Ditch 6 Soil and Grab Groundwater Sampling Report

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Prepared for:

Sierra Pacific Industries

October 20, 2004

Project No. 9329, Task 20

Geomatrix Consultants

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GEOMATRIX

October 20, 2004
Project 9329 Task 20

Executive Officer
California Regional Water Quality Control Board
North Coast Region
5550 Skylane Boulevard, Suite A
Santa Rosa, California 95403

Attention: Dean Prat

Subject: Ditch 6 Soil and Grab Groundwater Sampling Report
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Dear Mr. Prat:

As requested by Sierra Pacific Industries, we have enclosed a copy of the subject report prepared on behalf of Sierra Pacific Industry Industries.

Sincerely yours,
GEOMATRIX CONSULTANTS, INC.

Ann Holbrow
Senior Toxicologist

Ross Steenson, C.HG.
Senior Hydrogeologist

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BJT/RAS/EPC/abr

Enclosure

cc: Bob Ellery, Sierra Pacific Industries (with enclosure)
Gordie Amos, Sierra Pacific Industries (with enclosure)
Fred Evenson, Law Offices of Frederic Evenson (with enclosure)
Jim Lamport, Ecological Rights Foundation (with enclosure)
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Robert Brodberg, Office of Environmental Health Hazard Assessment (with enclosure)
Joseph Dillon, NOAA Fisheries (with enclosure)

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GEOMATRIX

PROFESSIONAL CERTIFICATION

DITCH 6 SOIL AND GRAB GROUNDWATER SAMPLING REPORT
Sierra Pacific Industries
Arcata Division Sawmill
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This report was prepared by Geomatrix Consultants, Inc., under the professional supervision of Ross Steenson. The findings, recommendations, specifications and/or professional opinions presented in this report were prepared in accordance with generally accepted professional hydrogeologic practice, and within the scope of the project. There is no other warranty, either express or implied.

Ross Steenson, C.HG.
Senior Hydrogeologist

TABLE OF CONTENTS

Page

1.0 INTRODUCTION 1

2.0 SITE DESCRIPTION 2

3.0 BACKGROUND 2
- 3.1 PREVIOUS INVESTIGATION 2
- 3.2 ADDITIONAL INVESTIGATION APPROACH 3

4.0 FIELD METHODS 4
- 4.1 PREPARATION 4
- 4.2 SOIL SAMPLING METHODS 5
- 4.3 GRAB GROUNDWATER SAMPLING METHODS 5
- 4.4 CLEANING PROCEDURES, WASTE DISPOSAL, AND BOREHOLE DECOMISSIONING 5

5.0 LABORATORY ANALYTICAL METHODS AND DATA QUALITY REVIEW 6
- 5.1 ANALYTICAL METHODS FOR SOIL SAMPLES 6
- 5.2 ANALYTICAL METHODS FOR GROUNDWATER SAMPLES 7

6.0 RESULTS OF INVESTIGATION 7
- 6.1 SITE GEOLOGY AND HYDROGEOLOGY 7
- 6.2 LABORATORY ANALYTICAL RESULTS 7
  - 6.2.1 Laboratory Data Quality Review 8
  - 6.2.2 Analytical Results for Soil Samples 8
  - 6.2.3 Analytical Results for Grab Groundwater Samples 9
  - 6.2.4 Summary of Laboratory Analytical Results 10

7.0 ECOLOGICAL AND HUMAN HEALTH RISK EVALUATION OF THE DATA 10

8.0 CONCLUSIONS 10

9.0 REFERENCES 11

TABLES

Table 1 Volatile Organic Compound Analytical Results—Soil Samples

Table 2 Polycyclic Aromatic Hydrocarbon Analytical Results—Soil Samples

Table 3 Total Petroleum Hydrocarbon and Oil and Grease Analytical Results—Soil Samples

Table 4 Volatile Organic Compounds Analytical Results—Grab Groundwater Samples

Table 5 Polycyclic Aromatic Hydrocarbon Analytical Results—Grab Groundwater Samples

Table 6 Total Petroleum Hydrocarbon and Oil and Grease Analytical Results—Grab Groundwater Samples

TABLE OF CONTENTS
(Continued)

FIGURES

Figure 1 Site Location Map
Figure 2 Site Plan
Figure 3 Ditch 6 Plan Map and Sample Locations

APPENDICES

Appendix A Boring and Encroachment Permits
Appendix B Boring Logs
Appendix C Laboratory Analytical Reports – Soil Samples
Appendix D Laboratory Analytical Reports – Grab Groundwater Samples
Appendix E Laboratory Data Quality Review

DITCH 6 SOIL AND GRAB GROUNDWATER SAMPLING REPORT[1]

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

1.0 INTRODUCTION

This report presents the results of soil and grab groundwater sampling activities performed along Drainage Ditch 6 (Ditch 6) at the Sierra Pacific Industries (SPI) Arcata Division Sawmill located in Arcata, California (the site, Figure 1). Geomatrix Consultants, Inc. (Geomatrix) has prepared this report on behalf of SPI. Sampling activities described herein were conducted to support the ecological and human health risk assessment effort and to further evaluate soil and groundwater quality in Ditch 6.

During a meeting on February 19, 2004, among representatives of SPI, the California Regional Water Quality Control Board, North Coast Region (RWQCB); the California Department of Fish and Game; and the California Environmental Protection Agency, Office of Environmental Health Hazard Assessment; Geomatrix indicated that we planned to gather additional data along Ditch 6 to support the ecological and human health risk assessment. During the June 3, 2004 teleconference, representatives of SPI, RWQCB, and Geomatrix discussed the approach to completing investigation activities near the Truck Shop (Feature 22, Figure 2) and the sampling approach for the additional Ditch 6 investigation. On June 8, 2004, soil and grab groundwater samples were collected at seven additional locations along Ditch 6 by MFG, under the direction of Geomatrix.

This report is organized as follows:

- Site Description, including discussion of drainage patterns near Ditch 6, is presented in Section 2.0.
- Background, including a summary of previous sampling and the investigation approach, is presented in Section 3.0.
- Field Methods are presented in Section 4.0.

[1] The solids sampled in borings along Ditch 6 for this investigation consisted of both unconsolidated surficial sediments and subsurface soils. For consistency throughout the report, the term *soil* has been used instead of *sediment*.

- Laboratory Analytical Methods and Laboratory Data Quality Review are presented in Section 5.0.
- Results of Investigation are presented in Section 6.0.
- Ecological and Human Health Risk Evaluation of the Data is presented in Section 7.0.
- Conclusions are presented in Section 8.0.
- References used in preparation of this report are listed in Section 9.0.

2.0 SITE DESCRIPTION

The site is located on the Samoa Peninsula in Humboldt County, California, west of the town of Arcata (Figure 1). The site is currently an active sawmill; the features are shown on Figure 2. Ditch 6 is located in the southwestern portion of the site between the Truck Shop to the northwest and New Navy Base Road (Highway 255) to the southeast. Historically active railroad tracks lie close to the eastern portion of the ditch. Figure 3 illustrates the features located near Ditch 6. Ditch 6 receives runoff from the pavement around the Truck Shop and from New Navy Base Road.

3.0 BACKGROUND

3.1 PREVIOUS INVESTIGATION

In July 2003, soil and grab groundwater samples were collected along Ditch 6 in response to requirements of Sections 12.A.5 and 12.c of the Consent Decree between the Ecological Rights Foundation and Sierra Pacific Industries, Inc., et al., (case number C-01-0520-MEJ). These data were reported in *Retention Pond, Ditches 6 and 7, and Truck Scale Sump Discharge Point Investigation Report* (MFG, 2003c), dated October 21, 2003.

During the July 2003 investigation, 24 soil samples were analyzed for chlorinated phenols, pH, total metals (cadmium, chromium [total], lead, nickel, and zinc), and oil and grease. Findings of that investigation indicated that no chlorinated phenols were detected, that the pH was typical of soils, and that the metals concentrations all were within or very close to background concentration ranges (Kearney Foundation of Soil Science, 1996). For the oil and grease analysis, elevated concentrations were detected in the soil samples along Ditch 6. However, no visible petroleum hydrocarbons were observed in the borings along Ditch 6.

The oil and grease analysis (EPA Method 9071) was performed both without and with the method-specific silica gel preparation. Silica gel removes polar biogenic compounds that are

not petroleum hydrocarbons. The highest concentration of oil and grease was detected at location D6-2 at 0 to 0.5 foot below ground surface (bgs) (Figure 3): 12,000 milligrams per kilogram (mg/kg) without silica gel preparation and 6,000 mg/kg after silica gel preparation. During a telephone conversation between Cheryl Watson of Alpha Analytical (Alpha) and Ross Steenson of Geomatrix (personal communication October 15, 2003), Alpha indicated that the method-specific silica gel preparation specifies that a limited mass of silica gel be used, and that, as a consequence, the polar biogenic compounds may not have been completely removed. Therefore, it is uncertain whether the post-silica gel detected concentrations represent polar biogenic compounds, petroleum hydrocarbons, or a mixture.

During the July 2003 investigation, 24 grab groundwater samples were analyzed for total petroleum hydrocarbons (TPH) as diesel (TPHd) with silica gel preparation, TPH as motor oil (TPHmo) with silica gel preparation, and dissolved metals (cadmium, chromium, lead, nickel, and zinc). No metals were detected in any of the samples. TPHd and TPHmo were detected in most of the samples, with the maximum detected concentrations from location D6-15: 1,000 micrograms per liter (µg/L) TPHd and 4,400 µg/L TPHmo. During a telephone conversation between Cheryl Watson of Alpha and Ross Steenson of Geomatrix (personal communication October 15, 2003), Alpha indicated that their silica gel preparation for these TPH analyses included a small mass of silica gel, and consequently the polar biogenic compounds may not have been completely removed. Therefore, it is uncertain whether the post-silica gel detected concentrations represent polar biogenic compounds, petroleum hydrocarbons, or a mixture.

3.2 ADDITIONAL INVESTIGATION APPROACH

This Ditch 6 sampling program was intended to address two objectives. The first objective was to gather additional information to supplement the data available for the ecological and human health risk assessment process. The second objective was to confirm whether Ditch 6 is impacted by petroleum hydrocarbons.

In 2003, several investigations and remedial activities were performed near the Truck Shop area at about the same time that the initial Ditch 6 investigation was performed. These efforts were directed at the former waste oil underground storage tank (UST) (MFG, 2003b and 2004b) and former kerosene aboveground storage tank near the former plywood-covered ditch (MFG, 2003a and 2004a). Petroleum hydrocarbons and some low concentrations of volatile organic compounds (VOCs) were detected near the Truck Shop Area. Additional VOC and polycyclic aromatic hydrocarbon (PAH) data from Ditch 6, the outfall from the Truck Shop Area, were collected to support the conclusion that these compounds were not migrating off site. Soil and grab groundwater samples for VOC and PAH analysis were collected at seven of

the same Ditch 6 locations that were sampled during the July 2003 investigation. The locations selected (SDP-1, D6-2, D6-6, D6-10, D6-15, D6-23) were intended to provide coverage along the length of Ditch 6 and to span a range of oil and grease concentrations (e.g., the concentration of oil and grease [after silica gel] ranged from 170 mg/kg at D6-23 to 6,000 mg/kg at D6-2).

As discussed in Section 3.1 of this report, elevated concentrations of oil and grease were detected in soil samples both before and after silica gel preparation, and elevated concentrations of TPHd and TPHmo were detected in grab groundwater samples after silica gel preparation. Based on the silica gel preparation method, it remains unclear whether the concentrations detected after silica gel preparation represent polar biogenic compounds, petroleum hydrocarbons, or a mixture of both due to insufficient silica gel. Therefore, total petroleum hydrocarbons (EPA Method 8015M) both without and with silica gel preparation (column silica gel preparation with more silica gel) were added to the analytical program for soil and groundwater to confirm the presence of petroleum hydrocarbon impacts.

4.0 FIELD METHODS

4.1 PREPARATION

MFG marked the location of the planned borings, and then contacted Underground Service Alert (USA). USA issued Ticket Number 087878 for the sampling activities. MFG contacted USA to renew the ticket on June 1, 2004.

Geomatrix applied for and obtained boring and encroachment permits for the sampling activities. The Humboldt County Division of Environmental Health issued Permit Number 27-L on March 29, 2004 for advancing borings in Ditch 6 (Appendix A).

Geomatrix submitted an encroachment permit application to the State of California Department of Transportation (Caltrans) on March 19, 2004. On May 25, Mr. Vern Callahan of Caltrans verbally approved the permit application during a telephone conversation with Geomatrix. On June 17, 2004, Caltrans issued a hard copy of the permit, Permit Number 0104-6-SV-0196 (Appendix A).

On June 3, 2004, Geomatrix provided notification to SPI, the Ecological Rights Foundation, and the RWQCB that sampling activities would be conducted in Ditch 6 on June 8, 2004. Sampling on this date also was coordinated with the boring (Humboldt County) and encroachment (Caltrans) permitting agencies.

MFG set up traffic control along new Navy Base Road, as specified by the Caltrans permit prior to conducting the sampling activities.

4.2 SOIL SAMPLING METHODS

On June 8, 2004, MFG collected 14 soil samples from 7 borings (SDP-1B, D6-2B, D6-6B, D6-10B, D6-15B, D6-23B, and D6-25B; Figure 3). The borings were advanced using hand-auger methods. A drive sampler advanced by hand using a slide hammer was used to collect the soil samples. Two soil samples were collected at each location from approximately the center of the ditch, at depths between approximately ground surface and 0.5 foot bgs and between approximately 0.5 and 1.0 foot bgs. Soil samples were collected in 6-inch brass liners placed within the drive sampler. Liners retrieved from the drive sampler were sealed at each end using Teflon® sheets and polyethylene end caps. Each soil sample was labeled and placed in an ice-chilled cooler for transport to the analytical laboratory.

4.3 GRAB GROUNDWATER SAMPLING METHODS

On June 8, 2004, MFG collected a grab groundwater sample from each of the seven borings (SDP-1B, D6-2B, D6-6B, D6-10B, D6-15B, D6-23B, and D6-25B; Figure 3). MFG advanced borings using a hand auger, to depths ranging from 1 to 3 feet bgs, and collected a grab groundwater sample at each location using a peristaltic pump and polyethylene tubing; new tubing was used at each location. Because MFG observed standing water (surface water) in Ditch 6 at the location of borings D6-15B, D6-23B, and D6-25B, grab groundwater samples were collected at these locations from a companion boring advanced on the north bank of the ditch, approximately 1 foot north of the standing water. The grab groundwater samples were collected after purging more than a tube volume of groundwater. Grab groundwater samples were collected in 40-milliliter vials preserved with hydrochloric acid and 1-liter amber bottles. Each grab groundwater sample was labeled and placed in an ice-chilled cooler for transport to the analytical laboratory.

4.4 CLEANING PROCEDURES, WASTE DISPOSAL, AND BOREHOLE DECOMISSIONING

Equipment used to advance borings and conduct soil and grab groundwater sampling was either cleaned prior to use or was new and disposable. The hand auger bucket and drive sampler used to advance borings and collect soil samples, respectively, were washed in a mixture of municipal water and an environmental-grade detergent and rinsed in municipal water before use at each location. Rinsate generated from cleaning the hand auger was placed in a 55-gallon, DOT-approved drum with purge water from grab groundwater sampling. Excess soil generated

from hand auger borings was placed in a separate 55-gallon, DOT-approved drum. Drums containing the investigation-derived waste were labeled and temporarily stored at the SPI facility pending disposal at an appropriate off-site waste disposal facility.

After samples were collected at each location, borings were backfilled with bentonite chips and then hydrated. As applicable to match surrounding conditions, upper portions of some of the borings were backfilled with base rock (see boring logs in Appendix B).

5.0 LABORATORY ANALYTICAL METHODS AND DATA QUALITY REVIEW

MFG shipped soil and groundwater samples to Friedman & Bruya, Inc. (Friedman & Bruya), of Seattle, Washington, a California Department of Health Services certified analytical laboratory. Samples were transported under chain-of-custody documentation. Friedman & Bruya subcontracted analysis for oil and grease to North Creek Analytical, Inc. (NCA), of Seattle, Washington, also a California Department of Health Services certified analytical laboratory. Laboratory analytical reports and chain-of-custody records for soil samples and grab groundwater samples are included in Appendix C and Appendix D, respectively. Analytical results are summarized in Tables 1 through 6 and discussed below.

5.1 ANALYTICAL METHODS FOR SOIL SAMPLES

Soil samples were analyzed for:

- VOCs - Environmental Protection Agency (EPA) Method 8260;
- PAHs - EPA Method 8270 single ion monitoring (SIM);
- TPH quantified as diesel (TPHd) and TPH quantified as motor oil (TPHmo) – EPA Method 8015M. Samples were analyzed both prior to and following a column silica gel preparation (EPA Method 3630C) to remove polar biogenic compounds that can cause interferences to the TPH analysis; and
- Oil and grease - EPA Method 9071.

Soil samples collected between approximately ground surface and 0.5 foot bgs were analyzed for TPHd, TPHmo, and PAHs at Friedman & Bruya and for oil and grease at NCA. Soil samples collected between approximately 0.5 and 1.0 foot bgs were analyzed for VOCs at Friedman & Bruya.

5.2 ANALYTICAL METHODS FOR GROUNDWATER SAMPLES

Grab groundwater samples were analyzed for:

- VOCs (EPA Method 8260);
- PAHs (EPA Method 8270 SIM);
- TPHd and TPHmo (EPA Method 8015M); samples were analyzed both prior to and following a column silica gel preparation (EPA Method 3630C); and
- Oil and grease (EPA Method 9071).

Grab groundwater samples were analyzed for TPHd, TPHmo, PAHs, and VOCs at Friedman & Bruya and for oil and grease at NCA.

6.0 RESULTS OF INVESTIGATION

6.1 SITE GEOLOGY AND HYDROGEOLOGY

MFG described soil encountered during soil and grab groundwater sampling activities using American Society of Testing and Materials Standard D2488 (ASTM, 2000) for guidance (based on the Unified Soil Classification System). Boring logs are included in Appendix B.

Soil encountered at the boring locations consisted of silt and sand. Soil between the ground surface and 1 foot bgs was composed of variable compositions of silt and sand. Soil below a depth of 1 foot bgs, and to a maximum depth of 3 feet bgs, was consistently described as silty sand.

Groundwater was encountered in the borings at depths between 1 and 2 feet bgs, except at boring D6-25B, where groundwater was encountered at 0.25 foot bgs.

MFG did not observe impacts to soil, groundwater, or surface water during the sampling activities. Stained soil was not observed, neither free product nor petroleum sheen was seen on groundwater or standing water in the ditch, and no chemical or petroleum odors were detected.

These observations are consistent with those made during the July 2003 investigation.

6.2 LABORATORY ANALYTICAL RESULTS

Laboratory analytical results are summarized in Tables 1 through 6, and laboratory analytical reports are included in Appendix C (soil samples) and Appendix D (grab groundwater samples).

6.2.1 Laboratory Data Quality Review

Geomatrix reviewed the quality of laboratory data generated for the soil and grab groundwater sampling as discussed in Appendix E. Based on the procedures and data quality review, the analytical data quality is satisfactory and the sample results appear to be representative.

6.2.2 Analytical Results for Soil Samples

Laboratory analytical results for soil samples are summarized in Tables 1 through 3.

VOCs were not detected in the analyzed soil samples (Table 1). Laboratory reporting limits for individual VOC analytes ranged from 0.03 to 2 mg/kg.

PAHs were detected in only two of the seven soil samples (D6-10B and D6-15B; Table 2). The detected PAHs in soil samples include benzo(b)fluoranthene (6 micrograms per kilogram [μg/kg] in D6-10B only), chrysene (7 μg/kg maximum in D6-10B only), fluorene (6 μg/kg maximum in D6-10B only), naphthalene (9 μg/kg maximum in D6-10B only), phenanthrene (76 μg/kg maximum in D6-10B and D6-15B), and pyrene (100 μg/kg maximum in D6-10B and D6-15B). PAHs were not detected in soil samples from the other borings (SDP-18, D6-2B, D6-6B, D6-23B, and D6-25B).

All soil samples analyzed for TPHd without silica gel preparation had TPHd detections. The detected concentrations range from 15 to 990 mg/kg (D6-15B, Table 3). For soil samples analyzed for TPHd after silica gel preparation, six of seven samples had detections ranging from 26 to 990 mg/kg. The detected concentrations for samples prepared with silica gel were the same or slightly lower than those samples analyzed without silica gel preparation.

All soil samples analyzed for TPHmo without silica gel preparation had TPHmo detections. The detected concentrations range from 67 to 4,500 mg/kg (SDP-1B, Table 3). For soil samples analyzed for TPHmo after silica gel preparation, six of seven samples had detections, ranging from 110 to 3,800 mg/kg (SDP-1B, Table 3). The detected concentrations for samples prepared with silica gel preparation were the same or less than those samples analyzed without silica gel preparation.

Based on these results for TPHd and TPHmo analyses performed without and with silica gel preparation, it appears that in most samples from Ditch 6, polar biogenic compounds did not interfere with the analysis.

The TPHd and TPHmo chromatograms for the samples, standards, and blanks are included in Appendix C (soil samples) and Appendix D (grab groundwater samples). Chromatographic

patterns for soil samples after silica gel preparation were qualitatively compared to chromatographic patterns of diesel and motor oil product standards. Soil samples collected from locations SDP-1B, D6-2B, D6-6B, and D6-10B have chromatographic patterns that display a single peak curve similar in range and distribution to the motor oil standard. The chromatographic patterns of soil samples D6-15B and D6-23B are more complicated in that the pattern has a multi-peak curve. The larger peak also is similar in range and distribution to the motor oil standard. The smaller peak falls within the carbon range of diesel. These patterns suggest that petroleum of a composition similar to motor oil is present in the soil samples and that petroleum within the carbon-range of diesel may be present in some of the soil samples.

Oil and grease was detected in all but one soil sample at concentrations ranging from 112 to 1,900 mg/kg (Table 3). Oil and grease was not detected in the D6-25B soil sample above a laboratory reporting limit of 100 mg/kg.

6.2.3 Analytical Results for Grab Groundwater Samples

Laboratory analytical results for grab groundwater samples are summarized in Tables 4 through 6.

No VOCs, PAHs, or oil and grease were detected. Note that Friedman & Bruya qualified some low-level detections of methylene chloride as laboratory contamination (see laboratory sheets in Appendix D). Laboratory reporting limits for individual VOCs ranged from 1 to 18 µg/L. The laboratory reporting limit for individual PAHs was 0.1 µg/L. The laboratory reporting limit for oil and grease was 5 milligrams per liter.

All grab groundwater samples analyzed for TPHd without silica gel preparation had TPHd detections. The detected concentrations range from 100 to 1,300 µg/L. For grab groundwater samples analyzed for TPHd after silica gel preparation, only one sample (D6-6B) had a detection of TPHd, at 360 µg/L. These results indicate that polar biogenic compounds in the grab groundwater samples interfered with the TPHd analysis and that TPHd was detected at D6-6B.

All grab groundwater samples analyzed for TPHmo without silica gel preparation had TPHmo detections. The detected concentrations range from 280 to 2,100 µg/L. For grab groundwater samples analyzed for TPHmo after silica gel preparation, four samples (D6-6B, D6-15B, D6-23B, and SDP-1B) had detections of TPHmo, ranging from 260 to 930 µg/L. These results indicate that polar biogenic compounds in the grab groundwater samples interfered with the TPHmo analysis, and that low concentrations of TPHmo are present at some locations along Ditch 6.

6.2.4 Summary of Laboratory Analytical Results

The results of the June 2004 sampling are summarized below.

- VOCs were not detected in any of the soil and grab groundwater samples.
- PAHs were detected at low concentrations in two soil samples, but were not detected in grab groundwater samples.
- Oil and grease was detected in all but one soil sample at concentrations up to 1,900 mg/kg (SDP-1B), and was not detected in grab groundwater samples.
- Based on measurements with a column silica gel preparation, TPHd was detected in all but one soil sample at concentrations up to 990 mg/kg (boring D6-15B) and in only one grab groundwater sample at 360 µg/L (boring D6-6B).
- Based on measurements with a column silica gel preparation, TPHmo was detected in all but one soil sample at concentrations up to 3,800 mg/kg (boring SDP-1B) and in four grab groundwater samples at up to 930 µg/L (boring D6-6B).

7.0 ECOLOGICAL AND HUMAN HEALTH RISK EVALUATION OF THE DATA

The soil and grab groundwater sampling data presented in this report also have been included in an updated *Scoping Ecological and Off-Site Human Health Risk Assessment* report, dated September 8, 2004 (Geomatrix, 2004). As discussed in the updated risk assessment report, there is not a significant ecological or human health risk associated with these data.

8.0 CONCLUSIONS

Based on the data collected as part of this investigation and the previous investigation (MFG, 2003c), we conclude the following:

- Ditch 6 receives runoff from the Truck Shop Area and from New Navy Base Road.
- Soil samples analyzed along Ditch 6 indicate that surficial soil locally is affected by low to moderate concentrations of petroleum hydrocarbons, with the exception of TPHmo near the east end of Ditch 6 (SDP-1B [3,800 mg/kg] and D6-2B [1,900 mg/kg]) and farther along the ditch at D6-15B (3,200 mg/kg).
- Grab groundwater samples analyzed along Ditch 6 indicate that shallow ground-water locally is affected by low concentrations of TPHmo (less than 500 µg/L) except at location D6-6B where both TPHd (360 µg/L) and TPHmo (930 µg/L) were detected.

9.0 REFERENCES

ASTM, 2000, Standard of Practice for Description and Identification of Soils (Visual-Manual Procedure), American Society for Testing and Materials, Designation D2488-00.

Geomatrix, 2004, Scoping Ecological and Off-Site Human Health Risk Assessment, Sierra Pacific Industries, Arcata Division Sawmill, 2593 New Navy Base Road, Arcata, California, September 8.

Kearney Foundation of Soil Science, 1996, Background Concentrations of Trace and Major Elements in California Soils, Division of Agriculture and Natural Resources, University of California, March 1996.

MFG, 2003a, Plywood Covered Ditch Investigation Report, Sierra Pacific Industries, Arcata Division Sawmill, Arcata, California, June 9.

MFG, 2003b, Waste Oil Underground Storage Tank Investigation and Closure Report, Sierra Pacific Industries, Arcata Division Sawmill, Arcata, California, June 10.

MFG, 2003c, Retention Pond, Ditches 6 and 7, and Truck Scale Sump Discharge Point Investigation Report, Sierra Pacific Industries, Arcata Division Sawmill, Arcata, California, October 21.

MFG, 2004a, Plywood Covered Ditch Soil Excavation Report, Sierra Pacific Industries, Arcata Division Sawmill, Arcata, California, March 30.

MFG, 2004b, Former Waste Oil Underground Storage Tank Additional Investigation Report, Sierra Pacific Industries, Arcata Division Sawmill, Arcata, California, March 30.

Personal communication, 2003, Telephone conversation between Ross Steenson of Geomatrix and Cheryl Watson of Alpha Analytical, October 15.

U.S. EPA, 1999, Contract Laboratory Program National Functional Guidelines for Organic Data Review (OSWER 9240.1-05A-P PB99-963506, EPA 540/R-99-008; October, 1999).

TABLES

GEOMATRIX

TABLE 1
VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS—SOIL SAMPLES
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Concentrations are presented in milligrams per kilogram (mg/kg)

Station Identifier	Sample Identifier	Sample Date	1,1,1,2-Tetra-chloro-ethane	1,1,1-Trichloro-ethane	1,1,2,2-Tetra-chloro-ethane	1,1,2-Trichloro-ethane	1,1-Dichloro-ethane	1,1-Dichloro-ethene	1,1-Dichloro-propene	1,2,3-Trichloro-benzene	1,2,3-Trichloro-propane	1,2,4-Trichloro-benzene	1,2,4-Trimethyl-benzene	1,2-Dibromo-3-chloropro-pane	1,2-Dibromo-ethane (EDB)	1,2-Dichloro-benzene	1,2-Dichloro-ethane (EDC)
D6-2B	D6-2B-1.0	6/8/2004	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.06	<0.05	<0.05	<0.05
D6-6B	D6-6B-1.0	6/8/2004	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.06	<0.05	<0.05	<0.05
D6-10B	D6-10B-1.0	6/8/2004	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.06	<0.05	<0.05	<0.05
D6-15B	D6-15B-1.0	6/8/2004	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.06	<0.05	<0.05	<0.05
D6-23B	D6-23B-1.0	6/8/2004	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.06	<0.05	<0.05	<0.05
D6-25B	D6-25B-1.0	6/8/2004	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.06	<0.05	<0.05	<0.05
SDP-1B	SDP-1B-1.0	6/8/2004	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.06	<0.05	<0.05	<0.05

Station Identifier	Sample Identifier	Sample Date	1,2-Dichloro-propane	1,3,5-Trimethyl-benzene	1,3-Dichloro-benzene	1,3-Dichloro-propane	1,4-Dichloro-benzene	2,2-Dichloro-propane	2-Buta-none (MEK)	2-Chloro-toluene	2-Hexa-none	4-Chloro-toluene	4-Methyl-2-penta-none	Acetone	Benzene	Bromo-benzene	Bromo-dichloro-methane
D6-2B	D6-2B-1.0	6/8/2004	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	<0.05	<0.5	<0.05	<0.5	<2	<0.03	<0.05	<0.05
D6-6B	D6-6B-1.0	6/8/2004	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	<0.05	<0.5	<0.05	<0.5	<2	<0.03	<0.05	<0.05
D6-10B	D6-10B-1.0	6/8/2004	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	<0.05	<0.5	<0.05	<0.5	<2	<0.03	<0.05	<0.05
D6-15B	D6-15B-1.0	6/8/2004	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	<0.05	<0.5	<0.05	<0.5	<2	<0.03	<0.05	<0.05
D6-23B	D6-23B-1.0	6/8/2004	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	<0.05	<0.5	<0.05	<0.5	<2	<0.03	<0.05	<0.05
D6-25B	D6-25B-1.0	6/8/2004	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	<0.05	<0.5	<0.05	<0.5	<2	<0.03	<0.05	<0.05
SDP-1B	SDP-1B-1.0	6/8/2004	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	<0.05	<0.5	<0.05	<0.5	<2	<0.03	<0.05	<0.05

Station Identifier	Sample Identifier	Sample Date	Bromo-form	Bromo-methane	Carbon Tetra-chloride	Chloro-benzene	Chloro-ethane	Chloro-form	Chloro-methane	cis-1,2-Dichloro-ethene	cis-1,3-Dichloro-propene	Dibromo-chloro-methane	Dibromo-methane	Dichloro-difluoro-methane	Ethyl-benzene	Hexa-chloro-buta-diene	Iso-propyl-benzene
D6-2B	D6-2B-1.0	6/8/2004	<0.06	<0.5	<0.05	<0.05	<0.5	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05
D6-6B	D6-6B-1.0	6/8/2004	<0.06	<0.5	<0.05	<0.05	<0.5	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05
D6-10B	D6-10B-1.0	6/8/2004	<0.06	<0.5	<0.05	<0.05	<0.5	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05
D6-15B	D6-15B-1.0	6/8/2004	<0.06	<0.5	<0.05	<0.05	<0.5	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05
D6-23B	D6-23B-1.0	6/8/2004	<0.06	<0.5	<0.05	<0.05	<0.5	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05
D6-25B	D6-25B-1.0	6/8/2004	<0.06	<0.5	<0.05	<0.05	<0.5	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05
SDP-1B	SDP-1B-1.0	6/8/2004	<0.06	<0.5	<0.05	<0.05	<0.5	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05

Station Identifier	Sample Identifier	Sample Date	m,p-Xylene	Methylene chloride	Naph-thalene	n-Propyl-benzene	o-Xylene	p-Iso-propyl-toluene	sec-Butyl-benzene	Styrene	tert-Butyl-benzene	Tetra-chloro-ethene	Toluene	trans-1,2-Dichloroeth ene	trans-1,3-Dichloro-propene	Tri-chloro-ethene	Trichloro-fluoro-methane	Vinyl chloride
D6-2B	D6-2B-1.0	6/8/2004	<0.1	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.03	<1	<0.5
D6-6B	D6-6B-1.0	6/8/2004	<0.1	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.03	<1	<0.5
D6-10B	D6-10B-1.0	6/8/2004	<0.1	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.03	<1	<0.5
D6-15B	D6-15B-1.0	6/8/2004	<0.1	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.03	<1	<0.5
D6-23B	D6-23B-1.0	6/8/2004	<0.1	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.03	<1	<0.5
D6-25B	D6-25B-1.0	6/8/2004	<0.1	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.03	<1	<0.5
SDP-1B	SDP-1B-1.0	6/8/2004	<0.1	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.03	<1	<0.5

Note: < = less than laboratory reporting limit indicated

TABLE 2
POLYCYCLIC AROMATIC HYDROCARBON ANALYTICAL RESULTS—SOIL SAMPLES
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Concentrations are presented in micrograms per kilogram (µg/kg)

Station Identifier	Sample Identifier	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i,)perylene	Benzo(k)fluoranthene
D6-2B	D6-2B-0.5	6/8/2004	<250	<250	<250	<250	<250	<250	<250	<250
D6-6B	D6-6B-0.5	6/8/2004	<50	<50	<50	<50	<50	<50	<50	<50
D6-10B	D6-10B-0.5	6/8/2004	<5	<5	<5	<5	<5	**6**	<5	<5
D6-15B	D6-15B-0.5	6/8/2004	<50	<50	<50	<50	<50	<50	<50	<50
D6-23B	D6-23B-0.5	6/8/2004	<5	<5	<5	<5	<5	<5	<5	<5
D6-25B	D6-25B-0.5	6/8/2004	<5	<5	<5	<5	<5	<5	<5	<5
SDP-1B	SDP-1B-0.5	6/8/2004	<250	<250	<250	<250	<250	<250	<250	<250

Station Identifier	Sample Identifier	Sample Date	Chrysene	Dibenzo(a,h) anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
D6-2B	D6-2B-0.5	6/8/2004	<250	<250	<250	<250	<250	<250	<250	<250
D6-6B	D6-6B-0.5	6/8/2004	<50	<50	<50	<50	<50	<50	<50	<50
D6-10B	D6-10B-0.5	6/8/2004	**7**	<5	<5	**6**	<5	**9**	**23**	**8**
D6-15B	D6-15B-0.5	6/8/2004	<50	<50	<50	<50	<50	<50	**76**	**100**
D6-23B	D6-23B-0.5	6/8/2004	<5	<5	<5	<5	<5	<5	<5	<5
D6-25B	D6-25B-0.5	6/8/2004	<5	<5	<5	<5	<5	<5	<5	<5
SDP-1B	SDP-1B-0.5	6/8/2004	<250	<250	<250	<250	<250	<250	<250	<250

Notes:

< = less than laboratory reporting limit indicated
Bold results are above laboratory reporting limit.

GEOMATRIX

TABLE 3

TOTAL PETROLEUM HYDROCARBON AND OIL AND GREASE ANALYTICAL RESULTS—SOIL SAMPLES

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Concentrations are presented in milligrams per kilogram (mg/kg)

Station Identifier	Sample Identifier	Sample Date	TPH Diesel	TPH Diesel (SG)	TPH Motor Oil	TPH Motor Oil (SG)	Oil & Grease (HEM)
D6-2B	D6-2B-0.5	6/8/2004	**300**	**290**	**2300**	**1900**	**1440**
D6-6B	D6-6B-0.5	6/8/2004	**77**	**74**	**620**	**540**	**1160**
D6-10B	D6-10B-0.5	6/8/2004	**61**	**61**	**430**	**430**	**112**
D6-15B	D6-15B-0.5	6/8/2004	**990**	**990**	**3600**	**3200**	**1680**
D6-23B	D6-23B-0.5	6/8/2004	**37**	**26**	**190**	**110**	**600**
D6-25B	D6-25B-0.5	6/8/2004	**15**	<10	**67**	<50	<100
SDP-1B	SDP-1B-0.5	6/8/2004	**660**	**650**	**4500**	**3800**	**1900**

Notes:

< = less than laboratory reporting limit indicated
Bold results are above laboratory reporting limit.
HEM = hexane extraction method
SG = sample extracts passed through a silica gel column prior to analysis

TABLE 4

VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS—GRAB GROUNDWATER SAMPLES

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Concentrations are presented in micrograms per liter (µg/L)

Station Identifier	Sample Identifier	Sample Date	1,1,1,2-Tetra-chloro-ethane	1,1,1-Trichloro-ethane	1,1,2,2-Tetra-chloro-ethane	1,1,2-Trichloro-ethane	1,1-Dichloro-ethane	1,1-Dichloro-ethene	1,1-Dichloro-propene	1,2,3-Trichloro-benzene	1,2,3-Trichloro-propane	1,2,4-Trichloro-benzene	1,2,4-Trimethyl-benzene	1,2-Dibromo-3-chloro-propane	1,2-Dibromo-ethane (EDB)	1,2-Dichloro benzene	1,2-Dichloro-ethane (EDC)	1,2-Dichloro propane	1,3,5-Trimethyl-benzene
D6-2B	D6-2B	6/8/2004	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1
D6-6B	D6-6B	6/8/2004	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1
D6-10B	D6-10B	6/8/2004	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1
D6-15B	D6-15B	6/8/2004	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1
D6-23B	D6-23B	6/8/2004	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1
D6-25B	D6-25B	6/8/2004	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1
SDP-1B	SDP-1B	6/8/2004	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1

Station Identifier	Sample Identifier	Sample Date	1,3-Dichloro-benzene	1,3-Dichloro-propane	1,4-Dichloro-benzene	2,2-Dichloro-propane	2-Buta-none (MEK)	2-Chloro-toluene	2-Hexa-none	4-Chloro-toluene	4-Methyl-2-penta-none	Acetone	Benzene	Bromo-benzene	Bromo-dichloro-methane	Bromo-form	Bromo-methane	Carbon Tetra-chloride	Chloro-benzene
D6-2B	D6-2B	6/8/2004	<1	<1	<1	<1	<10	<1	<10	<1	<10	<10	<1	<1	<1	<1	<1	<1	<1
D6-6B	D6-6B	6/8/2004	<1	<1	<1	<1	<10	<1	<10	<1	<10	<10	<1	<1	<1	<1	<1	<1	<1
D6-10B	D6-10B	6/8/2004	<1	<1	<1	<1	<10	<1	<10	<1	<10	<10	<1	<1	<1	<1	<1	<1	<1
D6-15B	D6-15B	6/8/2004	<1	<1	<1	<1	<10	<1	<10	<1	<10	<10	<1	<1	<1	<1	<1	<1	<1
D6-23B	D6-23B	6/8/2004	<1	<1	<1	<1	<10	<1	<10	<1	<10	<10	<1	<1	<1	<1	<1	<1	<1
D6-25B	D6-25B	6/8/2004	<1	<1	<1	<1	<10	<1	<10	<1	<10	<10	<1	<1	<1	<1	<1	<1	<1
SDP-1B	SDP-1B	6/8/2004	<1	<1	<1	<1	<10	<1	<10	<1	<10	<10	<1	<1	<1	<1	<1	<1	<1

Station Identifier	Sample Identifier	Sample Date	Chloro-ethane	Chloro-form	Chloro-methane	cis-1,2-Dichloro-ethene	cis-1,3-Dichloro-propene	Dibromo-chloro-methane	Dibromo-methane	Dichloro-difluoro-methane	Ethyl-benzene	Hexa-chloro-buta-diene	Iso-propyl-benzene	m,p-Xylene	Methy-lene chloride	Naph-thalene	n-Propyl-benzene	o-Xylene	p-Iso-propyl-toluene
D6-2B	D6-2B	6/8/2004	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<10	<1	<1	<1	<1
D6-6B	D6-6B	6/8/2004	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<12	<1	<1	<1	<1
D6-10B	D6-10B	6/8/2004	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<5	<1	<1	<1	<1
D6-15B	D6-15B	6/8/2004	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<17	<1	<1	<1	<1
D6-23B	D6-23B	6/8/2004	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<5	<1	<1	<1	<1
D6-25B	D6-25B	6/8/2004	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<5	<1	<1	<1	<1
SDP-1B	SDP-1B	6/8/2004	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<18	<1	<1	<1	<1

Station Identifier	Sample Identifier	Sample Date	sec-Butyl-benzene	Styrene	tert-Butyl-benzene	Tetra-chloro-ethene	Toluene	trans-1,2-Dichloro-ethene	trans-1,3-Dichloro-propene	Tri-chloro-ethene	Tri-chloro-fluoro-methane	Vinyl chloride
D6-2B	D6-2B	6/8/2004	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
D6-6B	D6-6B	6/8/2004	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
D6-10B	D6-10B	6/8/2004	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
D6-15B	D6-15B	6/8/2004	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
D6-23B	D6-23B	6/8/2004	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
D6-25B	D6-25B	6/8/2004	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
SDP-1B	SDP-1B	6/8/2004	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

Note:
< = less than laboratory reporting limit indicated

TABLE 5

POLYCYCLIC AROMATIC HYDROCARBON ANALYTICAL RESULTS—
GRAB GROUNDWATER SAMPLES
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Concentrations are presented in micrograms per liter (µg/L)

Station Identifier	Sample Identifier	Sample Date	Acenaph-thene	Acenaph-thylene	Anthra-cene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i) perylene	Benzo(k) fluoranthene
D6-2B	D6-2B	6/8/2004	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
D6-6B	D6-6B	6/8/2004	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
D6-10B	D6-10B	6/8/2004	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
D6-15B	D6-15B	6/8/2004	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
D6-23B	D6-23B	6/8/2004	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
D6-25B	D6-25B	6/8/2004	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SDP-1B	SDP-1B	6/8/2004	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Station Identifier	Sample Identifier	Sample Date	Chrysene	Dibenzo(a,h) anthracene	Fluor-anthene	Fluorene	Indeno(1,2,3-cd) pyrene	Naph-thalene	Phenan-threne	Pyrene
D6-2B	D6-2B	6/8/2004	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
D6-6B	D6-6B	6/8/2004	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
D6-10B	D6-10B	6/8/2004	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
D6-15B	D6-15B	6/8/2004	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
D6-23B	D6-23B	6/8/2004	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
D6-25B	D6-25B	6/8/2004	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SDP-1B	SDP-1B	6/8/2004	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Note:

< = less than laboratory reporting limit indicated

GEOMATRIX

TABLE 6
TOTAL PETROLEUM HYDROCARBON AND OIL AND GREASE ANALYTICAL RESULTS—
GRAB GROUNDWATER SAMPLES

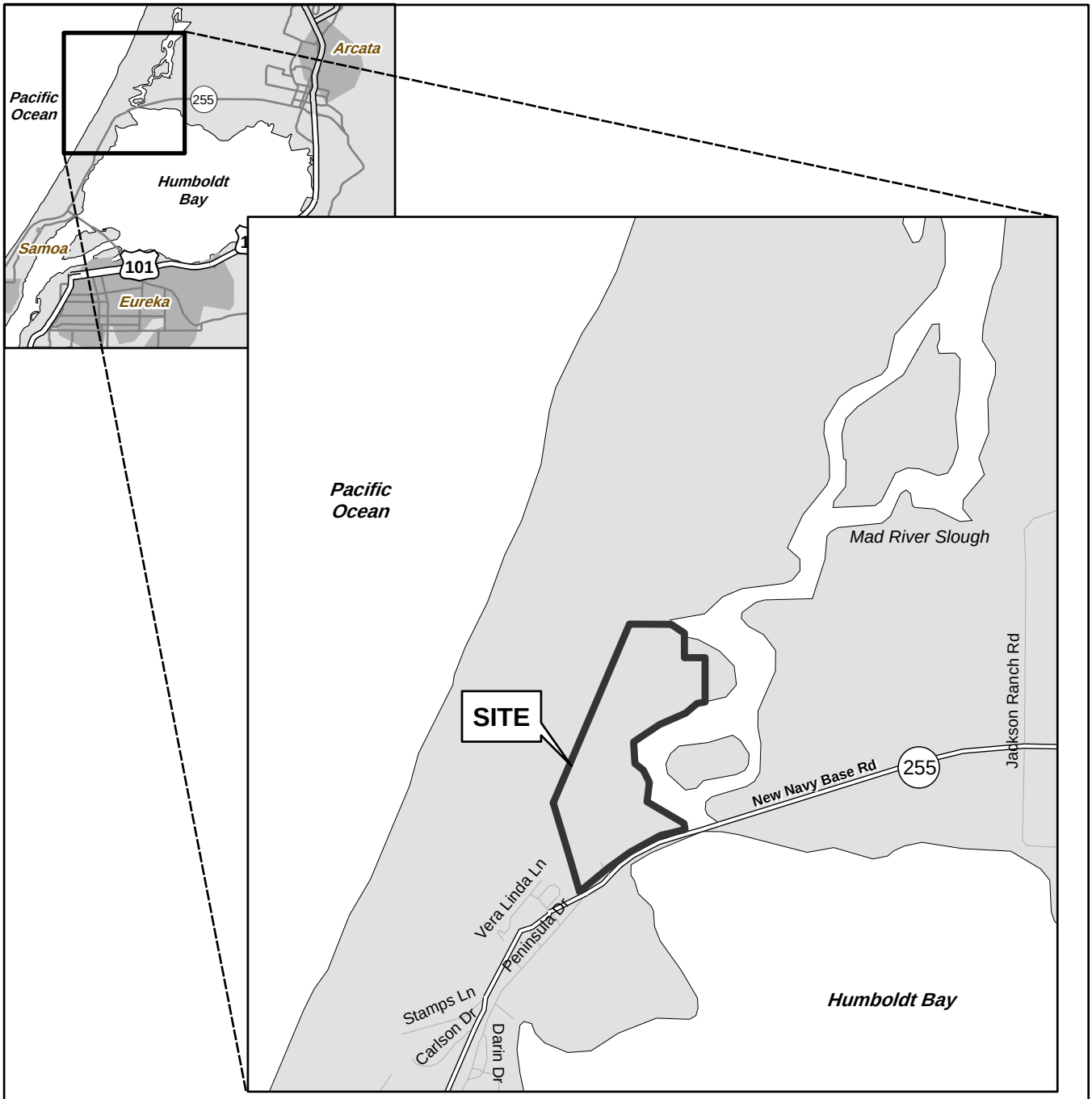
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

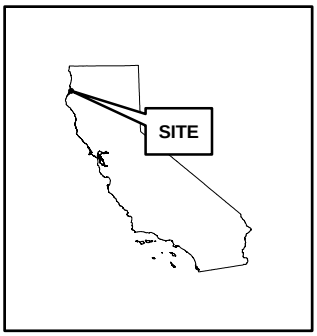
Concentrations are presented in micrograms per liter (µg/L), except for oil and grease (milligrams per liter [mg/L])

Station Identifier	Sample Matrix	Sample Date	TPH Diesel	TPH Diesel (SG)	TPH Motor Oil	TPH Motor Oil (SG)	Oil and Grease
D6-2B	Water	6/8/2004	**1300**	<50	**810**	<250	<5
D6-6B	Water	6/8/2004	**1100**	**360**	**2100**	**930**	<5
D6-10B	Water	6/8/2004	**620**	<50	**880**	<250	<5
D6-15B	Water	6/8/2004	**340**	<50	**730**	**340**	<5
D6-23B	Water	6/8/2004	**140**	<50	**650**	**260**	<5
D6-25B	Water	6/8/2004	**100**	<50	**280**	<250	<5
SDP-1B	Water	6/8/2004	**170**	<50	**800**	**370**	<5

Notes:
< = less than laboratory reporting limit indicated
Bold results are above laboratory reporting limit.
SG = Sample analyzed following silica gel preparation

FIGURES





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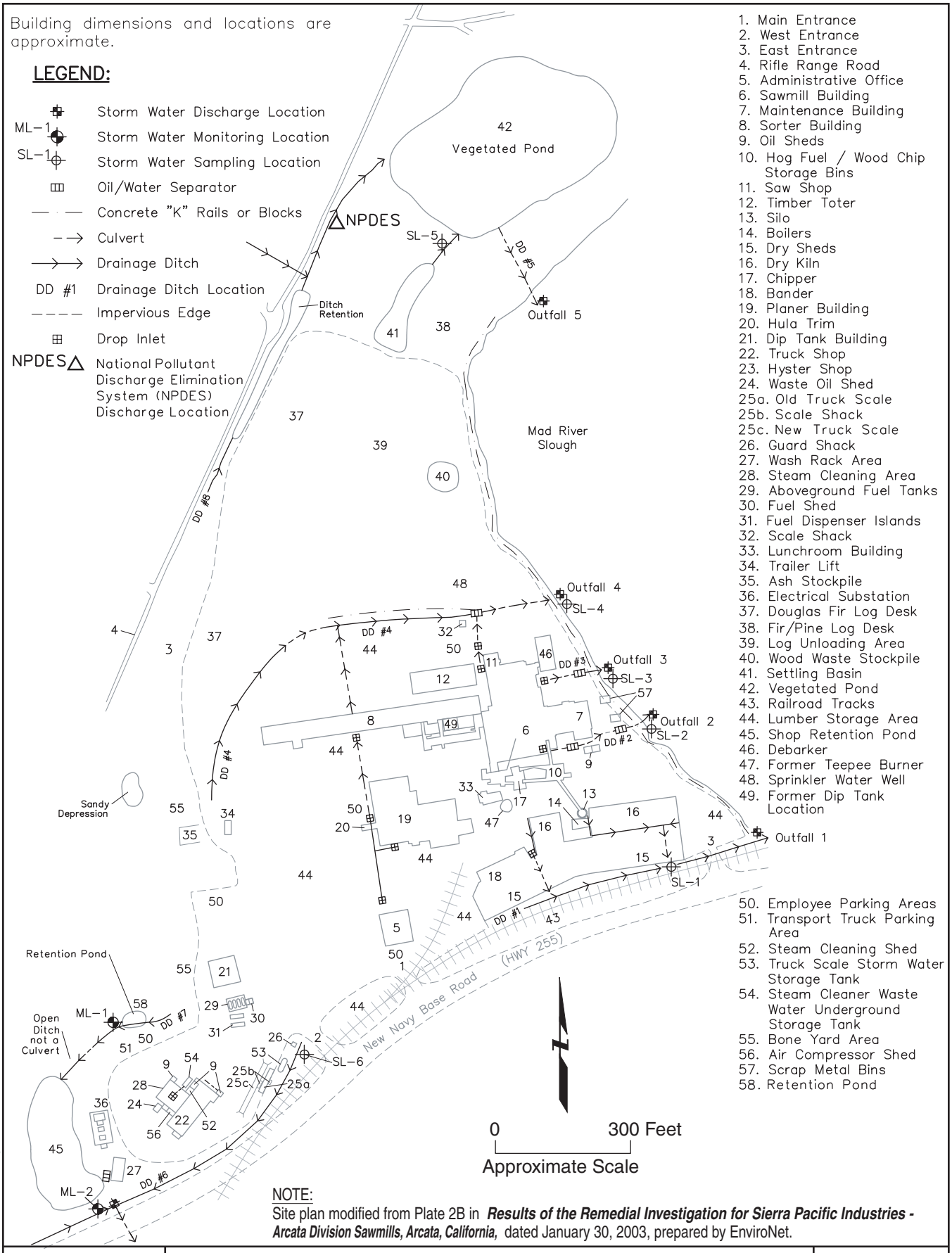
GEOMATRIX

SITE LOCATION MAP
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Project No.
9329

Figure No.
1



NOTE:
Site plan modified from Plate 2B in ***Results of the Remedial Investigation for Sierra Pacific Industries - Arcata Division Sawmills, Arcata, California,*** dated January 30, 2003, prepared by EnviroNet.

GEOMATRIX

SITE PLAN
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Project No.
9329

Figure
2

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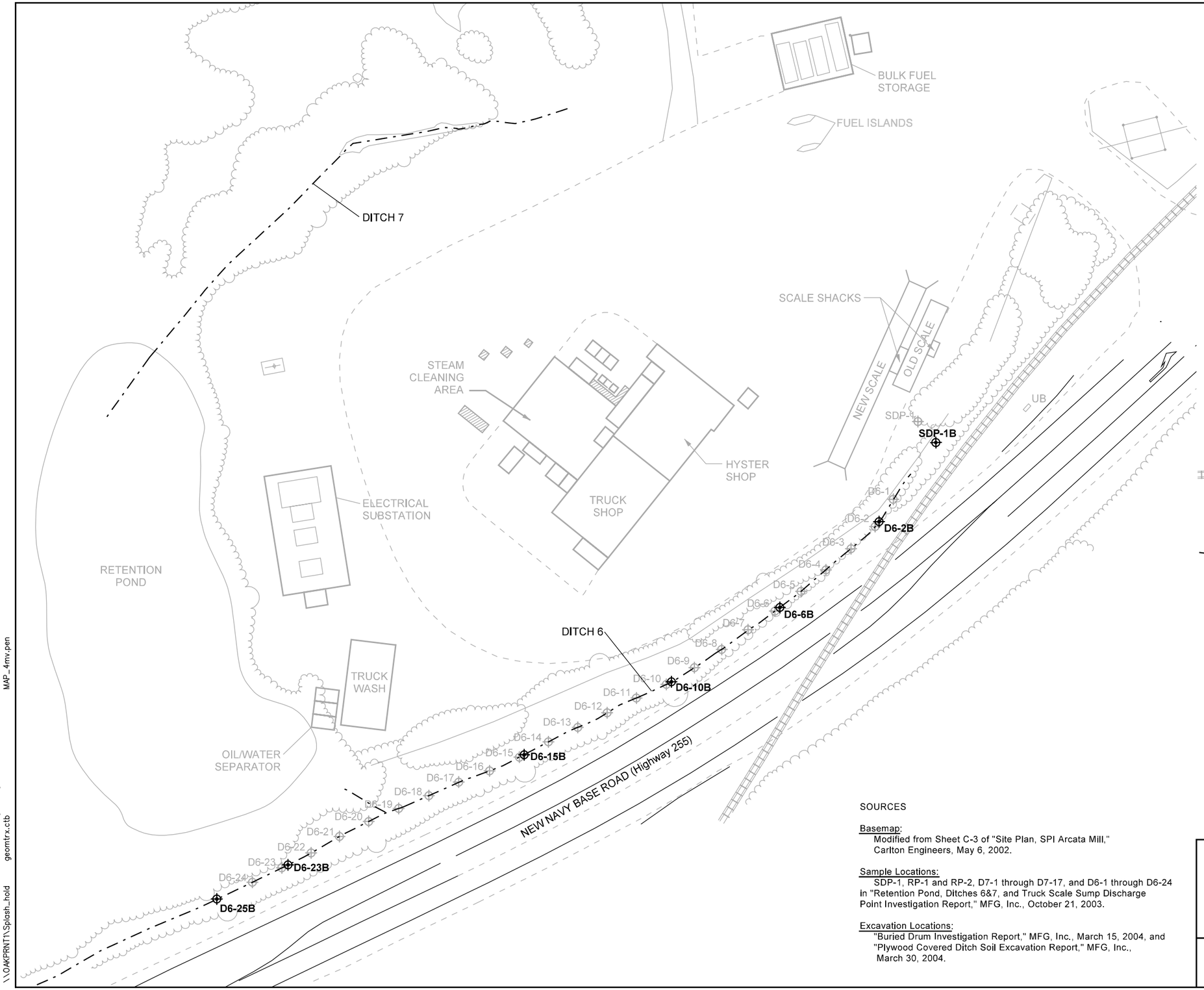


SOURCES

Basemap:
Modified from Sheet C-3 of "Site Plan, SPI Arcata Mill," Carlton Engineers, May 6, 2002.

Sample Locations:
SDP-1, RP-1 and RP-2, D7-1 through D7-17, and D6-1 through D6-24 in "Retention Pond, Ditches 6&7, and Truck Scale Sump Discharge Point Investigation Report," MFG, Inc., October 21, 2003.

Excavation Locations:
"Buried Drum Investigation Report," MFG, Inc., March 15, 2004, and "Plywood Covered Ditch Soil Excavation Report," MFG, Inc., March 30, 2004.

DITCH 6 PLAN MAP AND SAMPLE LOCATIONS
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

GEOMATRIX | Project No. 9329 | Figure 3

APPENDIX A

Boring and Encroachment Permits

HUMBOLDT COUNTY DIVISION of ENVIRONMENTAL HEALTH - HAZARDOUS MATERIALS UNIT
WELL and BORING PERMIT APPLICATION

RECEIVED
MAR 29 2004
HUMBOLDT CO. DIVISION OF ENVIRONMENTAL HEALTH

Facility ID # 1NHU526 Permit # 27-L

Facility Name: SIERRA PACIFIC INDUSTRIES, ARCATA SAWMILL DIVISION
Site Address: 2593 NEW NAVY BASE ROAD, ARCATA, CALIFORNIA 95521

Site Owner: SIERRA PACIFIC INDUSTRIES Bob Ellery Telephone: (530) 378-8000
Address: P.O. BOX 496028 REDDING, CALIFORNIA 96049-6028 AP#:

RP Name: (SAME AS OWNER) Telephone:
Address:

Consultant: GEOMATRIX CONSULTANTS, INC. Brian Thompson Telephone: (510) 663-4100
Address: 2101 WEBSTER ST, 12TH FLOOR OAKLAND, CA 94612 Reg.#/Type:

Driller: NA Telephone:
Address: C-57 Lic.#:

# On-site		# Offsite	
Wells	Borings 7	Wells	Borings

Activity: ☒ Construct ☐ Destroy ☐ Repair/Modify Electrode Type:

Well Type: ☐ Monitoring Well ☐ Injection Well ☐ Vapor Extraction ☒ Geologic Boring (HAND AUGER)
☐ Extraction Well ☐ Piezometer ☐ Vapor Point ☐ Soil Gas Survey
☐ Vadose Well ☐ Cathodic Protection ☐ Direct Push Boring ☐ Temporary Well Point

Investigation Type: ☒ Site Assessment ☐ Disposal Practice ☐ UST ☐ Other*
☐ Surface Contamination ☐ Surface Impoundment ☐ AST
*Specify:

Investigation Phase: ☐ Initial ☒ Subsequent ☐ Remediation ☐ Closure

Suspected Contaminants: PETROLEUM COMPOUNDS, CHLORINATED PHENOLS

Disposal/Containment for Soil Cuttings: ASHBURY / DOT - APPROVED 55-GALLON, STEEL DRUMS
Disposal/Containment for Rinsate: " " " " " "
Disposal/Containment for Development Water: " " " " " "

Permits will not be processed with out the following information:

☐ Scaled Construction Detail ☑ Appropriate Fees
☑ Detailed Site Plan + LOCATION MAPS ☑ Copy of Workplan (if not on file at HCDEH)
☑ Lead Agency Approval Letter → WE WILL BE COLLECTING ADDITIONAL SAMPLES UNDER SAME WORKPLAN (SCOPE OF WORK); IN EXTENSION OF ATTACHED WORK PLAN.
☐ Off Site Well Requirements:
☐ Legal Right of Entry Proposed Work Date: APRIL OR MAY 2004
☐ Off Site Address/Location 4.15.2004
☐ Encroachment Permit
☐ Coastal Zone Permit

rev. 6/98

HUMBOLDT COUNTY DIVISION of ENVIRONMENTAL HEALTH - HAZARDOUS MATERIALS UNIT
WELL and BORING PERMIT APPLICATION

Facility ID # 1NHU526 **Permit #** 27 – L

I hereby agree to comply with all laws, ordinances and regulations of the county of Humboldt and State of California pertaining to water well construction. I will contact the Humboldt County Hazardous Materials Unit at (707) 445-6215 five (5) working days prior to commencing this work. I will furnish to the County of Humboldt, Division of Environmental Health, and the owner a legible copy of the State Water Well Completion Report (form DWR 188) within fifteen (15) days after completion of work to obtain final approval of the well(s). I acknowledge that the application will become a permit ONLY after site approval by the Local Implementing Agency (HCDEH, NCRWQCB, DTSC, EPA). I understand this permit is not transferable and expires one hundred twenty (120) days from the date of issuance.

Certificates of Insurance:

☐ A currently effective General Liability Certificate of Insurance is on file with this office, endorsed to include the Humboldt County Division of Environmental Health as additional named insured.

☐ A currently effective Worker's Compensation Certificate of Insurance is on file with this office, endorsed to include the Humboldt County Division of Environmental Health as additional named insured.

NA → HAND AUGER BORINGS

Signature of Well Driller - no proxies - original signature only in blue ink

Date

- **Well identification umber and type must be affixed to exterior surface of security structure.**
- **The applicant is responsible for notifying Underground Services Alert at least 48 hours prior to the scheduled work date.**
- **A State of California Deprtment of Water resources Well Completion Report (Form DWR 1-88) must be filed wthin 15 days of completion of work for all well completions and destructions.**
- **A licsenced california C-57 Well Driller is required for all wells and direct push work.**

FOR OFFICE USE ONLY

Permit Approval: Norman Crawford **Date:** 3-31-2004

Fee: $136.00 **Date:** 3-31-2004 **Receipt:** 219166

Initial Inspection: _____ **Date:** _____

Final Inspection: _____ **Date:** _____

Humboldt County Dept. of Health & Human Services 219166
Public Health Branch

DATE	NAME	CASH	CHECK
3-31-2004	Geomatrix		136 00

PROGRAM Construct 7 borings #0664481
Sierra Pacific Industries
2593 New Navy Base Rd (aka Samoa Blvd) Arcata, CA
file # 27, RB case # 1NHV526

AMOUNT OF ACCT.		
AMOUNT PAID	136	00
BAL. DUE		

Received By N. Crawford

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

NOTICE OF COMPLETION

TR-0128 (REV 06/01) CT #7541-5529-1

0104-6-SV-0196

PERMIT NO.

1-Hum-255-R4.83/R4.92

Dear Sir or Madam:

All work authorized by the above-numbered permit was completed on _____

DATE

_____

SIGNATURE OF PERMITTEE

GEOMATRIX CONSULTANTS, INC.

FM 92 1546 M **ADA Notice** For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

ENCROACHMENT PERMIT

TR-0120 (REV. 5/92)

Permit No.	0104-6-SV-0196
Dist/Co/Rte/PM	1-HUM- 255-R4.83/R4.92
Date	June 17,2004
Fee Paid	$
Deposit	$ 246.00
Performance Bond Amount (1)	$
Performance Bond Amount (2)	$
Bond Company	
Bond Number (1)	
Bond Number (2)	

In compliance with (Check one):

☒ Your application of March 19, 2004

☐ Utility Notice No. of

☐ Agreement No. Of

☐ R/W Contract No. Of

PERMIT EXPIRES DECEMBER 31, 2004

TO:

GEOMATRIX CONSULTANTS, INC.
2101 WEBSTER STREET – 12TH FLOOR
OAKLAND, CA 94612
ATTN: Brian Thompson, C.H.G., C.E.G.
PHONE: (510) 663-4141

, PERMITTEE

And subject to the following, PERMISSION IS HEREBY GRANTED to:

Enter the State highway right of way at Post Mile R4.83 and R4.92 of State Route 1-HUM-255 (New Navy Base Road) to perform soil and ground water sampling of borings as outlined in the attached Permittee-submitted sketch (Figures 1 & 2) received by the Caltrans Encroachment Permits Office on March 19, 2004.

VERNON J. CALLAHAN, ASSISTANT PERMIT ENGINEER AT EUREKA (TELEPHONE 707-445-6679) SHALL BE NOTIFIED 5 DAYS BEFORE WORK IS STARTED.

THE CALTRANS ELECTRICAL SUPERVISOR, RICK MCDANIEL AT SAMOA, (707)-441-2039 SHALL BE NOTIFIED THREE WORKING DAYS BEFORE WORK IS TO BEGIN SO ANY CALTRANS ELECTRICAL FACILITIES MAY BE LOCATED.

USA-N (Underground Service Alert - North) shall be notified at 1-800-642-2444 2 working days before work begins.

In addition to the attached Encroachment General Provisions, Form TR-0045 (Rev. 6/2000) the following special provisions are also applicable:

The following attachments are also included as part of this permit (Check applicable):

☒ Yes		General Provisions
☐ Yes	☒ No	Utility Maintenance Provisions
☐ Yes	☒ No	Special Provisions .
☒ Yes *	☐ No	A Cal-OSHA permit required prior to beginning work;
		* If work is done in trenches deeper than 1.52m (5')
☐ Yes	☒ No	The information in the environmental documentation has been reviewed and is considered prior to approval of this permit.

In addition to fee, the permittee will be billed actual costs for:

☒ Yes	☐ No	Review
☒ Yes	☐ No	Inspection
☒ Yes	☐ No	Field Work

(If any Caltrans effort expended)

This permit is void unless the work is complete before **DECEMBER 31, 2004**

This permit is to be strictly construed and no other work other than specifically mentioned is hereby authorized.
No project work shall be commenced until all other necessary permits and environmental clearances have been obtained.

BT GEORGESON
VJ CALLAHAN
TL LIBOLT
AM JONES
Jeff PIZZI

RBM
Permit Writer: James A. Pena
FILE

APPROVED:

CHARLES C. FIELDER, District Director

BY:

JAMES R. OSIER, P.E., District Permit Engineer

FM 91 1436

I. TEST BORING PERFORMANCE & ABANDONMENT

1. Vernon J. Callahan, Assistant Permit Engineer at Eureka, shall approve the actual location of the test borings in advance of the work.

2. The Permittee shall provide and maintain through the work area at all times a safe walk way for pedestrians and bicycles which shall be a minimum of 1.2 m (4') wide. At no time shall pedestrians be diverted onto a portion of the street used for vehicular traffic. If adjacent alternate walkways cannot be provided, appropriate signs and barricades shall be installed at the limits of the work area and in advance of the closure at the nearest cross walk or intersection to divert pedestrians across the street. All signs must be orange or white with black lettering at least 100 mm (4") tall. The signs, barricades detour plan shall be approved by Vernon Callahan, Assistant Permit Engineer at Eureka, (707- 445-6679) before work begins.

3. The Permittee shall take whatever measures necessary to protect the existing highway storm drainage system from sediment and debris infiltration during the work.

4. All water generated by work operations shall be contained, filtered, or removed to a proper disposal site. Slurry from saw cutting or drilling operations shall be vacuumed immediately behind the saw cutting operation or prior to drying on drilling operations. Saw-cutting slurry shall be disposed of at a legal disposal site. Only clean water shall be allowed to enter drainage inlets or waterways. All soil exposed by work operations shall be protected from erosion and sediment migration.

5. Excavations shall be backfilled prior to the end of the shift, protected by signs and flaggers.

6. When monitoring is completed the wells shall be abandoned by back filling with a suitable material approved by Vernon J. Callahan, Assistant Permits Engineer, at Eureka and by removing the top portion of the existing wells, no less than 0.3 m (1') below finished grade. The top 200 mm (8") shall consist of topsoil that shall support plant growth and shall be seeded to match the surrounding area.

7. All drill cuttings shall be removed from the work site for disposal appropriate to lab test results.

8. **JEFF PIZZI OF THE CALTRANS NORTH REGION HAZARDOUS WASTE OFFICE AT (530) 229-0524 SHALL BE PROVIDED WITH A COPY OF THE SITE INVESTIGATION REPORT.** The report shall be mailed to the following address:

   Caltrans North Region Office of
   Environmental Engineering - North
   ATTN: Jeff Pizzi MS# 32
   1657 Riverside Drive
   Redding, CA 96001

9. All personnel performing work under this permit shall wear personal protective equipment, including hard hats, orange vests, gloves, and safety glasses while on State highway right of way.

II. TRAFFIC CONTROL

1. By Noon Monday, the Permittee/Contractor shall fax to Adolpho Gonzales, Caltrans Traffic Operations (fax #707 441-3914) and to Vernon J. Callahan, Assistant Permit Engineer (fax #707 445-6317) a written schedule of planned closures for the following week period, defined as Friday Noon through the following Friday Noon. The term closure, as used herein, is defined as the closure of a traffic lane or lanes, including ramp or connector lanes, within a single traffic control system. The Closure Schedule shall take the form of the attached ***District 1 Lane Closure Request Form*** furnished by the Engineer and shall show the locations and times when the proposed closures are to be in effect. Closure Request Forms submitted to the Engineer and Traffic Operations with incomplete, unintelligible or inaccurate information will be returned for correction and resubmittal. The Contractor/Permittee will be notified of disapproved closures or closures that require coordination with other parties as a condition of approval. Restrictions on hours and days that a lane can be closed are found on the attached ***Traffic Control Restrictions.***

2. All traffic control shall conform to the State of California, Department of Transportation; "**MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION & MAINTENANCE WORK ZONES-REVISION 2"** dated 1996 (Chapter 5 of the current **Caltrans Traffic Manual) EXCEPT FOR THE FOLLOWING MODIFICATIONS:**

a.) Except for installing, maintaining and removing traffic control devices, whenever work is performed or equipment is operated in the following work areas the Permittee shall close the adjacent traffic lane only after approval by Vernon J. Callahan, Assistant Permit Engineer at Eureka:

Approach speed of public traffic (Posted Limit) (Miles per Hour)	Work Area
Over 45	Within 1.8 m (6') of a traffic lane but not on a traffic lane.
35 to 45	Within 0.6 m (3') of a traffic lane but not on a traffic lane.

b.) Traffic control, which requires a lane closure, shall be in accordance with the attached, **Caltrans Standard Plan T-13, "TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON TWO-LANE CONVENTIONAL HIGHWAYS". Advance & Backup flaggers in each direction shall be required.**

c.) Lane closures are prohibited weekdays from 0700-0900 hours and from 1500-1800 hours.

d.) For work performed outside the distances described in 2(a) above the shoulder shall be closed in accordance with the attached **Caltrans Standard Plan T-10, "**SHOULDER CLOSURE" illustration.

e.) When flaggers are not present trucks shall not back on to /off the highway.

f.) When flaggers are present the full complement of signs as required by the "**MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES-REVISION 2 DATED 1996** shall be in place.

g.) All work that requires flaggers shall be completed in one workday.

h.) All flaggers shall be provided the opportunity to read the attached Caltrans; **" Flagging Instruction Handbook"** dated April 1999. Additional copies are available through the Caltrans Publications Distribution Unit, 1900 Royal Oaks Drive, Sacramento, CA 95815-Telephone (916) 445-3520 Fax # (916) 324-8997.

i.) When the work area encroaches upon a sidewalk, walkway or crosswalk area, special consideration must be given to pedestrian safety. Protective barricades, fencing, handrails and bridges, together with warning and guidance devices and signs must be utilized so that the passageway for pedestrians, especially blind and other physically handicapped, is safe and well defined. **A PLAN SHOWING HOW PEDESTRIANS WILL BE HANDLED SHALL BE SUBMITTED TO AND APPROVED BY VERNON CALLAHAN PRIOR TO BEGINNING WORK.**

j.) Bicyles shall be accommodated through the work zone.

k.) Project work shall not restrict commerce or access to businesses. If it becomes necessary to restrict access to any local businesses to accomplish work the work shall scheduled to occur outside of normal business hours.

l.) The Permittee shall provide signing to notify the public of any planned parking prohibition at least one-week prior to any planned work.

m.) A minimum of one paved lane not less than 3.6 m (12') and an associated 1.2 m (4') shoulder in each direction of travel shall remain available at all times.

n.) Any emergency service agency whose ability to respond to incidents may be hampered by a lane closure caused by the construction shall be notified prior to that closure.

o.) A minimum of one PCMS in advance of either end of the construction site (2 PCMS per location) shall be required in order to notify the public of the closures related to this project.

p.) Access to side roads and residences shall be maintained at all times. When work or traffic queues extend through an intersection additional traffic control shall be required at the intersection.

q.) If congestion or delays exceed original estimates due to unforeseen events such as work zone collisions, higher than predicted traffic demand, or closures of extended duration, the Permittee shall utilize all appropriate resources to restore or minimize effects on public traffic. These resources shall contain (but are not limited to) the following contingencies:

1) Calling for CHP or other emergency personnel in the event of a work-zone collision.

2) Removal of the lane closure as soon as it is safe to do so to mitigate significant delay.

3) Assigning personnel to work end-of-queue protection.

III. EROSION CONTROL

1. In accordance with Caltrans Standard Specifications Section 7-1-01G – " Water Pollution". The Permittee's Contractor shall submit a "Water Pollution Control Program" (WPCP) to Vernon Callahan, Assistant Permit Engineer at Eureka prior to the start of work. Caltrans must approve the "Water Pollution Control Program" prior to the start of work within the Caltrans right of way. A template WPCP may be found at the Caltrans Website at the following location http://**www.dot.ca.gov/hq/construc/.**

2. All disturbed original ground shall be treated with a seed, fertilizer and mulch erosion control mixture approved by Vernon J. Callahan, Assistant Permit Engineer at Eureka. The Permittee may also be required to provide silt fences, straw waddles, or other siltation barriers as directed by Vernon J. Callahan, Assistant Permit Engineer at Eureka to prevent siltation in ditches and waterways.

3. The Permittee shall be responsible for obtaining all permits in accordance with section IV (2) below. This includes but is not limited to the requirements of the Regional Water Control Board (Region 1) which shall be contacted by the Permittee at the following location :

5550 Skylane Blvd. Suite A
Santa Rosa, CA 95403
Phone 707-576-2220
Fax 707-523-0135

http://www.swrcb.ca.gov/rwqcb1/index.html

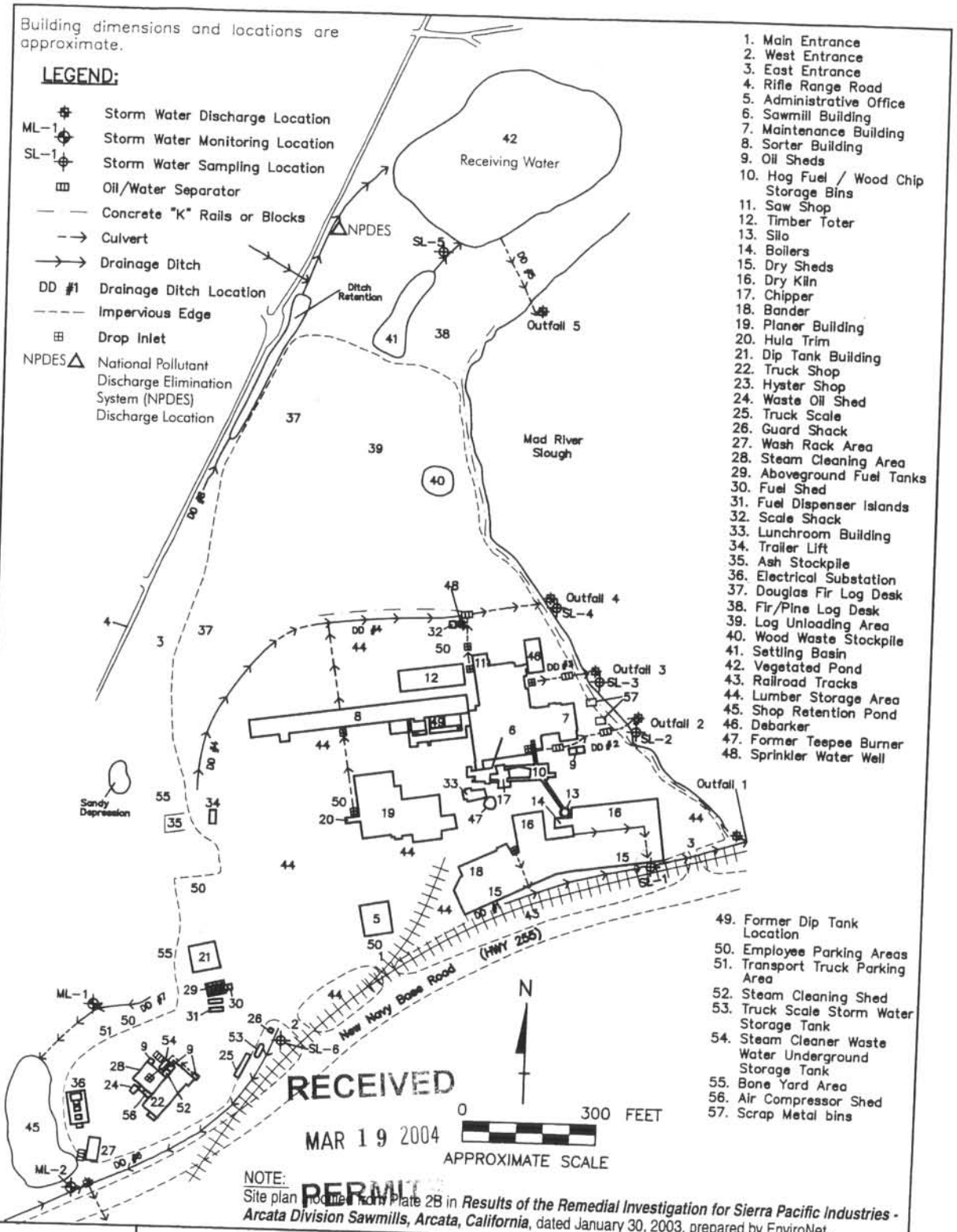
IV. GENERAL

1. The work area, including drainage ditches, shall be restored to a neat, clean condition and all debris shall be removed from the State Highway Right-of-way.

2. The Permittee's attention is directed to Section 12, **"PERMITS FROM OTHER AGENCIES"** and Section 26 **"ARCHAEOLOGICAL/HISTORICAL:"** of the Encroachment Permit General Provisions. The State's Representative for Archaeological Resource discoveries in the Caltrans right of way is Sara Atchley at (707) 441-3983.

3. **FEES FOR THIS PERMIT ARE BASED ON ACTUAL REVIEW HOURS AND ACTUAL INSPECTION HOURS. AS OF THE ISSUE DATE OF THIS PERMIT AN ESTIMATED FEE DEPOSIT OF $246.00 HAS BEEN COLLECTED. THE ACTUAL REVIEW FEE ACCRUED AT THIS TIME IS $328.00 (4.0 HOURS TIMES THE STANDARD HOURLY RATE OF $82.00 PER HOUR). THE ACTUAL INSPECTION FEE WILL BE CALCULATED UPON EXPIRATION OF THIS ENCROACHMENT PERMIT WORK AND WILL BE CALCULATED USING THE ACTUAL INSPECTION HOURS TIMES THE STANDARD HOURLY RATE IN EFFECT AT THAT TIME. THE ACTUAL REVIEW AND INSPECTION CHARGES WILL BE TOTALED AND ANY REMAINING BALANCE DUE THAT EXCEEDS THE INITIAL $246.00 DEPOSIT WILL BE BILLED AND ANY UNUSED SURPLUS WILL BE REFUNDED.**

4. **UPON COMPLETION OF THE WORK, PLEASE FILL IN THE ATTACHED POST CARD AND MAIL AT ONCE.**



NOTE:
Site plan modified from Plate 2B in ***Results of the Remedial Investigation for Sierra Pacific Industries - Arcata Division Sawmills, Arcata, California***, dated January 30, 2003, prepared by EnviroNet.

GEOMATRIX

SITE PLAN
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Project No. 9329

Figure 1

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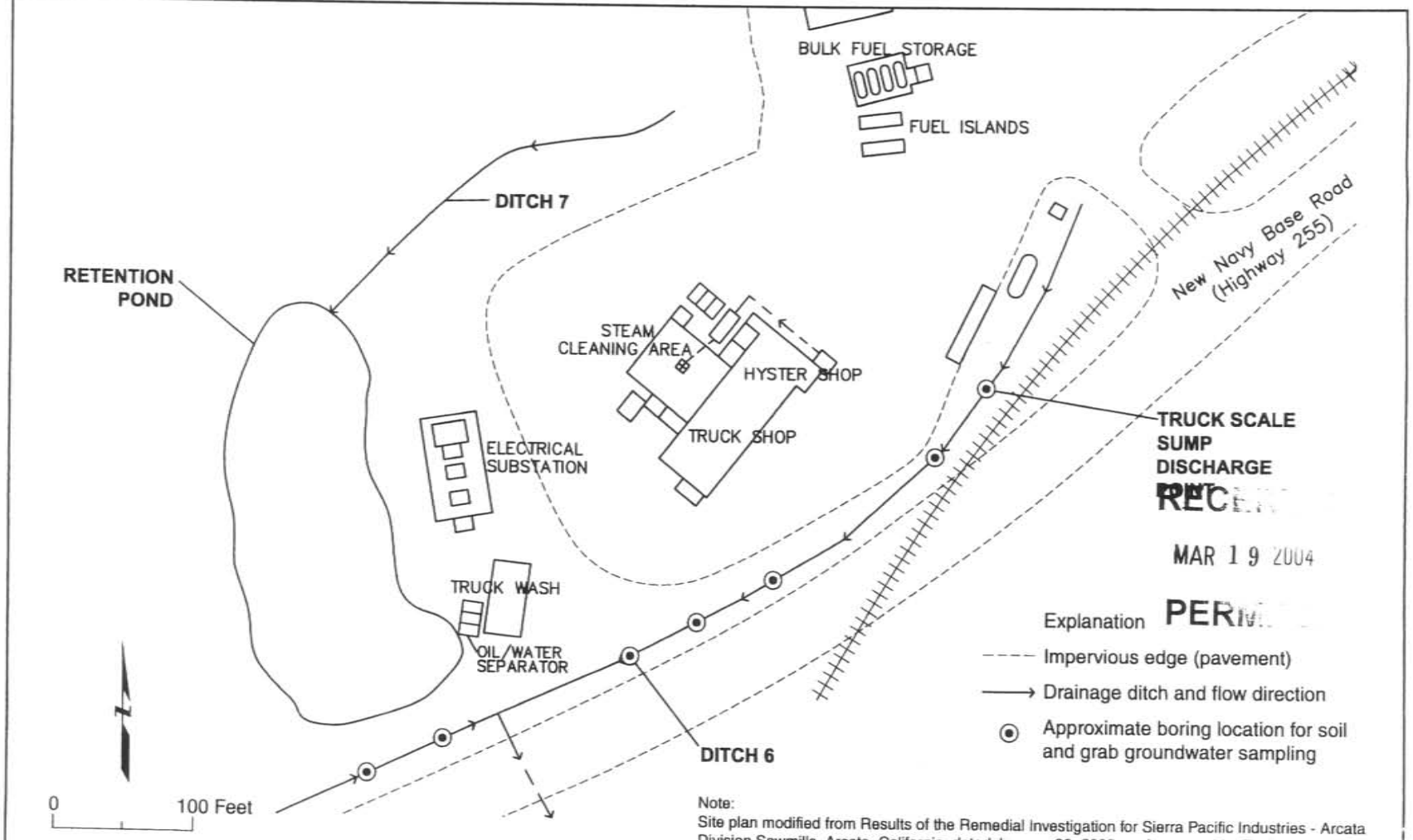


RECEIVED
MAR 19 2004
PERMIT

Note:
Site plan modified from Results of the Remedial Investigation for Sierra Pacific Industries - Arcata Division Sawmills, Arcata, California, dated January 30, 2003, and prepared by Environet Consulting; later modifications added by MFG, Inc.

GEOMATRIX

ADDITIONAL SAMPLING LOCATIONS - DITCH 6
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Project No.
9329.000

Figure
2

STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION
ENCROACHMENT PERMIT GENERAL PROVISIONS
TR-0045 (REV 6/2000)

1. **AUTHORITY:** The Department's authority to issue encroachment permits is provided under, Div. 1, Chpt. 3, Art. 1, Sect. 660 to 734 of the Streets and Highways Code.

2. **REVOCATION:** Encroachment permits are revocable on five days notice unless otherwise stated on the permit and except as provided by law for public corporations, franchise holders, and utilities. These General Provisions and the Encroachment Permit Utility Provisions are subject to modification or abrogation at any time. Permittees' joint use agreements, franchise rights, reserved rights or any other agreements for operating purposes in State highway right of way are exceptions to this revocation.

3. **DENIAL FOR NONPAYMENT OF FEES:** Failure to pay permit fees when due can result in rejection of future applications and denial of permits.

4. **ASSIGNMENT:** No party other than the permittee or permittee's authorized agent is allowed to work under this permit.

5. **ACCEPTANCE OF PROVISIONS:** Permittee understands and agrees to accept these General Provisions and all attachments to this permit, for any work to be performed under this permit.

6. **BEGINNING OF WORK:** When traffic is not impacted (see Number 35), the permittee shall notify the Department's representative, two (2) days before the intent to start permitted work. Permittee shall notify the Department's Representative if the work is to be interrupted for a period of five (5) days or more, unless otherwise agreed upon. All work shall be performed on weekdays during regular work hours, excluding holidays, unless otherwise specified in this permit.

7. **STANDARDS OF CONSTRUCTION:** All work performed within highway right of way shall conform to recognized construction standards and current Department Standard Specifications, Department Standard Plans High and Low Risk Facility Specifications, and Utility Special Provisions. Where reference is made to "Contractor and Engineer," these are amended to be read as "Permittee and Department representative."

8. **PLAN CHANGES:** Changes to plans, specifications, and permit provisions are not allowed without prior approval from the State representative.

9. **INSPECTION AND APPROVAL:** All work is subject to monitoring and inspection. Upon completion of work, permittee shall request a final inspection for acceptance and approval by the Department. The local agency permittee shall not give final construction approval to its contractor until final acceptance and approval by the Department is obtained.

10. **PERMIT AT WORKSITE:** Permittee shall keep the permit package or a copy thereof, at the work site and show it upon request to any Department representative or law enforcement officer. If the permit package is not kept and made available at the work site, the work shall be suspended.

11. **CONFLICTING ENCROACHMENTS:** Permittee shall yield start of work to ongoing, prior authorized, work adjacent to or within the limits of the project site. When existing encroachments conflict with new work, the permittee shall bear all cost for rearrangements, (e.g., relocation, alteration, removal, etc.).

12. **PERMITS FROM OTHER AGENCIES:** This permit is invalidated if the permittee has not obtained all permits necessary and required by law, from the Public Utilities Commission of the State of California (PUC), California Occupational Safety and Health Administration (Cal-OSHA), or any other public agency having jurisdiction.

13. **PEDESTRIAN AND BICYCLIST SAFETY:** A safe minimum passageway of 4' (1.21 meter) shall be maintained through the work area at existing pedestrian or bicycle facilities. At no time shall pedestrians be diverted onto a portion of the street used for vehicular traffic. At locations where safe alternate passageways cannot be provided, appropriate signs and barricades shall be installed at the limits of construction and in advance of the limits of construction at the nearest crosswalk or intersection to detour pedestrians to facilities across the street.

14. **PUBLIC TRAFFIC CONTROL:** As required by law, the permittee shall provide traffic control protection warning signs, lights, safety devices, etc., and take all other measures necessary for traveling public's safety. Day and night time lane closures shall comply with the Manuals of Traffic Controls, Standard Plans, and Standard Specifications for traffic control systems. These General Provisions are not intended to impose upon the permittee, by third parties, any duty or standard of care, greater than or different from, as required by law.

15. **MINIMUM INTERFERENCE WITH TRAFFIC:** Permittee shall plan and conduct work so as to create the least possible inconvenience to the traveling public; traffic shall not be unreasonably delayed. On conventional highways, permittee shall place properly attired flagger(s) to stop or warn the traveling public in compliance with the Manual of Traffic Controls and Instructions to Flaggers Pamphlet.

16. **STORAGE OF EQUIPMENT AND MATERIALS:** Equipment and material storage in State right of way shall comply with Standard Specifications, Standard Plans, and Special Provisions. Whenever the permittee places an obstacle within 12' (3.63 m) of the traveled way, the permittee shall place temporary railing (Type K).

17. **CARE OF DRAINAGE:** Permittee shall provide alternate drainage for any work interfering with an existing drainage facility in compliance with the Standard Specifications, Standard Plans and/or as directed by the Department's representative.

18. **RESTORATION AND REPAIRS IN RIGHT OF WAY:** Permittee is responsible for restoration and repair of State highway right of way resulting from permitted work (State Streets and Highways Code, Sections 670 et. seq.).

19. **RIGHT OF WAY CLEAN UP:** Upon completion of work, permittee shall remove and dispose of all scraps, brush, timber, materials, etc. off the right of way. The aesthetics of the highway shall be as it was before work started.

20. **COST OF WORK:** Unless stated in the permit, or a separate written agreement, the permittee shall bear all costs incurred for work within the State right of way and waives all claims for indemnification or contribution from the State.

21. **ACTUAL COST BILLING:** When specified in the permit, the Department will bill the permittee actual costs at the currently set hourly rate for encroachment permits.

22 **AS-BUILT PLANS:** When required, permittee shall submit one (1) set of as-built plans within thirty (30) days after completion and approval of work in compliance with requirements listed as follows:

1. Upon completion of the work provided herein, the permittee shall send one vellum or paper set of As-Built plans, to the State representative. Mylar or paper sepia plans are not acceptable.
2. All changes in the work will be shown on the plans, as issued with the permit, including changes approved by Encroachment Permit Rider.
3. The plans are to be stamped or otherwise noted AS-BUILT by the permittee's representative who was responsible for overseeing the work. Any original plan that was approved with a State stamp, or Caltrans representative signature, shall be used for producing the As-Built plans.
4. If As-Built plans include signing or striping, the dates of signing or striping removal, relocation, or installation shall be shown on the plans when required as a condition of the permit. When the construction plans show signing and striping for staged construction on separate sheets, the sheet for each stage shall show the removal, relocation or installation dates of the appropriate staged striping and signing.
5. As-Built plans shall contain the Permit Number, County, Route, Post Mile, and Kilometer Position on each sheet.
6. Disclaimer statement of any kind that differ from the obligations and protections provided by Sections 6735 through 6735.6 of the California Business and Professions Code, shall not be included on the As-Built plans. Such statements constitute non-compliance with Encroachment Permit requirements, and may result in the Department of Transportation retaining Performance Bonds or deposits until proper plans are submitted. Failure to comply may also result in denial of future permits, or a provision requiring a public agency to supply additional bonding.

23. **PERMITS FOR RECORD PURPOSES ONLY:** When work in the right of way is within an area under a Joint Use Agreement (JUA) or a Consent to Common Use Agreement (CCUA), a fee exempt permit is issued to the permittee for the purpose of providing a notice and record of work. The Permittee's prior rights shall be preserved without the intention of creating new or different rights or obligations. "Notice and Record Purposes Only" shall be stamped across the face of the permit.

24. **BONDING:** The permittee shall file bond(s), in advance, in the amount set by the Department. Failure to maintain bond(s) in full force and effect will result in the Department stopping of all work and revoking permit(s). Bonds are not required of public corporations or privately owned utilities, unless permittee failed to comply with the provision and conditions under a prior permit. The surety company is responsible for any latent defects as provided in California Code of Civil Procedures, Section 337.15. Local agency permittee shall comply with requirements established as follows: In recognition that project construction work done on State property will not be directly funded and paid by State, for the purpose of protecting stop notice claimants and the interests of State relative to successful project completion, the local agency permittee agrees to require the construction contractor furnish both a payment and performance bond in the local agency's name with both bonds complying with the requirements set forth in Section 3-1.02 of State's current Standard Specifications before performing any project construction work. The local agency permittee shall defend, indemnify, and hold harmless the State, its officers and employees from all project construction related claims by contractors and all stop notice or mechanic's lien claimants. The local agency also agrees to remedy, in a timely manner and to State's satisfaction, any latent defects occurring as a result of the project construction work.

25. **FUTURE MOVING OF INSTALLATIONS:** Permittee understands and agrees to rearrange a permitted installation upon request by the Department, for State construction, reconstruction, or maintenance work on the highway. The permittee at his sole expense, unless under a prior agreement, JUA, or a CCUA, shall comply with said request.

26. **ARCHAEOLOGICAL/HISTORICAL:** If any archaeological or historical resources are revealed in the work vicinity, the permittee shall immediately stop work, notify the Department's representative, retain a qualified archaeologist who shall evaluate the site, and make recommendations to the Department representative regarding the continuance of work.

27. **PREVAILING WAGES:** Work performed by or under a permit may require permittee's contractors and subcontractors to pay appropriate prevailing wages as set by the Department of Industrial Relations. Inquiries or requests for interpretations relative to enforcement of prevailing wage requirements are directed to State of California Department of Industrial Relations, 525 Golden Gate Avenue, San Francisco, California 94102.

28. **RESPONSIBILITY FOR DAMAGE:** The State of California and all officers and employees thereof, including but not limited to the Director of Transportation and the Deputy Director, shall not be answerable or accountable in any manner for injury to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee, or for damage to property from any cause. The permittee shall be responsible for any liability imposed by law and for injuries to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee, or for damage to property arising out of work, or other activity permitted and done by the permittee under a permit, or arising out of the failure on the permittee's part to perform his obligations under any permit in respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work, or other activity or at any subsequent time, work or other activity is being performed under the obligations provided by and contemplated by the permit.

The permittee shall indemnify and save harmless the State of California, all officers, employees, and State's contractors, thereof, including but not limited to the Director of Transportation and the Deputy Director, from all claims, suits or actions of every name, kind and description brought for or on account of injuries to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee and the public, or damage to property resulting from the performance of work or other activity under the permit, or arising out of the failure on the permittee's part to perform his obligations under any permit in respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work, or other activity or at any subsequent time, work or other activity is being performed under the obligations provided by and contemplated by the permit, except as otherwise provided by statute.

The duty of the permittee to indemnify and save harmless includes the duties to defend as set forth in Section 2778 of the Civil Code. The permittee waives any and all rights to any type of expressed or implied indemnity against the State, its officers, employees, and

State contractors. It is the intent of the parties that the permittee will indemnify and hold harmless the State, its officers, employees, and State's contractors, from any and all claims, suits or actions as set forth above regardless of the existence or degree of fault or negligence, whether active or passive, primary or secondary, on the part of the State, the permittee, persons employed by the permittee, or acting on behalf of the permittee.

For the purpose of this section, "State's contractors" shall include contractors and their subcontractors under contract to the State of California performing work within the limits of this permit.

29. **NO PRECEDENT ESTABLISHED:** This permit is issued with the understanding that it does not establish a precedent.

30. **FEDERAL CIVIL RIGHTS REQUIREMENTS FOR PUBLIC ACCOMMODATION:**
A. The permittee, for himself, his personal representative, successors in interest, and assigns as part of the consideration hereof, does hereby covenant and agree that:
1. No person on the grounds of race, color, or national origin shall be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.
2. That in connection with the construction of any improvements on said lands and the furnishings of services thereon, no discrimination shall be practiced in the selection and retention of first-tier subcontractors in the selection of second-tier subcontractors.
3. That such discrimination shall not be practiced against the public in their access to and use of the facilities and services provided for public accommodations (such as eating, sleeping, rest, recreation), and operation on, over, or under the space of the right of way.
4. That the permittee shall use the premises in compliance with all other requirements imposed pursuant to Title 15, Code of Federal Regulations, Commerce and Foreign Trade, Subtitle A. Office of the Secretary of Commerce, Part 8 (15 C.F.R. Part 8) and as said Regulations may be amended.
5.That in the event of breach of any of the above nondiscrimination covenants, the State shall have the right to terminate the permit and to re-enter and repossess said land and the land and the facilities thereon, and hold the same as if said permit had never been made or issued.

31. **MAINTENANCE OF HIGHWAYS:** The permittee agrees, by acceptance of a permit, to properly maintain any encroachment. This assurance requires the permittee to provide inspection and repair any damage, at permittee's expense, to State facilities resulting from the encroachment.

32. **SPECIAL EVENTS:** In accordance with subdivision (a) of Streets and Highways Code Section 682.5, the Department of Transportation shall not be responsible for the conduct or operation of the permitted activity, and the applicant agrees to defend, indemnify, and hold harmless the State and the city or county against any and all claims arising out of any activity for which the permit is issued.

Permittee understands and agrees that it will comply with the obligations of Titles II and III of the Americans with Disabilities Act of 1990 in the conduct of the event, and further agrees to indemnify and save harmless the State of California, all officers and employees thereof, including but not limited to the Director of Transportation, from any claims or liability arising out of or by virtue of said Act.

33. **PRIVATE USE OF RIGHT OF WAY:** Highway right of way shall not be used for private purposes without compensation to the State. The gifting of public property use and therefore public funds is prohibited under the California Constitution, Article 16.

34. **FIELD WORK REIMBURSEMENT:** Permittee shall reimburse State for field work performed on permittee's behalf to correct or remedy hazards or damaged facilities, or clear debris not attended to by the permittee.

35. **NOTIFICATION OF DEPARTMENT AND TMC:** The permittee shall notify the Department's representative and the Transportation Management Center (TMC) at least 7 days before initiating a lane closure or conducting an activity that may cause a traffic impact. A confirmation notification should occur 3 days before closure or other potential traffic impacts. In emergency situations when the corrective work or the emergency itself may affect traffic, TMC and the Department's representative shall be notified as soon as possible.

36. **SUSPENSION OF TRAFFIC CONTROL OPERATION:** The permittee, upon notification by the Department's representative, shall immediately suspend all lane closure operations and any operation that impedes the flow of traffic. All costs associated with this suspension shall be borne by the permittee.

37. **UNDERGROUND SERVICE ALERT (USA) NOTIFICATION:** Any excavation requires compliance with the provisions of Government Code Section 4216 et. seq., including , but not limited to notice to a regional notification center, such as Underground Service Alert (USA). The permittee shall provide notification at least 48 hours before performing any excavation work within the right of way.

DISTRICT 01 ENCROACHMENT PERMIITS BRANCH

LANE CLOSURE REQUEST FORM

THIS FORM MUST BE SUBMITTED BY NOON ON MONDAY
OF THE WEEK PRIOR TO THE WEEK OF THE PLANNED RESTRICTION.

COMPLETE FORM AND SUBMIT BY FAX TO THE TWO APPROPRIATE
FAX NUMBERS INDICATED AT THE BOTTOM OF THE PAGE.

Today's Date _____ Time _____
Permittee _____
Phone # _____

District 1
Lane Closure Request Form

Location & Date of Closure: For the week of _____
Reporting Week begins on Friday

	COUNTY	ROUTE	PM	KP	DESCRIPTIVE LOCATION	TIME
FROM						
TO						

Day(s): ☐ Friday ☐ Saturday ☐ Sunday ☐ Monday ☐ Tuesday ☐ Wednesday ☐ Thursday

Direction: # Existing Lanes: # Lanes Closed: Which Lane(s):

Types of Closure, Closure Characteristics (check all of the following that apply)

☐ One-way
☐ Detour info available
☐ Closure conforms with Established Traffic Control
☐ Complete Closure
☐ No Detour Available
☐ 24-hour/7-day closure
☐ Ramp Closures
☐ COZEEP/MAZEEP

Estimated Delay _____ Minutes

Reason for Restriction: _____

Encroachment Permit #: _____

Permittee
Field Contact _____
Cell _____
Office _____
Pager _____
FAX _____

Details (Detour Information, CHP Break, Flaggers, Temporary Signals, Estimated re-open date, TMS Equipment, etc.)

- Fax form to ADOLFO GONZALEZ at (707) 441-3914 and:
- Jerry Sheldon/ Jim Shupe (707) 463-4736 for MENDOCINO and LAKE Counties.
- or Vernon Callahan (707) 445-6317 for HUMBOLDT and DEL NORTE Counties.

APPENDIX B

Boring Logs

MFG, Inc.

consulting scientists and engineers

LOG OF BORING SDP-1B

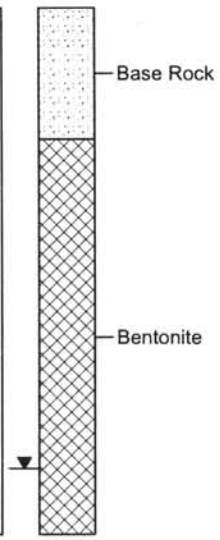
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

MFG Project No. 030275.23

Drilling Agency	: MFG, Inc.	Logged By	: Matt Hillyard
Drilling Method	: Stainless steel hand auger	Reviewed By	: Mike Tietze
Sampler Type	: Stainless Steel Drive Sampler and Slide Hammer		
Sampling Method	: Stainless Steel Liners		
Ground Elevation	: Not Surveyed		

Date Started: June 8, 2004
Date Finished: June 8, 2004

Depth in Feet	DESCRIPTION	USCS	Samples	Recovery (inches)	REMARKS
0	SANDY SILT: v dk grey (10YR 3/1); some F sand, few rootlets, moist	ML	1	6	Collected soil sample SDP-1B-0.5' at 0.0 to 0.5 ft bgl.
1	SILTY SAND: dk grey (10YR 4/1) F sand; some silt, moist	SM	2	6	Collected soil sample SDP-1B-1.0' at 0.5 to 1.0 ft bgl.
2	- wet				
3					
4					



NOTES:
1. Boring augered to a depth of 2.0 ft bgl.
2. Collected groundwater sample SDP-1B using a peristaltic pump and polyethylene tubing.
3. Boring was backfilled with hydrated bentonite chips and base rock.

MFG, Inc.

consulting scientists and engineers

LOG OF BORING D6-2B

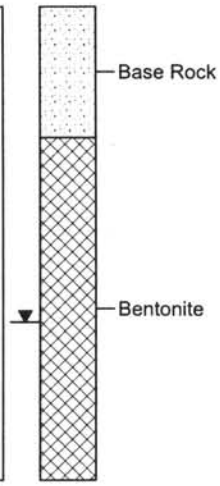
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

MFG Project No. 030275.23

Drilling Agency	: MFG, Inc.	Logged By	: Matt Hillyard
Drilling Method	: Stainless steel hand auger	Reviewed By	: Mike Tietze
Sampler Type	: Stainless Steel Drive Sampler and Slide Hammer		
Sampling Method	: Stainless Steel Liners		
Ground Elevation	: Not Surveyed		

Date Started: June 8, 2004
Date Finished: June 8, 2004

Depth in Feet	DESCRIPTION	USCS	Samples	Recovery (inches)	REMARKS
0	SANDY SILT: v dk grey (10YR 3/1); some F sand, some rootlets, moist	ML	1	6	Collected soil sample D6-2B-0.5' at 0.0 to 0.5 ft bgl.
	SILTY SAND: dk grey (10YR 4/1); F sand, some silt, moist		2	6	Collected soil sample D6-2B-1.0' at 0.5 to 1.0 ft bgl.
1	- wet	SM			
2					
3					
4					



NOTES:
1. Boring augered to a depth of 1.8 ft bgl.
2. Collected groundwater sample D6-2B using a peristaltic pump and polyethylene tubing.
3. Boring was backfilled with hydrated bentonite chips and base rock.

MFG, Inc.

consulting scientists and engineers

LOG OF BORING D6-6B

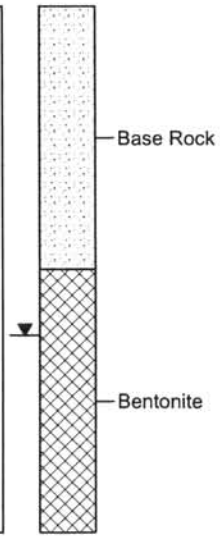
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

MFG Project No. 030275.23

Drilling Agency	: MFG, Inc.	Logged By	: Matt Hillyard
Drilling Method	: Stainless steel hand auger	Reviewed By	: Mike Tietze
Sampler Type	: Stainless Steel Drive Sampler and Slide Hammer		
Sampling Method	: Stainless Steel Liners		
Ground Elevation	: Not Surveyed		

Date Started: June 8, 2004
Date Finished: June 8, 2004

Depth in Feet	DESCRIPTION	USCS	Samples	Recovery (inches)	REMARKS
0	SANDY SILT: v dk grey (10YR 3/1); some F sand, few rootlets, moist	ML	1	6	Collected soil sample D6-6B-0.5' at 0.0 to 0.5 ft bgl.
	SILTY SAND: dk grey (10YR 4/1); F sand, some silt, few rootlets, moist		2	6	Collected soil sample D6-6B-1.0' at 0.5 to 1.0 ft bgl.
1	- wet	SM			
2					
3					
4					



NOTES:
1. Boring augered to a depth of 2.0 ft bgl.
2. Collected groundwater sample D6-6B using a peristaltic pump and polyethylene tubing.
3. Boring was backfilled with hydrated bentonite chips and base rock.

MFG, Inc.

consulting scientists and engineers

LOG OF BORING D6-10B

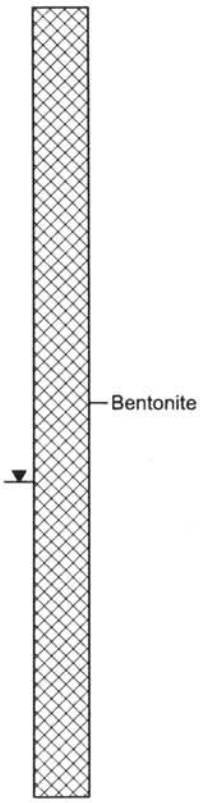
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

MFG Project No. 030275.23

Drilling Agency	: MFG, Inc.	Logged By	: Matt Hillyard
Drilling Method	: Stainless steel hand auger	Reviewed By	: Mike Tietze
Sampler Type	: Stainless Steel Drive Sampler and Slide Hammer		
Sampling Method	: Stainless Steel Liners		
Ground Elevation	: Not Surveyed		

Date Started: June 8, 2004
Date Finished: June 8, 2004

Depth in Feet	DESCRIPTION	USCS	Samples	Recovery (inches)	REMARKS
0	SILT WITH SAND: v dk grey (10YR 3/1); little F sand, few rootlets, moist	ML	1	6	Collected soil sample D6-10B-0.5' at 0.0 to 0.5 ft bgl.
			2	6	Collected soil sample D6-10B-1.0' at 0.5 to 1.0 ft bgl.
1	SAND: dk grey (10YR 4/1); F sand, few silt, moist	SP			
	- wet				
2					
3					
4					



NOTES:
1. Boring augered to a depth of 3.0 ft bgl.
2. Collected groundwater sample D6-10B using a peristaltic pump and polyethylene tubing.
3. Boring was backfilled with hydrated bentonite chips.

MFG, Inc.

consulting scientists and engineers

LOG OF BORING D6-23B

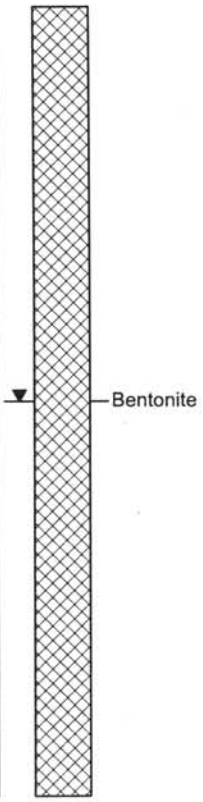
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

MFG Project No. 030275.23

Drilling Agency	: MFG, Inc.	Logged By	: Matt Hillyard
Drilling Method	: Stainless steel hand auger	Reviewed By	: Mike Tietze
Sampler Type	: Stainless steel hand auger		
Sampling Method	: Stainless Steel Liners		
Ground Elevation	: Not Surveyed		

Date Started: June 8, 2004
Date Finished: June 8, 2004

Depth in Feet	DESCRIPTION	USCS	Samples	Recovery (inches)	REMARKS
0	SANDY SILT: v dk grey (10YR 3/1); some F sand, few rootlets, moist.	ML	1	6	Collected soil sample D6-23B-0.5' at 0.0 to 0.5 ft bgl.
	SILTY SAND: dk grey (10YR 4/1); F sand, some silt, few rootlets, moist.		2	6	Collected soil sample D6-23B-1.0' at 0.5 to 1.0 ft bgl.
1		SM			
2					
3					
4					



NOTES:
1. Boring augered to a depth of 1.0 ft bgl.
2. Approximately 6 inches of surface water was present at boring D6-23B. A groundwater sample was collected from an additional boring located approximately 1 foot north of the edge of standing water. Boring was extended to a depth of approximately 3 ft bgl and groundwater was encountered at approximately 1.5 ft bgl.
3. Collected groundwater sample D6-23B using a peristaltic pump and polyethylene tubing.
4. Borings were backfilled with hydrated bentonite chips.

MFG, Inc.

consulting scientists and engineers

LOG OF BORING D6-25B

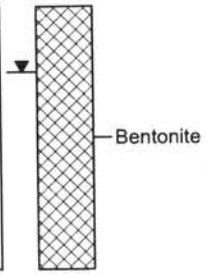
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

MFG Project No. 030275.23

Drilling Agency	: MFG, Inc.	Logged By	: Matt Hillyard
Drilling Method	: Stainless steel hand auger	Reviewed By	: Mike Tietze
Sampler Type	: Stainless steel hand auger		
Sampling Method	: Stainless Steel Liners		
Ground Elevation	: Not Surveyed		

Date Started: June 8, 2004
Date Finished: June 8, 2004

Depth in Feet	DESCRIPTION	USCS	Samples	Recovery (inches)	REMARKS
0	SILTY SAND: dk grey (10YR 4/1); some silt, few rootlets, moist - wet	SM	1	6	Collected soil sample D6-25B-0.5' at 0.0 to 0.5 ft bgl.
			2	6	Collected soil sample D6-25B-1.0' at 0.5 to 1.0 ft bgl.
1	NOTES: 1. Boring augered to a depth of 1.0 ft bgl. 2. Approximately 6 inches of surface water was present at boring D6-25B. A groundwater sample was collected from an additional boring located approximately 1 foot north of the edge of standing water. Boring was extended to a depth of approximately 0.8 ft bgl and groundwater was encountered at approximately 0.25 ft bgl. 3. Collected groundwater sample D6-25B using a peristaltic pump and polyethylene tubing. 4. Borings were backfilled with hydrated bentonite chips.				
2					
3					
4					



APPENDIX C

Laboratory Analytical Reports – Soil Samples

FILE 9329

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

June 28, 2004

RECEIVED 7/6/2004

TASK 20 - DITCH 6

WATER SAMPLES

Ross Steenson, Project Manager
Geomatrix Consultants, Inc.
2101 Webster Street, 12th Floor
Oakland, CA 94612

Dear Mr. Steenson:

Included are the results from the testing of material submitted on June 10, 2004 from the SPI Arcata, 030275.23, F&BI 406096 project. There are 28 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Charlene Morrow

Charlene Morrow
Chemist

Enclosures
GMC062.8R DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on June 10, 2004 by Friedman & Bruya, Inc. from the Geomatrix Consultants, Inc. SPI Arcata, 030275.23, F&BI 406096 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Geomatrix Consultants, Inc.
406096-01	SDP-1B
406096-02	D6-2B
406096-03	D6-6B
406096-04	D6-10B
406096-05	D6-15B
406096-06	D6-23B
406096-07	D6-25B

For diesel and motor oil range TPH analyses, surrogate recoveries for several samples were out of established control limits due to emulsions during sample extraction. For analysis of VOCs methylene chloride was detected in several samples. This is likely due to laboratory contamination. In addition, for VOC analysis, RPD results for two compounds were out of established control limits. Those compounds were not detected in the samples, therefore sample results are not affected. All other quality control requirements were acceptable.

Samples were sent to North Creek Analytical for oil and grease analysis. Review of the enclosed report indicates that all quality assurance was acceptable.

Date of Report: 06/28/04
Date Received: 06/10/04
Project: SPI Arcata, 030275.23, F&BI 406096
Date Extracted: 06/14/04
Date Analyzed: 06/15/04

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL USING EPA METHOD 8015M

Results Reported as µg/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Surrogate (% Recovery) (Limit 59-126)
SDP-1B 406096-01	170 J	50 ip
D6-2B 406096-02	1,300	78
D6-6B 406096-03	1,100	88
D6-10B 406096-04	620	70
D6-15B 406096-05	340 J	49 ip
D6-23B 406096-06	140	80
D6-25B 406096-07	100	86
Method Blank	<50	82

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

Date of Report: 06/28/04
Date Received: 06/10/04
Project: SPI Arcata, 030275.23, F&BI 406096
Date Extracted: 06/14/04
Date Analyzed: 06/18/04 and 06/21/04

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL USING EPA METHOD 8015M
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
Results Reported as µg/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Surrogate (% Recovery) (Limit 59-126)
SDP-1B 406096-01	<50 uJ	48 ip
D6-2B 406096-02	<50	85
D6-6B 406096-03	360	86
D6-10B 406096-04	<50	72
D6-15B 406096-05	<50 uJ	46 ip
D6-23B 406096-06	<50	75
D6-25B 406096-07	<50	76
Method Blank	<50	73

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

Date of Report: 06/28/04
Date Received: 06/10/04
Project: SPI Arcata, 030275.23, F&BI 406096
Date Extracted: 06/14/04
Date Analyzed: 06/15/04

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL USING EPA METHOD 8015M

Results Reported as µg/L (ppb)

Sample ID Laboratory ID	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
SDP-1B 406096-01	800	63
D6-2B 406096-02	810	96
D6-6B 406096-03	2,100	105
D6-10B 406096-04	880	85
D6-15B 406096-05	730	59
D6-23B 406096-06	650	96
D6-25B 406096-07	280	96
Method Blank	<250	65

Date of Report: 06/28/04
Date Received: 06/10/04
Project: SPI Arcata, 030275.23, F&BI 406096
Date Extracted: 06/14/04
Date Analyzed: 06/18/04 and 06/21/04

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL USING EPA METHOD 8015M
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
Results Reported as µg/L (ppb)

Sample ID Laboratory ID	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
SDP-1B 406096-01	370	56
D6-2B 406096-02	<250	81
D6-6B 406096-03	930	65
D6-10B 406096-04	<250	71
D6-15B 406096-05	340 J	48 ip
D6-23B 406096-06	260	76
D6-25B 406096-07	<250	50
Method Blank	<250	73

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	SDP-1B	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23. F&BI 406096
Date Extracted:	06/16/04	Lab ID:	406096-01
Date Analyzed:	06/19/04	Data File:	061837.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	98	50	150
1,2-Dichloroethane-d4	88	50	150
Toluene-d8	104	50	150
4-Bromofluorobenzene	105	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	Tetrachloroethene	<1
Chloromethane	<1	Dibromochloromethane	<1
Vinyl chloride	<1	1,2-Dibromoethane (EDB)	<1
Bromomethane	<1	Chlorobenzene	<1
Chloroethane	<1	Ethylbenzene	<1
Trichlorofluoromethane	<1	1,1,1,2-Tetrachloroethane	<1
Acetone	<10	m,p-Xylene	<2
1,1-Dichloroethene	<1	o-Xylene	<1
Methylene chloride	18 lc 184	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon Tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<1	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<2
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1
1,3-Dichloropropane	<1		

lc - The presence of the compound indicated is likely due to laboratory contamination.

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	D6-2B	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406096
Date Extracted:	06/16/04	Lab ID:	406096-02
Date Analyzed:	06/19/04	Data File:	061841.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	100	50	150
1,2-Dichloroethane-d4	84	50	150
Toluene-d8	104	50	150
4-Bromofluorobenzene	102	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	Tetrachloroethene	<1
Chloromethane	<1	Dibromochloromethane	<1
Vinyl chloride	<1	1,2-Dibromoethane (EDB)	<1
Bromomethane	<1	Chlorobenzene	<1
Chloroethane	<1	Ethylbenzene	<1
Trichlorofluoromethane	<1	1,1,1,2-Tetrachloroethane	<1
Acetone	<10	m,p-Xylene	<2
1,1-Dichloroethene	<1	o-Xylene	<1
Methylene chloride	10 lc	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon Tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<1	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<2
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1
1,3-Dichloropropane	<1		

lc - The presence of the compound indicated is likely due to laboratory contamination.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	D6-6B	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406096
Date Extracted:	06/16/04	Lab ID:	406096-03
Date Analyzed:	06/19/04	Data File:	061840.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	100	50	150
1,2-Dichloroethane-d4	83	50	150
Toluene-d8	105	50	150
4-Bromofluorobenzene	104	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	Tetrachloroethene	<1
Chloromethane	<1	Dibromochloromethane	<1
Vinyl chloride	<1	1,2-Dibromoethane (EDB)	<1
Bromomethane	<1	Chlorobenzene	<1
Chloroethane	<1	Ethylbenzene	<1
Trichlorofluoromethane	<1	1,1,1,2-Tetrachloroethane	<1
Acetone	<10	m,p-Xylene	<2
1,1-Dichloroethene	<1	o-Xylene	<1
Methylene chloride	12 lc 124	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon Tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<1	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<2
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1
1,3-Dichloropropane	<1		

lc - The presence of the compound indicated is likely due to laboratory contamination.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	D6-10B	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406096
Date Extracted:	06/16/04	Lab ID:	406096-04 rr
Date Analyzed:	06/22/04	Data File:	062126.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	107	50	150
1,2-Dichloroethane-d4	86	50	150
Toluene-d8	109	50	150
4-Bromofluorobenzene	104	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	Tetrachloroethene	<1
Chloromethane	<1	Dibromochloromethane	<1
Vinyl chloride	<1	1,2-Dibromoethane (EDB)	<1
Bromomethane	<1	Chlorobenzene	<1
Chloroethane	<1	Ethylbenzene	<1
Trichlorofluoromethane	<1	1,1,1,2-Tetrachloroethane	<1
Acetone	<10	m,p-Xylene	<2
1,1-Dichloroethene	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon Tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<1	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<2
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1
1,3-Dichloropropane	<1		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	D6-15B	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406096
Date Extracted:	06/16/04	Lab ID:	406096-05
Date Analyzed:	06/19/04	Data File:	061839.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	99	50	150
1,2-Dichloroethane-d4	82	50	150
Toluene-d8	104	50	150
4-Bromofluorobenzene	104	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	Tetrachloroethene	<1
Chloromethane	<1	Dibromochloromethane	<1
Vinyl chloride	<1	1,2-Dibromoethane (EDB)	<1
Bromomethane	<1	Chlorobenzene	<1
Chloroethane	<1	Ethylbenzene	<1
Trichlorofluoromethane	<1	1,1,1,2-Tetrachloroethane	<1
Acetone	<10	m,p-Xylene	<2
1,1-Dichloroethene	<1	o-Xylene	<1
Methylene chloride	17 lc 174	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon Tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<1	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<2
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1
1,3-Dichloropropane	<1		

lc - The presence of the compound indicated is likely due to laboratory contamination.

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	D6-23B	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406096
Date Extracted:	06/16/04	Lab ID:	406096-06 rr
Date Analyzed:	06/22/04	Data File:	062127.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	106	50	150
1,2-Dichloroethane-d4	80	50	150
Toluene-d8	110	50	150
4-Bromofluorobenzene	105	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	Tetrachloroethene	<1
Chloromethane	<1	Dibromochloromethane	<1
Vinyl chloride	<1	1,2-Dibromoethane (EDB)	<1
Bromomethane	<1	Chlorobenzene	<1
Chloroethane	<1	Ethylbenzene	<1
Trichlorofluoromethane	<1	1,1,1,2-Tetrachloroethane	<1
Acetone	<10	m,p-Xylene	<2
1,1-Dichloroethene	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon Tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<1	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<2
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1
1,3-Dichloropropane	<1		

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	D6-25B	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406096
Date Extracted:	06/16/04	Lab ID:	406096-07 rr
Date Analyzed:	06/22/04	Data File:	062128.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	105	50	150
1,2-Dichloroethane-d4	78	50	150
Toluene-d8	111	50	150
4-Bromofluorobenzene	107	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	Tetrachloroethene	<1
Chloromethane	<1	Dibromochloromethane	<1
Vinyl chloride	<1	1,2-Dibromoethane (EDB)	<1
Bromomethane	<1	Chlorobenzene	<1
Chloroethane	<1	Ethylbenzene	<1
Trichlorofluoromethane	<1	1,1,1,2-Tetrachloroethane	<1
Acetone	<10	m,p-Xylene	<2
1,1-Dichloroethene	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon Tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<1	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<2
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1
1,3-Dichloropropane	<1		

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	Method Blank	Client:	Geomatrix Consultants, Inc.
Date Received:	Not Applicable	Project:	SPI Arcata, 030275.23, F&BI 406096
Date Extracted:	06/16/04	Lab ID:	04-619 mb2 rr
Date Analyzed:	06/19/04	Data File:	061820.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	95	50	150
1,2-Dichloroethane-d4	91	50	150
Toluene-d8	102	50	150
4-Bromofluorobenzene	102	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	Tetrachloroethene	<1
Chloromethane	<1	Dibromochloromethane	<1
Vinyl chloride	<1	1,2-Dibromoethane (EDB)	<1
Bromomethane	<1	Chlorobenzene	<1
Chloroethane	<1	Ethylbenzene	<1
Trichlorofluoromethane	<1	1,1,1,2-Tetrachloroethane	<1
Acetone	<10	m,p-Xylene	<2
1,1-Dichloroethene	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon Tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<1	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<2
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1
1,3-Dichloropropane	<1		

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	SDP-1B	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406096
Date Extracted:	06/14/04	Lab ID:	406096-01
Date Analyzed:	06/15/04	Data File:	061507.D
Matrix:	Water	Instrument:	GCMS3
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	38	37	129
Benzo(a)anthracene-d12	61	28	145

Compounds:	Concentration: ug/L (ppb)
Naphthalene	<0.1
Acenaphthylene	<0.1
Acenaphthene	<0.1
Fluorene	<0.1
Phenanthrene	<0.1
Anthracene	<0.1
Fluoranthene	<0.1
Pyrene	<0.1
Benz(a)anthracene	<0.1
Chrysene	<0.1
Benzo(b)fluoranthene	<0.1
Benzo(k)fluoranthene	<0.1
Benzo(a)pyrene	<0.1
Indeno(1,2,3-cd)pyrene	<0.1
Dibenzo(a,h)anthracene	<0.1
Benzo(g,h,i)perylene	<0.1

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	D6-2B	Client.	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406096
Date Extracted:	06/14/04	Lab ID:	406096-02
Date Analyzed:	06/15/04	Data File:	061508.D
Matrix:	Water	Instrument:	GCMS3
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	52	37	129
Benzo(a)anthracene-d12	87	28	145

Compounds:	Concentration: ug/L (ppb)
Naphthalene	<0.1
Acenaphthylene	<0.1
Acenaphthene	<0.1
Fluorene	<0.1
Phenanthrene	<0.1
Anthracene	<0.1
Fluoranthene	<0.1
Pyrene	<0.1
Benz(a)anthracene	<0.1
Chrysene	<0.1
Benzo(b)fluoranthene	<0.1
Benzo(k)fluoranthene	<0.1
Benzo(a)pyrene	<0.1
Indeno(1,2,3-cd)pyrene	<0.1
Dibenzo(a,h)anthracene	<0.1
Benzo(g,h,i)perylene	<0.1

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	D6-6B	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406096
Date Extracted:	06/14/04	Lab ID:	406096-03
Date Analyzed:	06/15/04	Data File:	061509.D
Matrix:	Water	Instrument:	GCMS3
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	53	37	129
Benzo(a)anthracene-d12	86	28	145

Compounds:	Concentration: ug/L (ppb)
Naphthalene	<0.1
Acenaphthylene	<0.1
Acenaphthene	<0.1
Fluorene	<0.1
Phenanthrene	<0.1
Anthracene	<0.1
Fluoranthene	<0.1
Pyrene	<0.1
Benz(a)anthracene	<0.1
Chrysene	<0.1
Benzo(b)fluoranthene	<0.1
Benzo(k)fluoranthene	<0.1
Benzo(a)pyrene	<0.1
Indeno(1,2,3-cd)pyrene	<0.1
Dibenzo(a,h)anthracene	<0.1
Benzo(g,h,i)perylene	<0.1

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	D6-10B	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406096
Date Extracted:	06/14/04	Lab ID:	406096-04
Date Analyzed:	06/15/04	Data File:	061510.D
Matrix:	Water	Instrument:	GCMS3
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	53	37	129
Benzo(a)anthracene-d12	89	28	145

Compounds:	Concentration: ug/L (ppb)
Naphthalene	<0.1
Acenaphthylene	<0.1
Acenaphthene	<0.1
Fluorene	<0.1
Phenanthrene	<0.1
Anthracene	<0.1
Fluoranthene	<0.1
Pyrene	<0.1
Benz(a)anthracene	<0.1
Chrysene	<0.1
Benzo(b)fluoranthene	<0.1
Benzo(k)fluoranthene	<0.1
Benzo(a)pyrene	<0.1
Indeno(1,2,3-cd)pyrene	<0.1
Dibenzo(a,h)anthracene	<0.1
Benzo(g,h,i)perylene	<0.1

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	D6-15B	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406096
Date Extracted:	06/14/04	Lab ID:	406096-05
Date Analyzed:	06/15/04	Data File:	061511.D
Matrix:	Water	Instrument:	GCMS3
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	37	37	129
Benzo(a)anthracene-d12	63	28	145

Compounds:	Concentration: ug/L (ppb)
Naphthalene	<0.1
Acenaphthylene	<0.1
Acenaphthene	<0.1
Fluorene	<0.1
Phenanthrene	<0.1
Anthracene	<0.1
Fluoranthene	<0.1
Pyrene	<0.1
Benz(a)anthracene	<0.1
Chrysene	<0.1
Benzo(b)fluoranthene	<0.1
Benzo(k)fluoranthene	<0.1
Benzo(a)pyrene	<0.1
Indeno(1,2,3-cd)pyrene	<0.1
Dibenzo(a,h)anthracene	<0.1
Benzo(g,h,i)perylene	<0.1

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	D6-23B	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406096
Date Extracted:	06/14/04	Lab ID:	406096-06
Date Analyzed:	06/15/04	Data File:	061512.D
Matrix:	Water	Instrument:	GCMS3
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	45	37	129
Benzo(a)anthracene-d12	77	28	145

Compounds:	Concentration: ug/L (ppb)
Naphthalene	<0.1
Acenaphthylene	<0.1
Acenaphthene	<0.1
Fluorene	<0.1
Phenanthrene	<0.1
Anthracene	<0.1
Fluoranthene	<0.1
Pyrene	<0.1
Benz(a)anthracene	<0.1
Chrysene	<0.1
Benzo(b)fluoranthene	<0.1
Benzo(k)fluoranthene	<0.1
Benzo(a)pyrene	<0.1
Indeno(1,2,3-cd)pyrene	<0.1
Dibenzo(a,h)anthracene	<0.1
Benzo(g,h,i)perylene	<0.1

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	D6-25B	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406096
Date Extracted:	06/14/04	Lab ID:	406096-07
Date Analyzed:	06/15/04	Data File:	061513.D
Matrix:	Water	Instrument:	GCMS3
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	52	37	129
Benzo(a)anthracene-d12	87	28	145

Compounds:	Concentration: ug/L (ppb)
Naphthalene	<0.1
Acenaphthylene	<0.1
Acenaphthene	<0.1
Fluorene	<0.1
Phenanthrene	<0.1
Anthracene	<0.1
Fluoranthene	<0.1
Pyrene	<0.1
Benz(a)anthracene	<0.1
Chrysene	<0.1
Benzo(b)fluoranthene	<0.1
Benzo(k)fluoranthene	<0.1
Benzo(a)pyrene	<0.1
Indeno(1,2,3-cd)pyrene	<0.1
Dibenzo(a,h)anthracene	<0.1
Benzo(g,h,i)perylene	<0.1

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	Method Blank	Client:	Geomatrix Consultants, Inc.
Date Received:	Not Applicable	Project:	SPI Arcata, 030275.23, F&BI 406096
Date Extracted:	06/14/04	Lab ID:	04-612 mb
Date Analyzed:	06/15/04	Data File:	061506.D
Matrix:	Water	Instrument:	GCMS3
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	54	37	129
Benzo(a)anthracene-d12	87	28	145

Compounds:	Concentration: ug/L (ppb)
Naphthalene	<0.1
Acenaphthylene	<0.1
Acenaphthene	<0.1
Fluorene	<0.1
Phenanthrene	<0.1
Anthracene	<0.1
Fluoranthene	<0.1
Pyrene	<0.1
Benz(a)anthracene	<0.1
Chrysene	<0.1
Benzo(b)fluoranthene	<0.1
Benzo(k)fluoranthene	<0.1
Benzo(a)pyrene	<0.1
Indeno(1,2,3-cd)pyrene	<0.1
Dibenzo(a,h)anthracene	<0.1
Benzo(g,h,i)perylene	<0.1

Date of Report: 06/28/04
Date Received: 06/10/04
Project: SPI Arcata, 030275.23, F&BI 406096

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL USING EPA METHOD 8015M

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel	µg/L (ppb)	2,500	105	112	77-135	6

Date of Report: 06/28/04
Date Received: 06/10/04
Project: SPI Arcata, 030275.23, F&BI 406096

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL USING EPA METHOD 8015M

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel	µg/L (ppb)	2,500	99	100	77-135	1

Date of Report: 06/28/04
Date Received: 06/10/04
Project: SPI Arcata, 030275.23, F&BI 406096

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL USING EPA METHOD 8015M

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Motor Oil	µg/L (ppb)	5,000	101	102	70-130	1

Date of Report: 06/28/04
Date Received: 06/10/04
Project: SPI Arcata, 030275.23, F&BI 406096

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL USING EPA METHOD 8015M

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Motor Oil	µg/L (ppb)	5.000	82	86	70-130	5

Date of Report: 06/28/04
Date Received: 06/10/04
Project: SPI Arcata, 030275.23, F&BI 406096

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: 406137-03 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
1,1-Dichloroethene	µg/L (ppb)	<1	<1	nm
Methyl t-butyl ether (MTBE)	µg/L (ppb)	<1	<1	nm
1,2-Dichloroethane (EDC)	µg/L (ppb)	<1	<1	nm
1,1-Dichloropropene	µg/L (ppb)	<1	<1	nm
Benzene	µg/L (ppb)	33	29	13
Trichloroethene	µg/L (ppb)	<1	<1	nm
1,2-Dichloropropane	µg/L (ppb)	<1	<1	nm
cis-1,3-Dichloropropene	µg/L (ppb)	<1	<1	nm
Toluene	µg/L (ppb)	4	2	67 a
trans-1,3-Dichloropropene	µg/L (ppb)	<1	<1	nm
1,1,2-Trichloroethane	µg/L (ppb)	<1	<1	nm
1,3-Dichloropropane	µg/L (ppb)	<1	<1	nm
1,2-Dibromoethane (EDB)	µg/L (ppb)	<1	<1	nm
Chlorobenzene	µg/L (ppb)	<1	<1	nm
Ethylbenzene	µg/L (ppb)	9	6	40 vo
1,1,1,2-Tetrachloroethane	µg/L (ppb)	<1	<1	nm
m,p-Xylene	µg/L (ppb)	4	3	29 a
Styrene	µg/L (ppb)	<1	<1	nm
Bromobenzene	µg/L (ppb)	<1	<1	nm
1,3,5-Trimethylbenzene	µg/L (ppb)	<1	<1	nm
1,1,2,2-Tetrachloroethane	µg/L (ppb)	<1	<1	nm
1,2,3-Trichloropropane	µg/L (ppb)	<1	<1	nm
1,2,4-Trimethylbenzene	µg/L (ppb)	2	1	67 a
p-Isopropyltoluene	µg/L (ppb)	<1	<1	nm
1,2-Dibromo-3-chloropropane	µg/L (ppb)	<1	<1	nm
1,2,4-Trichlorobenzene	µg/L (ppb)	<1	<1	nm
Hexachlorobutadiene	µg/L (ppb)	<1	<1	nm
Naphthalene	µg/L (ppb)	<1	<1	nm
1,2,3-Trichlorobenzene	µg/L (ppb)	<1	<1	nm

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

vo - The value reported fell outside the control limits established for this analyte.

Date of Report: 06/28/04
Date Received: 06/10/04
Project: SPI Arcata, 030275.23, F&BI 406096

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
1,1-Dichloroethene	µg/L (ppb)	50	78	82	70-130	4
Methyl t-butyl ether (MTBE)	µg/L (ppb)	50	90	95	70-130	5
1,2-Dichloroethane (EDC)	µg/L (ppb)	50	86	108	70-130	23 vo
1,1-Dichloropropene	µg/L (ppb)	50	83	86	70-130	4
Benzene	µg/L (ppb)	100	88	93	70-130	6
Trichloroethene	µg/L (ppb)	100	87	96	70-130	10
1,2-Dichloropropane	µg/L (ppb)	50	92	98	70-130	7
cis-1,3-Dichloropropene	µg/L (ppb)	50	97	104	70-130	7
Toluene	µg/L (ppb)	100	92	94	70-130	1
trans-1,3-Dichloropropene	µg/L (ppb)	50	96	101	70-130	5
1,1,2-Trichloroethane	µg/L (ppb)	50	97	93	70-130	3
1,3-Dichloropropane	µg/L (ppb)	50	95	94	70-130	1
1,2-Dibromoethane (EDB)	µg/L (ppb)	50	96	93	70-130	4
Chlorobenzene	µg/L (ppb)	50	96	98	70-130	2
Ethylbenzene	µg/L (ppb)	50	95	101	70-130	6
1,1,1,2-Tetrachloroethane	µg/L (ppb)	50	97	104	70-130	7
m,p-Xylene	µg/L (ppb)	50	94	96	70-130	2
Styrene	µg/L (ppb)	50	98	102	70-130	3
Bromobenzene	µg/L (ppb)	50	101	96	70-130	6
1,3,5-Trimethylbenzene	µg/L (ppb)	50	102	101	70-130	1
1,1,2,2-Tetrachloroethane	µg/L (ppb)	50	98	87	70-130	12
1,2,3-Trichloropropane	µg/L (ppb)	50	97	90	70-130	7
1,2,4-Trimethylbenzene	µg/L (ppb)	50	100	100	70-130	0
p-Isopropyltoluene	µg/L (ppb)	50	102	101	70-130	1
1,2-Dibromo-3-chloropropane	µg/L (ppb)	50	98	93	70-130	5
1,2,4-Trichlorobenzene	µg/L (ppb)	50	86	82	70-130	5
Hexachlorobutadiene	µg/L (ppb)	50	88	87	70-130	1
Naphthalene	µg/L (ppb)	50	87	76	70-130	14
1,2,3-Trichlorobenzene	µg/L (ppb)	50	89	83	70-130	7

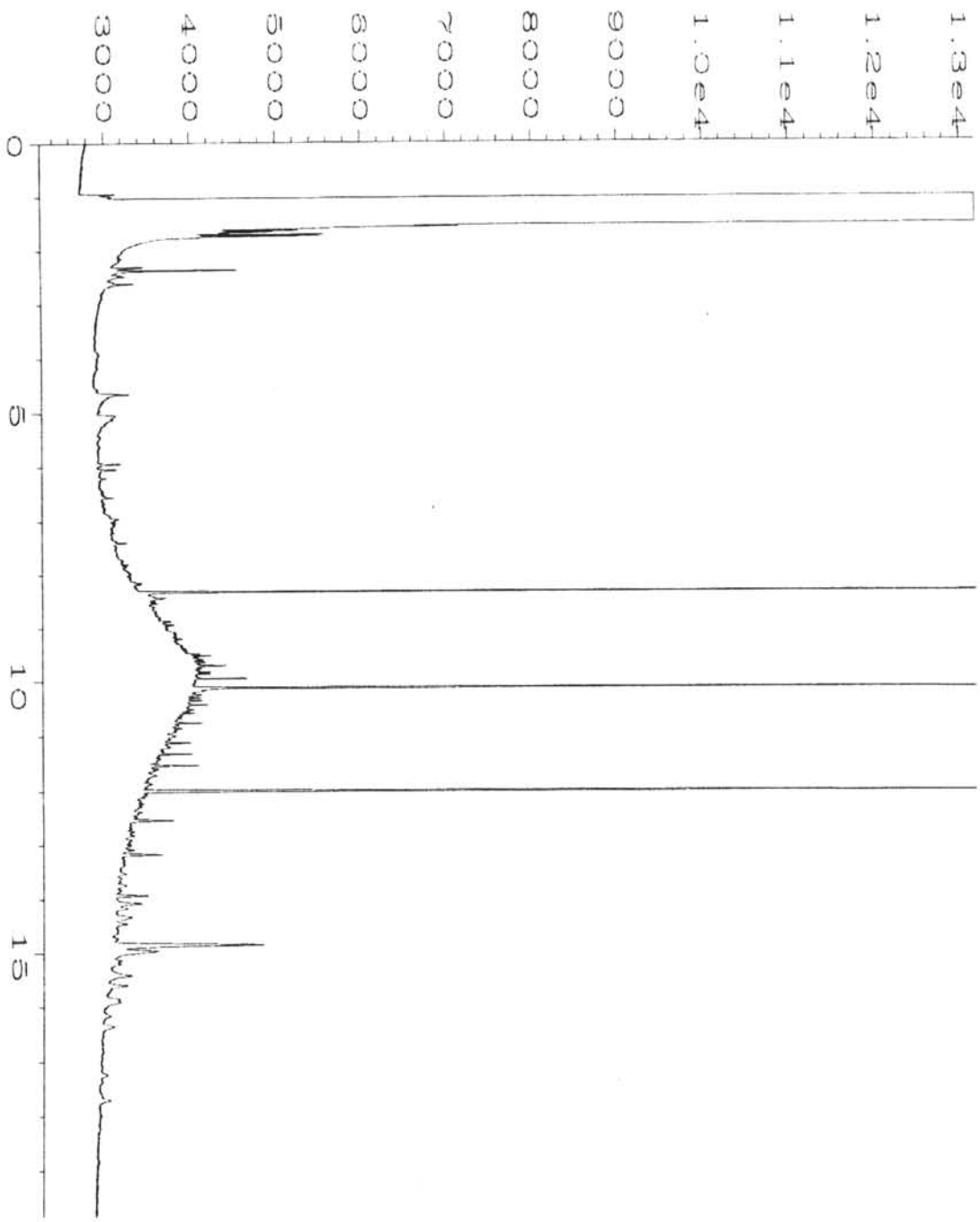
vo - The value reported fell outside the control limits established for this analyte.

Date of Report: 06/28/04
Date Received: 06/10/04
Project: SPI Arcata, 030275.23, F&BI 406096

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR PNA'S BY EPA METHOD 8270C SIM

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	µg/L (ppb)	5	82	84	62-111	3
Acenaphthylene	µg/L (ppb)	5	83	86	65-121	3
Acenaphthene	µg/L (ppb)	5	82	85	66-120	4
Fluorene	µg/L (ppb)	5	83	86	63-120	3
Phenanthrene	µg/L (ppb)	5	80	83	61-121	4
Anthracene	µg/L (ppb)	5	78	81	56-120	4
Fluoranthene	µg/L (ppb)	5	82	85	63-121	3
Pyrene	µg/L (ppb)	5	86	89	66-124	4
Benz(a)anthracene	µg/L (ppb)	5	83	86	58-124	4
Chrysene	µg/L (ppb)	5	84	88	61-119	5
Benzo(b)fluoranthene	µg/L (ppb)	5	87	91	57-137	5
Benzo(k)fluoranthene	µg/L (ppb)	5	84	86	61-130	3
Benzo(a)pyrene	µg/L (ppb)	5	83	86	57-133	3
Indeno(1,2,3-cd)pyrene	µg/L (ppb)	5	85	88	60-127	3
Dibenzo(a,h)anthracene	µg/L (ppb)	5	85	87	63-127	3
Benzo(g,h,i)perylene	µg/L (ppb)	5	84	87	58-124	4



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Instrument : GC #6
Sample Name (WATER) : 406096-01 (SDP 18)
Run Time Bar Code:
Acquired on : 16 Jun 04 06:42 AM
Report Created on: 16 Jun 04 01:53 PM

Page Number : 1
Vial Number : 22
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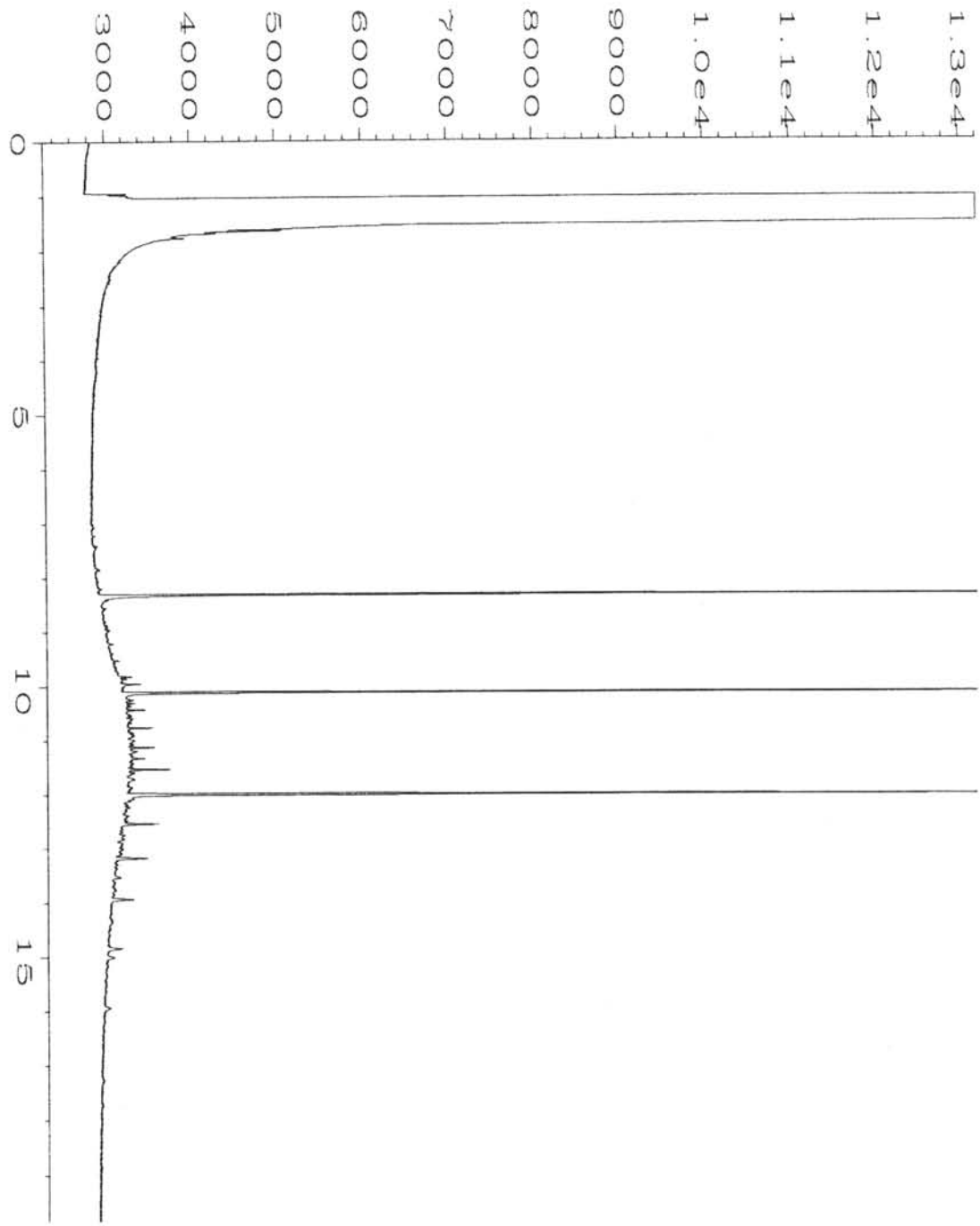
Analysis Method : DEFAULT.MTH



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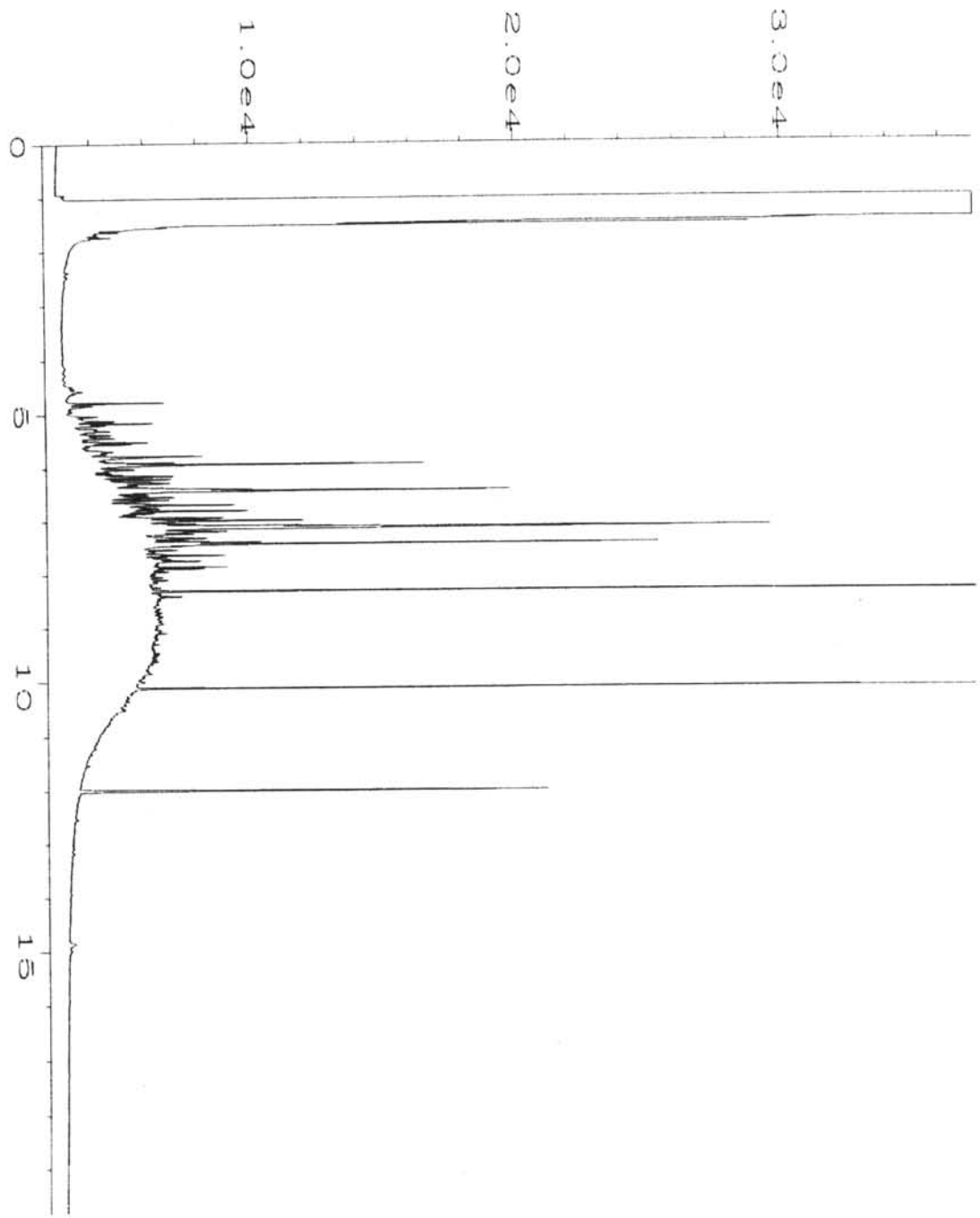
Operator : ME
Instrument : GC #6
Sample Name (WATER) : 406096-01 sg (SDP-18 SILICA GEL)
Run Time Bar Code:
Acquired on : 21 Jun 04 03:16 PM
Report Created on: 22 Jun 04 09:36 AM

Page Number : 1
Vial Number : 16
Injection Number : 1
Sequence Line : 6
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



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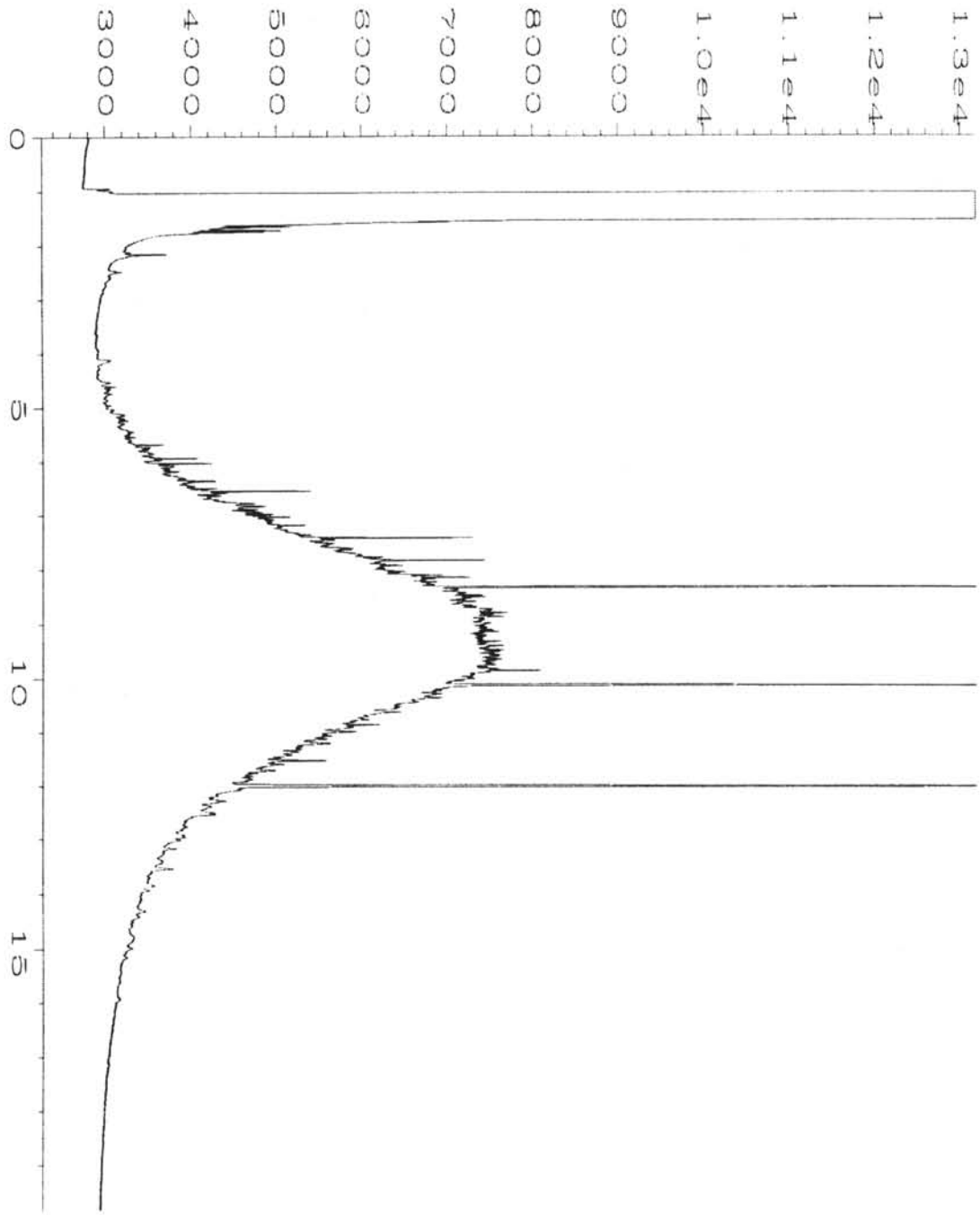
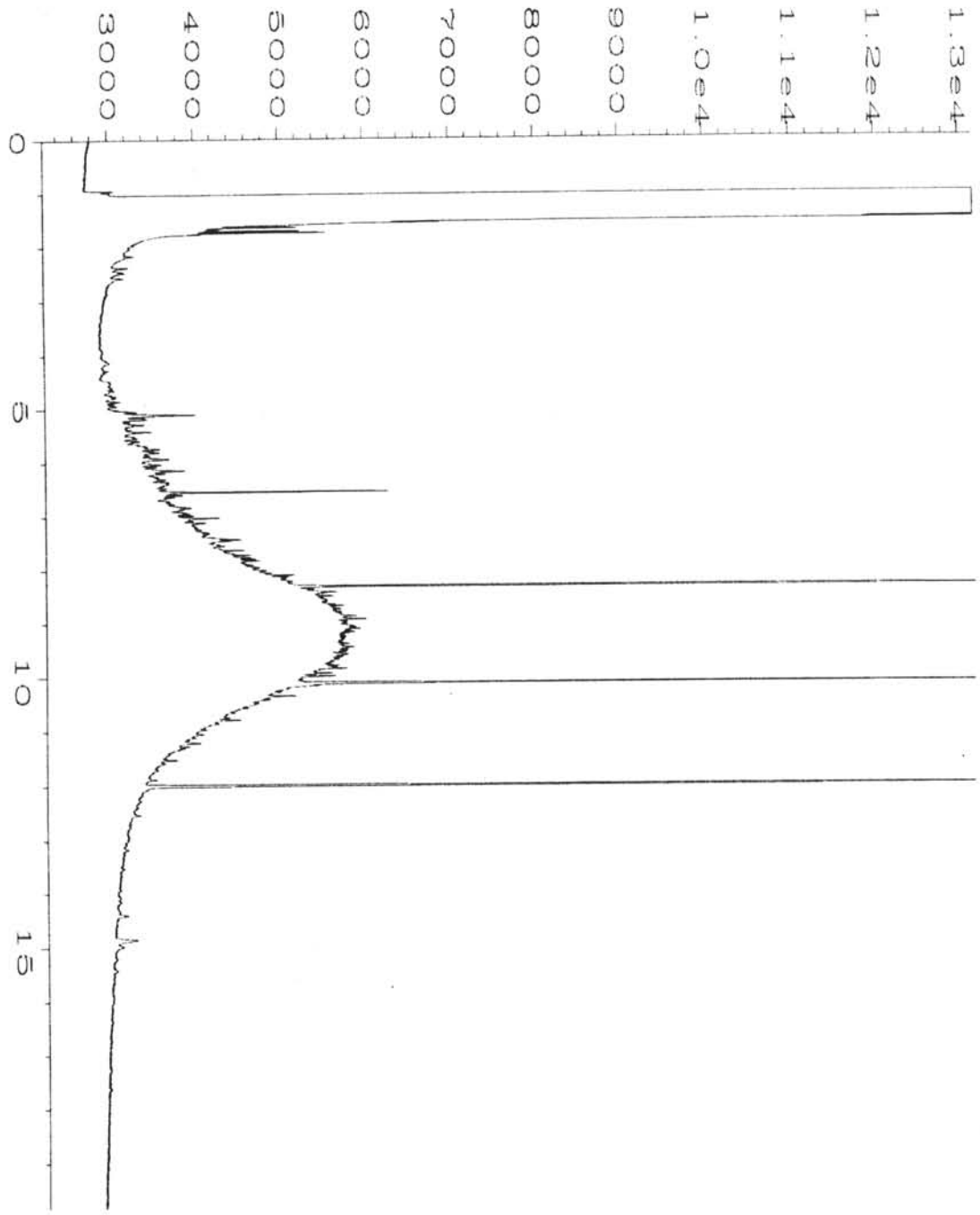
Operator : ME
Instrument : GC #6
Sample Name (WATER) : 406096-02 (D6-28)
Run Time Bar Code:
Acquired on : 16 Jun 04 07:08 AM
Report Created on: 16 Jun 04 01:53 PM

Page Number : 1
Vial Number : 23
Injection Number : 1
Sequence Line : 13
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



Data File Name : D:\GC6\06-15-04\024F1301.D
Operator : ME
Instrument : GC #6
Sample Name (WATER) : 406096-03 (DL-68)
Run Time Bar Code:
Acquired on : 16 Jun 04 07:33 AM
Report Created on: 16 Jun 04 01:53 PM

Page Number : 1
Vial Number : 24
Injection Number : 1
Sequence Line : 13
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



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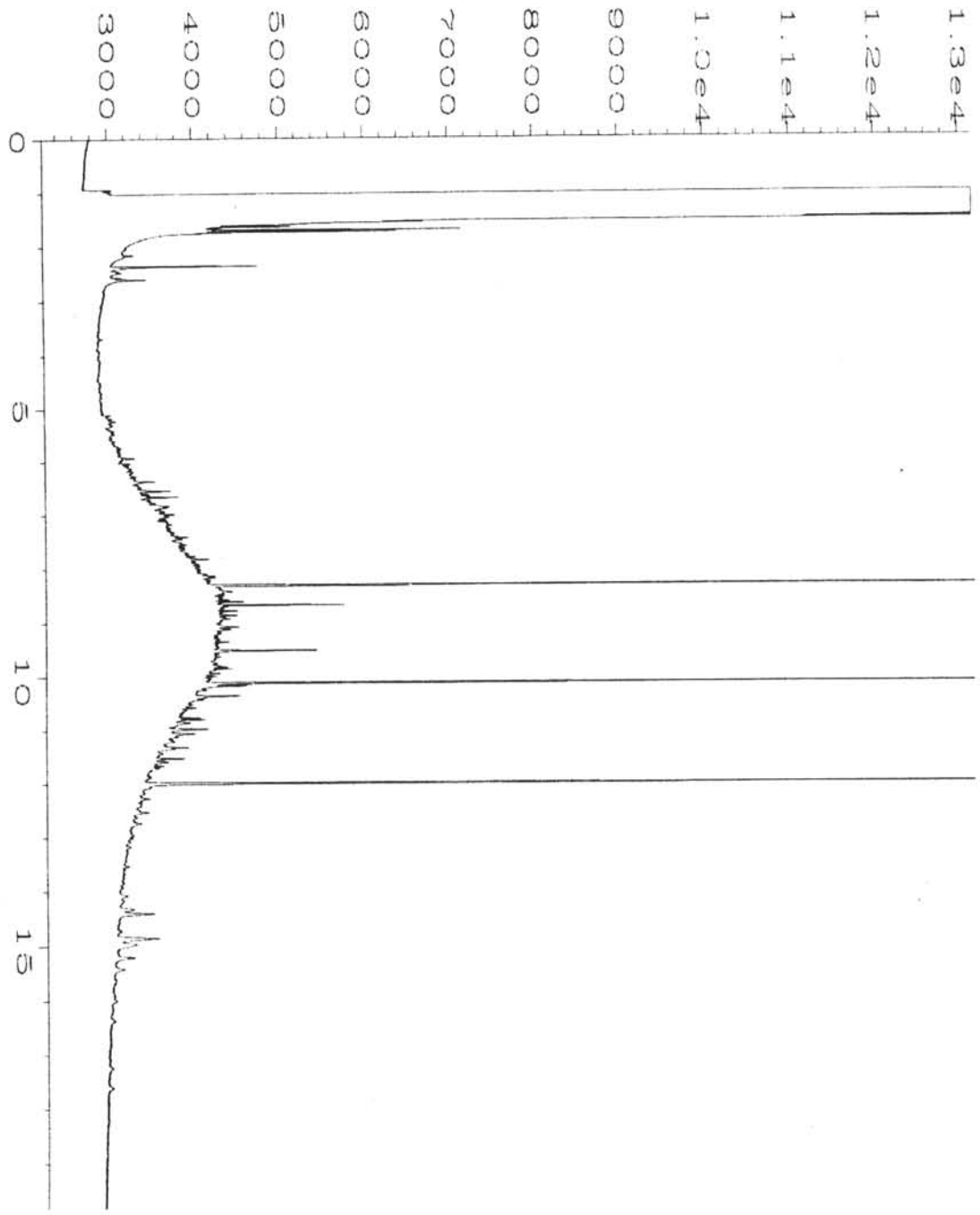
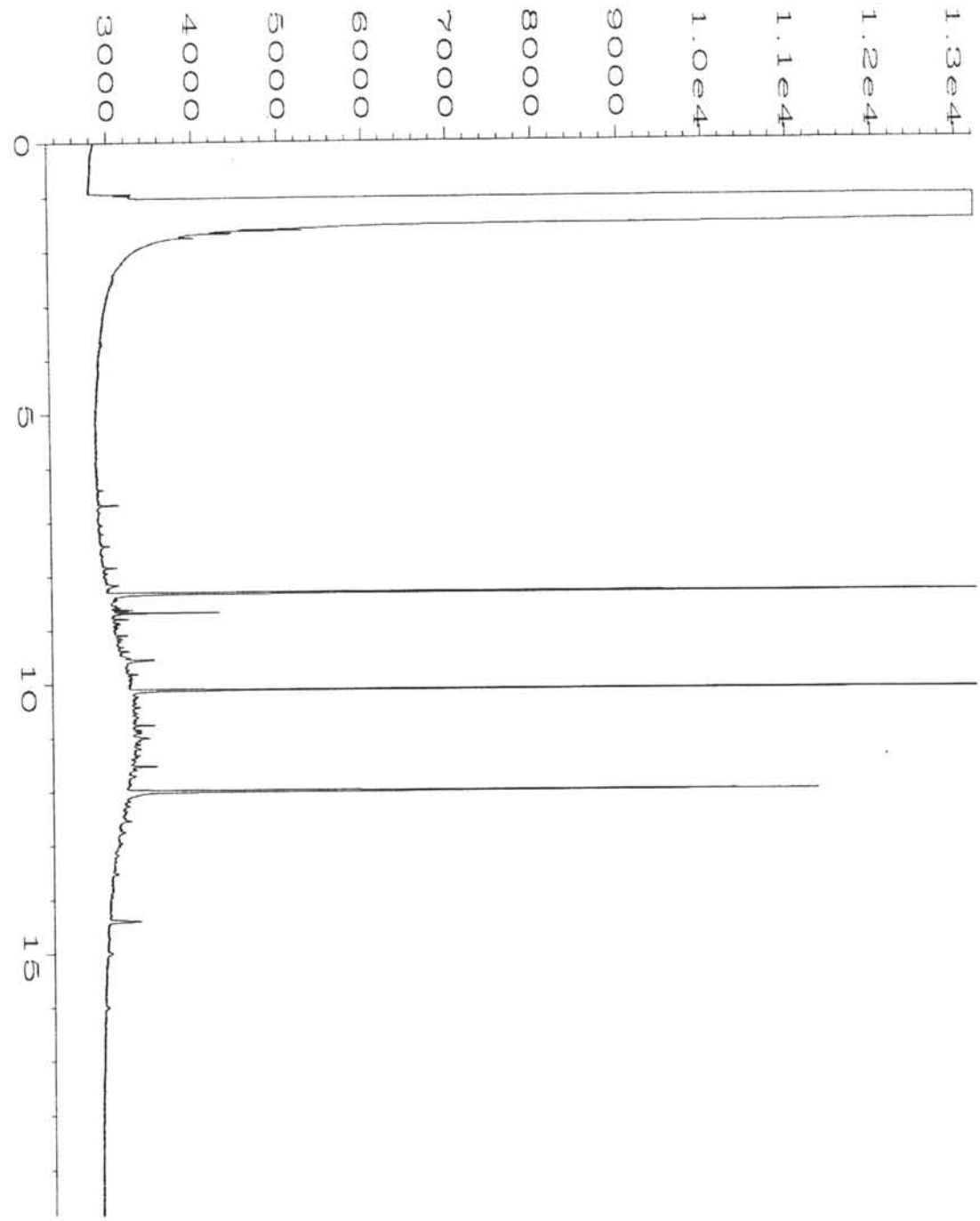
Operator : ME
Instrument : GC #6
Sample Name (WATER) : 406096-04 (D6 - 10 B)
Run Time Bar Code:
Acquired on : 16 Jun 04 07:59 AM
Report Created on: 16 Jun 04 01:53 PM

Page Number : 1
Vial Number : 25
Injection Number : 1
Sequence Line : 13
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



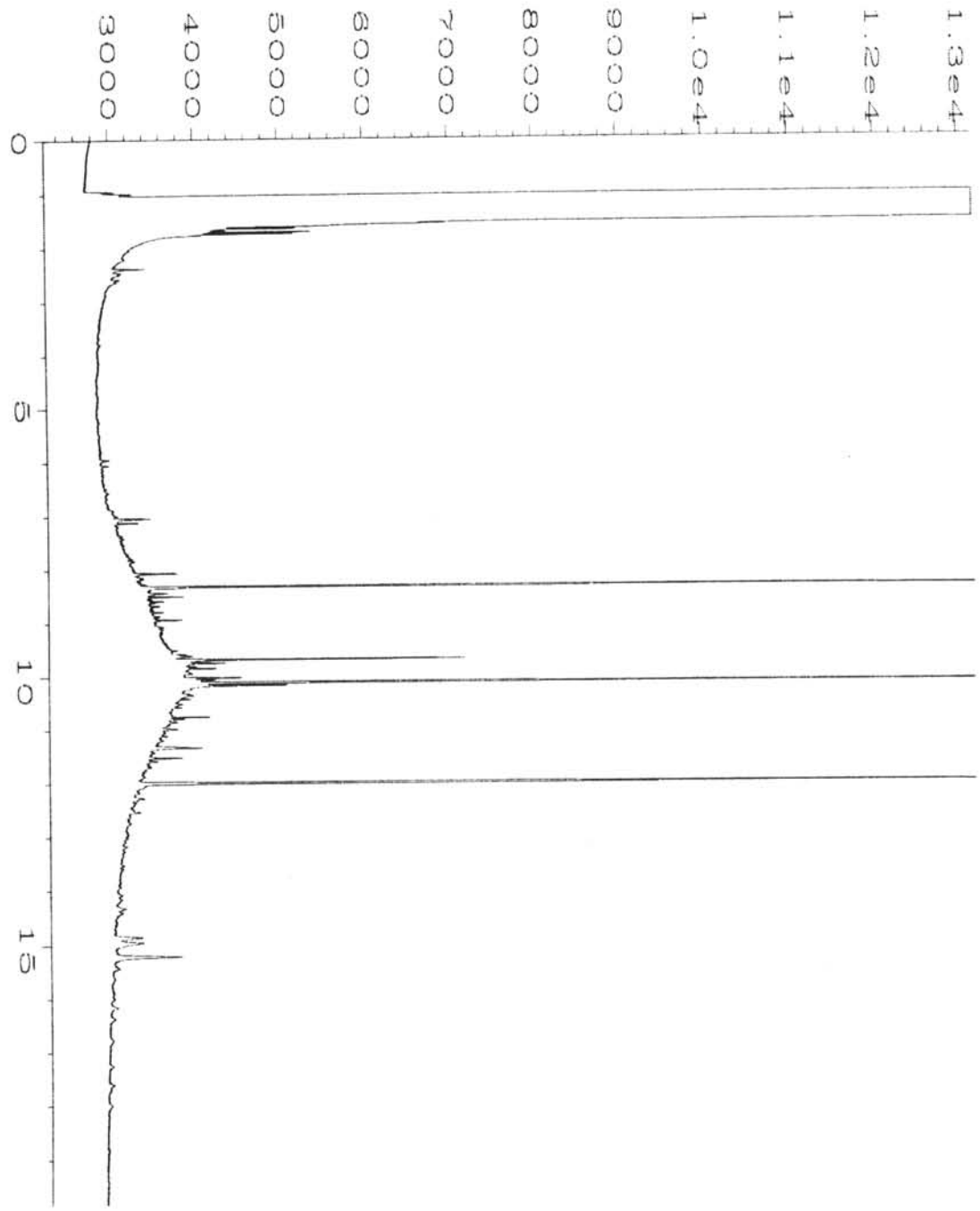
Data File Name : D:\GC6\06-15-04\026F1301.D
Operator : ME
Instrument : GC #6
Sample Name (WATER) : 406096-05 (D6-15B)
Run Time Bar Code:
Acquired on : 16 Jun 04 08:24 AM
Report Created on: 16 Jun 04 01:54 PM

Page Number : 1
Vial Number : 26
Injection Number : 1
Sequence Line : 13
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



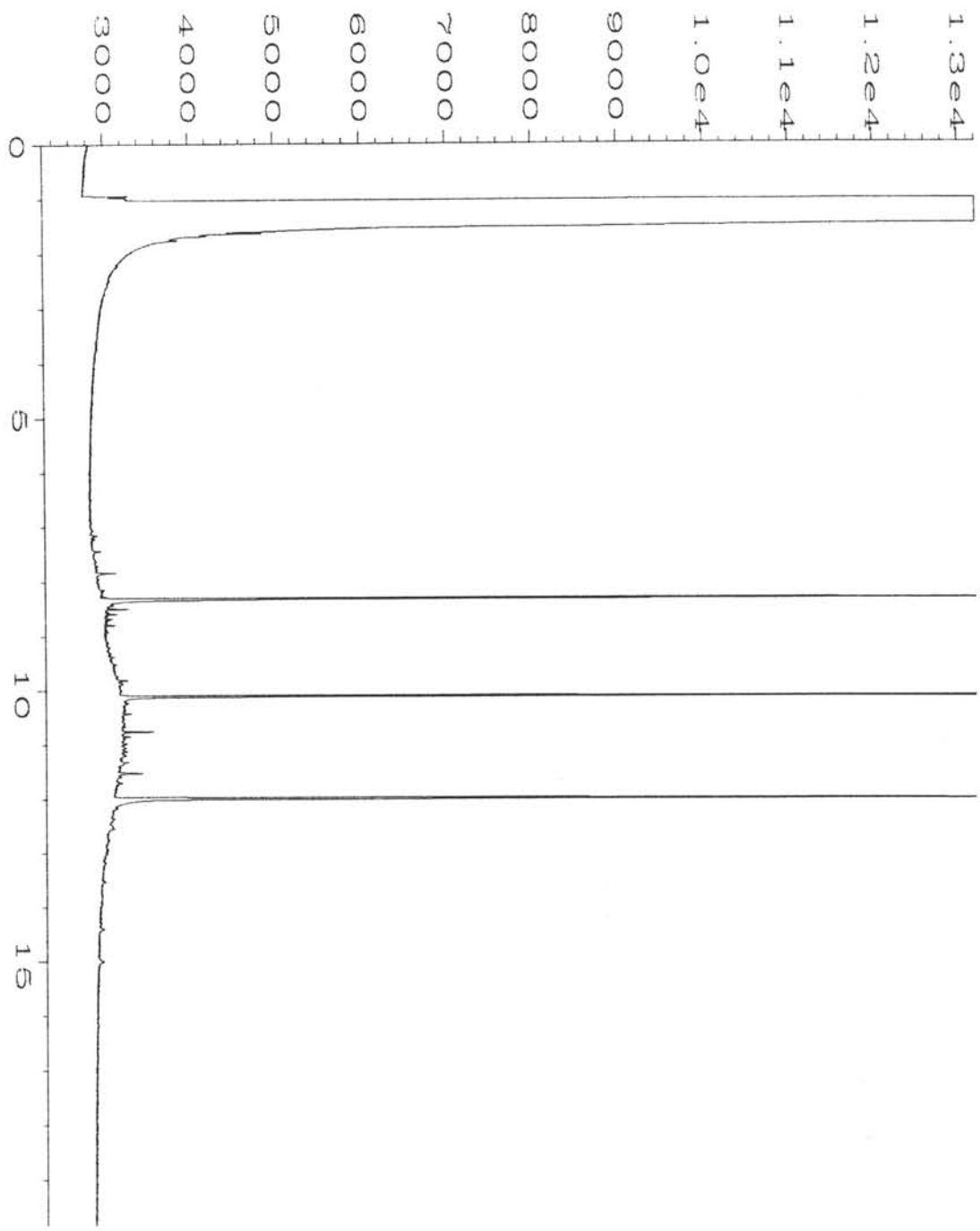
Data File Name : E:\GC6\06-21-04\019F0601.D
Operator : ME
Instrument : GC #6
Sample Name (WATER) : 406096-05 sg (DG-15 B SILICA GEL)
Run Time Bar Code:
Acquired on : 21 Jun 04 04:33 PM
Report Created on: 22 Jun 04 09:37 AM

Page Number : 1
Vial Number : 19
Injection Number : 1
Sequence Line : 6
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



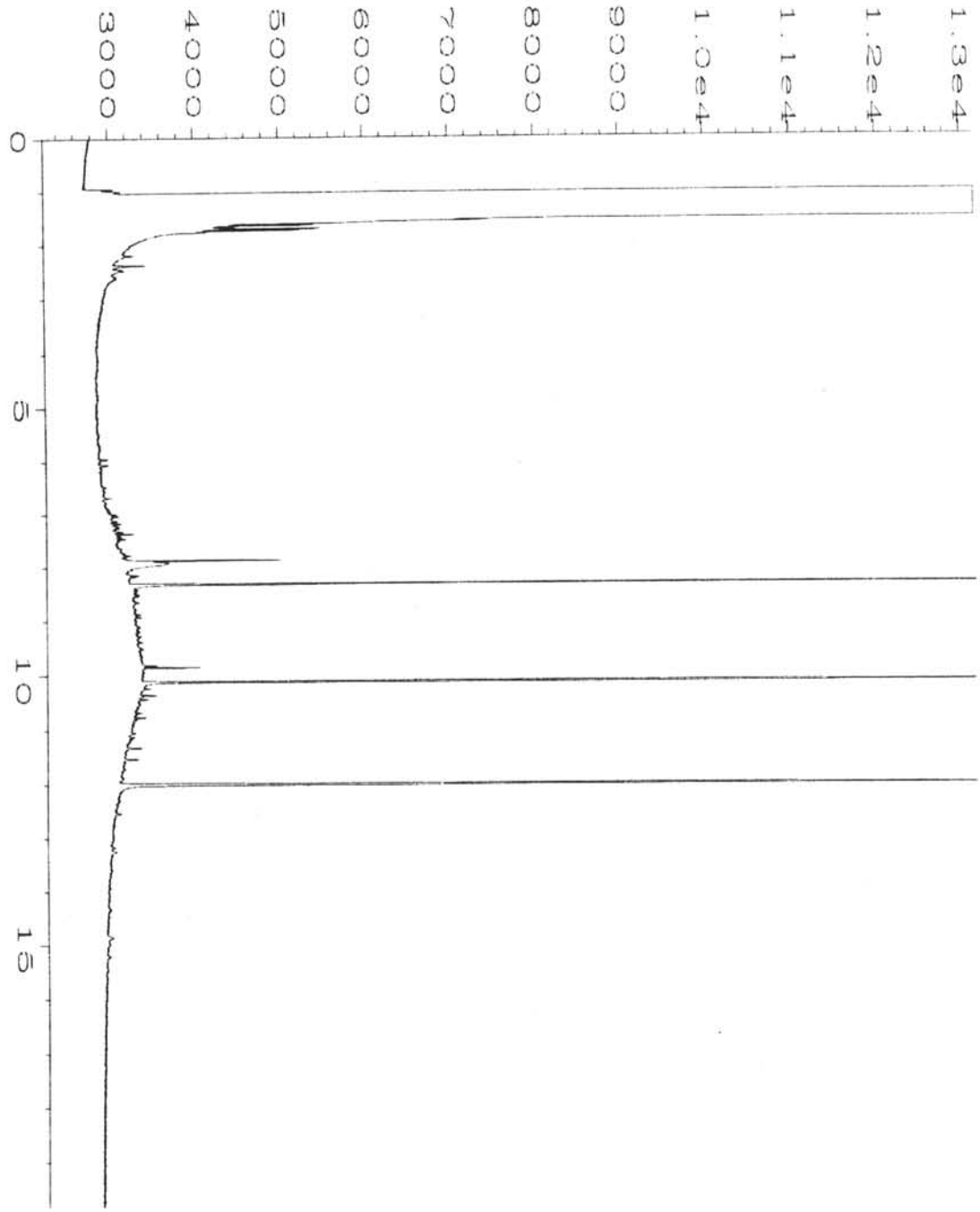
Data File Name : D:\GC6\06-15-04\027F1301.D
Operator : ME
Instrument : GC #6
Sample Name (WATER) : 406096-06 (D6-23F)
Run Time Bar Code:
Acquired on : 16 Jun 04 08:50 AM
Report Created on: 16 Jun 04 01:54 PM

Page Number : 1
Vial Number : 27
Injection Number : 1
Sequence Line : 13
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



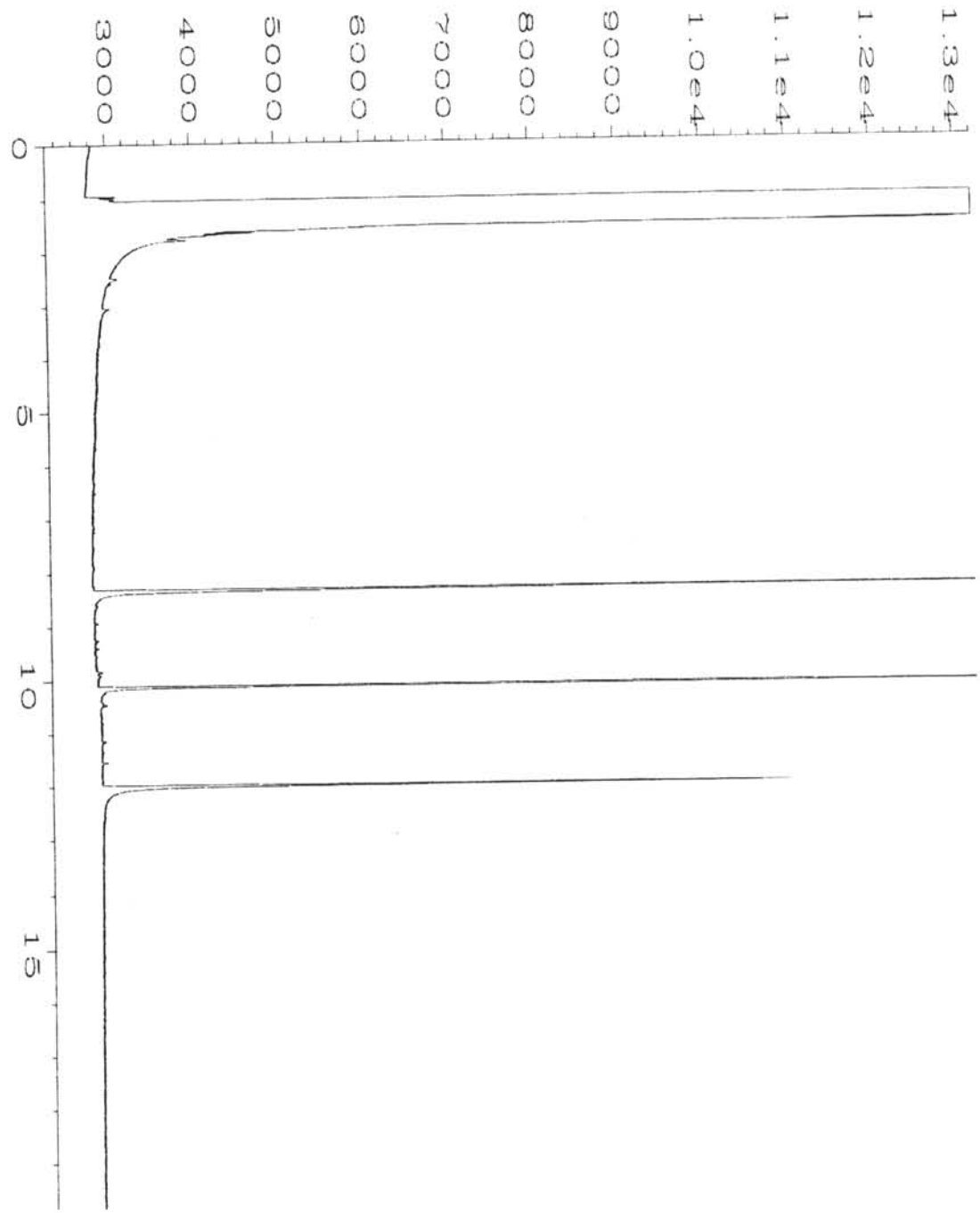
Data File Name : E:\GC6\06-21-04\020F0601.D
Operator : ME
Instrument : GC #6
Sample Name (WATER) : 406096-06 sg (D6-23 D SILICA GEL)
Run Time Bar Code:
Acquired on : 21 Jun 04 04:59 PM
Report Created on: 22 Jun 04 09:37 AM

Page Number : 1
Vial Number : 20
Injection Number : 1
Sequence Line : 6
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



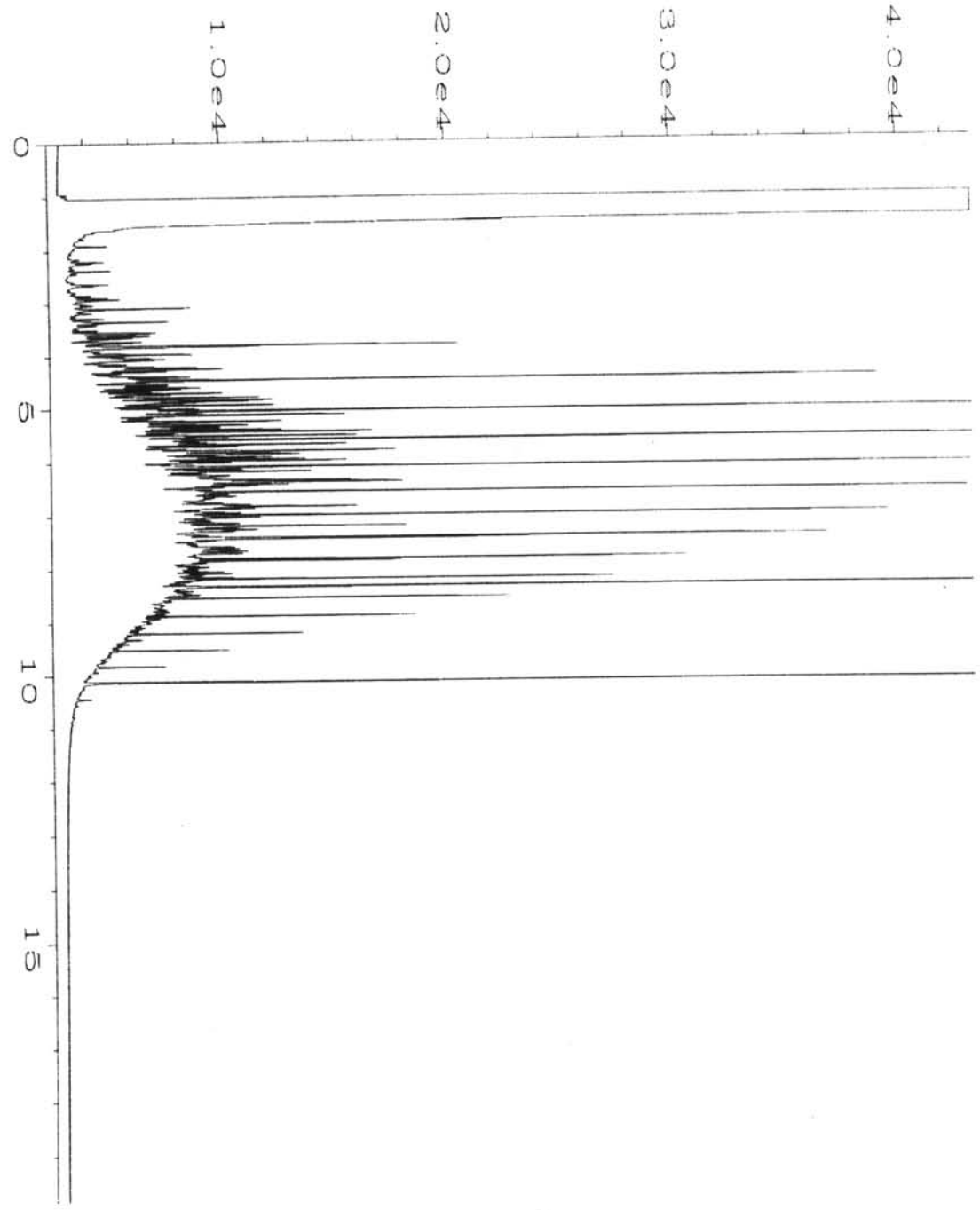
Data File Name : D:\GC6\06-15-04\028F1301.D
Operator : ME
Instrument : GC #6
Sample Name (WATER) : 406096-07 (D6-25 8)
Run Time Bar Code:
Acquired on : 16 Jun 04 09:15 AM
Report Created on: 16 Jun 04 01:54 PM

Page Number : 1
Vial Number : 28
Injection Number : 1
Sequence Line : 13
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



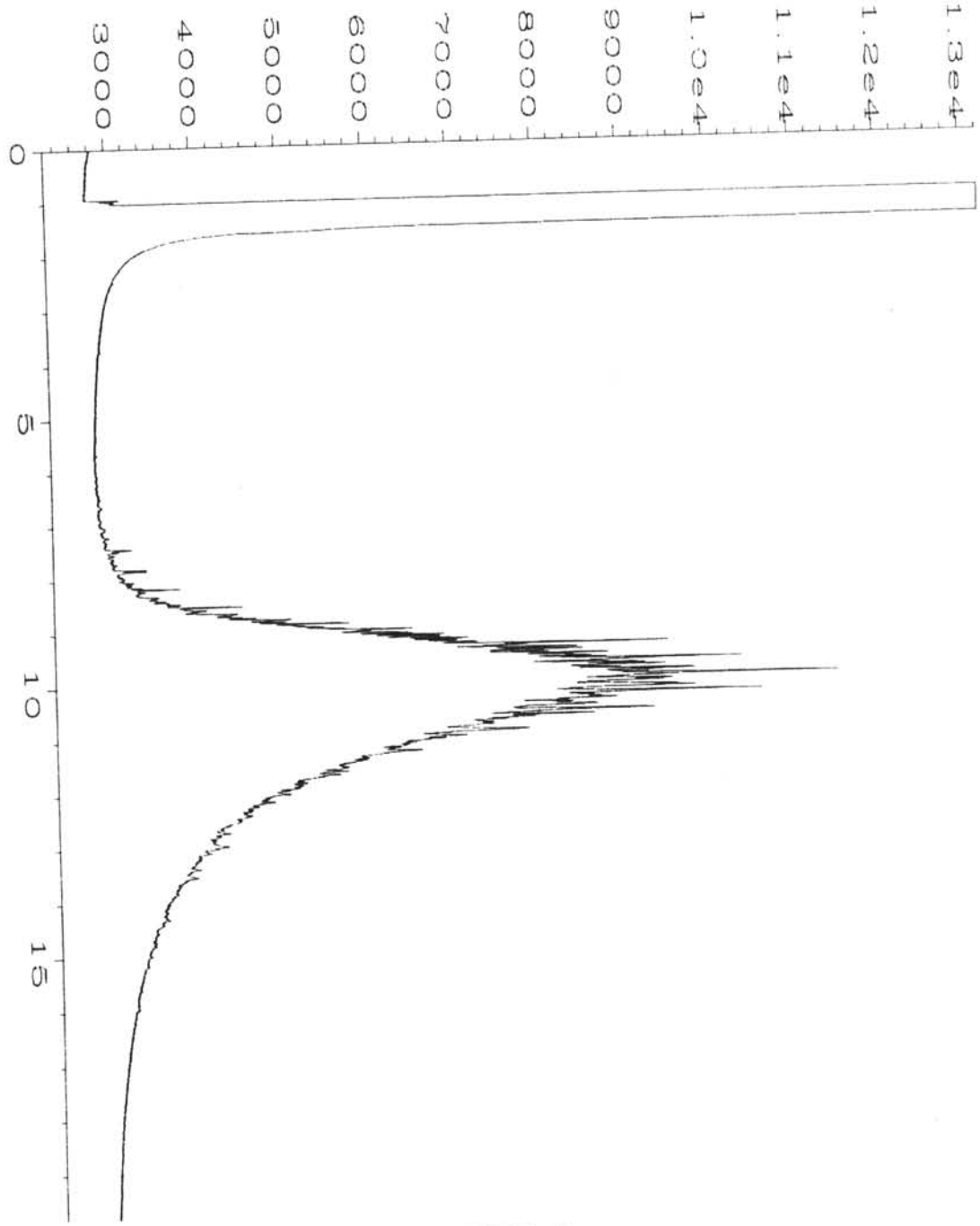
Data File Name : D:\GC6\06-15-04\019F1101.D
Operator : ME
Instrument : GC #6
Sample Name : 04-613 MB (METHOD BLANK)
Run Time Bar Code:
Acquired on : 15 Jun 04 06:54 PM
Report Created on: 16 Jun 04 01:53 PM

Page Number : 1
Vial Number : 19
Injection Number : 1
Sequence Line : 11
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



Data File Name : D:\GC6\06-15-04\002F0201.D
Operator : ME
Instrument : GC #6
Sample Name : 500 WADF 17-43 (Diesel Fuel)
Run Time Bar Code:
Acquired on : 15 Jun 04 08:02 AM
Report Created on: 16 Jun 04 01:52 PM

Page Number : 1
Vial Number : 2
Injection Number : 1
Sequence Line : 2
Instrument Method: TPHD.MTH
Analysis Method : DEFAULT.MTH



Data File Name : D:\GC6\06-15-04\004F0901.D
Operator : ME
Instrument : GC #6
Sample Name : 500 mo (motor oil)
Run Time Bar Code:
Acquired on : 15 Jun 04 03:55 PM
Report Created on: 16 Jun 04 01:52 PM

Page Number : 1
Vial Number : 4
Injection Number : 1
Sequence Line : 9
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH

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907.563.9200 fax 907.563.9210

24 June 2004

Charlene Morrow
Friedman & Bruya
3012 16th Ave W
Seattle, WA/USA 98119-2029
RE: Charlene Morrow

Enclosed are the results of analyses for samples received by the laboratory on 06/10/04 14:35. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeanne Garthwaite
Project Manager

North Creek Analytical, Inc.
Environmental Laboratory Network

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907.563.9200 fax 907.563.9210

Friedman & Bruya 3012 16th Ave W Seattle, WA/USA 98119-2029	Project: Charlene Morrow Project Number: 406096 Project Manager: Charlene Morrow	**Reported:** 06/24/04 12:44

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SDP - 1B	B4F0350-01	Water	06/08/04 10:40	06/10/04 14:35
D6 - 2B	B4F0350-02	Water	06/08/04 11:50	06/10/04 14:35
D6 - 6B	B4F0350-03	Water	06/08/04 13:20	06/10/04 14:35
D6 - 10B	B4F0350-04	Water	06/08/04 13:55	06/10/04 14:35
D6 - 15B	B4F0350-05	Water	06/08/04 14:40	06/10/04 14:35
D6 - 23B	B4F0350-06	Water	06/08/04 15:35	06/10/04 14:35
D6 - 25B	B4F0350-07	Water	06/08/04 16:05	06/10/04 14:35

North Creek Analytical - Bothell

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Jeanne Garthwaite, Project Manager

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907.563.9200 fax 907.563.9210

Friedman & Bruya 3012 16th Ave W Seattle, WA/USA 98119-2029	Project: Charlene Morrow Project Number: 406096 Project Manager: Charlene Morrow	**Reported:** 06/24/04 12:44

Conventional Chemistry Parameters by APHA/EPA Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SDP - 1B (B4F0350-01) Water Sampled: 06/08/04 10:40 Received: 06/10/04 14:35									
Oil & Grease (HEM)	ND	5.00	mg/l	1	4F21016	06/21/04	06/22/04	EPA 1664	
D6 - 2B (B4F0350-02) Water Sampled: 06/08/04 11:50 Received: 06/10/04 14:35									
Oil & Grease (HEM)	ND	5.00	mg/l	1	4F21016	06/21/04	06/22/04	EPA 1664	
D6 - 6B (B4F0350-03) Water Sampled: 06/08/04 13:20 Received: 06/10/04 14:35									
Oil & Grease (HEM)	ND	5.00	mg/l	1	4F21016	06/21/04	06/22/04	EPA 1664	
D6 - 10B (B4F0350-04) Water Sampled: 06/08/04 13:55 Received: 06/10/04 14:35									
Oil & Grease (HEM)	ND	5.00	mg/l	1	4F21016	06/21/04	06/22/04	EPA 1664	
D6 - 15B (B4F0350-05) Water Sampled: 06/08/04 14:40 Received: 06/10/04 14:35									
Oil & Grease (HEM)	ND	5.00	mg/l	1	4F21016	06/21/04	06/22/04	EPA 1664	
D6 - 23B (B4F0350-06) Water Sampled: 06/08/04 15:35 Received: 06/10/04 14:35									
Oil & Grease (HEM)	ND	5.00	mg/l	1	4F21016	06/21/04	06/22/04	EPA 1664	
D6 - 25B (B4F0350-07) Water Sampled: 06/08/04 16:05 Received: 06/10/04 14:35									
Oil & Grease (HEM)	ND	5.00	mg/l	1	4F21016	06/21/04	06/22/04	EPA 1664	

North Creek Analytical - Bothell

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Jeanne Garthwaite, Project Manager

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907.563.9200 fax 907.563.9210

Friedman & Bruya 3012 16th Ave W Seattle, WA/USA 98119-2029	Project: Charlene Morrow Project Number: 406096 Project Manager: Charlene Morrow	**Reported:** 06/24/04 12:44

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4F21016: Prepared 06/21/04 Using Gravimetric (hexane)										
Blank (4F21016-BLK1)										
Oil & Grease (HEM)	ND	5.00	mg/l							
LCS (4F21016-BS1)										
Oil & Grease (HEM)	41.9	5.00	mg/l	40.8		103	78-107			
LCS Dup (4F21016-BSD1)										
Oil & Grease (HEM)	41.3	5.00	mg/l	40.8		101	78-107	1.44	10	

North Creek Analytical - Bothell

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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907.563.9200 fax 907.563.9210

Friedman & Bruya 3012 16th Ave W Seattle, WA/USA 98119-2029	Project: Charlene Morrow Project Number: 406096 Project Manager: Charlene Morrow	**Reported:** 06/24/04 12:44

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

North Creek Analytical - Bothell

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeanne Garthwaite, Project Manager

B4F0350

SAMPLE CHAIN OF CUSTODY

Page # _____ of _____

Send Report To Charlene Morrow

Company F&BI

Address see below

City, State, ZIP

Phone # Fax #

SAMPLERS *(signature)*

PROJECT NAME/NO. 406096

PO # F-528

REMARKS

TURNAROUND TIME
- [x] Standard (2 Weeks)
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [ ] Dispose after 30 days
- [ ] Return samples
- [ ] Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED: O&G by 1664 no silica	Total Hg by 7470/7471	Total As, Cu, Pb, Zn by 6020	TCLP Hg by 7470 (sample is TCLP extract)	Total RCRA Metals by 6020/7470					Notes
SOP-1B	-01	6-8-04	1040	water	2	X									
D6-2B	-02		1150		2	X									
D6-6B	-03		1320		2	X									
D6-10B	-04		1355		2	X									
D6-15B	-05		1440		2	X									
D6-23B	-06		1535		2	X									
D6-25B	-07	↓	1605	↓	2	X									
															Samples were not @2-6c upon receipt

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Charlene Morrow	Charlene Morrow	F&BI	6-10-04	1130
Received by: Penny Tong	PENNY TONG	NCA	6/10/04	1435
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

11.2 WD

406046 CM 06/10/04 CAS/V3/

MFG, INC.

CHAIN-OF-CUSTODY RECORD AND REQUEST FOR ANALYSIS

COC No. 46283

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Lynnwood, WA 98036
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Fax (425) 921-4040

PROJECT NO: 050275.23 PROJECT NAME: SFI Arcata PAGE: 1 OF: 3

SAMPLER (Signature): Matt Hilyard PROJECT MANAGER: Ross Steenson DATE: 6/9/04

METHOD OF SHIPMENT: Fed Ex CARRIER/WAYBILL NO: _____ DESTINATION: Friedman + Bruya

Lab ID	Field Sample Identification	SAMPLES: Sample DATE	TIME	Matrix*	Preservation: HCl	HNO_3	H_2SO_4	COLD	FILTRATION*	Containers: VOLUME (ml/oz)	TYPE*	NO.	ANALYSIS REQUEST: Constituents/Method: TPH-D/MO 8015A SGCU	TPH-D/8015 SGCU	PAHs 8270 SIM	Handling: HOLD	RUSH	STANDARD	Remarks
01 A-C	SDP-1B	6/8	1040	AQ				X	U	500ml	G	3	X	X	X			X	
02 A-C	D6-2B		1150																
03 A-C	D6-6B		1320																
04 A-C	D6-10B		1355																
05 A-C	D6-15B		1440																
06 A-C	D6-23B		1535																
07 A-C	D6-25B		1605																

TOTAL NUMBER OF CONTAINERS 21

LABORATORY COMMENTS/CONDITION OF SAMPLES Cooler Temp:

RELINQUISHED BY: SIGNATURE	PRINTED NAME	COMPANY	DATE	TIME	RECEIVED BY: SIGNATURE	PRINTED NAME	COMPANY
Matt Hilyard	Matt Hilyard	MFG	6/9/04	1530		Khan Than	Friedman & Bruya 6/10/04 09:40
							LABORATORY

*KEY Matrix: AQ - aqueous WA - nonaqueous SO - soil SL - sludge P - petroleum A - air OT - other Containers: P - plastic G - glass T - teflon B - brass OT - other Filtration: F - filtered U - unfiltered

DISTRIBUTION: PINK: Field Copy YELLOW: Laboratory Copy WHITE: Return to Originator

406096

CM 06/10/04

COC/V3

MFG, INC.

CHAIN-OF-CUSTODY RECORD AND REQUEST FOR ANALYSIS

COC No. 46282

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Fax (425) 921-4040

PROJECT NO: 030275.23 PROJECT NAME: SPI Arcata PAGE: 2 OF: 3

SAMPLER (Signature): Matt Hillyard PROJECT MANAGER: Ross Steenson DATE: 6/9/04

METHOD OF SHIPMENT: Fed Ex CARRIER/WAYBILL NO: _____ DESTINATION: Friedman + Bruya

Lab ID	Field Sample Identification	Sample DATE	Sample TIME	Matrix*	Preservation HCl	Preservation HNO_3	Preservation H_2SO_4	Preservation COLD	FILTRATION*	Containers VOLUME (ml/oz)	Containers TYPE*	Containers NO.	Constituents/Method VOCs 8260	Handling HOLD	Handling RUSH	Handling STANDARD	Remarks
01 DF	SDP-1B	6/8	1040	AQ	X			X	N	40ml	G	3	X			X	
02 DF	D6-2B		1650														
03 DF	D6-6B		1320														
04 DF	D6-10B		1355														
05 DF	D6-15B		1440														
06 DF	D6-23B		1535														
07 DF	D6-25B		1605														

TOTAL NUMBER OF CONTAINERS 21

LABORATORY COMMENTS/CONDITION OF SAMPLES Cooler Temp:

RELINQUISHED BY: SIGNATURE	PRINTED NAME	COMPANY	DATE	TIME	RECEIVED BY: SIGNATURE	PRINTED NAME	COMPANY
Matt Hillyard	Matt Hillyard	MFG	6/9/04	1530	[signature]	Nhan Phan	Friedman & Bruya 6/10/04 09:40 LABORATORY

*KEY Matrix: AQ - aqueous WA - nonaqueous SO - soil SL - sludge P - petroleum A - air OT - other Containers: P - plastic G - glass T - tedlar B - brass OT - other Filtration: F - filtered U - unfiltered

DISTRIBUTION: PINK: Field Copy YELLOW: Laboratory Copy WHITE: Return to Originator

406096 CM 06/10/04 CW5/03

MFG, INC. CHAIN-OF-CUSTODY RECORD AND REQUEST FOR ANALYSIS

COC No. 46281

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☐ NJ - Edison, 1090 King Georges Post Rd. Ste. 703, Edison, NJ 08837, Tel (732) 738-5707, Fax (732) 738-5711
☒ Geomatrix, Oakland
☐ OR - Portland, 1020 SW Taylor St. Ste. 530, Portland, OR 97205, Tel (503) 228-8616, Fax (503) 228-8631
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☐ WA - Seattle, 19203 36th Ave. W. Ste. 100, Lynnwood, WA 98036, Tel (425) 921-4000, Fax (425) 921-4040

PROJECT NO: 050275.23 PROJECT NAME: SPI Arcata PAGE: 3 OF: 3
SAMPLER (Signature): Matt Hillyard PROJECT MANAGER: Ross Stevenson DATE:
METHOD OF SHIPMENT: FedEx CARRIER/WAYBILL NO: _____ DESTINATION: Friedman & Bruya

Lab ID	Field Sample Identification	SAMPLES: Sample DATE	TIME	Matrix*	Preservation: HCl	HNO_3	H_2SO_4	COLD	FILTRATION*	Containers: VOLUME (ml/oz)	TYPE*	NO.	ANALYSIS REQUEST: Constituents/Method: 0.1 Tr resp EPA 1664	Handling: HOLD	RUSH	STANDARD	Remarks
01 G-H	SBP-1B	6/8	1040	W			X	X	U	1L	G	2	X			X	
02 G-H	D6-2B		1150														
03 G-H	D6-6B		1320														
04 G-H	D6-10B		1355														
05 G-H	D6-15B		1440														
06 G-H	D6-23B		1535														
07 G-H	D6-25B		1605														

TOTAL NUMBER OF CONTAINERS 14
LABORATORY COMMENTS/CONDITION OF SAMPLES
Cooler Temp:

RELINQUISHED BY: SIGNATURE	PRINTED NAME	COMPANY	DATE	TIME	RECEIVED BY: SIGNATURE	PRINTED NAME	COMPANY
Matt Hillyard	Matt Hillyard	MFG	6/9/04	1530	[signature]	Thao Phan	Friedman & Bruya 6/10/04 / 09:45 LABORATORY

*KEY Matrix: AQ - aqueous NA - nonaqueous SO - soil SL - sludge P - petroleum A - air OT - other Containers: P - plastic G - glass T - teflon B - brass OT - other Filtration: F - filtered U - unfiltered

DISTRIBUTION: PINK: Field Copy YELLOW: Laboratory Copy WHITE: Return to Originator

Page 51

APPENDIX D

Laboratory Analytical Reports – Grab Groundwater Samples

FILE 9329

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
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June 28, 2004

RECEIVED
JUL 6 2004

TASK 20 - DITCH 6
SOIL SAMPLES

Ross Steenson, Project Manager
Geomatrix Consultants, Inc.
2101 Webster Street, 12th Floor
Oakland, CA 94612

Dear Mr. Steenson:

Included are the results from the testing of material submitted on June 10, 2004 from the SPI Arcata, 030275.23, F&BI 406095 project. There are 28 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC

Charlene Morrow

Charlene Morrow
Chemist

Enclosures
GMC0628R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on June 10, 2004 by Friedman & Bruya, Inc. from the Geomatrix Consultants, Inc. SPI Arcata, 030275.23, F&BI 406095 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Geomatrix Consultants, Inc.
406095-01	SDP-1B-0.5
406095-02	D6-2B-0.5
406095-03	D6-6B-0.5
406095-04	D6-10B-0.5
406095-05	D6-15B-0.5
406095-06	D6-23B-0.5
406095-07	D6-25B-0.5
406095-08	SDP-1B-1.0
406095-09	D6-2B-1.0
406095-10	D6-6B-1.0
406095-11	D6-10B-1.0
406095-12	D6-15B-1.0
406095-13	D6-23B-1.0
406095-14	D6-25B-1.0

All quality control requirements were acceptable.

Samples SDP-1B-0.5, D6-2B-0.5, D6-6B-0.5, D6-10B-0.5, D6-15B-0.5, D6-23B-0.5 and D6-25B-0.5 were sent to North Creek Analytical for oil and grease analysis. Review of the enclosed report indicates that all quality assurance was acceptable.

Date of Report: 06/28/04
Date Received: 06/10/04
Project: SPI Arcata, 030275.23, F&BI 406095
Date Extracted: 06/14/04
Date Analyzed: 06/16/04 and 06/17/04

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL USING EPA METHOD 8015M

Results Reported as µg/g (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Surrogate (% Recovery) (Limit 57-136)
SDP-1B-0.5 d 406095-01	660	101
D6-2B-0.5 d 406095-02	300	92
D6-6B-0.5 406095-03	77	108
D6-10B-0.5 406095-04	61	92
D6-15B-0.5 d 406095-05	880	104
D6-23B-0.5 406095-06	37	120
D6-25B-0.5 406095-07	15	114
Method Blank	<10	107

d - The sample was diluted.

Date of Report: 06/28/04
Date Received: 06/10/04
Project: SPI Arcata, 030275.23, F&BI 406095
Date Extracted: 06/14/04
Date Analyzed: 06/17/04 and 06/18/04

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL USING EPA METHOD 8015M
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
Results Reported as µg/g (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Surrogate (% Recovery) (Limit 57-136)
SDP-1B-0.5 d 406095-01	650	97
D6-2B-0.5 d 406095-02	290	106
D6-6B-0.5 406095-03	74	102
D6-10B-0.5 406095-04	61	104
D6-15B-0.5 d 406095-05	990	101
D6-23B-0.5 406095-06	26	100
D6-25B-0.5 406095-07	<10	71
Method Blank	<10	102

d - The sample was diluted.

Date of Report: 06/28/04
Date Received: 06/10/04
Project: SPI Arcata, 030275.23, F&BI 406095
Date Extracted: 06/14/04
Date Analyzed: 06/16/04 and 06/17/04

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL USING EPA METHOD 8015M

Results Reported as µg/g (ppm)

Sample ID Laboratory ID	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
SDP-1B-0.5 d 406095-01	4,500	77
D6-2B-0.5 d 406095-02	2,300	112
D6-6B-0.5 406095-03	620	90
D6-10B-0.5 d 406095-04	430	89
D6-15B-0.5 d 406095-05	3,600	123
D6-23B-0.5 406095-06	190	108
D6-25B-0.5 406095-07	67	113
Method Blank	<50	78

d - The sample was diluted.

Date of Report: 06/28/04
Date Received: 06/10/04
Project: SPI Arcata, 030275.23, F&BI 406095
Date Extracted: 06/14/04
Date Analyzed: 06/17/04 and 06/18/04

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL USING EPA METHOD 8015M
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
Results Reported as µg/g (ppm)

Sample ID Laboratory ID	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
SDP-1B-0.5 d 406095-01	3,800	85
D6-2B-0.5 d 406095-02	1,900	85
D6-6B-0.5 406095-03	540	78
D6-10B-0.5 406095-04	430	89
D6-15B-0.5 d 406095-05	3,200	90
D6-23B-0.5 406095-06	110	85
D6-25B-0.5 406095-07	<50	103
Method Blank	<50	82

d - The sample was diluted.

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	SDP-1B-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406095
Date Extracted:	06/14/04	Lab ID:	406095-08
Date Analyzed:	06/19/04	Data File:	061842.D
Matrix:	Soil	Instrument:	GCMS4
Units:	ug/g (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	80	50	150
1,2-Dichloroethane-d4	67	50	150
Toluene-d8	83	50	150
4-Bromofluorobenzene	81	50	150

Compounds:	Concentration ug/g (ppm)	Compounds:	Concentration ug/g (ppm)
Dichlorodifluoromethane	<0.5	Tetrachloroethene	<0.05
Chloromethane	<0.5	Dibromochloromethane	<0.05
Vinyl chloride	<0.5	1,2-Dibromoethane (EDB)	<0.05
Bromomethane	<0.5	Chlorobenzene	<0.05
Chloroethane	<0.5	Ethylbenzene	<0.05
Trichlorofluoromethane	<1	1,1,1,2-Tetrachloroethane	<0.05
Acetone	<2	m,p-Xylene	<0.1
1,1-Dichloroethene	<0.5	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.06
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<1	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon Tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.03	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.06
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.05
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.05
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.05
1,3-Dichloropropane	<0.05		

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	D6-2B-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406095
Date Extracted:	06/14/04	Lab ID:	406095-09
Date Analyzed:	06/19/04	Data File:	061843.D
Matrix:	Soil	Instrument:	GCMS4
Units:	ug/g (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	77	50	150
1,2-Dichloroethane-d4	67	50	150
Toluene-d8	79	50	150
4-Bromofluorobenzene	78	50	150

Compounds:	Concentration ug/g (ppm)	Compounds:	Concentration ug/g (ppm)
Dichlorodifluoromethane	<0.5	Tetrachloroethene	<0.05
Chloromethane	<0.5	Dibromochloromethane	<0.05
Vinyl chloride	<0.5	1,2-Dibromoethane (EDB)	<0.05
Bromomethane	<0.5	Chlorobenzene	<0.05
Chloroethane	<0.5	Ethylbenzene	<0.05
Trichlorofluoromethane	<1	1,1,1,2-Tetrachloroethane	<0.05
Acetone	<2	m,p-Xylene	<0.1
1,1-Dichloroethene	<0.5	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.06
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<1	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon Tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.03	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.06
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.05
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.05
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.05
1,3-Dichloropropane	<0.05		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	D6-6B-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406095
Date Extracted:	06/14/04	Lab ID:	406095-10
Date Analyzed:	06/19/04	Data File:	061844.D
Matrix:	Soil	Instrument:	GCMS4
Units:	ug/g (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	83	50	150
1,2-Dichloroethane-d4	74	50	150
Toluene-d8	86	50	150
4-Bromofluorobenzene	85	50	150

Compounds:	Concentration ug/g (ppm)	Compounds:	Concentration ug/g (ppm)
Dichlorodifluoromethane	<0.5	Tetrachloroethene	<0.05
Chloromethane	<0.5	Dibromochloromethane	<0.05
Vinyl chloride	<0.5	1,2-Dibromoethane (EDB)	<0.05
Bromomethane	<0.5	Chlorobenzene	<0.05
Chloroethane	<0.5	Ethylbenzene	<0.05
Trichlorofluoromethane	<1	1,1,1,2-Tetrachloroethane	<0.05
Acetone	<2	m,p-Xylene	<0.1
1,1-Dichloroethene	<0.5	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.06
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<1	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon Tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.03	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.06
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.05
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.05
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.05
1,3-Dichloropropane	<0.05		

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	D6-10B-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406095
Date Extracted:	06/14/04	Lab ID:	406095-11
Date Analyzed:	06/19/04	Data File:	061845.D
Matrix:	Soil	Instrument:	GCMS4
Units:	ug/g (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	75	50	150
1,2-Dichloroethane-d4	66	50	150
Toluene-d8	75	50	150
4-Bromofluorobenzene	74	50	150

Compounds:	Concentration ug/g (ppm)	Compounds:	Concentration ug/g (ppm)
Dichlorodifluoromethane	<0.5	Tetrachloroethene	<0.05
Chloromethane	<0.5	Dibromochloromethane	<0.05
Vinyl chloride	<0.5	1,2-Dibromoethane (EDB)	<0.05
Bromomethane	<0.5	Chlorobenzene	<0.05
Chloroethane	<0.5	Ethylbenzene	<0.05
Trichlorofluoromethane	<1	1,1,1,2-Tetrachloroethane	<0.05
Acetone	<2	m,p-Xylene	<0.1
1,1-Dichloroethene	<0.5	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.06
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<1	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon Tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.03	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.06
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.05
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.05
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.05
1,3-Dichloropropane	<0.05		

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	D6-15B-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406095
Date Extracted:	06/14/04	Lab ID:	406095-12
Date Analyzed:	06/19/04	Data File:	061846.D
Matrix:	Soil	Instrument:	GCMS4
Units:	ug/g (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	61	50	150
1,2-Dichloroethane-d4	54	50	150
Toluene-d8	56	50	150
4-Bromofluorobenzene	50	50	150

Compounds:	Concentration ug/g (ppm)	Compounds:	Concentration ug/g (ppm)
Dichlorodifluoromethane	<0.5	Tetrachloroethene	<0.05
Chloromethane	<0.5	Dibromochloromethane	<0.05
Vinyl chloride	<0.5	1,2-Dibromoethane (EDB)	<0.05
Bromomethane	<0.5	Chlorobenzene	<0.05
Chloroethane	<0.5	Ethylbenzene	<0.05
Trichlorofluoromethane	<1	1,1,1,2-Tetrachloroethane	<0.05
Acetone	<2	m,p-Xylene	<0.1
1,1-Dichloroethene	<0.5	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.06
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<1	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon Tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.03	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.06
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.05
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.05
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.05
1,3-Dichloropropane	<0.05		

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	D6-23B-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406095
Date Extracted:	06/14/04	Lab ID:	406095-13
Date Analyzed:	06/19/04	Data File:	061847.D
Matrix:	Soil	Instrument:	GCMS4
Units:	ug/g (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	69	50	150
1,2-Dichloroethane-d4	61	50	150
Toluene-d8	69	50	150
4-Bromofluorobenzene	69	50	150

Compounds:	Concentration ug/g (ppm)	Compounds:	Concentration ug/g (ppm)
Dichlorodifluoromethane	<0.5	Tetrachloroethene	<0.05
Chloromethane	<0.5	Dibromochloromethane	<0.05
Vinyl chloride	<0.5	1,2-Dibromoethane (EDB)	<0.05
Bromomethane	<0.5	Chlorobenzene	<0.05
Chloroethane	<0.5	Ethylbenzene	<0.05
Trichlorofluoromethane	<1	1,1,1,2-Tetrachloroethane	<0.05
Acetone	<2	m,p-Xylene	<0.1
1,1-Dichloroethene	<0.5	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.06
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<1	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon Tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.03	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.06
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.05
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.05
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.05
1,3-Dichloropropane	<0.05		

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	D6-25B-1.0	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406095
Date Extracted:	06/14/04	Lab ID:	406095-14
Date Analyzed:	06/19/04	Data File:	061848.D
Matrix:	Soil	Instrument:	GCMS4
Units:	ug/g (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	75	50	150
1,2-Dichloroethane-d4	68	50	150
Toluene-d8	76	50	150
4-Bromofluorobenzene	76	50	150

Compounds:	Concentration ug/g (ppm)	Compounds:	Concentration ug/g (ppm)
Dichlorodifluoromethane	<0.5	Tetrachloroethene	<0.05
Chloromethane	<0.5	Dibromochloromethane	<0.05
Vinyl chloride	<0.5	1,2-Dibromoethane (EDB)	<0.05
Bromomethane	<0.5	Chlorobenzene	<0.05
Chloroethane	<0.5	Ethylbenzene	<0.05
Trichlorofluoromethane	<1	1,1,1,2-Tetrachloroethane	<0.05
Acetone	<2	m,p-Xylene	<0.1
1,1-Dichloroethene	<0.5	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.06
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<1	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon Tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.03	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.06
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.05
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.05
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.05
1,3-Dichloropropane	<0.05		

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	Method Blank	Client:	Geomatrix Consultants, Inc.
Date Received:	Not Applicable	Project:	SPI Arcata, 030275.23, F&BI 406095
Date Extracted:	06/14/04	Lab ID:	04-615mb
Date Analyzed:	06/14/04	Data File:	061406.D
Matrix:	Soil	Instrument:	GCMS4
Units:	ug/g (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	98	50	150
1,2-Dichloroethane-d4	94	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	103	50	150

Compounds:	Concentration ug/g (ppm)	Compounds:	Concentration ug/g (ppm)
Dichlorodifluoromethane	<0.5	Tetrachloroethene	<0.05
Chloromethane	<0.5	Dibromochloromethane	<0.05
Vinyl chloride	<0.5	1,2-Dibromoethane (EDB)	<0.05
Bromomethane	<0.5	Chlorobenzene	<0.05
Chloroethane	<0.5	Ethylbenzene	<0.05
Trichlorofluoromethane	<1	1,1,1,2-Tetrachloroethane	<0.05
Acetone	<2	m,p-Xylene	<0.1
1,1-Dichloroethene	<0.5	o-Xylene	<0.05
Methylene chloride	0.94	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.06
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<1	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon Tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.03	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.06
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.05
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.05
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.05
1,3-Dichloropropane	<0.05		

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	SDP-1B-0.5	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406095
Date Extracted:	06/14/04	Lab ID:	406095-01 1/10
Date Analyzed:	06/16/04	Data File:	061616.D
Matrix:	Soil	Instrument:	GCMS3
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	115	38	128
Benzo(a)anthracene-d12	131	28	158

Compounds:	Concentration: ug/kg (ppb)
Naphthalene	<250
Acenaphthylene	<250
Acenaphthene	<250
Fluorene	<250
Phenanthrene	<250
Anthracene	<250
Fluoranthene	<250
Pyrene	<250
Benz(a)anthracene	<250
Chrysene	<250
Benzo(b)fluoranthene	<250
Benzo(k)fluoranthene	<250
Benzo(a)pyrene	<250
Indeno(1,2,3-cd)pyrene	<250
Dibenzo(a,h)anthracene	<250
Benzo(g,h,i)perylene	<250

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	D6-2B-0.5	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406095
Date Extracted:	06/14/04	Lab ID:	406095-02 1/10
Date Analyzed:	06/16/04	Data File:	061615.D
Matrix:	Soil	Instrument:	GCMS3
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	110	38	128
Benzo(a)anthracene-d12	116	28	158

Compounds:	Concentration: ug/kg (ppb)
Naphthalene	<250
Acenaphthylene	<250
Acenaphthene	<250
Fluorene	<250
Phenanthrene	<250
Anthracene	<250
Fluoranthene	<250
Pyrene	<250
Benz(a)anthracene	<250
Chrysene	<250
Benzo(b)fluoranthene	<250
Benzo(k)fluoranthene	<250
Benzo(a)pyrene	<250
Indeno(1,2,3-cd)pyrene	<250
Dibenzo(a,h)anthracene	<250
Benzo(g,h,i)perylene	<250

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	D6-6B-0.5	Client:	Geomatrix Consultants. Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406095
Date Extracted:	06/14/04	Lab ID:	406095-03 1/10
Date Analyzed:	06/16/04	Data File:	061614.D
Matrix:	Soil	Instrument:	GCMS3
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	80	38	128
Benzo(a)anthracene-d12	120	28	158

Compounds:	Concentration: ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	<50
Phenanthrene	<50
Anthracene	<50
Fluoranthene	<50
Pyrene	<50
Benz(a)anthracene	<50
Chrysene	<50
Benzo(b)fluoranthene	<50
Benzo(k)fluoranthene	<50
Benzo(a)pyrene	<50
Indeno(1,2,3-cd)pyrene	<50
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	<50

Note: The sample was diluted due to high levels of interfering compounds. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	D6-10B-0.5	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406095
Date Extracted:	06/14/04	Lab ID:	406095-04
Date Analyzed:	06/16/04	Data File:	061611.D
Matrix:	Soil	Instrument:	GCMS3
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	62	38	128
Benzo(a)anthracene-d12	105	28	158

Compounds:	Concentration: ug/kg (ppb)
Naphthalene	9
Acenaphthylene	<5
Acenaphthene	<5
Fluorene	6
Phenanthrene	23
Anthracene	<5
Fluoranthene	<5
Pyrene	8
Benz(a)anthracene	<5
Chrysene	7
Benzo(b)fluoranthene	6
Benzo(k)fluoranthene	<5
Benzo(a)pyrene	<5
Indeno(1,2,3-cd)pyrene	<5
Dibenzo(a,h)anthracene	<5
Benzo(g,h,i)perylene	<5

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	D6-15B-0.5	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406095
Date Extracted:	06/14/04	Lab ID:	406095-05 1/10
Date Analyzed:	06/16/04	Data File:	061613.D
Matrix:	Soil	Instrument:	GCMS3
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	74	38	128
Benzo(a)anthracene-d12	113	28	158

Compounds:	Concentration: ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	<50
Phenanthrene	76
Anthracene	<50
Fluoranthene	<50
Pyrene	100
Benz(a)anthracene	<50
Chrysene	<50
Benzo(b)fluoranthene	<50
Benzo(k)fluoranthene	<50
Benzo(a)pyrene	<50
Indeno(1,2,3-cd)pyrene	<50
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	<50

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	D6-23B-0.5	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406095
Date Extracted:	06/14/04	Lab ID:	406095-06
Date Analyzed:	06/16/04	Data File:	061610.D
Matrix:	Soil	Instrument:	GCMS3
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	64	38	128
Benzo(a)anthracene-d12	112	28	158

Compounds:	Concentration: ug/kg (ppb)
Naphthalene	<5
Acenaphthylene	<5
Acenaphthene	<5
Fluorene	<5
Phenanthrene	<5
Anthracene	<5
Fluoranthene	<5
Pyrene	<5
Benz(a)anthracene	<5
Chrysene	<5
Benzo(b)fluoranthene	<5
Benzo(k)fluoranthene	<5
Benzo(a)pyrene	<5
Indeno(1,2,3-cd)pyrene	<5
Dibenzo(a,h)anthracene	<5
Benzo(g,h,i)perylene	<5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	D6-25B-0.5	Client:	Geomatrix Consultants, Inc.
Date Received:	06/10/04	Project:	SPI Arcata, 030275.23, F&BI 406095
Date Extracted:	06/14/04	Lab ID:	406095-07
Date Analyzed:	06/16/04	Data File:	061609.D
Matrix:	Soil	Instrument:	GCMS3
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	65	38	128
Benzo(a)anthracene-d12	115	28	158

Compounds:	Concentration: ug/kg (ppb)
Naphthalene	<5
Acenaphthylene	<5
Acenaphthene	<5
Fluorene	<5
Phenanthrene	<5
Anthracene	<5
Fluoranthene	<5
Pyrene	<5
Benz(a)anthracene	<5
Chrysene	<5
Benzo(b)fluoranthene	<5
Benzo(k)fluoranthene	<5
Benzo(a)pyrene	<5
Indeno(1,2,3-cd)pyrene	<5
Dibenzo(a,h)anthracene	<5
Benzo(g,h,i)perylene	<5

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	Method Blank	Client:	Geomatrix Consultants, Inc.
Date Received:	Not Applicable	Project:	SPI Arcata, 030275.23, F&BI 406095
Date Extracted:	06/14/04	Lab ID:	04-610 mb
Date Analyzed:	06/15/04	Data File:	061519.D
Matrix:	Soil	Instrument:	GCMS3
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	49	38	128
Benzo(a)anthracene-d12	86	28	158

Compounds:	Concentration: ug/kg (ppb)
Naphthalene	<5
Acenaphthylene	<5
Acenaphthene	<5
Fluorene	<5
Phenanthrene	<5
Anthracene	<5
Fluoranthene	<5
Pyrene	<5
Benz(a)anthracene	<5
Chrysene	<5
Benzo(b)fluoranthene	<5
Benzo(k)fluoranthene	<5
Benzo(a)pyrene	<5
Indeno(1,2,3-cd)pyrene	<5
Dibenzo(a,h)anthracene	<5
Benzo(g,h,i)perylene	<5

Date of Report: 06/28/04
Date Received: 06/10/04
Project: SPI Arcata, 030275.23, F&BI 406095

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL USING EPA METHOD 8015M

Laboratory Code: 406097-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	Relative Percent Difference
Diesel	µg/g (ppm)	500	<50	102	105	70-137	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	Acceptance Criteria
Diesel	µg/g (ppm)	500	111	73-139

Date of Report: 06/28/04
Date Received: 06/10/04
Project: SPI Arcata, 030275.23, F&BI 406095

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL USING EPA METHOD 8015M

Laboratory Code: 406097-01 (Matrix Spike) Silica Gel

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel	µg/g (ppm)	500	<50	114	119	70-137	4

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	% Recovery LCS	Acceptance Criteria
Diesel	µg/g (ppm)	500	115	73-139

Date of Report: 06/28/04
Date Received: 06/10/04
Project: SPI Arcata, 030275.23, F&BI 406095

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL USING EPA METHOD 8015M

Laboratory Code: 406097-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Motor Oil	µg/g (ppm)	250	<50	99	111	50-150	11

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	Acceptance Criteria
Motor Oil	µg/g (ppm)	500	128	70-130

Date of Report: 06/28/04
Date Received: 06/10/04
Project: SPI Arcata, 030275.23, F&BI 406095

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL USING EPA METHOD 8015M

Laboratory Code: 406097-01 (Matrix Spike) Silica Gel

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Motor Oil	µg/g (ppm)	250	<50	110	119	50-150	8

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	% Recovery LCS	Acceptance Criteria
Motor Oil	µg/g (ppm)	500	121	70-130

Date of Report: 06/28/04
Date Received: 06/10/04
Project: SPI Arcata, 030275.23, F&BI 406095

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: 406121-13 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
1,1-Dichloroethene	µg/g (ppm)	2.5	<0.05	102	104	50-150	3
1,2-Dichloroethane (EDC)	µg/g (ppm)	2.5	<0.03	108	107	50-150	1
1,1-Dichloropropene	µg/g (ppm)	2.5	<0.05	119	119	50-150	0
Benzene	µg/g (ppm)	5	<0.05	96	97	50-150	0
Trichloroethene	µg/g (ppm)	2.5	<0.05	105	104	50-150	1
1,2-Dichloropropane	µg/g (ppm)	2.5	<0.1	98	97	50-150	1
cis-1,3-Dichloropropene	µg/g (ppm)	2.5	<0.05	97	98	50-150	0
Toluene	µg/g (ppm)	5	<0.05	97	98	50-150	2
trans-1,3-Dichloropropene	µg/g (ppm)	2.5	<0.05	100	101	50-150	1
1,1,2-Trichloroethane	µg/g (ppm)	2.5	<0.05	90	91	50-150	2
1,3-Dichloropropane	µg/g (ppm)	2.5	<0.05	94	94	50-150	0
1,2-Dibromoethane (EDB)	µg/g (ppm)	2.5	<0.05	87	88	50-150	1
Chlorobenzene	µg/g (ppm)	5	<0.05	94	94	50-150	0
Ethylbenzene	µg/g (ppm)	2.5	<0.05	104	105	50-150	1
1,1,1,2-Tetrachloroethane	µg/g (ppm)	2.5	<0.05	99	99	50-150	0
m,p-Xylene	µg/g (ppm)	2.5	<0.05	97	98	50-150	1
Styrene	µg/g (ppm)	2.5	<0.05	97	97	50-150	0
Bromobenzene	µg/g (ppm)	2.5	<0.05	94	94	50-150	0
1,3,5-Trimethylbenzene	µg/g (ppm)	2.5	<0.05	112	111	50-150	1
1,1,2,2-Tetrachloroethane	µg/g (ppm)	2.5	<0.05	88	88	50-150	0
1,2,3-Trichloropropane	µg/g (ppm)	2.5	<0.05	97	96	50-150	1
1,2,4-Trimethylbenzene	µg/g (ppm)	2.5	<0.05	108	107	50-150	1
p-Isopropyltoluene	µg/g (ppm)	2.5	<0.05	115	114	50-150	1
1,2-Dibromo-3-chloropropane	µg/g (ppm)	2.5	<0.05	101	98	50-150	3
1,2,4-Trichlorobenzene	µg/g (ppm)	2.5	<0 05	102	101	50-150	2
Hexachlorobutadiene	µg/g (ppm)	2.5	<0.05	128	128	50-150	0
Naphthalene	µg/g (ppm)	2.5	<0.05	92	92	50-150	0
1,2,3-Trichlorobenzene	µg/g (ppm)	2.5	<0.05	97	97	50-150	1

Date of Report: 06/28/04
Date Received: 06/10/04
Project: SPI Arcata, 030275.23, F&BI 406095

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
1,1-Dichloroethene	µg/g (ppm)	2.5	97	26-127
1,2-Dichloroethane (EDC)	µg/g (ppm)	2.5	96	70-130
1,1-Dichloropropene	µg/g (ppm)	2.5	112	70-130
Benzene	µg/g (ppm)	5	93	70-130
Trichloroethene	µg/g (ppm)	2.5	100	70-130
1,2-Dichloropropane	µg/g (ppm)	2.5	93	70-130
cis-1,3-Dichloropropene	µg/g (ppm)	2.5	95	70-130
Toluene	µg/g (ppm)	5	93	70-130
trans-1,3-Dichloropropene	µg/g (ppm)	2.5	97	70-130
1,1,2-Trichloroethane	µg/g (ppm)	2.5	91	70-130
1,3-Dichloropropane	µg/g (ppm)	2.5	91	70-130
1,2-Dibromoethane (EDB)	µg/g (ppm)	2.5	89	70-130
Chlorobenzene	µg/g (ppm)	5	92	70-130
Ethylbenzene	µg/g (ppm)	2.5	98	70-130
1,1,1,2-Tetrachloroethane	µg/g (ppm)	2.5	95	70-130
m,p-Xylene	µg/g (ppm)	2.5	94	70-130
Styrene	µg/g (ppm)	2.5	94	70-130
Bromobenzene	µg/g (ppm)	2.5	94	70-130
1,3,5-Trimethylbenzene	µg/g (ppm)	2.5	105	70-130
1,1,2,2-Tetrachloroethane	µg/g (ppm)	2.5	90	70-130
1,2,3-Trichloropropane	µg/g (ppm)	2.5	95	70-130
1,2,4-Trimethylbenzene	µg/g (ppm)	2.5	102	70-130
p-Isopropyltoluene	µg/g (ppm)	2.5	110	70-130
1,2-Dibromo-3-chloropropane	µg/g (ppm)	2.5	101	70-130
1,2,4-Trichlorobenzene	µg/g (ppm)	2.5	107	70-130
Hexachlorobutadiene	µg/g (ppm)	2.5	129	70-130
Naphthalene	µg/g (ppm)	2.5	106	70-130
1,2,3-Trichlorobenzene	µg/g (ppm)	2.5	109	70-130

Date of Report: 06/28/04
Date Received: 06/10/04
Project: SPI Arcata, 030275.23, F&BI 406095

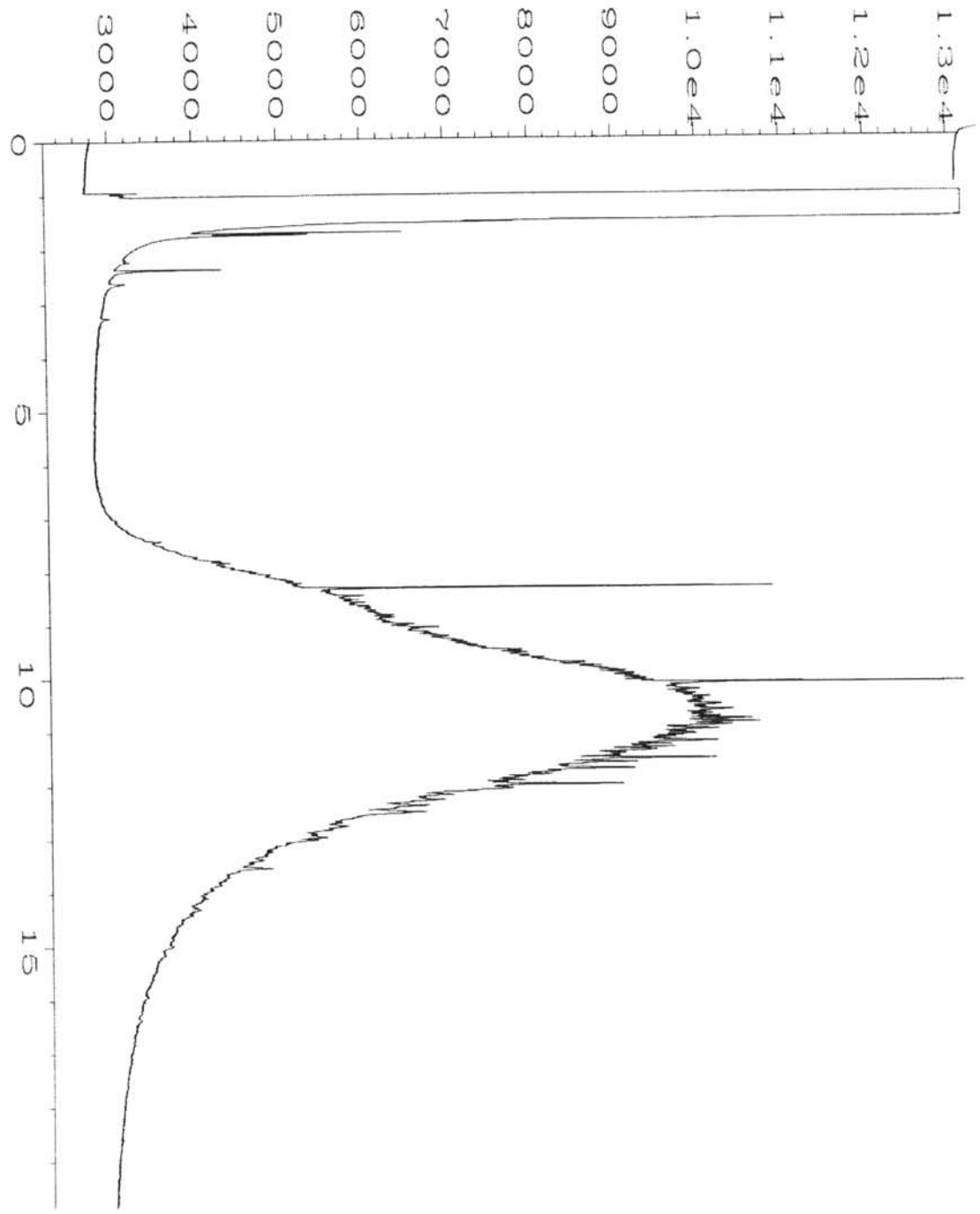
QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PNA'S BY EPA METHOD 8270C SIM

Laboratory Code: 406097-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	µg/kg (ppb)	170	<5	75	77	64-104	2
Acenaphthylene	µg/kg (ppb)	170	<5	77	80	54-120	4
Acenaphthene	µg/kg (ppb)	170	<5	76	78	59-114	3
Fluorene	µg/kg (ppb)	170	<5	78	80	52-121	3
Phenanthrene	µg/kg (ppb)	170	<5	74	75	57-108	1
Anthracene	µg/kg (ppb)	170	<5	68	68	52-100	0
Fluoranthene	µg/kg (ppb)	170	<5	80	79	60-108	0
Pyrene	µg/kg (ppb)	170	<5	83	83	64-108	1
Benz(a)anthracene	µg/kg (ppb)	170	<5	76	78	49-118	3
Chrysene	µg/kg (ppb)	170	<5	80	82	47-120	3
Benzo(b)fluoranthene	µg/kg (ppb)	170	<5	87	88	56-125	1
Benzo(k)fluoranthene	µg/kg (ppb)	170	<5	79	80	56-122	1
Benzo(a)pyrene	µg/kg (ppb)	170	<5	71	73	50-113	2
Indeno(1,2,3-cd)pyrene	µg/kg (ppb)	170	<5	82	84	29-128	2
Dibenzo(a,h)anthracene	µg/kg (ppb)	170	<5	83	85	32-136	2
Benzo(g,h,i)perylene	µg/kg (ppb)	170	<5	81	82	20-129	1

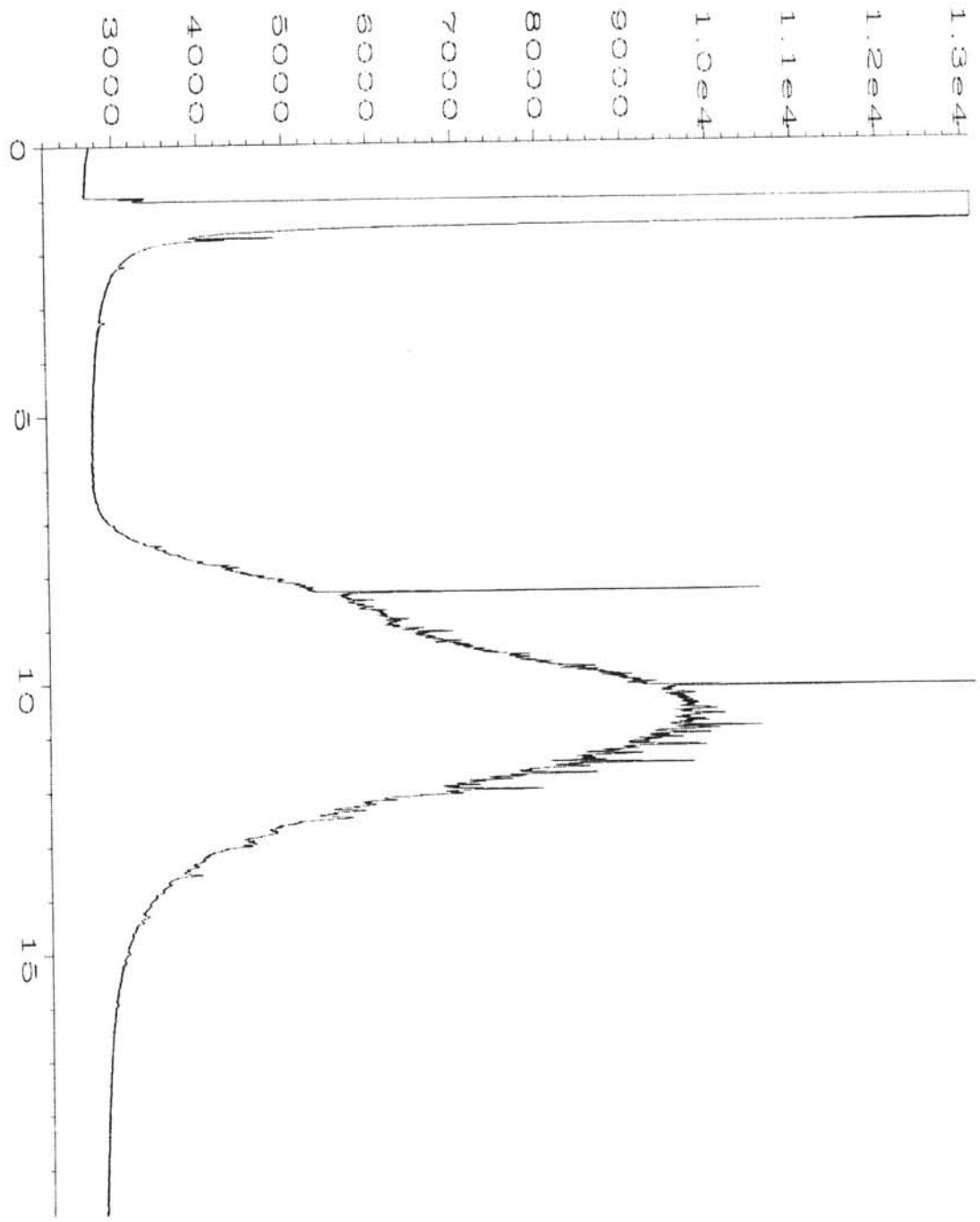
Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Naphthalene	µg/kg (ppb)	170	79	72-104
Acenaphthylene	µg/kg (ppb)	170	78	63-117
Acenaphthene	µg/kg (ppb)	170	78	67-115
Fluorene	µg/kg (ppb)	170	80	63-116
Phenanthrene	µg/kg (ppb)	170	78	69-108
Anthracene	µg/kg (ppb)	170	70	57-102
Fluoranthene	µg/kg (ppb)	170	81	65-115
Pyrene	µg/kg (ppb)	170	84	68-117
Benz(a)anthracene	µg/kg (ppb)	170	79	54-121
Chrysene	µg/kg (ppb)	170	82	59-115
Benzo(b)fluoranthene	µg/kg (ppb)	170	91	59-132
Benzo(k)fluoranthene	µg/kg (ppb)	170	82	67-120
Benzo(a)pyrene	µg/kg (ppb)	170	70	50-116
Indeno(1,2,3-cd)pyrene	µg/kg (ppb)	170	85	61-122
Dibenzo(a,h)anthracene	µg/kg (ppb)	170	86	63-126
Benzo(g,h,i)perylene	µg/kg (ppb)	170	84	55-121



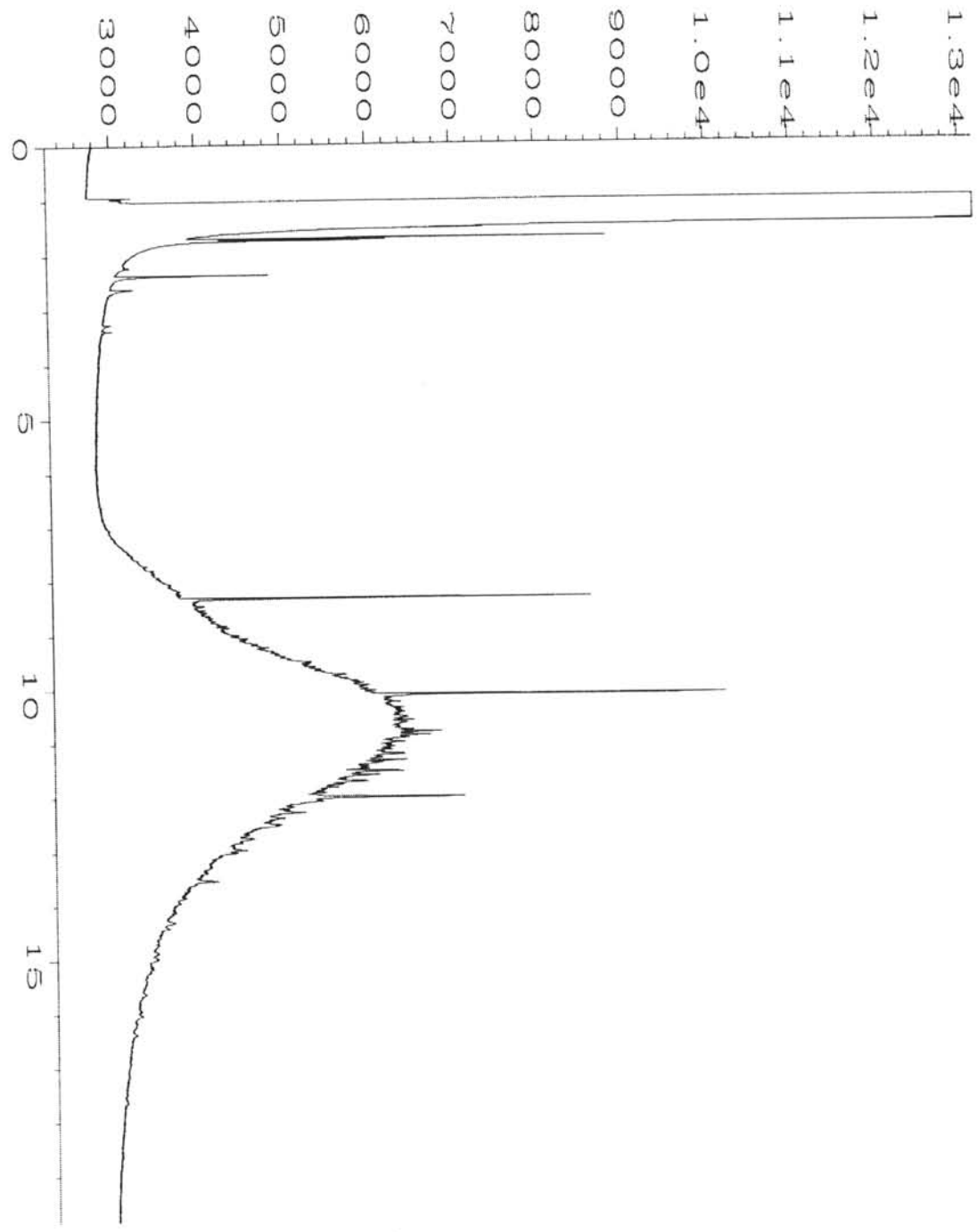
Data File Name : E:\GC6\06-16-04\016F0601.D
Operator : ME
Instrument : GC #6
Sample Name : 406095-01 1:10 (SDP-18-0.5)
Run Time Bar Code:
Acquired on : 16 Jun 04 07:28 PM
Report Created on: 17 Jun 04 08:55 AM

Page Number : 1
Vial Number : 16
Injection Number : 1
Sequence Line : 6
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



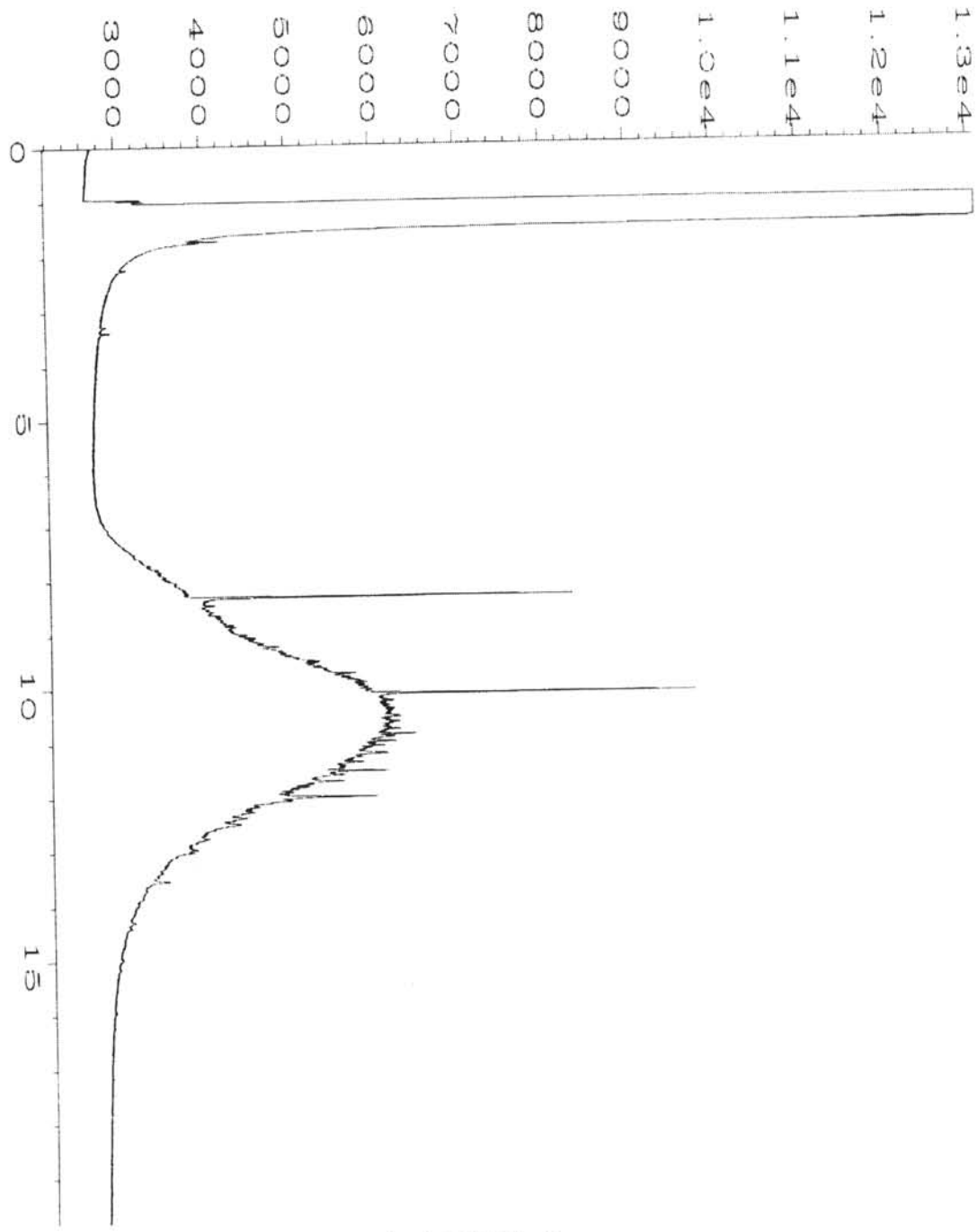
Data File Name : D:\GC6\06-17-04\033F0801.D
Operator : ME
Instrument : GC #6
Sample Name (TOTAL) : 406095-01 1:10 s (SDP-1B-0.5 SILICA GEL)
Run Time Bar Code:
Acquired on : 17 Jun 04 11:55 PM
Report Created on: 18 Jun 04 09:57 AM

Page Number : 1
Vial Number : 33
Injection Number : 1
Sequence Line : 8
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



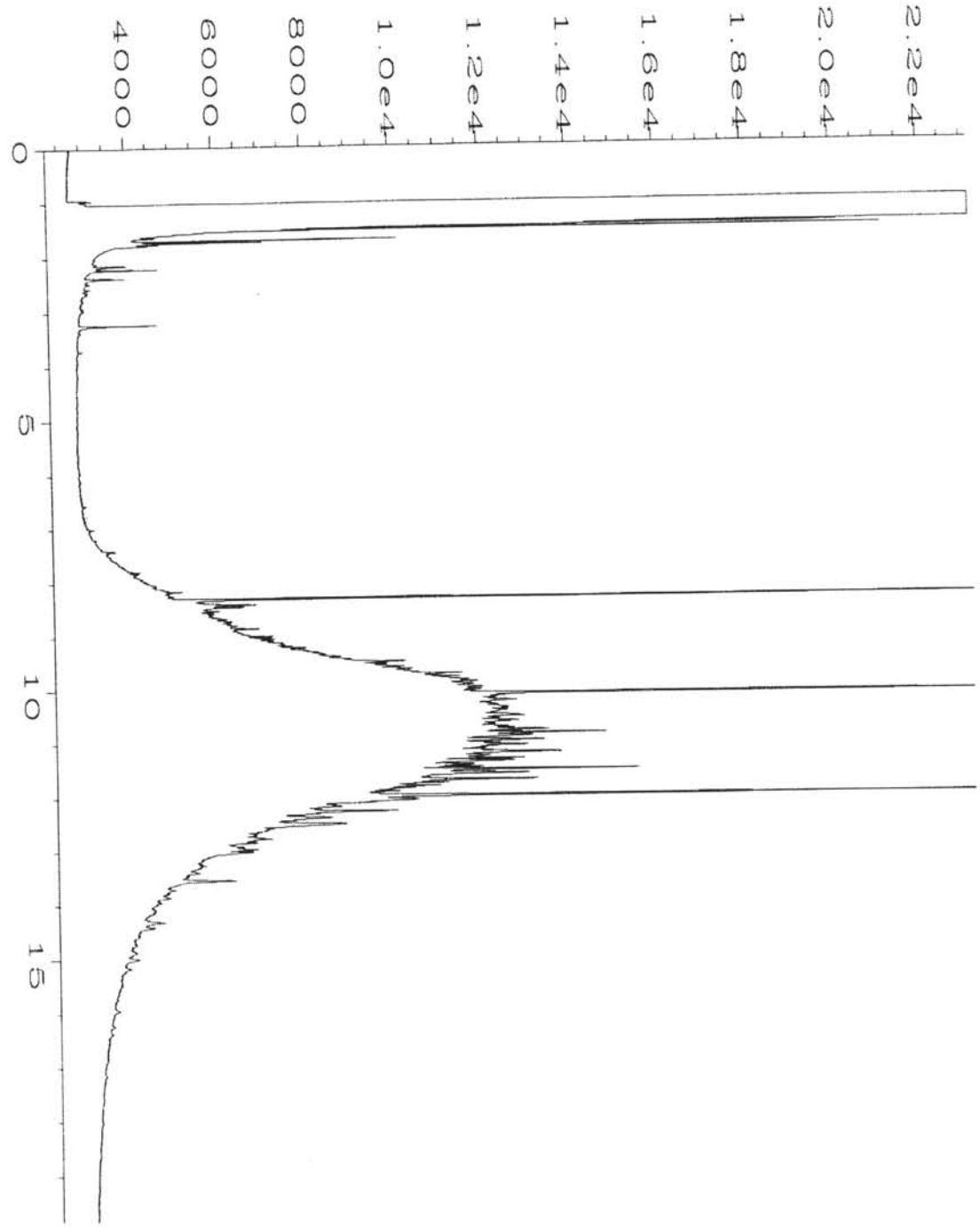
Data File Name : E:\GC6\06-16-04\017F0601.D
Operator : ME
Instrument : GC #6
Sample Name (soil) : 406095-02 1:10 (D6-28-0.5)
Run Time Bar Code:
Acquired on : 16 Jun 04 07:54 PM
Report Created on: 17 Jun 04 08:55 AM

Page Number : 1
Vial Number : 17
Injection Number : 1
Sequence Line : 6
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



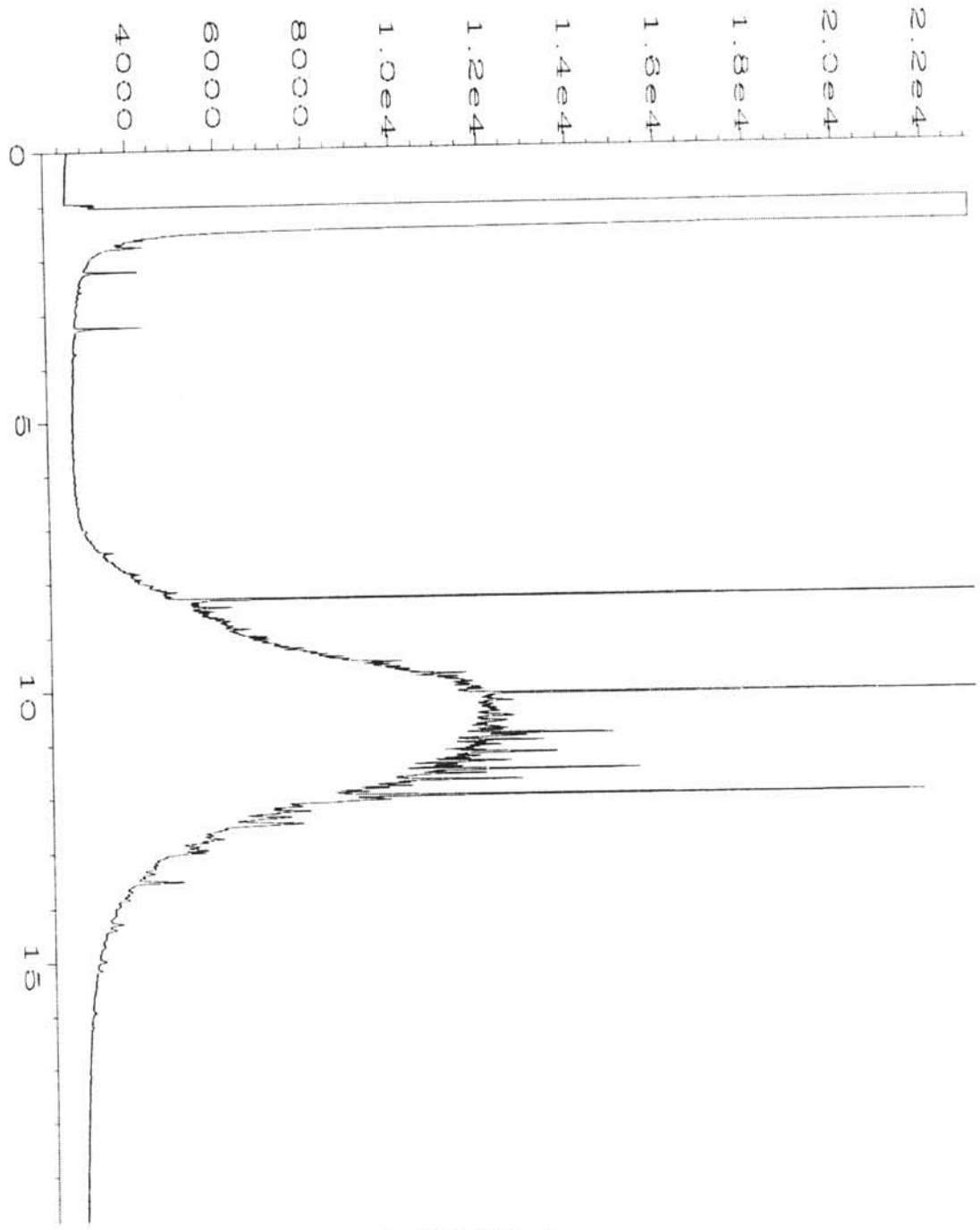
Data File Name : D:\GC6\06-17-04\034F0801.D
Operator : ME
Instrument : GC #6
Sample Name (soil) : 406095-02 1:10 s(26-28-0.5 silica gel)
Run Time Bar Code:
Acquired on : 18 Jun 04 00:21 AM
Report Created on: 18 Jun 04 09:57 AM

Page Number : 1
Vial Number : 34
Injection Number : 1
Sequence Line : 8
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



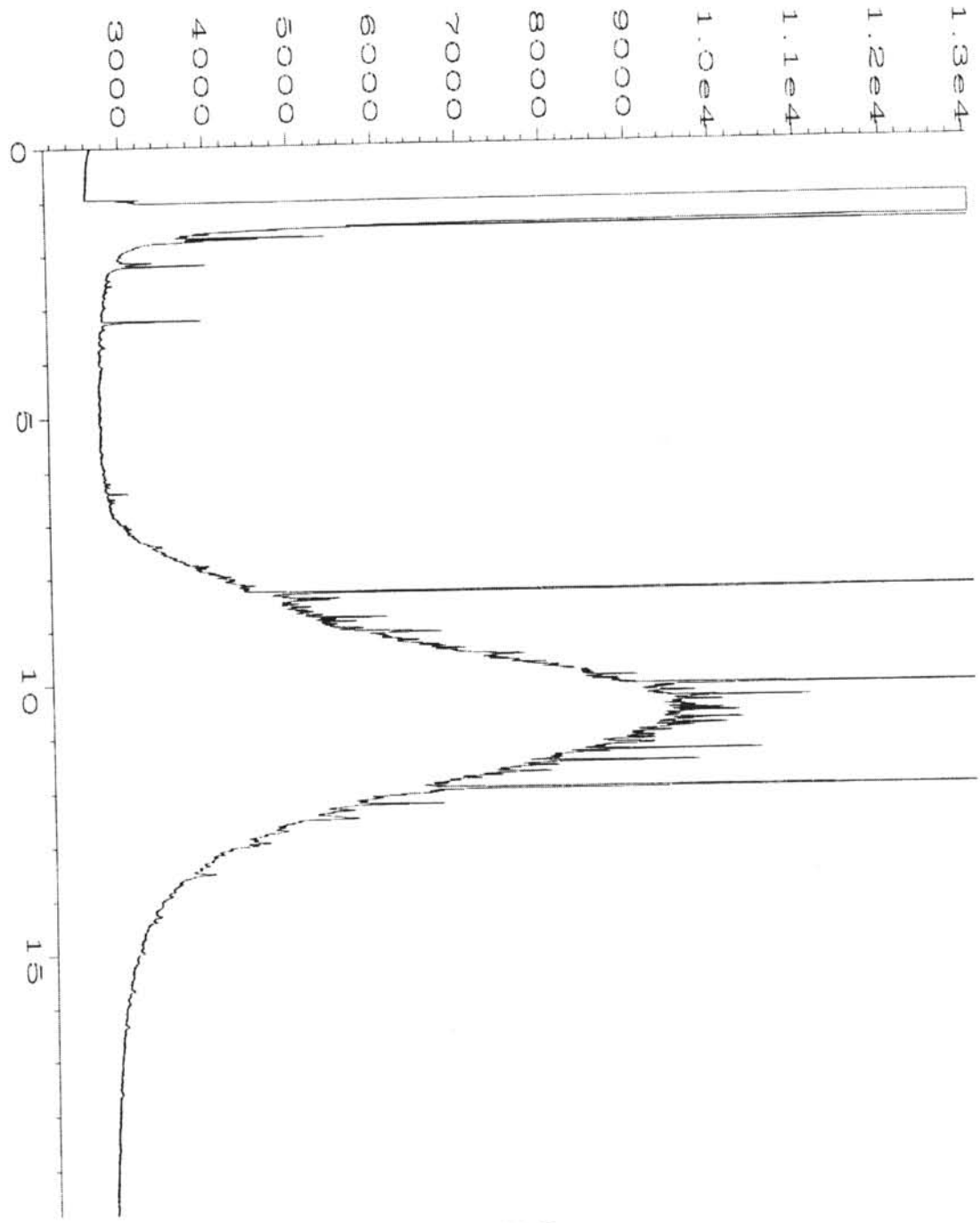
Data File Name : E:\GC6\06-16-04\018F0601.D
Operator : ME
Instrument : GC #6
Sample Name (soil) : 406095-03 (D6-6B-0.5)
Run Time Bar Code:
Acquired on : 16 Jun 04 08:19 PM
Report Created on: 17 Jun 04 08:56 AM

Page Number : 1
Vial Number : 18
Injection Number : 1
Sequence Line : 6
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



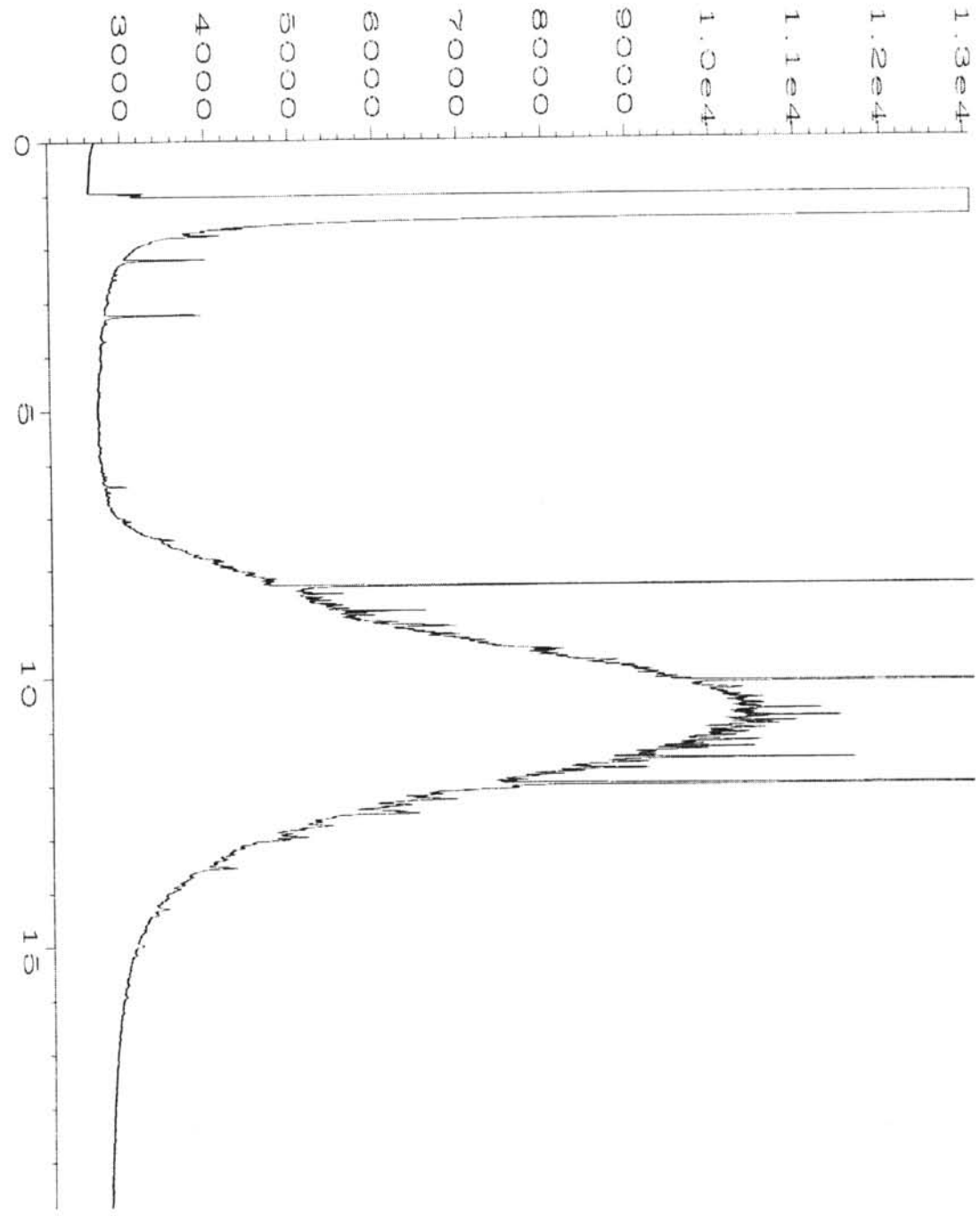
Data File Name : D:\GC6\06-17-04\035F0801.D
Operator : ME
Instrument : GC #6
Sample Name (soil) : 406095-03 sg (D6-68-0.5 silica gel)
Run Time Bar Code:
Acquired on : 18 Jun 04 00:48 AM
Report Created on: 18 Jun 04 09:57 AM

Page Number : 1
Vial Number : 35
Injection Number : 1
Sequence Line : 8
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



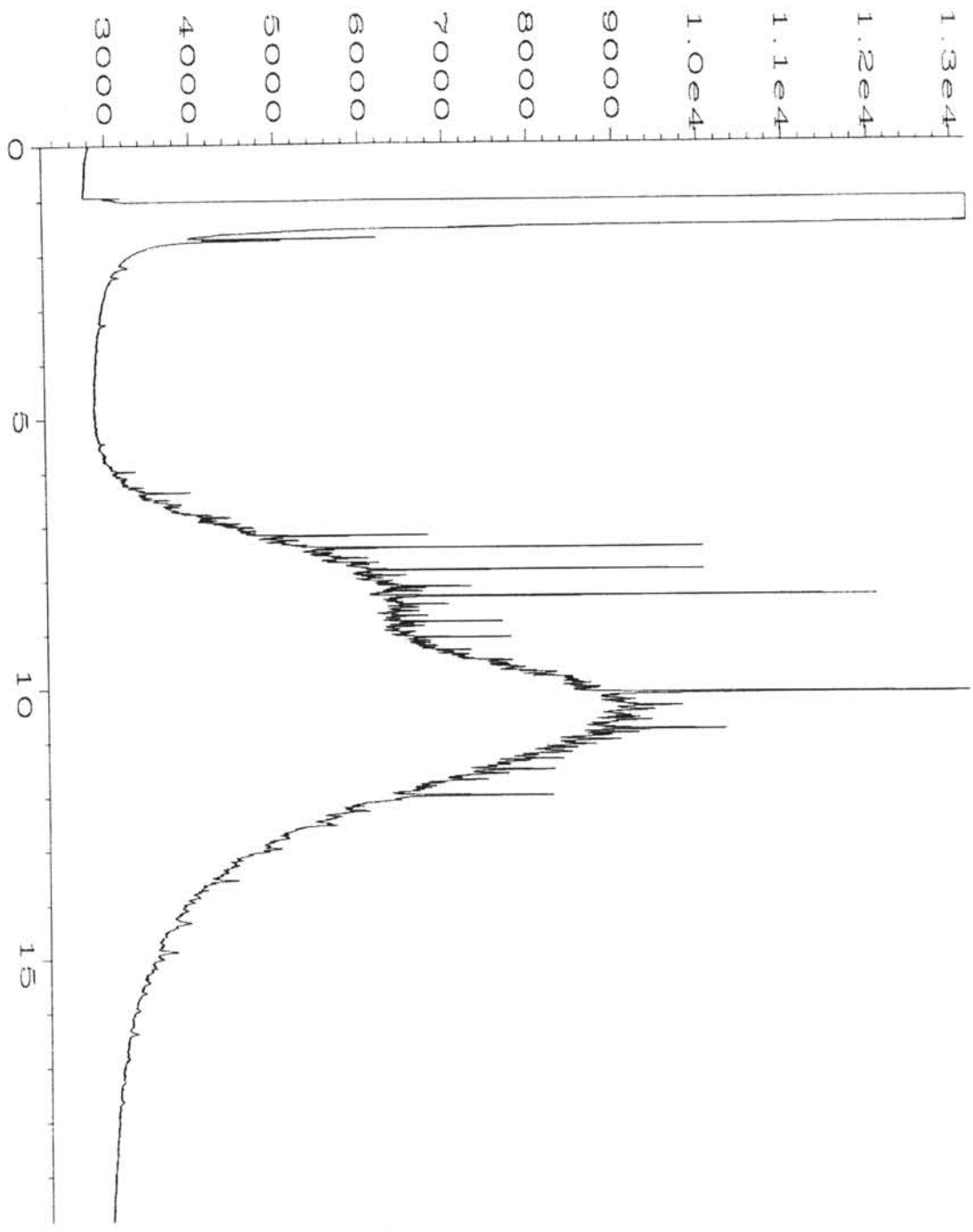
Data File Name : D:\GC6\06-17-04\041F0801.D
Operator : ME
Instrument : GC #6
Sample Name(soil) : 406095-04 rr (D6-10B-0.5)
Run Time Bar Code:
Acquired on : 18 Jun 04 03:25 AM
Report Created on: 18 Jun 04 09:59 AM

Page Number : 1
Vial Number : 41
Injection Number : 1
Sequence Line : 8
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



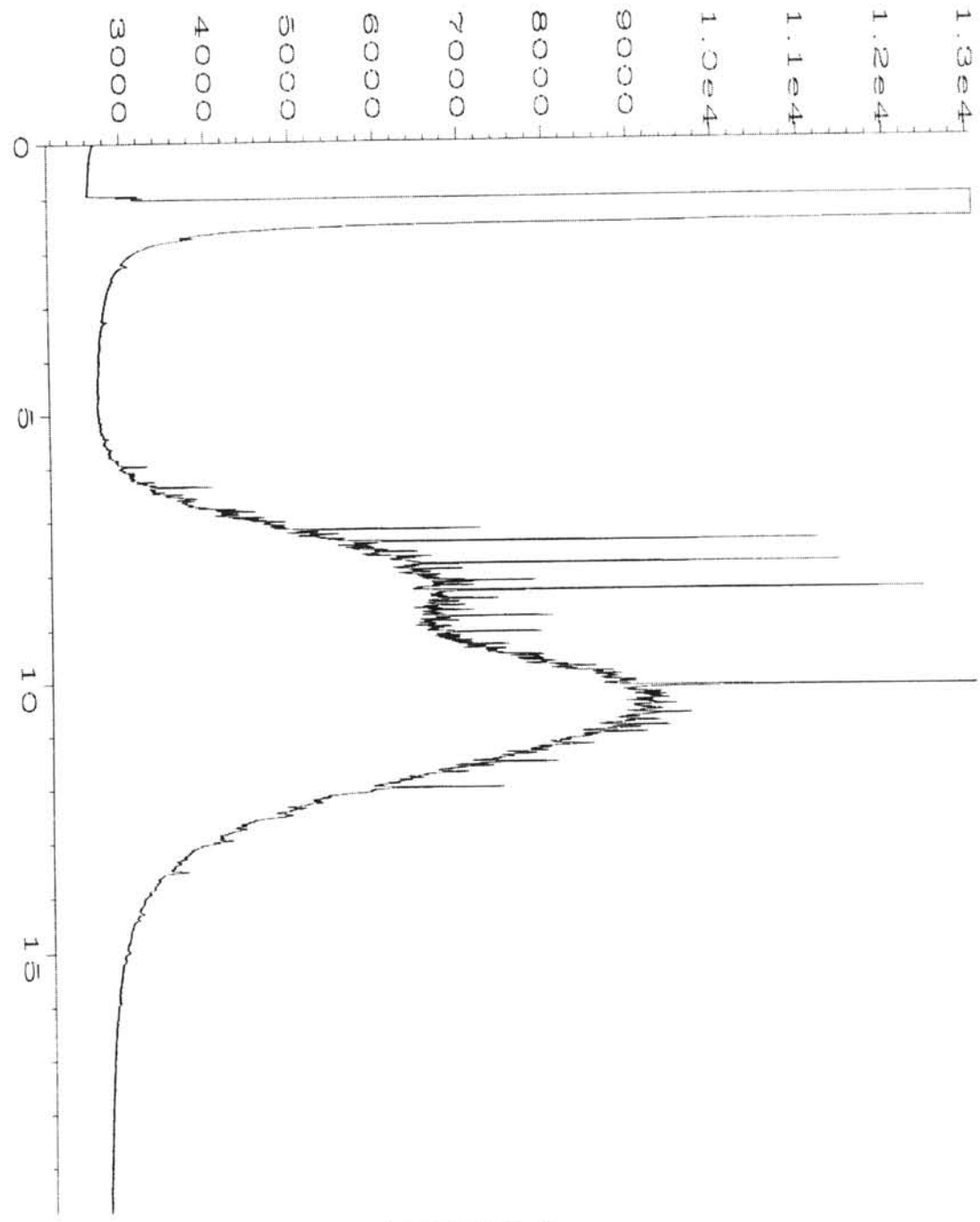
Data File Name : D:\GC6\06-17-04\036F0801.D
Operator : ME
Instrument : GC #6
Sample Name (SOIL) : 406095-04 sg (DE-108-0.5 SILICA GEL)
Run Time Bar Code:
Acquired on : 18 Jun 04 01:14 AM
Report Created on: 18 Jun 04 09:58 AM

Page Number : 1
Vial Number : 36
Injection Number : 1
Sequence Line : 8
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



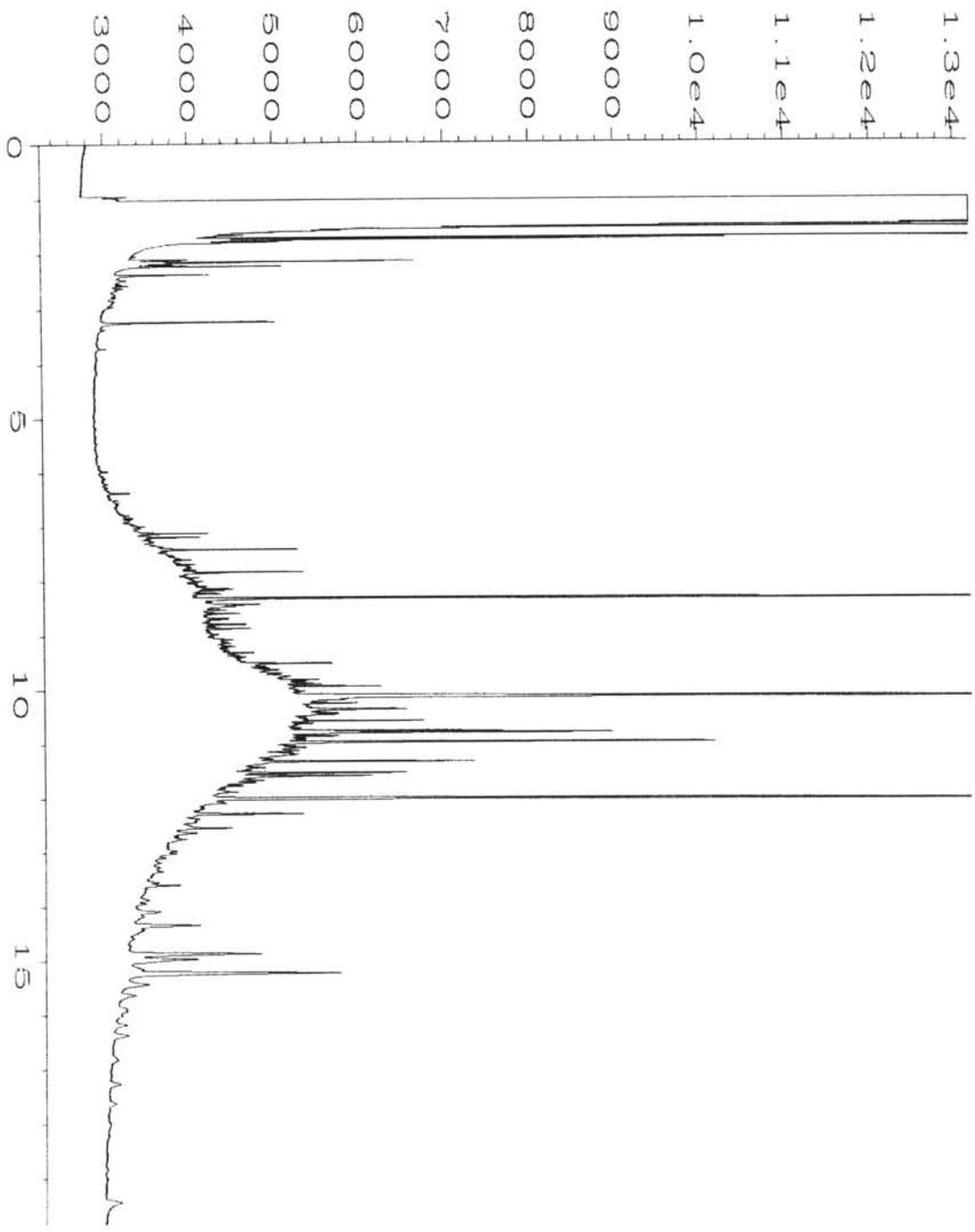
Data File Name : E:\GC6\06-16-04\020F0601.D
Operator : ME
Instrument : GC #6
Sample Name (Soil) : 406095-05 1:10 (B6-15 @ 0.5')
Run Time Bar Code:
Acquired on : 16 Jun 04 09:11 PM
Report Created on: 17 Jun 04 08:56 AM

Page Number : 1
Vial Number : 20
Injection Number : 1
Sequence Line : 6
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



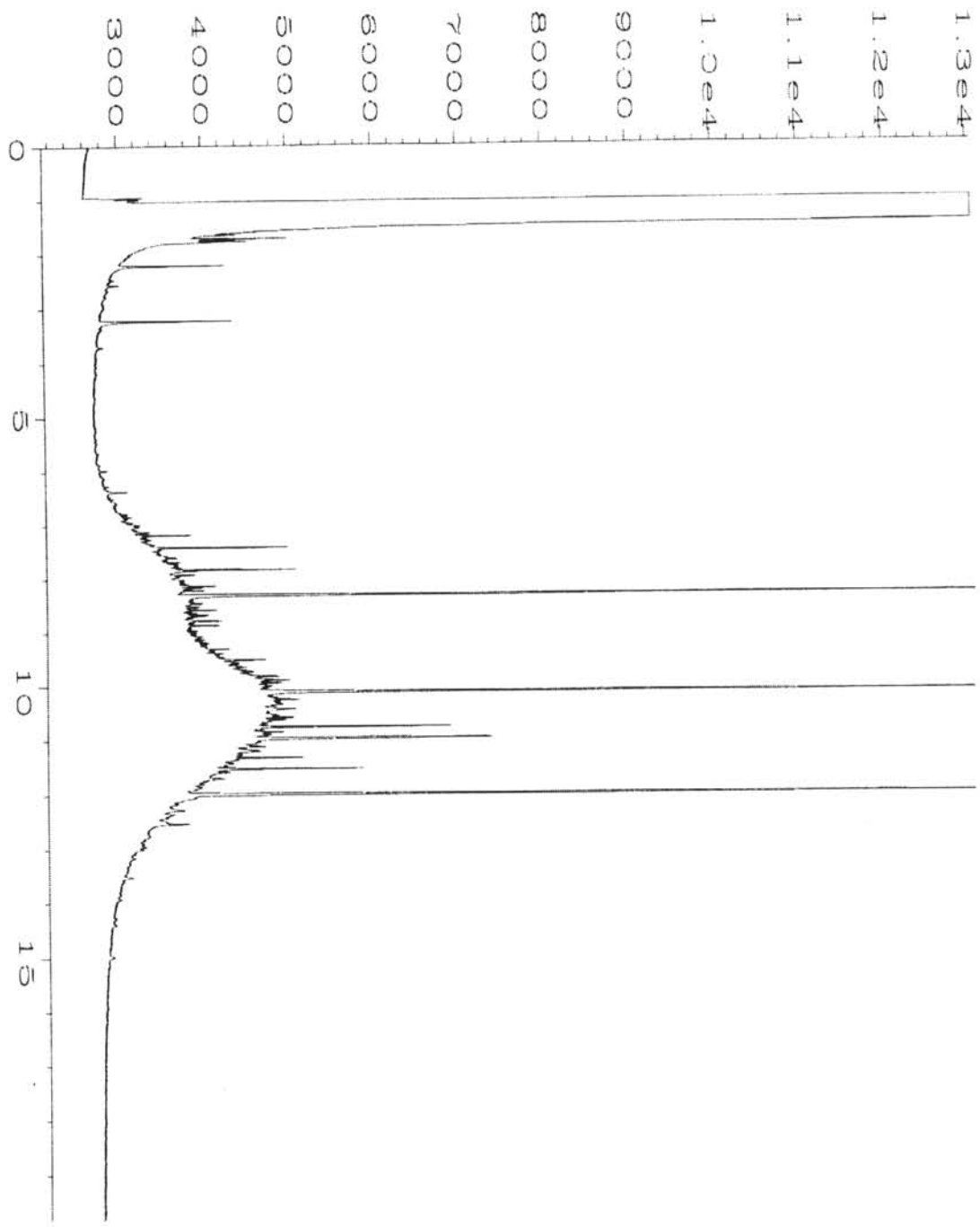
Data File Name : D:\GC6\06-17-04\037F0801.D
Operator : ME
Instrument : GC #6
Sample Name (SOIL) : 406095-05 1:10 S (D6-15B-0.5 SM/14 GL)
Run Time Bar Code:
Acquired on : 18 Jun 04 01:40 AM
Report Created on: 18 Jun 04 09:58 AM

Page Number : 1
Vial Number : 37
Injection Number : 1
Sequence Line : 8
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



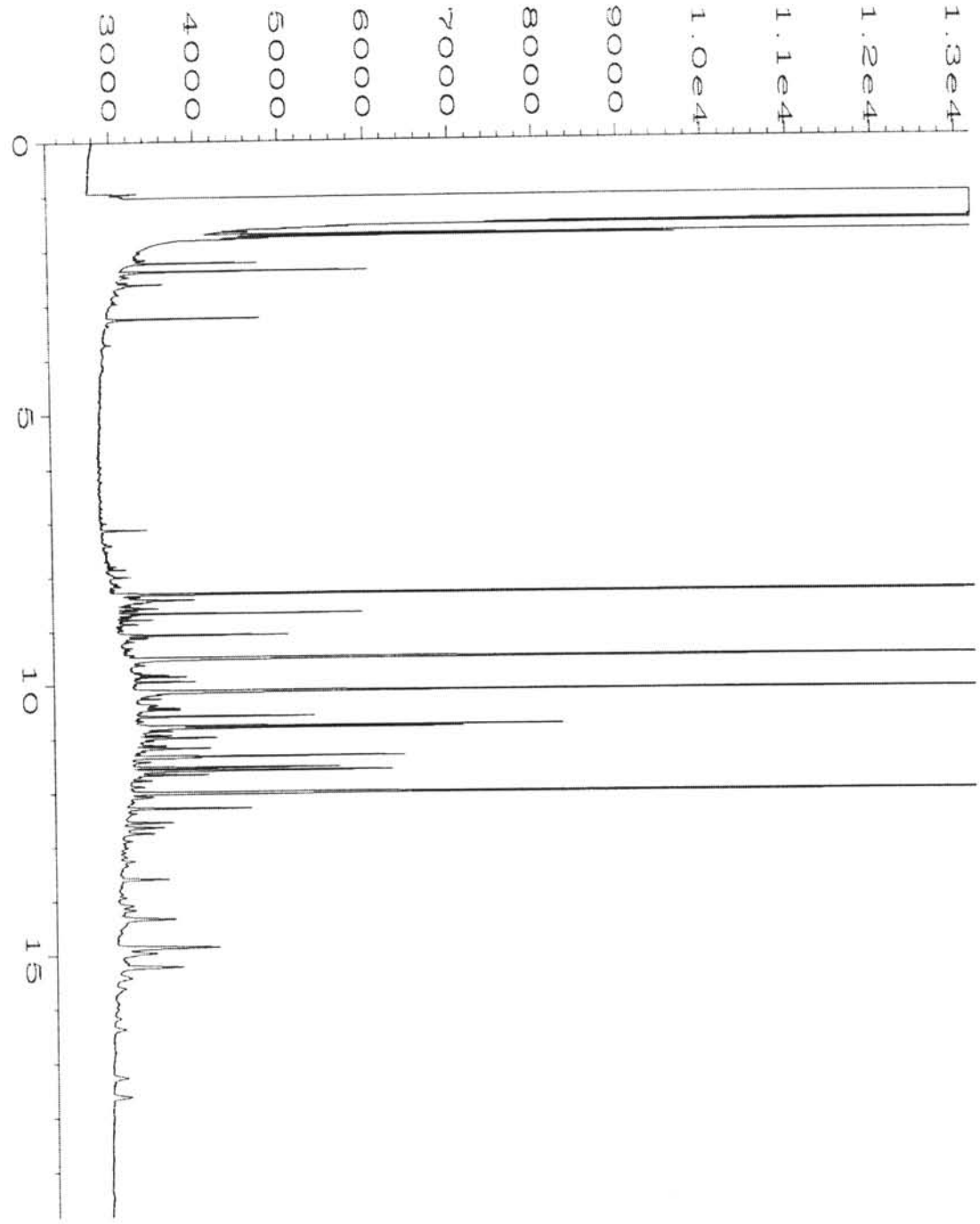
Data File Name : E:\GC6\06-16-04\021F0601.D
Operator : ME
Instrument : GC #6
Sample Name (soil) : 406095-06 (D6-228-0.5)
Run Time Bar Code:
Acquired on : 16 Jun 04 09:36 PM
Report Created on: 17 Jun 04 08:56 AM

Page Number : 1
Vial Number : 21
Injection Number : 1
Sequence Line : 6
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



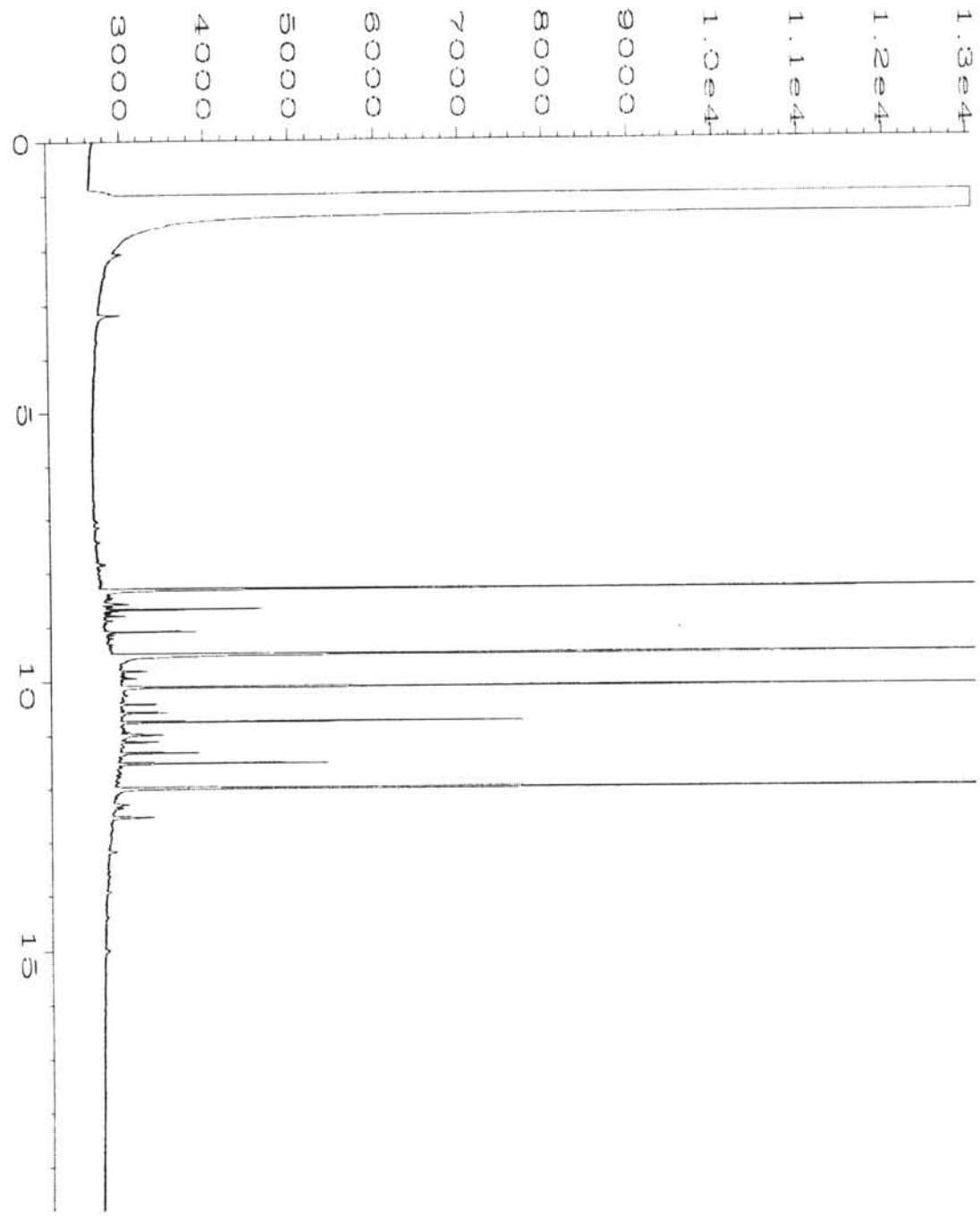
Data File Name : D:\GC6\06-17-04\038F0801.D
Operator : ME
Instrument : GC #6
Sample Name (soil) : 406095-06 sg (DB-225-0.5 SILICA GEL)
Run Time Bar Code:
Acquired on : 18 Jun 04 02:06 AM
Report Created on: 18 Jun 04 09:58 AM

Page Number : 1
Vial Number : 38
Injection Number : 1
Sequence Line : 8
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



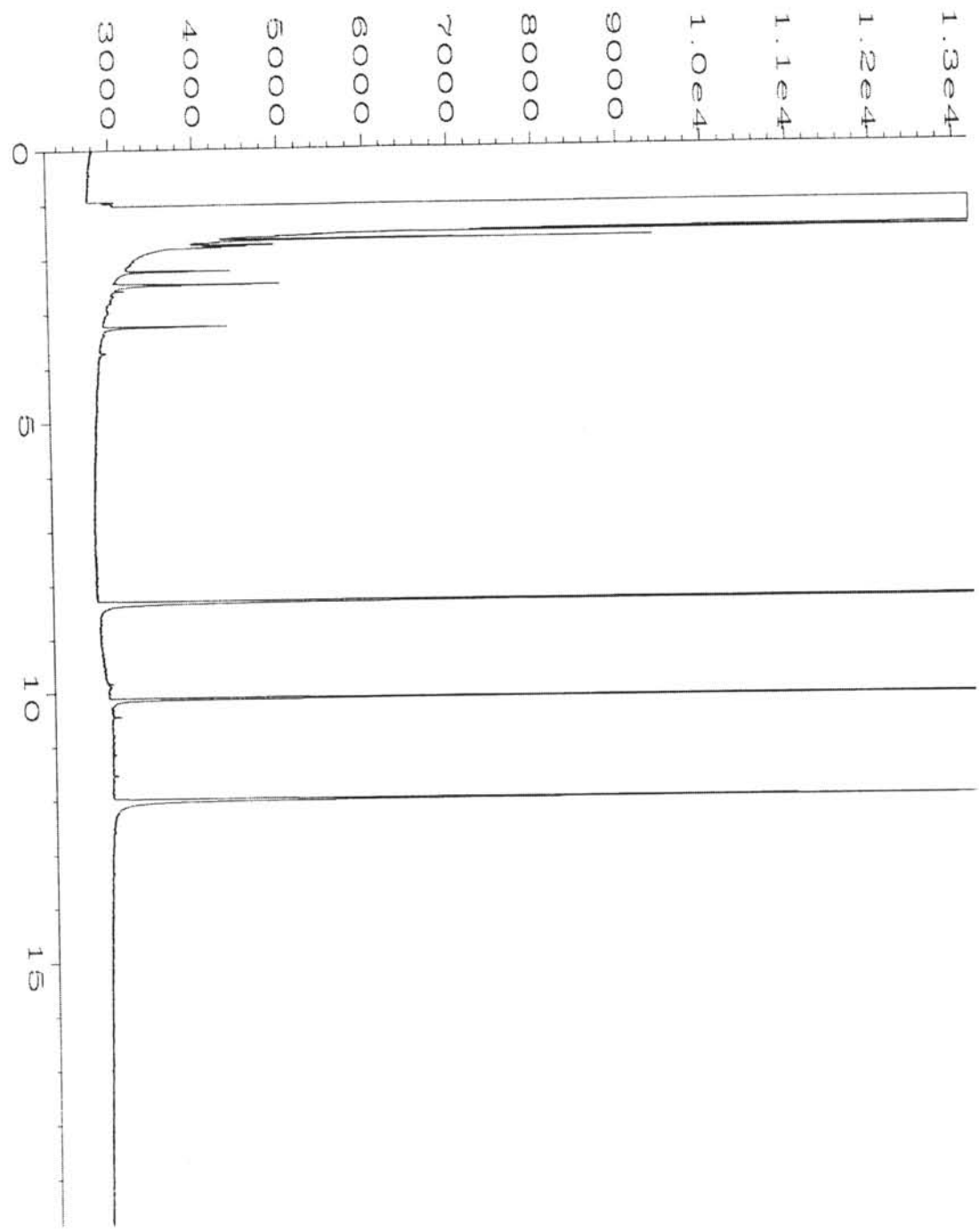
Data File Name : E:\GC6\06-16-04\022F0601.D
Operator : ME
Instrument : GC #6
Sample Name (304) : 406095-07 (D6-958-0.5)
Run Time Bar Code:
Acquired on : 16 Jun 04 10:02 PM
Report Created on: 17 Jun 04 08:56 AM

Page Number : 1
Vial Number : 22
Injection Number : 1
Sequence Line : 6
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



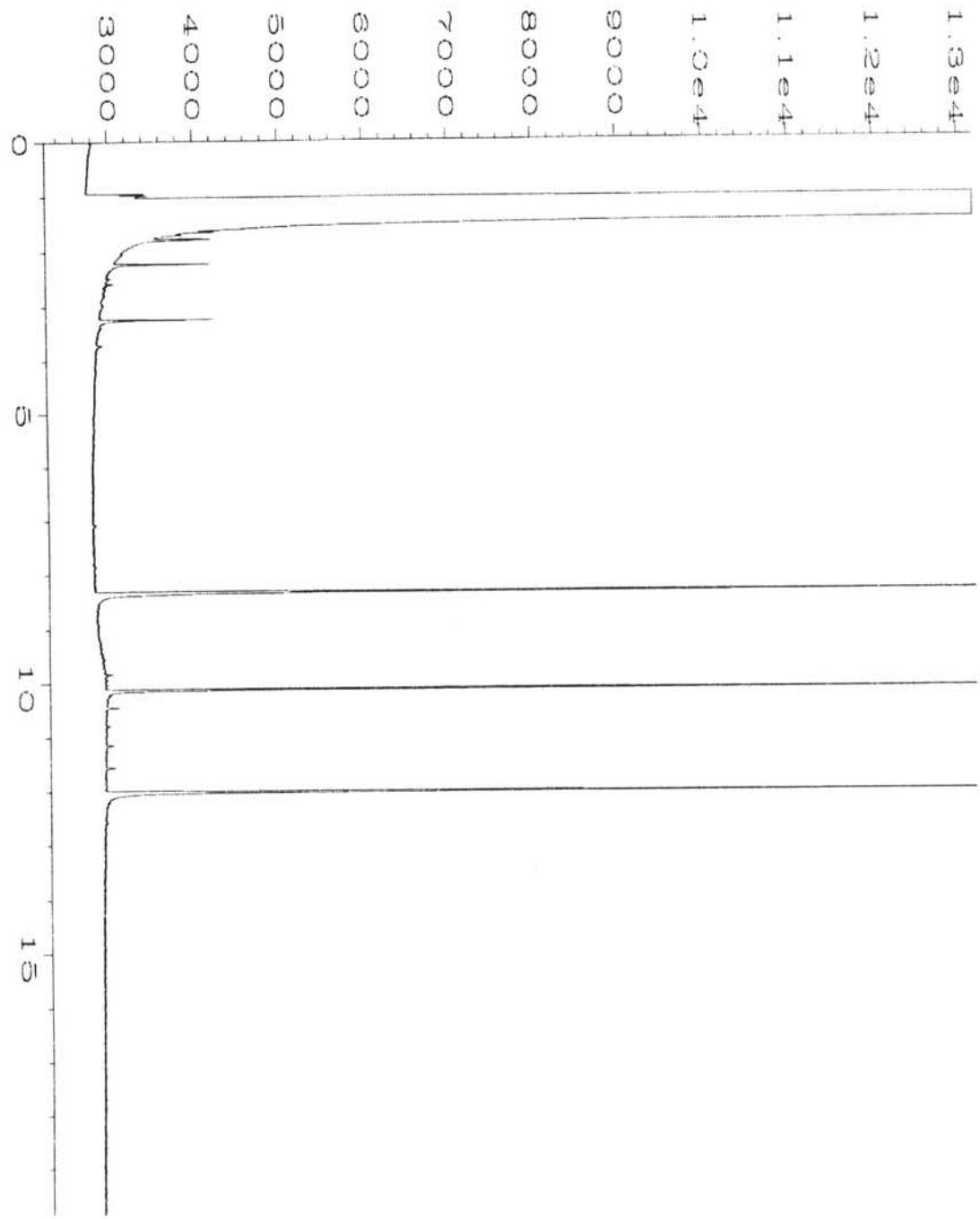
Data File Name : D:\GC6\06-17-04\039F0801.D
Operator : ME
Instrument : GC #6
Sample Name (soil) : 406095-07 sg (D6-258-05 silica gel)
Run Time Bar Code:
Acquired on : 18 Jun 04 02:32 AM
Report Created on: 18 Jun 04 09:58 AM

Page Number : 1
Vial Number : 39
Injection Number : 1
Sequence Line : 8
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



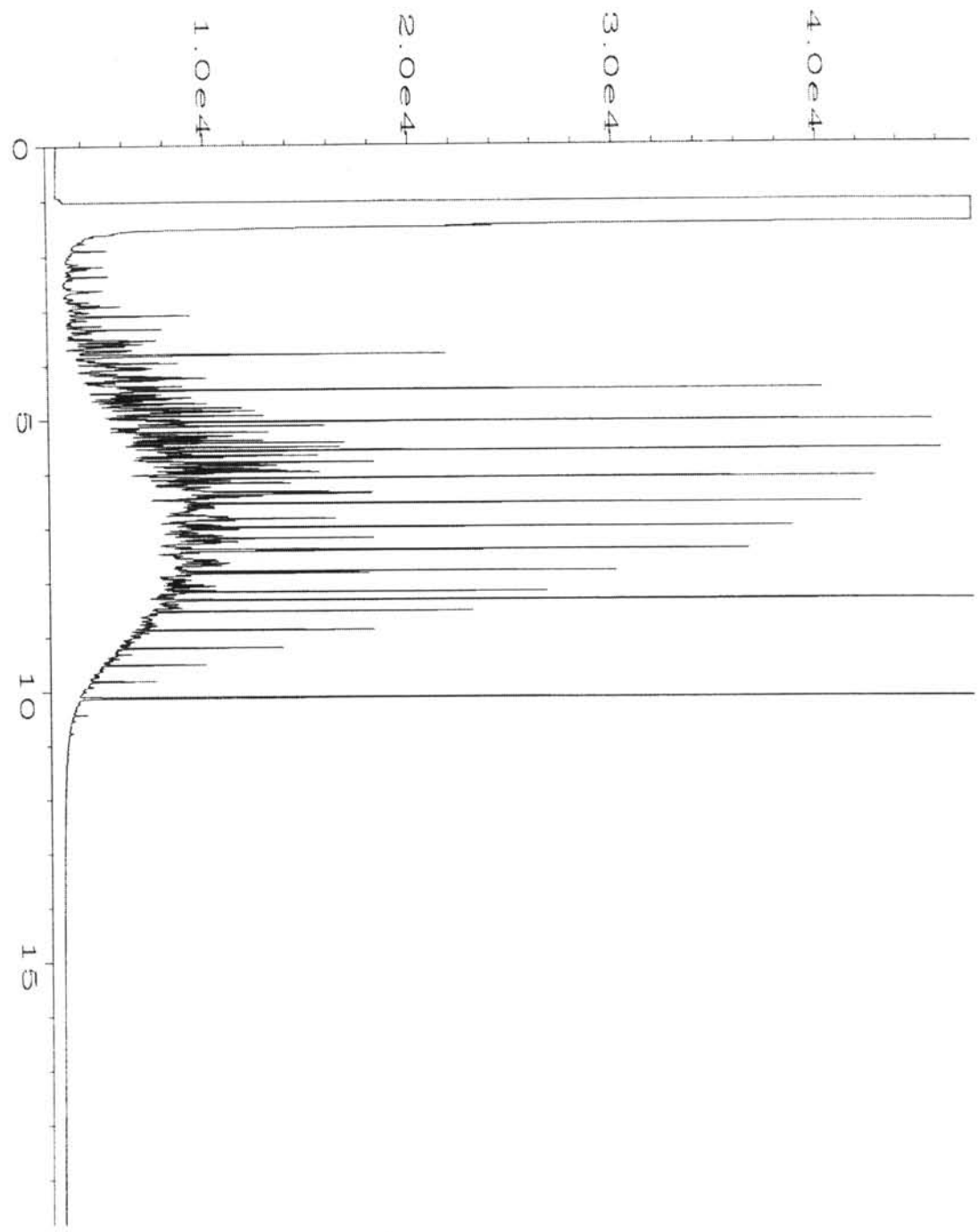
Data File Name : E:\GC6\06-16-04\013F0601.D
Operator : ME
Instrument : GC #6
Sample Name : 04-611 MB (Method Blank)
Run Time Bar Code:
Acquired on : 16 Jun 04 06:12 PM
Report Created on: 17 Jun 04 08:54 AM

Page Number : 1
Vial Number : 13
Injection Number : 1
Sequence Line : 6
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



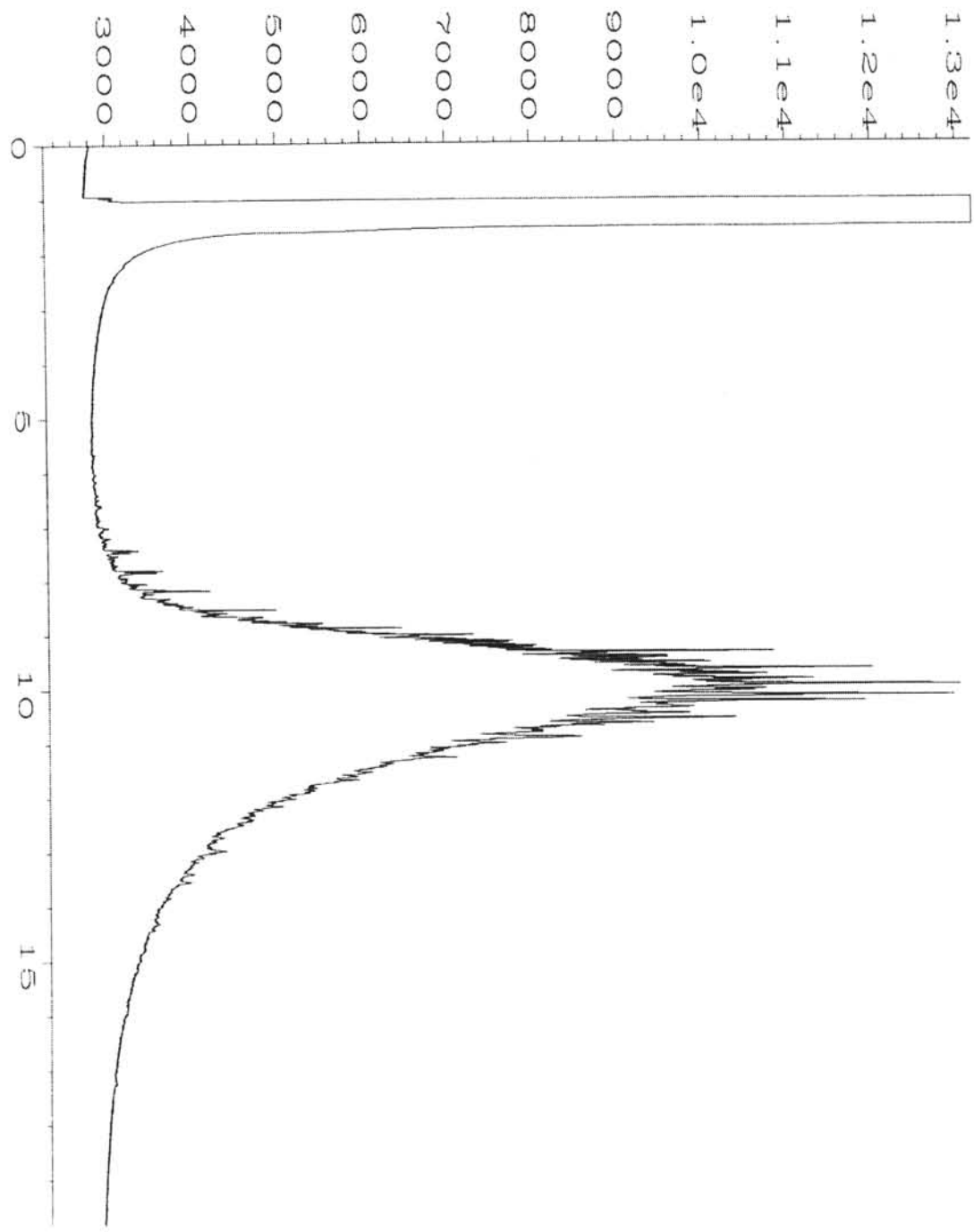
Data File Name : D:\GC6\06-17-04\025F0801.D
Operator : ME
Instrument : GC #6
Sample Name : 04-611 mb sg (METHOD BLANK, SILICA GEL)
Run Time Bar Code:
Acquired on : 17 Jun 04 08:30 PM
Report Created on: 18 Jun 04 09:56 AM

Page Number : 1
Vial Number : 25
Injection Number : 1
Sequence Line : 8
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH



Data File Name : E:\GC6\06-16-04\002F0101.D
Operator : ME
Instrument : GC #6
Sample Name : 500 WADF 17-43 (DIESEL FUEL)
Run Time Bar Code:
Acquired on : 16 Jun 04 12:17 PM
Report Created on: 17 Jun 04 08:53 AM

Page Number : 1
Vial Number : 2
Injection Number : 1
Sequence Line : 1
Instrument Method: TPHD.MTH
Analysis Method : DEFAULT.MTH



Data File Name : E:\GC6\06-16-04\004F0501.D
Operator : ME
Instrument : GC #6
Sample Name : 500 mo (MOTOR OIL)
Run Time Bar Code:
Acquired on : 16 Jun 04 05:21 PM
Report Created on: 17 Jun 04 08:54 AM

Page Number : 1
Vial Number : 4
Injection Number : 1
Sequence Line : 5
Instrument Method: TPHDAK.MTH
Analysis Method : DEFAULT.MTH

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24 June 2004

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3012 16th Ave W
Seattle, WA/USA 98119-2029
RE: Charlene Morrow

TASK 20 - PITCH 6

SOIL SAMPLES
reported in dry weight format

Enclosed are the results of analyses for samples received by the laboratory on 06/10/04 14:35. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeanne Garthwaite

Jeanne Garthwaite
Project Manager

North Creek Analytical, Inc.
Environmental Laboratory Network

www.ncalabs.com

Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244
425.420.9200 fax 425.420.9210
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509.924.9200 fax 509.924.9290
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Anchorage 2000 W. International Airport Road, Suite A10, Anchorage, AK 99502-1119
907.563.9200 fax 907.563.9210

Friedman & Bruya 3012 16th Ave W Seattle, WA/USA 98119-2029	Project: Charlene Morrow Project Number: 406095 Project Manager: Charlene Morrow	**Reported:** 06/24/04 12:43

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SDP-1B-0.5	B4F0354-01	Soil	06/08/04 10:20	06/10/04 14:35
D6-2B-0.5	B4F0354-02	Soil	06/08/04 11:25	06/10/04 14:35
D6-6B-0.5	B4F0354-03	Soil	06/08/04 12:40	06/10/04 14:35
D6-10B-0.5	B4F0354-04	Soil	06/08/04 13:40	06/10/04 14:35
D6-15B-0.5	B4F0354-05	Soil	06/08/04 14:20	06/10/04 14:35
D6-23B-0.5	B4F0354-06	Soil	06/08/04 15:10	06/10/04 14:35
D6-25B-0.5	B4F0354-07	Soil	06/08/04 15:55	06/10/04 14:35

North Creek Analytical - Bothell

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeanne Garthwaite

Jeanne Garthwaite, Project Manager

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Friedman & Bruya 3012 16th Ave W Seattle, WA/USA 98119-2029	Project: Charlene Morrow Project Number: 406095 Project Manager: Charlene Morrow	**Reported:** 06/24/04 12:43

Conventional Chemistry Parameters by APHA/EPA Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SDP-1B-0.5 (B4F0354-01) Soil	**Sampled: 06/08/04 10:20**	**Received: 06/10/04 14:35**							
Oil & Grease	**3110**	100	mg/kg dry	1	4F21017	06/21/04	06/21/04	EPA 9071A Mod	
D6-2B-0.5 (B4F0354-02) Soil	**Sampled: 06/08/04 11:25**	**Received: 06/10/04 14:35**							
Oil & Grease	**2910**	201	mg/kg dry	1	4F21017	06/21/04	06/21/04	EPA 9071A Mod	
D6-6B-0.5 (B4F0354-03) Soil	**Sampled: 06/08/04 12:40**	**Received: 06/10/04 14:35**							
Oil & Grease	**1660**	100	mg/kg dry	1	4F21017	06/21/04	06/21/04	EPA 9071A Mod	
D6-10B-0.5 (B4F0354-04) Soil	**Sampled: 06/08/04 13:40**	**Received: 06/10/04 14:35**							
Oil & Grease	**143**	100	mg/kg dry	1	4F21017	06/21/04	06/21/04	EPA 9071A Mod	
D6-15B-0.5 (B4F0354-05) Soil	**Sampled: 06/08/04 14:20**	**Received: 06/10/04 14:35**							
Oil & Grease	**3830**	228	mg/kg dry	1	4F21017	06/21/04	06/21/04	EPA 9071A Mod	
D6-23B-0.5 (B4F0354-06) Soil	**Sampled: 06/08/04 15:10**	**Received: 06/10/04 14:35**							
Oil & Grease	**777**	100	mg/kg dry	1	4F21017	06/21/04	06/21/04	EPA 9071A Mod	
D6-25B-0.5 (B4F0354-07) Soil	**Sampled: 06/08/04 15:55**	**Received: 06/10/04 14:35**							
Oil & Grease	ND	100	mg/kg dry	1	4F21017	06/21/04	06/21/04	EPA 9071A Mod	

North Creek Analytical - Bothell

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Friedman & Bruya 3012 16th Ave W Seattle, WA/USA 98119-2029	Project: Charlene Morrow Project Number: 406095 Project Manager: Charlene Morrow	**Reported:** 06/24/04 12:43

Physical Parameters by APHA/ASTM/EPA Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SDP-1B-0.5 (B4F0354-01) Soil	**Sampled: 06/08/04 10:20**	**Received: 06/10/04 14:35**							
Dry Weight	**61.2**	1.00	%	1	4F18021	06/18/04	06/19/04	BSOPSPL003R08	
D6-2B-0.5 (B4F0354-02) Soil	**Sampled: 06/08/04 11:25**	**Received: 06/10/04 14:35**							
Dry Weight	**49.7**	1.00	%	1	4F18021	06/18/04	06/19/04	BSOPSPL003R08	
D6-6B-0.5 (B4F0354-03) Soil	**Sampled: 06/08/04 12:40**	**Received: 06/10/04 14:35**							
Dry Weight	**69.7**	1.00	%	1	4F18021	06/18/04	06/19/04	BSOPSPL003R08	
D6-10B-0.5 (B4F0354-04) Soil	**Sampled: 06/08/04 13:40**	**Received: 06/10/04 14:35**							
Dry Weight	**78.5**	1.00	%	1	4F18021	06/18/04	06/19/04	BSOPSPL003R08	
D6-15B-0.5 (B4F0354-05) Soil	**Sampled: 06/08/04 14:20**	**Received: 06/10/04 14:35**							
Dry Weight	**43.8**	1.00	%	1	4F18021	06/18/04	06/19/04	BSOPSPL003R08	
D6-23B-0.5 (B4F0354-06) Soil	**Sampled: 06/08/04 15:10**	**Received: 06/10/04 14:35**							
Dry Weight	**77.2**	1.00	%	1	4F18021	06/18/04	06/19/04	BSOPSPL003R08	
D6-25B-0.5 (B4F0354-07) Soil	**Sampled: 06/08/04 15:55**	**Received: 06/10/04 14:35**							
Dry Weight	**75.8**	1.00	%	1	4F18021	06/18/04	06/19/04	BSOPSPL003R08	

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Friedman & Bruya	Project: Charlene Morrow	
3012 16th Ave W	Project Number: 406095	**Reported:**
Seattle, WA/USA 98119-2029	Project Manager: Charlene Morrow	06/24/04 12:43

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4F21017: Prepared 06/21/04 Using Grav. Preparation										
Blank (4F21017-BLK1)										
Oil & Grease	ND	100	mg/kg							
LCS (4F21017-BS1)										
Oil & Grease	564	100	mg/kg	654		86.2	70-132			
LCS Dup (4F21017-BSD1)										
Oil & Grease	560	100	mg/kg	654		85.6	70-132	0.712	50	
Duplicate (4F21017-DUP1)					**Source: B4F0354-01**					
Oil & Grease	3700	100	mg/kg dry		3110			17.3	50	

North Creek Analytical - Bothell

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Friedman & Bruya	Project: Charlene Morrow	
3012 16th Ave W	Project Number: 406095	**Reported:**
Seattle, WA/USA 98119-2029	Project Manager: Charlene Morrow	06/24/04 12:43

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4F18021: Prepared 06/18/04 Using Dry Weight										
Blank (4F18021-BLK1)										
Dry Weight	99.9	1.00	%							

North Creek Analytical - Bothell

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Friedman & Bruya	Project: Charlene Morrow	
3012 16th Ave W	Project Number: 406095	**Reported:**
Seattle, WA/USA 98119-2029	Project Manager: Charlene Morrow	06/24/04 12:43

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

North Creek Analytical - Bothell

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Jeanne Garthwaite, Project Manager

B4F0354

SAMPLE CHAIN OF CUSTODY

Page # _____ of _____

Send Report To Charlene Morrow

Company F&BI

Address see below

City, State, ZIP

Phone # Fax #

SAMPLERS *(signature)*

PROJECT NAME/NO. 406095

PO # F-528

REMARKS

TURNAROUND TIME
- [x] Standard (2 Weeks)
- [ ] RUSH

Rush charges authorized by:

SAMPLE DISPOSAL
- [ ] Dispose after 30 days
- [ ] Return samples
- [ ] Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED: O&G by 1664 no silica	Total Hg by 7470/7471	Total As, Cu, Pb, Zn by 6020	TCLP Hg by 7470 (sample is TCLP extract)	Total RCRA Metals by 6020/7470	O&G by 9071 (no silica)				Notes
SDP-1B-0.5	-01	6-8-04	1020	soil	1						X				
D6-2B-0.5	-02		1125		1						X				
D6-6B-0.5	-03		1240		1						X				
D6-10B-0.5	-04		1310		1						X				
D6-15B-0.5	-05		1420		1						X				
D6-23B-0.5	-06		1510		1						X				
D6-25B-0.5	-07		1555		1						X				
															Samples were not @2-6c upon receipt!

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Charlene Morrow	Charlene Morrow	F&BI	6-10-04	1130
Received by:		PRAN TONTY	NCA	6/10/04	1435
Relinquished by:					
Received by:					

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

16.3°W

406095 CM 06/10/04 CI2/ CO5

MFG, INC.

CHAIN-OF-CUSTODY RECORD AND REQUEST FOR ANALYSIS

COC No. 46279

☐ Arcata Office
875 Cressent Way
Arcata, CA 95521-6741
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Lynnwood, WA 98036
Tel (425) 921-4000
Fax (425) 921-4040

* Geomatrix
2101 Webster St 12th floor
Oakland, CA 94612

PROJECT NO: 030275.23 PROJECT NAME: SPI Arcata PAGE: 1 OF: 2
SAMPLER (Signature): Matt Hillyard PROJECT MANAGER: Ross Steenson DATE: 6/9/04
METHOD OF SHIPMENT: FedEx CARRIER/WAYBILL NO: _____ DESTINATION: Friedman + Bruya

Lab ID	Field Sample Identification	Sample DATE	Sample TIME	Matrix*	Preservation HCl	Preservation HNO_3	Preservation H_2SO_4	Preservation COLD	FILTRATION*	Containers VOLUME (ml/oz)	Containers TYPE*	Containers NO.	Constituents/Method TPH-Diesel 8015M	Constituents/Method TPH-Diesel 8015M SGC	Constituents/Method EPA 8021B	Constituents/Method PAHs 8270SIM	Handling HOLD	Handling RUSH	Handling STANDARD	Remarks
01	SDP-1B-0.5	6/8	1020	SO				X				1	X	X	X	X			X	
02	D6-2B-0.5		1125									1								
03	D6-6B-0.5		1240									1								
04	D6-10B-0.5		1340									1								
05	D6-15B-0.5		1420									1								
06	D6-23B-0.5		1510									1								
07	D6-25B-0.5		1555									1								

SAMPLES: Sample, Preservation, Containers
ANALYSIS REQUEST: Constituents/Method, Handling, Remarks

TOTAL NUMBER OF CONTAINERS 7

LABORATORY COMMENTS/CONDITION OF SAMPLES Cooler Temp:

RELINQUISHED BY: SIGNATURE	PRINTED NAME	COMPANY	DATE	TIME	RECEIVED BY: SIGNATURE	PRINTED NAME	COMPANY
Matt Hillyard	Matt Hillyard	MFG	6/9/04	1530	[signature]	Thao Pham	Friedman & Bruya 6/10/04/09:40 LABORATORY

*KEY Matrix: AQ - aqueous NA - nonaqueous SO - soil SL - sludge P - petroleum A - air OT - other Containers P - plastic G - glass T - teflon B - brass OT - other Filtration F - filtered U - unfiltered

DISTRIBUTION: PINK: Field Copy YELLOW: Laboratory Copy WHITE: Return to Originator

406045 CM 06/10/04 CI2/605

MFG, INC.

CHAIN-OF-CUSTODY RECORD AND REQUEST FOR ANALYSIS

COC No. 46280

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Tel (425) 921-4000
Fax (425) 921-4040

PROJECT NO: 030275.23 PROJECT NAME: SPI Arcata PAGE: 2 OF: 2

SAMPLER (Signature): Matt Hillyard PROJECT MANAGER: Ross Steenson DATE: 6/9/04

METHOD OF SHIPMENT: Fed Ex CARRIER/WAYBILL NO: _____ DESTINATION: Friedman & Bruya

Lab ID	Field Sample Identification	SAMPLES: Sample DATE	TIME	Matrix*	Preservation: HCl	HNO_3	H_2SO_4	COLD	FILTRATION*	Containers: VOLUME (ml/oz)	TYPE*	NO.	ANALYSIS REQUEST: Constituents/Method: VOC's EPA 8260	Handling: HOLD	RUSH	STANDARD	Remarks
08	SDP-1B-1.0	6/8	1020	SO				X			Stainless Steel Tube	1	X			X	
09	D6-2B-1.0		1125									1					
10	D6-6B-1.0		1240									1					
11	D6-10B-1.0		1340									1					
12	D6-15B-1.0		1420									1					
13	D6-23B-1.0		1510									1					
14	D6-25B-1.0		1555									1					

TOTAL NUMBER OF CONTAINERS 7

LABORATORY COMMENTS/CONDITION OF SAMPLES Cooler Temp:

RELINQUISHED BY: SIGNATURE	PRINTED NAME	COMPANY	DATE	TIME	RECEIVED BY: SIGNATURE	PRINTED NAME	COMPANY
Matt Hillyard	Matt Hillyard	MFG	6/9/04	1530	[signature]	Nhan Phan	Friedman & Bruya 06/10/04 / 0944 LABORATORY

*KEY: Matrix: AQ - aqueous NA - nonaqueous SO - soil SL - sludge P - petroleum A - air OT - other Containers: P - plastic G - glass T - teflon B - brass OT - other Filtration: F - filtered U - unfiltered

DISTRIBUTION: PINK: Field Copy YELLOW: Laboratory Copy WHITE: Return to Originator

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907.563.9200 fax 907.563.9210

21 September 2004

TASK 20 - DITCH 6

SOIL SAMPLES
reported in wet weight format

Charlene Morrow
Friedman & Bruya
3012 16th Ave W
Seattle, WA/USA 98119-2029

RE: Charlene Morrow

Enclosed are **amended** results of analyses for samples received by the laboratory on 06/10/04 14:35. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeanne Garthwaite

Jeanne Garthwaite
Project Manager

North Creek Analytical, Inc.
Environmental Laboratory Network

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Amended Report for B4F0354

Client: Friedman & Bruya
Project Manager: Charlene Morrow
Project Name: 406095

This amended report is being issued due to error(s) in the original report you received.

Amendment(s) from the original report include:

1) Client requested that we report the results without dry weight correction.

No other information included in the original report has changed.

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Project: Charlene Morrow
Project Number: 406095
Project Manager: Charlene Morrow

Amended Report
Issued: 09/21/04 15:14

ANALYTICAL REPORT FOR SAMPLES - Amended

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SDP-1B-0.5	B4F0354-01	Soil	06/08/04 10:20	06/10/04 14:35
D6-2B-0.5	B4F0354-02	Soil	06/08/04 11:25	06/10/04 14:35
D6-6B-0.5	B4F0354-03	Soil	06/08/04 12:40	06/10/04 14:35
D6-10B-0.5	B4F0354-04	Soil	06/08/04 13:40	06/10/04 14:35
D6-15B-0.5	B4F0354-05	Soil	06/08/04 14:20	06/10/04 14:35
D6-23B-0.5	B4F0354-06	Soil	06/08/04 15:10	06/10/04 14:35
D6-25B-0.5	B4F0354-07	Soil	06/08/04 15:55	06/10/04 14:35

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Friedman & Bruya 3012 16th Ave W Seattle, WA/USA 98119-2029	Project: Charlene Morrow Project Number: 406095 Project Manager: Charlene Morrow	**Amended Report** Issued: 09/21/04 15:14

Conventional Chemistry Parameters by APHA/EPA Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SDP-1B-0.5 (B4F0354-01) Soil	**Sampled: 06/08/04 10:20**	**Received: 06/10/04 14:35**							
Oil & Grease	**1900**	100	mg/kg	1	4F21017	06/21/04	06/21/04	EPA 9071A Mod	
D6-2B-0.5 (B4F0354-02) Soil	**Sampled: 06/08/04 11:25**	**Received: 06/10/04 14:35**							
Oil & Grease	**1440**	100	mg/kg	1	4F21017	06/21/04	06/21/04	EPA 9071A Mod	
D6-6B-0.5 (B4F0354-03) Soil	**Sampled: 06/08/04 12:40**	**Received: 06/10/04 14:35**							
Oil & Grease	**1160**	100	mg/kg	1	4F21017	06/21/04	06/21/04	EPA 9071A Mod	
D6-10B-0.5 (B4F0354-04) Soil	**Sampled: 06/08/04 13:40**	**Received: 06/10/04 14:35**							
Oil & Grease	**112**	100	mg/kg	1	4F21017	06/21/04	06/21/04	EPA 9071A Mod	
D6-15B-0.5 (B4F0354-05) Soil	**Sampled: 06/08/04 14:20**	**Received: 06/10/04 14:35**							
Oil & Grease	**1680**	100	mg/kg	1	4F21017	06/21/04	06/21/04	EPA 9071A Mod	
D6-23B-0.5 (B4F0354-06) Soil	**Sampled: 06/08/04 15:10**	**Received: 06/10/04 14:35**							
Oil & Grease	**600**	100	mg/kg	1	4F21017	06/21/04	06/21/04	EPA 9071A Mod	
D6-25B-0.5 (B4F0354-07) Soil	**Sampled: 06/08/04 15:55**	**Received: 06/10/04 14:35**							
Oil & Grease	ND	100	mg/kg	1	4F21017	06/21/04	06/21/04	EPA 9071A Mod	

North Creek Analytical - Bothell

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Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4F21017: Prepared 06/21/04 Using Grav. Preparation										
Blank (4F21017-BLK1)										
Oil & Grease	ND	100	mg/kg							
LCS (4F21017-BS1)										
Oil & Grease	564	100	mg/kg	654		86.2	70-132			
LCS Dup (4F21017-BSD1)										
Oil & Grease	560	100	mg/kg	654		85.6	70-132	0.712	50	
Duplicate (4F21017-DUP1)					**Source: B4F0354-01**					
Oil & Grease	2260	100	mg/kg		1900			17.3	50	

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Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

APPENDIX E

Laboratory Data Quality Review

APPENDIX E

LABORATORY DATA QUALITY REVIEW

Geomatrix reviewed quality assurance and quality control (QA/QC) procedures to assess quality of the analytical results by evaluating the precision, accuracy, and completeness of the data. We performed the data quality review using U.S. Environmental Protection Agency National Functional Guidelines for Organic Data Review (U.S. EPA, 1999).

PRECISION

Data precision is evaluated by comparing analytical results for the following:

- concentrations of matrix spike (MS) and matrix spike duplicate (MSD) concentrations
- laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) concentrations

Concentrations detected in the primary or spiked samples are compared with respective concentrations in duplicate or duplicate spiked samples. Relative percent differences (RPDs) are used to calculate results, using the following equation:

$$RPD = \frac{[S - D]}{(S + D)/2} \times 100$$

Where,

S = Sample concentration
D = Duplicate sample concentration

RPDs are only calculated when primary and duplicate sample concentrations are greater than or equal to two times the laboratory reporting limits. In cases where the detection in either the primary or duplicate sample, or both, are less than two times the reporting limit, the absolute difference between the primary and duplicate sample concentration is calculated. RPDs for MS/MSD and LCS/LCSD analysis are reported in laboratory analytical reports, included in Appendices C and D.

RPDs for the groundwater and soil monitoring program data were acceptable.

ACCURACY

Data accuracy is assessed by evaluating holding times required by analytical methods, sample preservation, method blank results, recovery of laboratory surrogates, MS/MSD results, and LCS/LCSD results. We evaluated these criteria for groundwater and soil samples. Results of the review are summarized below.

- **Hold times.** Samples were analyzed within the holding time for each analytical method, except for oil and grease analyses of groundwater. In accordance with the National Functional Guidelines (U.S. EPA, 1999), all oil and grease non-detections in groundwater are qualified as estimated (UJ).
- **Preservation.** Samples were collected in laboratory-supplied containers with preservatives, if applicable. Samples were stored and transported to analytical laboratories in chilled coolers.
- **Method blanks.** No detections were observed in any of the method blanks analyzed by the laboratory. However, the laboratory considered detections of methylene chloride in four grab groundwater samples to be related to laboratory contamination. These results are reported as not detected at concentrations reported by the laboratory. This procedure is consistent with the National Functional Guidelines (U.S. EPA, 1999) where blank contamination is identified.
- **Surrogate Recoveries.** The surrogate o-Terphenyl used in the analysis of TPHd was recovered outside the acceptable range (59-126%) in the following samples: SDP-1B, 50%; D6-1B, 49%; with silica gel clean-up SDP-1B, 48%; D6-1B, 46%. In accordance with the National Functional Guidelines, all TPHd detections in the samples with surrogate recoveries less than the acceptable range are qualified as estimated (J), and all non-detections are qualified as estimated (UJ). The affected samples are flagged in Appendices C and D.
- The surrogate o-Terphenyl used in the analysis of TPHmo was recovered outside the acceptable range (50-150%) in the following sample: D6-15B, 48%. In accordance with the National Functional Guidelines (U.S. EPA, 1999), the TPHmo detection in this sample with surrogate recovery less than the acceptable range is qualified as estimated (J). The affected sample is flagged in Appendices C and D.
- **MS/MSD analysis.** RPDs were acceptable.

- **LCS/LCSD analysis.** The RPD for 1,2-dichloroethane (23) was outside the method limit (20). No data was qualified since there were no detections of 1,2-dichloroethane.

COMPLETENESS

Based on our laboratory data quality review, data contained in this report is considered complete and representative.