

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



DEPARTMENT OF ENVIRONMENTAL HEALTH  
Hazardous Materials Program  
80 Swan Way, Rm. 200  
Oakland, CA 94621  
(415) 271-4320

November 8, 1989

Francis Hedrick  
Barghausen Engineering  
3750 Auburn Blvd. Suite A  
Sacramento, Ca. 95821

RE: Information of Underground Tank Removal and Installation

Dear Francis:

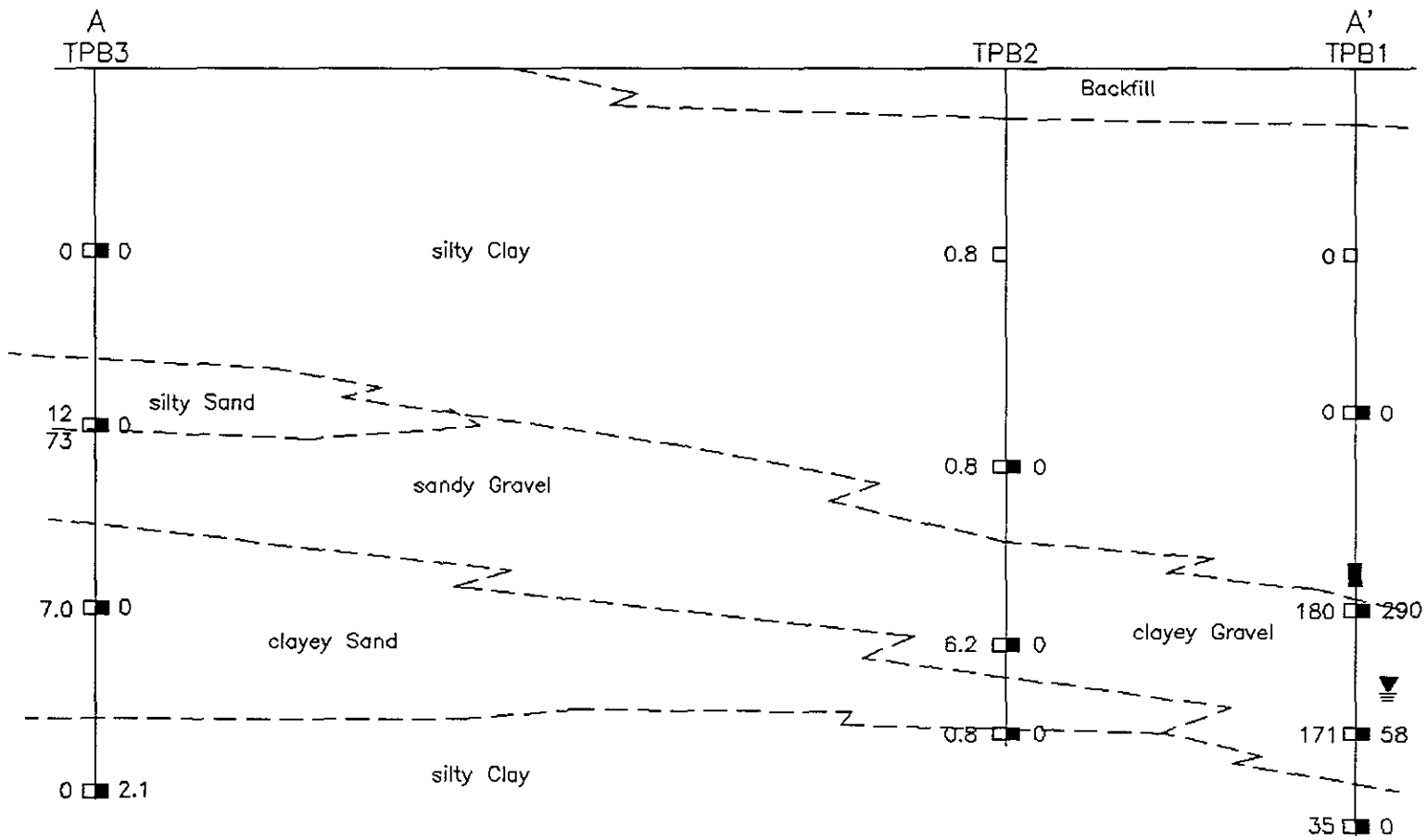
Enclosed is the information you need for the removal and installation of the underground tanks for the Arco Station, 10600 Macarthur Blvd., Oakland, 94605. Also enclosed is the form for tank leakage before or during removal of any or all tanks on site. The permit forms for new underground tank installation is as follows, Form A is for the site information, Form B is to register each tank being installed.

If you have any questions, please contact Ariu Levi at 271-4320.

Sincerely,

Paul Haworth

cc: Ariu Levi



- = Organic vapor meter reading field (ppm)
- = Analytical result of (TPH) as gasoline (ppm)
- = Bentonite seal
- = Boring
- ≡ = Static water level

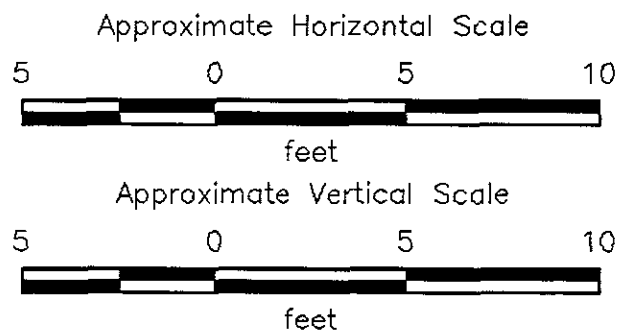


PLATE  
P - 3

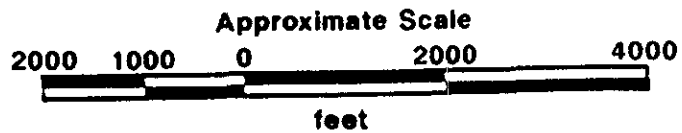
**GEOLOGIC CROSS SECTION**  
 Arco Station No. 276  
 10600 MacArthur Boulevard  
 Oakland, California



PROJECT NO. 19014-5



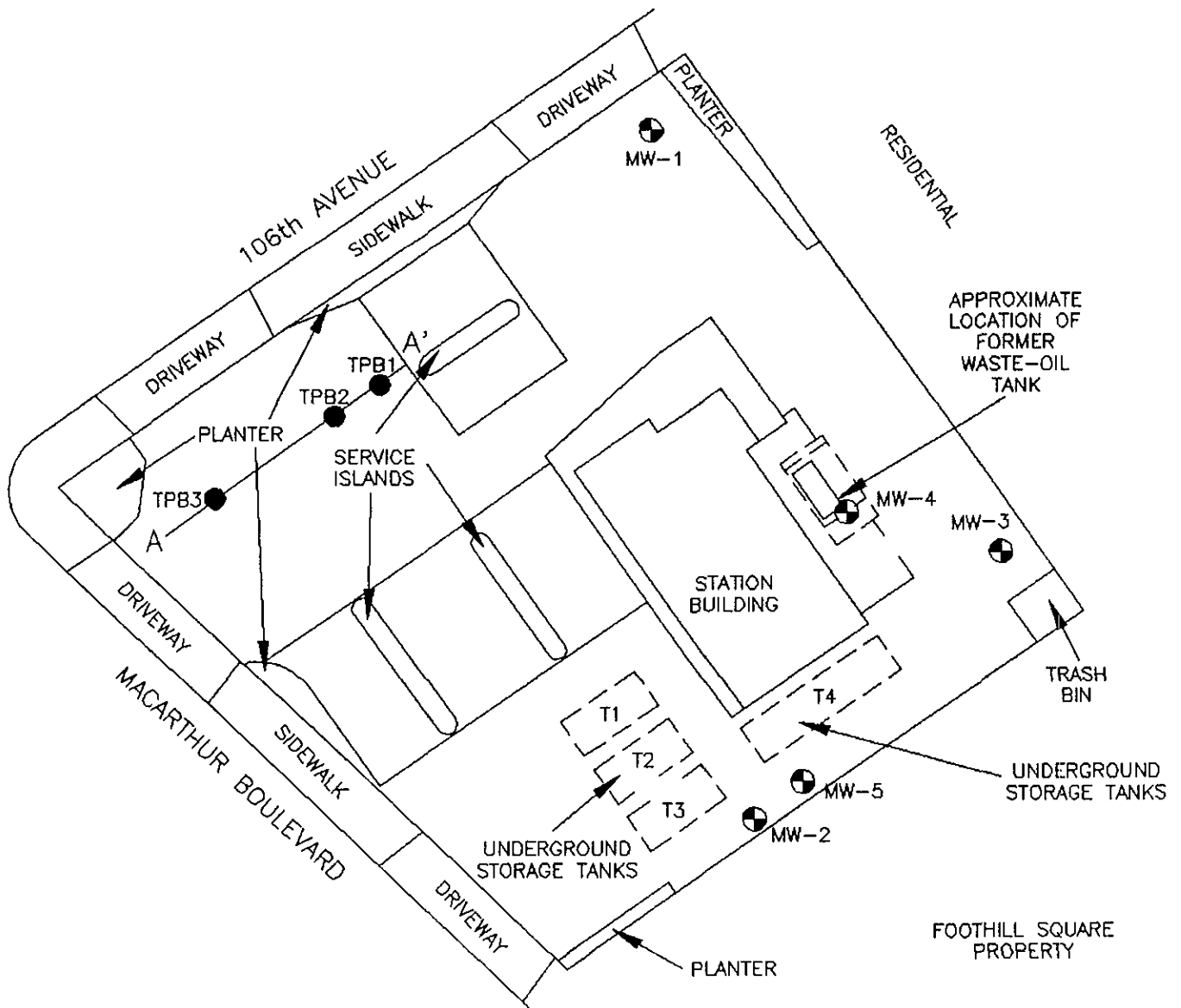
Source: U.S. Geological Survey  
 7.5-Minute Quadrangle  
 Oakland East/San Leandro  
 California  
 Photorevised 1980





PROJECT NO. 19014-5

SITE VICINITY MAP  
 ARCO Station No. 276  
 10600 MacArthur Boulevard  
 Oakland, California

PLATE  
 P - 1



- A — A' = Cross section line
- MW-5  = Monitoring well
- TPB3  = Tank pit boring

Source: Modified from plan supplied by ARCO and surveyed by Ron Archer Civil Engineer, Inc.



**GENERALIZED SITE PLAN**  
**ARCO Station No. 276**  
**10600 MacArthur Boulevard**  
**Oakland, California**

**PLATE**  
**P - 2**

**PROJECT NO. 19014-5**

TABLE 1  
 RESULTS OF ANALYSIS OF SOIL SAMPLES  
 ARCO Station No. 276  
 10600 MacArthur Boulevard  
 Oakland, California

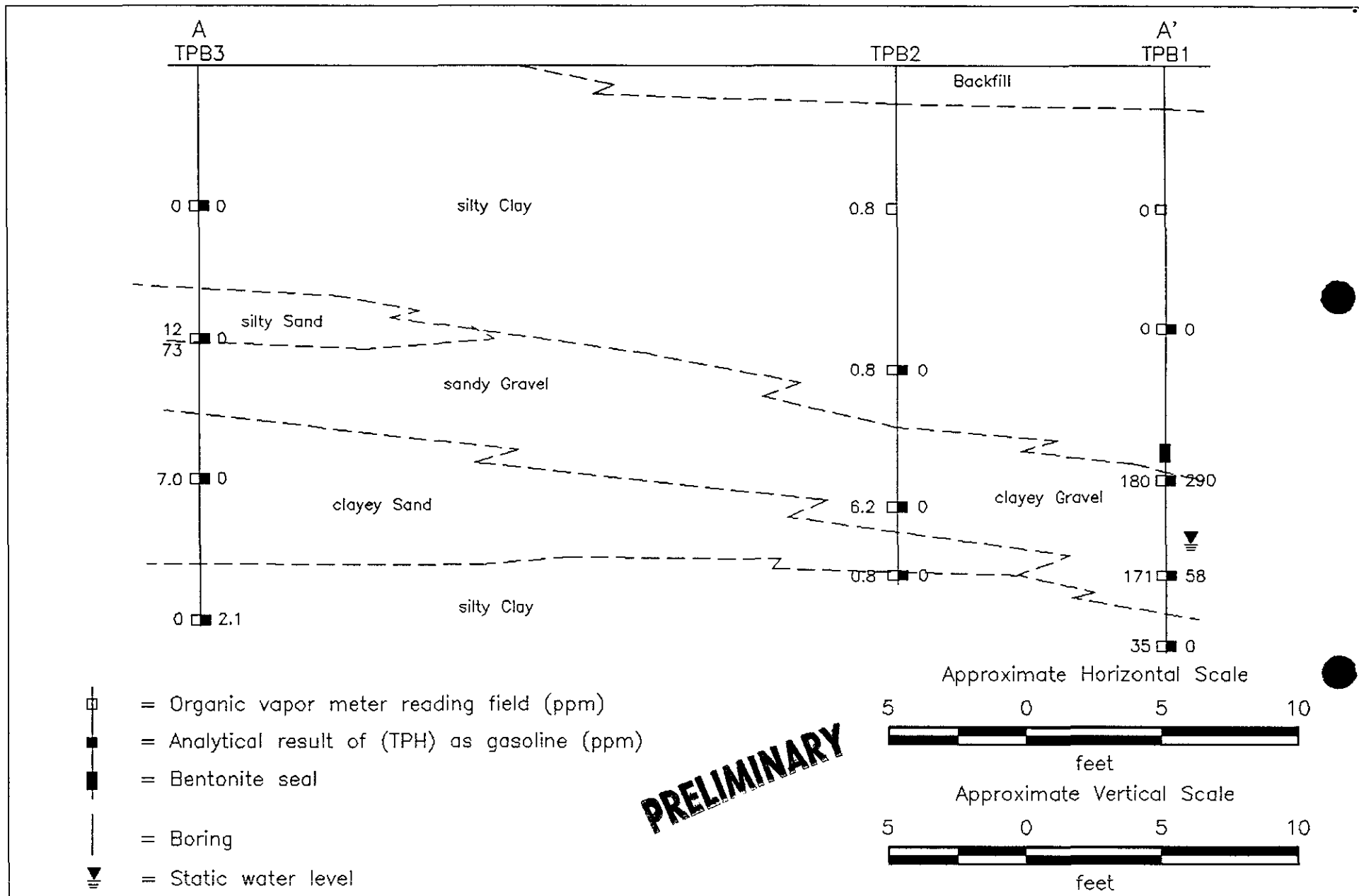
Sample Number	TPHg	Benzene	Toluene	Ethyl-benzene	Xylenes
<b>1/31/90</b>					
S-9.5-TPB1	<2.0	<0.050	<0.050	<0.050	<0.050
S-15-TPB1	290	0.19	0.47	3.3	6.6
S-18.5-TPB1	58	<0.050	0.069	0.14	0.22
S-21-TPB1	<2.0	<0.050	<0.050	<0.050	<0.050
S-11-TPB2	<2.0	<0.050	<0.050	<0.050	<0.050
S-16-TPB2	<2.0	<0.050	<0.050	<0.050	<0.050
S-18.5-TPB2	<2.0	<0.050	<0.050	<0.050	<0.050
<b>2/6/90</b>					
S-5-TPB3	<2.0	<0.050	<0.050	<0.050	<0.050
S-10-TPB3	<2.0	0.075	<0.050	<0.050	<0.050
S-15-TPB3	<2.0	<0.050	<0.050	<0.050	<0.050
S-20-TPB3	2.1	0.46	<0.050	0.086	<0.050

Results in milligrams/kilogram (mg/kg) = parts per million (ppm)  
 TPHg = Total petroleum hydrocarbons  
 < = Less than method detection limit  
 Sample designation: S-11-TPB1

—borehole number  
 —depth of sample in feet  
 —soil sample

**DRAFT**

**PRELIMINARY**



PLATE

P - 3

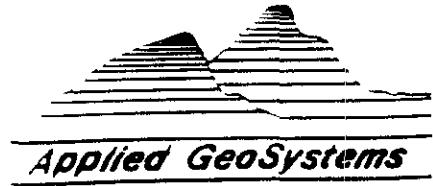
GEOLOGIC CROSS SECTION  
 Arco Station No. 276  
 10600 MacArthur Boulevard  
 Oakland, California



PROJECT NO. 19014-5

# CHAIN OF CUSTODY RECORD

COPY



SAMPLER (signature):

*Stephen J. Johnson*

Phone: 415-651-1906

LABORATORY:

AGS

TURNAROUND TIME: 24 hr.

Project Leader: Bill Howell

Phone No. 415-651-1906

43255 Mission Blvd Suite B Fremont CA 94539 415) 651-1906

### SHIPPING INFORMATION:

Shipper \_\_\_\_\_

Address \_\_\_\_\_

Date Shipped \_\_\_\_\_

Service Used \_\_\_\_\_

Airbill No. \_\_\_\_\_ Cooler No. \_\_\_\_\_

Relinquished by: (signatures)

*Stephen J. Johnson*  
*Bill Howell*

Received by: (signatures)

*Bill Howell*

Date 1/31/90 Time 14:00

Received for laboratory by:

*Lawson*

1-31-90 1430

**LABORATORY SHOULD SIGN UPON RECEIPT AND RETURN A COPY OF THIS FORM WITH THE LABORATORY RESULTS**

Sample No.	Site Identification	Date Sampled	Analyses Requested	Sample Condition Upon Receipt
<u>S-9.5-TPB1</u>	<u>19014-5</u>	<u>1/31/90</u>		<u>iced</u>
<u>S-15-TPB1</u>	<u>19014-5</u>	<u>1/31/90</u>		<u>iced</u>
<u>S-18.5-TPB1</u>	<u>19014-5</u>	<u>1/31/90</u>		
<u>S-21-TPB1</u>	<u>19014-5</u>	<u>1/31/90</u>		
<u>S-11-TPB2</u>	<u>19014-5</u>	<u>1/31/90</u>		<u>iced</u>
<u>S-16-TPB2</u>	<u>19014-5</u>	<u>1/31/90</u>		
<u>S-18.5-TPB2</u>	<u>19014-5</u>	<u>1/31/90</u>		

*TPH<sub>as</sub> x PTE x*



COPY

**Applied GeoSystems**

43255 Mission Blvd. Suite B Fremont, CA 94539 (415) 651-1906

**ANALYSIS REPORT**

1020lab.frm

Attention: Mr. Bill Howell  
Applied GeoSystems  
43255 Mission Boulevard  
Fremont, CA 94539  
Project: AGS 19014-5

Date Sampled: 01-31-90  
Date Received: 01-31-90  
BETX Analyzed: 01-31-90  
TPHg Analyzed: 01-31-90  
TPHd Analyzed: NR  
Matrix: Soil

	Benzene <u>ppm</u>	Toluene <u>ppm</u>	Ethyl- benzene <u>ppm</u>	Total Xylenes <u>ppm</u>	TPHg <u>ppm</u>	TPHd <u>ppm</u>
Detection Limit:	0.050	0.050	0.050	0.050	2.0	10

**SAMPLE  
Laboratory Identification**

S-9.5-TPB1 S1001201	ND	ND	ND	ND	ND	NR
S-15-TPB1 S1001202	0.19	0.47	3.3	6.6	290	NR
S-18.5-TPB1 S1001203	ND	0.069	0.14	0.22	58	NR
S-21-TPB1 S1001204	ND	ND	ND	ND	ND	NR
S-11-TPB2 S1001205	ND	ND	ND	ND	ND	NR
S-16-TPB2 S1001206	ND	ND	ND	ND	ND	NR

ppm = parts per million = mg/kg = milligrams per kilogram.  
ND = Not detected. Compound(s) may be present at concentrations below the detection limit.  
NR = Analysis not requested.

**ANALYTICAL PROCEDURES**

**BTEX**- Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are measured by extraction using EPA Method 5030 followed by analysis using EPA Method 8020/602, which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID) and a flame-ionization detector (FID) in series.

**TPHg**-Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are measured by extraction using EPA Method 5030, followed by analysis using modified EPA Method 8015, which utilizes a GC equipped with an FID.

**TPHd**-Total petroleum hydrocarbons as diesel (high boiling points) are measured by extraction using EPA Method 3550 for soils and EPA Method 3510 for water, followed by modified EPA Method 8015 with direct sample injection into a GC equipped with an FID.

Laboratory Representative

02-01-90  
Date Reported





COPY

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**ANALYSIS REPORT**

1020lab.frm

Attention: Mr. Bill Howell  
Applied GeoSystems  
43255 Mission Boulevard  
Fremont, CA 94539  
Project: AGS 19014-5

Date Sampled: 01-31-90  
Date Received: 01-31-90  
BETX Analyzed: 01-31-90  
TPHg Analyzed: 01-31-90  
TPHd Analyzed: NR  
Matrix: Soil

	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TPHg	TPHd
	<u>ppm</u>	<u>ppm</u>	<u>ppm</u>	<u>ppm</u>	<u>ppm</u>	<u>ppm</u>
Detection Limit:	0.050	0.050	0.050	0.050	2.0	10

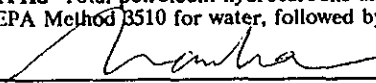
**SAMPLE**  
Laboratory Identification

S-18.5-TPB2 S1001207	ND	ND	ND	ND	ND	NR
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Laboratory Representative

02-01-90  
Date Reported





COPY

**Applied GeoSystems**

43255 Mission Blvd. Suite B Fremont, CA 94539 (415) 651-1906

**ANALYSIS REPORT**

1020lab.frm

Attention: Mr. Bill Howell  
Applied GeoSystems  
43255 Mission Boulevard  
Fremont, CA 94539  
Project: AGS 19014-5

Date Sampled: 02-06-90  
Date Received: 02-06-90  
BETX Analyzed: 02-06-90  
TPHg Analyzed: 02-06-90  
TPHd Analyzed: NR  
Matrix: Soil

	Benzene ppm	Toluene ppm	Ethyl- benzene ppm	Total Xylenes ppm	TPHg ppm	TPHd ppm
Detection Limit:	0.050	0.050	0.050	0.050	2.0	10

SAMPLE  
Laboratory Identification

S-5-TPB3 S1002032	ND	ND	ND	ND	ND	NR
S-10-TPB3 S1002033	0.075	ND	ND	ND	ND	NR
S-15-TPB3 S1002034	ND	ND	ND	ND	ND	NR
S-20-TPB3 S1002035	0.46	ND	0.086	ND	2.1	NR

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ND = Not detected. Compound(s) may be present at concentrations below the detection limit.  
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**TPHd**-Total petroleum hydrocarbons as diesel (high boiling points) are measured by extraction using EPA Method 3550 for soils and EPA Method 3510 for water, followed by modified EPA Method 8015 with direct sample injection into a GC equipped with an FID.

Laboratory Representative

02-07-90  
Date Reported