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

February 18, 1997

STID 3393

REMEDIAL ACTION COMPLETION CERTIFICATION

Texaco Refining & Marketing
10 Universal City Plaza, 13th Floor
Universal City, CA 91608
Attn: Bob Robles

John Benetti et al
44 Mission Drive
Pleasanton, CA 94566

RE: SPEEDEE OIL AND LUBE, 44 MISSION DRIVE, PLEASANTON

Dear Messrs. Robles and Benetti:

This letter confirms the completion of a 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 Section 2721(e) of Title 23 of the California Code of Regulations.

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

Sincerely,

Mee Ling Tung
Director, Environmental Health Services

enclosure

c: Gordon Coleman, Acting Chief, Env. Protection Division
Kevin Graves, RWQCB
Lori Casias, SWRCB *(w/enclosure)*
Bill Halvorsen, Pleasanton Fire Department *(w/enclosure)*
Dean Hammer, 2270 River Bed Ct., Santa Clara, CA 95054
Ron Zielinski, Texaco, 108 Cutting Blvd., Richmond, CA 94804
SOS/files

- SIGNED COPY -

01-2075

ENVIRONMENTAL PROTECTION
97 FEB 14 PM 2:04

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION **Date: 01/02/97**

Agency name: **Alameda County-EPD** Address: **1131 Harbor Bay Pkwy #250**
City/State/Zip: **Alameda, CA 94502** Phone: **(510) 567-6700**
Responsible staff person: **Scott Seery** Title: **Sr. Haz. Materials Spec.**

II. CASE INFORMATION

Site facility name: **Speedee Oil and Lube**
Site facility address: **44 Mission Drive, Pleasanton 94566**
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **3393**
URF filing date: 01/02/97 SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
Texaco Refining and Marketing, Inc. Attn: Bob Robles	10 Univ. City Plza, 13th Flr Universal City, CA 91608	
Anna Tuccori and John & Eleanor Benetti	44 Mission Drive Pleasanton, CA 94566	

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	UNK	gasoline	removed	1979 (?)
2	UNK	"	"	"
3	UNK	"	"	"
4	UNK	waste oil	"	"

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: UNK

Site characterization complete? YES

Date approved by oversight agency:

Monitoring Wells installed? NO Number: NA

Proper screened interval? NA

Highest GW depth below ground surface: UNK (encountered @ ~ 8.5' BG)

Flow direction: UNK

Most sensitive current use: commercial

Are drinking water wells affected? NO Aquifer name: Bernal Subbasin

Is surface water affected? NO Nearest affected SW name: NA

Leaking Underground Fuel Storage Tank Program

III. RELEASE AND SITE CHARACTERIZATION INFORMATION (Continued)

Off-site beneficial use impacts (addresses/locations): NONE

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

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment of Disposal w/destination)	Date
Tank	4 USTs	UNK (presumed "disposal")	1979 (?)
Piping	UNK		
Free Product	NA		
Soil	~ 560 yds^3	Treatment/Disposal - Durham Rd. L.F., Fremont	08/06/90
Groundwater	UNK (See text)		
Barrels	NA		

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)[1]		Water (ppb)[2]	
	Before	After	Before	After
TPH (Gas)	6100	64	1700	NA
TPH (Diesel)	NA	NA	NA	"
Benzene	"	ND	24	"
Toluene	"	"	0.6	"
Xylene	"	0.34	0.3	"
Ethylbenzene	"	0.1	95	"
Oil & Grease	ND	NA	NA	"
Heavy metals	NA	"	"	"
Other **HVOC**	ND	"	"	"

Note: 1) "Before" soil results from GTI's 1987 and preliminary 1990 investigations. Only results for oil & grease and HVOC from 1987 study. "After" soil results from post excavation sampling occurring in 1990.

2) "Before" water results from "grab" sample collected from soil core S4 emplaced into former UST pit before overexcavation was performed.

Comments (Depth of Remediation, etc.):

It has been reported that 3 fuel and one waste oil USTs were removed from the site sometime in 1979 or 1980. Reports documenting the results of this project have not been made available.

A *limited* environmental assessment was performed at the site during August 1987. Six (6) borings were advanced about (but not through) the former UST pits and dispenser islands. Borings were advanced to approximately 20 - 25' BG. Encountered sediments were described as sequences of clay,

gravelly clay, and clayey gravel. Water was initially encountered at depths ranging from 10 - 13' BG.

No detectable hydrocarbons or HVOC were identified in any of the soil samples submitted for laboratory analysis, nor was subjective evidence of hydrocarbons noted during boring advancement. Water samples were not collected.

A geotechnical investigation was performed during February 1990 in preparation for development of the site to its current use. "Strong" hydrocarbon odors were encountered at the 11.5' depth in boring EB-1, advanced through the former fuel UST excavation. Drilling was terminated at that depth at the request of the drillers.

A follow-up environmental investigation was performed during June 1990. Seven (7) soil "cores" were drilled at locations both within and without the former fuel UST area. This coring project was performed to identify the extent of impact and guide a subsequent excavation project. Both soil and, from 3 of the coreholes, water were collected for analysis.

Initial soil samples were analyzed for TPH-G, only, by a mobile laboratory mobilized on-site. Initial results showed only one remarkable result: 6100 ppm TPH-G from coring S-1, located within the fuel UST pit and collected from the 11' depth. All other sample results from all other borings were either unremarkable or below laboratory detection limits.

Up to 1700 ug/l TPH-G and 24 ug/l benzene, among others detected, were identified in water collected through coring S-4, emplaced within the fuel UST excavation.

During July 1990, approximately 560 yds^3 of sand and gravel from the former fuel UST pit and native clayey materials were re-excavated. Soil samples (15) were collected and analyzed by the on-site laboratory as the excavation work proceeded. Eventually, 12 samples were collected from the resultant pit bottom and sidewalls as confirmation once the excavation work was completed. Up to 64 ppm TPH-G and minor EX concentrations were identified in these final samples. Benzene was not detected.

Water was encountered in the granular backfill during excavation activities at a depth of 12' BG. It is reported that a vacuum truck was used to remove (an unknown volume) of water from the excavation and dispose of it at a "licensed facility."

The resultant excavation measured 40 x 30 x 12' deep. The pit was reportedly backfilled with clean import materials and engineered to accommodate the (then) pending site development.

Leaking Underground Fuel Storage Tank Program

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: NA

Should corrective action be reviewed if land use changes? YES

Monitoring wells Decommisioned: NO

Number Decommisioned: NA Number Retained: NA

List enforcement actions taken: NONE

List enforcement actions rescinded: NONE

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Scott Seery Title: Sr. Haz Mat Specialist
Signature: Date: 2/3/97

Reviewed by
Name: Tom Peacock Title: Supervising Haz Mat Specialist
Signature: Date: 2-3-97

Name: Amy LEECH Title: Haz Mat Specialist
Signature: Date: 1/8/97

VI. RWQCB NOTIFICATION

Date Submitted to RB: 2/8/97 RB Response: Approved
RWQCB Staff Name: Kevin Graves Title: San. Eng. Assoc. Date: 2/5/97

VII. ADDITIONAL COMMENTS, DATA, ETC.

No further assessment or clean-up work are warranted for the following reasons:

- USTs were removed at least 16 years ago
- Contamination was isolated to one limited area within the fuel UST pit
- Native materials surrounding former fuel UST pit are fined-grained
- Contaminated soil and groundwater were removed from the site in 1990
- Current development (oil change facility) is open to outside air during business hours; the service "pit" area is sealed to prevent both water influx and the escape of spilled hazardous materials

SOIL EXCAVATION/AERATION REPORT
FORMER TEXACO SERVICE STATION
44 MISSION DRIVE
PLEASANTON, CALIFORNIA
NOVEMBER 30, 1990

GROUNDWATER TECHNOLOGY, INC.
CONCORD, CALIFORNIA

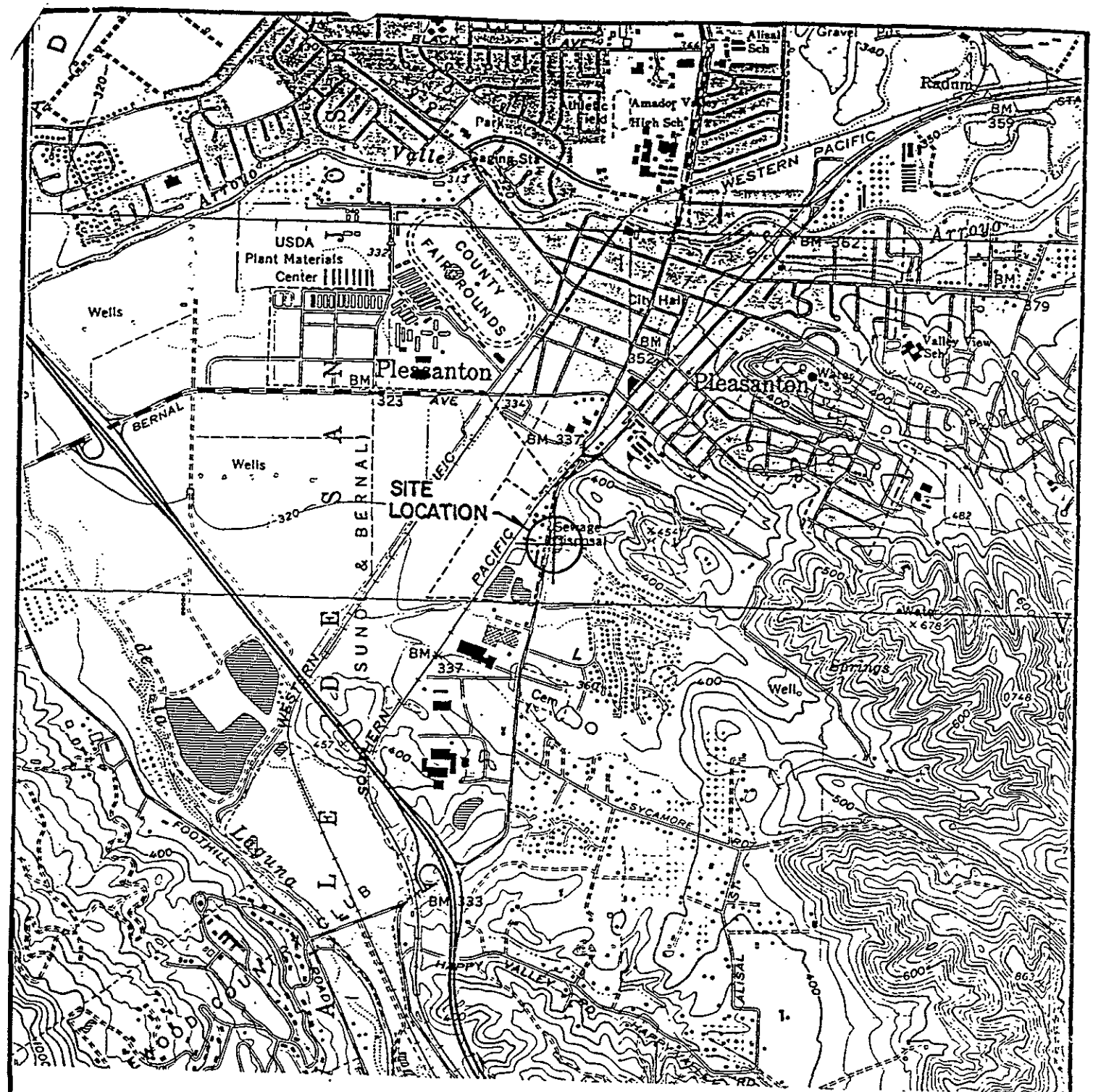


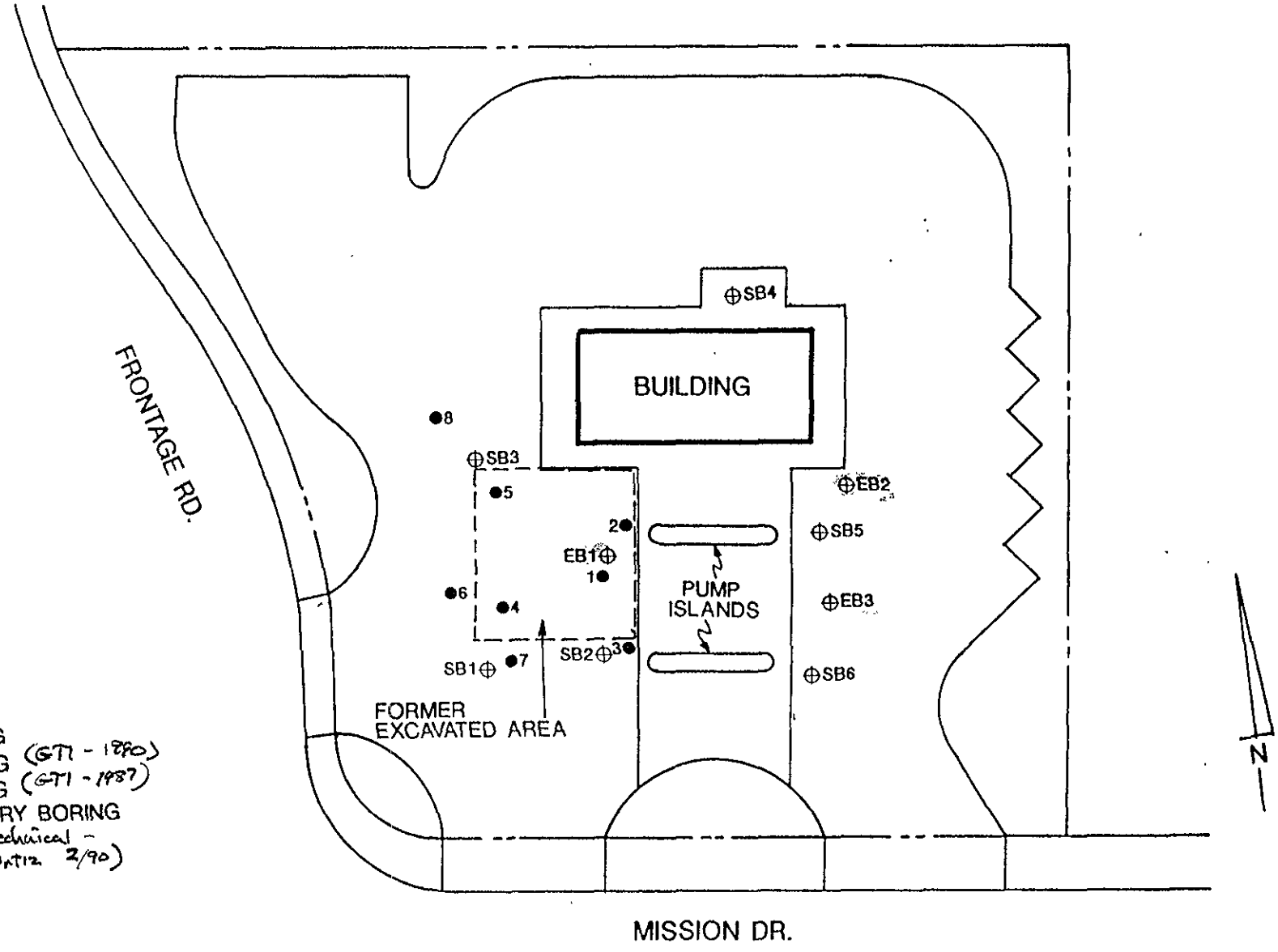
FIGURE 1
SITE LOCATION MAP

TEXACO REFINING & MARKETING INC.
MISSION DRIVE
PLEASANTON, CALIFORNIA

N

0 MILES 1

GROUNDWATER TECHNOLOGY



LEGEND
⊕ SOIL BORING (GTI - 1990)
● SOIL CORING (GTI - 1987)
SB SOIL BORING
EB EXPLORATORY BORING (Geotechnical - A. Ortiz 2/90)

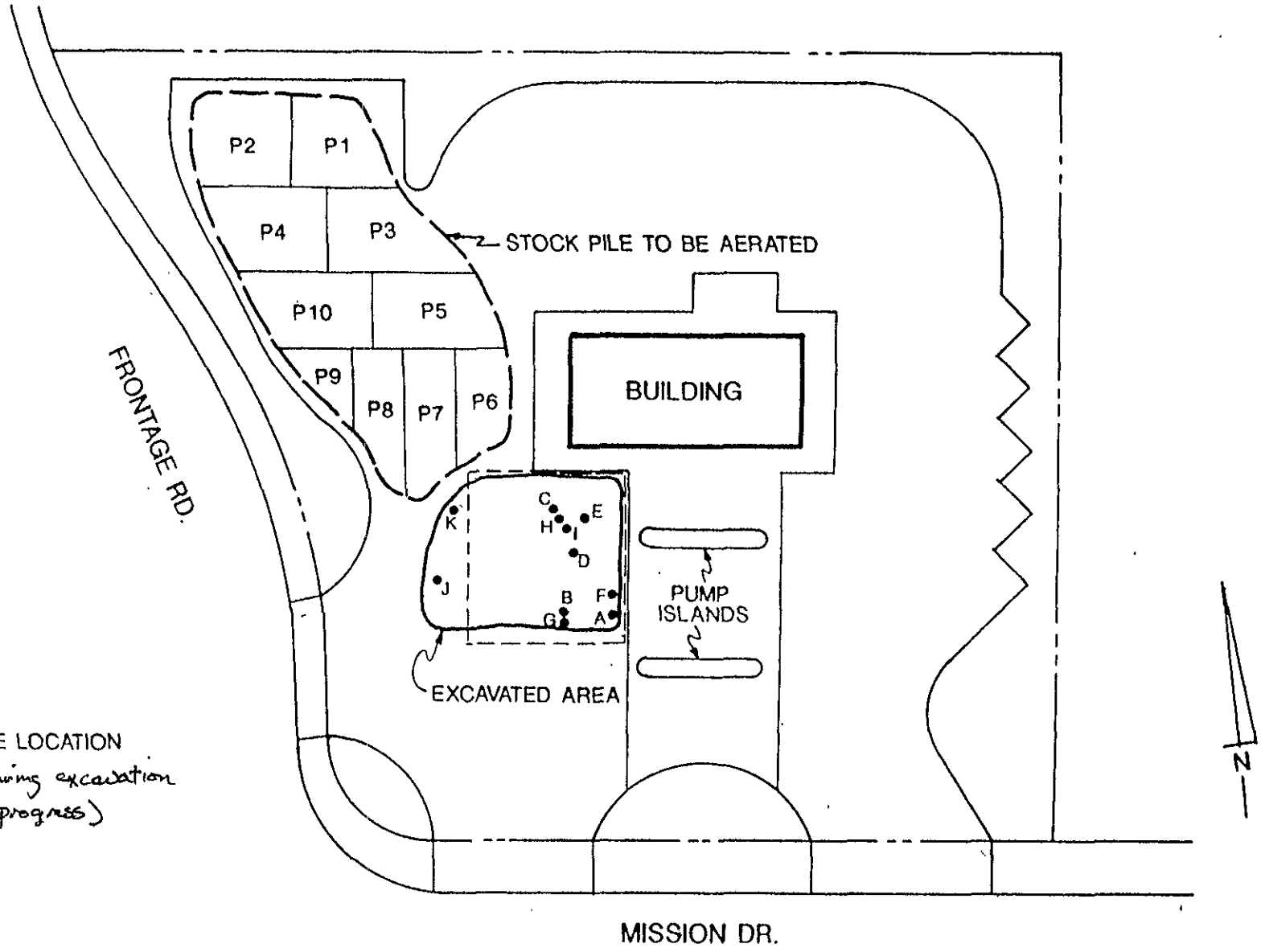
0 FEET 30

FIGURE 1
SITE PLAN

TEXACO REFINING
& MARKETING INC.
PLEASANTON, CALIFORNIA

ML 7/90

GROUNDWATER
TECHNOLOGY, INC.



LEGEND

● SOIL SAMPLE LOCATION
(samples during excavation to guide progress)

0 FEET 30

FIGURE 2
SOIL EXCAVATION PLAN

TEXACO REFINING
& MARKETING INC.
PLEASANTON, CALIFORNIA

ML 7/90

GROUNDWATER TECHNOLOGY, INC.

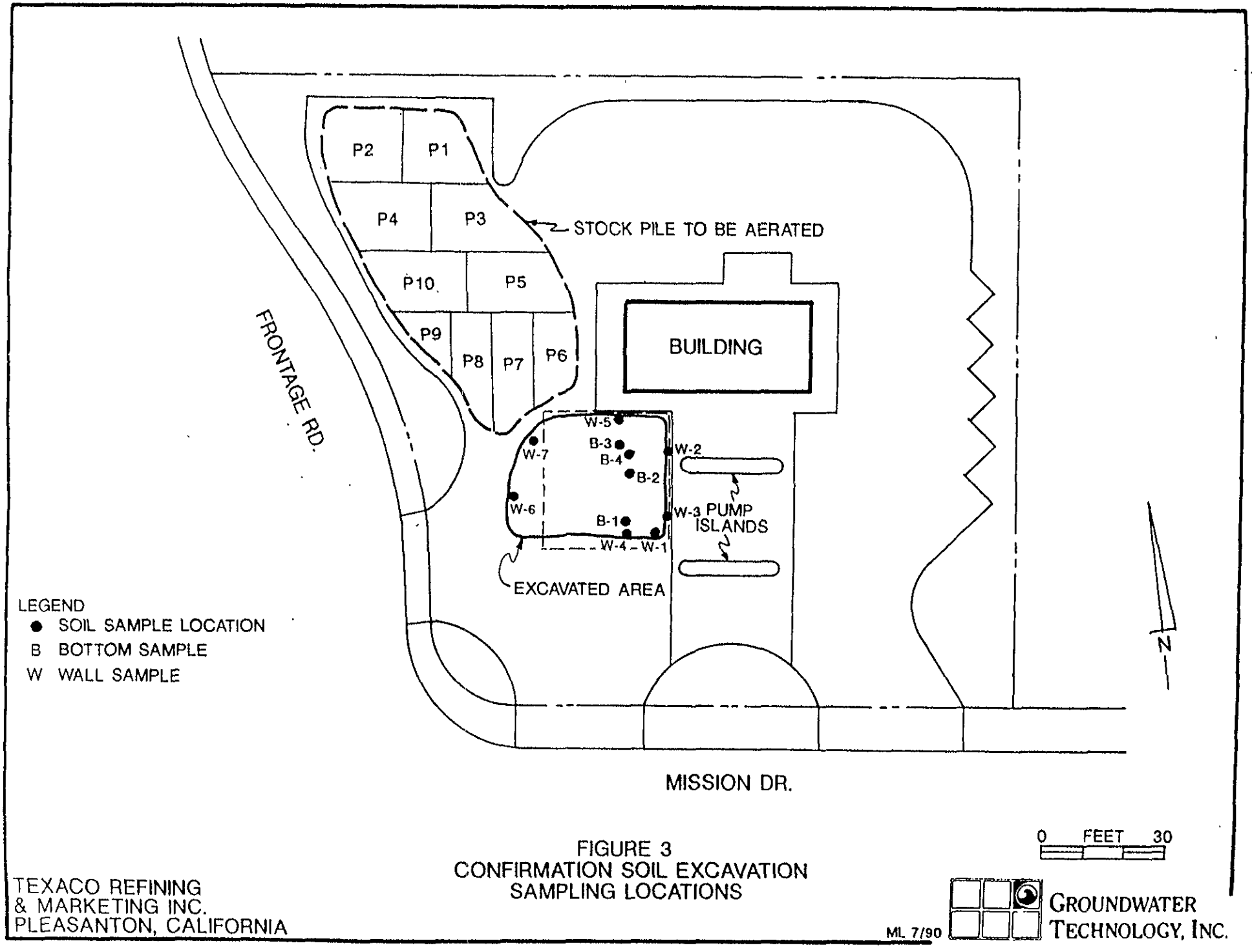


FIGURE 3
CONFIRMATION SOIL EXCAVATION
SAMPLING LOCATIONS

TEXACO REFINING
& MARKETING INC.
PLEASANTON, CALIFORNIA

ML 7/90

GROUNDWATER
TECHNOLOGY, INC.

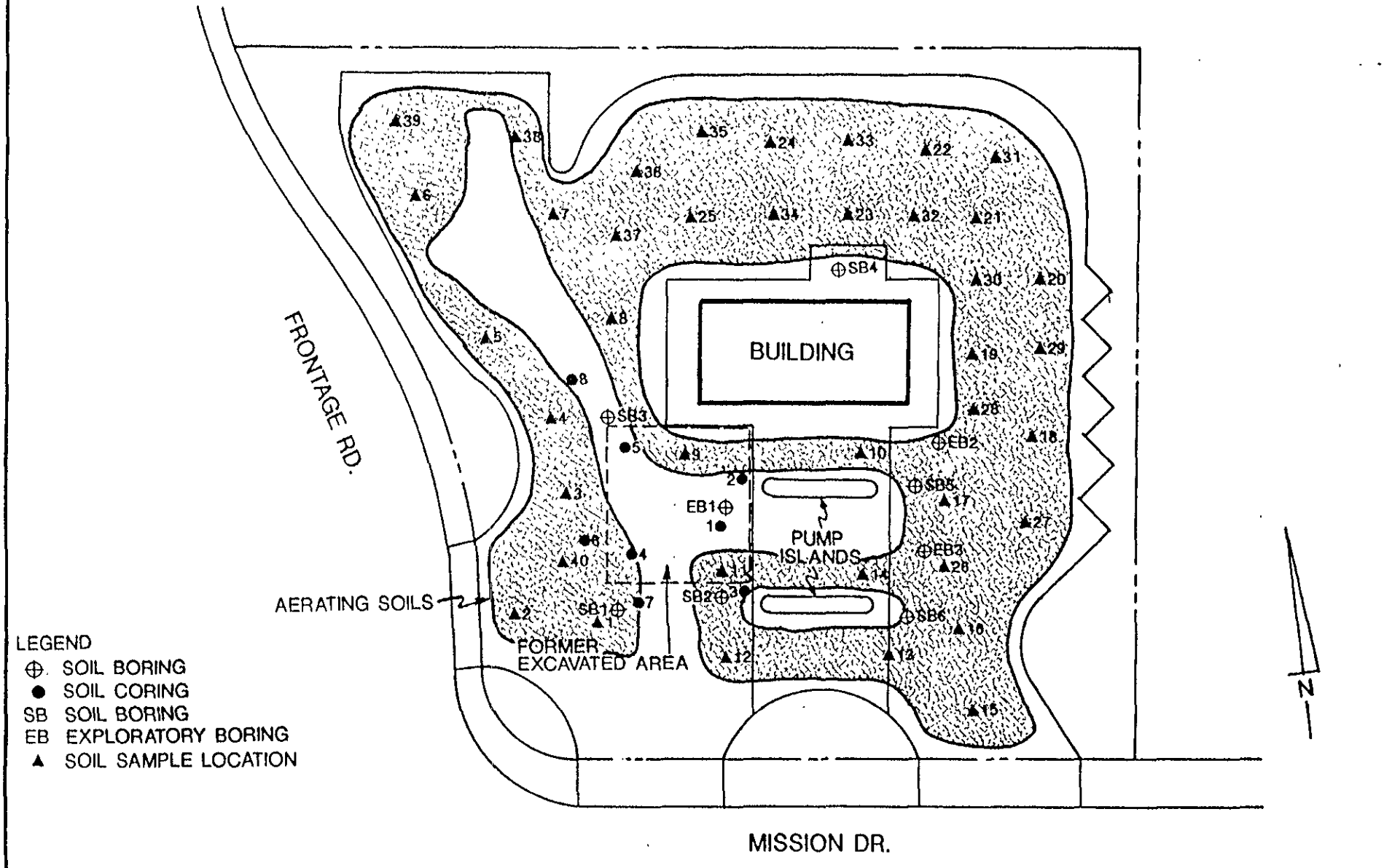


FIGURE 4
AERATION SOIL SAMPLE LOCATIONS

TEXACO REFINING
& MARKETING INC.
PLEASANTON, CALIFORNIA

ML 7/90

GROUNDWATER TECHNOLOGY, INC.

PRE-EXCAVATION SAMPLES

TABLE 1

TPH-AS-GASOLINE CONCENTRATIONS
CORE SAMPLING ANALYSES
(in parts per million)

SAMPLE ID	DEPTH (ft)	TPH-AS-GASOLINE
S-1	5	<MDL
	7	130
	9	330
	11	6,100
S-2	5	<MDL
	7	<MDL
	8.5	<MDL
	10	<MDL
S-3	2.5	<MDL
	5	<MDL
	7	<MDL
	8.5	<MDL
	11	<MDL
S-4	5	<MDL
	7	<MDL
	8.5	<MDL
	10.5	<MDL
S-5	7	<MDL
	8	<MDL
	8.5	15
	10.5	<MDL
S-6	2.5	<MDL
	5	<MDL
	7.5	<MDL
	9.5	<MDL
S-7	5	<MDL
	7.5	<MDL
	9	<MDL
S-8	4.5	<MDL
	6.5	<MDL
	8.5	<MDL
	10.5	<MDL

TPH = Total Petroleum Hydrocarbons
S = Soil Core
MDL = Method Detection Limit

SAMPLES COLLECTED WHILE EXCAVATION IN PROGRESS

TABLE 2

TPH-AS-GASOLINE CONCENTRATIONS

EXCAVATION SAMPLING ANALYSES
(in parts per million)

LOCATION SAMPLE	DEPTH (ft)	TPH-AS-GASOLINE
A-1	4	<MDL
A-2	8	270
A-3	11	130
B-4	5	<MDL
B-5	10	40
B-6	12	<MDL
C-7	5	26
D-8	11	870
E-9	9	100
F-10	11	<MDL
G-11	11	<MDL
H-12	12	<MDL
I-13	12	<MDL
J-14	12	<MDL
K-15	12	160
2K-15	12	<MDL

TPH = Total Petroleum Hydrocarbons
MDL = Method Detection Limits

GROUNDWATER TECHNOLOGY, INC.

TABLE 3

TPH-AS-GASOLINE CONCENTRATIONS

CONFIRMATION EXCAVATION SAMPLING ANALYSES

(in parts per million [ppm])

SAMPLE ID	B-1	B-3	B-4	B-5	W-1	W-2	W-3	W-4	W-5	W-6	W-7
DEPTH (ft)	12	12	12	12	12	12	12	12	12	12	12
CONSTITUENTS											
Benzene	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
Toluene	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
Ethylbenzene	<MDL	0.01	<MDL	<MDL	0.1	<MDL	<MDL	<MDL	0.04	<MDL	<MDL
Xylenes	<MDL	<MDL	<MDL	<MDL	0.34	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
TPH-as-Gasoline	<MDL	<MDL	<MDL	<MDL	64	<MDL	<MDL	<MDL	6	<MDL	<MDL

TPH = Total Petroleum Hydrocarbons
MDL = Method Detection Limits

GROUNDWATER TECHNOLOGY, INC.

FINAL SAMPLES

WATER SAMPLES COLLECTED BEFORE EXCAVATION

Client: Teena Ramage
Groundwater Technology, Inc.
Project Number: 203-199-4315
Location: 44 Mission Dr. Pleasanton, CA
Report Issue Date: September 19, 1990

Table 1

ANALYTICAL RESULTS

Purgeable Aromatics and Total Petroleum Hydrocarbons as Gasoline in Water
EPA Method 8020/8015[1]

Client Identification		S3	S8	S4	
Date Analyzed		06/27/90	06/27/90	06/27/90	
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.3	0.6	4	24	
Toluene	0.3	< 0.3	< 0.3	0.6	
Ethylbenzene	0.3	3	0.7	95	
Xylene (total)	0.6	< 0.6	< 0.6	3	
TPH as Gasoline	50	66	180	1700	

1 = Extraction by EPA Method 5030

Emma P. Popek

EMMA P. POPEK, LABORATORY DIRECTOR

GTEL ENVIRONMENTAL LABORATORIES, INC

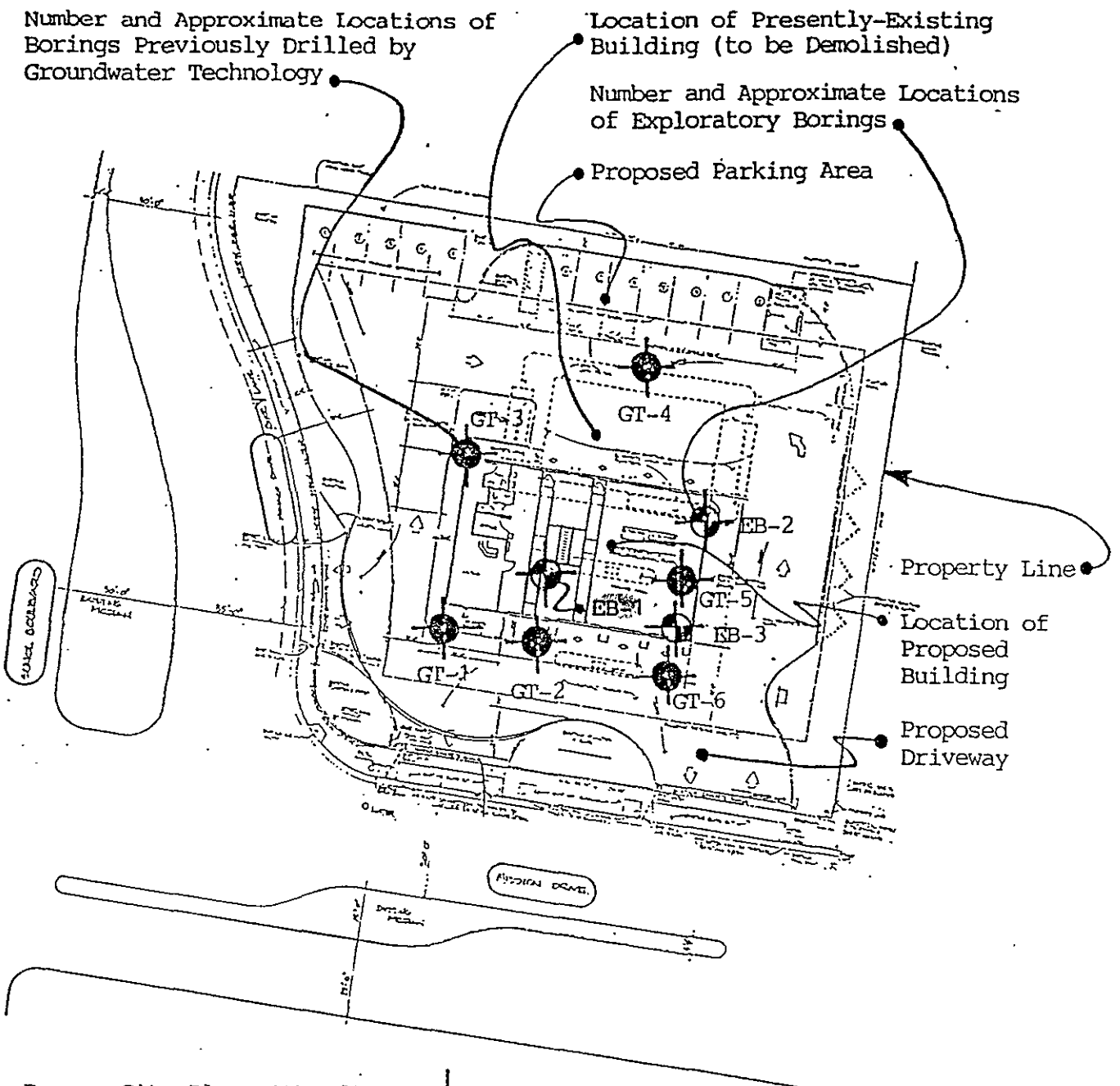
GEOTECHNICAL INVESTIGATION

PROPOSED SPEEDEE OIL CHANGE AND TUNE UP
44 MISSION DRIVE
PLEASANTON, CALIFORNIA

Prepared for

Mr. Carl Nelson
Santa Clara, California

ALEXANDER ORTIZ
CONSULTING ENGINEER



Base: Site Plan with Adjacent Streets, SpeeDee Oil Change & Tune-Up 17-019, Monaco Drive & Mission Drive, Pleasanton, California, dated December 27, 1989, prepared by Collaborative Design Architects

0 1 5 10 20 30
Approximate Scale, Feet

ALEXANDER ORTIZ GEOTECHNICAL CONSULTANT	Job No: 87-C Appr: Date: February '90	SITE PLAN Proposed SpeeDee Oil Change and Tune Up 44 Mission Drive Pleasanton, California	FIGURE 1

DRILL RIG Continuous-Flight Auger	SURFACE ELEVATION See Note 1	LOGGED BY AO
DEPTH TO GROUNDWATER See Note 2	BORING DIAMETER 6 Inches	DATE DRILLED 02/13/90

DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT.)	WATER CONTENT (%)	DRY DENSITY (PCF)	SHEAR STRENGTH (KSF)
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE						
2" Asphalt over 3" Aggregate Base									
SANDY FINE GRAVEL, moist	Gray-Brown	Loose	GP			14	4		
GRAVELLY, SANDY, SILTY CLAY, moist, (silty clay/sandy fine gravel mix), with strong gasoline odor	Blue-Gray	Stiff	CH-CL	5		24*/9"	13	122	0.69 / 6.1% (UC)
(Fill)				10		8*		See Note 2 / No Recovery	

Bottom of Boring = 11½ Feet

NOTES

1. Topographic data was not available at the time of the field work.
2. Groundwater was measured at a depth of 8-1/2 feet at the time of drilling (see text of report for discussion of groundwater).
3. Stratification lines represent the approximate boundaries between material types; actual transitions are gradual.
4. See text of this appendix for explanation of penetration resistance values marked with an asterisk (*).

ALEXANDER ORTIZ GEOTECHNICAL CONSULTANT	Job No: 87-C Appr: Date: February '90	EXPLORATORY BORING LOG Proposed SpeeDee Oil Change and Tune Up 44 Mission Drive Pleasanton, California	BORING NO. 1

DRILL RIG Continuous-Flight Auger	SURFACE ELEVATION See Note 1	LOGGED BY AO
DEPTH TO GROUNDWATER See Note 2	BORING DIAMETER 6 Inches	DATE DRILLED 02/13/90

DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE	DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT.)	WATER CONTENT (%)	DRY DENSITY (PCF)	SHEAR STRENGTH (KSF)
2" Asphalt over 3" Aggregate Base									
GRAVELLY, SANDY, SILTY CLAY, moist	Reddish Brown	Stiff	CH			20*	13	122	2.61 7.7% (UC)
GRAVELLY, SANDY, SILTY CLAY, moist	Gray	Stiff	CH			27* 9"	13	122	0.99 8.3% (UC)
GRAVELLY, SANDY, SILTY CLAY, moist (Fill)	Brown	Stiff	CL	5					
SILTY CLAY	Dark Gray	Firm to Stiff	CH			12*	26	99	See Note 2 2.26 10.0% (UC)
				10					
SILTY CLAY, with coarse sand and assorted gravels	Gray-Brown Grading to Reddish Brown	Stiff	CL-SC SC	15		10*	16	118	0.52 10.0% (UC)
						27	14		
				20					

Bottom of Boring = 23 Feet

NOTES

1. Topographic data was not available at the time of the field work.
2. Groundwater was measured at a depth of 8 feet at the time of drilling (see text of report for discussion of groundwater).
3. Stratification lines represent the approximate boundaries between material types; actual transitions are gradual.
4. See text of this appendix for explanation of penetration resistance values marked with an asterisk (*).

ALEXANDER ORTIZ GEOTECHNICAL CONSULTANT	Job No: 87-C Appr: Date: February '90	EXPLORATORY BORING LOG Proposed SpeeDee Oil Change and Tune Up 44 Mission Drive Pleasanton, California	BORING NO. 2

DRILL RIG Continuous-Flight Auger	SURFACE ELEVATION See Note 1	LOGGED BY AO
DEPTH TO GROUNDWATER See Note 2	BORING DIAMETER 6 Inches	DATE DRILLED 02/13/90

DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT)	WATER CONTENT (%)	DRY DENSITY (PCF)	SHEAR STRENGTH (KSF)
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE						
2" Asphalt over 3" Aggregate Base									
GRAVELLY, SANDY, SILTY CLAY, moist (Fill)	Reddish Brown	Stiff	CL	5	☒	24*	11	126	1.91 / 3.0% (UC)
SILTY CLAY, moist	Dark Gray	Firm to Stiff	CH	10	☒	9*	27	98	1.90 / 10.0% (UC)
SILTY CLAY, with assorted gravels and coarse sand	Gray-Brown Grading to Brown	Stiff	CL-SC	15				See Note 2	

Bottom of Boring = 17 Feet

NOTES

1. Topographic data was not available at the time of the field work.
2. Groundwater was measured at a depth of 9 feet at the time of drilling (see text of report for discussion of groundwater).
3. Stratification lines represent the approximate boundaries between material types; actual transitions are gradual.
4. See text of this appendix for explanation of penetration resistance values marked with an asterisk (*).

GROUNDWATER TECHNOLOGY
A DIVISION OF OIL RECOVERY SYSTEMS, INC.
4080 Pike Lane, Suite D, Concord, CA 94520-1227 (415) 671-2387

CONTAMINATION ASSESSMENT REPORT

TEXACO SERVICE STATION

44 MISSION DRIVE

PLEASANTON, CALIFORNIA

SEPTEMBER 24, 1987

Prepared for:

Mr. Robert Robles
Texaco Refining and
Marketing Inc.
10 Universal City Plaza
Universal City, Ca 91608

Mr. John F. Love
Texaco Refining and
Marketing Inc.
P.O. Box 52332
Houston, TX 77052

Mr. Patrick Donahue
Texaco Refining and
Marketing Inc.
1670 So. Amphlett Blvd.
Suite 215
San Mateo, CA 94402

R203 150 4315

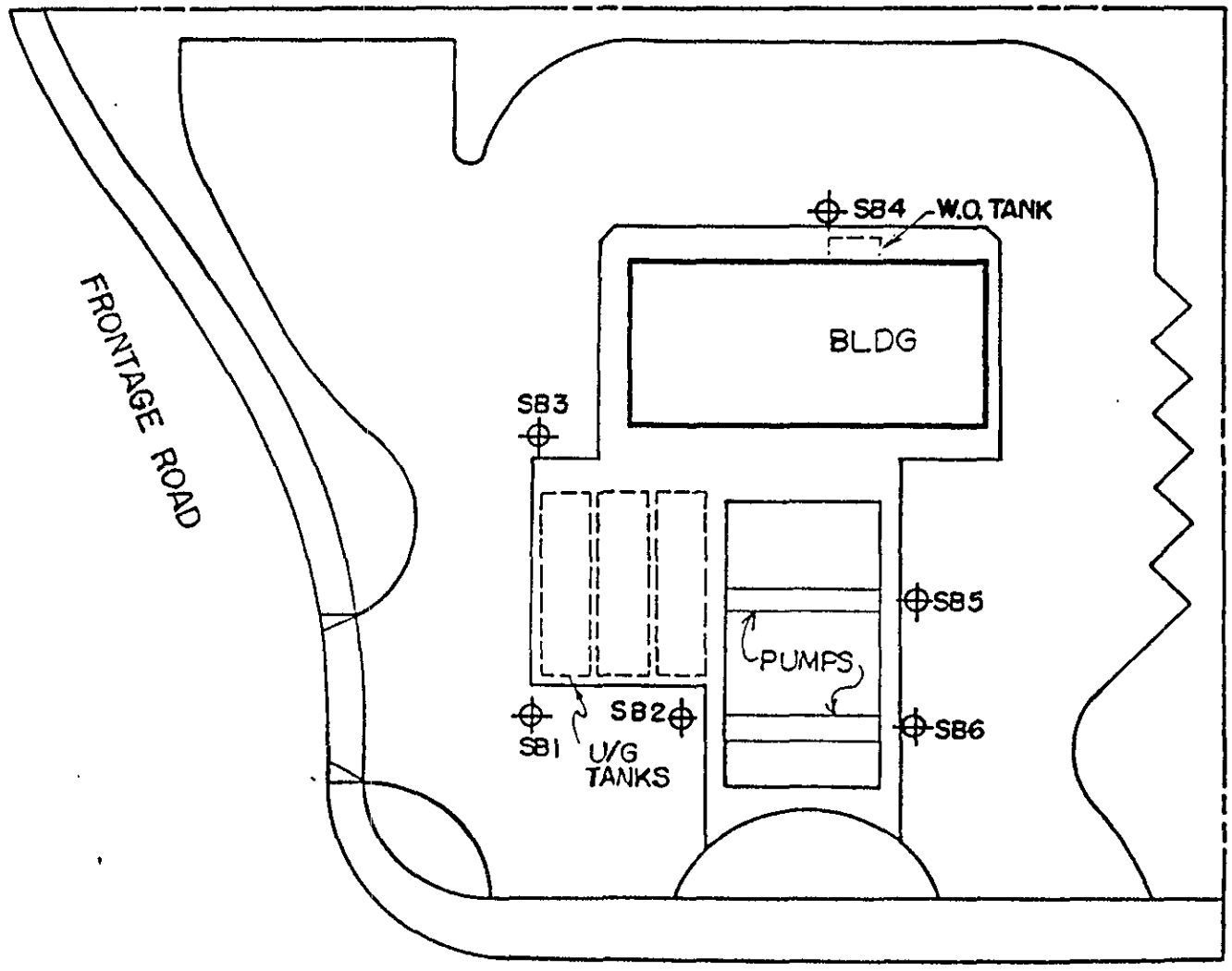
Prepared by:

Groundwater Technology, Inc.
4080 Pike Lane, Suite D
Concord, CA 94520

Jan Prasil
Project Geologist

Amy Sager Patton
Hydrogeologist

Lynn E. Pera
Registered Civil Engineer
No. 33431



LEGEND

⊕ SOIL BORING

FIGURE 2
SITE PLAN

TEXACO MISSION
PLEASANTON, CALIFORNIA

GROUNDWATER
TECHNOLOGY

GROUNDWATER TECHNOLOGY, INC.
OIL RECOVERY SYSTEMS

Soil Boring 1

Drilling Log

Project Texaco Mission Owner Texaco Refin. & Marketing

Location Pleasanton, CA Project Number 203 150 4315

Date Drilled 8/31/87 Total Depth of Hole 25 ft. Diameter 7.5 in.

Surface Elevation ____ Water Level, Initial 10.2 ft. 24-hrs. ____

Screen: Dia. ____ Length ____ Slot Size ____

Casing: Dia. ____ Length ____ Type ____

Drilling Company Kvilhaug Co. Drilling Method Hollow Stem Auger

Driller Chris Pruner Log by Jan Prasil

Sketch Map

Notes

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification
0					2 inch Asphalt over 3 inch base course
2					Reddish brown, fine gravelly clay (medium stiff, moist, no product odor)
4		0	A 5 5 9	CL	(grades light brown)
6					
8			B 2 2 3		Dark gray plastic clay (soft, moist, no product odor)
10		0		CH	▼ Encountered water 8/31/87 (1035 hours)
12					
14		0	C 2 2 4	CL	Light brown fine gravelly clay (soft, wet, no product odor)
16					(grades more gravelly)
18					
20		0	4 2 2	GC	Brown clayey fine gravel (very loose, wet, no product odor)
22					(grades more clayey)
24		0	6 9 20	CL	Brown fine gravelly clay (stiff, wet, no product odor)
					End of boring, backfilled with concrete

GROUNDWATER TECHNOLOGY, INC.
OIL RECOVERY SYSTEMS

Soil Boring 2

Drilling Log

Project Texaco Mission Owner Texaco Refin. & Marketing

Location Pleasonton, CA Project Number 203 150 4315

Date Drilled 8/31/87 Total Depth of Hole 20 ft. Diameter 7.5 in.

Surface Elevation ____ Water Level, Initial 12 ft. 24-hrs. ____

Screen: Dia. ____ Length ____ Slot Size ____

Casing: Dia. ____ Length ____ Type ____

Drilling Company Kvilhaug Co. Drilling Method Hollow Stem Auger

Driller Chris Pruner Log by Jan Prasil

Sketch Map

Notes

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification
0					2 inch Asphalt over 3 inch base course
2				CL	Dark brown fine gravelly clay (medium stiff, moist, no product odor)
4		0	A 12 14 15		Gray plastic clay (stiff, moist, no product odor)
6				CH	
8			B 3 3 4		(grades medium stiff)
10		0	2		
12					Encountered water 8/31/87 (1025 hours)
14		0	C 5 3 4	CL	Light brown fine gravelly clay (soft, wet, no product odor)
16					(grades more gravelly)
18			D		
20		0	4 3 4 2	GC	Light brown, clayey fine gravel (soft, wet, no product odor)
22					End of boring, backfilled with concrete
24					

GROUNDWATER TECHNOLOGY, INC.
OIL RECOVERY SYSTEMS

Soil Boring 3

Drilling Log

Project Texaco Mission Owner Texaco Refin. & Marketing

Location Pleasanton, CA Project Number 203 150 4315

Date Drilled 8/31/87 Total Depth of Hole 25 ft Diameter 7.5 in.

Surface Elevation ____ Water Level, Initial 13.5 ft 24-hrs. ____

Screen: Dia. ____ Length ____ Slot Size ____

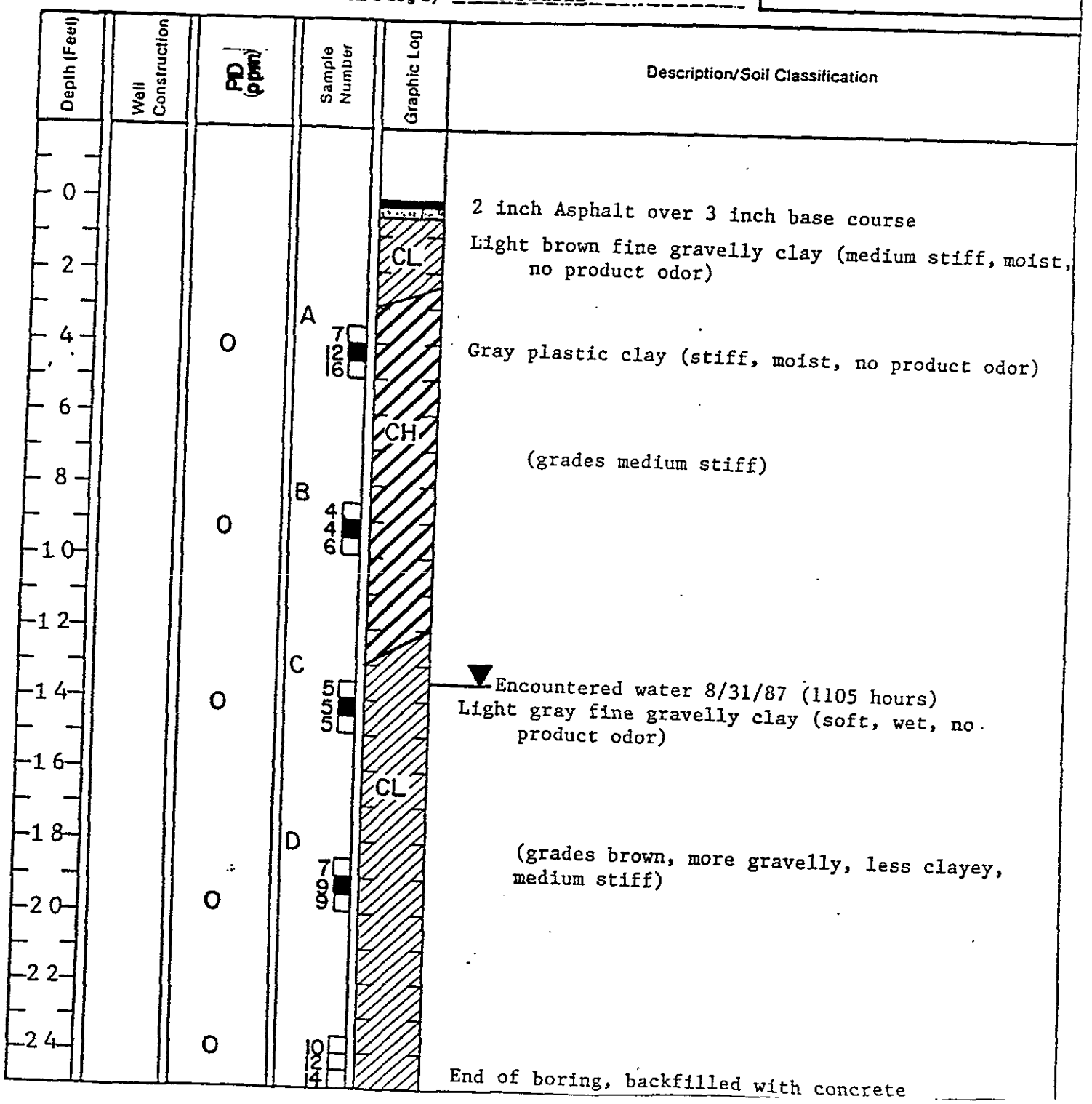
Casing: Dia. ____ Length ____ Type ____

Drilling Company Kvilhaug Co. Drilling Method Hollow Stem Auger

Driller Chris Pruner Log by Jan Prasil

Sketch Map

Notes



GROUNDWATER TECHNOLOGY, INC.
OIL RECOVERY SYSTEMS

Soil Boring 4

Drilling Lo

Project Texaco Mission Owner Texaco Refin. & Marketing

Location Pleasanton, CA Project Number 203 150 4315

Date Drilled ____ Total Depth of Hole 25 ft Diameter 7.5 in.

Surface Elevation ____ Water Level Initial 10.5 in 24-hrs. ____

Screen: Dia. ____ Length ____ Slot Size ____

Casing: Dia. ____ Length ____ Type ____

Drilling Company Kvilhaug Co. Drilling Method Hollow Stem Auger

Driller Chris Pruner Log by Jan Prasil

Sketch Map

Notes

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification
0					2 inch Asphalt over 3 inch base course
2				CL	Light brown gravelly clay (soft, dry, no product odor)
4		0	A 7 12 13		(grades medium stiff)
6					
8			B 4 3 5	CH	Gray plastic clay (soft, moist, no product odor)
10		0			
12					Encountered water 8/31/87 (1155 hours)
14		0	C 6 9 6		Brownish gray fine gravelly clay (medium stiff, wet, no product odor)
16				CL	
18			D 9 10 13		(grades brown, more gravelly)
20		0			
22					
24		0	9 6 12		End of boring, backfilled with concrete

GROUNDWATER TECHNOLOGY, INC.
OIL RECOVERY SYSTEMS

Soil Boring 6

Drilling Lo

Project Texaco Mission — Owner Texaco Refin. & Marketing

Location Pleasanton, CA — Project Number 203 150 4315

Date Drilled 8/31/87 — Total Depth of Hole 25 ft. — Diameter 7.5 in.

Surface Elevation — Water Level, Initial 10 ft. — 24-hrs.

Screen: Dia. — Length — Slot Size

Casing: Dia. — Length — Type

Drilling Company Kvilhaug — Drilling Method Hollow Stem Auger

Driller Chris Pruner — Log by Jan Prasil

Sketch Map

Notes

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification
0					2 inch Asphalt over 3 inch base course
2				CL	Brown fine gravelly clay (soft, dry, no product odor)
4					(grades medium stiff)
6				CH	Dark gray plastic clay (medium stiff, moist, no product odor)
8			A 10		
10		0	10		
			7		Encountered water 8/31/87 (1300 hours)
12				GC	Light brown, clayey fine, gravel (medium dense, wet, no product odor)
14			B 4		
		0	5		
16			6		(grades more clayey)
18			C 5		
		0	10		
20			10		
22					
24			D 10	CL	Light brown gravelly clay (stiff, wet, no product odor)
		0	10		
			15		End of boring, backfilled with concrete

GROUNDWATER TECHNOLOGY, INC.
OIL RECOVERY SYSTEMS

Soil Boring 6

Drilling Lo

Project Texaco Mission Owner Texaco Refin. & Marketing

Location Pleasanton, CA Project Number 203 150 4315

Date Drilled 8/31/87 Total Depth of Hole 25 ft. Diameter 7.5 in.

Surface Elevation ____ Water Level, Initial 10 ft. 24-hrs. ____

Screen: Dia. ____ Length ____ Slot Size ____

Casing: Dia. ____ Length ____ Type ____

Drilling Company Kvilhaug Drilling Method Hollow Stem Auger

Driller Chris Pruner Log by Jan Prasil

Sketch Map

Notes

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification
0					2 inch Asphalt over 3 inch base course
2				CL	Brown fine gravelly clay (soft, dry, no product odor)
4					(grades medium stiff)
6				CH	Dark gray plastic clay (medium stiff, moist, no product odor)
8			A 10		
10		0	10		▼ Encountered water 8/31/87 (1300 hours)
12			7	GC	Light brown, clayey fine, gravel (medium dense, wet, no product odor)
14			B 4		
16		0	5		(grades more clayey)
18			6		
20		0	C 5		
22			10		
24		0	10		
			D 10	CL	Light brown gravelly clay (stiff, wet, no product odor)
			10		
			15		End of boring, backfilled with concrete

GROUNDWATER TECHNOLOGY, INC.
OIL RECOVERY SYSTEMS

Soil Boring 5

Drilling Log

Project Texaco Mission Owner Texaco Refin. & Marketing

Location Pleasonton, CA Project Number 203 150 4315

Date Drilled 8/31/87 Total Depth of Hole 25 ft. Diameter 7.5 in.

Surface Elevation ____ Water Level, Initial 11.75 ft. 24-hrs. ____

Screen: Dia. ____ Length ____ Slot Size ____

Casing: Dia. ____ Length ____ Type ____

Drilling Company Kvilhaug Drilling Method Hollow Stem Auger

Driller Chris Pruner Log by J. Prasil

Sketch Map

Notes

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification
0					2 inch Asphalt over 3 inch base course
2				CL	Brown, gravelly clay (medium stif, moist, no proudct odor)
4		0	A 6 8 15		(grades stiff)
6					
8			B 2 3 4	CH	Gray, plastic clay (soft, moist, no product odor)
10		0			
12					▼ Encountered water 8/31/87 (1325 hours)
14		0	C 5 7 11	GC	Brown, clayey, coarse gravel (medium dense, no product odor)
16					(grades clayey, less gravelly)
18			D 12 20 50		Brown, gravelly clay (very stiff, wet, no product odor)
20		0		CL	
22					
24		0	8 9 15		End of boring, backfilled with concrete