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

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

REMEDIAL ACTION COMPLETION CERTIFICATION

StID 3767 - 3045 Telegraph Ave, Oakland, CA
(1-750 gallon gasoline/diesel tank removed in May 4, 1990)

March 4, 1998

Mr. Tim Akin
600 S. ML King Blvd
Las Vegas, NV 89106

Dr. Paul Berg
B & L Associates
3045 Telegraph
Oakland, CA 94608

Dear Mr. Akin and Dr. Berg:

This letter confirms the completion of site investigation and remedial action for the underground storage tank 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 tank 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
Kevin Graves, RWQCB
Dave Deaner, SWRCB
Leroy Griffin, OFD
files-ec (b&lassoc.3)

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

RO#804

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

StID 3767

March 2, 1998

Mr. Tim Akin
600 S. ML King Blvd
Las Vegas, NV 89106

Dr. Paul Berg
B & L Associates
3045 Telegraph
Oakland, CA 94608

Re: Fuel Leak Site Case Closure for B & L Associates, at 3045 Telegraph, Oakland, CA 94609

Dear Mr. Akin and Dr. Berg:

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:

- soil contamination at up to 1,300 ppm TPH as gasoline and diesel and 1.5 ppm benzene remain in the vicinity of the former UST at ~10' bgs;
- groundwater beneath the site contains up to 16,000 ppb TPH as diesel; and,
- a site safety plan is required for excavations at depths greater than 7' bgs at the vicinity of the former UST.

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

eva chu
Hazardous Materials Specialist

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

c: Frank Kliewer
City of Oakland-Planning
1330 Broadway, 2nd Floor
Oakland, CA 94612
files (b&lassoc.4)

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: October 27, 1997

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: **B & L Associates**
Site facility address: **3045 Telegraph Ave, Oakland, CA 94609**
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **3767**
URF filing date: **4/12/94** SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
1. Tim Akin	600 S. M. L. King Blvd Las Vegas, NV 89106	702/796-1168
2. Dr. Paul Berg B & L Associates	3045 Telegraph Ave Oakland, CA 94608	510/893-3413

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	750	Gasoline/Diesel	Removed	5/4/90

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **Unknown, but holes were noted in UST**
Site characterization complete? **YES**
Date approved by oversight agency: **4/7/97**
Monitoring Wells installed? **Yes** Number: **3-1" diameter piezometers**
Proper screened interval? **Yes**
Highest GW depth below ground surface: **8.67'** Lowest depth: **14.02' in B-7**
Flow direction: **SW**
Most sensitive current use: **Professional service building and a Temple**
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

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment or Disposal w/destination)	Date
Tank	1 UST	Disposed by Erickson, in Richmond	5/4/90
Piping			
Soil	~70 cy	Disposed at Redwood L.F. in Novato	7/31/92

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm) Before[1]	Soil (ppm) After[2]	Water (ppb) Before[3]	Water (ppb) After[4]
TPH (Gas)	210	1,300	17,000	ND
TPH (Diesel)	3,400	1,300	60,000	16,000
Benzene	2.9	1.5	150	ND
Toluene	0.026	1.4	42	ND
Ethylbenzene	1.1	16	170	15
Xylenes	1.6	160	1,200	8.4
MTBE	NA	NA	NA	100
Heavy metals				
Other				

NOTE 1 soil sample collected at time of UST removal, 5/90
2 soil sample collected at ~10'bgs after overexcavation, 11/91
3 "grab" water collected from borings advanced in 4/4/96
4 water sample collected from piezometer B-7, 12/96

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? _____
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 should be provided to address potential exposure to construction workers if the site will be excavated to depths of 7'bgs or greater.**
Should corrective action be reviewed if land use changes? **YES**
Monitoring wells Decommissioned: **No, pending site closure**
Number Decommissioned: **0** Number Retained: **3 piezometers**
List enforcement actions taken:

List enforcement actions rescinded:

V. LOCAL AGENCY REPRESENTATIVE DATA

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

Signature: [signature] Date: 11/21/97

Reviewed by

Name: **Madhulla Logan** Title: **Haz Mat Specialist**

Signature: [signature] Date: 11/10/97

Name: **Thomas Peacock** Title: **Supervisor**

Signature: [signature] Date: 11-20-97

VI. RWQCB NOTIFICATION

Date Submitted to RB: 11/21/97 RB Response: Approved

RWQCB Staff Name: **Kevin Graves** Title: **AWRCE**

Signature: [signature] Date: 12/15

VII. ADDITIONAL COMMENTS, DATA, ETC.

The site is situated on the southwest corner of the intersection of 31st Street and Telegraph Avenue. A 750 gallon UST was located on the northern edge of the property (see Fig 1). The UST which previously stored gasoline and diesel fuel was removed on 5/4/90. A soil sample (SS-1) was collected at ~7'bgs, below the fill end of the UST, and analyzed for TPHg, TPHd, and BTEX. Up to 210ppm TPHg, 3,400ppm TPHd, and 2.9, 0.026, 1.1, and 1.6ppm BTEX, respectively, were identified. (See Fig 2, Table 1)

In September to November 1991 the pit was overexcavated, removing additional hydrocarbon impacted soil (~70cy). The pit depth was extended to ~12'bgs (see Fig 3). Groundwater was encountered at ~11'bgs. A total of six confirmatory soil samples (S-1-10 through S-6-10) were collected at ~10'bgs. All samples contained detectable TPHd, TPHg, and BTEX. Up to 1,300ppm TPHg, and 1.5, 1.4, 16, and 160ppm BTEX, respectively, were identified in sample S-2-10. Also, up to 1,300ppm TPHd was identified in sample S-4-10 (see Fig 4, Table 2). No further overexcavation was conducted. The pit was backfilled with clean, imported soil and "clean" stockpiled soil.

In January 1996 five soil borings (B-1 through B-5) were advanced to depths ranging from 12' to 16'bgs. Soil samples were collected at ~11' to 13' bgs to delineate the extent of soil contamination. Low levels of TPHd and TPHg were identified in each boring, except B-4, which did not identify petroleum hydrocarbons. Benzene was not identified. (See Fig 5, Table 3)

In April 1996 five additional borings (B-6 through B-10) were advanced to ~16' bgs, using Geoprobe Direct Push technology, to delineate the extent of groundwater contamination. Sediments encountered in the borings include silt, silt and clay/sand, and silty clay (see boring logs). Groundwater was encountered at ~10' to 11'bgs. "Grab" water samples were collected from each boring. Borings B-7 and B-10 contained elevated TPH and benzene levels (see Fig 5, Table 3). Borings B7, B8, and B9 were converted into 1"-diameter piezometers in June 1996. Piezometers B-7, B-8, and B-9 were monitored for four consecutive quarters (4/96 to 12/96). Piezometer B-7 and B-8 were slow to recharge. There was insufficient water in piezometers B-7 and B-8 in 9/96 and 9/96 to conduct a TPHd analysis. Piezometer B-7 continued to contain elevated TPHd (16,000ppb in 12/96). However, benzene has not been detected in the last two sampling events. (See Table 4)

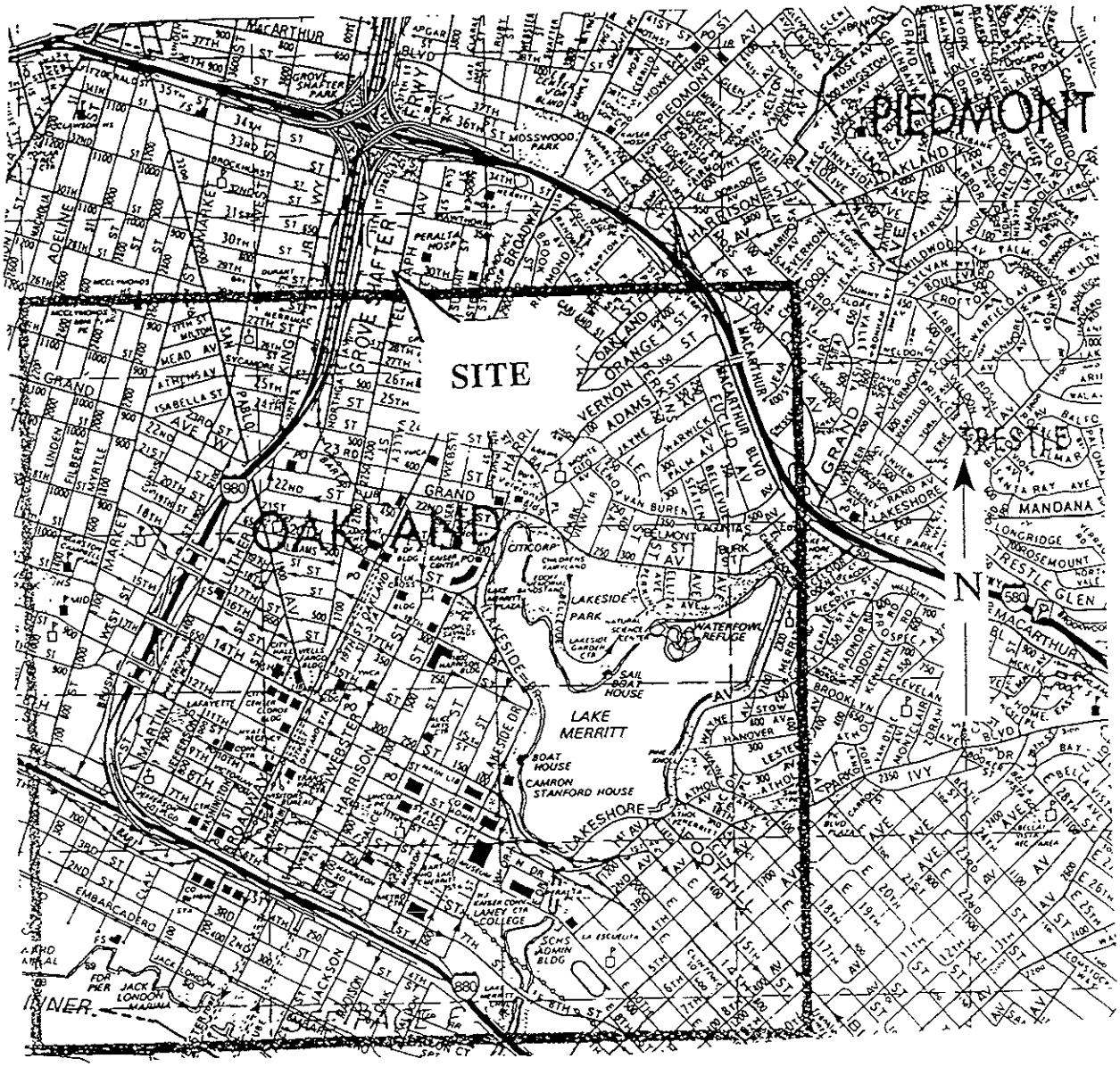
The groundwater plume appears limited in extent because elevated petroleum hydrocarbons in groundwater have not been detected in downgradient piezometers B-8 and B-9, located ~50' to 70 from piezometer B-10 (see Fig 6). Low permeability sediments may also limit migration of contaminants in groundwater. Residual contamination in groundwater should not pose a risk to human health because groundwater is not a source of drinking water at this site.

Residual TPHg and BTEX remain in soil at ~10'bgs. Because soil samples collected from borings B1 through B4 did not contain significant contaminants, it appears that the extent of soil contamination is limited to the immediate vicinity of the former excavation. Based on current use scenario there should be no increase risk to human health (based on ASTM RBCA Tier 1 Look Up Table for soil volatilization to outdoor air, the only potential exposure pathway) since the contamination from the former UST is beneath the sidewalk and driveway/parking lot of the site.

A risk management plan has been submitted to address the potential exposure to construction workers in the event of excavation or trenching in the vicinity of the former UST. In addition, the plan proposes to reevaluate risk due to volatilation of contaminants from soil to indoor air if a building is proposed for construction over the former UST location.

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 based on the current use scenario. However, ASTM RBCA Tier 1 values were exceeded for the soil to indoor air exposure pathway (based on maximum concentrations of benzene identfied in sample S-2-10, collected from the pit after overexcavation). Therefore, risk to human health should be re-evaluated if land use changes



Artesian Environmental Consultants 3100 Kerner Blvd., Ste. C San Rafael, CA 94901 415-257-4801 415-257-48901		**Site Location Map** B&L Associates 3045 Telegraph Ave. Oakland, CA 94541	
Project No. 199-001-04	Date11/21/95	Prepared by B. RAYMOND	Fig. 1

SAMPLING SPECIALISTS
A DIVISION OF PRATT CONSULTING COMPANY
COMPLETE WELL DEVELOPMENT SERVICES

ENVIRONMENTAL SAMPLE COLLECTION SPECIALISTS

COMPLETE BAILING, PURGING AND SAMPLING SERVICE FOR
MONITORING, RECOVERY AND VADOSE WELLS IN THE FOLLOWING STATES:
CALIFORNIA, NEVADA, OREGON, WASHINGTON, ARIZONA, IDAHO AND UTAH

Office Locations
3146 Manor Avenue
Walnut Creek, California 94596

12003 49th Street North
Building 307
Clearwater, Florida 34622

1-(415)-932-4356 Office
1-(415)-932-4256 Fax

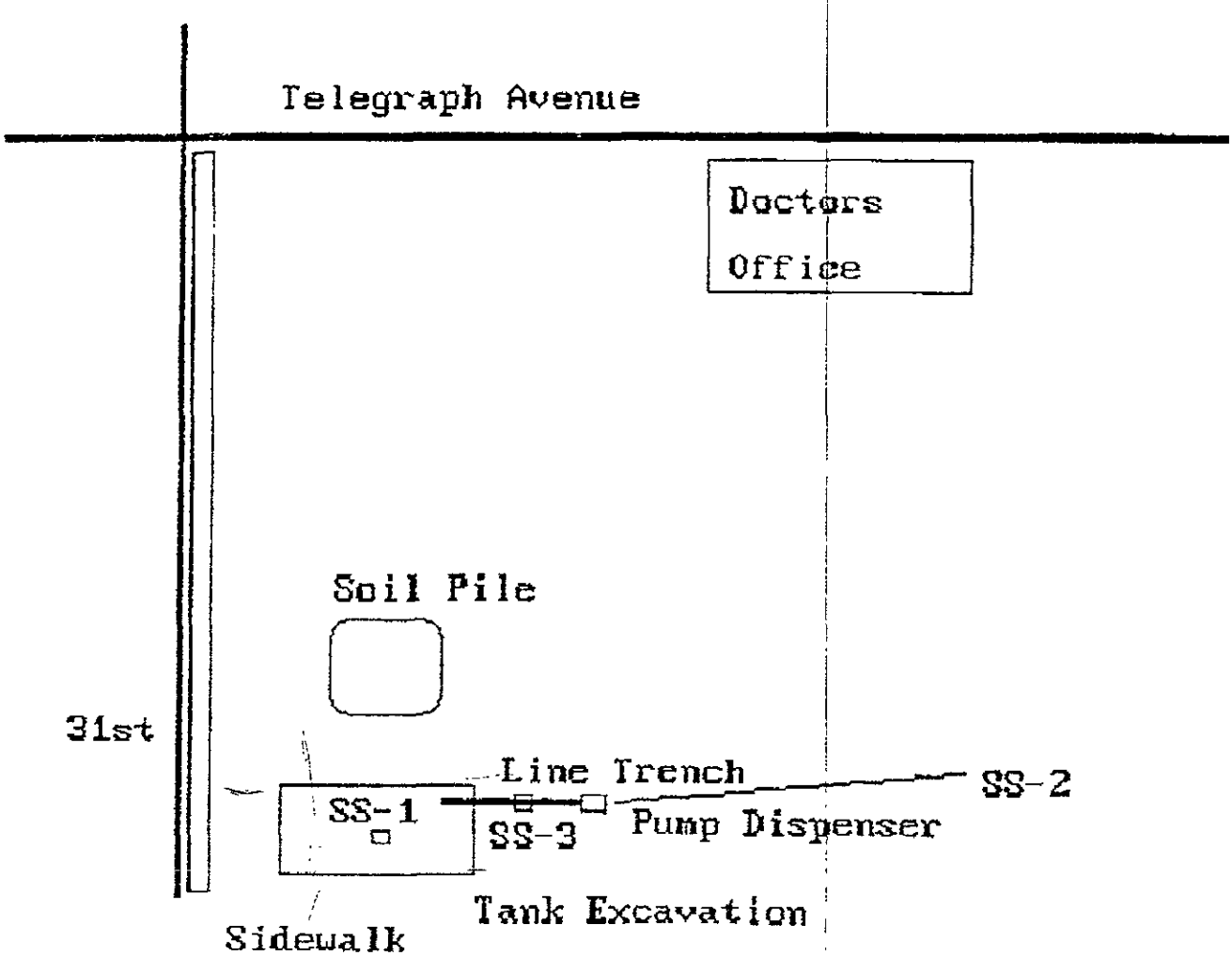


Fig 2

CHROMALAB, INC.

Analytical Laboratory
Specializing in GC-GC/MS

- Environmental Analysis
- Hazardous Waste (#238)
- Drinking Water (#955)
- Waste Water
- Consultation

Table 1

May 16, 1990

ChromaLab File No.: 0590059

SAMPLING SPECIALISTS, INC.

Attn: John Pratt

RE: Three soil samples for Gasoline/BTEX and Diesel analyses

Project Name: PACIFIC EXCAVATORS
Project Number: 1036-004-002
Date Sampled: May 8, 1990 Date Submitted: May 8, 1990
Date Extracted: May 10-14, 1990 Date Analyzed: May 10-16, 1990

RESULTS:

Sample No.	Gasoline (mg/Kg)	Diesel (mg/Kg)	Benzene (µg/Kg)	Toluene (µg/Kg)	Ethyl Benzene (µg/Kg)	Total Xylenes (µg/Kg)
SS-1-7	210	3400	2900	26	1100	1600
SS-2-1 (under piping)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SS-3-1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE RECOVERY	90.4%	84.2%	99.5%	108.4%	92.7%	94.7%
DUP. SPIKE RECOVERY	95.2%	84.9%	91.4%	88.2%	99.6%	109.5%
DETECTION LIMIT	2.5	5	5	5	5	5
METHOD OF ANALYSIS	MOD. 8015	3550/ 8015	8020	8020	8020	8020

ChromaLab, Inc.

David Duong
Senior Chemist

Eric Tam
Laboratory Director

2239 Omega Road, #1 • San Ramon, California 94583
415/831-1788 • Facsimile 415/831-8798

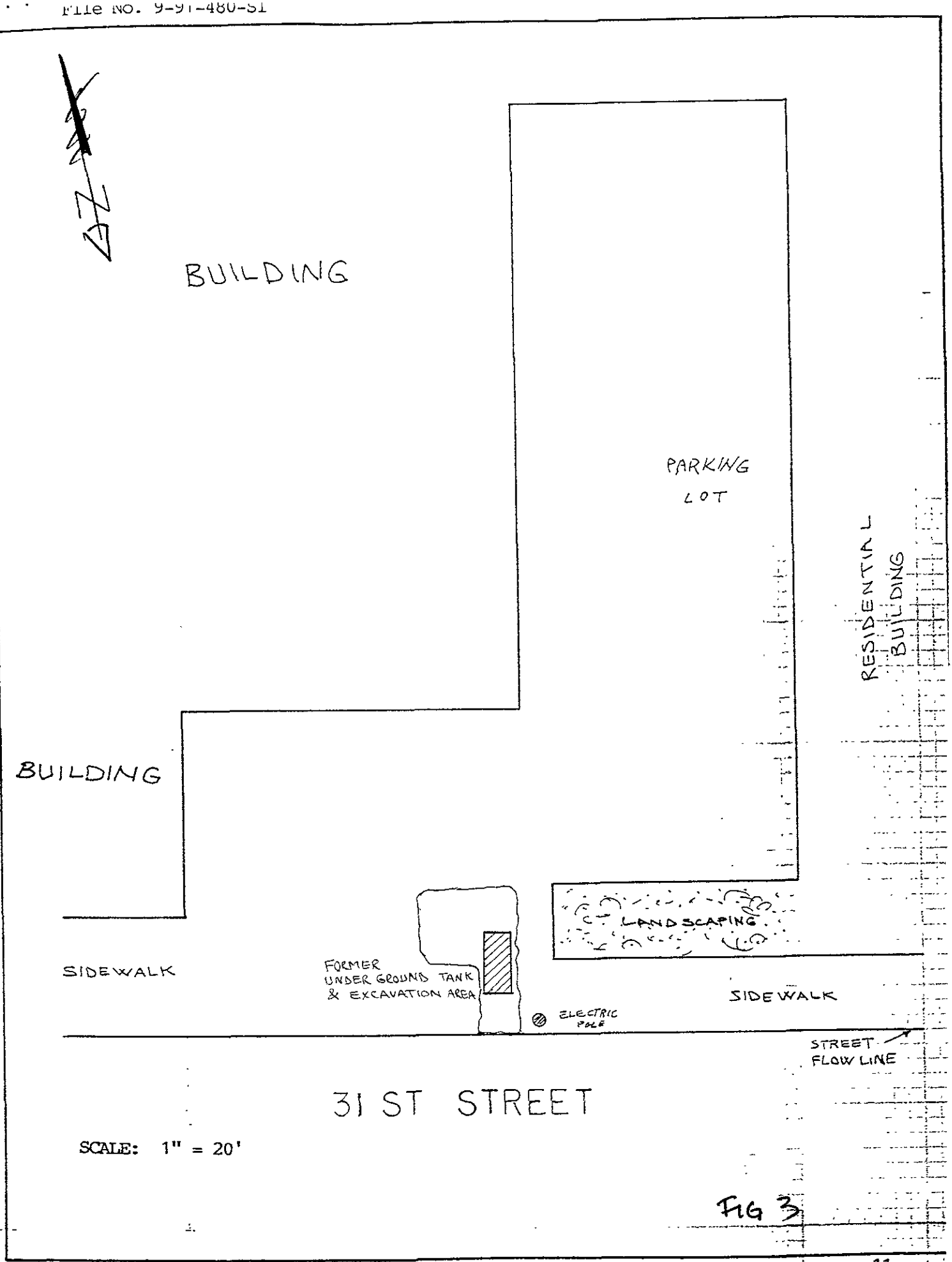

N
BUILDING
PARKING LOT
RESIDENTIAL BUILDING
BUILDING
LANDSCAPING
SIDEWALK
FORMER UNDER GROUND TANK & EXCAVATION AREA
ELECTRIC POLE
SIDEWALK
STREET FLOW LINE
31 ST STREET
SCALE: 1" = 20'
FIG 3

Figure 2

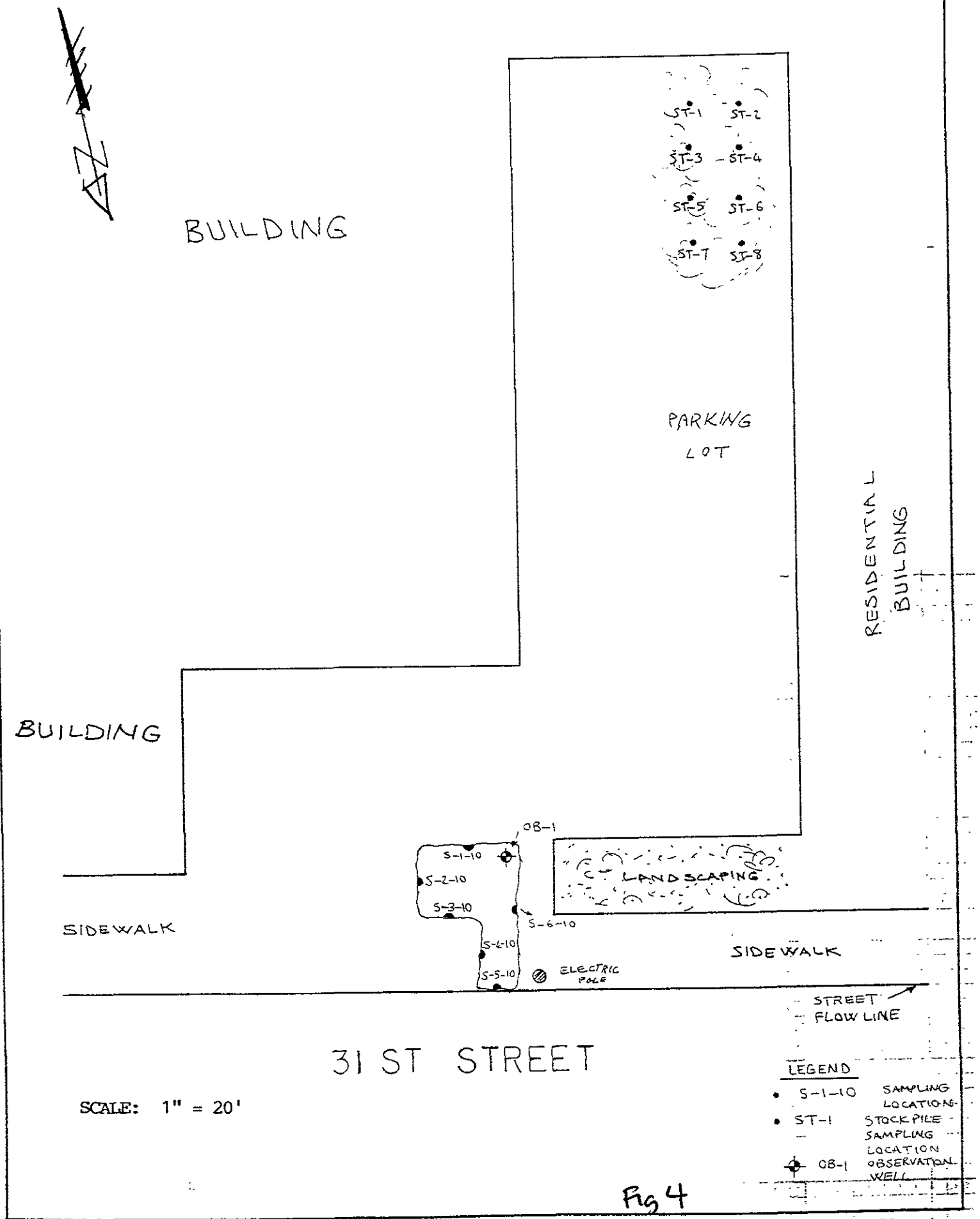


Fig 4

Figure 3

SOIL TECH ENGINEERING, INC.

TABLE # 2
SOIL ANALYTICAL RESULTS
IN
MILLIGRAMS PER KILOGRAM (mg/Kg)

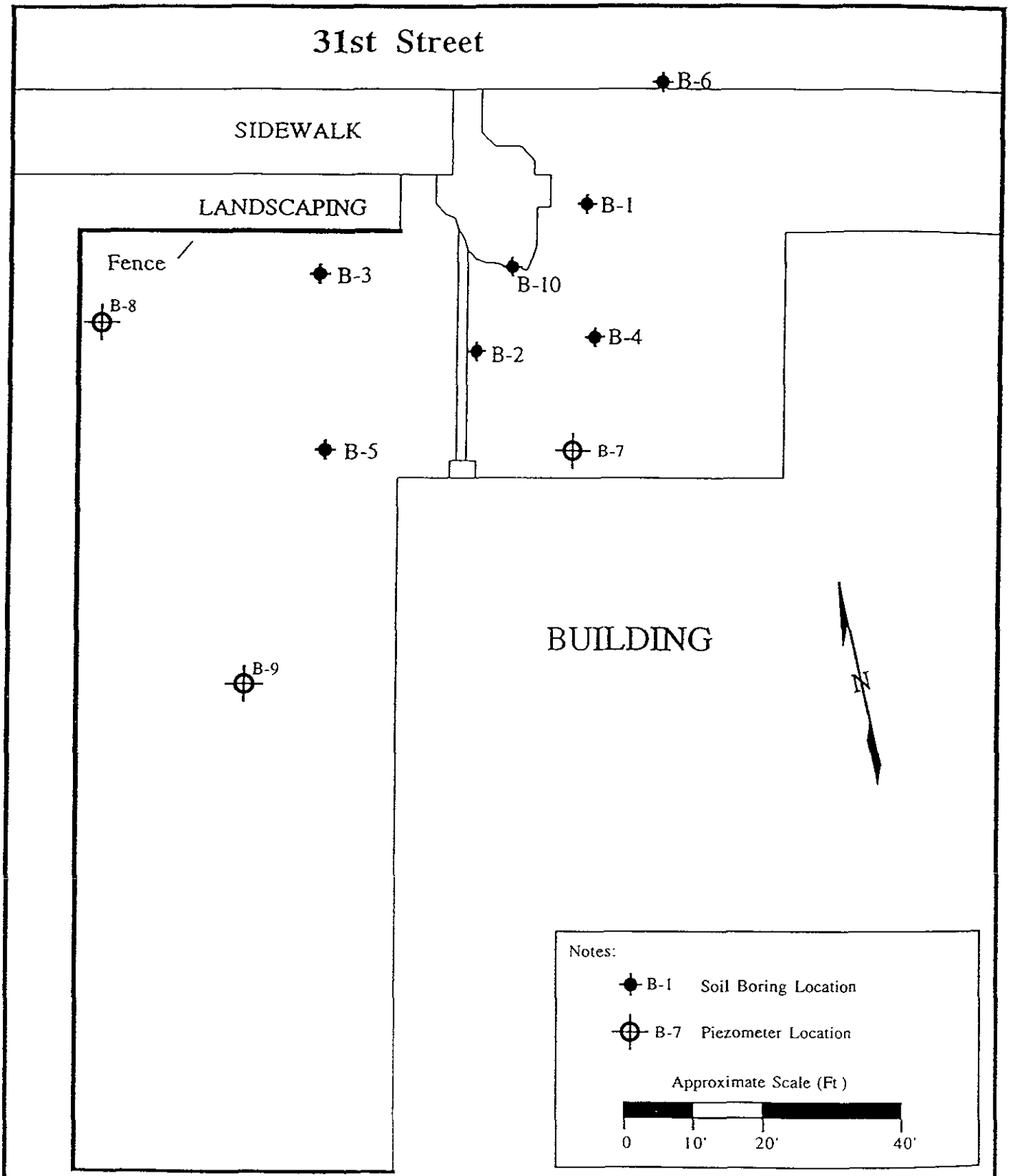
A. Side Wall Soil Samples Results:

Date	Sample Number	Depth feet	TPHd	TPHg	B	T	E	X
11/14/91	S-1-10	10	230	250	0.27	0.21	3.8	31
	S-2-10	10	89	1300	1.5	1.4	16	160
	S-3-10	10	53	170	0.2	0.14	3.4	27
11/20/91	S-4-10	10	1300	42	0.015	0.036	0.06	0.12
	S-5-10	10	260	71	0.007	0.033	0.19	0.5
	S-6-10	10	230	17	ND	ND	0.035	0.079
Detection Limit			1	1	0.005	0.005	0.005	0.005

B. Stockpiled Soil

Date	Sample Number	TPHd	TPHg	B	T	E	X
11/20/91	ST-1,2,3,4	220	ND	ND	ND	ND	ND
	ST-5,6,7,8	7.4	18	0.018	ND	0.077	0.7

TPHd = Total Petroleum Hydrocarbons as diesel
TPHg = Total Petroleum Hydrocarbons as gasoline
BTEX = Benzene, Toluene, Ethylbenzene, Xylenes



Artesian Environmental Consultants
3100 Kerner Blvd., Ste. C
San Rafael, CA 94901
415-257-4801
Fax 415-257-4805

Boring Location Map
B&L Associates
3045 Telegraph Road
Oakland, CA 94541

Project No.: 199-001-01 | Date: 7/5/96 | Prepared by: J. French | Fig. 2/5

TABLE 3-SUMMARY OF SOIL ANALYTICAL DATA

B&L Associates
3045 Telegraph Ave.
Oakland, CA 94609

SOIL SAMPLES: collected 1/4/96

Soil Sample and depth	B ppb	T ppb	E ppb	X ppb	TPH-g ppm	TPH-d ppm
B-1-11.0'	ND	ND	22	ND	19	40
B-2-11.0'	ND	ND	28	ND	7.7	ND*
B-3-12.5'	ND	ND	ND	ND	7.6	20
B-4-11.0'	ND	ND	ND	ND	ND	ND
B-5-11.0'	ND	ND	ND	ND	8.0	36

NOTES:
For TPH-g and BTEX for all samples listed above, the concentrations are estimated due to the overlapping fuel patterns
* Hydrocarbons in diesel range; concentration = 23 ppm

GROUNDWATER SAMPLES: collected 4/4/96

Sample	B ppb	T ppb	E ppb	X ppb	TPH-g ppm	TPH-d ppm
B-6-AQ	ND	ND	ND	ND	ND	0.11
B-7-AQ	100	42	170	190	16.0	60.0
B-8-AQ	ND	ND	ND	ND	ND	0.11
B-9-AQ	150	ND	ND	0.87	0.15	0.12
B-10-AQ	120	ND	150	1200	17.0	4.2

ND = at or below the detection level
ppm = parts per million
ppb = parts per billion
BTEX = benzene, toluene, ethylbenzene and total xylenes (EPA Method 8020)
TPH-d = total petroleum hydrocarbons as diesel (modified EPA Method 8015)
TPH-g = total petroleum hydrocarbons as gasoline (modified EPA Method 8015)

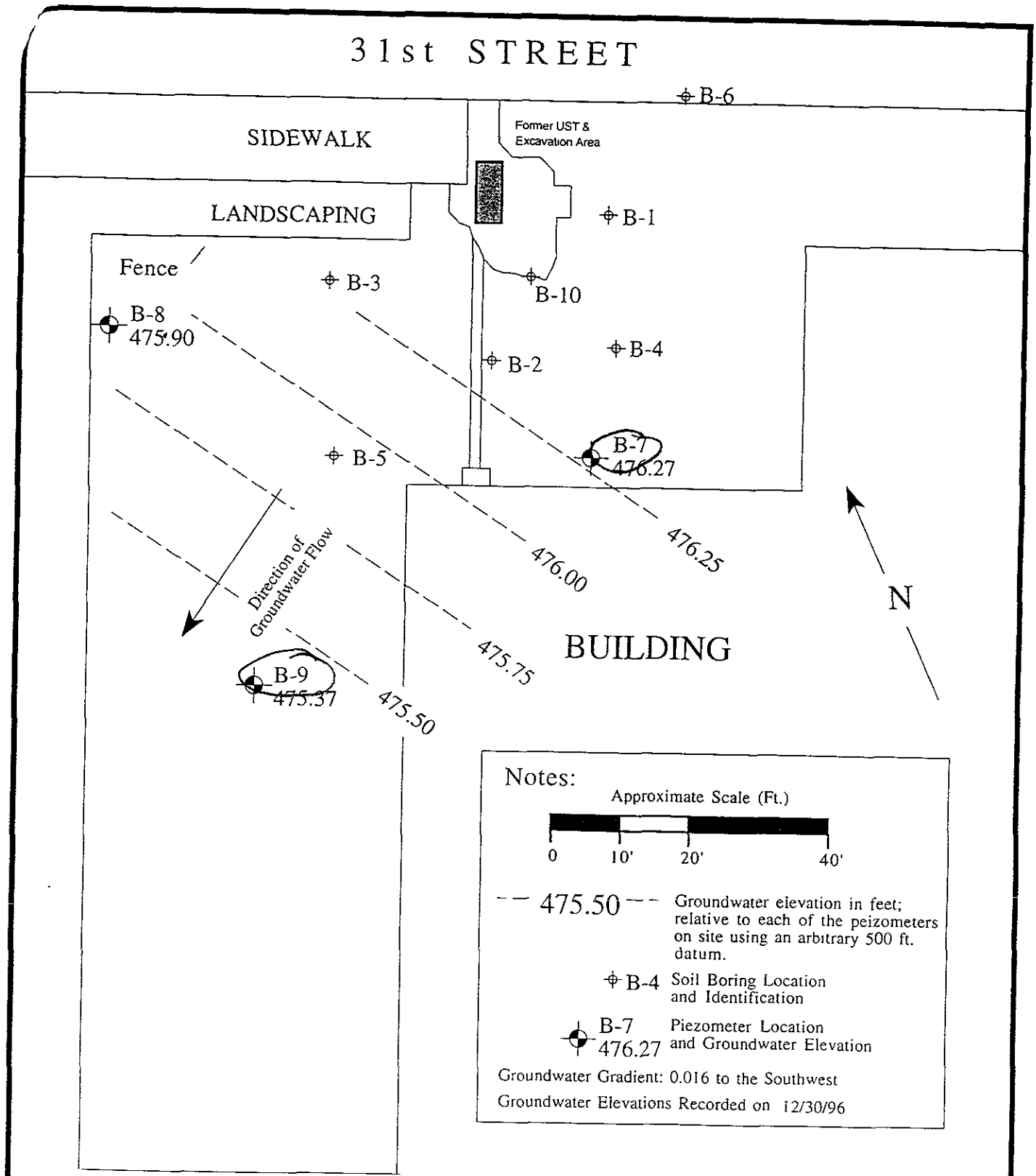
TABLE 4 - SUMMARY OF GROUNDWATER ANALYTICAL DATA

B&L Associates
3045 Telegraph Ave.
Oakland, CA 94609

GROUNDWATER SAMPLES:

Sample	Date	B ppb	T ppb	E ppb	X ppb	TPH-g ppm	TPH-d ppm	MTBE ppb
B-6-AQ	4/4/96 Abandoned 6/7/96	ND	ND	ND	ND	ND	0.11	-
B-7-AQ	4/4/96	100	42	170	190	16.0	60.0	NA
B-7-AQ	6/17/96	91	ND	110	120	12.0	NA*	NA
B-7-AQ	9/30/96	ND	ND	ND	ND	ND**	NA*	NA
B-7-AQ	12/31/96	ND	ND	15	8.4	ND	16	100
B-8-AQ	4/4/96	ND	ND	ND	ND	ND	0.11	NA
B-8-AQ	6/17/96	ND	ND	ND	ND	ND	ND	NA
B-8-AQ	9/30/96	NA*	NA*	NA*	NA*	NA*	NA*	NA
B-8-AQ	12/31/96	ND	ND	ND	ND	ND	ND	ND
B-9-AQ	4/4/96	150	ND	ND	0.87	0.15	0.12	NA
B-9-AQ	6/17/96	ND	ND	ND	ND	ND	ND	NA
B-9-AQ	9/30/96	ND	ND	ND	2.2	ND	ND	NA
B-9-AQ	12/31/96	ND	ND	ND	ND	ND	ND	ND
B-10-AQ B-10	4/4/96 Abandoned 6/7/96	120	ND	150	1200	17.0	4.2	NA

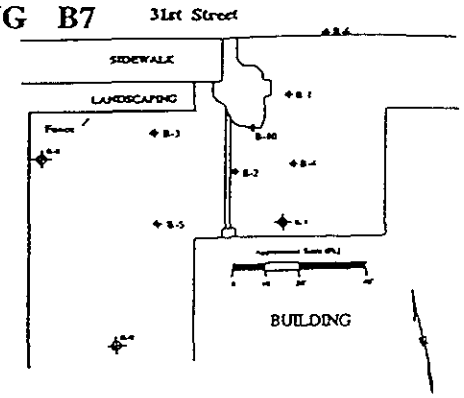
* TPH-d not run due to limited volume of water collected
** Reporting limit raised due to sample interference
NA = Not Analyzed
ND = at or below the detection level
ppm = parts per million
ppb = parts per billion
BTEX = benzene, toluene, ethylbenzene and total xylenes (EPA Method 8020)
TPH-d = total petroleum hydrocarbons as diesel (modified EPA Method 8015)
TPH-g = total petroleum hydrocarbons as gasoline (modified EPA Method 8015)



Artesian Environmental Consultants 3100 Kerner Blvd., Ste. C San Rafael, CA 94901 415-257-4801 415-257-48901	**Potentiometric Map** B&L Associates 3045 Telegraph Ave. Oakland, CA 94541

Project No. 199-001-04	Date: 1/6/97	Prepared By: J. French	Fig. 6

LOG OF BORING B7



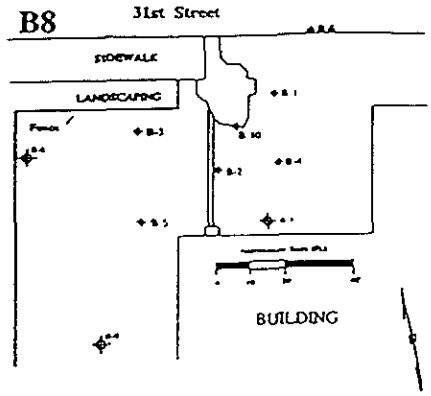
B&L Associates
3045 Telegraph Avenue
Oakland, California

DATES DRILLED:	4/4/96	SAMPLING METH.:	2" Continous Core
DRILLING CO.:	Artesian	TOTAL DEPTH:	16 feet bgs
DRILL TOOLS:	Geoprobe 5400	LOGGED BY:	W Raymond
DRILLER:	J French	DATE DEV.:	NA
PROJECT MANAGER:	J. French	DRAWN BY:	J. French
ARTESIAN JOB NO.:	199-001-01	DRAW DATE:	6/18/96

ARTESIAN ENVIRONMENTAL CONSULTANTS
3100 KERNER BLVD., SUITE C • SAN RAFAEL, CA 94901
TEL (415) 257-4801; FAX (415) 257-4805

DEPTH (feet)	SOIL SYMBOLS/ FIELD TEST DATA	SOIL DESCRIPTION	SAMPLE NO.	BLOWS /6 in.	PID ppm	COMPLETION DIAGRAM	DESCRIPTION
0		ASPHALT: 3 inches thick.					Flush mounted well box traffic rated, weather tight, set in concrete.
		ML: Green/olive silt and clay. Moist.					Well cap
							Cement grout seal
							1" Sch. 40 PVC blank casing
					0.0		
-5							Bentonite pellets
							1" Sch. 40 PVC screen casing
							Filter pack #2/16 Monterey sand
					2.0		
		ML: Green/olive silt and sand. Moist					
-10			B-7				
		ML: Green/olive silt and clay Some fine sand. First groundwater encountered at 11.0 feet bgs.					
					24 0		
-15							Well plug

LOG OF BORING B8



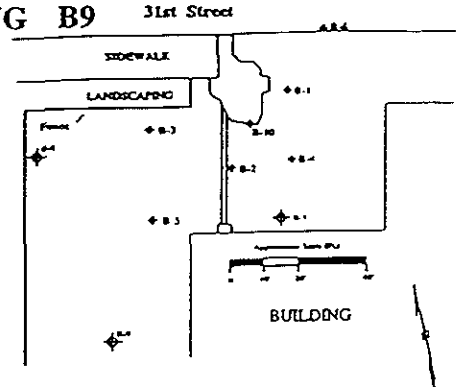
B&L Associates
3045 Telegraph Avenue
Oakland, California

DATES DRILLED	4/4/96	SAMPLING METH	2" Continous Core
DRILLING CO :	Artesian	TOTAL DEPTH	16 feet bgs
DRILL TOOLS	Geoprobe 5400	LOGGED BY.	W Raymond
DRILLER·	J French	DATE DEV	NA
PROJECT MANAGER	J French	DRAWN BY:	J French
ARTESIAN JOB NO ·	199-001-01	DRAW DATE:	6/18/96

ARTESIAN ENVIRONMENTAL CONSULTANTS
3100 KERNER BLVD., SUITE C • SAN RAFAEL, CA 94901
TEL (415) 257-4801; FAX (415) 257-4805

DEPTH (feet)	SOIL SYMBOLS/ FIELD TEST DATA	SOIL DESCRIPTION	SAMPLE NO.	BLOWS /6 in.	PID ppm	COMPLETION DIAGRAM	DESCRIPTION
0		ASPHALT: 3 inches thick.					Flush mounted well box traffic rated, weather tight, set in concrete.
		CL: Black silty clay, some pebbles and organics.					Well cap
							Cement grout seal
							1" Sch. 40 PVC blank casing
		ML: Brown silts.			0.0		Bentonite pellets
-5							
							1" Sch. 40 PVC screen casing
							Filter pack #2/16 Monterey sand
		ML: Brown silt with clay and some fine sand. First groundwater encountered at 11.0 feet bgs.			0.0		
-10			B-8				
					10		
-15		SM: Brown and orange silty sand. Some					Well plug

LOG OF BORING B9



B&L Associates
3045 Telegraph Avenue
Oakland, California

DATES DRILLED	4/4/96	SAMPLING METH	2" Continuous Core
DRILLING CO :	Artesian	TOTAL DEPTH	16 feet bgs
DRILL TOOLS	Geoprobe 5400	LOGGED BY	W Raymond
DRILLER:	J French	DATE DEV	NA
PROJECT MANAGER.	J French	DRAWN BY	J French
ARTESIAN JOB NO :	199-001-01	DRAW DATE	6/18/96

ARTESIAN ENVIRONMENTAL CONSULTANTS
3100 KERNER BLVD., SUITE C • SAN RAFAEL, CA 94901
TEL (415) 257-4801; FAX (415) 257-4805

DEPTH (feet)	SOIL SYMBOLS/ FIELD TEST DATA	SOIL DESCRIPTION	SAMPLE NO.	BLOWS /6 in.	PID ppm	COMPLETION DIAGRAM	DESCRIPTION
0		ASPHALT: 3 inches thick.					Flush mounted well box traffic rated, weather tight, set in concrete
		ML: Black silt with clay and fine sand.					Well cap
							Cement grout seal
							1" Sch 40 PVC blank casing
		ML: Brown silts with some fine sand. Moist.			0.0		Bentonite pellets
-5							
							1" Sch. 40 PVC screen casing
							Filter pack #2/16 Monterey sand
-10					0.0		
		ML: Clayey silt. First groundwater encountered at 11.0 feet bgs.	B-9				
		SM: Red/orange silty sand. Saturated. Pebbles from 14 to 16 ft. bgs.			0.0		
-15							Well plug