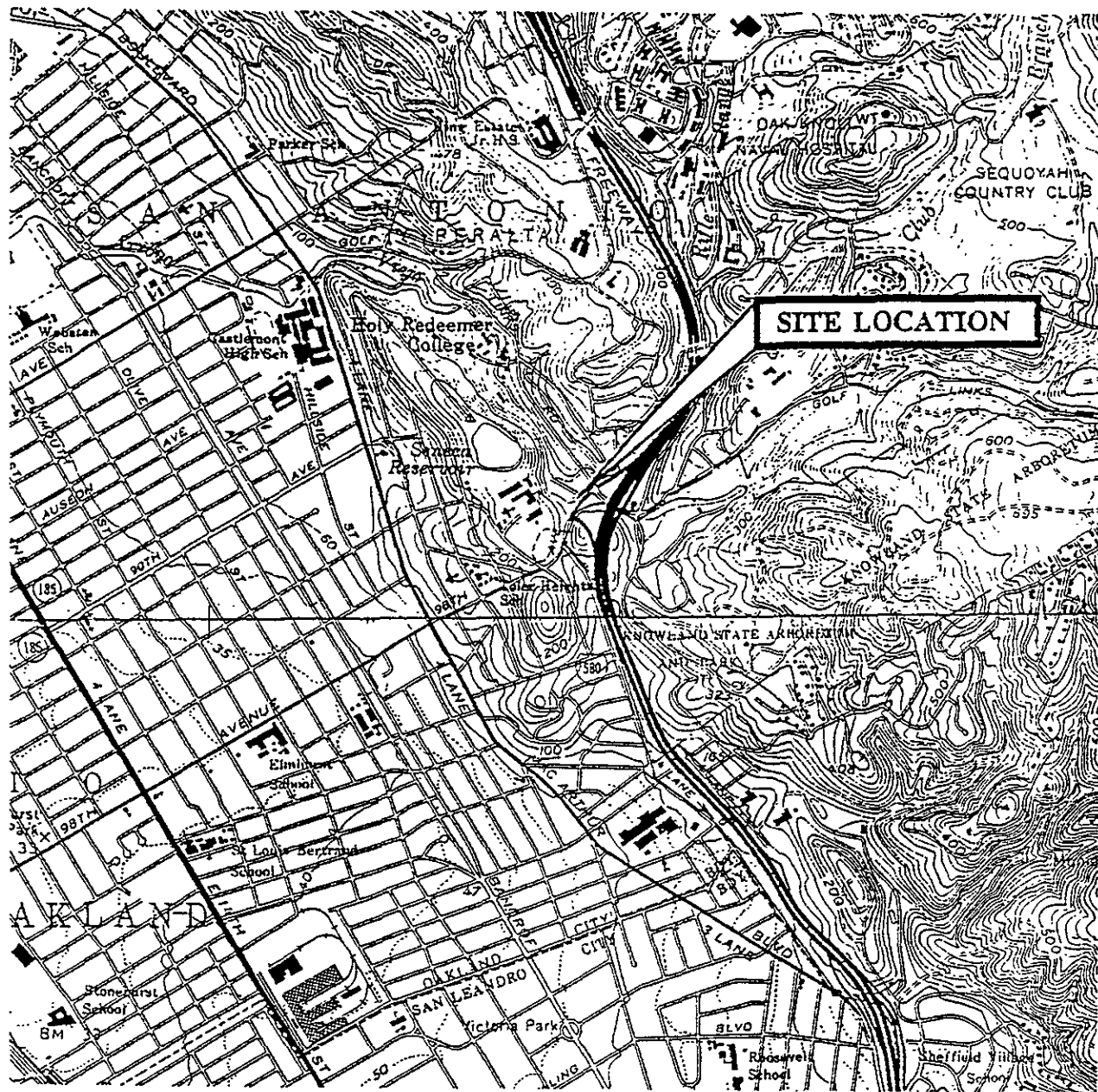
During a routine dispenser and piping modification soil samples were collected beneath the piping and dispensers. Soil analytical results of soil samples (P1 through P3 and D1, D2) collected on July 13, 1990 identified up to 12 ppm TPH-G, and low levels of BTEX. The pipe trenches and dispenser island nearest 98th Avenue were overexcavated to 10' bgs on July 20, 1990. Four sidewall samples (SW1 through SW4) collected identified up to 23 ppm TPH-G and low levels of BTEX. (See Figs 1 and 2, Table 1). A total of approximately 250 cy of petroleum-impacted soil was removed.

On October 14, 1992 three exploratory borings, B-1, B-2 and B-3, were emplaced near the waste oil UST, pump island, and fuel tank complex, respectively. All borings were drilled until bedrock (Leona Rhyolite) was encountered. Soil types encountered are suspected to be fill material put in place behind a retaining wall to level the site's hillside location. (See Fig 3 and Boring Logs).

Boring B-1 encountered bedrock at 3' bgs. A soil sample was not collected from boring B-1. Boring B-2 was advanced to 17' bgs. Soil samples collected from 10.5' and 15.5' bgs identified low levels of TPH-G, TPH-D, and BTEX. Boring B-3 was advanced to 7' bgs. A soil sample collected from 5.5' bgs contained 19 ppm TPH-D and no BTEX. It was noted that hydrocarbons of greater than C-22 were detected by the TPH-D analyses in all three soil samples collected. Groundwater was not encountered in the three soil borings. (See Table 2).

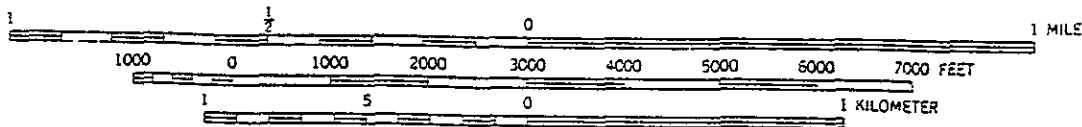
It appears soil excavation to 10' bgs removed most of the soil contamination beneath the piping and pump islands. Groundwater was not encountered to a depth of 17' bgs. Fill material used to backfill the site may be the source TPH-D identified. Levels of petroleum hydrocarbons detected in soil does not warrant a groundwater investigation.

bp11122.1



SOURCE:
 USGS QUADRANGLES, 7.5 MINUTE SERIES
 ENTITLED "OAKLAND EAST, CA" AND
 "SAN LEANDRO, CA"
 SCALE 1: 24 000

North



HYDR
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TECHN  **LOGIES, INC.**

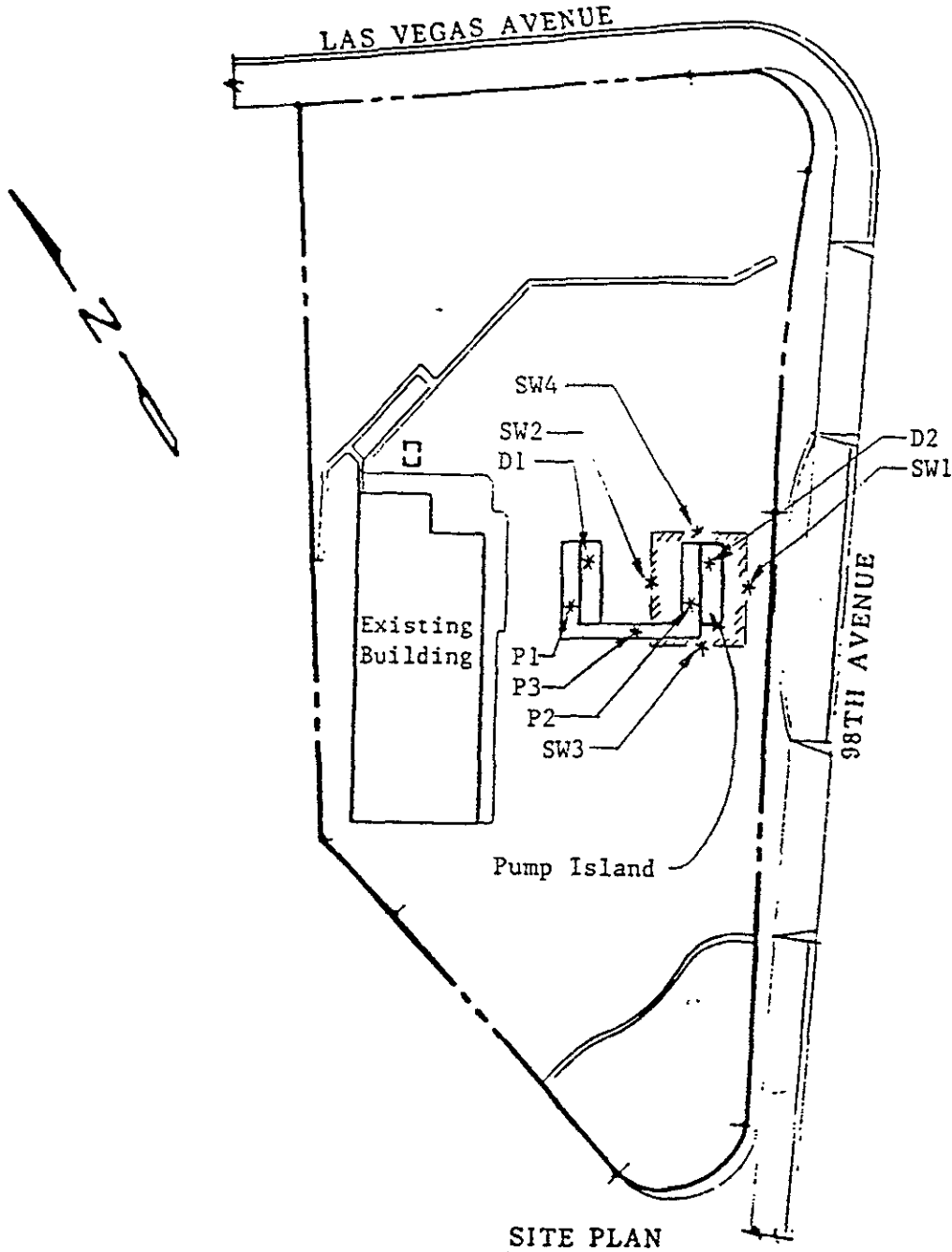
Site Location Map
 BP Service Station No. 11122
 3101 98th Avenue
 Oakland, California

Job No.
 9-041
 Figure
 1



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Consulting Engineers

P.O. BOX 996 • BENICIA, CA 94510
(707) 746-6915 • (707) 746-6916 • FAX: (707) 746-5581



SITE PLAN

FIG 2

LEGEND

- * Soil Sample Location
- ▨ Additional Excavation

0 40 80
Approx. scale feet

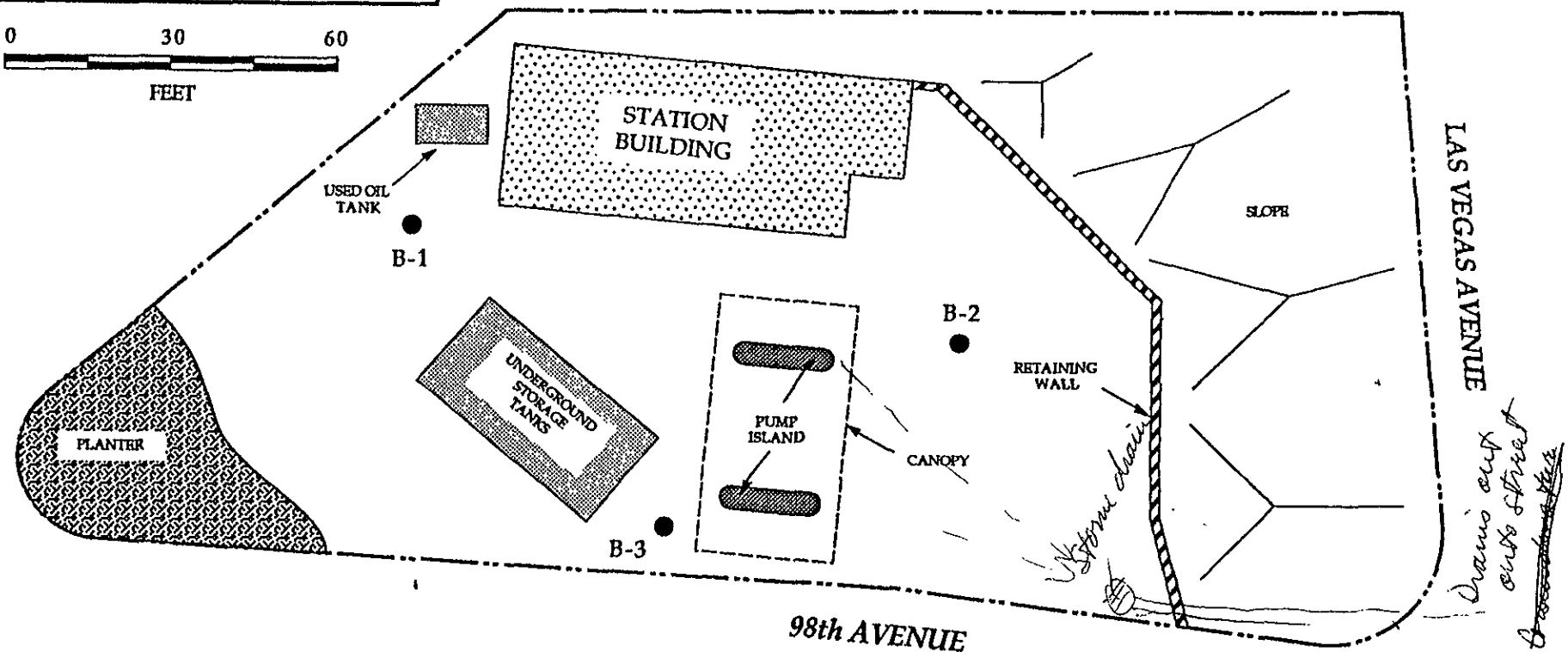
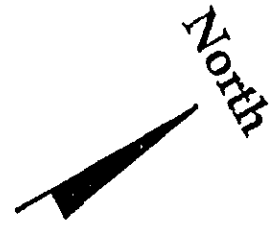
BP Service Station
3101 98th Avenue
Oakland, CA

EXPLANATION

B-1 ● = Soil Boring

----- = Property Boundary

SCALE 1" = 30'



HYDR-
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TECHNOLOGIES, INC.

SITE PLAN
BP Service Station No. 11122
3101 98th Avenue
Oakland, California

Job No.
9-041
Figure
3

KEI-J90-0706.R1
October 9, 1990

TABLE 1

SUMMARY OF LABORATORY ANALYSES

(Samples collected on July 13 & 20, 1990)

<u>Sample</u>	<u>Depth</u> <u>(feet)</u>	<u>TPH as</u> <u>Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethyl-</u> <u>benzene</u>	<u>Total</u> <u>Lead</u>
<i>pipe trench</i> P1	3	ND	0.0090	0.079	0.034	0.0066	6.3
P2	4.5	ND	ND	0.047	0.037	0.011	5.5
P3	2.5	9.4	0.029	0.096	3.0	0.52	43
<i>dispenser</i> D1	7	12	0.053	0.39	0.96	0.16	19
D2	7	3.3	0.029	0.48	0.22	0.044	4.8
SW1	10	1.3	0.011	0.056	0.035	0.025	4.5
SW2	10	23	0.015	0.10	0.18	0.23	71
SW3	10	12	0.016	0.018	0.25	0.12	3.2
SW4	10	3.8	0.016	0.020	0.064	0.050	6.0
Detection Limits		1.0	0.0050	0.0050	0.0050	0.0050	0.25

ND = Non-detectable.

Results are in parts per million (ppm), unless otherwise indicated.

Table 2

SOIL SAMPLES
SUMMARY OF ANALYTICAL RESULTS

BP Service Station No. 11122
3101 98th Avenue
Oakland, California

Sample Description	TPHg (ppm)	TPHd (ppm)	B (ppm)	T (ppm)	E (ppm)	X (ppm)
B-2-10.5'	ND	10 (H)	ND	ND	ND	ND
B-2-15.5'	5	19 (H)	0.023	0.011	ND	0.0071
B-3-5.5'	ND	19 (H)	ND	ND	ND	ND
MDL	1	5	0.005	0.005	0.005	0.005

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

ND = Not detected in concentrations exceeding laboratory method detection limits

MDL = Laboratory method detection limits

(H) = Hydrocarbons greater than C22 were detected

SITE/LOCATION 3101 98th Avenue, Oakland, CA		BEGUN 10/14/92	BORING DIAMETER 8 Inches	ANGLE/BEARING 90 Degrees	BORING NO B-1
DRILLING CONTRACTOR Bayland Drilling		COMPLETED 10/14/92	FIRST ENCOUNTERED WATER DEPTH No free water encountered		BOTTOM OF BORING 2 Feet
OPERATOR Tom Schmidt		LOGGED BY H. Hurkmans	STATIC WATER DEPTH/DATE No free water encountered		
DRILL MAKE & MODEL CME 75		SAMPLING METHOD No analytical samples collected			
WELL MATERIAL N/A		SLOT SIZE N/A	FILTER PACK N/A	BORING SEAL Neat cement	WELL NO. N/A

BLOWS/ FOOT	FIELD HEAD- SPACE*	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION
	0.8	1					Asphalt & Baserock fill
		2					Bedrock - "Leona Rhyolite"
		3					
		4					
		5					
		6					
		7					
		8					
		9					
		10					
		11					
		12					
		13					
		14					
		15					
		16					
		17					
		18					
		19					
		20					
		21					
		22					
		23					
		24					
		25					
		26					
		27					
		28					
		29					
		30					

*PID
(ppm)

HYDR ENVIR TECHNOLOGIES, INC.	SOIL BORING LOG B-1 BP Oil Station No. 11122 3101 98th Avenue Oakland, Ca	PLATE A-1
	DATE: 10/16/92 APPROVED BY: John Turney	JOB NO. 9-041

SITE/LOCATION 3101 98th Avenue, Oakland, CA		BEGUN 10/14/92	BORING DIAMETER 8 Inches	ANGLE/BEARING 90 Degrees	BORING NO B-2
DRILLING CONTRACTOR Bayland Drilling		COMPLETED 10/14/92	FIRST ENCOUNTERED WATER DEPTH No free water encountered		BOTTOM OF BORING 17 Feet
OPERATOR Tom Schmidt		LOGGED BY H. Hurkmans	STATIC WATER DEPTH/DATE No free water encountered		
DRILL MAKE & MODEL CME 75		SAMPLING METHOD California modified split-spoon			
WELL MATERIAL N/A		SLOT SIZE N/A	FILTER PACK N/A	BORING SEAL Neat cement	WELL NO. N/A

BLOWS/FOOT	FIELD HEAD-SPACE*	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION
		1					Asphalt & Baserock fill
		2					
5		3					SAND (SM) fill; tan, damp, loose, coarse, moderate grading, subrounded, 20% angular fine pebble gravel, 20% silt
7	0.8	4					
12		5					
		6					CLAY (CL) fill; red-tan, moist, soft, 40% angular coarse-fine pebble gravel
		7					
12		8					
14	2	9					CLAY (CL) fill; black, moist, soft, high plasticity, 20% subrounded coarse sand, 10% angular gravel
16		10					
		11					CLAY (CL) fill; black, moist, soft, high plasticity
		12					
		13					
	44	14					
		15					
		16					GRAVEL (GP) fill; gray, dry, subrounded, elongated, poorly graded, coarse, slightly larger than "pea gravel"
		17					
		18					Bedrock - "Leona Rhyolite"
		19					
		20					
		21					
		22					
		23					
		24					
		25					
		26					
		27					
		28					
		29					
		30					

**HYDRO-
ENVIRONMENTAL
TECHNOLOGIES, INC.**

**SOIL BORING LOG
B-2**

BP Oil Station No. 11122
3101 98th Avenue
Oakland, Ca

PLATE
A-2

JOB NO.
9-041

DATE: 10/16/92

APPROVED BY: John Turney

SITE/LOCATION 3101 98th Avenue, Oakland, CA		BEGUN 10/14/92	BORING DIAMETER 8 Inches	ANGLE/BEARING 90 Degrees	BORING NO B-3
DRILLING CONTRACTOR Bayland Drilling		COMPLETED 10/14/92	FIRST ENCOUNTERED WATER DEPTH No free water encountered		BOTTOM OF BORING 7 Feet
OPERATOR Tom Schmidt		LOGGED BY H. Hurkmans	STATIC WATER DEPTH/DATE No free water encountered		
DRILL MAKE & MODEL CME 75		SAMPLING METHOD California modified split-spoon			
WELL MATERIAL N/A		SLOT SIZE N/A	FILTER PACK N/A	BORING SEAL Neat cement	WELL NO. N/A

BLOWS/ FOOT	FIELD HEAD- SPACE*	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION	
9 8 14	0.8	1					Asphalt & Baserock fill	
		2						
		3						
		4						CLAY (CL); brown, moist, stiff, medium plasticity, 10% subrounded coarse sand and fine pebble gravel, 15% angular Leona Rhyolite gravel
		5						
		6						
		7						Bedrock - "Leona Rhyolite"
		8						
		9						
		10						
		11						
		12						
		13						
		14						
		15						
		16						
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		28						
		29						
		30						

**HYDR-
ENVIRONMENTAL
TECHNOLOGIES, INC.**

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

**SOIL BORING LOG
B-3**
BP Oil Station No. 11122
3101 98th Avenue
Oakland, Ca

PLATE
A-3
JOB NO.
9-041

01-0217

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: May 23, 1996

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

II. CASE INFORMATION

Site facility name: BP Oil Facility #11122
Site facility address: 3101 98th Ave, Oakland 94605
RB LUSTIS Case No: N/A Local Case No./LOP Case No.: 1129
URF filing date: 8/25/93 SWEEPS No: N/A

Responsible Parties: Addresses: Phone Numbers:

BP Oil Co 295 SW 41st Street 206/251-06
Attn. Scott Hooton Renton, WA 98055

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

Not applicable. Fuel release identified during routine dispenser modification.

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: Possible piping leak.
Site characterization complete? YES
Date approved by oversight agency: 5/13/96
Monitoring Wells installed? No
Proper screened interval? NA
Highest GW depth below ground surface: Unknown, greater than 15' bgs.
Flow direction: Unknown
Most sensitive current use: Gasoline service station.
Are drinking water wells affected? No Aquifer name: Unknown
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

96 JUN 15 AM 8:54
ENVIRONMENTAL PROTECTION

Treatment and Disposal of Affected Material:

<u>Material</u>	<u>Amount</u> <u>(include units)</u>	<u>Action (Treatment</u> <u>or Disposal w/destination)</u>	<u>Date</u>
Piping		Piping from tanks to dispensers replaced in July 1990. No record of disposal destination.	
Soil	250 cy	Unknown	

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

<u>Contaminant</u>	<u>Soil (ppm)</u>		<u>Water (ppb)</u>	
	<u>Before</u>	<u>After</u>	<u>Before</u>	<u>After</u>
TPH (Gas)	23	23	NA	
TPH (Diesel)	19	19	NA	
Benzene	0.053	0.053	NA	
Toluene	0.480	0.480	NA	
Ethylbenzene	0.520	0.520	NA	
Xylenes	3.0	3.0	NA	
Heavy metals	Total Pb	71	71	NA
Other				

Comments (Depth of Remediation, etc.):

See Section VII, Additional Comments, etc...

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? **Undetermined**

Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? **Undetermined**

Does corrective action protect public health for current land use? **YES**

Site management requirements: **None**

Should corrective action be reviewed if land use changes? **YES**

Monitoring wells Decommissioned: **NA**

List enforcement actions taken: **None**

List enforcement actions rescinded: **NA**

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Eva Chu

Title: Haz Mat Specialist

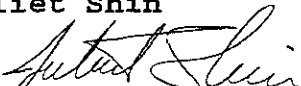
Signature: 

Date: 6/6/96

Reviewed by

Name: Juliet Shin

Title: Sr. Haz Mat Specialist

Signature: 

Date: 5/23/96

Name: Thomas Peacock

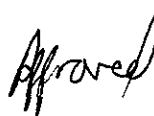
Title: Supervisor

Signature: 

Date: 6-4-96

VI. RWQCB NOTIFICATION

Date Submitted to RB: 6/7/96

RB Response: 

RWQCB Staff Name: Kevin Graves

Title: AWRCE

Signature: 

Date: 7/1/96

VII. ADDITIONAL COMMENTS, DATA, ETC.

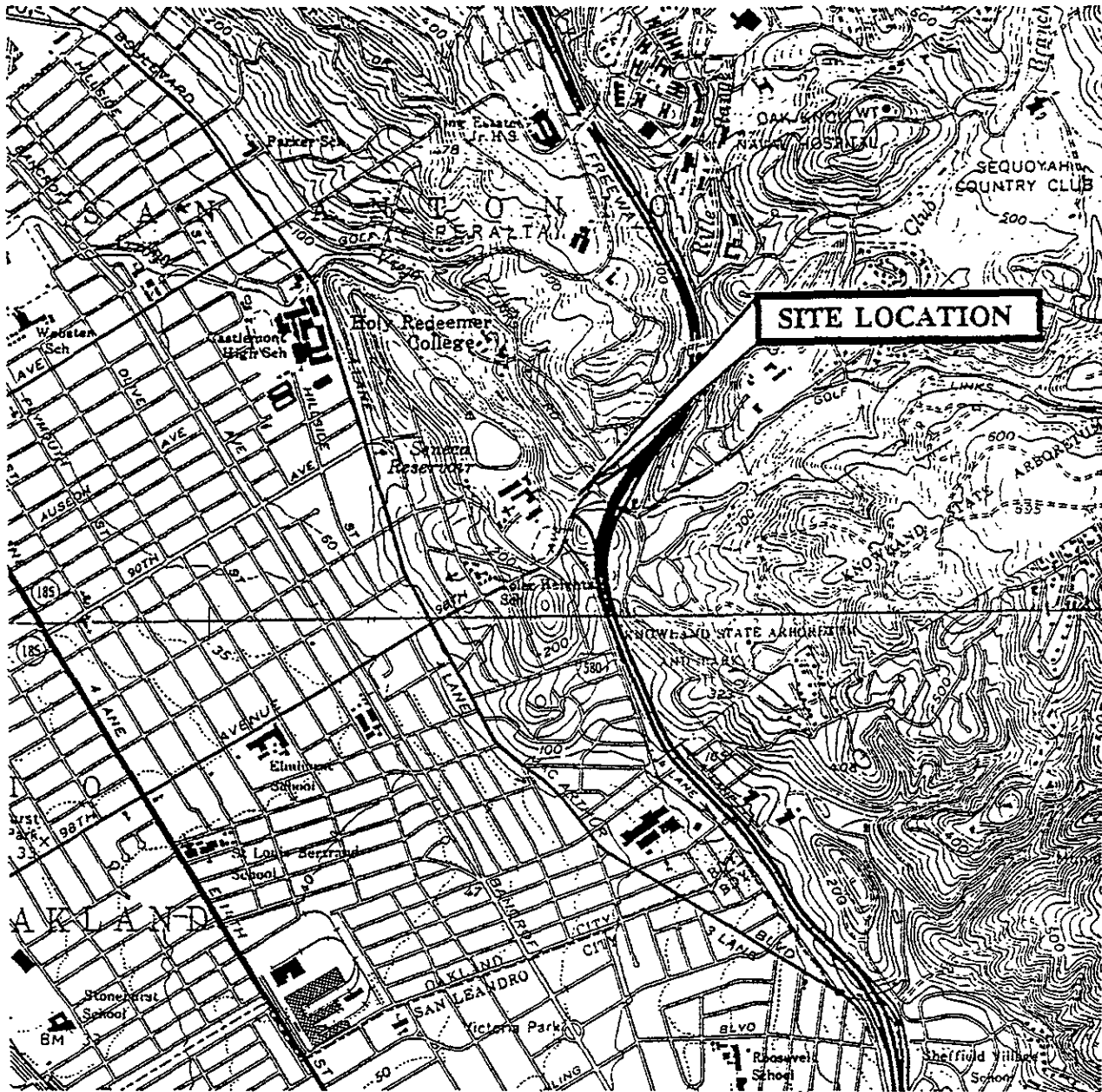
During a routine dispenser and piping modification soil samples were collected beneath the piping and dispensers. Soil analytical results of soil samples (P1 through P3 and D1, D2) collected on July 13, 1990 identified up to 12 ppm TPH-G, and low levels of BTEX. The pipe trenches and dispenser island nearest 98th Avenue were overexcavated to 10' bgs on July 20, 1990. Four sidewall samples (SW1 through SW4) collected identified up to 23 ppm TPH-G and low levels of BTEX. (See Figs 1 and 2, Table 1). A total of approximately 250 cy of petroleum-impacted soil was removed.

On October 14, 1992 three exploratory borings, B-1, B-2 and B-3, were emplaced near the waste oil UST, pump island, and fuel tank complex, respectively. All borings were drilled until bedrock (Leona Rhyolite) was encountered. Soil types encountered are suspected to be fill material put in place behind a retaining wall to level the site's hillside location. (See Fig 3 and Boring Logs).

Boring B-1 encountered bedrock at 3' bgs. A soil sample was not collected from boring B-1. Boring B-2 was advanced to 17' bgs. Soil samples collected from 10.5' and 15.5' bgs identified low levels of TPH-G, TPH-D, and BTEX. Boring B-3 was advanced to 7' bgs. A soil sample collected from 5.5' bgs contained 19 ppm TPH-D and no BTEX. It was noted that hydrocarbons of greater than C-22 were detected by the TPH-D analyses in all three soil samples collected. Groundwater was not encountered in the three soil borings. (See Table 2).

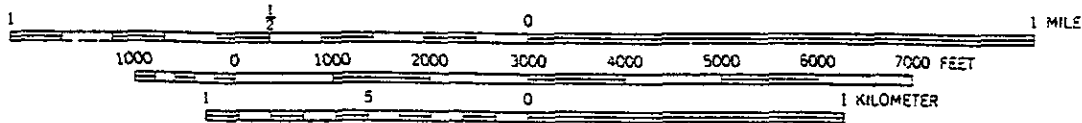
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bp11122.1



SOURCE:
 USGS QUADRANGLES, 7.5 MINUTE SERIES
 ENTITLED "OAKLAND EAST, CA" AND
 "SAN LEANDRO, CA"
 SCALE 1: 24 000

North



HYDR
 ENVIR MENTAL
 TECHN LOGIES, INC.

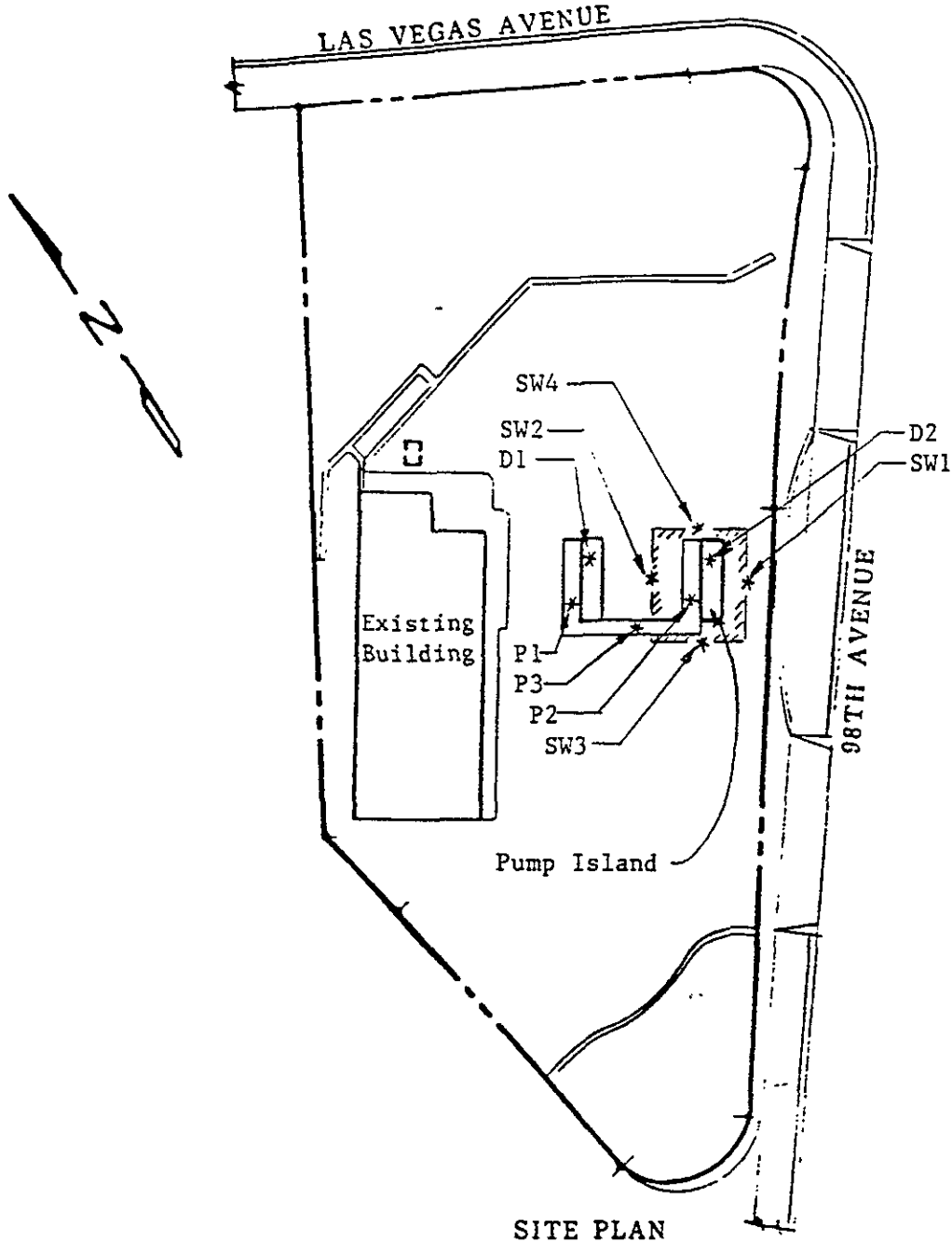
Site Location Map
 BP Service Station No. 11122
 3101 98th Avenue
 Oakland, California

Job No.
 9-041
 Figure
 1



KAPREALIAN ENGINEERING, INC.
Consulting Engineers

P.O. BOX 996 • BENICIA, CA 94510
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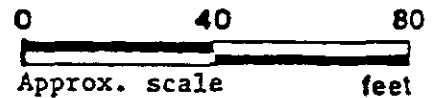


SITE PLAN

FIG 2

LEGEND

- * Soil Sample Location
- ▣ Additional Excavation



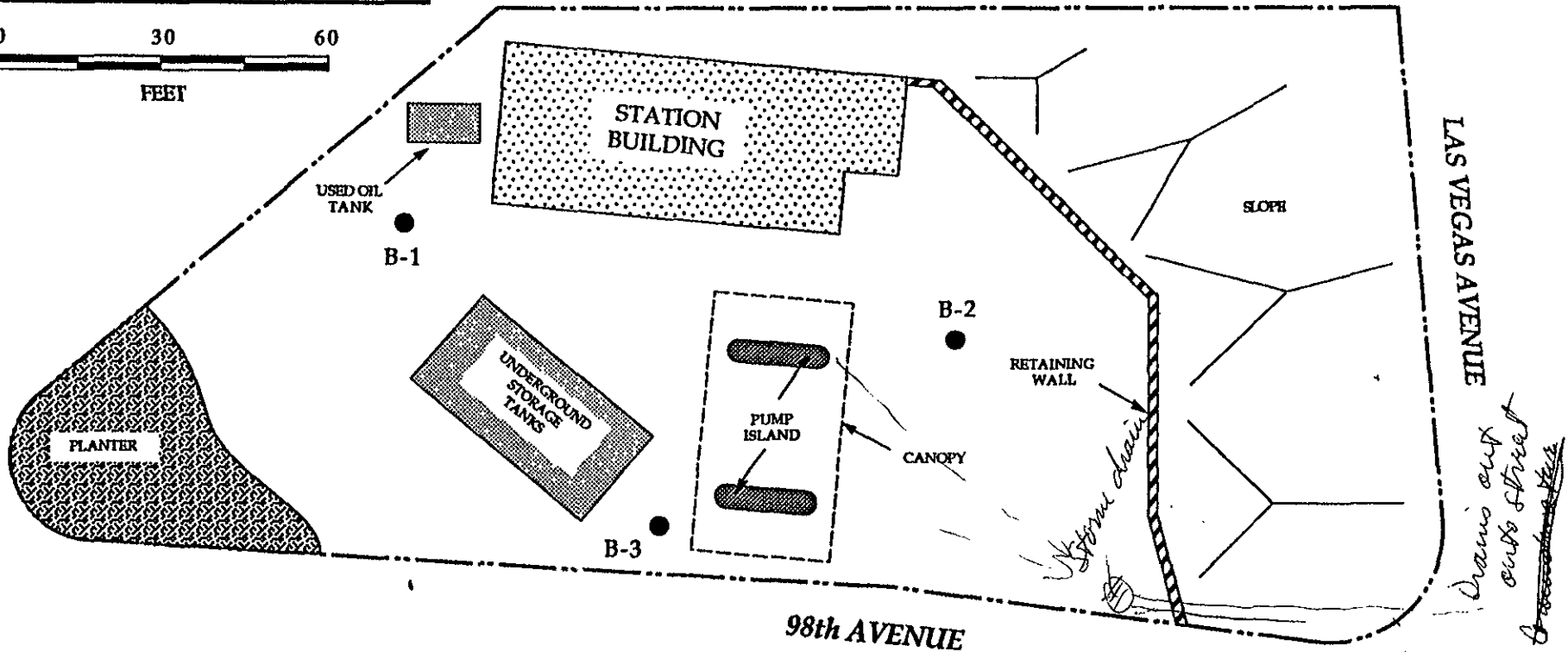
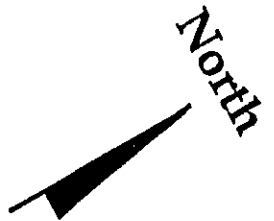
BP Service Station
3101 98th Avenue
Oakland, CA

EXPLANATION

B-1 ● = Soil Boring

----- = Property Boundary

SCALE 1" = 30'



HYDR-
ENVIRONMENTAL
TECHNOLOGIES, INC.

SITE PLAN
BP Service Station No. 11122
3101 98th Avenue
Oakland, California

Job No.
9-041
Figure
3

KEI-J90-0706.R1
October 9, 1990

TABLE 1

SUMMARY OF LABORATORY ANALYSES

(Samples collected on July 13 & 20, 1990)

<u>Sample</u>	<u>Depth (feet)</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethyl- benzene</u>	<u>Total Lead</u>
<i>pipe trench</i> P1	3	ND	0.0090	0.079	0.034	0.0066	6.3
P2	4.5	ND	ND	0.047	0.037	0.011	5.5
P3	2.5	9.4	0.029	0.096	3.0	0.52	43
<i>dispenser</i> D1	7	12	0.053	0.39	0.96	0.16	19
D2	7	3.3	0.029	0.48	0.22	0.044	4.8
SW1	10	1.3	0.011	0.056	0.035	0.025	4.5
SW2	10	23	0.015	0.10	0.18	0.23	71
SW3	10	12	0.016	0.018	0.25	0.12	3.2
SW4	10	3.8	0.016	0.020	0.064	0.050	6.0
Detection Limits		1.0	0.0050	0.0050	0.0050	0.0050	0.25

ND = Non-detectable.

Results are in parts per million (ppm), unless otherwise indicated.

Table 2

SOIL SAMPLES
SUMMARY OF ANALYTICAL RESULTS

BP Service Station No. 11122
3101 98th Avenue
Oakland, California

Sample Description	TPHg (ppm)	TPHd (ppm)	B (ppm)	T (ppm)	E (ppm)	X (ppm)
B-2-10.5'	ND	10 (H)	ND	ND	ND	ND
B-2-15.5'	5	19 (H)	0.023	0.011	ND	0.0071
B-3-5.5'	ND	19 (H)	ND	ND	ND	ND
MDL	1	5	0.005	0.005	0.005	0.005

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

ND = Not detected in concentrations exceeding laboratory method detection limits

MDL = Laboratory method detection limits

(H) = Hydrocarbons greater than C22 were detected

SITE/LOCATION 3101 98th Avenue, Oakland, CA		BEGUN 10/14/92	BORING DIAMETER 8 Inches	ANGLE/BEARING 90 Degrees	BORING NO B-1	
DRILLING CONTRACTOR Bayland Drilling		COMPLETED 10/14/92	FIRST ENCOUNTERED WATER DEPTH No free water encountered		BOTTOM OF BORING 2 Feet	
OPERATOR Tom Schmidt		LOGGED BY H. Hurkmans	STATIC WATER DEPTH/DATE No free water encountered			
DRILL MAKE & MODEL CME 75		SAMPLING METHOD No analytical samples collected				
WELL MATERIAL N/A		SLOT SIZE N/A	FILTER PACK N/A	BORING SEAL Neat cement	WELL NO. N/A	
BLOWS/ FOOT	HEAD- SPACE*	DEPTH	SAMPLE WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION
	0.8	1				Asphalt & Baserock fill
		2				Bedrock - "Leona Rhyolite"
		3				
		4				
		5				
		6				
		7				
		8				
		9				
		10				
		11				
		12				
		13				
		14				
		15				
		16				
		17				
		18				
		19				
		20				
		21				
		22				
		23				
		24				
		25				
		26				
		27				
		28				
		29				
		30				

**HYDRO-
ENVIRONMENTAL
TECHNOLOGIES, INC.**

DATE: 10/16/92

APPROVED BY: John Turney

**SOIL BORING LOG
B-1**

BP Oil Station No. 11122
3101 98th Avenue
Oakland, Ca

PLATE
A-1

JOB NO.
9-041

SITE/LOCATION 3101 98th Avenue, Oakland, CA		BEGUN 10/14/92	BORING DIAMETER 8 Inches	ANGLE/BEARING 90 Degrees	BORING NO B-2
DRILLING CONTRACTOR Bayland Drilling		COMPLETED 10/14/92	FIRST ENCOUNTERED WATER DEPTH No free water encountered		BOTTOM OF BORING 17 Feet
OPERATOR Tom Schmidt		LOGGED BY H. Hurkmans	STATIC WATER DEPTH/DATE No free water encountered		
DRILL MAKE & MODEL CME 75		SAMPLING METHOD California modified split-spoon			

WELL MATERIAL N/A	SLOT SIZE N/A	FILTER PACK N/A	BORING SEAL Neat cement	WELL NO. N/A
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BLOWS/ FOOT	FIELD HEAD- SPACE*	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION
		1					Asphalt & Baserock fill
		2					
		3					SAND (SM) fill; tan, damp, loose, coarse, moderate grading, subrounded, 20% angular fine pebble gravel, 20% silt
5	0.8	4					
7		5					
12		6					CLAY (CL) fill; red-tan, moist, soft, 40% angular coarse-fine pebble gravel
		7					
		8					
12		9					
14	2	10					CLAY (CL) fill; black, moist, soft, high plasticity, 20% subrounded coarse sand, 10% angular gravel
16		11					
		12					CLAY (CL) fill; black, moist, soft, high plasticity
		13					
		14					
	44	15					
		16					GRAVEL (GP) fill; gray, dry, subrounded, elongated, poorly graded, coarse, slightly larger than "pea gravel"
		17					
		18					Bedrock - "Leona Rhyolite"
		19					
		20					
		21					
		22					
		23					
		24					
		25					
		26					
		27					
		28					
		29					
		30					

	SOIL BORING LOG B-2 BP Oil Station No. 1122 3101 98th Avenue Oakland, Ca	PLATE A-2
		JOB NO. 9-041
DATE: 10/16/92 APPROVED BY: John Turney		

SITE/LOCATION 3101 98th Avenue, Oakland, CA		BEGUN 10/14/92	BORING DIAMETER 8 Inches	ANGLE/BEARING 90 Degrees	BORING NO B-3
DRILLING CONTRACTOR Bayland Drilling		COMPLETED 10/14/92	FIRST ENCOUNTERED WATER DEPTH No free water encountered		BOTTOM OF BORING 7 Feet
OPERATOR Tom Schmidt		LOGGED BY H. Hurkmans	STATIC WATER DEPTH/DATE No free water encountered		
DRILL MAKE & MODEL CME 75		SAMPLING METHOD California modified split-spoon			

WELL MATERIAL N/A	SLOT SIZE N/A	FILTER PACK N/A	BORING SEAL Neat cement	WELL NO. N/A
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BLOWS/ FOOT	FIELD HEAD- SPACE *	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION	
9 8 14	0.8	1					Asphalt & Baserock fill	
		2						
		3						
		4						CLAY (CL); brown, moist, stiff, medium plasticity, 10% subrounded coarse sand and fine pebble gravel, 15% angular Leona Rhyolite gravel
		5						
		6						
		7						Bedrock - "Leona Rhyolite"
		8						
		9						
		10						
		11						
		12						
		13						
		14						
		15						
		16						
		17						
		18						
		19						
		20						
		21						
		22						
		23						
		24						
		25						
		26						
		27						
		28						
		29						
		30						

* PID
(ppm)

HYDRO- ENVIRONMENTAL TECHNOLOGIES, INC.	SOIL BORING LOG B-3 BP Oil Station No. 11122 3101 98th Avenue Oakland, Ca	PLATE A-3
	DATE: 10/16/92 APPROVED BY: John Turney	JOB NO. 9-041