

**FAX**

from **Geomatix Consultants, Inc.**  
2101 Webster Street, 12th Floor, Oakland, CA 94612  
[www.geomatrix.com](http://www.geomatrix.com)

**Date:** March 30, 2000**Number of pages  
including cover sheet:**

17

The information in this telecopy is intended for the named recipient(s) only. It may contain privileged and confidential matter. If you have received this telecopy in error, please notify the sender immediately. Thank you.

**To:** Hugh Murphy: 510-583-3641

Susan Hugo: 510-337-9335

Roger Brewer: 510-622-2460

Barbara Cook: 510-540-2122

Mark Beskind: 650-857-1077

Kim Brandt: 510-652-2246

Fax Phone:

Phone:

CC:

**From:** Thomas GaviganFax Phone: **510-663-4141**Phone: **510-663-4100**

Direct dial:

Email:

Project No.: **6262,000.0**Project Name: **Canterbury Residential Development****REMARKS:**

Hard copy to follow    Urgent    For your review    Reply ASAP    Please comment

Attached please find the text, tables, and figures for the Soil Sampling Report. A complete hard copy with all of the Attachments will be overnighted. Thank you.

Oakland, CA • San Leandro, CA • Frendo, CA • Sacramento, CA • Costa Mesa, CA • Austin, TX • Houston, TX  
Minneapolis, MN • Detroit, MI • Buffalo, NY • Chicago, IL • Niagara Falls, ON • Kitchener-Waterloo, ON

2101 Webster Street  
12th Floor  
Oakland, CA 94612  
(510) 663-4100 • FAX (510) 663-4141



March 30, 2000  
Project 6262.000.0

L.I. ENVIRONMENTAL  
PROTECTION

00 MAR 34 PM 12.04

SAC 6669K

Mr. Hugh J. Murphy  
City of Hayward Fire Department  
777 B Street  
Hayward, CA 94541-5007

Subject: Soil Sampling Results – Telford Court  
Canterbury Residential Development  
Hayward, California

Dear Mr. Murphy:

On behalf of the City of Hayward, Geomatrix Consultants, Inc. (Geomatrix) has prepared this summary of the results of a soil sampling program performed on residential properties on Telford Court in the Canterbury Residential Development in Hayward, California (Figure 1). The scope of work described herein was based on Geomatrix' March 17, 2000 work plan ("the work plan").<sup>1</sup>

Based on reports by third parties, affected soil from other properties in the development may have been moved to the vicinity of Telford Court and possibly removed subsequently. The goal of this sampling effort was to evaluate soil conditions on eight residential parcels (Lots 33 to 40) on Telford Court. To achieve this goal, soil samples were collected and analyzed for chemicals of potential concern and detected concentrations were evaluated relevant to future residential land use.

This report is divided into four sections. The first section describes the methods used to collect the soil samples. The second section describes the analytical methods used by the laboratories. The third section presents the results of the field and analytical programs. The fourth section summarizes a comparison of the concentrations detected to levels considered acceptable by the U.S. Environmental Protection Agency (U.S. EPA) for residential land use.

## FIELD PROGRAM

Prior to performing the field investigation, Geomatrix completed the following tasks: prepared a Health and Safety Plan; obtained a boring permit from the Alameda County Public Works Department (Attachment A); and cleared boring locations for underground utilities by notifying appropriate utilities through Underground Service Alert (USA). Prior to drilling, Geomatrix consulted in the field with a representative of the City of Hayward Department of Public Works regarding underground utilities.

<sup>1</sup> Geomatrix Consultants, Inc., 2000, Soil Sampling Plan, Canterbury Residential Development, Hayward, California, March 17.



Mr. Hugh Murphy  
City of Hayward Fire Department  
March 30, 2000  
Page 2

On March 20, 2000, Geomatrix supervised the advancement of 24 borings (GMX-33A, B, C through GMX-40A, B, C,) in the 8 residential lots at Telford Court (Figure 2). Precision Sampling, Inc., a California-licensed drilling firm from Richmond, California, advanced the borings using two direct-push drill rigs (an MD-1 and a DA-2).

The borings were continuously cored to a depth of about 9 feet below ground surface (bgs). The top 1.5 feet of the borings advanced with the MD-1 rig were cored using a California-modified split spoon sampler lined with stainless steel tubes. At this depth, the drillers converted to a dual tube (Enviro-core™) sampling system to complete the borings. The borings advanced with the DA-2 rig were continuously cored from the ground surface using the Enviro-core™ sampling system. The inner sample barrel of the Enviro-core system was lined with stainless steel tubes.

The recovered soil was logged in accordance with the Unified Soil Classification System visual-manual procedure (ASTM D2488-90) under the direction of a Geomatrix geologist registered in the State of California. The soil was screened in the field for volatile organic compounds (VOCs) using an organic vapor monitor equipped with a photoionization detector (PID).

As presented in the work plan, soil samples were collected at three depth intervals (approximately 0.5 to 1.5 feet bgs, 4.0 to 5.0 feet bgs, and 7.0 to 8.0 feet bgs) at each boring location. Because soil samples were to be submitted to two separate laboratories for specific analyses, two samples were collected from each of the three depth intervals at each boring. Samples were designated by lot number, sequential alpha character per lot, and depth (e.g., GMX33B-1.5).

Samples were packaged for laboratory analyses by covering the ends of each sampling tube with Teflon sheets and plastic caps. The caps were secured with silicon tape. The soil samples were labeled, placed in resealable plastic bags, and stored in coolers with ice pending delivery to an analytical laboratory under Geomatrix chain-of-custody.

All downhole equipment, including outer drive casing, inner sample barrels, drive rods, and sample tubes, was steam cleaned prior to borehole advancement at each location. Soil cuttings and cleaning water rinsate were placed in labeled 55-gallon drums pending characterization for disposal by SummerHill Homes.

## ANALYTICAL PROGRAM

As outlined in the work plan, the analytical program was designed in a phased approach. Initially, soil samples from one boring in each lot were submitted to the laboratory for



Mr. Hugh Murphy  
City of Hayward Fire Department  
March 30, 2000  
Page 3

analyses; the soil samples from the other 16 borings were held at the laboratory pending review of the analytical results of the initial samples. Figure 2 shows the eight borings from which soil samples were initially analyzed (samples designated "B" on Lots 33 to 34 and designated "C" on lots 35 to 40). The analyses performed on these samples were selected to provide a broad spectrum of analytes that may be associated with industrial and agricultural operations and were consistent with previous analyses conducted at the property.

Soil samples from the upper 0.5-foot of each sampling interval were submitted to Chromalab, a California-certified analytical laboratory located in Pleasanton, California. Twenty-four of the 72 soil samples submitted were analyzed for:

- Title 22 metals, in accordance with U.S. EPA 6000/7000 series methods;
- pesticides, in accordance with U.S. EPA Method 8081; and
- polychlorinated biphenyls (PCBs), in accordance with U.S. EPA Method 8082.

Soil samples from the lower 0.5-foot of each sampling interval were submitted to Friedman & Bruya, a California- certified analytical laboratory in Seattle, Washington. Twenty-four of the 72 soil samples submitted were analyzed for:

- total petroleum hydrocarbons quantified as motor oil (TPHmo), in accordance with U.S. EPA Method 8015, modified after a silica gel cleanup;
- VOCs, in accordance with U.S. EPA Method 8260; and
- polycyclic aromatic hydrocarbons (PAHs), in accordance with U.S. EPA Method 8270C SIM (selected ion mode).

Based on review of the initial analytical results (discussed in the following section), shallow soil samples (1.5 feet bgs) from three borings (GMX-39C, GMX-40A, and GMX-40B) were removed from hold status and analyzed for PAHs and TPHmo (Figure 2). In addition, the 1.5-foot soil sample from boring GMX-40C was reanalyzed for PAHs using remaining soil from the opposite end of the sample tube.

For quality assurance/quality control (QA/QC) purposes, the laboratories analyzed method blanks, matrix spike/matrix spike duplicate samples, and laboratory control samples. In addition, Friedman and Bruya analyzed laboratory duplicate samples.



Mr. Hugh Murphy  
City of Hayward Fire Department  
March 30, 2000  
Page 4

## RESULTS OF FIELD PROGRAM

This section presents the results of the field program. A summary of the soil types observed during drilling and a discussion of the analytical results follow.

### SOIL CLASSIFICATION

Soil beneath the Telford Court area consists primarily of lean clay and lean clay with sand. The upper three feet typically consists of firm, dark gray to dark brown, lean clay with minor amounts of fine to coarse sand and fine gravel, that appears to be fill material<sup>2</sup>. The upper fill unit is underlain by lean clay that grades in color from dark gray to light gray or brown. From depths of approximately 6 to 9 feet bgs, soft, gray to brown, lean clay with sand was typically observed.

Groundwater was not encountered during soil sampling activities. No indications of chemical impacts such as elevated PID readings, odor, or staining were observed. Therefore, no adjustments to the soil sampling program presented in the work plan were made in the field. Soil boring logs for the 11 borings from which soil samples were analyzed are included as Attachment B.

### ANALYTICAL LABORATORY RESULTS

#### Soil Sample Results

✓ Analytical results for PCBs, pesticides, metals, PAHs and TPHmo, and VOCs are summarized in Tables 1 through 5, respectively. Laboratory data sheets from Chromalab and Friedman and Bruya are presented in Attachments C and D, respectively. QA/QC results are included as Attachment E.

PCBs were not detected in any of the samples analyzed (analyte quantitation limit of 0.05 milligrams per kilogram [mg/kg]).

✓ Pesticides were detected in four samples at the site (GMX34B-1.0, GMX36C-4.5, GMX37C-1.0, and GMX37C-4.5). Pesticides were not detected in the deepest samples analyzed (7.0 to 8.0 feet bgs). Dieldrin was detected in two samples at 2.2 and 16 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ); endrin aldehyde was detected in one sample at 11  $\mu\text{g}/\text{kg}$ , and 4,4'-DDE was detected in three samples at 2.0 to 2.2  $\mu\text{g}/\text{kg}$ .

---

<sup>2</sup> This interpretation is consistent with SummerHill Homes statement that soil in the Telford Court area was overexcavated to approximately 3 feet bgs and replaced/compacted for geotechnical purposes prior to construction (meeting at City of Hayward, March 24, 2000).



Mr. Hugh Murphy  
City of Hayward Fire Department  
March 30, 2000  
Page 5

Eleven metals (shown below), which occur naturally in soils, were detected at the site. With the exception of cadmium and mercury, these metals were detected in at least 21 of the 24 samples analyzed. Cadmium was only detected in two samples and mercury was detected in nine samples. The range of detections for the eleven metals are presented below:

Arsenic: 1.0 to 7.2 mg/kg	Lead: 4.2 to 31 mg/kg
Barium: 19 to 320 mg/kg	Mercury: 0.052 to 0.39 mg/kg
Cadmium: 0.52 to 0.55 mg/kg	Nickel: 19 to 51 mg/kg
Chromium: 2.4 to 32 mg/kg	Vanadium: 1.5 to 57 mg/kg
Cobalt: 4.1 to 11 mg/kg	Zinc: 16 to 98 mg/kg
Copper: 3.9 to 48 mg/kg	

TPHmo was detected in ten of the eleven shallow samples at concentrations from 75 to 760 mg/kg. TPHmo was not detected at location GMX-33B. The chromatogram for the TPHmo analyses was relatively consistent with the motor oil standard used by the laboratory (chromatograms provided in Attachment D). TPHmo was not detected in samples at 4.5/5.0 or 7.5/8.5 feet bgs.

One or more PAHs, commonly associated with petroleum hydrocarbons, were detected in three of the initial eight shallow samples. PAHs were not detected in any samples at 4.5/5.0 or 7.5/8.5. In GMX34B-1.5, only benzo(g,h,i)perylene was detected at 58 µg/kg. In GMX38C-1.5, only chrysene was detected (53 µg/kg). In GMX40C-1.5, ten PAHs were detected at concentrations ranging from 55 to 410 µg/kg. Based on the criteria established in the work plan<sup>3</sup>, the detections at GMX40C-1.5 required analyses of additional shallow samples in the vicinity of GMX40C. GMX40B-1.5, GMX40A-1.5, and GMX 39B-1.5 were subsequently analyzed for PAHs. Deeper samples were not analyzed because PAHs were not detected at depth, and the soil stratigraphy was distinctly different for the deeper samples. In addition, sample GMX40C-1.5 was reanalyzed using remaining soil from the other end of the sample container. PAHs were not detected in any of the reanalyzed samples.

Four VOCs, methylene chloride, naphthalene, 1,3,5-trimethylbenzene, and 1,2,4-trimethylbenzene, were reported in samples from the laboratory. The laboratory identified methylene chloride as a laboratory contaminant in the sixteen samples in which it was

<sup>3</sup> If concentrations of any analyte exceeded the corresponding residential preliminary remediation goal (PRG; U.S. EPA, 1999), the additional samples in the vicinity would be analyzed.

Mr. Hugh Murphy  
City of Hayward Fire Department  
March 30, 2000  
Page 6

reported. Naphthalene<sup>4</sup>, 1,3,5-trimethylbenzene, and/or 1,2,4-trimethylbenzene, commonly associated with petroleum hydrocarbons, were detected in two of the eight surface samples analyzed (GMX38C-1.5 and GMX40C-1.5 [also where PAHs were detected]). These three VOCs were not detected in samples at 4.5 or 7.5 feet bgs. Naphthalene was detected in both samples (at 11 µg/kg); 1,3,5-trimethylbenzene was detected in one sample (13 µg/kg) and 1,2,4-trimethylbenzene was detected in both samples (6 and 22 µg/kg).

### Data Evaluation

In accordance with the work plan, the concentrations of pesticides, metals, VOCs, and PAHs detected at the site were compared with residential Preliminary Remediation Goals (PRGs) established by U.S. EPA Region 9<sup>5</sup>. Total petroleum hydrocarbon measurements, such as TPHmo, represent mixtures of chemicals that, because of their potentially highly variable composition, have no associated health criteria. Therefore, the toxicity of these mixtures is best described by the aggregate toxicity of key individual chemicals in the mixture. As is the practice in California<sup>6</sup>, only petroleum hydrocarbon constituents detected in soil, i.e., VOCs and PAHs, were considered for comparison to PRGs.

PRGs combine current EPA toxicity values with standard exposure factors to estimate concentrations in environmental media (e.g., soil) that are protective of human health, including sensitive subgroups, over a lifetime. For some chemicals, variations in exposure or toxicity assessment required in California have been applied and a "Cal-modified" PRG has been published. The Cal-modified PRGs have been used in this assessment, where available. If chemicals are present at concentrations below the PRGs, then exposure to these chemicals should not result in adverse health effects. If multiple chemicals are present, then the potential for adverse health effects associated with cumulative exposure may need to be evaluated. The presence of chemicals at concentrations exceeding PRGs does not indicate that adverse health effects will occur, but "suggests that further evaluation of the potential risks that may be posed by site contaminants is appropriate."<sup>5</sup> The PRGs are listed at the bottom of the Tables 1 through 5 for detected chemicals.

---

<sup>4</sup> Naphthalene is also reported in the PAH analysis results. The concentrations detected using the VOC analysis (U.S. EPA Method 8260) were below the quantitation limits for naphthalene for the corresponding samples reported on the PAH analysis (U.S. EPA 8270) because of interferences requiring dilution of the samples analyzed for PAHs.

<sup>5</sup> U.S. EPA, 1999, Region 9 Preliminary Remediation Goals (PRGs), October 1.

<sup>6</sup> Cal-EPA, 1994, Preliminary Endangerment Assessment Guidance Manual: Department of Toxic Substances control, Sacramento, California.

Mr. Hugh Murphy  
City of Hayward Fire Department  
March 30, 2000  
Page 7

With the exception of arsenic, dieldrin, and three PAHs in one sample, concentrations of all other analytes detected were at least 100 times lower than their respective PRG.

- Concentrations of arsenic (1.0 to 7.2 mg/kg) exceed the residential PRG of 0.32 mg/kg. However, like other metals, arsenic occurs naturally in soil and the concentration of arsenic was compared to background concentrations in the San Francisco Bay area.<sup>7</sup> The maximum concentration of arsenic was well below the upper tolerance limit of the background concentration in the San Francisco Bay area. Thus, arsenic concentrations present at the site are considered representative of background concentrations in soil.
- The maximum concentration of dieldrin (16 µg/kg) was approximately one-half of the PRG (31 µg/kg). Dieldrin was detected in only one other sample at a concentration of 2.2 µg/kg, which is just above the quantitation limit. These results indicate that the presence of dieldrin in site soil is limited.
- In one shallow sample (GMX40C-1.5), concentrations of benzo(a)anthracene (170 µg/kg) and benzo(b)fluoranthene (77 µg/kg) were at least 10 percent of their PRGs (620 µg/kg for both PAHs), and the concentration of benzo(a)pyrene (140 µg/kg) exceeded its PRG (62 µg/kg). Concentrations of PAHs in additional samples analyzed in the vicinity (within approximately 50 feet) were below quantitation limits (50 µg/kg). A reanalysis of remaining soil from the other end of the sample tube for GMX40C-1.5 (6 inches or less from the initial sample) was also below quantitation limits. These results indicate that the PAHs detected represent a shallow, isolated area of potentially affected soil that would not present a significant source of exposure.

Based on data presented in this report and comparisons of maximum detected soil concentrations to levels considered acceptable by U.S. EPA for residential site use, no further action is recommended and the lots at Telford Court can be occupied for residential use.

---

<sup>7</sup>Lawrence Berkeley National Laboratory, 1995, "Background Concentration of Metals in Soil at Lawrence Berkeley National Laboratory".



Mr. Hugh Murphy  
City of Hayward Fire Department  
March 30, 2000  
Page 8

Geomatrix appreciates this opportunity to provide consulting services to the City of Hayward.  
If you have any further questions, please contact any of the undersigned.

Sincerely yours,  
GEOMATRIX CONSULTANTS, INC.

A handwritten signature in black ink.

Ann M. Holbrow  
Senior Scientist

A handwritten signature in black ink.

Thomas H. Gavigan, R.G., C.HG.  
Project Hydrogeologist

A handwritten signature in black ink.

Susan Gallardo, P.E.  
Principal Engineer

Attachments:

- Tables 1 through 5
- Figures 1 and 2
- Attachment A – Permit
- Attachment B – Boring Logs
- Attachment C – Laboratory Analytical Results - Metals, Pesticides, and PCBs
- Attachment D – Laboratory Analytical Results – TPHmo, PAHs, VOCs
- Attachment E – Results of Quality Assurance/Quality Control

cc: Susan Hugo – Alameda County Health Care Services  
Barbara Cook – Department of Toxic Substances Control  
Roger Brewer – California Regional Water Quality Control Board, San Francisco Bay Region  
Mark Beskind – SummerHill Homes  
Kim Brandt – LFR Levine\*Fricke



## TABLES

---

**TABLE 1**

**SOIL ANALYTICAL RESULTS FOR POLYCHLORINATED BIPHENYLS<sup>1</sup>**  
 Canterbury Residential Development  
 Hayward, California

Concentrations reported in milligrams per kilogram (mg/kg)

Sample I.D.	Depth (feet)	Date	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260
GMX33B-1.0	1.0	3/20/00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GMX33B-4.0	4.0	3/20/00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GMX33B-7.0	7.0	3/20/00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GMX34B-1.0	1.0	3/20/00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GMX34B-4.0	4.0	3/20/00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GMX34B-7.0	7.0	3/20/00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GMX35C-1.0	1.0	3/20/00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GMX35C-4.0	4.0	3/20/00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GMX35C-7.0	7.0	3/20/00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GMX36C-1.0	1.0	3/20/00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GMX36C-4.5	4.5	3/20/00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GMX36C-8.0	8.0	3/20/00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GMX37C-1.0	1.0	3/20/00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GMX37C-4.5	4.5	3/20/00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GMX37C-8.0	8.0	3/20/00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GMX38C-1.0	1.0	3/20/00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GMX38C-4.5	4.5	3/20/00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GMX38C-8.0	8.0	3/20/00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GMX39C-1.0	1.0	3/20/00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GMX39C-4.5	4.5	3/20/00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GMX39C-8.0	8.0	3/20/00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GMX40C-1.0	1.0	3/20/00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GMX40C-4.5	4.5	3/20/00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GMX40C-8.0	8.0	3/20/00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Notes:

- Analyzed in accordance with U.S. EPA Method 8082.

**TABLE 2**  
**SOIL ANALYTICAL RESULTS FOR ORGANOCHLORINE PESTICIDES<sup>1</sup>**  
 Canterbury Residential Development  
 Hayward, California

Sample I.D.	Depth (feet)	Sample Date	Aldrin	alpha-BHC	beta-BHC	delta-BHC	gamma-BHC (Lindane)	alpha-Chlordane	gamma-Chlordane	Concentrations reported in micrograms per kilogram ( $\mu\text{g}/\text{kg}$ )													
										4,4'-DDD	4,4'-DDE	4,4'-DDT	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Heptachlor	Heptachlor epoxide	4,4'-Methoxychlor	Toxaphene	
GMX33B-1.0	1.0	3/20/00	<10	<10	<10	<10	<10	<250	<250	<10	<10	<50	<10	<50	<50	<10	<50	<10	<10	<10	<50	<500	
GMX33B-4.0	4.0	3/20/00	<2.0	<2.0	<2.0	<2.0	<2.0	<50	<50	<2.0	<2.0	<10	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<100	
GMX33B-7.0	7.0	3/20/00	<2.0	<2.0	<2.0	<2.0	<2.0	<50	<50	<2.0	<2.0	<10	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<100	
GMX34B-1.0	1.0	3/20/00	<10	<10	<10	<10	<10	<250	<250	<10	<10	<50	<b>16<sup>2</sup></b>	<50	<50	<50	<10	<50	<10	<10	<10	<50	<500
GMX34B-4.0	4.0	3/20/00	<2.0	<2.0	<2.0	<2.0	<2.0	<50	<50	<2.0	<2.0	<10	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<100	
GMX34B-7.0	7.0	3/20/00	<2.0	<2.0	<2.0	<2.0	<2.0	<50	<50	<2.0	<2.0	<10	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<100	
GMX35C-1.0	1.0	3/20/00	<10	<10	<10	<10	<10	<250	<250	<10	<10	<50	<10	<50	<50	<10	<50	<10	<10	<10	<50	<500	
GMX35C-4.0	4.0	3/20/00	<2.0	<2.0	<2.0	<2.0	<2.0	<50	<50	<2.0	<2.0	<10	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<100	
GMX35C-7.0	7.0	3/20/00	<2.0	<2.0	<2.0	<2.0	<2.0	<50	<50	<2.0	<2.0	<10	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<100	
GMX36C-1.0	1.0	3/20/00	<10	<10	<10	<10	<10	<250	<250	<10	<10	<50	<10	<50	<50	<10	<50	<10	<10	<10	<50	<500	
GMX36C-4.5	4.5	3/20/00	<2.0	<2.0	<2.0	<2.0	<2.0	<50	<50	<2.0	<b>2.0</b>	<10	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<100	
GMX36C-8.0	8.0	3/20/00	<2.0	<2.0	<2.0	<2.0	<2.0	<50	<50	<2.0	<2.0	<10	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<100	
GMX37C-1.0	1.0	3/20/00	<2.0	<2.0	<2.0	<2.0	<2.0	<50	<50	<2.0	<b>4.4</b>	<10	<2.0	<10	<10	<2.0	<b>11</b>	<2.0	<2.0	<2.0	<10	<100	
GMX37C-4.5	4.5	3/20/00	<2.0	<2.0	<2.0	<2.0	<2.0	<50	<50	<2.0	<b>2.2</b>	<10	<b>2.2</b>	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<100	
GMX37C-8.0	8.0	3/20/00	<2.0	<2.0	<2.0	<2.0	<2.0	<50	<50	<2.0	<2.0	<10	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<100	
GMX38C-1.0	1.0	3/20/00	<2.0	<2.0	<2.0	<2.0	<2.0	<50	<50	<2.0	<2.0	<10	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<100	
GMX38C-4.0	4.0	3/20/00	<2.0	<2.0	<2.0	<2.0	<2.0	<50	<50	<2.0	<2.0	<10	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<100	
GMX38C-8.0	8.0	3/20/00	<2.0	<2.0	<2.0	<2.0	<2.0	<50	<50	<2.0	<2.0	<10	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<100	
GMX39C-1.0	1.0	3/20/00	<2.0	<2.0	<2.0	<2.0	<2.0	<50	<50	<2.0	<2.0	<10	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<100	
GMX39C-4.0	4.0	3/20/00	<2.0	<2.0	<2.0	<2.0	<2.0	<50	<50	<2.0	<2.0	<10	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<100	
GMX39C-8.0	8.0	3/20/00	<2.0	<2.0	<2.0	<2.0	<2.0	<50	<50	<2.0	<2.0	<10	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<100	
GMX40C-1.0	1.0	3/20/00	<10	<10	<10	<10	<10	<250	<250	<10	<10	<50	<10	<50	<50	<10	<50	<10	<10	<10	<50	<500	
GMX40C-4.5	4.5	3/20/00	<2.0	<2.0	<2.0	<2.0	<2.0	<50	<50	<2.0	<2.0	<10	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<100	
GMX40C-8.0	8.0	3/20/00	<2.0	<2.0	<2.0	<2.0	<2.0	<50	<50	<2.0	<2.0	<10	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<100	
PRGs <sup>3</sup>			-- <sup>4</sup>	--	--	--	--	--	--	1700	--	30	--	--	--	--	18000 <sup>5</sup>	--	--	--	--		

Note:

1. Analyzed in accordance with U.S. EPA Method 8081.
2. Detected values highlighted in bold.
3. PRGs - Residential Preliminary Remediation Goals (U.S. EPA, 1999).
4. -- PRGs only provided if analyte was detected.
5. A PRG has not been developed for this compound; the PRG for Endrin was used as a surrogate based on similar physico-chemical properties

TABLE 3

SOIL ANALYTICAL RESULTS FOR METALS<sup>1</sup>

Canterbury Residential Development

Hayward, California

Concentrations reported in milligrams per kilogram (mg/kg)

Sample I.D.	Depth (feet)	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
GMX33B-1.0	1.0	3/20/00	<2.0	<b>5.2<sup>2</sup></b>	320	<0.50	<0.50	32	<b>10</b>	41	14	<b>0.11</b>	<1.0	<b>31</b>	<2.0	<1.0	<1.0	<b>49</b>	<b>98</b>
GMX33B-4.0	4.0	3/20/00	<2.0	<b>4.9</b>	<b>210</b>	<0.50	<0.50	<b>29</b>	<b>9.2</b>	<b>15</b>	<b>6.1</b>	<0.050	<1.0	<b>35</b>	<2.0	<1.0	<1.0	<b>33</b>	<b>27</b>
GMX33B-7.0	7.0	3/20/00	<2.0	<b>1.1</b>	<b>110</b>	<0.50	<0.50	<b>29</b>	<b>7.0</b>	<b>12</b>	<b>4.7</b>	<0.050	<1.0	<b>32</b>	<2.0	<1.0	<1.0	<b>21</b>	<b>30</b>
GMX34B-1.0	1.0	3/20/00	<2.0	<b>7.2</b>	<b>150</b>	<0.50	<0.50	<b>32</b>	<b>11</b>	<b>47</b>	<b>21</b>	<b>0.35</b>	<1.0	<b>32</b>	<2.0	<1.0	<1.0	<b>57</b>	<b>65</b>
GMX34B-4.0	4.0	3/20/00	<2.0	<b>4.7</b>	<b>200</b>	<0.50	<0.50	<b>27</b>	<b>6.9</b>	<b>14</b>	<b>5.1</b>	<0.050	<1.0	<b>30</b>	<2.0	<1.0	<1.0	<b>33</b>	<b>25</b>
GMX34B-7.0	7.0	3/20/00	<2.0	<b>1.4</b>	<b>120</b>	<0.50	<0.50	<b>27</b>	<b>7.0</b>	<b>13</b>	<b>5.1</b>	<0.050	<1.0	<b>36</b>	<2.0	<1.0	<1.0	<b>20</b>	<b>32</b>
GMX35C-1.0	1.0	3/20/00	<2.0	<b>3.8</b>	<b>180</b>	<0.50	<0.50	<b>29</b>	<b>9.1</b>	<b>35</b>	<b>14</b>	<b>0.074</b>	<1.0	<b>32</b>	<2.0	<1.0	<1.0	<b>39</b>	<b>56</b>
GMX35C-4.0	4.0	3/20/00	<2.0	<1.0	<b>120</b>	<0.50	<0.50	<b>22</b>	<b>6.0</b>	<b>13</b>	<b>5.8</b>	<0.050	<1.0	<b>24</b>	<2.0	<1.0	<1.0	<b>16</b>	<b>22</b>
GMX35C-7.0	7.0	3/20/00	<2.0	<b>2.6</b>	<b>110</b>	<0.50	<0.50	<b>29</b>	<b>8.2</b>	<b>12</b>	<b>5.1</b>	<0.050	<1.0	<b>51</b>	<2.0	<1.0	<1.0	<b>24</b>	<b>29</b>
GMX36C-1.0	1.0	3/20/00	<2.0	<b>3.4</b>	<b>130</b>	<0.50	<0.50	<b>25</b>	<b>7.5</b>	<b>38</b>	<b>18</b>	<b>0.062</b>	<1.0	<b>28</b>	<2.0	<1.0	<1.0	<b>28</b>	<b>76</b>
GMX36C-4.5	4.5	3/20/00	<2.0	<b>1.4</b>	<b>130</b>	<0.50	<0.50	<b>22</b>	<b>8.3</b>	<b>15</b>	<b>22</b>	<b>0.097</b>	<1.0	<b>23</b>	<2.0	<1.0	<1.0	<b>17</b>	<b>44</b>
GMX36C-8.0	8.0	3/20/00	<2.0	<b>1.2</b>	<b>110</b>	<0.50	<b>0.52</b>	<b>28</b>	<b>6.6</b>	<b>15</b>	<b>5.0</b>	<0.050	<1.0	<b>36</b>	<2.0	<1.0	<1.0	<b>21</b>	<b>34</b>
GMX37C-1.0	1.0	3/20/00	<2.0	<b>3.9</b>	<b>100</b>	<0.50	<b>0.55</b>	<b>29</b>	<b>9.6</b>	<b>34</b>	<b>31</b>	<b>0.21</b>	<1.0	<b>34</b>	<2.0	<1.0	<1.0	<b>42</b>	<b>87</b>
GMX37C-4.5	4.5	3/20/00	<2.0	<b>4.7</b>	<b>150</b>	<0.50	<0.50	<b>26</b>	<b>8.6</b>	<b>48</b>	<b>17</b>	<b>0.066</b>	<1.0	<b>30</b>	<2.0	<1.0	<1.0	<b>37</b>	<b>54</b>
GMX37C-8.0	8.0	3/20/00	<2.0	<b>5.0</b>	<b>150</b>	<0.50	<0.50	<b>26</b>	<b>8.7</b>	<b>47</b>	<b>17</b>	<0.050	<1.0	<b>30</b>	<2.0	<1.0	<1.0	<b>37</b>	<b>54</b>
GMX38C-1.0	1.0	3/20/00	<2.0	<b>2.8</b>	<b>130</b>	<0.50	<0.50	<b>21</b>	<b>6.2</b>	<b>18</b>	<b>12</b>	<b>0.052</b>	<1.0	<b>23</b>	<2.0	<1.0	<1.0	<b>25</b>	<b>33</b>
GMX38C-4.5	4.5	3/20/00	<2.0	<1.0	<b>100</b>	<0.50	<0.50	<b>20</b>	<b>7.3</b>	<b>11</b>	<b>4.8</b>	<0.050	<1.0	<b>21</b>	<2.0	<1.0	<1.0	<b>16</b>	<b>16</b>
GMX38C-8.0	8.0	3/20/00	<2.0	<b>1.0</b>	<b>73</b>	<0.50	<0.50	<b>21</b>	<b>4.1</b>	<b>9.4</b>	<b>4.2</b>	<0.050	<1.0	<b>28</b>	<2.0	<1.0	<1.0	<b>17</b>	<b>23</b>
GMX39C-1.0	1.0	3/20/00	<2.0	<1.0	<b>19</b>	<0.50	<0.50	<b>2.4</b>	<1.0	<b>3.9</b>	<b>9.5</b>	<0.050	<1.0	<1.0	<2.0	<1.0	<1.0	<b>1.5</b>	<b>66</b>
GMX39C-4.5	4.5	3/20/00	<2.0	<b>1.2</b>	<b>120</b>	<0.50	<0.50	<b>19</b>	<b>5.4</b>	<b>14</b>	<b>8.8</b>	<0.050	<1.0	<b>19</b>	<2.0	<1.0	<1.0	<b>16</b>	<b>22</b>
GMX39C-8.0	8.0	3/20/00	<2.0	<b>1.9</b>	<b>90</b>	<0.50	<0.50	<b>26</b>	<b>5.0</b>	<b>12</b>	<b>4.5</b>	<0.050	<1.0	<b>32</b>	<2.0	<1.0	<1.0	<b>19</b>	<b>29</b>
GMX40C-1.0	1.0	3/20/00	<2.0	<b>2.6</b>	<b>120</b>	<0.50	<0.50	<b>22</b>	<b>8.1</b>	<b>33</b>	<b>16</b>	<b>0.39</b>	<1.0	<b>25</b>	<2.0	<1.0	<1.0	<b>37</b>	<b>47</b>
GMX40C-4.5	4.5	3/20/00	<2.0	<b>1.5</b>	<b>160</b>	<0.50	<0.50	<b>24</b>	<b>7.9</b>	<b>13</b>	<b>5.4</b>	<0.050	<1.0	<b>29</b>	<2.0	<1.0	<1.0	<b>20</b>	<b>21</b>
GMX40C-8.0	8.0	3/20/00	<2.0	<b>1.7</b>	<b>130</b>	<0.50	<0.50	<b>27</b>	<b>6.3</b>	<b>13</b>	<b>4.6</b>	<0.050	<1.0	<b>32</b>	<2.0	<1.0	<1.0	<b>23</b>	<b>29</b>
PRGs <sup>3</sup>			-- <sup>4</sup>	0.38	5400	--	9	210	4700	2900	400	23	--	150	--	--	550	23,000	
Background <sup>5</sup>			--	19.1	323.6	--	2.7	99.6	22.2	69.4	16.1	0.4	--	119.8	--	--	74.3	106.1	

Notes:

1. California Code of Regulations (CCR) Title 22, Section 66261.24(a)(2)(A) metals. Analyzed in accordance with U.S. EPA Method Series 6000/7000.

2. Detected values highlighted in bold.

3. PRGs - Residential Preliminary Remediation Goals (U.S. EPA, 1999).

4. -- PRGs/background only provided if analyte was detected.

5. "Background Concentration of Metals in Soil at Lawrence Berkeley National Laboratory" (LBNL, 1995) (Upper tolerance limit concentrations from 71 borings).

TABLE 4  
**SOIL ANALYTICAL RESULTS FOR TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL AND POLYCYCLIC AROMATIC HYDROCARBONS<sup>1</sup>**  
 Canterbury Residential Development  
 Hayward, California

Sample I.D.	Depth (feet)	Sample Date	TPHmo <sup>2</sup>	Polynuclear aromatic hydrocarbon concentrations are reported in micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ); total petroleum hydrocarbon concentrations are reported in milligrams per kilogram (mg/kg).															
				Acenaph-thene	Acenaph-thylene	Anthracene	Benz(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo(g,h,i)-perylene	Benzo(k)-fluoranthene	Chrysene	Dibenzo(a,h)-anthracene	Fluoran-thene	Fluorene	Indeno[1,2,3-cd]-pyrene	Naphthalene	Phenan-threne	Pyrene
GMX33B-1.5	1.5	3/20/00	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX33B-4.5	4.5	3/20/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX33B-7.5	7.5	3/20/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX34B-1.5	1.5	3/20/00	760	<50	<50	<50	<50	<50	58 <sup>3</sup>	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX34B-4.5	4.5	3/20/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX34B-7.5	7.5	3/20/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX35C-1.5	1.5	3/20/00	210	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX35C-4.5	4.5	3/20/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX35C-7.5	7.5	3/20/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX36C-1.5	1.5	3/20/00	240	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
GMX36C-5.0	5.0	3/20/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX36C-8.5	8.5	3/20/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX37C-1.5	1.5	3/20/00	410	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX37C-5.0	5.0	3/20/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX37C-8.5	8.5	3/20/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX38C-1.5	1.5	3/20/00	410	<50	<50	<50	<50	<50	<50	<50	<50	<50	<53	<50	<50	<50	<50	<50	<50
GMX38C-5.0	5.0	3/20/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX38C-8.5	8.5	3/20/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX39B-1.5	1.5	3/20/00	150	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX39C-1.5	1.5	3/20/00	370	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX39C-5.0	5.0	3/20/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX39C-8.5	8.5	3/20/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX40A-1.5	1.5	3/20/00	75	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX40B-1.5	1.5	3/20/00	370	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX40C-1.5	1.5	3/20/00	640	<50	<50	55	170	140	77	120	<50	340	<50	71	61	<50	<50	370	410
GMX40C-1.5 (Duplicate)	1.5	3/20/00	na <sup>4</sup>	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
GMX40C-5.0	5.0	3/20/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX40C-8.5	8.5	3/20/00	<50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
PRGs <sup>5</sup>			NA <sup>6</sup>	-- <sup>7</sup>	--	22,000,000	620	62	620	3,700,000 <sup>8</sup>	--	6100	--	2,300,000	2,600,000	--	--	22,000,000 <sup>8</sup>	2,300,000

Notes:

- Analyzed in accordance with U.S. EPA Methods 8015 modified (TPHmo) and 8270 SIMS (polycyclic aromatic hydrocarbon), respectively.
- TPHmo - Total Petroleum Hydrocarbons as Motor Oil
- Detected values highlighted in bold.
- na - not analyzed.
- PRGs - Residential Preliminary Remediation Goals (U.S. EPA, 1999).
- Not available; PRGs have not been developed for mixtures. TPHmo evaluated based on the individual constituents detected.
- - PRGs only provided if analyte was detected.
- A surrogate PRG was used because a PRG was not available for this compound. The surrogate selected based on physico-chemical properties was:  
 Acenaphthene for benzo(g,h,i)perylene;  
 Anthracene for phenanthrene.

TABLE 5

**SOIL ANALYTICAL RESULTS FOR SELECTED VOLATILE ORGANIC COMPOUNDS<sup>1</sup>**  
 Canterbury Residential Development  
 Hayward, California

Concentrations reported in micrograms per kilogram ( $\mu\text{g}/\text{kg}$ )

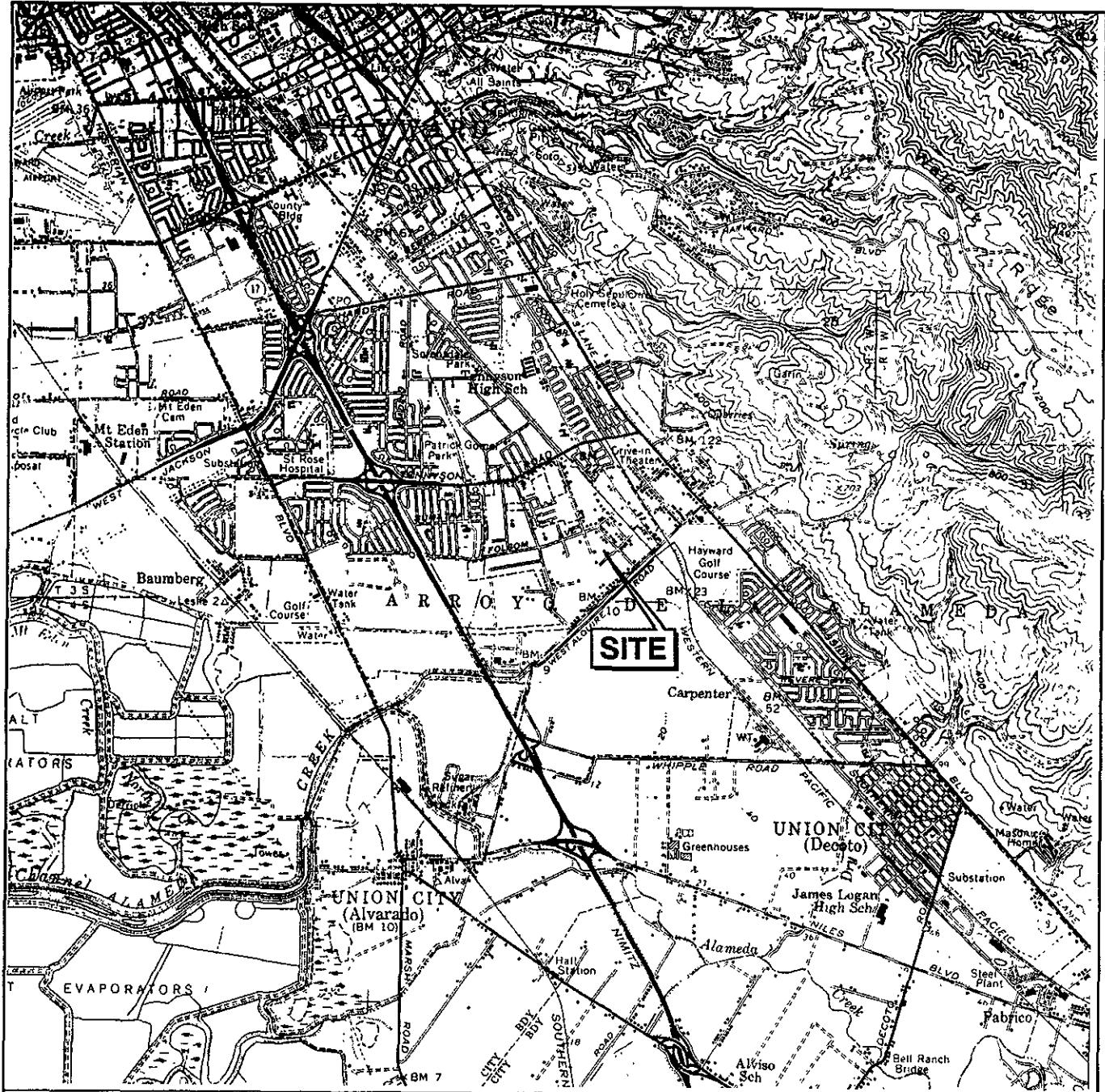
Sample I.D.	Depth (feet)	Sample Date	Methylene chloride	Naphthalene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
GMX33B-1.5	1.5	3/20/00	55 lc <sup>2</sup>	<5	<5	<5
GMX33B-4.5	4.5	3/20/00	<50	<5	<5	<5
GMX33B-7.5	7.5	3/20/00	<50	<5	<5	<5
GMX34B-1.5	1.5	3/20/00	55 lc	<5 I	<5 I	<5 I
GMX34B-4.5	4.5	3/20/00	54 lc	<5	<5	<5
GMX34B-7.5	7.5	3/20/00	51 lc	<5	<5	<5
GMX35C-1.5	1.5	3/20/00	<50	<5	<5	<5
GMX35C-4.5	4.5	3/20/00	<50	<5 I	<5 I	<5 I
GMX35C-7.5	7.5	3/20/00	<50	<5	<5	<5
GMX36C-1.5	1.5	3/20/00	59 lc	<5 I	<5 I	<5 I
GMX36C-5.0	5.0	3/20/00	70 lc	<5 I	<5 I	<5 I
GMX36C-8.5	8.5	3/20/00	74 lc	<5	<5	<5
GMX37C-1.5	1.5	3/20/00	79 lc	<5	<5	<5
GMX37C-5.0	5.0	3/20/00	60 lc	<5	<5	<5
GMX37C-8.5	8.5	3/20/00	<50	<5	<5	<5
GMX38C-1.5	1.5	3/20/00	73 lc	<b>11</b>	<5	<b>6<sup>3</sup></b>
GMX38C-5.0	5.0	3/20/00	86 lc	<5	<5	<5
GMX38C-8.5	8.5	3/20/00	55 lc	<5	<5	<5
GMX39C-1.5	1.5	3/20/00	<50	<5	<5	<5
GMX39C-5.0	5.0	3/20/00	56 lc	<5	<5	<5
GMX39C-8.5	8.5	3/20/00	60 lc	<5	<5	<5
GMX40C-1.5	1.5	3/20/00	120 lc	<b>11 I</b>	<b>13 I<sup>4</sup></b>	<b>22 I</b>
GMX40C-5.0	5.0	3/20/00	<50	<5	<5	<5
GMX40C-8.5	8.5	3/20/00	54 lc	<5	<5	<5
PRGs <sup>5</sup>			8900	56,000	5,700	21,000

Notes:

- Analyzed in accordance with U.S. EPA Method 8260. Only detected analytes included.
- lc - The presence of the compound indicated is likely due to laboratory contamination.
- Detected values highlighted in bold.
- I - The internal standard associated with the analyte is out of control limits. The reporting limit or reported concentration is an estimate.
- PRGs - Residential Preliminary Remediation Goals (U.S. EPA 1999).

## FIGURES

---



Base map from U.S. Geological Survey; Hayward Quadrangle (California), 15 Minute series (topographic), 1959.

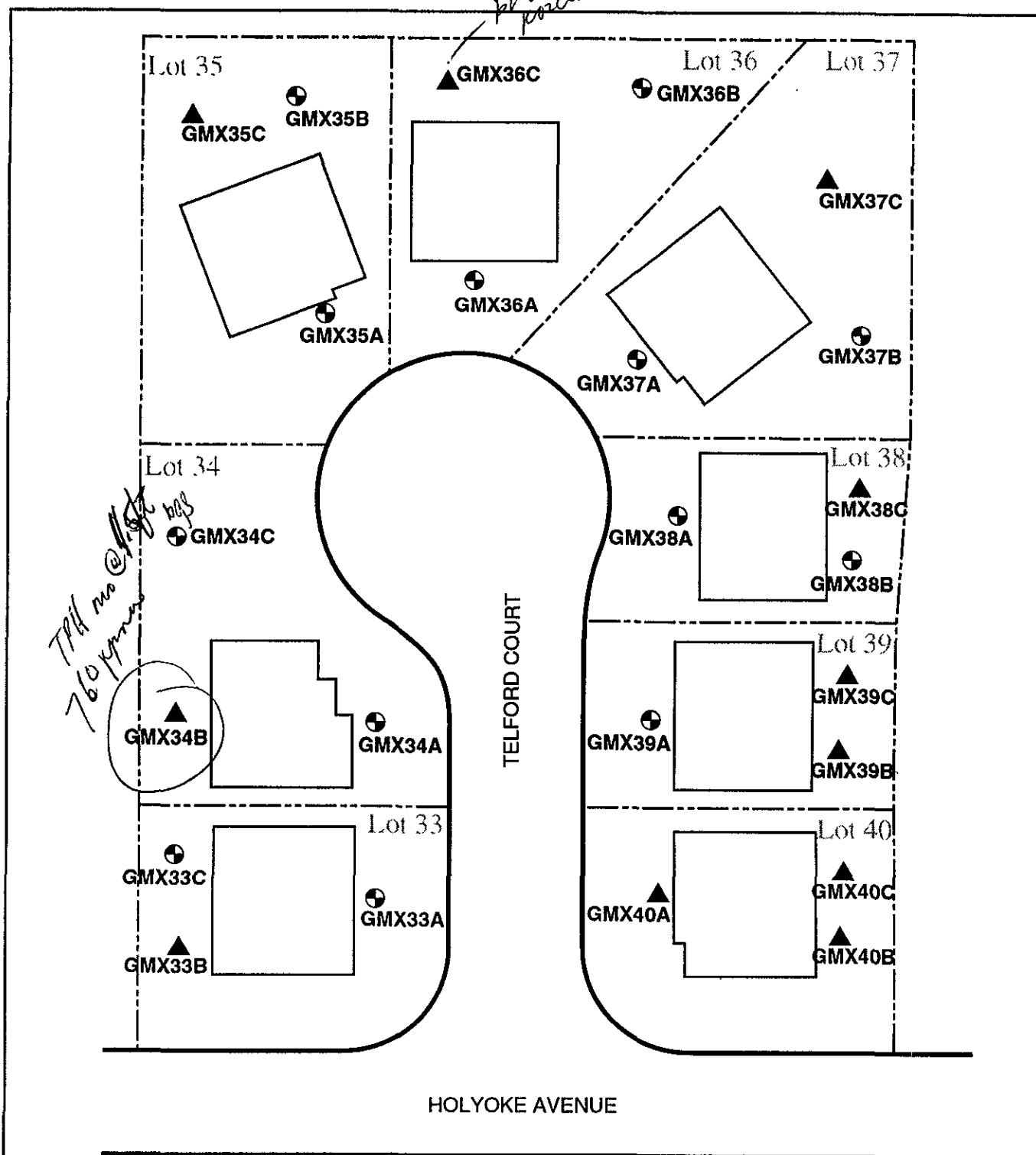
0 1 Mile

S:6200562221hra003.fq\_01(01).ai



**SITE VICINITY MAP**  
Canterbury Residential Development  
Olympic Avenue  
Hayward, California

Project No. 6262
Figure 1



#### EXPLANATION

- Boring location
- ▲ Boring location where samples were analyzed

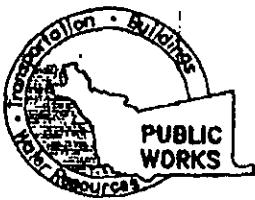
0  
40 Feet  
Approximate Scale



## ATTACHMENT A

---

Permit



## ALAMEDA COUNTY PUBLIC WORKS AGENCY

### WATER RESOURCES SECTION

399 ELM HURST ST. HAYWARD, CA 94544  
PHONE (510) 670-5500 MARTON MAGARSHAK ANDY HUTCHINSON (510) 670-5554  
FAX (510) 670-5522 (510) 782-1939 fax

### DRILLING PERMIT APPLICATION

#### FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Canterbury Development,  
OLYMPIC AVENUE, HAYWARD, CA  
→ See attached figure ↗

CLIENT  
Name City of Hayward  
Address 777 B Street, Phone 510-583-4724  
City Hayward, CA Zip 94541

APPLICANT  
Name Ms Ann Holbrook  
Geomatics Consultants Fax 510-663-4141  
Address 2101 Webster St., 12th Floor Phone 510-663-4100  
City Oakland, CA Zip 94612

#### TYPE OF PROJECT

Well Construction      Geotechnical Investigation  
Cathodic Protection      General        
Water Supply      Contamination        
Monitoring      Well Destruction        
SOIL BORING  (Environmental Sampling)

#### PROPOSED WATER SUPPLY WELL USE

New Domestic  Replacement Domestic   
Municipal  Irrigation   
Industrial  Other

#### DRILLING METHODS

Mud Rotary  Air Rotary  Auger   
Cable  Other  (direct push)

DRILLER'S LICENSE NO. C57 686387 (Precision Sampling, Inc.)

#### WELL PROJECTS

Drill Hole Diameter 2 in. Maximum  
Casing Diameter N/A in. Depth 8 ft.  
Surface Seal Depth N/A in. Number 24

#### GEOTECHNICAL PROJECTS

Number of Borings N/A  
Hole Diameter N/A in.

ESTIMATED STARTING DATE 3/20/00  
ESTIMATED COMPLETION DATE 3/20/00

I hereby agree to comply with all requirements of this permit and  
Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Ann H. Holbrook DATE 3/16/00

#### FOR OFFICE USE

PERMIT NUMBER W100-117  
WELL NUMBER  
APN

#### PERMIT CONDITIONS

Circled Permit Requirements Apply

##### A. GENERAL

1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted work the original Department of Water Resources Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date.

##### B. WATER SUPPLY WELLS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

##### C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

##### D. GEOTECHNICAL

Backfill bore hole with cement grout or cement grout/sand mixture. Upper two-thirds feet shall be compacted cuttings.

##### E. CATHODIC

Fill hole above anode zone with concrete placed by tremie.

##### F. WELL DESTRUCTION

See attached.

##### G. SPECIAL CONDITIONS

Approved Frank Colle Date 3/16/00



## ATTACHMENT B

---

Boring Logs

PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California				<b>Boring Log Explanation Sheet</b>		
BORING LOCATION:				ELEVATION AND DATUM:		
DRILLING CONTRACTOR:				DATE STARTED:		DATE FINISHED:
DRILLING METHOD:				TOTAL DEPTH (ft.):	MEASURING POINT: --	
DRILLING EQUIPMENT:				DEPTH TO WATER	FIRST	COMPL.
SAMPLING METHOD:				LOGGED BY:		
HAMMER WEIGHT:			DROP:	RESPONSIBLE PROFESSIONAL:		REG. NO
DEPTH (feet)	SAMPLES			DESCRIPTION		
	Sample No	Sample	Blows/ Foot	PID READING (ppm)	NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	
				Surface Elevation:		
1					1. Soil descriptions are in accordance with the USCS as set forth by ASTM D2488-90 "Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)."	
2					2. Soil color described according to Munsell Color Chart.	
3					3. Dashed lines separating soil strata represent inferred boundaries between sampled intervals that may be abrupt or gradual transitions. Solid lines represent approximate boundaries observed within sampled intervals.	
4					4. OVM = organic vapor meter, readings in parts per million.	
5					5. Odor, if noted, is subjective and not necessarily indicative of specific compounds or concentrations.	
6						
7						
8					Interval of recovered soil collected with continuous core sampler	
9					Interval of recovered soil core collected with split-spoon drive sampler	
10					Interval of no recovery	
11						
12						
13					Sample collected for chemical analysis and sample identification	
14						
15						

GMX33B-10

I:\Project\6000s\6262\g\NT\Explain.gdw



PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California				Log of Boring No. GMX-33B				
BORING LOCATION: Lot 33 backyard				ELEVATION AND DATUM: Not surveyed; datum is ground surface				
DRILLING CONTRACTOR: Precision Sampling Incorporated				DATE STARTED: 3/20/00		DATE FINISHED: 3/20/00		
DRILLING METHOD: Direct push				TOTAL DEPTH (ft.): 9.0		MEASURING POINT: Ground surface		
DRILLING EQUIPMENT: DA-2				DEPTH TO WATER	FIRST ND	COMPL. ND		
SAMPLING METHOD: Enviro-core sampling system [3"x 1 5/8"]				LOGGED BY: T. Gavigan				
HAMMER WEIGHT: NA		DROP: NA		RESPONSIBLE PROFESSIONAL: T. Gavigan		REG. NO. RG 6782		
DEPTH (feet)	SAMPLES	PID READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.			REMARKS		
	Sample No.	Sample No.	Blows/ Foot	Surface Elevation: Not surveyed				
1	GMX33B-10			LEAN CLAY with SAND (CL): dark olive gray (10Y 3/2), moist, 85% fines, 15% fine to coarse sand, trace gravel, low plasticity, firm				
2	GMX33B-15			0				
3	GMX33B-4.0			0				
4	GMX33B-4.5			0				
5	GMX33B-7.0			0		OVM = Thermo Environmental Instruments, 580B PID calibrated with 100 ppm Isobutylene standard		
6	GMX33B-7.5			0				
7				0				
8				0				
9				0				
10				0				
11				0				
12				0				
13				0				
14				0				
15				0				
Bottom of boring at 9.0 feet								
Borehole destroyed using Type I/I neat cement grout from total depth to ground surface using a tremie pipe								
I:\Project\6000\6262\g\NT\GMX-33B.gdw								



PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California				Log of Boring No. GMX-34B		
BORING LOCATION: Lot 34 backyard				ELEVATION AND DATUM: Not surveyed; datum is ground surface		
DRILLING CONTRACTOR: Precision Sampling Incorporated				DATE STARTED: 3/20/00	DATE FINISHED: 3/20/00	
DRILLING METHOD: Direct push				TOTAL DEPTH (ft.): 9.0	MEASURING POINT: Ground surface	
DRILLING EQUIPMENT: DA-2				DEPTH TO WATER	FIRST ND	COMPL. ND
SAMPLING METHOD: Enviro-core sampling system [3"x 1 5/8"]				LOGGED BY: T. Gavigan		
HAMMER WEIGHT: NA		DROP: NA		RESPONSIBLE PROFESSIONAL: T. Gavigan	REG. NO. RG 6782	
DEPTH (feet)	SAMPLES			DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS	
	Sample No.	Sample No.	Blows/ Foot			
0				Surface Elevation: Not surveyed		
1	GMX34B-1.0			LEAN CLAY with SAND (CL): very dark gray (5Y 3/1), moist, 85% fines, 15% fine to coarse sand, low to medium plasticity, firm		
2	GMX34B-1.5			SILTY SAND (SM)		
3	GMX34B-4.0	X		LEAN CLAY (CL): very dark gray (5Y 3/1), moist, 95% fines, 5% fine sand, low to medium plasticity, firm		
4	GMX34B-4.5			mottled with olive brown (5Y 5/2)		
5	GMX34B-7.0			SANDY LEAN CLAY (CL)		
6	GMX34B-7.5			LEAN CLAY with SAND (CL): olive (5Y 4/3), moist, 85% fines, 15% fine sand, low to medium plasticity, soft		
9				Bottom of boring at 9.0 feet	OVM = Thermo Environmental Instruments, 580B PID calibrated with 100 ppm Isobutylene standard	
15					Borehole destroyed using Type I/II neat cement grout from total depth to ground surface using a tremie pipe	



PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California				Log of Boring No. GMX-35C			
BORING LOCATION: Lot 35 backyard				ELEVATION AND DATUM: Not surveyed; datum is ground surface			
DRILLING CONTRACTOR: Precision Sampling Incorporated				DATE STARTED: 3/20/00		DATE FINISHED: 3/20/00	
DRILLING METHOD: Direct push				TOTAL DEPTH (ft.): 9.0		MEASURING POINT: Ground surface	
DRILLING EQUIPMENT: DA-2				DEPTH TO WATER	FIRST ND	COMPL. ND	
SAMPLING METHOD: Enviro-core sampling system [3"x 1 5/8"]				LOGGED BY: T. Gavigan			
HAMMER WEIGHT: NA		DROP: NA		RESPONSIBLE PROFESSIONAL: T. Gavigan			REG. NO. RG 6782
DEPTH (feet)	SAMPLES	PID READING (ppm)	DESCRIPTION	REMARKS			
	Sample No.	Sample No.	NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.				
			Surface Elevation: Not surveyed				
1	GMX35C-1.0		0	LEAN CLAY with SAND (CL): very dark gray (5Y 3/1), moist, 85% fines, 15% fine to coarse sand, medium to low plasticity, firm			
2	GMX35C-1.5		0				
3	GMX35C-4.0	X	0	LEAN CLAY (CL): very dark gray (5Y 3/1), moist, 95% fines, 5% fine sand, low to medium plasticity, firm			
4	GMX35C-4.5		0				
5	GMX35C-7.0		0	light grayish brown (2.5Y 6/2)			
6	GMX35C-7.5	X	0	LEAN CLAY with SAND (CL): olive brown (2.5Y 4/2), moist, 85% fines, 15% fine sand, low to medium plasticity, soft			
8			0	SANDY LEAN CLAY (CL)			
9				Bottom of boring at 9.0 feet			
10							
11							
12							
13							
14							
15				Borehole destroyed using Type I/I neat cement grout from total depth to ground surface using a tremie pipe			
				I:\Project\6000s\6262\g\NT\GMX-35C.gdw			
 Geomatrix Consultants				Project No. 006262.000.0		Page 1 of 1	

PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT  
Hayward, California

## Log of Boring No. GMX-36C

BORING LOCATION: Lot 36 backyard

ELEVATION AND DATUM:  
Not surveyed; datum is ground surface

DRILLING CONTRACTOR: Precision Sampling Incorporated

DATE STARTED:  
3/20/00

DATE FINISHED:  
3/20/00

DRILLING METHOD: Direct push

TOTAL DEPTH (ft.):  
9.0

MEASURING POINT:  
Ground surface

DRILLING EQUIPMENT: MD-1

DEPTH TO WATER | FIRST | COMPL.  
ND | ND | ND

SAMPLING METHOD: Enviro-core sampling system [3"x 1 5/8"]

LOGGED BY:  
C. Rome

HAMMER WEIGHT: NA

RESPONSIBLE PROFESSIONAL: T. Gavigan | REG. NO. RG 6782

DEPTH (feet)	SAMPLES			PID READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample No.	Blows/ Foot			
GMX36C-1.0				0	LEAN CLAY with SAND (CL): black (10YR 2/1), moist, 75% fines, 20% fine to coarse sand, 5% fine to coarse gravel, trace brick and metal fragments	
GMX36C-1.5				0		
2				0	dark brown (10YR 3/3)	
3				0		
4				0	LEAN CLAY (CL): black (10Y 2/1), moist, 90% fines, 10% fine sand, low to medium plasticity, firm	OVM = Thermo Environmental Instruments, 580B PID calibrated with 100 ppm Isobutylene standard
5				0		
6				0	LEAN CLAY with SAND (CL): light brownish gray (10YR 6/2), moist, 80% fines, 20% fine sand, low plasticity, firm	
7				0		
8				0	dark grayish brown (10YR 4/2), soft	
9				0		
GMX36C-8.0				0	Bottom of boring at 9.0 feet	Borehole destroyed using Type I/I neat cement grout from total depth to ground surface using a tremie pipe
GMX36C-8.5				0		
10				0		
11				0		
12				0		
13				0		
14				0		
15				0		

I:\Project\6000s\6262\g\NT\GMX-36C.gdw



Geomatrix Consultants

Project No. 006262.000.0

Page 1 of 1

PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California					Log of Boring No. GMX-37C		
BORING LOCATION: Lot 37 backyard					ELEVATION AND DATUM: Not surveyed; datum is ground surface		
DRILLING CONTRACTOR: Precision Sampling Incorporated					DATE STARTED: 3/20/00	DATE FINISHED: 3/20/00	
DRILLING METHOD: Direct push					TOTAL DEPTH (ft.): 9.0	MEASURING POINT: Ground surface	
DRILLING EQUIPMENT: MD-1					DEPTH TO WATER	FIRST ND	COMPL. ND
SAMPLING METHOD: Enviro-core sampling system [3"x 1 5/8"]					LOGGED BY: C. Rome		
HAMMER WEIGHT: NA			DROP: NA		RESPONSIBLE PROFESSIONAL: T. Gavigan	REG. NO. RG 6782	
DEPTH (feet)	SAMPLES	Sample No.	Sample No.	Blows/ Foot	PID READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
1	GMX37C-1.5	GMX37C-1.0			0	LEAN CLAY with SAND (CL): black (10YR 2/1), moist, 75% fines, 15% fine to coarse sand, 10% fine to coarse gravel, trace concrete, low plasticity, firm	
2					0		
3					0		
4	GMX37C-4.5	GMX37C-4.0			0	LEAN CLAY (CL): black (10YR 2/1), moist, 90% fines, 10% fine sand, low to medium plasticity, firm	OVM = Thermo Environmental Instruments, 580B PID calibrated with 100 ppm Isobutylene standard
5					0		
6					0		
7	GMX37C-8.0	GMX37C-8.5			0	LEAN CLAY with SAND (CL): dark gray (5Y 4/1), moist, 75% fines, 25% fine to coarse sand, low plasticity, firm	
8					0		
9					0	SANDY LEAN CLAY (CL): dark gray (5Y 4/1), moist, 60% fines, 40% fine to medium sand, low plasticity, firm	
10						Bottom of boring at 9.0 feet	Borehole destroyed using Type I/II neat cement grout from total depth to ground surface using a tremie pipe
11							
12							
13							
14							
15							



PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California				Log of Boring No. GMX-38C		
BORING LOCATION: Lot 38 backyard				ELEVATION AND DATUM: Not surveyed; datum is ground surface		
DRILLING CONTRACTOR: Precision Sampling Incorporated				DATE STARTED: 3/20/00		DATE FINISHED: 3/20/00
DRILLING METHOD: Direct push				TOTAL DEPTH (ft.): 9.0		MEASURING POINT: Ground surface
DRILLING EQUIPMENT: MD-1				DEPTH TO WATER	FIRST ND	COMPL. ND
SAMPLING METHOD: Enviro-core sampling system [3'x 1 5/8"]				LOGGED BY: C. Rome		
HAMMER WEIGHT: NA		DROP: NA		RESPONSIBLE PROFESSIONAL: T. Gavigan		REG. NO. RG 6782
DEPTH (feet)	SAMPLES			DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS	
	Sample No.	Sample Type	Blows/ Foot			
				Surface Elevation: Not surveyed		
GMX38C-1.0			0	LEAN CLAY with SAND (CL): black (10YR 2/1), moist, 75% fines, 15% fine to coarse sand, 10% fine to coarse gravel, low plasticity, firm		
1			0			
2			0			
3			0			
GMX38C-1.5			0			
4			0			
GMX38C-4.5			0	LEAN CLAY (CL): black (10YR 2/1), moist, 90% fines, 10% fine sand, low to medium plasticity, firm		
5			0			
GMX38C-5.0			0			
6			0			
GMX38C-6.0			0	gray (10YR 5/1), 90% fines, 10% fine to coarse sand		
7			0			
GMX38C-7.0			0	LEAN CLAY with SAND (CL): dark grayish brown (10YR 4/2), moist, 75% fines, 25% fine sand, low plasticity, soft		
8			0			
GMX38C-8.0			0			
9			0	Bottom of boring at 9.0 feet		
GMX38C-8.5			0			
10			0			
11			0			
12			0			
13			0			
14			0			
15			0			



PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California				Log of Boring No. GMX-39B			
BORING LOCATION: Lot 37 backyard				ELEVATION AND DATUM: Not surveyed; datum is ground surface			
DRILLING CONTRACTOR: Precision Sampling Incorporated				DATE STARTED: 3/20/00		DATE FINISHED: 3/20/00	
DRILLING METHOD: Direct push				TOTAL DEPTH (ft.): 9.0		MEASURING POINT: Ground surface	
DRILLING EQUIPMENT: MD-1				DEPTH TO WATER	FIRST ND	COMPL. ND	
SAMPLING METHOD: Enviro-core sampling system [3"x 1 5/8"]				LOGGED BY: C. Rome			
HAMMER WEIGHT: NA		DROP: NA		RESPONSIBLE PROFESSIONAL: T. Gavigan		REG. NO. RG 6782	
DEPTH (feet)	SAMPLES			PID READING (ppm)	DESCRIPTION		REMARKS
	Sample No.	Sample No.	Blows/ Foot		NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	Surface Elevation:	
1.0	GMX39B-1.0			0	LEAN CLAY (CL): black (10YR 2/1), moist, 75% fines, 15% fine to coarse sand, 10% fine to coarse gravel, trace concrete and brick fragments, low plasticity, hard		
2.0	GMX39B-1.5			0			
3.0	GMX39B-4.5			0	LEAN CLAY (CL): black (10YR 2/1), moist, 90% fines, 10% fine sand, low to medium plasticity, firm	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm Isobutylene standard	
4.0	GMX39B-5.0			0			
5.0	GMX39B-6.0			0	LEAN CLAY with SAND (CL): dark grayish brown (10YR 4/2), moist, 80% fines, 20% fine sand, low to medium plasticity, soft		
6.0	GMX39B-6.5			0			
7.0	GMX39B-7.0			0			
8.0	GMX39B-8.0			0			
9.0	GMX39B-9.0			0	Bottom of boring at 9.0 feet	Borehole destroyed using Type I/I neat cement grout from total depth to ground surface using a tremie pipe	
10.0							
11.0							
12.0							
13.0							
14.0							
15.0							



PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California				Log of Boring No. GMX-39C		
BORING LOCATION: Lot 39 backyard				ELEVATION AND DATUM: Not surveyed; datum is ground surface		
DRILLING CONTRACTOR: Precision Sampling Incorporated				DATE STARTED: 3/20/00		DATE FINISHED: 3/20/00
DRILLING METHOD: Direct push				TOTAL DEPTH (ft.): 9.0		MEASURING POINT: Ground surface
DRILLING EQUIPMENT: MD-1				DEPTH TO WATER	FIRST ND	COMPL. ND
SAMPLING METHOD: Enviro-core sampling system [3"x 1 5/8"]				LOGGED BY: C. Rome		
HAMMER WEIGHT: NA		DROP: NA		RESPONSIBLE PROFESSIONAL: T. Gavigan		REG. NO. RG 6782
DEPTH (feet)	SAMPLES			DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	Surface Elevation:	REMARKS
	Sample No.	Sample No.	Blows/ Foot			
GMX39C-1.0				0	LEAN CLAY with SAND (CL): black (10YR 2/1), moist, 75% fines, 15% fine to coarse sand, 10% fine to coarse gravel, trace concrete, low plasticity, very hard	
GMX39C-1.5				0		
GMX39C-2.0				0		
GMX39C-2.5				0		
GMX39C-3.0				0		
GMX39C-3.5				0		
GMX39C-4.0				0	LEAN CLAY (CL): black (10YR 2/1), moist, 90% fines, 10% fine sand, medium plasticity, firm	OVM = Thermo Environmental Instruments, 580B PID calibrated with 100 ppm Isobutylene standard
GMX39C-4.5				0		
GMX39C-5.0				0		
GMX39C-5.5				0		
GMX39C-6.0				0		
GMX39C-6.5				0		
GMX39C-7.0				0	LEAN CLAY with SAND (CL): light brownish gray (10YR 6/2), moist, 80% fines, 20% fine to coarse sand, low plasticity, firm	
GMX39C-7.5				0		
GMX39C-8.0				0	dark grayish brown (10YR 4/2), 80% fines, 20% fine sand, soft	
GMX39C-8.5				0		
GMX39C-9.0				0	Bottom of boring at 9.0 feet	Borehole destroyed using Type I/II neat cement grout from total depth to ground surface using a tremie pipe
GMX39C-9.5						
GMX39C-10.0						
GMX39C-10.5						
GMX39C-11.0						
GMX39C-11.5						
GMX39C-12.0						
GMX39C-12.5						
GMX39C-13.0						
GMX39C-13.5						
GMX39C-14.0						
GMX39C-14.5						
GMX39C-15.0						

I:\Project\6000s\6262\gINT\GMX-39C.gdw



PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT  
Hayward, California

## Log of Boring No. GMX-40A

BORING LOCATION: Lot 40 front yard				ELEVATION AND DATUM: Not surveyed; datum is ground surface		
DRILLING CONTRACTOR: Precision Sampling Incorporated				DATE STARTED: 3/20/00		DATE FINISHED: 3/20/00
DRILLING METHOD: Direct push				TOTAL DEPTH (ft.): 9.0	MEASURING POINT: Ground surface	
DRILLING EQUIPMENT: MD-1				DEPTH TO WATER	FIRST ND	COMPL. ND
SAMPLING METHOD: Enviro-core sampling system [3"x 1 5/8"]				LOGGED BY: C. Rome		
HAMMER WEIGHT: NA			DROP: NA	RESPONSIBLE PROFESSIONAL: T. Gavigan		REG. NO. RG 6782
DEPTH (feet)	SAMPLES			DESCRIPTION		
	Sample No.	Sample No.	Blows/ Foot	NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.		
				Surface Elevation: Not surveyed		
1	GMX40A-10			LEAN CLAY with SAND (CL): black (10YR 2/1), moist, 75% fines, 15% fine to coarse sand, 10% fine gravel, low plasticity, firm		
2	GMX40A-15			yellowish brown (10YR 5/4)		
3				CLAYEY SAND (SC): gray (10YR 2/1), moist 60% fine to coarse sand, 40% low plasticity fines		
4	GMX40A-4.5			LEAN CLAY (CL): black (10YR 2/1), moist, 90% fines, 10% fine sand, low to medium plasticity, firm		
5	GMX40A-5.0			LEAN CLAY with SAND (CL): light olive brown (2.5Y 5/3), moist, 80% fines, 20% fine sand, low to medium plasticity, soft		
6	GMX40A-8.0			Bottom of boring at 9.0 feet		
7	GMX40A-8.5				OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm Isobutylene standard	
8						
9						
10						
11						
12						
13						
14						
15					Borehole destroyed using Type I/I neat cement grout from total depth to ground surface using a tremie pipe	

I:\Project\6000s\6262\g\NT\GMX-40A.gdw



Geomatrix Consultants

Project No. 006262.000.0

Page 1 of 1

PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California				Log of Boring No. GMX-40B		
BORING LOCATION: Lot 36 backyard				ELEVATION AND DATUM: Not surveyed; datum is ground surface		
DRILLING CONTRACTOR: Precision Sampling Incorporated				DATE STARTED:	DATE FINISHED: 3/20/00	
DRILLING METHOD: Direct push				TOTAL DEPTH (ft.):	MEASURING POINT: 9.0 Ground surface	
DRILLING EQUIPMENT: MD-1				DEPTH TO WATER	FIRST ND	COMPL. ND
SAMPLING METHOD: Enviro-core sampling system [3"x 1 5/8"]				LOGGED BY: C. Rome		
HAMMER WEIGHT: NA		DROP: NA		RESPONSIBLE PROFESSIONAL: T. Gavigan	REG. NO. RG 6782	
DEPTH (feet)	SAMPLES	DESCRIPTION			REMARKS	
	Sample No.	Sample No.	Blows/ Foot	PID READING (ppm)	NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	
					Surface Elevation: Not surveyed	
1	GMX40B-15	GMX40B-10		0	LEAN CLAY with SAND (CL): black (10YR 2/1), moist, 75% fines, 15% fine to coarse sand, 10% fine gravel, low plasticity, hard	
2				0		
3				0		
4	GMX40B-4.5	GMX40B-4.5		0	LEAN CLAY (CL): very dark gray (10YR 3/1), moist, 90% fines, 10% fine sand, low plasticity, firm	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm Isobutylene standard
5	GMX40B-5.0			0		
6				0		
7	GMX40B-6.0			0	dark grayish brown (10YR 4/2)	
8	GMX40B-6.5			0		
9				0	Bottom of boring at 9.0 feet	Borehole destroyed using Type I/II neat cement grout from total depth to ground surface using a tremie pipe
10				0		
11				0		
12				0		
13				0		
14				0		
15				0		



PROJECT: CANTERBURY RESIDENTIAL DEVELOPMENT Hayward, California				Log of Boring No. GMX-40C									
BORING LOCATION: Lot 40 backyard				ELEVATION AND DATUM: Not surveyed; datum is ground surface									
DRILLING CONTRACTOR: Precision Sampling Incorporated				DATE STARTED: 3/20/00		DATE FINISHED: 3/20/00							
DRILLING METHOD: Direct push				TOTAL DEPTH (ft.): 9.0		MEASURING POINT: Ground surface							
DRILLING EQUIPMENT: MD-1				DEPTH TO WATER	FIRST ND	COMPL. ND							
SAMPLING METHOD: Enviro-core sampling system [3"x 1 5/8"]				LOGGED BY: C. Rome									
HAMMER WEIGHT: NA		DROP: NA		RESPONSIBLE PROFESSIONAL:		REG. NO. RG 6782							
DEPTH (feet)	SAMPLES	PID READING (ppm)	DESCRIPTION	REMARKS									
	Sample No.	Sample No.	NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.										
			Surface Elevation: Not surveyed										
1	GMX40C-1.0		0	LEAN CLAY with SAND (CL): black (10YR 2/1), moist, 75% fines, 15% fine to coarse sand, 10% fine to coarse gravel, low plasticity, hard									
2	GMX40C-1.5		0										
3	GMX40C-2.0		0										
4	GMX40C-2.5		0	LEAN CLAY (CL): black (10YR 2/1), moist, 90% fines, 10% fine sand, low to medium plasticity, firm									
5	GMX40C-3.0		0										
6	GMX40C-3.5		0	LEAN CLAY with SAND (CL): dark gray (10YR 4/1), moist, 80% fines, 20% fine to coarse sand, low plasticity, firm									
7	GMX40C-4.0		0	grayish brown (10YR 5/2), 80% fines, 20% fine sand									
8	GMX40C-4.5		0										
9	GMX40C-5.0		0										
10	GMX40C-5.5		0										
11	GMX40C-6.0		0										
12	GMX40C-6.5		0										
13	GMX40C-7.0		0										
14	GMX40C-7.5		0										
15	GMX40C-8.0		0	Bottom of boring at 9.0 feet									
				I:\Project\6000s\6262\gINT\GMX-40C.gdw									
 Geomatrix Consultants				Project No. 006262.000.0		Page 1 of 1							



## **ATTACHMENT C**

---

**Laboratory Analytical Results - Metals, Pesticides, and PCBs**

# CHROMALAB, INC.

Environmental Services (SDB)

Project Manager: Afsaneh Salimpour

Invoice#: 2000-03-0371

Invoice Date: March 29, 2000

## INVOICE

Samples Received From	Report Results To
Geomatrix Consultants Contact: Ann Holbrow 2101 Webster Street, 12th Floor Oakland, CA 94612	Geomatrix Consultants Contact: Ann Holbrow 2101 Webster Street, 12th Floor Oakland, CA 94612
<b>Bill To</b>	GEMATRIX
Geomatrix Consultants Attn: Attn: Accts. Payable 2101 Webster Street, 12th Floor Oakland, CA 94612	Received: March 21, 2000 09:46 AM
Project: 6262	

Qty	Matrix	Analysis	TAT	Unit Price	Total
12	Soil	CAM 17 metals	1 Day	\$150.00	\$1,800.00
12	Soil	Organochlorine Pesticides /PCBS	1 Day	\$150.00	\$1,800.00
1		24 hr rush services		\$3,600.00	\$3,600.00
					<b>\$7,200.00</b>

Terms and conditions:

Net30

Please Send Payment to: ChromaLab, Inc.  
1220 Quarry Lane  
Pleasanton, CA 94566-4756  
Phone: (925) 484-1919 Fax: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

Date: March 23, 2000

**Geomatrix Consultants**

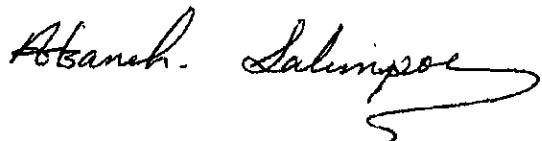
2101 Webster Street, 12th Floor  
Oakland, CA 94612

Attn.: Ann Halbrow

Attached is our report for your samples received on Tuesday March 21, 2000  
This report has been reviewed and approved for release. Reproduction of this report  
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after April 20, 2000  
unless you have requested otherwise. We appreciate the opportunity to be of service to you.  
If you have any questions, please call me at (925) 484-1919. You can also contact me via email.  
My email address is: [asalimpour@chromalab.com](mailto:asalimpour@chromalab.com)

Sincerely,



Afsaneh Salimpour

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

## Organochlorine Pesticides Analysis

**Geomatrix Consultants**

Attn: Ann Holbrow

Project #: 6262

 2101 Webster Street, 12th Floor  
Oakland, CA 94612

Phone: (510) 663-4100 Fax: (510) 663-4141

Project:

**Samples Reported**

Sample ID	Matrix	Date Sampled	Lab #
GMX38C-1.0	Soil	03/20/2000 09:40	7
GMX38C-4.5	Soil	03/20/2000 09:50	8
GMX38C-8.0	Soil	03/20/2000 09:55	9
GMX37C-1.0	Soil	03/20/2000 10:35	13
GMX37C-4.5	Soil	03/20/2000 10:45	14
GMX37C-8.0	Soil	03/20/2000 10:50	15
GMX36C-1.0	Soil	03/20/2000 11:55	19
GMX36C-4.5	Soil	03/20/2000 12:05	20
GMX36C-8.0	Soil	03/20/2000 12:15	21
GMX39C-1.0	Soil	03/20/2000 12:25	22
GMX39C-4.5	Soil	03/20/2000 12:35	23
GMX39C-8.0	Soil	03/20/2000 12:40	24

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants  
Attn.: Ann HolbrowTest Method: 8081  
Prep Method: 3550/8081

## Organochlorine Pesticides Analysis

Sample ID:	GMX38C-1.0	Lab Sample ID:	2000-03-0371-007
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 09:40	Extracted:	03/21/2000 11:45
Matrix:	Soil	QC-Batch:	2000/03/21-01.13

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	03/21/2000 18:30	
Dieldrin	ND	2.0	ug/Kg	1.00	03/21/2000 18:30	
Endrin aldehyde	ND	10	ug/Kg	1.00	03/21/2000 18:30	
Endrin	ND	2.0	ug/Kg	1.00	03/21/2000 18:30	
Heptachlor	ND	2.0	ug/Kg	1.00	03/21/2000 18:30	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	03/21/2000 18:30	
4,4'-DDT	ND	10	ug/Kg	1.00	03/21/2000 18:30	
4,4'-DDE	ND	2.0	ug/Kg	1.00	03/21/2000 18:30	
4,4'-DDD	ND	2.0	ug/Kg	1.00	03/21/2000 18:30	
Endosulfan I	ND	10	ug/Kg	1.00	03/21/2000 18:30	
Endosulfan II	ND	10	ug/Kg	1.00	03/21/2000 18:30	
alpha-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 18:30	
beta-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 18:30	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	03/21/2000 18:30	
delta-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 18:30	
Endosulfan sulfate	ND	10	ug/Kg	1.00	03/21/2000 18:30	
4,4'-Methoxychlor	ND	10	ug/Kg	1.00	03/21/2000 18:30	
Toxaphene	ND	100	ug/Kg	1.00	03/21/2000 18:30	
alpha-Chlordane	ND	50	ug/Kg	1.00	03/21/2000 18:30	
gamma-Chlordane	ND	50	ug/Kg	1.00	03/21/2000 18:30	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	73.3	50-125	%	1.00	03/21/2000 18:30	
Decachlorobiphenyl	84.7	46-142	%	1.00	03/21/2000 18:30	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8081

Prep Method: 3550/8081

## Organochlorine Pesticides Analysis

Sample ID:	GMX38C-4.5	Lab Sample ID:	2000-03-0371-008
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 09:50	Extracted:	03/21/2000 11:45
Matrix:	Soil	QC-Batch:	2000/03/21-01.13

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	03/21/2000 19:03	
Dieldrin	ND	2.0	ug/Kg	1.00	03/21/2000 19:03	
Endrin aldehyde	ND	10	ug/Kg	1.00	03/21/2000 19:03	
Endrin	ND	2.0	ug/Kg	1.00	03/21/2000 19:03	
Heptachlor	ND	2.0	ug/Kg	1.00	03/21/2000 19:03	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	03/21/2000 19:03	
4,4'-DDT	ND	10	ug/Kg	1.00	03/21/2000 19:03	
4,4'-DDE	ND	2.0	ug/Kg	1.00	03/21/2000 19:03	
4,4'-DDD	ND	2.0	ug/Kg	1.00	03/21/2000 19:03	
Endosulfan I	ND	10	ug/Kg	1.00	03/21/2000 19:03	
Endosulfan II	ND	10	ug/Kg	1.00	03/21/2000 19:03	
alpha-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 19:03	
beta-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 19:03	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	03/21/2000 19:03	
delta-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 19:03	
Endosulfan sulfate	ND	10	ug/Kg	1.00	03/21/2000 19:03	
4,4'-Methoxychlor	ND	10	ug/Kg	1.00	03/21/2000 19:03	
Toxaphene	ND	100	ug/Kg	1.00	03/21/2000 19:03	
alpha-Chlordane	ND	50	ug/Kg	1.00	03/21/2000 19:03	
gamma-Chlordane	ND	50	ug/Kg	1.00	03/21/2000 19:03	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	80.6	50-125	%	1.00	03/21/2000 19:03	
Decachlorobiphenyl	83.1	46-142	%	1.00	03/21/2000 19:03	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8081

Prep Method: 3550/8081

## Organochlorine Pesticides Analysis

Sample ID:	GMX38C-8.0	Lab Sample ID:	2000-03-0371-009
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 09:55	Extracted:	03/21/2000 11:45
Matrix:	Soil	QC-Batch:	2000/03/21-01.13

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	03/21/2000 19:36	
Dieldrin	ND	2.0	ug/Kg	1.00	03/21/2000 19:36	
Endrin aldehyde	ND	10	ug/Kg	1.00	03/21/2000 19:36	
Endrin	ND	2.0	ug/Kg	1.00	03/21/2000 19:36	
Heptachlor	ND	2.0	ug/Kg	1.00	03/21/2000 19:36	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	03/21/2000 19:36	
4,4'-DDT	ND	10	ug/Kg	1.00	03/21/2000 19:36	
4,4'-DDE	ND	2.0	ug/Kg	1.00	03/21/2000 19:36	
4,4'-DDD	ND	2.0	ug/Kg	1.00	03/21/2000 19:36	
Endosulfan I	ND	10	ug/Kg	1.00	03/21/2000 19:36	
Endosulfan II	ND	10	ug/Kg	1.00	03/21/2000 19:36	
alpha-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 19:36	
beta-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 19:36	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	03/21/2000 19:36	
delta-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 19:36	
Endosulfan sulfate	ND	10	ug/Kg	1.00	03/21/2000 19:36	
4,4'-Methoxychlor	ND	10	ug/Kg	1.00	03/21/2000 19:36	
Toxaphene	ND	100	ug/Kg	1.00	03/21/2000 19:36	
alpha-Chlordane	ND	50	ug/Kg	1.00	03/21/2000 19:36	
gamma-Chlordane	ND	50	ug/Kg	1.00	03/21/2000 19:36	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	82.2	50-125	%	1.00	03/21/2000 19:36	
Decachlorobiphenyl	80.3	46-142	%	1.00	03/21/2000 19:36	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8081

Prep Method: 3550/8081

## Organochlorine Pesticides Analysis

Sample ID:	GMX37C-1.0	Lab Sample ID:	2000-03-0371-013
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 10:35	Extracted:	03/21/2000 11:45
Matrix:	Soil	QC-Batch:	2000/03/21-01.13

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	03/21/2000 20:09	
Dieldrin	ND	2.0	ug/Kg	1.00	03/21/2000 20:09	
Endrin aldehyde	11	10	ug/Kg	1.00	03/21/2000 20:09	
Endrin	ND	2.0	ug/Kg	1.00	03/21/2000 20:09	
Heptachlor	ND	2.0	ug/Kg	1.00	03/21/2000 20:09	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	03/21/2000 20:09	
4,4'-DDT	ND	10	ug/Kg	1.00	03/21/2000 20:09	
4,4'-DDE	4.4	2.0	ug/Kg	1.00	03/21/2000 20:09	
4,4'-DDD	ND	2.0	ug/Kg	1.00	03/21/2000 20:09	
Endosulfan I	ND	10	ug/Kg	1.00	03/21/2000 20:09	
Endosulfan II	ND	10	ug/Kg	1.00	03/21/2000 20:09	
alpha-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 20:09	
beta-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 20:09	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	03/21/2000 20:09	
delta-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 20:09	
Endosulfan sulfate	ND	10	ug/Kg	1.00	03/21/2000 20:09	
4,4'-Methoxychlor	ND	10	ug/Kg	1.00	03/21/2000 20:09	
Toxaphene	ND	100	ug/Kg	1.00	03/21/2000 20:09	
alpha-Chlordane	ND	50	ug/Kg	1.00	03/21/2000 20:09	
gamma-Chlordane	ND	50	ug/Kg	1.00	03/21/2000 20:09	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	93.5	50-125	%	1.00	03/21/2000 20:09	
Decachlorobiphenyl	81.8	46-142	%	1.00	03/21/2000 20:09	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants  
Attn.: Ann Holbrow

Test Method: 8081  
Prep Method: 3550/8081

## Organochlorine Pesticides Analysis

Sample ID:	<b>GMX37C-4.5</b>	Lab Sample ID:	<b>2000-03-0371-014</b>
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 10:45	Extracted:	03/21/2000 11:45
Matrix:	Soil	QC-Batch:	2000/03/21-01.13

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	03/21/2000 20:42	
Dieldrin	2.2	2.0	ug/Kg	1.00	03/21/2000 20:42	
Endrin aldehyde	ND	10	ug/Kg	1.00	03/21/2000 20:42	
Endrin	ND	2.0	ug/Kg	1.00	03/21/2000 20:42	
Heptachlor	ND	2.0	ug/Kg	1.00	03/21/2000 20:42	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	03/21/2000 20:42	
4,4'-DDT	ND	10	ug/Kg	1.00	03/21/2000 20:42	
4,4'-DDE	2.2	2.0	ug/Kg	1.00	03/21/2000 20:42	
4,4'-DDD	ND	2.0	ug/Kg	1.00	03/21/2000 20:42	
Endosulfan I	ND	10	ug/Kg	1.00	03/21/2000 20:42	
Endosulfan II	ND	10	ug/Kg	1.00	03/21/2000 20:42	
alpha-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 20:42	
beta-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 20:42	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	03/21/2000 20:42	
delta-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 20:42	
Endosulfan sulfate	ND	10	ug/Kg	1.00	03/21/2000 20:42	
4,4'-Methoxychlor	ND	10	ug/Kg	1.00	03/21/2000 20:42	
Toxaphene	ND	100	ug/Kg	1.00	03/21/2000 20:42	
alpha-Chlordane	ND	50	ug/Kg	1.00	03/21/2000 20:42	
gamma-Chlordane	ND	50	ug/Kg	1.00	03/21/2000 20:42	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	85.3	50-125	%	1.00	03/21/2000 20:42	
Decachlorobiphenyl	82.6	46-142	%	1.00	03/21/2000 20:42	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8081

Prep Method: 3550/8081

## Organochlorine Pesticides Analysis

Sample ID:	GMX37C-8.0	Lab Sample ID:	2000-03-0371-015
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 10:50	Extracted:	03/21/2000 11:45
Matrix:	Soil	QC-Batch:	2000/03/21-01.13

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	03/21/2000 21:15	
Dieldrin	ND	2.0	ug/Kg	1.00	03/21/2000 21:15	
Endrin aldehyde	ND	10	ug/Kg	1.00	03/21/2000 21:15	
Endrin	ND	2.0	ug/Kg	1.00	03/21/2000 21:15	
Heptachlor	ND	2.0	ug/Kg	1.00	03/21/2000 21:15	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	03/21/2000 21:15	
4,4'-DDT	ND	10	ug/Kg	1.00	03/21/2000 21:15	
4,4'-DDE	ND	2.0	ug/Kg	1.00	03/21/2000 21:15	
4,4'-DDD	ND	2.0	ug/Kg	1.00	03/21/2000 21:15	
Endosulfan I	ND	10	ug/Kg	1.00	03/21/2000 21:15	
Endosulfan II	ND	10	ug/Kg	1.00	03/21/2000 21:15	
alpha-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 21:15	
beta-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 21:15	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	03/21/2000 21:15	
delta-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 21:15	
Endosulfan sulfate	ND	10	ug/Kg	1.00	03/21/2000 21:15	
4,4'-Methoxychlor	ND	10	ug/Kg	1.00	03/21/2000 21:15	
Toxaphene	ND	100	ug/Kg	1.00	03/21/2000 21:15	
alpha-Chlordane	ND	50	ug/Kg	1.00	03/21/2000 21:15	
gamma-Chlordane	ND	50	ug/Kg	1.00	03/21/2000 21:15	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	85.9	50-125	%	1.00	03/21/2000 21:15	
Decachlorobiphenyl	94.8	46-142	%	1.00	03/21/2000 21:15	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants  
Attn.: Ann Holbrow

Test Method: 8081  
Prep Method: 3550/8081

## Organochlorine Pesticides Analysis

Sample ID:	<b>GMX36C-1.0</b>	Lab Sample ID:	<b>2000-03-0371-019</b>
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 11:55	Extracted:	03/21/2000 11:45
Matrix:	Soil	QC-Batch:	2000/03/21-01.13
Sample/Analysis Flag Irn ( See Legend & Note section )			

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	10	ug/Kg	5.00	03/21/2000 21:48	
Dieldrin	ND	10	ug/Kg	5.00	03/21/2000 21:48	
Endrin aldehyde	ND	50	ug/Kg	5.00	03/21/2000 21:48	
Endrin	ND	10	ug/Kg	5.00	03/21/2000 21:48	
Heptachlor	ND	10	ug/Kg	5.00	03/21/2000 21:48	
Heptachlor epoxide	ND	10	ug/Kg	5.00	03/21/2000 21:48	
4,4'-DDT	ND	50	ug/Kg	5.00	03/21/2000 21:48	
4,4'-DDE	ND	10	ug/Kg	5.00	03/21/2000 21:48	
4,4'-DDD	ND	10	ug/Kg	5.00	03/21/2000 21:48	
Endosulfan I	ND	50	ug/Kg	5.00	03/21/2000 21:48	
Endosulfan II	ND	50	ug/Kg	5.00	03/21/2000 21:48	
alpha-BHC	ND	10	ug/Kg	5.00	03/21/2000 21:48	
beta-BHC	ND	10	ug/Kg	5.00	03/21/2000 21:48	
gamma-BHC (Lindane)	ND	10	ug/Kg	5.00	03/21/2000 21:48	
delta-BHC	ND	10	ug/Kg	5.00	03/21/2000 21:48	
Endosulfan sulfate	ND	50	ug/Kg	5.00	03/21/2000 21:48	
4,4'-Methoxychlor	ND	50	ug/Kg	5.00	03/21/2000 21:48	
Toxaphene	ND	500	ug/Kg	5.00	03/21/2000 21:48	
alpha-Chlordane	ND	250	ug/Kg	5.00	03/21/2000 21:48	
gamma-Chlordane	ND	250	ug/Kg	5.00	03/21/2000 21:48	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	68.0	50-125	%	5.00	03/21/2000 21:48	
Decachlorobiphenyl	62.9	46-142	%	5.00	03/21/2000 21:48	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants  
Attn.: Ann Holbrow

Test Method: 8081  
Prep Method: 3550/8081

## Organochlorine Pesticides Analysis

Sample ID:	<b>GMX36C-4.5</b>	Lab Sample ID:	<b>2000-03-0371-020</b>
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 12:05	Extracted:	03/21/2000 11:45
Matrix:	Soil	QC-Batch:	2000/03/21-01.13

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	03/21/2000 22:21	
Dieldrin	ND	2.0	ug/Kg	1.00	03/21/2000 22:21	
Endrin aldehyde	ND	10	ug/Kg	1.00	03/21/2000 22:21	
Endrin	ND	2.0	ug/Kg	1.00	03/21/2000 22:21	
Heptachlor	ND	2.0	ug/Kg	1.00	03/21/2000 22:21	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	03/21/2000 22:21	
4,4'-DDT	ND	10	ug/Kg	1.00	03/21/2000 22:21	
4,4'-DDE	2.0	2.0	ug/Kg	1.00	03/21/2000 22:21	
4,4'-DDD	ND	2.0	ug/Kg	1.00	03/21/2000 22:21	
Endosulfan I	ND	10	ug/Kg	1.00	03/21/2000 22:21	
Endosulfan II	ND	10	ug/Kg	1.00	03/21/2000 22:21	
alpha-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 22:21	
beta-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 22:21	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	03/21/2000 22:21	
delta-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 22:21	
Endosulfan sulfate	ND	10	ug/Kg	1.00	03/21/2000 22:21	
4,4'-Methoxychlor	ND	10	ug/Kg	1.00	03/21/2000 22:21	
Toxaphene	ND	100	ug/Kg	1.00	03/21/2000 22:21	
alpha-Chlordane	ND	50	ug/Kg	1.00	03/21/2000 22:21	
gamma-Chlordane	ND	50	ug/Kg	1.00	03/21/2000 22:21	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	88.3	50-125	%	1.00	03/21/2000 22:21	
Decachlorobiphenyl	77.6	46-142	%	1.00	03/21/2000 22:21	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8081

Prep Method: 3550/8081

## Organochlorine Pesticides Analysis

Sample ID:	<b>GMX36C-8.0</b>	Lab Sample ID:	<b>2000-03-0371-021</b>
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 12:15	Extracted:	03/21/2000 11:45
Matrix:	Soil	QC-Batch:	2000/03/21-01.13

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	03/21/2000 22:54	
Dieldrin	ND	2.0	ug/Kg	1.00	03/21/2000 22:54	
Endrin aldehyde	ND	10	ug/Kg	1.00	03/21/2000 22:54	
Endrin	ND	2.0	ug/Kg	1.00	03/21/2000 22:54	
Heptachlor	ND	2.0	ug/Kg	1.00	03/21/2000 22:54	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	03/21/2000 22:54	
4,4'-DDT	ND	10	ug/Kg	1.00	03/21/2000 22:54	
4,4'-DDE	ND	2.0	ug/Kg	1.00	03/21/2000 22:54	
4,4'-DDD	ND	2.0	ug/Kg	1.00	03/21/2000 22:54	
Endosulfan I	ND	10	ug/Kg	1.00	03/21/2000 22:54	
Endosulfan II	ND	10	ug/Kg	1.00	03/21/2000 22:54	
alpha-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 22:54	
beta-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 22:54	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	03/21/2000 22:54	
delta-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 22:54	
Endosulfan sulfate	ND	10	ug/Kg	1.00	03/21/2000 22:54	
4,4'-Methoxychlor	ND	10	ug/Kg	1.00	03/21/2000 22:54	
Toxaphene	ND	100	ug/Kg	1.00	03/21/2000 22:54	
alpha-Chlordane	ND	50	ug/Kg	1.00	03/21/2000 22:54	
gamma-Chlordane	ND	50	ug/Kg	1.00	03/21/2000 22:54	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	82.7	50-125	%	1.00	03/21/2000 22:54	
Decachlorobiphenyl	93.5	46-142	%	1.00	03/21/2000 22:54	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8081

Prep Method: 3550/8081

## Organochlorine Pesticides Analysis

Sample ID:	GMX39C-1.0	Lab Sample ID:	2000-03-0371-022
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 12:25	Extracted:	03/21/2000 11:45
Matrix:	Soil	QC-Batch:	2000/03/21-01.13

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	03/21/2000 23:27	
Dieldrin	ND	2.0	ug/Kg	1.00	03/21/2000 23:27	
Endrin aldehyde	ND	10	ug/Kg	1.00	03/21/2000 23:27	
Endrin	ND	2.0	ug/Kg	1.00	03/21/2000 23:27	
Heptachlor	ND	2.0	ug/Kg	1.00	03/21/2000 23:27	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	03/21/2000 23:27	
4,4'-DDT	ND	10	ug/Kg	1.00	03/21/2000 23:27	
4,4'-DDE	ND	2.0	ug/Kg	1.00	03/21/2000 23:27	
4,4'-DDD	ND	2.0	ug/Kg	1.00	03/21/2000 23:27	
Endosulfan I	ND	10	ug/Kg	1.00	03/21/2000 23:27	
Endosulfan II	ND	10	ug/Kg	1.00	03/21/2000 23:27	
alpha-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 23:27	
beta-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 23:27	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	03/21/2000 23:27	
delta-BHC	ND	2.0	ug/Kg	1.00	03/21/2000 23:27	
Endosulfan sulfate	ND	10	ug/Kg	1.00	03/21/2000 23:27	
4,4'-Methoxychlor	ND	10	ug/Kg	1.00	03/21/2000 23:27	
Toxaphene	ND	100	ug/Kg	1.00	03/21/2000 23:27	
alpha-Chlordane	ND	50	ug/Kg	1.00	03/21/2000 23:27	
gamma-Chlordane	ND	50	ug/Kg	1.00	03/21/2000 23:27	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	84.2	50-125	%	1.00	03/21/2000 23:27	
Decachlorobiphenyl	83.1	46-142	%	1.00	03/21/2000 23:27	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8081

Prep Method: 3550/8081

## Organochlorine Pesticides Analysis

Sample ID:	GMX39C-4.5	Lab Sample ID:	2000-03-0371-023
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 12:35	Extracted:	03/21/2000 11:45
Matrix:	Soil	QC-Batch:	2000/03/21-01.13

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	03/22/2000	
Dieldrin	ND	2.0	ug/Kg	1.00	03/22/2000	
Endrin aldehyde	ND	10	ug/Kg	1.00	03/22/2000	
Endrin	ND	2.0	ug/Kg	1.00	03/22/2000	
Heptachlor	ND	2.0	ug/Kg	1.00	03/22/2000	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	03/22/2000	
4,4'-DDT	ND	10	ug/Kg	1.00	03/22/2000	
4,4'-DDE	ND	2.0	ug/Kg	1.00	03/22/2000	
4,4'-DDD	ND	2.0	ug/Kg	1.00	03/22/2000	
Endosulfan I	ND	10	ug/Kg	1.00	03/22/2000	
Endosulfan II	ND	10	ug/Kg	1.00	03/22/2000	
alpha-BHC	ND	2.0	ug/Kg	1.00	03/22/2000	
beta-BHC	ND	2.0	ug/Kg	1.00	03/22/2000	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	03/22/2000	
delta-BHC	ND	2.0	ug/Kg	1.00	03/22/2000	
Endosulfan sulfate	ND	10	ug/Kg	1.00	03/22/2000	
4,4'-Methoxychlor	ND	10	ug/Kg	1.00	03/22/2000	
Toxaphene	ND	100	ug/Kg	1.00	03/22/2000	
alpha-Chlordane	ND	50	ug/Kg	1.00	03/22/2000	
gamma-Chlordane	ND	50	ug/Kg	1.00	03/22/2000	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	75.8	50-125	%	1.00	03/22/2000	
Decachlorobiphenyl	85.8	46-142	%	1.00	03/22/2000	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8081

Prep Method: 3550/8081

## Organochlorine Pesticides Analysis

Sample ID:	<b>GMX39C-8.0</b>	Lab Sample ID:	<b>2000-03-0371-024</b>
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 12:40	Extracted:	03/21/2000 11:45
Matrix:	Soil	QC-Batch:	2000/03/21-01.13

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	03/22/2000 03:19	
Dieldrin	ND	2.0	ug/Kg	1.00	03/22/2000 03:19	
Endrin aldehyde	ND	10	ug/Kg	1.00	03/22/2000 03:19	
Endrin	ND	2.0	ug/Kg	1.00	03/22/2000 03:19	
Heptachlor	ND	2.0	ug/Kg	1.00	03/22/2000 03:19	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	03/22/2000 03:19	
4,4'-DDT	ND	10	ug/Kg	1.00	03/22/2000 03:19	
4,4'-DDE	ND	2.0	ug/Kg	1.00	03/22/2000 03:19	
4,4'-DDD	ND	2.0	ug/Kg	1.00	03/22/2000 03:19	
Endosulfan I	ND	10	ug/Kg	1.00	03/22/2000 03:19	
Endosulfan II	ND	10	ug/Kg	1.00	03/22/2000 03:19	
alpha-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 03:19	
beta-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 03:19	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	03/22/2000 03:19	
delta-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 03:19	
Endosulfan sulfate	ND	10	ug/Kg	1.00	03/22/2000 03:19	
4,4'-Methoxychlor	ND	10	ug/Kg	1.00	03/22/2000 03:19	
Toxaphene	ND	100	ug/Kg	1.00	03/22/2000 03:19	
alpha-Chlordane	ND	50	ug/Kg	1.00	03/22/2000 03:19	
gamma-Chlordane	ND	50	ug/Kg	1.00	03/22/2000 03:19	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	83.2	50-125	%	1.00	03/22/2000 03:19	
Decachlorobiphenyl	88.3	46-142	%	1.00	03/22/2000 03:19	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants  
Attn.: Ann Holbrow

Test Method: 8081  
Prep Method: 3550/8081

**Batch QC Report**  
**Organochlorine Pesticides Analysis**

Method Blank	Soll	QC Batch # 2000/03/21-01.13
MB: 2000/03/21-01.13-001		Date Extracted: 03/21/2000 11:45

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	03/21/2000 15:10	
Dieldrin	ND	2.0	ug/Kg	03/21/2000 15:10	
Endrin aldehyde	ND	10	ug/Kg	03/21/2000 15:10	
Endrin	ND	2.0	ug/Kg	03/21/2000 15:10	
Heptachlor	ND	2.0	ug/Kg	03/21/2000 15:10	
Heptachlor epoxide	ND	2.0	ug/Kg	03/21/2000 15:10	
4,4'-DDT	ND	10	ug/Kg	03/21/2000 15:10	
4,4'-DDE	ND	2.0	ug/Kg	03/21/2000 15:10	
4,4'-DDD	ND	2.0	ug/Kg	03/21/2000 15:10	
Endosulfan I	ND	10	ug/Kg	03/21/2000 15:10	
Endosulfan II	ND	10	ug/Kg	03/21/2000 15:10	
alpha-BHC	ND	2.0	ug/Kg	03/21/2000 15:10	
beta-BHC	ND	2.0	ug/Kg	03/21/2000 15:10	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	03/21/2000 15:10	
delta-BHC	ND	2.0	ug/Kg	03/21/2000 15:10	
Endosulfan sulfate	ND	10	ug/Kg	03/21/2000 15:10	
4,4'-Methoxychlor	ND	10	ug/Kg	03/21/2000 15:10	
Toxaphene	ND	100	ug/Kg	03/21/2000 15:10	
alpha-Chlordane	ND	50	ug/Kg	03/21/2000 15:10	
gamma-Chlordane	ND	50	ug/Kg	03/21/2000 15:10	
<b>Surrogate(s)</b>					
2,4,5,6-Tetrachloro-m-xylene	76.2	50-125	%	03/21/2000 15:10	
Decachlorobiphenyl	93.8	46-142	%	03/21/2000 15:10	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Test Method: 8081

Attn: Ann Holbrow

Prep Method: 3550/8081

## Batch QC Report

### Organochlorine Pesticides Analysis

Laboratory Control Spike (LCS/LCSD)		Soil				QC Batch # 2000/03/21-01.13			
LCS:	2000/03/21-01.13-002	Extracted: 03/21/2000 11:45				Analyzed 03/21/2000 15:44			
LCSD:	2000/03/21-01.13-003	Extracted: 03/21/2000 11:45				Analyzed 03/21/2000 16:17			

Compound	Conc. [ ug/Kg ]		Exp.Conc. [ ug/Kg ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Aldrin	12.3	14.4	16.7	16.7	73.7	86.2	15.6	37-136	25		
Dieldrin	12.1	14.9	16.7	16.7	72.5	89.2	20.7	58-135	35		
Endrin	11.1	14.9	16.7	16.7	66.5	89.2	29.2	58-134	35		
Heptachlor	11.9	14.2	16.7	16.7	71.3	85.0	17.5	40-136	20		
4,4'-DDT	12.6	15.6	16.7	16.7	75.4	93.4	21.3	55-132	35		
gamma-BHC (Lindane)	12.1	14.9	16.7	16.7	72.5	89.2	20.7	37-137	35		
<b>Surrogate(s)</b>											
2,4,5,6-Tetrachloro-m-xyl	33.2	41.7	50	50	66.4	83.4		50-125			
Decachlorobiphenyl	40.5	47.9	50	50	81.0	95.8		46-142			

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants  
Attn.: Ann HolbrowTest Method: 8081  
Prep Method: 3550/8081

## Batch QC Report

## Organochlorine Pesticides Analysis

## Matrix Spike ( MS / MSD )

## Soil

QC Batch # 2000/03/21-01.13

Sample ID: GMX36C-4.5

Lab Sample ID: 2000-03-0371-020

MS: 2000/03/21-01.13-004 Extracted: 03/21/2000 11:45 Analyzed: 03/22/2000 16:24 Dilution: 1.0  
MSD: 2000/03/21-01.13-005 Extracted: 03/21/2000 11:45 Analyzed: 03/22/2000 16:58 Dilution: 1.0

Compound	Conc. [ ug/Kg ]			Exp.Conc. [ ug/Kg ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Aldrin	15.7	16.1	ND	16.5	16.6	95.2	97.0	1.9	37-136	25		
Dieldrin	15.4	16.0	ND	16.5	16.6	93.3	96.4	3.3	58-135	35		
Endrin	15.2	15.5	ND	16.5	16.6	92.1	93.4	1.4	58-134	35		
Heptachlor	15.8	16.3	ND	16.5	16.6	95.8	98.2	2.5	40-136	20		
4,4'-DDT	14.7	14.3	ND	16.5	16.6	89.1	86.1	3.4	55-132	35		
gamma-BHC (Lindane)	15.7	16.1	ND	16.5	16.6	95.2	97.0	1.9	37-137	35		
<b>Surrogate(s)</b>												
2,4,5,6-Tetrachloro-m-xy	40.0	41.0		50	50	80.0	82.0		50-125			
Decachlorobiphenyl	38.8	39.4		50	50	77.6	78.8		46-142			

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants  
Attn:Ann Holbrow

Test Method: 8081  
Prep Method: 3550/8081

## Legend & Notes

### Organochlorine Pesticides Analysis

#### Analysis Flags

lrm

Reporting limits raised due to high level of non-target analyte materials.

**CHROMALAB, INC.**  
Environmental Services (SDB)

Submission #: 2000-03-0371

PCBs - EPA8082

**Geomatrix Consultants**

Attn: Ann Holbrow  
Project #: 6262

2101 Webster Street, 12th Floor  
Oakland, CA 94612

Phone: (510) 663-4100 Fax: (510) 663-4141

Project:

**Samples Reported**

Sample ID	Matrix	Date Sampled	Lab #
GMX38C-1.0	Soil	03/20/2000 09:40	7
GMX38C-4.5	Soil	03/20/2000 09:50	8
GMX38C-8.0	Soil	03/20/2000 09:55	9
GMX37C-1.0	Soil	03/20/2000 10:35	13
GMX37C-4.5	Soil	03/20/2000 10:45	14
GMX37C-8.0	Soil	03/20/2000 10:50	15
GMX36C-1.0	Soil	03/20/2000 11:55	19
GMX36C-4.5	Soil	03/20/2000 12:05	20
GMX36C-8.0	Soil	03/20/2000 12:15	21
GMX39C-1.0	Soil	03/20/2000 12:25	22
GMX39C-4.5	Soil	03/20/2000 12:35	23
GMX39C-8.0	Soil	03/20/2000 12:40	24

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8082

Prep Method: 3550/8082

PCBs - EPA8082

Sample ID:	GMX38C-1.0	Lab Sample ID:	2000-03-0371-007
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 09:40	Extracted:	03/21/2000 11:58
Matrix:	Soil	QC-Batch:	2000/03/21-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.050	mg/Kg	1.00	03/21/2000 20:34	
Aroclor 1221	ND	0.050	mg/Kg	1.00	03/21/2000 20:34	
Aroclor 1232	ND	0.050	mg/Kg	1.00	03/21/2000 20:34	
Aroclor 1242	ND	0.050	mg/Kg	1.00	03/21/2000 20:34	
Aroclor 1248	ND	0.050	mg/Kg	1.00	03/21/2000 20:34	
Aroclor 1254	ND	0.050	mg/Kg	1.00	03/21/2000 20:34	
Aroclor 1260	ND	0.050	mg/Kg	1.00	03/21/2000 20:34	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	72.2	50-125	%	1.00	03/21/2000 20:34	
Decachlorobiphenyl	76.5	46-142	%	1.00	03/21/2000 20:34	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8082

Prep Method: 3550/8082

PCBs - EPA8082

Sample ID:	GMX38C-4.5	Lab Sample ID:	2000-03-0371-008
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 09:50	Extracted:	03/21/2000 11:58
Matrix:	Soil	QC-Batch:	2000/03/21-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.050	mg/Kg	1.00	03/21/2000 21:05	
Aroclor 1221	ND	0.050	mg/Kg	1.00	03/21/2000 21:05	
Aroclor 1232	ND	0.050	mg/Kg	1.00	03/21/2000 21:05	
Aroclor 1242	ND	0.050	mg/Kg	1.00	03/21/2000 21:05	
Aroclor 1248	ND	0.050	mg/Kg	1.00	03/21/2000 21:05	
Aroclor 1254	ND	0.050	mg/Kg	1.00	03/21/2000 21:05	
Aroclor 1260	ND	0.050	mg/Kg	1.00	03/21/2000 21:05	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	76.5	50-125	%	1.00	03/21/2000 21:05	
Decachlorobiphenyl	84.1	46-142	%	1.00	03/21/2000 21:05	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8082

Prep Method: 3550/8082

PCBs - EPA8082

Sample ID:	GMX38C-8.0	Lab Sample ID:	2000-03-0371-009
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 09:55	Extracted:	03/21/2000 11:58
Matrix:	Soil	QC-Batch:	2000/03/21-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.050	mg/Kg	1.00	03/21/2000 21:37	
Aroclor 1221	ND	0.050	mg/Kg	1.00	03/21/2000 21:37	
Aroclor 1232	ND	0.050	mg/Kg	1.00	03/21/2000 21:37	
Aroclor 1242	ND	0.050	mg/Kg	1.00	03/21/2000 21:37	
Aroclor 1248	ND	0.050	mg/Kg	1.00	03/21/2000 21:37	
Aroclor 1254	ND	0.050	mg/Kg	1.00	03/21/2000 21:37	
Aroclor 1260	ND	0.050	mg/Kg	1.00	03/21/2000 21:37	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	72.0	50-125	%	1.00	03/21/2000 21:37	
Decachlorobiphenyl	77.9	46-142	%	1.00	03/21/2000 21:37	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: **Geomatrix Consultants**  
Attn.: Ann Holbrow

Test Method: 8082  
Prep Method: 3550/8082

PCBs - EPA8082

Sample ID:	<b>GMX37C-1.0</b>	Lab Sample ID:	<b>2000-03-0371-013</b>
Project:	6262		Received: 03/21/2000 09:46
Sampled:	03/20/2000 10:35		Extracted: 03/21/2000 11:58
Matrix:	Soil		QC-Batch: 2000/03/21-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.050	mg/Kg	1.00	03/21/2000 17:05	
Aroclor 1221	ND	0.050	mg/Kg	1.00	03/21/2000 17:05	
Aroclor 1232	ND	0.050	mg/Kg	1.00	03/21/2000 17:05	
Aroclor 1242	ND	0.050	mg/Kg	1.00	03/21/2000 17:05	
Aroclor 1248	ND	0.050	mg/Kg	1.00	03/21/2000 17:05	
Aroclor 1254	ND	0.050	mg/Kg	1.00	03/21/2000 17:05	
Aroclor 1260	ND	0.050	mg/Kg	1.00	03/21/2000 17:05	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	76.3	50-125	%	1.00	03/21/2000 17:05	
Decachlorobiphenyl	28.4	46-142	%	1.00	03/21/2000 17:05	s

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants  
Attn.: Ann Holbrow

Test Method: 8082  
Prep Method: 3550/8082

PCBs - EPA8082

Sample ID:	GMX37C-4.5	Lab Sample ID:	2000-03-0371-014
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 10:45	Extracted:	03/21/2000 11:58
Matrix:	Soil	QC-Batch:	2000/03/21-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.050	mg/Kg	1.00	03/21/2000 22:08	
Aroclor 1221	ND	0.050	mg/Kg	1.00	03/21/2000 22:08	
Aroclor 1232	ND	0.050	mg/Kg	1.00	03/21/2000 22:08	
Aroclor 1242	ND	0.050	mg/Kg	1.00	03/21/2000 22:08	
Aroclor 1248	ND	0.050	mg/Kg	1.00	03/21/2000 22:08	
Aroclor 1254	ND	0.050	mg/Kg	1.00	03/21/2000 22:08	
Aroclor 1260	ND	0.050	mg/Kg	1.00	03/21/2000 22:08	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	78.2	50-125	%	1.00	03/21/2000 22:08	
Decachlorobiphenyl	88.3	46-142	%	1.00	03/21/2000 22:08	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8082

Prep Method: 3550/8082

PCBs - EPA8082

Sample ID:	GMX37C-8.0	Lab Sample ID:	2000-03-0371-015
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 10:50	Extracted:	03/21/2000 11:58
Matrix:	Soil	QC-Batch:	2000/03/21-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.050	mg/Kg	1.00	03/21/2000 17:25	
Aroclor 1221	ND	0.050	mg/Kg	1.00	03/21/2000 17:25	
Aroclor 1232	ND	0.050	mg/Kg	1.00	03/21/2000 17:25	
Aroclor 1242	ND	0.050	mg/Kg	1.00	03/21/2000 17:25	
Aroclor 1248	ND	0.050	mg/Kg	1.00	03/21/2000 17:25	
Aroclor 1254	ND	0.050	mg/Kg	1.00	03/21/2000 17:25	
Aroclor 1260	ND	0.050	mg/Kg	1.00	03/21/2000 17:25	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	67.2	50-125	%	1.00	03/21/2000 17:25	
Decachlorobiphenyl	87.3	46-142	%	1.00	03/21/2000 17:25	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8082

Prep Method: 3550/8082

PCBs - EPA8082

Sample ID:	GMX36C-1.0	Lab Sample ID:	2000-03-0371-019
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 11:55	Extracted:	03/21/2000 11:58
Matrix:	Soil	QC-Batch:	2000/03/21-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.050	mg/Kg	1.00	03/21/2000 19:01	
Aroclor 1221	ND	0.050	mg/Kg	1.00	03/21/2000 19:01	
Aroclor 1232	ND	0.050	mg/Kg	1.00	03/21/2000 19:01	
Aroclor 1242	ND	0.050	mg/Kg	1.00	03/21/2000 19:01	
Aroclor 1248	ND	0.050	mg/Kg	1.00	03/21/2000 19:01	
Aroclor 1254	ND	0.050	mg/Kg	1.00	03/21/2000 19:01	
Aroclor 1260	ND	0.050	mg/Kg	1.00	03/21/2000 19:01	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	52.1	50-125	%	1.00	03/21/2000 19:01	
Decachlorobiphenyl	11.4	46-142	%	1.00	03/21/2000 19:01	s

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8082

Prep Method: 3550/8082

PCBs - EPA8082

Sample ID:	GMX36C-4.5	Lab Sample ID:	2000-03-0371-020
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 12:05	Extracted:	03/21/2000 11:58
Matrix:	Soil	QC-Batch:	2000/03/21-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.050	mg/Kg	1.00	03/21/2000 17:57	
Aroclor 1221	ND	0.050	mg/Kg	1.00	03/21/2000 17:57	
Aroclor 1232	ND	0.050	mg/Kg	1.00	03/21/2000 17:57	
Aroclor 1242	ND	0.050	mg/Kg	1.00	03/21/2000 17:57	
Aroclor 1248	ND	0.050	mg/Kg	1.00	03/21/2000 17:57	
Aroclor 1254	ND	0.050	mg/Kg	1.00	03/21/2000 17:57	
Aroclor 1260	ND	0.050	mg/Kg	1.00	03/21/2000 17:57	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	70.9	50-125	%	1.00	03/21/2000 17:57	
Decachlorobiphenyl	102.4	46-142	%	1.00	03/21/2000 17:57	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8082

Prep Method: 3550/8082

PCBs - EPA8082

Sample ID:	GMX36C-8.0	Lab Sample ID:	2000-03-0371-021
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 12:15	Extracted:	03/21/2000 11:58
Matrix:	Soil	QC-Batch:	2000/03/21-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.050	mg/Kg	1.00	03/21/2000 18:28	
Aroclor 1221	ND	0.050	mg/Kg	1.00	03/21/2000 18:28	
Aroclor 1232	ND	0.050	mg/Kg	1.00	03/21/2000 18:28	
Aroclor 1242	ND	0.050	mg/Kg	1.00	03/21/2000 18:28	
Aroclor 1248	ND	0.050	mg/Kg	1.00	03/21/2000 18:28	
Aroclor 1254	ND	0.050	mg/Kg	1.00	03/21/2000 18:28	
Aroclor 1260	ND	0.050	mg/Kg	1.00	03/21/2000 18:28	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	67.3	50-125	%	1.00	03/21/2000 18:28	
Decachlorobiphenyl	76.0	46-142	%	1.00	03/21/2000 18:28	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants  
Attn.: Ann Holbrow

Test Method: 8082  
Prep Method: 3550/8082

PCBs - EPA8082

Sample ID:	GMX39C-1.0	Lab Sample ID:	2000-03-0371-022
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 12:25	Extracted:	03/21/2000 11:58
Matrix:	Soil	QC-Batch:	2000/03/21-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.050	mg/Kg	1.00	03/21/2000 19:00	
Aroclor 1221	ND	0.050	mg/Kg	1.00	03/21/2000 19:00	
Aroclor 1232	ND	0.050	mg/Kg	1.00	03/21/2000 19:00	
Aroclor 1242	ND	0.050	mg/Kg	1.00	03/21/2000 19:00	
Aroclor 1248	ND	0.050	mg/Kg	1.00	03/21/2000 19:00	
Aroclor 1254	ND	0.050	mg/Kg	1.00	03/21/2000 19:00	
Aroclor 1260	ND	0.050	mg/Kg	1.00	03/21/2000 19:00	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	68.4	50-125	%	1.00	03/21/2000 19:00	
Decachlorobiphenyl	75.0	46-142	%	1.00	03/21/2000 19:00	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8082

Prep Method: 3550/8082

PCBs - EPA8082

Sample ID:	GMX39C-4.5	Lab Sample ID:	2000-03-0371-023
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 12:35	Extracted:	03/21/2000 11:58
Matrix:	Soil	QC-Batch:	2000/03/21-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.050	mg/Kg	1.00	03/21/2000 19:31	
Aroclor 1221	ND	0.050	mg/Kg	1.00	03/21/2000 19:31	
Aroclor 1232	ND	0.050	mg/Kg	1.00	03/21/2000 19:31	
Aroclor 1242	ND	0.050	mg/Kg	1.00	03/21/2000 19:31	
Aroclor 1248	ND	0.050	mg/Kg	1.00	03/21/2000 19:31	
Aroclor 1254	ND	0.050	mg/Kg	1.00	03/21/2000 19:31	
Aroclor 1260	ND	0.050	mg/Kg	1.00	03/21/2000 19:31	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	63.5	50-125	%	1.00	03/21/2000 19:31	
Decachlorobiphenyl	75.4	46-142	%	1.00	03/21/2000 19:31	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8082

Prep Method: 3550/8082

PCBs - EPA8082

Sample ID:	GMX39C-8.0	Lab Sample ID:	2000-03-0371-024
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 12:40	Extracted:	03/21/2000 11:58
Matrix:	Soil	QC-Batch:	2000/03/21-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.050	mg/Kg	1.00	03/21/2000 20:03	
Aroclor 1221	ND	0.050	mg/Kg	1.00	03/21/2000 20:03	
Aroclor 1232	ND	0.050	mg/Kg	1.00	03/21/2000 20:03	
Aroclor 1242	ND	0.050	mg/Kg	1.00	03/21/2000 20:03	
Aroclor 1248	ND	0.050	mg/Kg	1.00	03/21/2000 20:03	
Aroclor 1254	ND	0.050	mg/Kg	1.00	03/21/2000 20:03	
Aroclor 1260	ND	0.050	mg/Kg	1.00	03/21/2000 20:03	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	68.8	50-125	%	1.00	03/21/2000 20:03	
Decachlorobiphenyl	72.8	46-142	%	1.00	03/21/2000 20:03	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants  
Attn.: Ann Holbrow

Test Method: 8082  
Prep Method: 3550/8082

**Batch QC Report**  
PCBs - EPA8082

Method Blank	Soil	QC Batch # 2000/03/21-02.14
MB: 2000/03/21-02.14-001		Date Extracted: 03/21/2000 11:58

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Aroclor 1016	ND	0.05	mg/Kg	03/21/2000 16:54	
Aroclor 1221	ND	0.05	mg/Kg	03/21/2000 16:54	
Aroclor 1232	ND	0.05	mg/Kg	03/21/2000 16:54	
Aroclor 1242	ND	0.05	mg/Kg	03/21/2000 16:54	
Aroclor 1248	ND	0.05	mg/Kg	03/21/2000 16:54	
Aroclor 1254	ND	0.05	mg/Kg	03/21/2000 16:54	
Aroclor 1260	ND	0.05	mg/Kg	03/21/2000 16:54	
<b>Surrogate(s)</b>					
2,4,5,6-Tetrachloro-m-xylene	62.4	50-125	%	03/21/2000 16:54	
Decachlorobiphenyl	73.0	46-142	%	03/21/2000 16:54	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Test Method: 8082

Attn: Ann Holbrow

Prep Method: 3550/8082

## Batch QC Report

PCBs - EPA8082

Laboratory Control Spike (LCS/LCSD)		Soil		QC Batch # 2000/03/21-02.14					
LCS:	2000/03/21-02.14-002	Extracted: 03/21/2000 11:58			Analyzed	03/22/2000 05:57			
LCSD:	2000/03/21-02.14-003	Extracted: 03/21/2000 11:58			Analyzed	03/22/2000 06:31			

Compound	Conc. [ mg/Kg ]		Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Aroclor 1016	0.0530	0.0518	0.0667	0.0667	79.5	77.7	2.3	65-135	30		
Aroclor 1260	0.0527	0.0550	0.0667	0.0667	79.0	82.5	4.3	65-135	30		
<b>Surrogate(s)</b>											
2,4,5,6-Tetrachloro-m-xyl	32.1	30.5	50	50	64.2	61.0		50-125			
Decachlorobiphenyl	36.1	38.6	50	50	72.2	77.2		46-142			

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants  
Attn.: Ann Holbrow

Test Method: 8082  
Prep Method: 3550/8082

## Batch QC Report

PCBs - EPA8082

Matrix Spike ( MS / MSD )	Soil	QC Batch # 2000/03/21-02.14
Sample ID: GMX36C-4.5		Lab Sample ID: 2000-03-0371-020
MS: 2000/03/21-02.14-004 Extracted: 03/21/2000 11:58 Analyzed: 03/22/2000 03:39 Dilution: 1.0		
MSD: 2000/03/21-02.14-005 Extracted: 03/21/2000 11:58 Analyzed: 03/22/2000 04:14 Dilution: 1.0		

Compound	Conc. [ mg/Kg ]			Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Aroclor 1016	0.0514	0.0539	ND	0.0665	0.0661	77.3	81.5	5.3	65-135	30		
Aroclor 1260	0.0553	0.0584	ND	0.0665	0.0661	83.2	88.4	6.1	65-135	30		
<b>Surrogate(s)</b>												
2,4,5,6-Tetrachloro-m-xy	35.9	36.8		50	50	71.8	73.6		50-125			
Decachlorobiphenyl	38.2	41.4		50	50	76.4	82.8		46-142			

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants  
Attn: Ann Holbrow

Test Method: 8082  
Prep Method: 3550/8082

## Legend & Notes

PCBs - EPA8082

### Analyte Flags

s

One surrogate recovery out of control, but second surrogate within QC limits confirms test performance.

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

## CAM 17 Metals

Geomatrix Consultants

Attn: Ann Holbrow  
Project #: 6262

✉ 2101 Webster Street, 12th Floor  
Oakland, CA 94612

Phone: (510) 663-4100 Fax: (510) 663-4141

Project:

### Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
GMX38C-1.0	Soil	03/20/2000 09:40	7
GMX38C-4.5	Soil	03/20/2000 09:50	8
GMX38C-8.0	Soil	03/20/2000 09:55	9
GMX37C-1.0	Soil	03/20/2000 10:35	13
GMX37C-4.5	Soil	03/20/2000 10:45	14
GMX37C-8.0	Soil	03/20/2000 10:50	15
GMX36C-1.0	Soil	03/20/2000 11:55	19
GMX36C-4.5	Soil	03/20/2000 12:05	20
GMX36C-8.0	Soil	03/20/2000 12:15	21
GMX39C-1.0	Soil	03/20/2000 12:25	22
GMX39C-4.5	Soil	03/20/2000 12:35	23
GMX39C-8.0	Soil	03/20/2000 12:40	24

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 3050B  
7471A

## CAM 17 Metals

Sample ID:	GMX38C-1.0	Lab Sample ID:	2000-03-0371-007
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 09:40	Extracted:	03/21/2000 15:32
Matrix:	Soil	QC-Batch:	2000/03/21-02.15
Sample/Analysis Flag . ( See Legend & Note section )			

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	1.00	03/21/2000 17:33	
Arsenic	2.8	1.0	mg/Kg	1.00	03/21/2000 17:33	
Barium	130	1.0	mg/Kg	1.00	03/21/2000 17:33	
Beryllium	ND	0.50	mg/Kg	1.00	03/21/2000 17:33	
Cadmium	ND	0.50	mg/Kg	1.00	03/21/2000 17:33	
Chromium	21	1.0	mg/Kg	1.00	03/21/2000 17:33	
Cobalt	6.2	1.0	mg/Kg	1.00	03/21/2000 17:33	
Copper	18	1.0	mg/Kg	1.00	03/21/2000 17:33	
Lead	12	1.0	mg/Kg	1.00	03/21/2000 17:33	
Molybdenum	ND	1.0	mg/Kg	1.00	03/21/2000 17:33	
Nickel	23	1.0	mg/Kg	1.00	03/21/2000 17:33	
Selenium	ND	2.0	mg/Kg	1.00	03/21/2000 17:33	
Silver	ND	1.0	mg/Kg	1.00	03/21/2000 17:33	
Thallium	ND	1.0	mg/Kg	1.00	03/21/2000 17:33	
Vanadium	25	1.0	mg/Kg	1.00	03/21/2000 17:33	
Zinc	33	1.0	mg/Kg	1.00	03/21/2000 17:33	
Mercury	0.052	0.050	mg/Kg	1.00	03/22/2000 10:59	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 3050B  
7471A

## CAM 17 Metals

Sample ID:	GMX38C-4.5	Lab Sample ID:	2000-03-0371-008
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 09:50	Extracted:	03/21/2000 15:32
Matrix:	Soil	QC-Batch:	2000/03/21-02.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	1.00	03/21/2000 17:36	
Arsenic	ND	1.0	mg/Kg	1.00	03/21/2000 17:36	
Barium	100	1.0	mg/Kg	1.00	03/21/2000 17:36	
Beryllium	ND	0.50	mg/Kg	1.00	03/21/2000 17:36	
Cadmium	ND	0.50	mg/Kg	1.00	03/21/2000 17:36	
Chromium	20	1.0	mg/Kg	1.00	03/21/2000 17:36	
Cobalt	7.3	1.0	mg/Kg	1.00	03/21/2000 17:36	
Copper	11	1.0	mg/Kg	1.00	03/21/2000 17:36	
Lead	4.8	1.0	mg/Kg	1.00	03/21/2000 17:36	
Molybdenum	ND	1.0	mg/Kg	1.00	03/21/2000 17:36	
Nickel	21	1.0	mg/Kg	1.00	03/21/2000 17:36	
Selenium	ND	2.0	mg/Kg	1.00	03/21/2000 17:36	
Silver	ND	1.0	mg/Kg	1.00	03/21/2000 17:36	
Thallium	ND	1.0	mg/Kg	1.00	03/21/2000 17:36	
Vanadium	16	1.0	mg/Kg	1.00	03/21/2000 17:36	
Zinc	16	1.0	mg/Kg	1.00	03/21/2000 17:36	
Mercury	ND	0.050	mg/Kg	1.00	03/22/2000 11:00	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 3050B  
7471A

## CAM 17 Metals

Sample ID:	<b>GMX38C-8.0</b>	Lab Sample ID:	<b>2000-03-0371-009</b>
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 09:55	Extracted:	03/21/2000 15:32
Matrix:	Soil	QC-Batch:	2000/03/21-02.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	1.00	03/21/2000 17:56	
Arsenic	1.0	1.0	mg/Kg	1.00	03/21/2000 17:56	
Barium	73	1.0	mg/Kg	1.00	03/21/2000 17:56	
Beryllium	ND	0.50	mg/Kg	1.00	03/21/2000 17:56	
Cadmium	ND	0.50	mg/Kg	1.00	03/21/2000 17:56	
Chromium	21	1.0	mg/Kg	1.00	03/21/2000 17:56	
Cobalt	4.1	1.0	mg/Kg	1.00	03/21/2000 17:56	
Copper	9.4	1.0	mg/Kg	1.00	03/21/2000 17:56	
Lead	4.2	1.0	mg/Kg	1.00	03/21/2000 17:56	
Molybdenum	ND	1.0	mg/Kg	1.00	03/21/2000 17:56	
Nickel	28	1.0	mg/Kg	1.00	03/21/2000 17:56	
Selenium	ND	2.0	mg/Kg	1.00	03/21/2000 17:56	
Silver	ND	1.0	mg/Kg	1.00	03/21/2000 17:56	
Thallium	ND	1.0	mg/Kg	1.00	03/21/2000 17:56	
Vanadium	17	1.0	mg/Kg	1.00	03/21/2000 17:56	
Zinc	23	1.0	mg/Kg	1.00	03/21/2000 17:56	
Mercury	ND	0.050	mg/Kg	1.00	03/22/2000 11:01	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 3050B  
7471A

## CAM 17 Metals

Sample ID:	GMX37C-1.0	Lab Sample ID:	2000-03-0371-013
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 10:35	Extracted:	03/21/2000 15:32
Matrix:	Soil	QC-Batch:	2000/03/21-02.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	1.00	03/21/2000 18:00	
Arsenic	3.9	1.0	mg/Kg	1.00	03/21/2000 18:00	
Barium	100	1.0	mg/Kg	1.00	03/21/2000 18:00	
Beryllium	ND	0.50	mg/Kg	1.00	03/21/2000 18:00	
Cadmium	0.55	0.50	mg/Kg	1.00	03/21/2000 18:00	
Chromium	29	1.0	mg/Kg	1.00	03/21/2000 18:00	
Cobalt	9.6	1.0	mg/Kg	1.00	03/21/2000 18:00	
Copper	34	1.0	mg/Kg	1.00	03/21/2000 18:00	
Lead	31	1.0	mg/Kg	1.00	03/21/2000 18:00	
Molybdenum	ND	1.0	mg/Kg	1.00	03/21/2000 18:00	
Nickel	34	1.0	mg/Kg	1.00	03/21/2000 18:00	
Selenium	ND	2.0	mg/Kg	1.00	03/21/2000 18:00	
Silver	ND	1.0	mg/Kg	1.00	03/21/2000 18:00	
Thallium	ND	1.0	mg/Kg	1.00	03/21/2000 18:00	
Vanadium	42	1.0	mg/Kg	1.00	03/21/2000 18:00	
Zinc	87	1.0	mg/Kg	1.00	03/21/2000 18:00	
Mercury	0.21	0.050	mg/Kg	1.00	03/22/2000 11:03	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 3050B  
7471A

## CAM 17 Metals

Sample ID:	GMX37C-4.5	Lab Sample ID:	2000-03-0371-014
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 10:45	Extracted:	03/21/2000 15:32
Matrix:	Soil	QC-Batch:	2000/03/21-02.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	1.00	03/21/2000 18:03	
Arsenic	4.7	1.0	mg/Kg	1.00	03/21/2000 18:03	
Barium	150	1.0	mg/Kg	1.00	03/21/2000 18:03	
Beryllium	ND	0.50	mg/Kg	1.00	03/21/2000 18:03	
Cadmium	ND	0.50	mg/Kg	1.00	03/21/2000 18:03	
Chromium	26	1.0	mg/Kg	1.00	03/21/2000 18:03	
Cobalt	8.6	1.0	mg/Kg	1.00	03/21/2000 18:03	
Copper	48	1.0	mg/Kg	1.00	03/21/2000 18:03	
Lead	17	1.0	mg/Kg	1.00	03/21/2000 18:03	
Molybdenum	ND	1.0	mg/Kg	1.00	03/21/2000 18:03	
Nickel	30	1.0	mg/Kg	1.00	03/21/2000 18:03	
Selenium	ND	2.0	mg/Kg	1.00	03/21/2000 18:03	
Silver	ND	1.0	mg/Kg	1.00	03/21/2000 18:03	
Thallium	ND	1.0	mg/Kg	1.00	03/21/2000 18:03	
Vanadium	37	1.0	mg/Kg	1.00	03/21/2000 18:03	
Zinc	54	1.0	mg/Kg	1.00	03/21/2000 18:03	
Mercury	0.066	0.050	mg/Kg	1.00	03/22/2000 11:04	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 3050B  
7471A

## CAM 17 Metals

Sample ID:	GMX37C-8.0	Lab Sample ID:	2000-03-0371-015
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 10:50	Extracted:	03/21/2000 15:32
Matrix:	Soil	QC-Batch:	2000/03/21-02.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	1.00	03/21/2000 18:06	
Arsenic	5.0	1.0	mg/Kg	1.00	03/21/2000 18:06	
Barium	150	1.0	mg/Kg	1.00	03/21/2000 18:06	
Beryllium	ND	0.50	mg/Kg	1.00	03/21/2000 18:06	
Cadmium	ND	0.50	mg/Kg	1.00	03/21/2000 18:06	
Chromium	26	1.0	mg/Kg	1.00	03/21/2000 18:06	
Cobalt	8.7	1.0	mg/Kg	1.00	03/21/2000 18:06	
Copper	47	1.0	mg/Kg	1.00	03/21/2000 18:06	
Lead	17	1.0	mg/Kg	1.00	03/21/2000 18:06	
Molybdenum	ND	1.0	mg/Kg	1.00	03/21/2000 18:06	
Nickel	30	1.0	mg/Kg	1.00	03/21/2000 18:06	
Selenium	ND	2.0	mg/Kg	1.00	03/21/2000 18:06	
Silver	ND	1.0	mg/Kg	1.00	03/21/2000 18:06	
Thallium	ND	1.0	mg/Kg	1.00	03/21/2000 18:06	
Vanadium	37	1.0	mg/Kg	1.00	03/21/2000 18:06	
Zinc	54	1.0	mg/Kg	1.00	03/21/2000 18:06	
Mercury	ND	0.050	mg/Kg	1.00	03/22/2000 11:05	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 3050B  
7471A

## CAM 17 Metals

Sample ID:	GMX36C-1.0	Lab Sample ID:	2000-03-0371-019
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 11:55	Extracted:	03/21/2000 15:32
Matrix:	Soil	QC-Batch:	2000/03/21-02.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	1.00	03/21/2000 18:10	
Arsenic	3.4	1.0	mg/Kg	1.00	03/21/2000 18:10	
Barium	130	1.0	mg/Kg	1.00	03/21/2000 18:10	
Beryllium	ND	0.50	mg/Kg	1.00	03/21/2000 18:10	
Cadmium	ND	0.50	mg/Kg	1.00	03/21/2000 18:10	
Chromium	25	1.0	mg/Kg	1.00	03/21/2000 18:10	
Cobalt	7.5	1.0	mg/Kg	1.00	03/21/2000 18:10	
Copper	38	1.0	mg/Kg	1.00	03/21/2000 18:10	
Lead	18	1.0	mg/Kg	1.00	03/21/2000 18:10	
Molybdenum	ND	1.0	mg/Kg	1.00	03/21/2000 18:10	
Nickel	28	1.0	mg/Kg	1.00	03/21/2000 18:10	
Selenium	ND	2.0	mg/Kg	1.00	03/21/2000 18:10	
Silver	ND	1.0	mg/Kg	1.00	03/21/2000 18:10	
Thallium	ND	1.0	mg/Kg	1.00	03/21/2000 18:10	
Vanadium	28	1.0	mg/Kg	1.00	03/21/2000 18:10	
Zinc	76	1.0	mg/Kg	1.00	03/21/2000 18:10	
Mercury	0.062	0.050	mg/Kg	1.00	03/22/2000 11:06	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 3050B  
7471A

## CAM 17 Metals

Sample ID:	GMX36C-4.5	Lab Sample ID:	2000-03-0371-020
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 12:05	Extracted:	03/21/2000 15:32
Matrix:	Soil	QC-Batch:	2000/03/21-02.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	1.00	03/21/2000 18:13	
Arsenic	1.4	1.0	mg/Kg	1.00	03/21/2000 18:13	
Barium	130	1.0	mg/Kg	1.00	03/21/2000 18:13	
Beryllium	ND	0.50	mg/Kg	1.00	03/21/2000 18:13	
Cadmium	ND	0.50	mg/Kg	1.00	03/21/2000 18:13	
Chromium	22	1.0	mg/Kg	1.00	03/21/2000 18:13	
Cobalt	8.3	1.0	mg/Kg	1.00	03/21/2000 18:13	
Copper	15	1.0	mg/Kg	1.00	03/21/2000 18:13	
Lead	22	1.0	mg/Kg	1.00	03/21/2000 18:13	
Molybdenum	ND	1.0	mg/Kg	1.00	03/21/2000 18:13	
Nickel	23	1.0	mg/Kg	1.00	03/21/2000 18:13	
Selenium	ND	2.0	mg/Kg	1.00	03/21/2000 18:13	
Silver	ND	1.0	mg/Kg	1.00	03/21/2000 18:13	
Thallium	ND	1.0	mg/Kg	1.00	03/21/2000 18:13	
Vanadium	17	1.0	mg/Kg	1.00	03/21/2000 18:13	
Zinc	44	1.0	mg/Kg	1.00	03/21/2000 18:13	
Mercury	0.097	0.050	mg/Kg	1.00	03/22/2000 11:10	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 3050B  
7471A

## CAM 17 Metals

Sample ID:	GMX36C-8.0	Lab Sample ID:	2000-03-0371-021
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 12:15	Extracted:	03/21/2000 15:32
Matrix:	Soil	QC-Batch:	2000/03/21-02.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	1.00	03/21/2000 18:23	
Arsenic	1.2	1.0	mg/Kg	1.00	03/21/2000 18:23	
Barium	110	1.0	mg/Kg	1.00	03/21/2000 18:23	
Beryllium	ND	0.50	mg/Kg	1.00	03/21/2000 18:23	
Cadmium	0.52	0.50	mg/Kg	1.00	03/21/2000 18:23	
Chromium	28	1.0	mg/Kg	1.00	03/21/2000 18:23	
Cobalt	6.6	1.0	mg/Kg	1.00	03/21/2000 18:23	
Copper	15	1.0	mg/Kg	1.00	03/21/2000 18:23	
Lead	5.0	1.0	mg/Kg	1.00	03/21/2000 18:23	
Molybdenum	ND	1.0	mg/Kg	1.00	03/21/2000 18:23	
Nickel	36	1.0	mg/Kg	1.00	03/21/2000 18:23	
Selenium	ND	2.0	mg/Kg	1.00	03/21/2000 18:23	
Silver	ND	1.0	mg/Kg	1.00	03/21/2000 18:23	
Thallium	ND	1.0	mg/Kg	1.00	03/21/2000 18:23	
Vanadium	21	1.0	mg/Kg	1.00	03/21/2000 18:23	
Zinc	34	1.0	mg/Kg	1.00	03/21/2000 18:23	
Mercury	ND	0.050	mg/Kg	1.00	03/22/2000 11:13	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 3050B  
7471A

## CAM 17 Metals

Sample ID:	GMX39C-1.0	Lab Sample ID:	2000-03-0371-022
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 12:25	Extracted:	03/21/2000 15:32
Matrix:	Soil	QC-Batch:	2000/03/21-02.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	1.00	03/21/2000 18:27	
Arsenic	ND	1.0	mg/Kg	1.00	03/21/2000 18:27	
Barium	19	1.0	mg/Kg	1.00	03/21/2000 18:27	
Beryllium	ND	0.50	mg/Kg	1.00	03/21/2000 18:27	
Cadmium	ND	0.50	mg/Kg	1.00	03/21/2000 18:27	
Chromium	2.4	1.0	mg/Kg	1.00	03/21/2000 18:27	
Cobalt	ND	1.0	mg/Kg	1.00	03/21/2000 18:27	
Copper	3.9	1.0	mg/Kg	1.00	03/21/2000 18:27	
Lead	9.5	1.0	mg/Kg	1.00	03/21/2000 18:27	
Molybdenum	ND	1.0	mg/Kg	1.00	03/21/2000 18:27	
Nickel	ND	1.0	mg/Kg	1.00	03/21/2000 18:27	
Selenium	ND	2.0	mg/Kg	1.00	03/21/2000 18:27	
Silver	ND	1.0	mg/Kg	1.00	03/21/2000 18:27	
Thallium	ND	1.0	mg/Kg	1.00	03/21/2000 18:27	
Vanadium	1.5	1.0	mg/Kg	1.00	03/21/2000 18:27	
Zinc	66	1.0	mg/Kg	1.00	03/21/2000 18:27	
Mercury	ND	0.050	mg/Kg	1.00	03/22/2000 11:15	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 3050B  
7471A

## CAM 17 Metals

Sample ID:	GMX39C-4.5	Lab Sample ID:	2000-03-0371-023
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 12:35	Extracted:	03/21/2000 15:32
Matrix:	Soil	QC-Batch:	2000/03/21-02.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	1.00	03/21/2000 18:42	
Arsenic	1.2	1.0	mg/Kg	1.00	03/21/2000 18:42	
Barium	120	1.0	mg/Kg	1.00	03/21/2000 18:42	
Beryllium	ND	0.50	mg/Kg	1.00	03/21/2000 18:42	
Cadmium	ND	0.50	mg/Kg	1.00	03/21/2000 18:42	
Chromium	19	1.0	mg/Kg	1.00	03/21/2000 18:42	
Cobalt	5.4	1.0	mg/Kg	1.00	03/21/2000 18:42	
Copper	14	1.0	mg/Kg	1.00	03/21/2000 18:42	
Lead	8.8	1.0	mg/Kg	1.00	03/21/2000 18:42	
Molybdenum	ND	1.0	mg/Kg	1.00	03/21/2000 18:42	
Nickel	19	1.0	mg/Kg	1.00	03/21/2000 18:42	
Selenium	ND	2.0	mg/Kg	1.00	03/21/2000 18:42	
Silver	ND	1.0	mg/Kg	1.00	03/21/2000 18:42	
Thallium	ND	1.0	mg/Kg	1.00	03/21/2000 18:42	
Vanadium	16	1.0	mg/Kg	1.00	03/21/2000 18:42	
Zinc	22	1.0	mg/Kg	1.00	03/21/2000 18:42	
Mercury	ND	0.050	mg/Kg	1.00	03/22/2000 11:16	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 3050B  
7471A

## CAM 17 Metals

Sample ID:	GMX39C-8.0	Lab Sample ID:	2000-03-0371-024
Project:	6262	Received:	03/21/2000 09:46
Sampled:	03/20/2000 12:40	Extracted:	03/21/2000 15:32
Matrix:	Soil	QC-Batch:	2000/03/21-02.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	1.00	03/21/2000 18:46	
Arsenic	1.9	1.0	mg/Kg	1.00	03/21/2000 18:46	
Barium	90	1.0	mg/Kg	1.00	03/21/2000 18:46	
Beryllium	ND	0.50	mg/Kg	1.00	03/21/2000 18:46	
Cadmium	ND	0.50	mg/Kg	1.00	03/21/2000 18:46	
Chromium	26	1.0	mg/Kg	1.00	03/21/2000 18:46	
Cobalt	5.0	1.0	mg/Kg	1.00	03/21/2000 18:46	
Copper	12	1.0	mg/Kg	1.00	03/21/2000 18:46	
Lead	4.5	1.0	mg/Kg	1.00	03/21/2000 18:46	
Molybdenum	ND	1.0	mg/Kg	1.00	03/21/2000 18:46	
Nickel	32	1.0	mg/Kg	1.00	03/21/2000 18:46	
Selenium	ND	2.0	mg/Kg	1.00	03/21/2000 18:46	
Silver	ND	1.0	mg/Kg	1.00	03/21/2000 18:46	
Thallium	ND	1.0	mg/Kg	1.00	03/21/2000 18:46	
Vanadium	19	1.0	mg/Kg	1.00	03/21/2000 18:46	
Zinc	29	1.0	mg/Kg	1.00	03/21/2000 18:46	
Mercury	ND	0.050	mg/Kg	1.00	03/22/2000 11:17	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Test Method: 7471A

6010B

Attn.: Ann Holbrow

Prep Method: 3050B

7471A

## Batch QC Report

CAM 17 Metals

Method Blank	Soil	QC Batch # 2000/03/21-02.15
MB: 2000/03/21-02.15-013		Date Extracted: 03/21/2000 15:32

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	03/21/2000 17:23	
Arsenic	ND	1.0	mg/Kg	03/21/2000 17:23	
Barium	ND	1.0	mg/Kg	03/21/2000 17:23	
Beryllium	ND	0.50	mg/Kg	03/21/2000 17:23	
Cadmium	ND	0.50	mg/Kg	03/21/2000 17:23	
Chromium	ND	1.0	mg/Kg	03/21/2000 17:23	
Cobalt	ND	1.0	mg/Kg	03/21/2000 17:23	
Copper	ND	1.0	mg/Kg	03/21/2000 17:23	
Lead	ND	1.0	mg/Kg	03/21/2000 17:23	
Molybdenum	ND	1.0	mg/Kg	03/21/2000 17:23	
Nickel	ND	1.0	mg/Kg	03/21/2000 17:23	
Selenium	ND	2.0	mg/Kg	03/21/2000 17:23	
Silver	ND	1.0	mg/Kg	03/21/2000 17:23	
Thallium	ND	1.0	mg/Kg	03/21/2000 17:23	
Vanadium	ND	1.0	mg/Kg	03/21/2000 17:23	
Zinc	ND	1.0	mg/Kg	03/21/2000 17:23	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 7471A  
6010B  
Prep Method: 3050B  
7471A

## Batch QC Report

CAM 17 Metals

Method Blank	Soil	QC Batch # 2000/03/21-02.16
MB: 2000/03/21-02.16-011		Date Extracted: 03/21/2000 15:37

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Mercury	ND	0.050	mg/Kg	03/22/2000 10:55	

---

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn: Ann Holbrow

Prep Method: 7471A  
3050B

## Batch QC Report

### CAM 17 Metals

Laboratory Control Spike (LCS/LCSD)		Soil		QC Batch # 2000/03/21-02.15			
LCS:	2000/03/21-02.15-014	Extracted:	03/21/2000 15:32	Analyzed	03/21/2000 17:27		
LCSD:	2000/03/21-02.15-015	Extracted:	03/21/2000 15:32	Analyzed	03/21/2000 17:30		

Compound	Conc. [mg/Kg]		Exp.Conc. [mg/Kg]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Antimony	93.9	93.9	100.0	100.0	93.9	93.9	0.0	80-120	20		
Arsenic	91.6	91.4	100.0	100.0	91.6	91.4	0.2	80-120	20		
Barium	91.9	91.8	100.0	100.0	91.9	91.8	0.1	80-120	20		
Beryllium	93.2	92.7	100.0	100.0	93.2	92.7	0.5	80-120	20		
Cadmium	92.4	92.4	100.0	100.0	92.4	92.4	0.0	80-120	20		
Chromium	95.8	95.7	100.0	100.0	95.8	95.7	0.1	80-120	20		
Cobalt	92.8	92.9	100.0	100.0	92.8	92.9	0.1	80-120	20		
Copper	93.5	93.5	100.0	100.0	93.5	93.5	0.0	80-120	20		
Lead	92.1	92.1	100.0	100.0	92.1	92.1	0.0	80-120	20		
Molybdenum	94.9	95.1	100.0	100.0	94.9	95.1	0.2	80-120	20		
Nickel	92.2	92.1	100.0	100.0	92.2	92.1	0.1	80-120	20		
Selenium	92.6	93.3	100.0	100.0	92.6	93.3	0.8	80-120	20		
Silver	92.2	92.2	100.0	100.0	92.2	92.2	0.0	80-120	20		
Thallium	92.3	92.4	100.0	100.0	92.3	92.4	0.1	80-120	20		
Vanadium	94.3	94.3	100.0	100.0	94.3	94.3	0.0	80-120	20		
Zinc	91.2	91.2	100.0	100.0	91.2	91.2	0.0	80-120	20		

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn: Ann Holbrow

Prep Method: 7471A  
3050B

## Batch QC Report

CAM 17 Metals

Laboratory Control Spike (LCS/LCSD)		Soil		QC Batch # 2000/03/21-02.16			
LCS:	2000/03/21-02.16-012	Extracted:	03/21/2000 15:37	Analyzed	03/22/2000 10:56		
LCSD:	2000/03/21-02.16-013	Extracted:	03/21/2000 15:37	Analyzed	03/22/2000 10:58		

Compound	Conc. [ mg/Kg ]		Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Mercury	0.520	0.505	0.500	0.500	104.0	101.0	2.9	85-115	20		

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 7471A  
3050B**Batch QC Report**

CAM 17 Metals

**Matrix Spike ( MS / MSD )****Soil****QC Batch # 2000/03/21-02.15**

Sample ID: GMX36C-4.5

Lab Sample ID: 2000-03-0371-020

MS: 2000/03/21-02.15-026 Extracted: 03/21/2000 15:32 Analyzed: 03/21/2000 18:16 Dilution: 1.0

MSD: 2000/03/21-02.15-027 Extracted: 03/21/2000 15:32 Analyzed: 03/21/2000 18:20 Dilution: 1.0

Compound	Conc. [ mg/Kg ]			Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Antimony	45.2	47.7	ND	100.0	100.0	45.2	47.7	5.4	75-125	20	mso	mso
Arsenic	83.3	84.5	1.43	100.0	100.0	81.9	83.1	1.5	75-125	20		
Barium	205	212	134	100.0	100.0	71.0	78.0	9.4	75-125	20	mso	
Beryllium	84.8	86.0	ND	100.0	100.0	84.8	86.0	1.4	75-125	20		
Cadmium	82.3	82.4	ND	100.0	100.0	82.3	82.4	0.1	75-125	20		
Chromium	110	111	21.8	100.0	100.0	88.2	89.2	1.1	75-125	20		
Cobalt	90.8	91.8	8.31	100.0	100.0	82.5	83.5	1.2	75-125	20		
Copper	102	103	14.7	100.0	100.0	87.3	88.3	1.1	75-125	20		
Lead	100	104	22.3	100.0	100.0	77.7	81.7	5.0	75-125	20		
Molybdenum	78.7	79.7	ND	100.0	100.0	78.7	79.7	1.3	75-125	20		
Nickel	105	106	22.6	100.0	100.0	82.4	83.4	1.2	75-125	20		
Selenium	82.9	83.0	ND	100.0	100.0	82.9	83.0	0.1	75-125	20		
Silver	86.4	86.4	ND	100.0	100.0	86.4	86.4	0.0	75-125	20		
Thallium	77.3	78.0	ND	100.0	100.0	77.3	78.0	0.9	75-125	20		
Vanadium	102	103	16.8	100.0	100.0	85.2	86.2	1.2	75-125	20		
Zinc	124	125	44.0	100.0	100.0	80.0	81.0	1.2	75-125	20		

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Test Method: 7471A

6010B

Attn.: Ann Holbrow

Prep Method: 7471A

3050B

**Batch QC Report**

CAM 17 Metals

**Matrix Spike ( MS / MSD )****Soil****QC Batch # 2000/03/21-02.15**

Sample ID: GMX33B-1.0

Lab Sample ID: 2000-03-0373-004

MS: 2000/03/21-02.15-038 Extracted: 03/21/2000 15:32 Analyzed: 03/21/2000 19:02 Dilution: 1.0

MSD: 2000/03/21-02.15-039 Extracted: 03/21/2000 15:32 Analyzed: 03/21/2000 19:06 Dilution: 1.0

Compound	Conc. [ mg/Kg ]			Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Antimony	48.8	51.3	ND	100.0	100.0	48.8	51.3	5.0	75-125	20	mso	mso
Arsenic	83.5	84.8	5.15	100.0	100.0	78.3	79.6	1.6	75-125	20		
Barium	253	234	318	100.0	100.0	-65.0	-84.0	-25.5	75-125	20	mso	mso
Beryllium	80.4	80.8	ND	100.0	100.0	80.4	80.8	0.5	75-125	20		
Cadmium	76.0	76.8	ND	100.0	100.0	76.0	76.8	1.0	75-125	20		
Chromium	118	117	32.3	100.0	100.0	85.7	84.7	1.2	75-125	20		
Cobalt	88.9	89.6	10.2	100.0	100.0	78.7	79.4	0.9	75-125	20		
Copper	133	133	41.5	100.0	100.0	91.5	91.5	0.0	75-125	20		
Lead	90.3	91.7	13.8	100.0	100.0	76.5	77.9	1.8	75-125	20		
Molybdenum	76.3	77.3	ND	100.0	100.0	76.3	77.3	1.3	75-125	20		
Nickel	112	113	31.4	100.0	100.0	80.6	81.6	1.2	75-125	20		
Selenium	77.2	78.2	ND	100.0	100.0	77.2	78.2	1.3	75-125	20		
Silver	82.4	83.1	ND	100.0	100.0	82.4	83.1	0.8	75-125	20		
Thallium	69.9	69.6	ND	100.0	100.0	69.9	69.6	0.4	75-125	20	mso	mso
Vanadium	136	140	48.6	100.0	100.0	87.4	91.4	4.5	75-125	20		
Zinc	134	135	97.8	100.0	100.0	36.2	37.2	2.7	75-125	20	mso	mso

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Test Method: 7471A

6010B

Attn.: Ann Holbrow

Prep Method: 7471A

3050B

**Batch QC Report**

CAM 17 Metals

**Matrix Spike ( MS / MSD )****Soil****QC Batch # 2000/03/21-02.15**

Sample ID: GMX33B-7.0

Lab Sample ID: 2000-03-0373-006

MS: 2000/03/21-02.15-044 Extracted: 03/21/2000 15:32 Analyzed: 03/21/2000 19:38 Dilution: 1.0

MSD: 2000/03/21-02.15-045 Extracted: 03/21/2000 15:32 Analyzed: 03/21/2000 19:42 Dilution: 1.0

Compound	Conc. [ mg/Kg ]			Exp.Conc. [ mg/Kg ]		Recovery [%]			RPD	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD	(%)		Recovery	RPD	MS	MSD
Antimony	66.1	70.2	ND	100.0	100.0	66.1	70.2	6.0	75-125	20	mso	mso	
Arsenic	90.8	96.6	1.12	100.0	100.0	89.7	95.5	6.3	75-125	20			
Barium	198	216	107	100.0	100.0	91.0	109.0	18.0	75-125	20			
Beryllium	90.8	94.9	ND	100.0	100.0	90.8	94.9	4.4	75-125	20			
Cadmium	85.5	91.2	ND	100.0	100.0	85.5	91.2	6.5	75-125	20			
Chromium	122	129	29.2	100.0	100.0	92.8	99.8	7.3	75-125	20			
Cobalt	93.9	98.3	6.96	100.0	100.0	86.9	91.3	4.9	75-125	20			
Copper	106	110	12.3	100.0	100.0	93.7	97.7	4.2	75-125	20			
Lead	88.7	95.2	4.72	100.0	100.0	84.0	90.5	7.4	75-125	20			
Molybdenum	87.8	88.8	ND	100.0	100.0	87.8	88.8	1.1	75-125	20			
Nickel	116	125	31.6	100.0	100.0	84.4	93.4	10.1	75-125	20			
Selenium	88.8	91.8	ND	100.0	100.0	88.8	91.8	3.3	75-125	20			
Silver	92.3	93.2	ND	100.0	100.0	92.3	93.2	1.0	75-125	20			
Thallium	80.3	80.3	ND	100.0	100.0	80.3	80.3	0.0	75-125	20			
Vanadium	112	114	21.2	100.0	100.0	90.8	92.8	2.2	75-125	20			
Zinc	113	128	29.6	100.0	100.0	83.4	98.4	16.5	75-125	20			

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 7471A  
3050B

## Batch QC Report

CAM 17 Metals

Matrix Spike ( MS / MSD )

Soil

QC Batch # 2000/03/21-02.16

Sample ID: GMX36C-4.5

Lab Sample ID: 2000-03-0371-020

MS: 2000/03/21-02.16-024 Extracted: 03/21/2000 15:37 Analyzed: 03/22/2000 11:11 Dilution: 1.0

MSD: 2000/03/21-02.16-025 Extracted: 03/21/2000 15:37 Analyzed: 03/22/2000 11:12 Dilution: 1.0

Compound	Conc. [ mg/Kg ]			Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Mercury	0.561	0.570	0.0969	0.500	0.500	92.8	94.6	1.9	85-115	20		

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 7471A  
3050B

## Batch QC Report

CAM 17 Metals

### Matrix Spike ( MS / MSD )

Soil

QC Batch # 2000/03/21-02.16

Sample ID: GMX33B-1.0

Lab Sample ID: 2000-03-0373-004

MS: 2000/03/21-02.16-036 Extracted: 03/21/2000 15:37 Analyzed: 03/22/2000 11:26 Dilution: 1.0

MSD: 2000/03/21-02.16-037 Extracted: 03/21/2000 15:37 Analyzed: 03/22/2000 11:27 Dilution: 1.0

Compound	Conc. [ mg/Kg ]			Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Mercury	0.571	0.569	0.114	0.500	0.500	91.4	91.0	0.4	85-115	20		

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 7471A  
3050B

## Batch QC Report

### CAM 17 Metals

Matrix Spike ( MS / MSD )	Soil	QC Batch # 2000/03/21-02.16
Sample ID: GMX33B-7.0		Lab Sample ID: 2000-03-0373-006
MS: 2000/03/21-02.16-040 Extracted: 03/21/2000 15:37 Analyzed: 03/22/2000 11:31 Dilution: 1.0		
MSD: 2000/03/21-02.16-041 Extracted: 03/21/2000 15:37 Analyzed: 03/22/2000 11:32 Dilution: 1.0		

Compound	Conc. [ mg/Kg ]			Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Mercury	0.466	0.456	ND	0.500	0.500	93.2	91.2	2.2	85-115	20		

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0371

To: Geomatrix Consultants

Test Method: 6010B  
7471A

Attn: Ann Holbrow

Prep Method: 3050B  
7471A

## Legend & Notes

CAM 17 Metals

### QC Compound Flags

mso

MS/MSD spike recoveries were out of QC limits due to matrix interference. Precision and Accuracy were verified by LCS/LCSD.

**FAX**

from **Geomatrix Consultants, Inc.**  
2101 Webster Street, 12th Floor, Oakland, CA 94612  
[www.geomatrix.com](http://www.geomatrix.com)



Date: March 21, 2000

Number of pages  
including cover sheet:

1

The information in this telecopy is intended for the named recipient(s) only. It may contain privileged and confidential matter. If you have received this telecopy in error, please notify the sender immediately. Thank you.

**To: Ms. Afsaneh Salimpour**

Chromalab

Fax Phone: **925-484-1096**Phone: **925-484-1919**

cc:

**From: Tom Gavigan**

Geomatrix Consultants

Fax Phone: **510-663-4141**Phone: **510-663-4100**Direct dial: **510-663-4192**Email: **Tgavigan@Geomatrix.com**Project No.: **6262.000.0**Project Name: **Canterbury Residential Development****REMARKS:** Hard copy to follow     Urgent     For your review     Reply ASAP     Please comment

Afsaneh:

Geomatrix submitted 72 soil samples in three coolers under seven Geomatrix chain of custody forms (0989, 0975, 0985, 003794, 003800, 003792, 003795). 24 soil samples were selected for analysis; the remaining soil samples were placed on hold pending results of the 24 samples. Please note the following clarifications / modifications to the analytical program:

- **MS/MSDs:** Please use samples GMX33B-1.0, GMX33B-4.0, GMX33B-7.0 (all on Geomatrix COC 0989) for MS/MSD analysis. Please exclude sample GMX36C-4.5 from MS/MSD analysis. Please do not perform MS/MSD analysis for any sample that is on hold.
- **Holds:** Please note that samples GMX34C-1.0, GMX34C-4.0, and GMX34C-7.0 (all on Geomatrix COC 0989) are on hold (the "checked" boxes on the COC are off by one column).

Please call me if you have any questions.

Thank you,

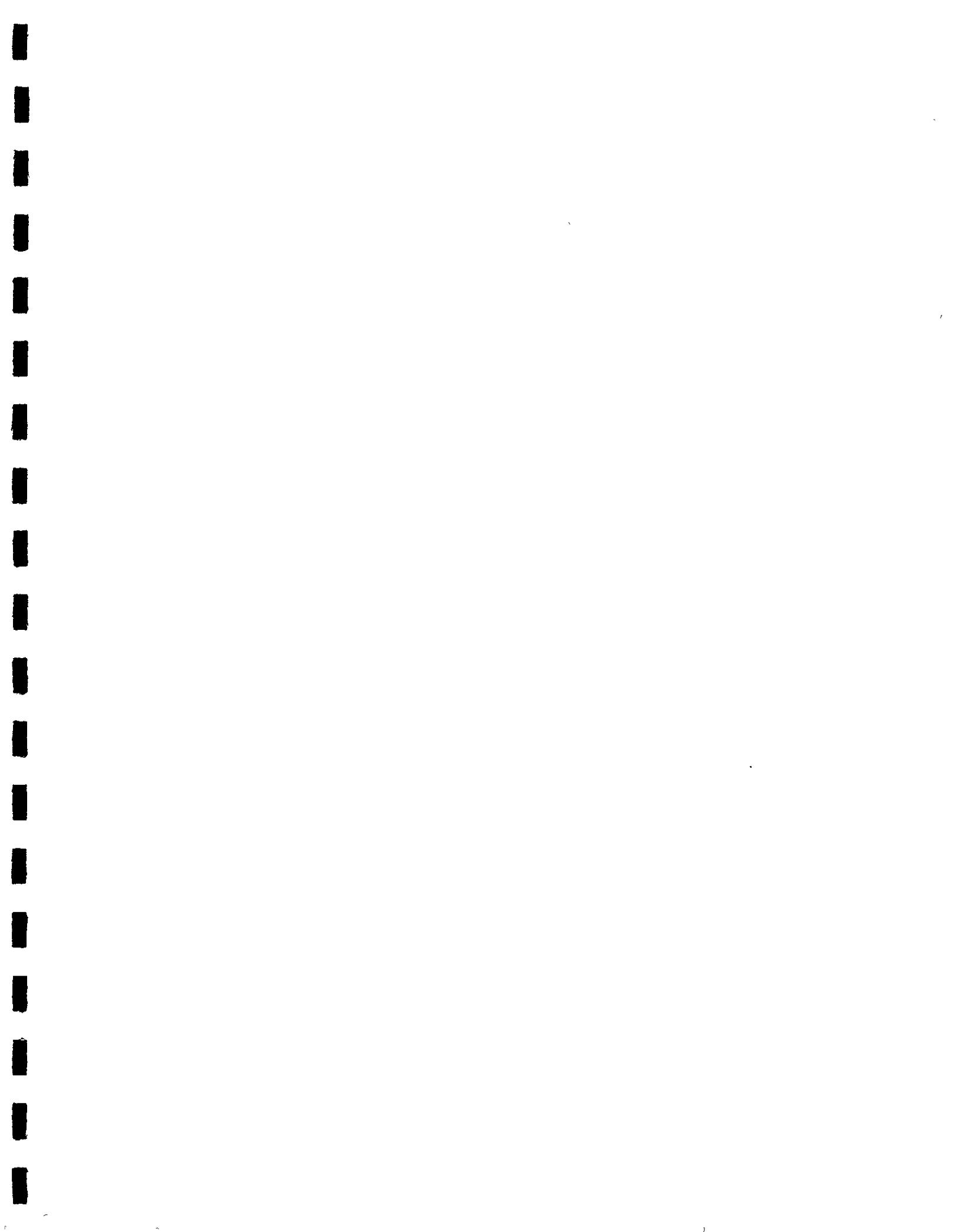
2000-03-0371

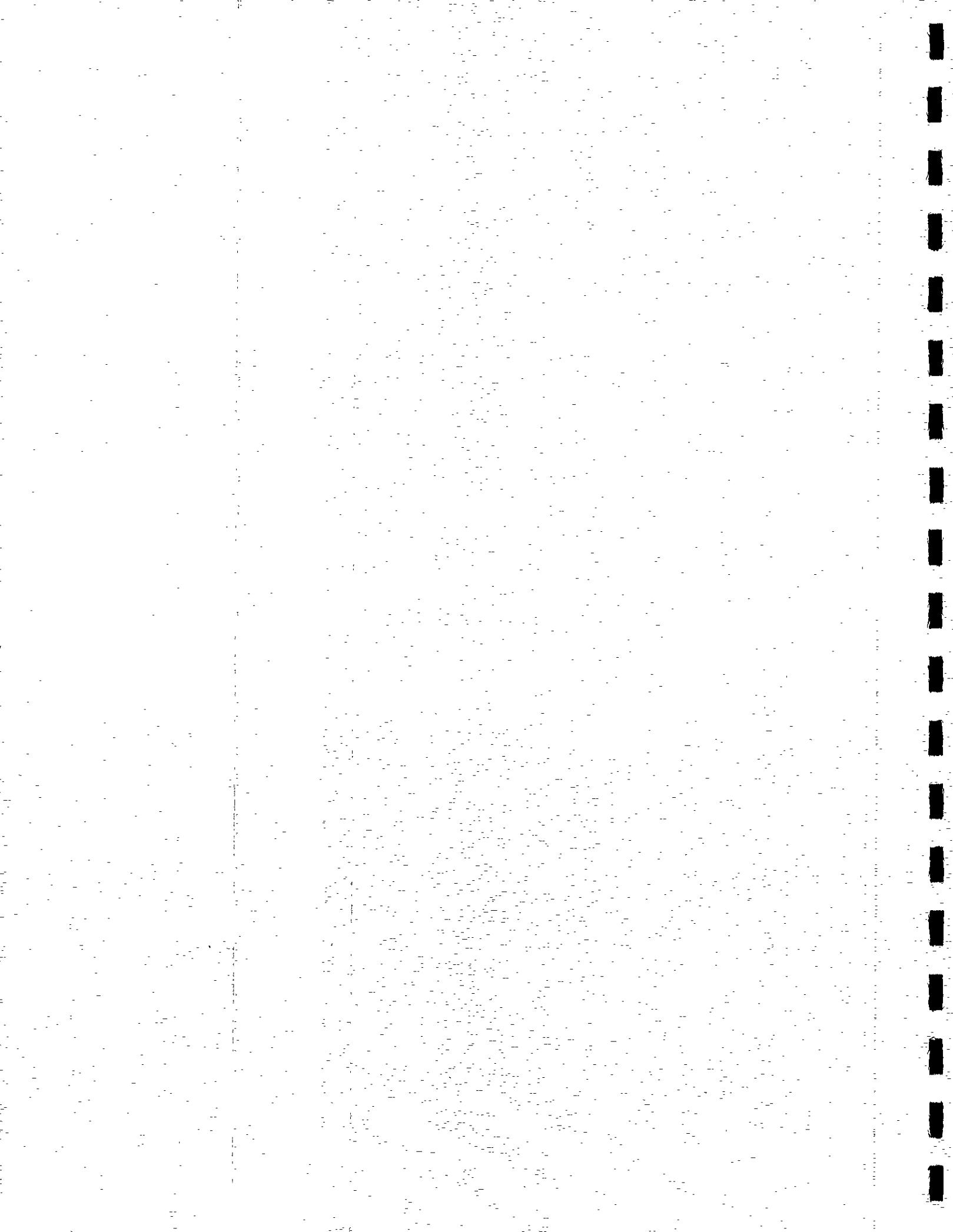
51095

Chain-of-Custody Record			003792			Date: 03/20/00	Page 1 of 2														
Project No.: 6262	ANALYSES			REMARKS																	
Samplers (Signature): James M. Carlson					Additional Comments																
Date	Time	Sample Number	EPA Method 8021 (Full Scan)	EPA Method 8021 (Hal. VCs only)	EPA Method 8021 (BETX only)	EPA Method 8260	EPA Method 8270 (Full Scan)	EPA Method 8270 SIM (PAHS only)	Method 8015M (Gasoline)	Method 8015M (Diesel)	Method 8015M (Motor Oil)	Silica Gel Cleanup	Title 22 Metals (trace/trace series) Pesticides/PCBs (trace/trace)	HOLD	MS/MSD	Soil (S), Water (W) Vapor (V), or Other (O)	Filtered	Preserved	Cooled	No. of Containers	
03/20/00	0920	Gmx35A-1.0										X		X	S		X		1	1 2" x 6" ss liner	
	0830	Gmx35A-3.5										X			S		X	1	1 1 5/8" x 6" ss liner		
	0840	Gmx35A-5.0										X			S		X	1	1 1 5/8" x 6" ss liner		
	0900	Gmx35B-1.0										X			S		X	1	1 2" x 6" ss liner		
	0910	Gmx35B-4.5										X			S		X	1	1 1 5/8" x 6" ss liner		
	0925	Gmx35B-8.0										X			X	S	X	1	1 1 5/8" x 6" ss liner		
	0940	Gmx35C-1.0										X	X			S	X	1	1 2" x 6" ss liner		
	0950	Gmx35C-4.5										X	X			S	X	1	1 5/8" x 6" ss liner		
	0955	Gmx35C-8.0										X	X			S	X	1	1 1 5/8" x 6" ss liner		
	1000	Gmx37B-1.0										X		X	S	X	1	1 2" x 6" ss liner			
	1015	Gmx37B-4.5										X			S	X	1	1 1 5/8" x 6" ss liner			
	1020	Gmx37B-8.0										X			S	X	1	1 1 5/8" x 6" ss liner			
	1035	Gmx37C-1.0										X	X			S	X	1	1 2" x 6" ss liner		
	1045	Gmx37C-4.5										X	X			S	X	1	1 1 5/8" x 6" ss liner		
	1050	Gmx37C-8.0										X	X			S	X	1	1 1 5/8" x 6" ss liner		
Laboratory: Chemicalab	Turnaround Time: 24 hours		Results to: Ann Holbrow			Total No. of Containers			15	✓											
Relinquished by (Signature): Jens M. Carlson	Date: 3/20/00	Relinquished by (Signature):	Relinquished by (Signature):			Date: 3/20/00	Relinquished by (Signature):	Method of Shipment: Lab courier													
Printed Name: Jim Carlson	Time: 1700	Printed Name:	Printed Name:			Time: 1700	Printed Name:	Laboratory Comments and Log No.:													
Company: Geomatrix	1700	Company:	Company:			1700	Company:														
Received by:	Date: 3/20/00	Received by:	Received by:			Date: 3/20/00	Received by:	Date: 3/20/00													
Printed Name:	Time: 1700	Printed Name:	Printed Name:			Time: 1700	Printed Name:	Time: 1700													
Company:	1700	Company:	Company:			1700	Company:	1700													
												 Geomatrix Consultants									
												2101 Webster Street, 12th Floor • Oakland, CA 94612 Phone: 510-663-4100 • Fax: 510-663-4141									

2000-05-05 77 31095

Chain-of-Custody Record			003795		Date: 03/20/00	Page 2 of 2																	
Project No.: 6262		ANALYSES				REMARKS																	
Samplers (Signature): James M. Carolan		EPA Method 8021 (Full Scan)	EPA Method 8021 (Hal VOCs only)	EPA Method 8021 (BTEX only)	EPA Method 8260	EPA Method 8270 (Full Scan)	EPA Method 8270 SIM (PAHS only)	Method 8015M (Gasoline)	Method 8015M (Diesel)	Method 8015M (Motor Oil)	Silica Gel Cleanup	Title 22 Metals (6000/2000 Series)	Pesticides /PCBs (6000/1000 Series)	HOLD	MS/MSP	Soil (S), Water (W) Vapor (V), or Other (O)	Filtered	Preserved	Cooled	No. of Containers	Additional Comments		
Date	Time	Sample Number																					
3/20/00	1100	GMX36B-1.0													X							1 2" x 6" ss liner	
	1110	GMX36B-4.5													X							1 1 5/8" x 6" ss liner	
4	1120	GMX36B-8.0													X							1 1 5/8" x 6" ss liner	
5	1155	GMX36C-1.0													X X							1 2" x 6" ss liner	
6	1205	GMX36C-4.5													X X	X						1 1 5/8" x 6" ss liner	
7	1215	GMX36C-8.0													X X							1 1 5/8" x 6" ss liner	
8	1225	GMX39C-1.0													X X							1 2" x 6" ss liner	
9	1235	GMX39C-4.5													X X							1 1 5/8" x 6" ss liner	
10	1240	GMX39C-8.0													X X							1 1 5/8" x 6" ss liner	
												<i>James M. Carolan</i> 3/20/00											
Laboratory: Chromalab			Turnaround Time: 24 hours			Results to: Ann Holbrook			Total No. of Containers			9											
Relinquished by (Signature): <i>James M. Carolan</i>		Date: 3/20/00	Relinquished by (Signature):		Date:	Relinquished by (Signature):		Date:	Method of Shipment: Lab courier														
Printed Name: Jim Carolan		Time: 1100	Printed Name:		Time:	Printed Name:		Time:	Laboratory Comments and Log No.:														
Company: Geomatrix		Date: 3/20/00	Company:		Date:	Company:		Date:															
Received by:		Date: 3/20/00	Received by:		Date:	Received by: <i>M. Maras</i>		Date:															
Printed Name:		Time: 1100	Printed Name:		Time:	Printed Name: <i>M. Maras</i>		Time:															
Company:		Date: 3/20/00	Company:		Date:	Company: <i>M. Maras</i>		Date:															
												<b>Geomatrix Consultants</b> 2101 Webster Street, 12th Floor • Oakland, CA 94612 Phone: 510-663-4100 • Fax: 510-663-4141											





# CHROMALAB, INC.

Environmental Services (SDB)

Project Manager: Afsaneh Salimpour

Invoice#: 2000-03-0372

Invoice Date: March 29, 2000

## INVOICE

Samples Received From	Report Results To				
Geomatrix Consultants Contact: Ann Holbrow 2101 Webster Street, 12th Floor Oakland, CA 94612	Geomatrix Consultants Contact: Ann Holbrow 2101 Webster Street, 12th Floor Oakland, CA 94612				
<b>Bill To</b>	<b>GEOMATRIX</b>				
Geomatrix Consultants Attn: Attn: Accts. Payable 2101 Webster Street, 12th Floor Oakland, CA 94612	Received: March 21, 2000 10:30 AM				
Project: 6262					
Qty	Matrix	Analysis	TAT	Unit Price	Total
3	Soil	CAM 17 metals	1 Day	\$150.00	\$450.00
3	Soil	Organochlorine Pesticides/PCBs	1 Day	\$150.00	\$450.00
1		24 hr rush services		\$900.00	<u>\$900.00</u>
					<b>\$1,800.00</b>

Terms and conditions:

Net30

Please Send Payment to: ChromaLab, Inc.  
1220 Quarry Lane  
Pleasanton, CA 94566-4756  
Phone: (925) 484-1919 Fax: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0372

Date: March 23, 2000

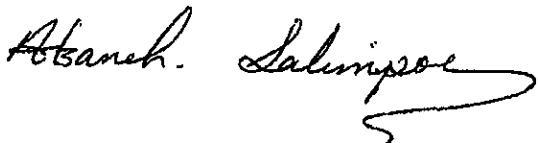
**Geomatrix Consultants**  
2101 Webster Street, 12th Floor  
Oakland, CA 94612

Attn.: Ann Holbrow

Attached is our report for your samples received on Tuesday March 21, 2000  
This report has been reviewed and approved for release. Reproduction of this report  
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after April 20, 2000  
unless you have requested otherwise. We appreciate the opportunity to be of service to you.  
If you have any questions, please call me at (925) 484-1919. You can also contact me via email.  
My email address is: [asalimpour@chromalab.com](mailto:asalimpour@chromalab.com)

Sincerely,



Afsaneh Salimpour

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0372

## CAM 17 Metals

**Geomatrix Consultants**

Attn: Ann Holbrow  
Project #: 6262

✉ 2101 Webster Street, 12th Floor  
Oakland, CA 94612

Phone: (510) 663-4100 Fax: (510) 663-4141

Project:

**Samples Reported**

Sample ID	Matrix	Date Sampled	Lab #
GMX40C-1.0	Soil	03/20/2000 13:25	4
GMX40C-4.5	Soil	03/20/2000 13:31	5
GMX40C-3.0	Soil	03/20/2000 13:40	6

---

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0372

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 3050B  
7471A

## CAM 17 Metals

Sample ID:	GMX40C-1.0	Lab Sample ID:	2000-03-0372-004
Project:	6262	Received:	03/21/2000 10:30
Sampled:	03/20/2000 13:25	Extracted:	03/21/2000 15:32
Matrix:	Soil	QC-Batch:	2000/03/21-02.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	1.00	03/21/2000 18:49	
Arsenic	2.6	1.0	mg/Kg	1.00	03/21/2000 18:49	
Barium	120	1.0	mg/Kg	1.00	03/21/2000 18:49	
Beryllium	ND	0.50	mg/Kg	1.00	03/21/2000 18:49	
Cadmium	ND	0.50	mg/Kg	1.00	03/21/2000 18:49	
Chromium	22	1.0	mg/Kg	1.00	03/21/2000 18:49	
Cobalt	8.1	1.0	mg/Kg	1.00	03/21/2000 18:49	
Copper	33	1.0	mg/Kg	1.00	03/21/2000 18:49	
Lead	16	1.0	mg/Kg	1.00	03/21/2000 18:49	
Molybdenum	ND	1.0	mg/Kg	1.00	03/21/2000 18:49	
Nickel	25	1.0	mg/Kg	1.00	03/21/2000 18:49	
Selenium	ND	2.0	mg/Kg	1.00	03/21/2000 18:49	
Silver	ND	1.0	mg/Kg	1.00	03/21/2000 18:49	
Thallium	ND	1.0	mg/Kg	1.00	03/21/2000 18:49	
Vanadium	37	1.0	mg/Kg	1.00	03/21/2000 18:49	
Zinc	47	1.0	mg/Kg	1.00	03/21/2000 18:49	
Mercury	0.39	0.050	mg/Kg	1.00	03/22/2000 11:18	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0372

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 3050B  
7471A

## CAM 17 Metals

Sample ID:	GMX40C-4.5	Lab Sample ID:	2000-03-0372-005
Project:	6262	Received:	03/21/2000 10:30
Sampled:	03/20/2000 13:31	Extracted:	03/21/2000 15:32
Matrix:	Soil	QC-Batch:	2000/03/21-02.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	1.00	03/21/2000 18:52	
Arsenic	1.5	1.0	mg/Kg	1.00	03/21/2000 18:52	
Barium	160	1.0	mg/Kg	1.00	03/21/2000 18:52	
Beryllium	ND	0.50	mg/Kg	1.00	03/21/2000 18:52	
Cadmium	ND	0.50	mg/Kg	1.00	03/21/2000 18:52	
Chromium	24	1.0	mg/Kg	1.00	03/21/2000 18:52	
Cobalt	7.9	1.0	mg/Kg	1.00	03/21/2000 18:52	
Copper	13	1.0	mg/Kg	1.00	03/21/2000 18:52	
Lead	5.4	1.0	mg/Kg	1.00	03/21/2000 18:52	
Molybdenum	ND	1.0	mg/Kg	1.00	03/21/2000 18:52	
Nickel	29	1.0	mg/Kg	1.00	03/21/2000 18:52	
Selenium	ND	2.0	mg/Kg	1.00	03/21/2000 18:52	
Silver	ND	1.0	mg/Kg	1.00	03/21/2000 18:52	
Thallium	ND	1.0	mg/Kg	1.00	03/21/2000 18:52	
Vanadium	20	1.0	mg/Kg	1.00	03/21/2000 18:52	
Zinc	21	1.0	mg/Kg	1.00	03/21/2000 18:52	
Mercury	ND	0.050	mg/Kg	1.00	03/22/2000 11:20	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0372

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 3050B  
7471A

## CAM 17 Metals

Sample ID:	GMX40C-3.0	Lab Sample ID:	2000-03-0372-006
Project:	6262	Received:	03/21/2000 10:30
Sampled:	03/20/2000 13:40	Extracted:	03/21/2000 15:32
Matrix:	Soil	QC-Batch:	2000/03/21-02.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	1.00	03/21/2000 18:55	
Arsenic	1.7	1.0	mg/Kg	1.00	03/21/2000 18:55	
Barium	130	1.0	mg/Kg	1.00	03/21/2000 18:55	
Beryllium	ND	0.50	mg/Kg	1.00	03/21/2000 18:55	
Cadmium	ND	0.50	mg/Kg	1.00	03/21/2000 18:55	
Chromium	27	1.0	mg/Kg	1.00	03/21/2000 18:55	
Cobalt	6.3	1.0	mg/Kg	1.00	03/21/2000 18:55	
Copper	13	1.0	mg/Kg	1.00	03/21/2000 18:55	
Lead	4.6	1.0	mg/Kg	1.00	03/21/2000 18:55	
Molybdenum	ND	1.0	mg/Kg	1.00	03/21/2000 18:55	
Nickel	32	1.0	mg/Kg	1.00	03/21/2000 18:55	
Selenium	ND	2.0	mg/Kg	1.00	03/21/2000 18:55	
Silver	ND	1.0	mg/Kg	1.00	03/21/2000 18:55	
Thallium	ND	1.0	mg/Kg	1.00	03/21/2000 18:55	
Vanadium	23	1.0	mg/Kg	1.00	03/21/2000 18:55	
Zinc	29	1.0	mg/Kg	1.00	03/21/2000 18:55	
Mercury	ND	0.050	mg/Kg	1.00	03/22/2000 11:21	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0372

To: Geomatrix Consultants

Test Method: 7471A

6010B

Attn.: Ann Holbrow

Prep Method: 3050B

7471A

## Batch QC Report

CAM 17 Metals

Method Blank	Soil	QC Batch # 2000/03/21-02.15
MB: 2000/03/21-02.15-013		Date Extracted: 03/21/2000 15:32

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	03/21/2000 17:23	
Arsenic	ND	1.0	mg/Kg	03/21/2000 17:23	
Barium	ND	1.0	mg/Kg	03/21/2000 17:23	
Beryllium	ND	0.50	mg/Kg	03/21/2000 17:23	
Cadmium	ND	0.50	mg/Kg	03/21/2000 17:23	
Chromium	ND	1.0	mg/Kg	03/21/2000 17:23	
Cobalt	ND	1.0	mg/Kg	03/21/2000 17:23	
Copper	ND	1.0	mg/Kg	03/21/2000 17:23	
Lead	ND	1.0	mg/Kg	03/21/2000 17:23	
Molybdenum	ND	1.0	mg/Kg	03/21/2000 17:23	
Nickel	ND	1.0	mg/Kg	03/21/2000 17:23	
Selenium	ND	2.0	mg/Kg	03/21/2000 17:23	
Silver	ND	1.0	mg/Kg	03/21/2000 17:23	
Thallium	ND	1.0	mg/Kg	03/21/2000 17:23	
Vanadium	ND	1.0	mg/Kg	03/21/2000 17:23	
Zinc	ND	1.0	mg/Kg	03/21/2000 17:23	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0372

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 7471A  
6010B  
Prep Method: 3050B  
7471A

## Batch QC Report CAM 17 Metals

Method Blank	Soil	QC Batch # 2000/03/21-02.16
MB: 2000/03/21-02.16-011		Date Extracted: 03/21/2000 15:37

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Mercury	ND	0.050	mg/Kg	03/22/2000 10:55	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0372

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn: Ann Holbrow

Prep Method: 3050B  
7471A

## Batch QC Report

CAM 17 Metals

Laboratory Control Spike (LCS/LCSD)		Soil		QC Batch # 2000/03/21-02.15					
LCS:	2000/03/21-02.15-014	Extracted: 03/21/2000 15:32			Analyzed 03/21/2000 17:27				
LCSD:	2000/03/21-02.15-015	Extracted: 03/21/2000 15:32			Analyzed 03/21/2000 17:30				

Compound	Conc. [mg/Kg]		Exp.Conc. [mg/Kg]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Antimony	93.9	93.9	100.0	100.0	93.9	93.9	0.0	80-120	20		
Arsenic	91.6	91.4	100.0	100.0	91.6	91.4	0.2	80-120	20		
Barium	91.9	91.8	100.0	100.0	91.9	91.8	0.1	80-120	20		
Beryllium	93.2	92.7	100.0	100.0	93.2	92.7	0.5	80-120	20		
Cadmium	92.4	92.4	100.0	100.0	92.4	92.4	0.0	80-120	20		
Chromium	95.8	95.7	100.0	100.0	95.8	95.7	0.1	80-120	20		
Cobalt	92.8	92.9	100.0	100.0	92.8	92.9	0.1	80-120	20		
Copper	93.5	93.5	100.0	100.0	93.5	93.5	0.0	80-120	20		
Lead	92.1	92.1	100.0	100.0	92.1	92.1	0.0	80-120	20		
Molybdenum	94.9	95.1	100.0	100.0	94.9	95.1	0.2	80-120	20		
Nickel	92.2	92.1	100.0	100.0	92.2	92.1	0.1	80-120	20		
Selenium	92.6	93.3	100.0	100.0	92.6	93.3	0.8	80-120	20		
Silver	92.2	92.2	100.0	100.0	92.2	92.2	0.0	80-120	20		
Thallium	92.3	92.4	100.0	100.0	92.3	92.4	0.1	80-120	20		
Vanadium	94.3	94.3	100.0	100.0	94.3	94.3	0.0	80-120	20		
Zinc	91.2	91.2	100.0	100.0	91.2	91.2	0.0	80-120	20		

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0372

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn: Ann Holbrow

Prep Method: 3050B  
7471A

## Batch QC Report

CAM 17 Metals

Laboratory Control Spike (LCS/LCSD)	Soil		QC Batch # 2000/03/21-02.16			
LCS: 2000/03/21-02.16-012	Extracted:	03/21/2000 15:37	Analyzed	03/22/2000 10:56		
LCSD: 2000/03/21-02.16-013	Extracted:	03/21/2000 15:37	Analyzed	03/22/2000 10:58		

Compound	Conc. [ mg/Kg ]		Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Mercury	0.520	0.505	0.500	0.500	104.0	101.0	2.9	85-115	20		

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0372

PCBs - EPA8082

**Geomatrix Consultants**

Attn: Ann Holbrow

Project #: 6262

2101 Webster Street, 12th Floor  
Oakland, CA 94612

Phone: (510) 663-4100 Fax: (510) 663-4141

Project:

**Samples Reported**

Sample ID	Matrix	Date Sampled	Lab #
GMX40C-1.0	Soil	03/20/2000 13:25	4
GMX40C-4.5	Soil	03/20/2000 13:31	5
GMX40C-3.0	Soil	03/20/2000 13:40	6

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0372

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8082

Prep Method: 3550/8082

PCBs - EPA8082

Sample ID:	GMX40C-1.0	Lab Sample ID:	2000-03-0372-004
Project:	6262	Received:	03/21/2000 10:30
Sampled:	03/20/2000 13:25	Extracted:	03/21/2000 11:58
Matrix:	Soil	QC-Batch:	2000/03/21-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.050	mg/Kg	1.00	03/22/2000 11:10	
Aroclor 1221	ND	0.050	mg/Kg	1.00	03/22/2000 11:10	
Aroclor 1232	ND	0.050	mg/Kg	1.00	03/22/2000 11:10	
Aroclor 1242	ND	0.050	mg/Kg	1.00	03/22/2000 11:10	
Aroclor 1248	ND	0.050	mg/Kg	1.00	03/22/2000 11:10	
Aroclor 1254	ND	0.050	mg/Kg	1.00	03/22/2000 11:10	
Aroclor 1260	ND	0.050	mg/Kg	1.00	03/22/2000 11:10	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	53.4	50-125	%	1.00	03/22/2000 11:10	
Decachlorobiphenyl	20.4	46-142	%	1.00	03/22/2000 11:10	s

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

Printed on: 03/22/2000 16:11

Page 2 of 7

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0372

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8082

Prep Method: 3550/8082

PCBs - EPA8082

Sample ID:	GMX40C-4.5	Lab Sample ID:	2000-03-0372-005
Project:	6262	Received:	03/21/2000 10:30
Sampled:	03/20/2000 13:31	Extracted:	03/21/2000 11:58
Matrix:	Soil	QC-Batch:	2000/03/21-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.050	mg/Kg	1.00	03/21/2000 17:52	
Aroclor 1221	ND	0.050	mg/Kg	1.00	03/21/2000 17:52	
Aroclor 1232	ND	0.050	mg/Kg	1.00	03/21/2000 17:52	
Aroclor 1242	ND	0.050	mg/Kg	1.00	03/21/2000 17:52	
Aroclor 1248	ND	0.050	mg/Kg	1.00	03/21/2000 17:52	
Aroclor 1254	ND	0.050	mg/Kg	1.00	03/21/2000 17:52	
Aroclor 1260	ND	0.050	mg/Kg	1.00	03/21/2000 17:52	
<i>Surrogate(s)</i>						
2,4,5,6-Tetrachloro-m-xylene	79.6	50-125	%	1.00	03/21/2000 17:52	
Decachlorobiphenyl	70.5	46-142	%	1.00	03/21/2000 17:52	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0372

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8082

Prep Method: 3550/8082

PCBs - EPA8082

Sample ID:	GMX40C-3.0	Lab Sample ID:	2000-03-0372-006
Project:	6262	Received:	03/21/2000 10:30
Sampled:	03/20/2000 13:40	Extracted:	03/21/2000 11:58
Matrix:	Soil	QC-Batch:	2000/03/21-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.050	mg/Kg	1.00	03/21/2000 18:27	
Aroclor 1221	ND	0.050	mg/Kg	1.00	03/21/2000 18:27	
Aroclor 1232	ND	0.050	mg/Kg	1.00	03/21/2000 18:27	
Aroclor 1242	ND	0.050	mg/Kg	1.00	03/21/2000 18:27	
Aroclor 1248	ND	0.050	mg/Kg	1.00	03/21/2000 18:27	
Aroclor 1254	ND	0.050	mg/Kg	1.00	03/21/2000 18:27	
Aroclor 1260	ND	0.050	mg/Kg	1.00	03/21/2000 18:27	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	63.8	50-125	%	1.00	03/21/2000 18:27	
Decachlorobiphenyl	64.8	46-142	%	1.00	03/21/2000 18:27	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0372

To: Geomatrix Consultants  
Attn.: Ann Holbrow

Test Method: 8082  
Prep Method: 3550/8082

**Batch QC Report**  
PCBs - EPA8082

Method Blank	Soil	QC Batch # 2000/03/21-02.14
MB: 2000/03/21-02.14-001		Date Extracted: 03/21/2000 11:58

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Aroclor 1016	ND	0.05	mg/Kg	03/21/2000 16:54	
Aroclor 1221	ND	0.05	mg/Kg	03/21/2000 16:54	
Aroclor 1232	ND	0.05	mg/Kg	03/21/2000 16:54	
Aroclor 1242	ND	0.05	mg/Kg	03/21/2000 16:54	
Aroclor 1248	ND	0.05	mg/Kg	03/21/2000 16:54	
Aroclor 1254	ND	0.05	mg/Kg	03/21/2000 16:54	
Aroclor 1260	ND	0.05	mg/Kg	03/21/2000 16:54	
<b>Surrogate(s)</b>					
2,4,5,6-Tetrachloro-m-xylene	62.4	50-125	%	03/21/2000 16:54	
Decachlorobiphenyl	73.0	46-142	%	03/21/2000 16:54	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0372

To: Geomatrix Consultants

Test Method: 8082

Attn: Ann Holbrow

Prep Method: 3550/8082

**Batch QC Report**

PCBs - EPA8082

Laboratory Control Spike (LCS/LCSD)		Soil		QC Batch # 2000/03/21-02.14					
LCS:	2000/03/21-02.14-002	Extracted: 03/21/2000 11:58			Analyzed 03/22/2000 05:57				
LCSD:	2000/03/21-02.14-003	Extracted: 03/21/2000 11:58			Analyzed 03/22/2000 06:31				

Compound	Conc. [ mg/Kg ]		Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Aroclor 1016	0.0530	0.0518	0.0667	0.0667	79.5	77.7	2.3	65-135	30		
Aroclor 1260	0.0527	0.0550	0.0667	0.0667	79.0	82.5	4.3	65-135	30		
<b>Surrogate(s)</b>											
2,4,5,6-Tetrachloro-m-xyl	32.1	30.5	50	50	64.2	61.0		50-125			
Decachlorobiphenyl	36.1	38.6	50	50	72.2	77.2		46-142			

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0372

To: Geomatrix Consultants  
Attn: Ann Holbrow

Test Method: 8082  
Prep Method: 3550/8082

## Legend & Notes

PCBs - EPA8082

### Analyte Flags

S

One surrogate recovery out of control, but second surrogate within QC limits confirms test performance.

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0372

## Organochlorine Pesticides Analysis

**Geomatrix Consultants**

Attn: Ann Holbrow  
Project #: 6262

2101 Webster Street, 12th Floor  
Oakland, CA 94612

Phone: (510) 663-4100 Fax: (510) 663-4141

Project:

**Samples Reported**

Sample ID	Matrix	Date Sampled	Lab #
GMX40C-1.0	Soil	03/20/2000 13:25	4
GMX40C-4.5	Soil	03/20/2000 13:31	5
GMX40C-3.0	Soil	03/20/2000 13:40	6

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0372

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8081

Prep Method: 3550/8081

## Organochlorine Pesticides Analysis

Sample ID:	GMX40C-1.0	Lab Sample ID:	2000-03-0372-004
Project:	6262	Received:	03/21/2000 10:30
Sampled:	03/20/2000 13:25	Extracted:	03/21/2000 11:45
Matrix:	Soil	QC-Batch:	2000/03/21-01.13
Sample/Analysis Flag ln ( See Legend & Note section )			

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	10	ug/Kg	5.00	03/22/2000 03:52	
Dieldrin	ND	10	ug/Kg	5.00	03/22/2000 03:52	
Endrin aldehyde	ND	50	ug/Kg	5.00	03/22/2000 03:52	
Endrin	ND	10	ug/Kg	5.00	03/22/2000 03:52	
Heptachlor	ND	10	ug/Kg	5.00	03/22/2000 03:52	
Heptachlor epoxide	ND	10	ug/Kg	5.00	03/22/2000 03:52	
4,4'-DDT	ND	50	ug/Kg	5.00	03/22/2000 03:52	
4,4'-DDE	ND	10	ug/Kg	5.00	03/22/2000 03:52	
4,4'-DDD	ND	10	ug/Kg	5.00	03/22/2000 03:52	
Endosulfan I	ND	50	ug/Kg	5.00	03/22/2000 03:52	
Endosulfan II	ND	50	ug/Kg	5.00	03/22/2000 03:52	
alpha-BHC	ND	10	ug/Kg	5.00	03/22/2000 03:52	
beta-BHC	ND	10	ug/Kg	5.00	03/22/2000 03:52	
gamma-BHC (Lindane)	ND	10	ug/Kg	5.00	03/22/2000 03:52	
delta-BHC	ND	10	ug/Kg	5.00	03/22/2000 03:52	
Endosulfan sulfate	ND	50	ug/Kg	5.00	03/22/2000 03:52	
4,4'-Methoxychlor	ND	50	ug/Kg	5.00	03/22/2000 03:52	
Toxaphene	ND	500	ug/Kg	5.00	03/22/2000 03:52	
alpha-Chlordane	ND	250	ug/Kg	5.00	03/22/2000 03:52	
gamma-Chlordane	ND	250	ug/Kg	5.00	03/22/2000 03:52	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	84.7	50-125	%	5.00	03/22/2000 03:52	
Decachlorobiphenyl	63.8	46-142	%	5.00	03/22/2000 03:52	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0372

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8081

Prep Method: 3550/8081

## Organochlorine Pesticides Analysis

Sample ID:	GMX40C-4.5	Lab Sample ID:	2000-03-0372-005
Project:	6262	Received:	03/21/2000 10:30
Sampled:	03/20/2000 13:31	Extracted:	03/21/2000 11:45
Matrix:	Soil	QC-Batch:	2000/03/21-01.13

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	03/22/2000 04:25	
Dieldrin	ND	2.0	ug/Kg	1.00	03/22/2000 04:25	
Endrin aldehyde	ND	10	ug/Kg	1.00	03/22/2000 04:25	
Endrin	ND	2.0	ug/Kg	1.00	03/22/2000 04:25	
Heptachlor	ND	2.0	ug/Kg	1.00	03/22/2000 04:25	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	03/22/2000 04:25	
4,4'-DDT	ND	10	ug/Kg	1.00	03/22/2000 04:25	
4,4'-DDE	ND	2.0	ug/Kg	1.00	03/22/2000 04:25	
4,4'-DDD	ND	2.0	ug/Kg	1.00	03/22/2000 04:25	
Endosulfan I	ND	10	ug/Kg	1.00	03/22/2000 04:25	
Endosulfan II	ND	10	ug/Kg	1.00	03/22/2000 04:25	
alpha-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 04:25	
beta-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 04:25	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	03/22/2000 04:25	
delta-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 04:25	
Endosulfan sulfate	ND	10	ug/Kg	1.00	03/22/2000 04:25	
4,4'-Methoxychlor	ND	10	ug/Kg	1.00	03/22/2000 04:25	
Toxaphene	ND	100	ug/Kg	1.00	03/22/2000 04:25	
alpha-Chlordane	ND	50	ug/Kg	1.00	03/22/2000 04:25	
gamma-Chlordane	ND	50	ug/Kg	1.00	03/22/2000 04:25	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	89.1	50-125	%	1.00	03/22/2000 04:25	
Decachlorobiphenyl	88.4	46-142	%	1.00	03/22/2000 04:25	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0372

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8081

Prep Method: 3550/8081

## Organochlorine Pesticides Analysis

Sample ID:	GMX40C-3.0	Lab Sample ID:	2000-03-0372-006
Project:	6262	Received:	03/21/2000 10:30
Sampled:	03/20/2000 13:40	Extracted:	03/21/2000 11:45
Matrix:	Soil	QC-Batch:	2000/03/21-01.13

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	03/22/2000 04:58	
Dieldrin	ND	2.0	ug/Kg	1.00	03/22/2000 04:58	
Endrin aldehyde	ND	10	ug/Kg	1.00	03/22/2000 04:58	
Endrin	ND	2.0	ug/Kg	1.00	03/22/2000 04:58	
Heptachlor	ND	2.0	ug/Kg	1.00	03/22/2000 04:58	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	03/22/2000 04:58	
4,4'-DDT	ND	10	ug/Kg	1.00	03/22/2000 04:58	
4,4'-DDE	ND	2.0	ug/Kg	1.00	03/22/2000 04:58	
4,4'-DDD	ND	2.0	ug/Kg	1.00	03/22/2000 04:58	
Endosulfan I	ND	10	ug/Kg	1.00	03/22/2000 04:58	
Endosulfan II	ND	10	ug/Kg	1.00	03/22/2000 04:58	
alpha-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 04:58	
beta-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 04:58	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	03/22/2000 04:58	
delta-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 04:58	
Endosulfan sulfate	ND	10	ug/Kg	1.00	03/22/2000 04:58	
4,4'-Methoxychlor	ND	10	ug/Kg	1.00	03/22/2000 04:58	
Toxaphene	ND	100	ug/Kg	1.00	03/22/2000 04:58	
alpha-Chlordane	ND	50	ug/Kg	1.00	03/22/2000 04:58	
gamma-Chlordane	ND	50	ug/Kg	1.00	03/22/2000 04:58	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	72.7	50-125	%	1.00	03/22/2000 04:58	
Decachlorobiphenyl	75.0	46-142	%	1.00	03/22/2000 04:58	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0372

To: Geomatrix Consultants  
Attn.: Ann Holbrow

Test Method: 8081  
Prep Method: 3550/8081

**Batch QC Report**  
Organochlorine Pesticides Analysis

Method Blank	Soil	QC Batch # 2000/03/21-01.13
MB: 2000/03/21-01.13-001		Date Extracted: 03/21/2000 11:45

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	03/21/2000 15:10	
Dieldrin	ND	2.0	ug/Kg	03/21/2000 15:10	
Endrin aldehyde	ND	10	ug/Kg	03/21/2000 15:10	
Endrin	ND	2.0	ug/Kg	03/21/2000 15:10	
Heptachlor	ND	2.0	ug/Kg	03/21/2000 15:10	
Heptachlor epoxide	ND	2.0	ug/Kg	03/21/2000 15:10	
4,4'-DDT	ND	10	ug/Kg	03/21/2000 15:10	
4,4'-DDE	ND	2.0	ug/Kg	03/21/2000 15:10	
4,4'-DDD	ND	2.0	ug/Kg	03/21/2000 15:10	
Endosulfan I	ND	10	ug/Kg	03/21/2000 15:10	
Endosulfan II	ND	10	ug/Kg	03/21/2000 15:10	
alpha-BHC	ND	2.0	ug/Kg	03/21/2000 15:10	
beta-BHC	ND	2.0	ug/Kg	03/21/2000 15:10	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	03/21/2000 15:10	
delta-BHC	ND	2.0	ug/Kg	03/21/2000 15:10	
Endosulfan sulfate	ND	10	ug/Kg	03/21/2000 15:10	
4,4'-Methoxychlor	ND	10	ug/Kg	03/21/2000 15:10	
Toxaphene	ND	100	ug/Kg	03/21/2000 15:10	
alpha-Chlordane	ND	50	ug/Kg	03/21/2000 15:10	
gamma-Chlordane	ND	50	ug/Kg	03/21/2000 15:10	
<b>Surrogate(s)</b>					
2,4,5,6-Tetrachloro-m-xylene	76.2	50-125	%	03/21/2000 15:10	
Decachlorobiphenyl	93.8	46-142	%	03/21/2000 15:10	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0372

To: Geomatrix Consultants

Test Method: 8081

Attn: Ann Holbrow

Prep Method: 3550/8081

## Batch QC Report

### Organochlorine Pesticides Analysis

Laboratory Control Spike (LCS/LCSD)		Soil		QC Batch # 2000/03/21-01.13					
LCS:	2000/03/21-01.13-002	Extracted: 03/21/2000 11:45			Analyzed 03/21/2000 15:44				
LCSD:	2000/03/21-01.13-003	Extracted: 03/21/2000 11:45			Analyzed 03/21/2000 16:17				

Compound	Conc. [ ug/Kg ]		Exp.Conc. [ ug/Kg ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Aldrin	12.3	14.4	16.7	16.7	73.7	86.2	15.6	37-136	25		
Dieldrin	12.1	14.9	16.7	16.7	72.5	89.2	20.7	58-135	35		
Endrin	11.1	14.9	16.7	16.7	66.5	89.2	29.2	58-134	35		
Heptachlor	11.9	14.2	16.7	16.7	71.3	85.0	17.5	40-136	20		
4,4'-DDT	12.6	15.6	16.7	16.7	75.4	93.4	21.3	55-132	35		
gamma-BHC (Lindane)	12.1	14.9	16.7	16.7	72.5	89.2	20.7	37-137	35		
<b>Surrogate(s)</b>											
2,4,5,6-Tetrachloro-m-xyl	33.2	41.7	50	50	66.4	83.4		50-125			
Decachlorobiphenyl	40.5	47.9	50	50	81.0	95.8		46-142			

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0372

To: Geomatrix Consultants  
Attn:Ann Holbrow

Test Method: 8081  
Prep Method: 3550/8081

## Legend & Notes

Organochlorine Pesticides Analysis

### Analysis Flags

lrm

Reporting limits raised due to high level of non-target analyte materials.

---

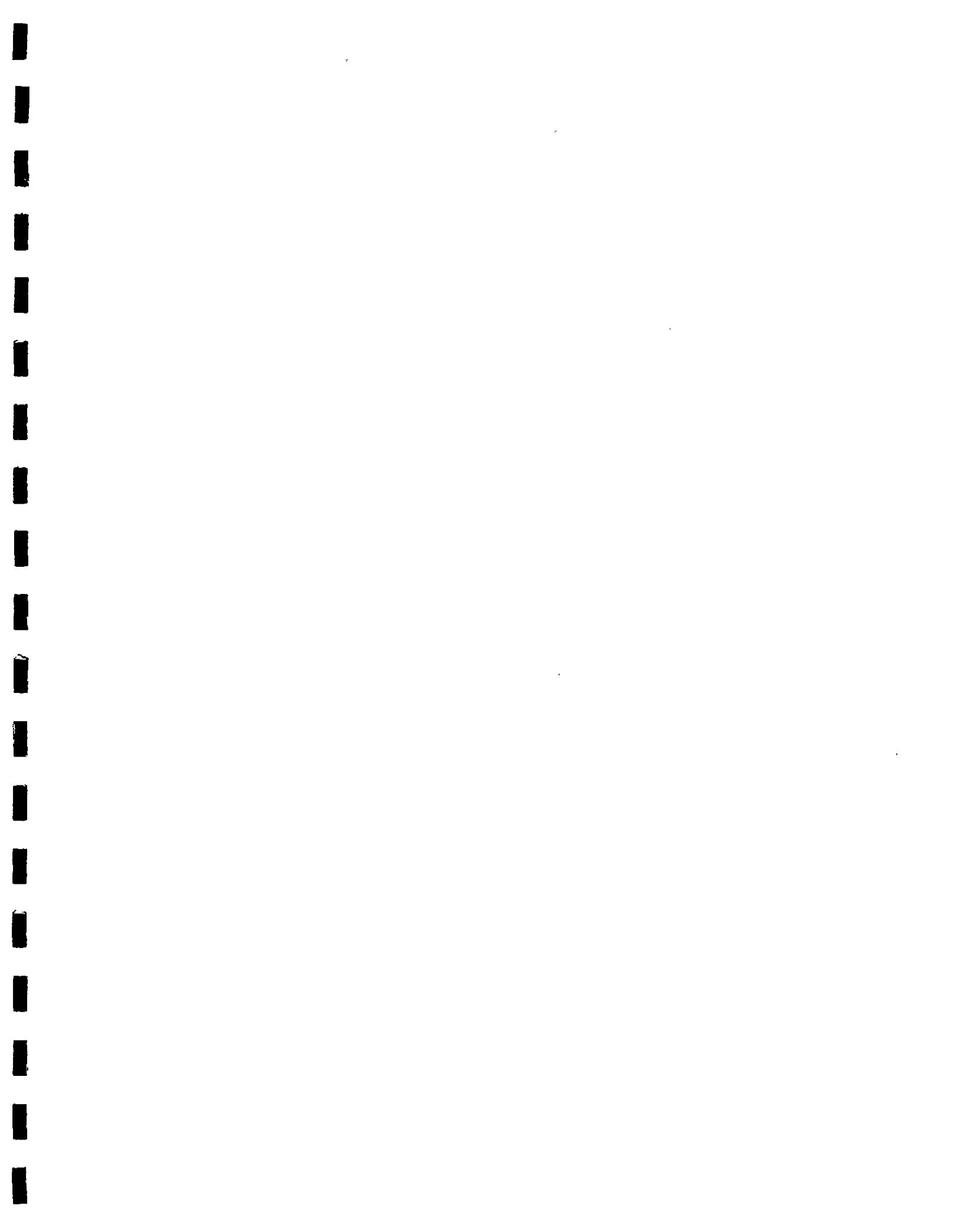
1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

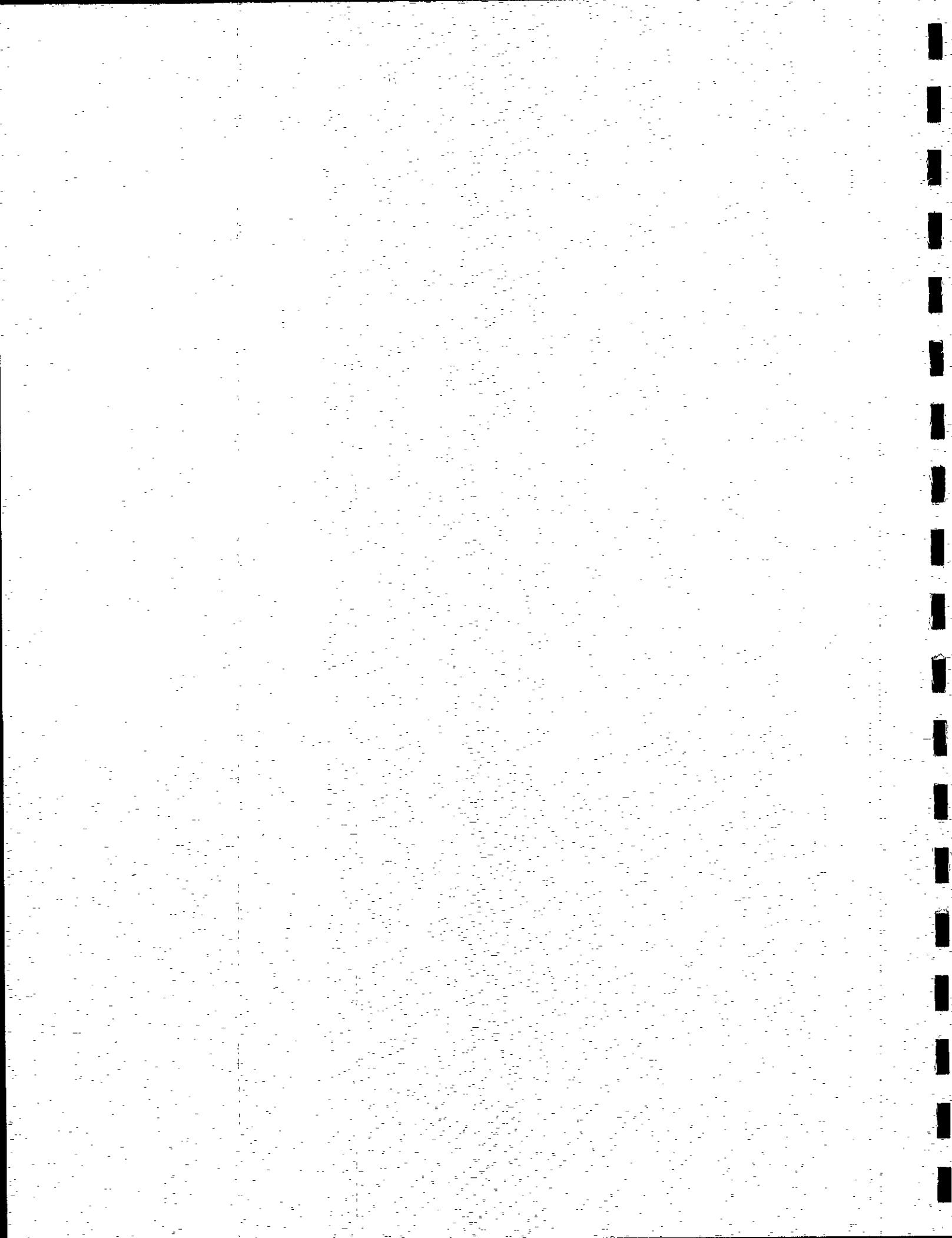


2000-03 - 0372

51097

Chain-of-Custody Record			003800		Date: 03/20/00	Page 2 of 2												
Project No.: 6262		ANALYSES			REMARKS													
Samplers (Signature): <i>James M Carolan</i>		EPA Method 8021 (Full Scan)	EPA Method 8021 (Hal. VOCs only)	EPA Method 8021 (BTEX only)	EPA Method 8260	EPA Method 8270 (Full Scan)	EPA Method 8270 SIM (PAHS only)	Method 8015M (Gasoline)	Method 8015M (Diesel)	Method 8015M (Motor Oil)	Silica Gel Cleanup	PATN (8270 SIM) Time 72 hours (6000/2000 parts) Pesticides / PCB's (4050/8082)	110D	Soil (S), Water (W) Vapor (V), or Other (O) Filtered	Preserved	Cooled	No. of Containers	Additional Comments
• 3/20/00	1510	Gmx37A-1.0									X		S	X	1	12" x 6" ss liner		
• 3/20/00	1515	Gmx37A-4.5									X		S	X	1	11 5/8" x 6" ss liner		
• 3/20/00	1540	Gmx37A-9.5									X		S	X	1	11 5/8" x 6" ss liner		
												<i>RUSH</i>						
Laboratory: <i>Chromalab</i>		Turnaround Time: <i>24 hours</i>		Results to: <i>Ann Holbrow</i>		Total No. of Containers		3										
Relinquished by (Signature): <i>James M C</i>		Date: 3/20/00	Relinquished by (Signature):		Date:	Relinquished by (Signature):		Date:	Method of Shipment: <i>Lab courier</i>									
Printed Name: <i>Jim Carolan</i>		Time: 120	Printed Name:		Time:	Printed Name:		Time:	Laboratory Comments and Log No.:									
Company: <i>Geomatrix</i>		Received by:	Received by:		Received by:	Received by:		Received by:										
Printed Name:		Date:	Printed Name:		Date:	Printed Name:		Date:										
Company:		Time:	Company:		Time:	Company:		Time:										
Received by:		Date:	Received by:		Date:	Received by:		Date:										
Printed Name:		Time:	Printed Name:		Time:	Printed Name:		Time:										
Company:		Received by:	Received by:		Received by:	Received by:		Received by:										
												<i>Geomatrix Consultants</i> 2101 Webster Street, 12th Floor • Oakland, CA 94612 Phone: 510-663-4100 • Fax: 510-663-4141						





# CHROMALAB, INC.

Environmental Services (SDB)

Project Manager: Afsaneh Salimpour

Invoice#: 2000-03-0373

Invoice Date: March 29, 2000

## INVOICE

Samples Received From	Report Results To
Geomatrix Consultants Contact: Ann Holbrow 2101 Webster Street, 12th Floor Oakland, CA 94612	Geomatrix Consultants Contact: Ann Holbrow 2101 Webster Street, 12th Floor Oakland, CA 94612
<b>Bill To</b>	<b>GEOMATRIX</b>
Geomatrix Consultants Attn: Attn: Accts. Payable 2101 Webster Street, 12th Floor Oakland, CA 94612	Received: March 21, 2000 10:49 AM
Project: 6262	

Qty	Matrix	Analysis	TAT	Unit Price	Total
9	Soil	CAM 17 metals	1 Day	\$150.00	\$1,350.00
9	Soil	Organochlorine Pesticides /PCBs	1 Day	\$150.00	\$1,350.00
1		24 hr rush services		\$2,700.00	\$2,700.00
					<b>\$5,400.00</b>

Terms and conditions:

Net30

Please Send Payment to: ChromaLab, Inc.  
1220 Quarry Lane  
Pleasanton, CA 94566-4756  
Phone: (925) 484-1919 Fax: (925) 484-1096

**CHROMALAB, INC.**  
Environmental Services (SDB)

Submission #: 2000-03-0373

Date: March 23, 2000

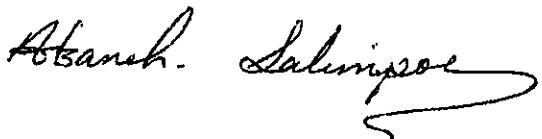
**Geomatrix Consultants**  
2101 Webster Street, 12th Floor  
Oakland, CA 94612

Attn.: Ann Holbrow

Attached is our report for your samples received on Tuesday March 21, 2000  
This report has been reviewed and approved for release. Reproduction of this report  
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after April 20, 2000  
unless you have requested otherwise. We appreciate the opportunity to be of service to you.  
If you have any questions, please call me at (925) 484-1919. You can also contact me via email.  
My email address is: [asalimpour@chromalab.com](mailto:asalimpour@chromalab.com)

Sincerely,



Afsaneh Salimpour

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

PCBs - EPA8082

**Geomatrix Consultants**

Attn: Ann Holbrow

Project #: 6262

2101 Webster Street, 12th Floor  
Oakland, CA 94612

Phone: (510) 663-4100 Fax: (510) 663-4141

Project:

**Samples Reported**

Sample ID	Matrix	Date Sampled	Lab #
GMX33B-1.0	Soil	03/20/2000 08:56	4
GMX33B-4.0	Soil	03/20/2000 08:59	5
GMX33B-7.0	Soil	03/20/2000 09:03	6
GMX34B-1.0	Soil	03/20/2000 09:45	7
GMX34B-4.0	Soil	03/20/2000 09:52	8
GMX34B-7.0	Soil	03/20/2000 09:56	9
GMX35C-1.0	Soil	03/20/2000 09:56	13
GMX35C-4.0	Soil	03/20/2000 09:56	14
GMX35C-7.0	Soil	03/20/2000 09:56	15

---

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8082

Prep Method: 3550/8082

PCBs - EPA8082

Sample ID:	GMX33B-1.0	Lab Sample ID:	2000-03-0373-004
Project:	6262	Received:	03/21/2000 10:49
Sampled:	03/20/2000 08:56	Extracted:	03/21/2000 11:58
Matrix:	Soil	QC-Batch:	2000/03/21-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.050	mg/Kg	1.00	03/22/2000 10:36	
Aroclor 1221	ND	0.050	mg/Kg	1.00	03/22/2000 10:36	
Aroclor 1232	ND	0.050	mg/Kg	1.00	03/22/2000 10:36	
Aroclor 1242	ND	0.050	mg/Kg	1.00	03/22/2000 10:36	
Aroclor 1248	ND	0.050	mg/Kg	1.00	03/22/2000 10:36	
Aroclor 1254	ND	0.050	mg/Kg	1.00	03/22/2000 10:36	
Aroclor 1260	ND	0.050	mg/Kg	1.00	03/22/2000 10:36	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	65.6	50-125	%	1.00	03/22/2000 10:36	
Decachlorobiphenyl	20.2	46-142	%	1.00	03/22/2000 10:36	s

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8082

Prep Method: 3550/8082

PCBs - EPA8082

Sample ID:	GMX33B-4.0	Lab Sample ID:	2000-03-0373-005
Project:	6262	Received:	03/21/2000 10:49
Sampled:	03/20/2000 08:59	Extracted:	03/21/2000 11:58
Matrix:	Soil	QC-Batch:	2000/03/21-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.050	mg/Kg	1.00	03/21/2000 21:19	
Aroclor 1221	ND	0.050	mg/Kg	1.00	03/21/2000 21:19	
Aroclor 1232	ND	0.050	mg/Kg	1.00	03/21/2000 21:19	
Aroclor 1242	ND	0.050	mg/Kg	1.00	03/21/2000 21:19	
Aroclor 1248	ND	0.050	mg/Kg	1.00	03/21/2000 21:19	
Aroclor 1254	ND	0.050	mg/Kg	1.00	03/21/2000 21:19	
Aroclor 1260	ND	0.050	mg/Kg	1.00	03/21/2000 21:19	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	69.2	50-125	%	1.00	03/21/2000 21:19	
Decachlorobiphenyl	79.0	46-142	%	1.00	03/21/2000 21:19	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatix Consultants

Attn.: Ann Holbrow

Test Method: 8082

Prep Method: 3550/8082

PCBs - EPA8082

Sample ID:	GMX33B-7.0	Lab Sample ID:	2000-03-0373-006
Project:	6262	Received:	03/21/2000 10:49
Sampled:	03/20/2000 09:03	Extracted:	03/21/2000 11:58
Matrix:	Soil	QC-Batch:	2000/03/21-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.050	mg/Kg	1.00	03/21/2000 20:45	
Aroclor 1221	ND	0.050	mg/Kg	1.00	03/21/2000 20:45	
Aroclor 1232	ND	0.050	mg/Kg	1.00	03/21/2000 20:45	
Aroclor 1242	ND	0.050	mg/Kg	1.00	03/21/2000 20:45	
Aroclor 1248	ND	0.050	mg/Kg	1.00	03/21/2000 20:45	
Aroclor 1254	ND	0.050	mg/Kg	1.00	03/21/2000 20:45	
Aroclor 1260	ND	0.050	mg/Kg	1.00	03/21/2000 20:45	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	66.6	50-125	%	1.00	03/21/2000 20:45	
Decachlorobiphenyl	80.7	46-142	%	1.00	03/21/2000 20:45	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8082

Prep Method: 3550/8082

PCBs - EPA8082

Sample ID:	GMX34B-1.0	Lab Sample ID:	2000-03-0373-007
Project:	6262	Received:	03/21/2000 10:49
Sampled:	03/20/2000 09:45	Extracted:	03/21/2000 11:58
Matrix:	Soil	QC-Batch:	2000/03/21-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.050	mg/Kg	1.00	03/22/2000 11:06	
Aroclor 1221	ND	0.050	mg/Kg	1.00	03/22/2000 11:06	
Aroclor 1232	ND	0.050	mg/Kg	1.00	03/22/2000 11:06	
Aroclor 1242	ND	0.050	mg/Kg	1.00	03/22/2000 11:06	
Aroclor 1248	ND	0.050	mg/Kg	1.00	03/22/2000 11:06	
Aroclor 1254	ND	0.050	mg/Kg	1.00	03/22/2000 11:06	
Aroclor 1260	ND	0.050	mg/Kg	1.00	03/22/2000 11:06	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	50.1	50-125	%	1.00	03/22/2000 11:06	
Decachlorobiphenyl	63.1	46-142	%	1.00	03/22/2000 11:06	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8082

Prep Method: 3550/8082

PCBs - EPA8082

Sample ID:	GMX34B-4.0	Lab Sample ID:	2000-03-0373-008
Project:	6262	Received:	03/21/2000 10:49
Sampled:	03/20/2000 09:52	Extracted:	03/21/2000 11:58
Matrix:	Soil	QC-Batch:	2000/03/21-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.050	mg/Kg	1.00	03/22/2000 01:21	
Aroclor 1221	ND	0.050	mg/Kg	1.00	03/22/2000 01:21	
Aroclor 1232	ND	0.050	mg/Kg	1.00	03/22/2000 01:21	
Aroclor 1242	ND	0.050	mg/Kg	1.00	03/22/2000 01:21	
Aroclor 1248	ND	0.050	mg/Kg	1.00	03/22/2000 01:21	
Aroclor 1254	ND	0.050	mg/Kg	1.00	03/22/2000 01:21	
Aroclor 1260	ND	0.050	mg/Kg	1.00	03/22/2000 01:21	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	78.2	50-125	%	1.00	03/22/2000 01:21	
Decachlorobiphenyl	80.5	46-142	%	1.00	03/22/2000 01:21	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8082

Prep Method: 3550/8082

PCBs - EPA8082

Sample ID:	GMX34B-7.0	Lab Sample ID:	2000-03-0373-009
Project:	6262	Received:	03/21/2000 10:49
Sampled:	03/20/2000 09:56	Extracted:	03/21/2000 12:03
Matrix:	Soil	QC-Batch:	2000/03/21-03.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.050	mg/Kg	1.00	03/21/2000 21:54	
Aroclor 1221	ND	0.050	mg/Kg	1.00	03/21/2000 21:54	
Aroclor 1232	ND	0.050	mg/Kg	1.00	03/21/2000 21:54	
Aroclor 1242	ND	0.050	mg/Kg	1.00	03/21/2000 21:54	
Aroclor 1248	ND	0.050	mg/Kg	1.00	03/21/2000 21:54	
Aroclor 1254	ND	0.050	mg/Kg	1.00	03/21/2000 21:54	
Aroclor 1260	ND	0.050	mg/Kg	1.00	03/21/2000 21:54	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	76.1	50-125	%	1.00	03/21/2000 21:54	
Decachlorobiphenyl	81.7	46-142	%	1.00	03/21/2000 21:54	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8082

Prep Method: 3550/8082

PCBs - EPA8082

Sample ID:	GMX35C-1.0	Lab Sample ID:	2000-03-0373-013
Project:	6262	Received:	03/21/2000 10:49
Sampled:	03/20/2000 09:56	Extracted:	03/21/2000 12:03
Matrix:	Soil	QC-Batch:	2000/03/21-03.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.050	mg/Kg	1.00	03/22/2000 11:38	
Aroclor 1221	ND	0.050	mg/Kg	1.00	03/22/2000 11:38	
Aroclor 1232	ND	0.050	mg/Kg	1.00	03/22/2000 11:38	
Aroclor 1242	ND	0.050	mg/Kg	1.00	03/22/2000 11:38	
Aroclor 1248	ND	0.050	mg/Kg	1.00	03/22/2000 11:38	
Aroclor 1254	ND	0.050	mg/Kg	1.00	03/22/2000 11:38	
Aroclor 1260	ND	0.050	mg/Kg	1.00	03/22/2000 11:38	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	51.2	50-125	%	1.00	03/22/2000 11:38	
Decachlorobiphenyl	65.2	46-142	%	1.00	03/22/2000 11:38	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8082

Prep Method: 3550/8082

PCBs - EPA8082

Sample ID:	GMX35C-4.0	Lab Sample ID:	2000-03-0373-014
Project:	6262	Received:	03/21/2000 10:49
Sampled:	03/20/2000 09:56	Extracted:	03/21/2000 12:03
Matrix:	Soil	QC-Batch:	2000/03/21-03.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.050	mg/Kg	1.00	03/22/2000 03:05	
Aroclor 1221	ND	0.050	mg/Kg	1.00	03/22/2000 03:05	
Aroclor 1232	ND	0.050	mg/Kg	1.00	03/22/2000 03:05	
Aroclor 1242	ND	0.050	mg/Kg	1.00	03/22/2000 03:05	
Aroclor 1248	ND	0.050	mg/Kg	1.00	03/22/2000 03:05	
Aroclor 1254	ND	0.050	mg/Kg	1.00	03/22/2000 03:05	
Aroclor 1260	ND	0.050	mg/Kg	1.00	03/22/2000 03:05	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	71.8	50-125	%	1.00	03/22/2000 03:05	
Decachlorobiphenyl	70.8	46-142	%	1.00	03/22/2000 03:05	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8082

Prep Method: 3550/8082

PCBs - EPA8082

Sample ID:	GMX35C-7.0	Lab Sample ID:	2000-03-0373-015
Project:	6262	Received:	03/21/2000 10:49
Sampled:	03/20/2000 09:56	Extracted:	03/21/2000 12:03
Matrix:	Soil	QC-Batch:	2000/03/21-03.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.050	mg/Kg	1.00	03/21/2000 22:28	
Aroclor 1221	ND	0.050	mg/Kg	1.00	03/21/2000 22:28	
Aroclor 1232	ND	0.050	mg/Kg	1.00	03/21/2000 22:28	
Aroclor 1242	ND	0.050	mg/Kg	1.00	03/21/2000 22:28	
Aroclor 1248	ND	0.050	mg/Kg	1.00	03/21/2000 22:28	
Aroclor 1254	ND	0.050	mg/Kg	1.00	03/21/2000 22:28	
Aroclor 1260	ND	0.050	mg/Kg	1.00	03/21/2000 22:28	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	65.2	50-125	%	1.00	03/21/2000 22:28	
Decachlorobiphenyl	62.3	46-142	%	1.00	03/21/2000 22:28	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants  
Attn.: Ann Holbrow

Test Method: 8082  
Prep Method: 3550/8082

**Batch QC Report**  
PCBs - EPA8082

Method Blank	Soil	QC Batch # 2000/03/21-02.14
MB: 2000/03/21-02.14-001		Date Extracted: 03/21/2000 11:58

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Aroclor 1016	ND	0.05	mg/Kg	03/21/2000 16:54	
Aroclor 1221	ND	0.05	mg/Kg	03/21/2000 16:54	
Aroclor 1232	ND	0.05	mg/Kg	03/21/2000 16:54	
Aroclor 1242	ND	0.05	mg/Kg	03/21/2000 16:54	
Aroclor 1248	ND	0.05	mg/Kg	03/21/2000 16:54	
Aroclor 1254	ND	0.05	mg/Kg	03/21/2000 16:54	
Aroclor 1260	ND	0.05	mg/Kg	03/21/2000 16:54	
<b>Surrogate(s)</b>					
2,4,5,6-Tetrachloro-m-xylene	62.4	50-125	%	03/21/2000 16:54	
Decachlorobiphenyl	73.0	46-142	%	03/21/2000 16:54	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants  
Attn.: Ann Holbrow

Test Method: 8082  
Prep Method: 3550/8082

Batch QC Report  
PCBs - EPA8082

Method Blank	Soil	QC Batch # 2000/03/21-03.14
MB: 2000/03/21-03.14-001		Date Extracted: 03/21/2000 12:03

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Aroclor 1016	ND	0.05	mg/Kg	03/21/2000 23:03	
Aroclor 1221	ND	0.05	mg/Kg	03/21/2000 23:03	
Aroclor 1232	ND	0.05	mg/Kg	03/21/2000 23:03	
Aroclor 1242	ND	0.05	mg/Kg	03/21/2000 23:03	
Aroclor 1248	ND	0.05	mg/Kg	03/21/2000 23:03	
Aroclor 1254	ND	0.05	mg/Kg	03/21/2000 23:03	
Aroclor 1260	ND	0.05	mg/Kg	03/21/2000 23:03	
<b>Surrogate(s)</b>					
2,4,5,6-Tetrachloro-m-xylene	68.8	50-125	%	03/21/2000 23:03	
Decachlorobiphenyl	71.0	46-142	%	03/21/2000 23:03	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 8082

Attn: Ann Holbrow

Prep Method: 3550/8082

## Batch QC Report

PCBs - EPA8082

Laboratory Control Spike (LCS/LCSD)		Soil				QC Batch # 2000/03/21-03.14			
LCS:	2000/03/21-03.14-002	Extracted: 03/21/2000 12:03				Analyzed 03/21/2000 23:37			
LCSD:	2000/03/21-03.14-003	Extracted: 03/21/2000 12:03				Analyzed 03/22/2000 00:12			

Compound	Conc. [ mg/Kg ]		Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Aroclor 1016	0.0509	0.0522	0.0667	0.0667	76.3	78.3	2.6	65-135	30		
Aroclor 1260	0.0546	0.0555	0.0667	0.0667	81.9	83.2	1.6	65-135	30		
<b>Surrogate(s)</b>											
2,4,5,6-Tetrachloro-m-xyl	33.9	34.7	50	50	67.8	69.4		50-125			
Decachlorobiphenyl	36.9	39.7	50	50	73.8	79.4		46-142			

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants  
Attn: Ann Holbrow

Test Method: 8082  
Prep Method: 3550/8082

## Batch QC Report

PCBs - EPA8082

Laboratory Control Spike (LCS/LCSD)		Soil				QC Batch # 2000/03/21-02.14			
LCS: 2000/03/21-02.14-002		Extracted: 03/21/2000 11:58				Analyzed 03/22/2000 05:57			
LCSD: 2000/03/21-02.14-003		Extracted: 03/21/2000 11:58				Analyzed 03/22/2000 06:31			

Compound	Conc. [ mg/Kg ]		Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Aroclor 1016	0.0530	0.0518	0.0667	0.0667	79.5	77.7	2.3	65-135	30		
Aroclor 1260	0.0527	0.0550	0.0667	0.0667	79.0	82.5	4.3	65-135	30		
<b>Surrogate(s)</b>											
2,4,5,6-Tetrachloro-m-xyl	32.1	30.5	50	50	64.2	61.0		50-125			
Decachlorobiphenyl	36.1	38.6	50	50	72.2	77.2		46-142			

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 8082

Attn.: Ann Holbrow

Prep Method: 3550/8082

## Batch QC Report

PCBs - EPA8082

### Matrix Spike ( MS / MSD )

Soil

QC Batch # 2000/03/21-02.14

Sample ID: GMX36C-4.5

Lab Sample ID: 2000-03-0371-020

MS: 2000/03/21-02.14-004 Extracted: 03/21/2000 11:58 Analyzed: 03/22/2000 03:39 Dilution: 1.0  
MSD: 2000/03/21-02.14-005 Extracted: 03/21/2000 11:58 Analyzed: 03/22/2000 04:14 Dilution: 1.0

Compound	Conc. [ mg/Kg ]			Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Aroclor 1016	0.0514	0.0539	ND	0.0665	0.0661	77.3	81.5	5.3	65-135	30		
Aroclor 1260	0.0553	0.0584	ND	0.0665	0.0661	83.2	88.4	6.1	65-135	30		
<b>Surrogate(s)</b>												
2,4,5,6-Tetrachloro-m-xy	35.9	36.8		50	50	71.8	73.6		50-125			
Decachlorobiphenyl	38.2	41.4		50	50	76.4	82.8		46-142			

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8082

Prep Method: 3550/8082

## Batch QC Report

PCBs - EPA8082

### Matrix Spike ( MS / MSD )

Soil

QC Batch # 2000/03/21-02.14

Sample ID: GMX33B-7.0

Lab Sample ID: 2000-03-0373-006

MS: 2000/03/21-02.14-006 Extracted: 03/21/2000 11:58 Analyzed: 03/22/2000 04:48 Dilution: 1.0

MSD: 2000/03/21-02.14-007 Extracted: 03/21/2000 11:58 Analyzed: 03/22/2000 05:23 Dilution: 1.0

Compound	Conc. [ mg/Kg ]			Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Aroclor 1016	0.0485	0.0561	ND	0.0659	0.0658	73.6	85.3	14.7	65-135	30		
Aroclor 1260	0.0523	0.0592	ND	0.0659	0.0658	79.4	90.0	12.5	65-135	30		
<b>Surrogate(s)</b>												
2,4,5,6-Tetrachloro-m-xy	31.8	37.6		50	50	63.8	75.2		50-125			
Decachlorobiphenyl	33.4	36.8		50	50	66.8	73.6		46-142			

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 8082

Attn.: Ann Holbrow

Prep Method: 3550/8082

## Batch QC Report

PCBs - EPA8082

### Matrix Spike ( MS / MSD )

Soil

QC Batch # 2000/03/21-03.14

Sample ID: GMX33B-1.0

Lab Sample ID: 2000-03-0373-004

MS: 2000/03/21-03.14-004 Extracted: 03/21/2000 12:03 Analyzed: 03/22/2000 11:54 Dilution: 1.0

MSD: 2000/03/21-03.14-005 Extracted: 03/21/2000 12:03 Analyzed: 03/22/2000 12:29 Dilution: 1.0

Compound	Conc. [ mg/Kg ]			Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Aroclor 1016	0.0232	0.0204	ND	0.0659	0.0664	35.2	30.7	13.7	65-135	30	mso	mso
Aroclor 1260	0.0189	0.0173	ND	0.0659	0.0664	28.7	26.1	9.5	65-135	30	mso	mso
<b>Surrogate(s)</b>												
2,4,5,6-Tetrachloro-m-xy	19.2	16.1		50	50	38.4	32.2		50-125		sl	sl
Decachlorobiphenyl	15.0	13.4		50	50	30.0	26.8		46-142		sl	sl

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants  
Attn: Ann Holbrow

Test Method: 8082  
Prep Method: 3550/8082

## Legend & Notes

PCBs - EPA8082

### QC Compound Flags

mso

MS/MSD spike recoveries were out of QC limits due to matrix interference. Precision and Accuracy were verified by LCS/LCSD.

sl

Surrogate recoveries were lower than QC limit due to matrix interference, confirmed by reanalysis.

### Analyte Flags

s

One surrogate recovery out of control, but second surrogate within QC limits confirms test performance.

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

## Organochlorine Pesticides Analysis

**Geomatrix Consultants**

Attn: Ann Holbrow  
Project #: 6262

✉ 2101 Webster Street, 12th Floor  
Oakland, CA 94612

Phone: (510) 663-4100 Fax: (510) 663-4141

Project:

**Samples Reported**

Sample ID	Matrix	Date Sampled	Lab #
GMX33B-1.0	Soil	03/20/2000 08:56	4
GMX33B-4.0	Soil	03/20/2000 08:59	5
GMX33B-7.0	Soil	03/20/2000 09:03	6
GMX34B-1.0	Soil	03/20/2000 09:45	7
GMX34B-4.0	Soil	03/20/2000 09:52	8
GMX34B-7.0	Soil	03/20/2000 09:56	9
GMX35C-1.0	Soil	03/20/2000 09:56	13
GMX35C-4.0	Soil	03/20/2000 09:56	14
GMX35C-7.0	Soil	03/20/2000 09:56	15

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8081

Prep Method: 3550/8081

## Organochlorine Pesticides Analysis

Sample ID:	<b>GMX33B-1.0</b>	Lab Sample ID:	<b>2000-03-0373-004</b>
Project:	6262	Received:	03/21/2000 10:49
Sampled:	03/20/2000 08:56	Extracted:	03/21/2000 11:45
Matrix:	Soil	QC-Batch:	2000/03/21-01.13
Sample/Analysis Flag Irm ( See Legend & Note section )			

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	10	ug/Kg	5.00	03/22/2000 05:31	
Dieldrin	ND	10	ug/Kg	5.00	03/22/2000 05:31	
Endrin aldehyde	ND	50	ug/Kg	5.00	03/22/2000 05:31	
Endrin	ND	10	ug/Kg	5.00	03/22/2000 05:31	
Heptachlor	ND	10	ug/Kg	5.00	03/22/2000 05:31	
Heptachlor epoxide	ND	10	ug/Kg	5.00	03/22/2000 05:31	
4,4'-DDT	ND	50	ug/Kg	5.00	03/22/2000 05:31	
4,4'-DDE	ND	10	ug/Kg	5.00	03/22/2000 05:31	
4,4'-DDD	ND	10	ug/Kg	5.00	03/22/2000 05:31	
Endosulfan I	ND	50	ug/Kg	5.00	03/22/2000 05:31	
Endosulfan II	ND	50	ug/Kg	5.00	03/22/2000 05:31	
alpha-BHC	ND	10	ug/Kg	5.00	03/22/2000 05:31	
beta-BHC	ND	10	ug/Kg	5.00	03/22/2000 05:31	
gamma-BHC (Lindane)	ND	10	ug/Kg	5.00	03/22/2000 05:31	
delta-BHC	ND	10	ug/Kg	5.00	03/22/2000 05:31	
Endosulfan sulfate	ND	50	ug/Kg	5.00	03/22/2000 05:31	
4,4'-Methoxychlor	ND	50	ug/Kg	5.00	03/22/2000 05:31	
Toxaphene	ND	500	ug/Kg	5.00	03/22/2000 05:31	
alpha-Chlordane	ND	250	ug/Kg	5.00	03/22/2000 05:31	
gamma-Chlordane	ND	250	ug/Kg	5.00	03/22/2000 05:31	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	94.9	50-125	%	5.00	03/22/2000 05:31	
Decachlorobiphenyl	89.8	46-142	%	5.00	03/22/2000 05:31	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8081

Prep Method: 3550/8081

## Organochlorine Pesticides Analysis

Sample ID:	GMX33B-4.0	Lab Sample ID:	2000-03-0373-005
Project:	6262	Received:	03/21/2000 10:49
Sampled:	03/20/2000 08:59	Extracted:	03/21/2000 11:45
Matrix:	Soil	QC-Batch:	2000/03/21-01.13

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	03/22/2000 06:04	
Dieldrin	ND	2.0	ug/Kg	1.00	03/22/2000 06:04	
Endrin aldehyde	ND	10	ug/Kg	1.00	03/22/2000 06:04	
Endrin	ND	2.0	ug/Kg	1.00	03/22/2000 06:04	
Heptachlor	ND	2.0	ug/Kg	1.00	03/22/2000 06:04	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	03/22/2000 06:04	
4,4'-DDT	ND	10	ug/Kg	1.00	03/22/2000 06:04	
4,4'-DDE	ND	2.0	ug/Kg	1.00	03/22/2000 06:04	
4,4'-DDD	ND	2.0	ug/Kg	1.00	03/22/2000 06:04	
Endosulfan I	ND	10	ug/Kg	1.00	03/22/2000 06:04	
Endosulfan II	ND	10	ug/Kg	1.00	03/22/2000 06:04	
alpha-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 06:04	
beta-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 06:04	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	03/22/2000 06:04	
delta-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 06:04	
Endosulfan sulfate	ND	10	ug/Kg	1.00	03/22/2000 06:04	
4,4'-Methoxychlor	ND	10	ug/Kg	1.00	03/22/2000 06:04	
Toxaphene	ND	100	ug/Kg	1.00	03/22/2000 06:04	
alpha-Chlordane	ND	50	ug/Kg	1.00	03/22/2000 06:04	
gamma-Chlordane	ND	50	ug/Kg	1.00	03/22/2000 06:04	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	81.7	50-125	%	1.00	03/22/2000 06:04	
Decachlorobiphenyl	82.1	46-142	%	1.00	03/22/2000 06:04	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8081

Prep Method: 3550/8081

## Organochlorine Pesticides Analysis

Sample ID:	GMX33B-7.0	Lab Sample ID:	2000-03-0373-006
Project:	6262	Received:	03/21/2000 10:49
Sampled:	03/20/2000 09:03	Extracted:	03/21/2000 11:45
Matrix:	Soil	QC-Batch:	2000/03/21-01.13

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	03/22/2000 06:37	
Dieldrin	ND	2.0	ug/Kg	1.00	03/22/2000 06:37	
Endrin aldehyde	ND	10	ug/Kg	1.00	03/22/2000 06:37	
Endrin	ND	2.0	ug/Kg	1.00	03/22/2000 06:37	
Heptachlor	ND	2.0	ug/Kg	1.00	03/22/2000 06:37	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	03/22/2000 06:37	
4,4'-DDT	ND	10	ug/Kg	1.00	03/22/2000 06:37	
4,4'-DDE	ND	2.0	ug/Kg	1.00	03/22/2000 06:37	
4,4'-DDD	ND	2.0	ug/Kg	1.00	03/22/2000 06:37	
Endosulfan I	ND	10	ug/Kg	1.00	03/22/2000 06:37	
Endosulfan II	ND	10	ug/Kg	1.00	03/22/2000 06:37	
alpha-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 06:37	
beta-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 06:37	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	03/22/2000 06:37	
delta-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 06:37	
Endosulfan sulfate	ND	10	ug/Kg	1.00	03/22/2000 06:37	
4,4'-Methoxychlor	ND	10	ug/Kg	1.00	03/22/2000 06:37	
Toxaphene	ND	100	ug/Kg	1.00	03/22/2000 06:37	
alpha-Chlordane	ND	50	ug/Kg	1.00	03/22/2000 06:37	
gamma-Chlordane	ND	50	ug/Kg	1.00	03/22/2000 06:37	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	77.2	50-125	%	1.00	03/22/2000 06:37	
Decachlorobiphenyl	94.9	46-142	%	1.00	03/22/2000 06:37	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8081

Prep Method: 3550/8081

## Organochlorine Pesticides Analysis

Sample ID:	GMX34B-1.0	Lab Sample ID:	2000-03-0373-007
Project:	6262	Received:	03/21/2000 10:49
Sampled:	03/20/2000 09:45	Extracted:	03/21/2000 11:45
Matrix:	Soil	QC-Batch:	2000/03/21-01.13
Sample/Analysis Flag Irn ( See Legend & Note section )			

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	10	ug/Kg	5.00	03/22/2000 09:22	
Dieldrin	16	10	ug/Kg	5.00	03/22/2000 09:22	
Endrin aldehyde	ND	50	ug/Kg	5.00	03/22/2000 09:22	
Endrin	ND	10	ug/Kg	5.00	03/22/2000 09:22	
Heptachlor	ND	10	ug/Kg	5.00	03/22/2000 09:22	
Heptachlor epoxide	ND	10	ug/Kg	5.00	03/22/2000 09:22	
4,4'-DDT	ND	50	ug/Kg	5.00	03/22/2000 09:22	
4,4'-DDE	ND	10	ug/Kg	5.00	03/22/2000 09:22	
4,4'-DDD	ND	10	ug/Kg	5.00	03/22/2000 09:22	
Endosulfan I	ND	50	ug/Kg	5.00	03/22/2000 09:22	
Endosulfan II	ND	50	ug/Kg	5.00	03/22/2000 09:22	
alpha-BHC	ND	10	ug/Kg	5.00	03/22/2000 09:22	
beta-BHC	ND	10	ug/Kg	5.00	03/22/2000 09:22	
gamma-BHC (Lindane)	ND	10	ug/Kg	5.00	03/22/2000 09:22	
delta-BHC	ND	10	ug/Kg	5.00	03/22/2000 09:22	
Endosulfan sulfate	ND	50	ug/Kg	5.00	03/22/2000 09:22	
4,4'-Methoxychlor	ND	50	ug/Kg	5.00	03/22/2000 09:22	
Toxaphene	ND	500	ug/Kg	5.00	03/22/2000 09:22	
alpha-Chlordane	ND	250	ug/Kg	5.00	03/22/2000 09:22	
gamma-Chlordane	ND	250	ug/Kg	5.00	03/22/2000 09:22	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	63.5	50-125	%	5.00	03/22/2000 09:22	
Decachlorobiphenyl	52.8	46-142	%	5.00	03/22/2000 09:22	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8081

Prep Method: 3550/8081

## Organochlorine Pesticides Analysis

Sample ID:	GMX34B-4.0	Lab Sample ID:	2000-03-0373-008
Project:	6262	Received:	03/21/2000 10:49
Sampled:	03/20/2000 09:52	Extracted:	03/21/2000 11:45
Matrix:	Soil	QC-Batch:	2000/03/21-01.13

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	03/22/2000 09:55	
Dieldrin	ND	2.0	ug/Kg	1.00	03/22/2000 09:55	
Endrin aldehyde	ND	10	ug/Kg	1.00	03/22/2000 09:55	
Endrin	ND	2.0	ug/Kg	1.00	03/22/2000 09:55	
Heptachlor	ND	2.0	ug/Kg	1.00	03/22/2000 09:55	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	03/22/2000 09:55	
4,4'-DDT	ND	10	ug/Kg	1.00	03/22/2000 09:55	
4,4'-DDE	ND	2.0	ug/Kg	1.00	03/22/2000 09:55	
4,4'-DDD	ND	2.0	ug/Kg	1.00	03/22/2000 09:55	
Endosulfan I	ND	10	ug/Kg	1.00	03/22/2000 09:55	
Endosulfan II	ND	10	ug/Kg	1.00	03/22/2000 09:55	
alpha-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 09:55	
beta-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 09:55	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	03/22/2000 09:55	
delta-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 09:55	
Endosulfan sulfate	ND	10	ug/Kg	1.00	03/22/2000 09:55	
4,4'-Methoxychlor	ND	10	ug/Kg	1.00	03/22/2000 09:55	
Toxaphene	ND	100	ug/Kg	1.00	03/22/2000 09:55	
alpha-Chlordane	ND	50	ug/Kg	1.00	03/22/2000 09:55	
gamma-Chlordane	ND	50	ug/Kg	1.00	03/22/2000 09:55	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	90.9	50-125	%	1.00	03/22/2000 09:55	
Decachlorobiphenyl	86.7	46-142	%	1.00	03/22/2000 09:55	

1220 Quarry Lane \* Pleasanton, CA 94566-4766

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8081

Prep Method: 3550/8081

## Organochlorine Pesticides Analysis

Sample ID:	GMX34B-7.0	Lab Sample ID:	2000-03-0373-009
Project:	6262	Received:	03/21/2000 10:49
Sampled:	03/20/2000 09:56	Extracted:	03/21/2000 11:52
Matrix:	Soil	QC-Batch:	2000/03/21-02.13

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	03/22/2000 12:40	
Dieldrin	ND	2.0	ug/Kg	1.00	03/22/2000 12:40	
Endrin aldehyde	ND	10	ug/Kg	1.00	03/22/2000 12:40	
Endrin	ND	2.0	ug/Kg	1.00	03/22/2000 12:40	
Heptachlor	ND	2.0	ug/Kg	1.00	03/22/2000 12:40	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	03/22/2000 12:40	
4,4'-DDT	ND	10	ug/Kg	1.00	03/22/2000 12:40	
4,4'-DDE	ND	2.0	ug/Kg	1.00	03/22/2000 12:40	
4,4'-DDD	ND	2.0	ug/Kg	1.00	03/22/2000 12:40	
Endosulfan I	ND	10	ug/Kg	1.00	03/22/2000 12:40	
Endosulfan II	ND	10	ug/Kg	1.00	03/22/2000 12:40	
alpha-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 12:40	
beta-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 12:40	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	03/22/2000 12:40	
delta-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 12:40	
Endosulfan sulfate	ND	10	ug/Kg	1.00	03/22/2000 12:40	
4,4'-Methoxychlor	ND	10	ug/Kg	1.00	03/22/2000 12:40	
Toxaphene	ND	100	ug/Kg	1.00	03/22/2000 12:40	
alpha-Chlordane	ND	50	ug/Kg	1.00	03/22/2000 12:40	
gamma-Chlordane	ND	50	ug/Kg	1.00	03/22/2000 12:40	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	91.9	50-125	%	1.00	03/22/2000 12:40	
Decachlorobiphenyl	93.3	46-142	%	1.00	03/22/2000 12:40	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8081

Prep Method: 3550/8081

## Organochlorine Pesticides Analysis

Sample ID:	GMX35C-1.0	Lab Sample ID:	2000-03-0373-013
Project:	6262	Received:	03/21/2000 10:49
Sampled:	03/20/2000 09:56	Extracted:	03/21/2000 11:52
Matrix:	Soil	QC-Batch:	2000/03/21-02.13
Sample/Analysis Flag Irm ( See Legend & Note section )			

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	10	ug/Kg	5.00	03/22/2000 13:13	
Dieldrin	ND	10	ug/Kg	5.00	03/22/2000 13:13	
Endrin aldehyde	ND	50	ug/Kg	5.00	03/22/2000 13:13	
Endrin	ND	10	ug/Kg	5.00	03/22/2000 13:13	
Heptachlor	ND	10	ug/Kg	5.00	03/22/2000 13:13	
Heptachlor epoxide	ND	10	ug/Kg	5.00	03/22/2000 13:13	
4,4'-DDT	ND	50	ug/Kg	5.00	03/22/2000 13:13	
4,4'-DDE	ND	10	ug/Kg	5.00	03/22/2000 13:13	
4,4'-DDD	ND	10	ug/Kg	5.00	03/22/2000 13:13	
Endosulfan I	ND	50	ug/Kg	5.00	03/22/2000 13:13	
Endosulfan II	ND	50	ug/Kg	5.00	03/22/2000 13:13	
alpha-BHC	ND	10	ug/Kg	5.00	03/22/2000 13:13	
beta-BHC	ND	10	ug/Kg	5.00	03/22/2000 13:13	
gamma-BHC (Lindane)	ND	10	ug/Kg	5.00	03/22/2000 13:13	
delta-BHC	ND	10	ug/Kg	5.00	03/22/2000 13:13	
Endosulfan sulfate	ND	50	ug/Kg	5.00	03/22/2000 13:13	
4,4'-Methoxychlor	ND	50	ug/Kg	5.00	03/22/2000 13:13	
Toxaphene	ND	500	ug/Kg	5.00	03/22/2000 13:13	
alpha-Chlordane	ND	250	ug/Kg	5.00	03/22/2000 13:13	
gamma-Chlordane	ND	250	ug/Kg	5.00	03/22/2000 13:13	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	64.9	50-125	%	5.00	03/22/2000 13:13	
Decachlorobiphenyl	79.5	46-142	%	5.00	03/22/2000 13:13	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8081

Prep Method: 3550/8081

## Organochlorine Pesticides Analysis

Sample ID:	GMX35C-4.0	Lab Sample ID:	2000-03-0373-014
Project:	6262	Received:	03/21/2000 10:49
Sampled:	03/20/2000 09:56	Extracted:	03/21/2000 11:52
Matrix:	Soil	QC-Batch:	2000/03/21-02.13

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	03/22/2000 13:46	
Dieldrin	ND	2.0	ug/Kg	1.00	03/22/2000 13:46	
Endrin aldehyde	ND	10	ug/Kg	1.00	03/22/2000 13:46	
Endrin	ND	2.0	ug/Kg	1.00	03/22/2000 13:46	
Heptachlor	ND	2.0	ug/Kg	1.00	03/22/2000 13:46	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	03/22/2000 13:46	
4,4'-DDT	ND	10	ug/Kg	1.00	03/22/2000 13:46	
4,4'-DDE	ND	2.0	ug/Kg	1.00	03/22/2000 13:46	
4,4'-DDD	ND	2.0	ug/Kg	1.00	03/22/2000 13:46	
Endosulfan I	ND	10	ug/Kg	1.00	03/22/2000 13:46	
Endosulfan II	ND	10	ug/Kg	1.00	03/22/2000 13:46	
alpha-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 13:46	
beta-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 13:46	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	03/22/2000 13:46	
delta-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 13:46	
Endosulfan sulfate	ND	10	ug/Kg	1.00	03/22/2000 13:46	
4,4'-Methoxychlor	ND	10	ug/Kg	1.00	03/22/2000 13:46	
Toxaphene	ND	100	ug/Kg	1.00	03/22/2000 13:46	
alpha-Chlordane	ND	50	ug/Kg	1.00	03/22/2000 13:46	
gamma-Chlordane	ND	50	ug/Kg	1.00	03/22/2000 13:46	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	81.9	50-125	%	1.00	03/22/2000 13:46	
Decachlorobiphenyl	86.5	46-142	%	1.00	03/22/2000 13:46	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Attn.: Ann Holbrow

Test Method: 8081

Prep Method: 3550/8081

## Organochlorine Pesticides Analysis

Sample ID:	GMX35C-7.0	Lab Sample ID:	2000-03-0373-015
Project:	6262	Received:	03/21/2000 10:49
Sampled:	03/20/2000 09:56	Extracted:	03/21/2000 11:52
Matrix:	Soil	QC-Batch:	2000/03/21-02.13

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	03/22/2000 14:19	
Dieldrin	ND	2.0	ug/Kg	1.00	03/22/2000 14:19	
Endrin aldehyde	ND	10	ug/Kg	1.00	03/22/2000 14:19	
Endrin	ND	2.0	ug/Kg	1.00	03/22/2000 14:19	
Heptachlor	ND	2.0	ug/Kg	1.00	03/22/2000 14:19	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	03/22/2000 14:19	
4,4'-DDT	ND	10	ug/Kg	1.00	03/22/2000 14:19	
4,4'-DDE	ND	2.0	ug/Kg	1.00	03/22/2000 14:19	
4,4'-DDD	ND	2.0	ug/Kg	1.00	03/22/2000 14:19	
Endosulfan I	ND	10	ug/Kg	1.00	03/22/2000 14:19	
Endosulfan II	ND	10	ug/Kg	1.00	03/22/2000 14:19	
alpha-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 14:19	
beta-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 14:19	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	03/22/2000 14:19	
delta-BHC	ND	2.0	ug/Kg	1.00	03/22/2000 14:19	
Endosulfan sulfate	ND	10	ug/Kg	1.00	03/22/2000 14:19	
4,4'-Methoxychlor	ND	10	ug/Kg	1.00	03/22/2000 14:19	
Toxaphene	ND	100	ug/Kg	1.00	03/22/2000 14:19	
alpha-Chlordane	ND	50	ug/Kg	1.00	03/22/2000 14:19	
gamma-Chlordane	ND	50	ug/Kg	1.00	03/22/2000 14:19	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	73.7	50-125	%	1.00	03/22/2000 14:19	
Decachlorobiphenyl	87.7	46-142	%	1.00	03/22/2000 14:19	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants  
Attn.: Ann Holbrow

Test Method: 8081  
Prep Method: 3550/8081

**Batch QC Report**  
**Organochlorine Pesticides Analysis**

Method Blank	Soil	QC Batch # 2000/03/21-01.13
MB: 2000/03/21-01.13-001		Date Extracted: 03/21/2000 11:45

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	03/21/2000 15:10	
Dieldrin	ND	2.0	ug/Kg	03/21/2000 15:10	
Endrin aldehyde	ND	10	ug/Kg	03/21/2000 15:10	
Endrin	ND	2.0	ug/Kg	03/21/2000 15:10	
Heptachlor	ND	2.0	ug/Kg	03/21/2000 15:10	
Heptachlor epoxide	ND	2.0	ug/Kg	03/21/2000 15:10	
4,4'-DDT	ND	10	ug/Kg	03/21/2000 15:10	
4,4'-DDE	ND	2.0	ug/Kg	03/21/2000 15:10	
4,4'-DDD	ND	2.0	ug/Kg	03/21/2000 15:10	
Endosulfan I	ND	10	ug/Kg	03/21/2000 15:10	
Endosulfan II	ND	10	ug/Kg	03/21/2000 15:10	
alpha-BHC	ND	2.0	ug/Kg	03/21/2000 15:10	
beta-BHC	ND	2.0	ug/Kg	03/21/2000 15:10	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	03/21/2000 15:10	
delta-BHC	ND	2.0	ug/Kg	03/21/2000 15:10	
Endosulfan sulfate	ND	10	ug/Kg	03/21/2000 15:10	
4,4'-Methoxychlor	ND	10	ug/Kg	03/21/2000 15:10	
Toxaphene	ND	100	ug/Kg	03/21/2000 15:10	
alpha-Chlordane	ND	50	ug/Kg	03/21/2000 15:10	
gamma-Chlordane	ND	50	ug/Kg	03/21/2000 15:10	
<b>Surrogate(s)</b>					
2,4,5,6-Tetrachloro-m-xylene	76.2	50-125	%	03/21/2000 15:10	
Decachlorobiphenyl	93.8	46-142	%	03/21/2000 15:10	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants  
Attn.: Ann HolbrowTest Method: 8081  
Prep Method: 3550/8081Batch QC Report  
Organochlorine Pesticides Analysis

Method Blank	Soil	QC Batch # 2000/03/21-02.13
MB: 2000/03/21-02.13-001		Date Extracted: 03/21/2000 11:52

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	03/22/2000 12:26	
Dieldrin	ND	2.0	ug/Kg	03/22/2000 12:26	
Endrin aldehyde	ND	10	ug/Kg	03/22/2000 12:26	
Endrin	ND	2.0	ug/Kg	03/22/2000 12:26	
Heptachlor	ND	2.0	ug/Kg	03/22/2000 12:26	
Heptachlor epoxide	ND	2.0	ug/Kg	03/22/2000 12:26	
4,4'-DDT	ND	10	ug/Kg	03/22/2000 12:26	
4,4'-DDE	ND	2.0	ug/Kg	03/22/2000 12:26	
4,4'-DDD	ND	2.0	ug/Kg	03/22/2000 12:26	
Endosulfan I	ND	10	ug/Kg	03/22/2000 12:26	
Endosulfan II	ND	10	ug/Kg	03/22/2000 12:26	
alpha-BHC	ND	2.0	ug/Kg	03/22/2000 12:26	
beta-BHC	ND	2.0	ug/Kg	03/22/2000 12:26	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	03/22/2000 12:26	
delta-BHC	ND	2.0	ug/Kg	03/22/2000 12:26	
Endosulfan sulfate	ND	10	ug/Kg	03/22/2000 12:26	
4,4'-Methoxychlor	ND	10	ug/Kg	03/22/2000 12:26	
Toxaphene	ND	100	ug/Kg	03/22/2000 12:26	
alpha-Chlordane	ND	50	ug/Kg	03/22/2000 12:26	
gamma-Chlordane	ND	50	ug/Kg	03/22/2000 12:26	
<b>Surrogate(s)</b>					
2,4,5,6-Tetrachloro-m-xylene	75.2	50-125	%	03/22/2000 12:26	
Decachlorobiphenyl	68.2	46-142	%	03/22/2000 12:26	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 8081

Attn: Ann Holbrow

Prep Method: 3550/8081

## Batch QC Report

### Organochlorine Pesticides Analysis

Laboratory Control Spike (LCS/LCSD)		Soil				QC Batch # 2000/03/21-01.13					
LCS:	2000/03/21-01.13-002	Extracted: 03/21/2000 11:45					Analyzed 03/21/2000 15:44				
LCSD:	2000/03/21-01.13-003	Extracted: 03/21/2000 11:45					Analyzed 03/21/2000 16:17				

Compound	Conc. [ ug/Kg ]		Exp.Conc. [ ug/Kg ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Aldrin	12.3	14.4	16.7	16.7	73.7	86.2	15.6	37-136	25		
Dieldrin	12.1	14.9	16.7	16.7	72.5	89.2	20.7	58-135	35		
Endrin	11.1	14.9	16.7	16.7	66.5	89.2	29.2	58-134	35		
Heptachlor	11.9	14.2	16.7	16.7	71.3	85.0	17.5	40-136	20		
4,4'-DDT	12.6	15.6	16.7	16.7	75.4	93.4	21.3	55-132	35		
gamma-BHC (Lindane)	12.1	14.9	16.7	16.7	72.5	89.2	20.7	37-137	35		
<b>Surrogate(s)</b>											
2,4,5,6-Tetrachloro-m-xyl	33.2	41.7	50	50	66.4	83.4		50-125			
Decachlorobiphenyl	40.5	47.9	50	50	81.0	95.8		46-142			

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 8081

Attn: Ann Holbrow

Prep Method: 3550/8081

## Batch QC Report

### Organochlorine Pesticides Analysis

Laboratory Control Spike (LCS/LCSD)		Soil		QC Batch # 2000/03/21-02.13			
LCS: 2000/03/21-02.13-002		Extracted: 03/21/2000 11:52				Analyzed 03/22/2000 13:00	
LCSD: 2000/03/21-02.13-003		Extracted: 03/21/2000 11:52				Analyzed 03/22/2000 13:34	

Compound	Conc. [ ug/Kg ]		Exp.Conc. [ ug/Kg ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Aldrin	15.9	15.8	16.7	16.7	95.2	94.6	0.6	37-136	25		
Dieldrin	16.2	16.2	16.7	16.7	97.0	97.0	0.0	58-135	35		
Endrin	15.7	15.7	16.7	16.7	94.0	94.0	0.0	58-134	35		
Heptachlor	15.9	15.9	16.7	16.7	95.2	95.2	0.0	40-136	20		
4,4'-DDT	15.4	15.4	16.7	16.7	92.2	92.2	0.0	55-132	35		
gamma-BHC (Lindane)	15.4	15.4	16.7	16.7	92.2	92.2	0.0	37-137	35		
<b>Surrogate(s)</b>											
2,4,5,6-Tetrachloro-m-xyl	38.3	38.3	50	50	76.6	76.6		50-125			
Decachlorobiphenyl	39.3	39.3	50	50	78.6	78.6		46-142			

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 8081

Attn.: Ann Holbrow

Prep Method: 3550/8081

## Batch QC Report

### Organochlorine Pesticides Analysis

Matrix Spike ( MS / MSD )			Soil		QC Batch # 2000/03/21-02.13						
Sample ID: GMX33B-1.0								Lab Sample ID: 2000-03-0373-004			
MS: 2000/03/21-02.13-004 Extracted: 03/21/2000 11:52 Analyzed: 03/22/2000 14:08 Dilution: 5.0											
MSD: 2000/03/21-02.13-005 Extracted: 03/21/2000 11:52 Analyzed: 03/22/2000 14:42 Dilution: 5.0											

Compound	Conc. [ ug/Kg ]			Exp.Conc. [ ug/Kg ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Aldrin	11.1	12.6	ND	16.5	16.6	67.3	75.9	12.0	37-136	25		
Dieldrin	16.2	18.3	ND	16.5	16.6	98.2	110.2	11.5	58-135	35		
Endrin	10.2	11.7	ND	16.5	16.6	61.8	70.5	13.2	58-134	35		
Heptachlor	10.6	12.1	ND	16.5	16.6	64.2	72.9	12.7	40-136	20		
4,4'-DDT	9.60	11.2	ND	16.5	16.6	58.2	67.5	14.8	55-132	35		
gamma-BHC (Lindane)	9.77	12.1	ND	16.5	16.6	59.2	72.9	20.7	37-137	35		
<b>Surrogate(s)</b>												
2,4,5,6-Tetrachloro-m-xy	29.4	32.4		50	50	58.8	64.8		50-125			
Decachlorobiphenyl	30.9	47.5		50	50	61.8	95.0		46-142			

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants  
Attn.: Ann Holbrow

Test Method: 8081  
Prep Method: 3550/8081

## Batch QC Report

### Organochlorine Pesticides Analysis

Matrix Spike ( MS / MSD )	Soil				QC Batch # 2000/03/21-02.13											
Sample ID: GMX33B-7.0					Lab Sample ID: 2000-03-0373-006											
MS: 2000/03/21-02.13-006 Extracted: 03/21/2000 11:52 Analyzed: 03/22/2000 15:16 Dilution: 1.0																
MSD: 2000/03/21-02.13-007 Extracted: 03/21/2000 11:52 Analyzed: 03/22/2000 15:50 Dilution: 1.0																

Compound	Conc. [ ug/Kg ]			Exp.Conc. [ ug/Kg ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Aldrin	14.1	15.1	ND	16.5	16.6	85.5	91.0	6.2	37-136	25		
Dieldrin	14.1	14.9	ND	16.5	16.6	85.5	89.8	4.9	58-135	35		
Endrin	13.7	14.7	ND	16.5	16.6	83.0	88.6	6.5	58-134	35		
Heptachlor	14.5	15.5	ND	16.5	16.6	87.9	93.4	6.1	40-136	20		
4,4'-DDT	13.1	14.2	ND	16.5	16.6	79.4	85.5	7.4	55-132	35		
gamma-BHC (Lindane)	14.3	15.4	ND	16.5	16.6	86.7	92.8	6.8	37-137	35		
<b>Surrogate(s)</b>												
2,4,5,6-Tetrachloro-m-xy	37.1	39.0		50	50	74.2	78.0		50-125			
Decachlorobiphenyl	38.1	37.5		50	50	76.2	75.0		46-142			

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 8081

Attn.: Ann Holbrow

Prep Method: 3550/8081

## Batch QC Report

### Organochlorine Pesticides Analysis

Matrix Spike ( MS / MSD )	Soil				QC Batch # 2000/03/21-01.13				
Sample ID: GMX36C-4.5					Lab Sample ID: 2000-03-0371-020				
MS:	2000/03/21-01.13-004 Extracted: 03/21/2000 11:45 Analyzed: 03/22/2000 16:24 Dilution: 1.0								
MSD:	2000/03/21-01.13-005 Extracted: 03/21/2000 11:45 Analyzed: 03/22/2000 16:58 Dilution: 1.0								

Compound	Conc. [ ug/Kg ]			Exp.Conc. [ ug/Kg ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Aldrin	15.7	16.1	ND	16.5	16.6	95.2	97.0	1.9	37-136	25		
Dieldrin	15.4	16.0	ND	16.5	16.6	93.3	96.4	3.3	58-135	35		
Endrin	15.2	15.5	ND	16.5	16.6	92.1	93.4	1.4	58-134	35		
Heptachlor	15.8	16.3	ND	16.5	16.6	95.8	98.2	2.5	40-136	20		
4,4'-DDT	14.7	14.3	ND	16.5	16.6	89.1	86.1	3.4	55-132	35		
gamma-BHC (Lindane)	15.7	16.1	ND	16.5	16.6	95.2	97.0	1.9	37-137	35		
<b>Surrogate(s)</b>												
2,4,5,6-Tetrachloro-m-xy	40.0	41.0		50	50	80.0	82.0		50-125			
Decachlorobiphenyl	38.8	39.4		50	50	77.6	78.8		46-142			

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 3050B  
7471A

## CAM 17 Metals

Sample ID:	GMX33B-7.0	Lab Sample ID:	2000-03-0373-006
Project:	6262	Received:	03/21/2000 10:49
Sampled:	03/20/2000 09:03	Extracted:	03/21/2000 15:32
Matrix:	Soil	QC-Batch:	2000/03/21-02.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	1.00	03/21/2000 19:12	
Arsenic	1.1	1.0	mg/Kg	1.00	03/21/2000 19:12	
Barium	110	1.0	mg/Kg	1.00	03/21/2000 19:12	
Beryllium	ND	0.50	mg/Kg	1.00	03/21/2000 19:12	
Cadmium	ND	0.50	mg/Kg	1.00	03/21/2000 19:12	
Chromium	29	1.0	mg/Kg	1.00	03/21/2000 19:12	
Cobalt	7.0	1.0	mg/Kg	1.00	03/21/2000 19:12	
Copper	12	1.0	mg/Kg	1.00	03/21/2000 19:12	
Lead	4.7	1.0	mg/Kg	1.00	03/21/2000 19:12	
Molybdenum	ND	1.0	mg/Kg	1.00	03/21/2000 19:12	
Nickel	32	1.0	mg/Kg	1.00	03/21/2000 19:12	
Selenium	ND	2.0	mg/Kg	1.00	03/21/2000 19:12	
Silver	ND	1.0	mg/Kg	1.00	03/21/2000 19:12	
Thallium	ND	1.0	mg/Kg	1.00	03/21/2000 19:12	
Vanadium	21	1.0	mg/Kg	1.00	03/21/2000 19:12	
Zinc	30	1.0	mg/Kg	1.00	03/21/2000 19:12	
Mercury	ND	0.050	mg/Kg	1.00	03/22/2000 11:29	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 3050B  
7471A

## CAM 17 Metals

Sample ID:	GMX34B-1.0	Lab Sample ID:	2000-03-0373-007
Project:	6262	Received:	03/21/2000 10:49
Sampled:	03/20/2000 09:45	Extracted:	03/21/2000 15:32
Matrix:	Soil	QC-Batch:	2000/03/21-02.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	1.00	03/21/2000 19:45	
Arsenic	7.2	1.0	mg/Kg	1.00	03/21/2000 19:45	
Barium	150	1.0	mg/Kg	1.00	03/21/2000 19:45	
Beryllium	ND	0.50	mg/Kg	1.00	03/21/2000 19:45	
Cadmium	ND	0.50	mg/Kg	1.00	03/21/2000 19:45	
Chromium	32	1.0	mg/Kg	1.00	03/21/2000 19:45	
Cobalt	11	1.0	mg/Kg	1.00	03/21/2000 19:45	
Copper	47	1.0	mg/Kg	1.00	03/21/2000 19:45	
Lead	21	1.0	mg/Kg	1.00	03/21/2000 19:45	
Molybdenum	ND	1.0	mg/Kg	1.00	03/21/2000 19:45	
Nickel	32	1.0	mg/Kg	1.00	03/21/2000 19:45	
Selenium	ND	2.0	mg/Kg	1.00	03/21/2000 19:45	
Silver	ND	1.0	mg/Kg	1.00	03/21/2000 19:45	
Thallium	ND	1.0	mg/Kg	1.00	03/21/2000 19:45	
Vanadium	57	1.0	mg/Kg	1.00	03/21/2000 19:45	
Zinc	65	1.0	mg/Kg	1.00	03/21/2000 19:45	
Mercury	0.35	0.050	mg/Kg	1.00	03/22/2000 11:33	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 3050B  
7471A

## CAM 17 Metals

Sample ID:	GMX34B-4.0	Lab Sample ID:	2000-03-0373-008
Project:	6262	Received:	03/21/2000 10:49
Sampled:	03/20/2000 09:52	Extracted:	03/21/2000 15:32
Matrix:	Soil	QC-Batch:	2000/03/21-02.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	1.00	03/21/2000 19:49	
Arsenic	4.7	1.0	mg/Kg	1.00	03/21/2000 19:49	
Barium	200	1.0	mg/Kg	1.00	03/21/2000 19:49	
Beryllium	ND	0.50	mg/Kg	1.00	03/21/2000 19:49	
Cadmium	ND	0.50	mg/Kg	1.00	03/21/2000 19:49	
Chromium	27	1.0	mg/Kg	1.00	03/21/2000 19:49	
Cobalt	6.9	1.0	mg/Kg	1.00	03/21/2000 19:49	
Copper	14	1.0	mg/Kg	1.00	03/21/2000 19:49	
Lead	5.1	1.0	mg/Kg	1.00	03/21/2000 19:49	
Molybdenum	ND	1.0	mg/Kg	1.00	03/21/2000 19:49	
Nickel	30	1.0	mg/Kg	1.00	03/21/2000 19:49	
Selenium	ND	2.0	mg/Kg	1.00	03/21/2000 19:49	
Silver	ND	1.0	mg/Kg	1.00	03/21/2000 19:49	
Thallium	ND	1.0	mg/Kg	1.00	03/21/2000 19:49	
Vanadium	33	1.0	mg/Kg	1.00	03/21/2000 19:49	
Zinc	25	1.0	mg/Kg	1.00	03/21/2000 19:49	
Mercury	ND	0.050	mg/Kg	1.00	03/22/2000 11:34	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 3050B  
7471A

## CAM 17 Metals

Sample ID:	GMX34B-7.0	Lab Sample ID:	2000-03-0373-009
Project:	6262	Received:	03/21/2000 10:49
Sampled:	03/20/2000 09:56	Extracted:	03/22/2000 08:20
Matrix:	Soil	QC-Batch:	2000/03/22-03.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	1.00	03/22/2000 17:30	
Arsenic	1.4	1.0	mg/Kg	1.00	03/22/2000 17:30	
Barium	120	1.0	mg/Kg	1.00	03/22/2000 17:30	
Beryllium	ND	0.50	mg/Kg	1.00	03/22/2000 17:30	
Cadmium	ND	0.50	mg/Kg	1.00	03/22/2000 17:30	
Chromium	27	1.0	mg/Kg	1.00	03/22/2000 17:30	
Cobalt	7.0	1.0	mg/Kg	1.00	03/22/2000 17:30	
Copper	13	1.0	mg/Kg	1.00	03/22/2000 17:30	
Lead	5.1	1.0	mg/Kg	1.00	03/22/2000 17:30	
Molybdenum	ND	1.0	mg/Kg	1.00	03/22/2000 17:30	
Nickel	36	1.0	mg/Kg	1.00	03/22/2000 17:30	
Selenium	ND	2.0	mg/Kg	1.00	03/22/2000 17:30	
Silver	ND	1.0	mg/Kg	1.00	03/22/2000 17:30	
Thallium	ND	1.0	mg/Kg	1.00	03/22/2000 17:30	
Vanadium	20	1.0	mg/Kg	1.00	03/22/2000 17:30	
Zinc	32	1.0	mg/Kg	1.00	03/22/2000 17:30	
Mercury	ND	0.050	mg/Kg	1.00	03/22/2000 11:41	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 3050B  
7471A

## CAM 17 Metals

Sample ID:	GMX35C-1.0	Lab Sample ID:	2000-03-0373-013
Project:	6262	Received:	03/21/2000 10:49
Sampled:	03/20/2000 09:56	Extracted:	03/22/2000 08:20
Matrix:	Soil	QC-Batch:	2000/03/22-03.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	1.00	03/22/2000 17:42	
Arsenic	3.8	1.0	mg/Kg	1.00	03/22/2000 17:42	
Barium	180	1.0	mg/Kg	1.00	03/22/2000 17:42	
Beryllium	ND	0.50	mg/Kg	1.00	03/22/2000 17:42	
Cadmium	ND	0.50	mg/Kg	1.00	03/22/2000 17:42	
Chromium	29	1.0	mg/Kg	1.00	03/22/2000 17:42	
Cobalt	9.1	1.0	mg/Kg	1.00	03/22/2000 17:42	
Copper	35	1.0	mg/Kg	1.00	03/22/2000 17:42	
Lead	14	1.0	mg/Kg	1.00	03/22/2000 17:42	
Molybdenum	ND	1.0	mg/Kg	1.00	03/22/2000 17:42	
Nickel	32	1.0	mg/Kg	1.00	03/22/2000 17:42	
Selenium	ND	2.0	mg/Kg	1.00	03/22/2000 17:42	
Silver	ND	1.0	mg/Kg	1.00	03/22/2000 17:42	
Thallium	ND	1.0	mg/Kg	1.00	03/22/2000 17:42	
Vanadium	39	1.0	mg/Kg	1.00	03/22/2000 17:42	
Zinc	56	1.0	mg/Kg	1.00	03/22/2000 17:42	
Mercury	0.074	0.050	mg/Kg	1.00	03/22/2000 11:45	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 3050B  
7471A

## CAM 17 Metals

Sample ID:	GMX35C-4.0	Lab Sample ID:	2000-03-0373-014
Project:	6262	Received:	03/21/2000 10:49
Sampled:	03/20/2000 09:56	Extracted:	03/22/2000 08:20
Matrix:	Soil	QC-Batch:	2000/03/22-03.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	1.00	03/22/2000 17:45	
Arsenic	ND	1.0	mg/Kg	1.00	03/22/2000 17:45	
Barium	120	1.0	mg/Kg	1.00	03/22/2000 17:45	
Beryllium	ND	0.50	mg/Kg	1.00	03/22/2000 17:45	
Cadmium	ND	0.50	mg/Kg	1.00	03/22/2000 17:45	
Chromium	22	1.0	mg/Kg	1.00	03/22/2000 17:45	
Cobalt	6.0	1.0	mg/Kg	1.00	03/22/2000 17:45	
Copper	13	1.0	mg/Kg	1.00	03/22/2000 17:45	
Lead	5.8	1.0	mg/Kg	1.00	03/22/2000 17:45	
Molybdenum	ND	1.0	mg/Kg	1.00	03/22/2000 17:45	
Nickel	24	1.0	mg/Kg	1.00	03/22/2000 17:45	
Selenium	ND	2.0	mg/Kg	1.00	03/22/2000 17:45	
Silver	ND	1.0	mg/Kg	1.00	03/22/2000 17:45	
Thallium	ND	1.0	mg/Kg	1.00	03/22/2000 17:45	
Vanadium	16	1.0	mg/Kg	1.00	03/22/2000 17:45	
Zinc	22	1.0	mg/Kg	1.00	03/22/2000 17:45	
Mercury	ND	0.050	mg/Kg	1.00	03/22/2000 11:46	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 3050B  
7471A

## CAM 17 Metals

Sample ID:	GMX35C-7.0	Lab Sample ID:	2000-03-0373-015
Project:	6262	Received:	03/21/2000 10:49
Sampled:	03/20/2000 09:56	Extracted:	03/22/2000 08:20
Matrix:	Soil	QC-Batch:	2000/03/22-03.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	1.00	03/22/2000 17:48	
Arsenic	2.6	1.0	mg/Kg	1.00	03/22/2000 17:48	
Barium	110	1.0	mg/Kg	1.00	03/22/2000 17:48	
Beryllium	ND	0.50	mg/Kg	1.00	03/22/2000 17:48	
Cadmium	ND	0.50	mg/Kg	1.00	03/22/2000 17:48	
Chromium	29	1.0	mg/Kg	1.00	03/22/2000 17:48	
Cobalt	8.2	1.0	mg/Kg	1.00	03/22/2000 17:48	
Copper	12	1.0	mg/Kg	1.00	03/22/2000 17:48	
Lead	5.1	1.0	mg/Kg	1.00	03/22/2000 17:48	
Molybdenum	ND	1.0	mg/Kg	1.00	03/22/2000 17:48	
Nickel	51	1.0	mg/Kg	1.00	03/22/2000 17:48	
Selenium	ND	2.0	mg/Kg	1.00	03/22/2000 17:48	
Silver	ND	1.0	mg/Kg	1.00	03/22/2000 17:48	
Thallium	ND	1.0	mg/Kg	1.00	03/22/2000 17:48	
Vanadium	24	1.0	mg/Kg	1.00	03/22/2000 17:48	
Zinc	29	1.0	mg/Kg	1.00	03/22/2000 17:48	
Mercury	ND	0.050	mg/Kg	1.00	03/22/2000 11:48	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 7471A  
6010B  
Prep Method: 3050B  
7471A

Attn.: Ann Holbrow

## Batch QC Report CAM 17 Metals

Method Blank	Soil	QC Batch # 2000/03/21-02.15
MB: 2000/03/21-02.15-013		Date Extracted: 03/21/2000 15:32

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	03/21/2000 17:23	
Arsenic	ND	1.0	mg/Kg	03/21/2000 17:23	
Barium	ND	1.0	mg/Kg	03/21/2000 17:23	
Beryllium	ND	0.50	mg/Kg	03/21/2000 17:23	
Cadmium	ND	0.50	mg/Kg	03/21/2000 17:23	
Chromium	ND	1.0	mg/Kg	03/21/2000 17:23	
Cobalt	ND	1.0	mg/Kg	03/21/2000 17:23	
Copper	ND	1.0	mg/Kg	03/21/2000 17:23	
Lead	ND	1.0	mg/Kg	03/21/2000 17:23	
Molybdenum	ND	1.0	mg/Kg	03/21/2000 17:23	
Nickel	ND	1.0	mg/Kg	03/21/2000 17:23	
Selenium	ND	2.0	mg/Kg	03/21/2000 17:23	
Silver	ND	1.0	mg/Kg	03/21/2000 17:23	
Thallium	ND	1.0	mg/Kg	03/21/2000 17:23	
Vanadium	ND	1.0	mg/Kg	03/21/2000 17:23	
Zinc	ND	1.0	mg/Kg	03/21/2000 17:23	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 7471A  
6010B  
Prep Method: 3050B  
7471A

Attn.: Ann Holbrow

**Batch QC Report**  
CAM 17 Metals

Method Blank	Soil	QC Batch # 2000/03/21-02.16
MB: 2000/03/21-02.16-011		Date Extracted: 03/21/2000 15:37

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Mercury	ND	0.050	mg/Kg	03/22/2000 10:55	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 7471A

6010B

Attn.: Ann Holbrow

Prep Method: 3050B

7471A

## Batch QC Report

CAM 17 Metals

Method Blank	Soil	QC Batch # 2000/03/22-02.16
MB: 2000/03/22-02.16-044		Date Extracted: 03/22/2000 08:23

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Mercury	ND	0.050	mg/Kg	03/22/2000 11:35	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 7471A  
6010B  
Prep Method: 3050B  
7471A

Attn.: Ann Holbrow

## Batch QC Report CAM 17 Metals

Method Blank	Soil	QC Batch # 2000/03/22-03.15
MB: 2000/03/22-03.15-090		Date Extracted: 03/22/2000 08:20

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Antimony	ND	2.0	mg/Kg	03/22/2000 17:12	
Arsenic	ND	1.0	mg/Kg	03/22/2000 17:12	
Barium	ND	1.0	mg/Kg	03/22/2000 17:12	
Beryllium	ND	0.50	mg/Kg	03/22/2000 17:12	
Cadmium	ND	0.50	mg/Kg	03/22/2000 17:12	
Chromium	ND	1.0	mg/Kg	03/22/2000 17:12	
Cobalt	ND	1.0	mg/Kg	03/22/2000 17:12	
Copper	ND	1.0	mg/Kg	03/22/2000 17:12	
Lead	ND	1.0	mg/Kg	03/22/2000 17:12	
Molybdenum	ND	1.0	mg/Kg	03/22/2000 17:12	
Nickel	ND	1.0	mg/Kg	03/22/2000 17:12	
Selenium	ND	2.0	mg/Kg	03/22/2000 17:12	
Silver	ND	1.0	mg/Kg	03/22/2000 17:12	
Thallium	ND	1.0	mg/Kg	03/22/2000 17:12	
Vanadium	ND	1.0	mg/Kg	03/22/2000 17:12	
Zinc	ND	1.0	mg/Kg	03/22/2000 17:12	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn: Ann Holbrow

Prep Method: 7471A  
3050B

## Batch QC Report

CAM 17 Metals

Laboratory Control Spike (LCS/LCSD)		Soil		QC Batch # 2000/03/21-02.15					
LCS:	2000/03/21-02.15-014	Extracted: 03/21/2000 15:32			Analyzed 03/21/2000 17:27				
LCSD:	2000/03/21-02.15-015	Extracted: 03/21/2000 15:32			Analyzed 03/21/2000 17:30				

Compound	Conc. [mg/Kg]		Exp.Conc. [mg/Kg]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Antimony	93.9	93.9	100.0	100.0	93.9	93.9	0.0	80-120	20		
Arsenic	91.6	91.4	100.0	100.0	91.6	91.4	0.2	80-120	20		
Barium	91.9	91.8	100.0	100.0	91.9	91.8	0.1	80-120	20		
Beryllium	93.2	92.7	100.0	100.0	93.2	92.7	0.5	80-120	20		
Cadmium	92.4	92.4	100.0	100.0	92.4	92.4	0.0	80-120	20		
Chromium	95.8	95.7	100.0	100.0	95.8	95.7	0.1	80-120	20		
Cobalt	92.8	92.9	100.0	100.0	92.8	92.9	0.1	80-120	20		
Copper	93.5	93.5	100.0	100.0	93.5	93.5	0.0	80-120	20		
Lead	92.1	92.1	100.0	100.0	92.1	92.1	0.0	80-120	20		
Molybdenum	94.9	95.1	100.0	100.0	94.9	95.1	0.2	80-120	20		
Nickel	92.2	92.1	100.0	100.0	92.2	92.1	0.1	80-120	20		
Selenium	92.6	93.3	100.0	100.0	92.6	93.3	0.8	80-120	20		
Silver	92.2	92.2	100.0	100.0	92.2	92.2	0.0	80-120	20		
Thallium	92.3	92.4	100.0	100.0	92.3	92.4	0.1	80-120	20		
Vanadium	94.3	94.3	100.0	100.0	94.3	94.3	0.0	80-120	20		
Zinc	91.2	91.2	100.0	100.0	91.2	91.2	0.0	80-120	20		

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn: Ann Holbrow

Prep Method: 7471A  
3050B

## Batch QC Report

CAM 17 Metals

Laboratory Control Spike (LCS/LCSD)		Soil		QC Batch # 2000/03/21-02.16			
LCS:	2000/03/21-02.16-012	Extracted:	03/21/2000 15:37	Analyzed	03/22/2000 10:56		
LCSD:	2000/03/21-02.16-013	Extracted:	03/21/2000 15:37	Analyzed	03/22/2000 10:58		

Compound	Conc. [ mg/Kg ]		Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Mercury	0.520	0.505	0.500	0.500	104.0	101.0	2.9	85-115	20		

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn: Ann Holbrow

Prep Method: 7471A  
3050B

## Batch QC Report

CAM 17 Metals

Laboratory Control Spike (LCS/LCSD)	Soil		QC Batch # 2000/03/22-02.16					
LCS: 2000/03/22-02.16-047	Extracted:	03/22/2000 08:23	Analyzed	03/22/2000 11:39				
LCSD: 2000/03/22-02.16-048	Extracted:	03/22/2000 08:23	Analyzed	03/22/2000 11:40				

Compound	Conc. [ mg/Kg ]		Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD (%)	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Mercury	0.487	0.507	0.500	0.500	97.4	101.4	4.0	85-115	20		

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn: Ann Holbrow

Prep Method: 7471A  
3050B

## Batch QC Report

### CAM 17 Metals

Laboratory Control Spike (LCS/LCSD)		Soil		QC Batch # 2000/03/22-03.15					
LCS:	2000/03/22-03.15-093	Extracted: 03/22/2000 08:20			Analyzed 03/22/2000 17:23				
LCSD:	2000/03/22-03.15-094	Extracted: 03/22/2000 08:20			Analyzed 03/22/2000 17:27				

Compound	Conc. [ mg/Kg ]		Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Antimony	98.7	101	100.0	100.0	98.7	101.0	2.3	80-120	20		
Arsenic	96.5	98.2	100.0	100.0	96.5	98.2	1.7	80-120	20		
Barium	98.1	98.4	100.0	100.0	98.1	98.4	0.3	80-120	20		
Beryllium	95.8	97.1	100.0	100.0	95.8	97.1	1.3	80-120	20		
Cadmium	94.7	94.5	100.0	100.0	94.7	94.5	0.2	80-120	20		
Chromium	99.1	101	100.0	100.0	99.1	101.0	1.9	80-120	20		
Cobalt	95.5	97.1	100.0	100.0	95.5	97.1	1.7	80-120	20		
Copper	96.4	96.3	100.0	100.0	96.4	96.3	0.1	80-120	20		
Lead	95.4	97.1	100.0	100.0	95.4	97.1	1.8	80-120	20		
Molybdenum	94.7	96.2	100.0	100.0	94.7	96.2	1.6	80-120	20		
Nickel	95.6	95.6	100.0	100.0	95.6	95.6	0.0	80-120	20		
Selenium	94.3	96.1	100.0	100.0	94.3	96.1	1.9	80-120	20		
Silver	91.3	90.9	100.0	100.0	91.3	90.9	0.4	80-120	20		
Thallium	91.1	92.0	100.0	100.0	91.1	92.0	1.0	80-120	20		
Vanadium	95.3	95.2	100.0	100.0	95.3	95.2	0.1	80-120	20		
Zinc	98.5	98.8	100.0	100.0	98.5	98.8	0.3	80-120	20		

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 7471A  
3050B**Batch QC Report**

CAM 17 Metals

**Matrix Spike ( MS / MSD )****Soil****QC Batch # 2000/03/21-02.15**

Sample ID: GMX36C-4.5

Lab Sample ID: 2000-03-0371-020

MS: 2000/03/21-02.15-026 Extracted: 03/21/2000 15:32 Analyzed: 03/21/2000 18:16 Dilution: 1.0

MSD: 2000/03/21-02.15-027 Extracted: 03/21/2000 15:32 Analyzed: 03/21/2000 18:20 Dilution: 1.0

Compound	Conc. [ mg/Kg ]			Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Antimony	45.2	47.7	ND	100.0	100.0	45.2	47.7	5.4	75-125	20	mso	mso
Arsenic	83.3	84.5	1.43	100.0	100.0	81.9	83.1	1.5	75-125	20		
Barium	205	212	134	100.0	100.0	71.0	78.0	9.4	75-125	20	mso	
Beryllium	84.8	86.0	ND	100.0	100.0	84.8	86.0	1.4	75-125	20		
Cadmium	82.3	82.4	ND	100.0	100.0	82.3	82.4	0.1	75-125	20		
Chromium	110	111	21.8	100.0	100.0	88.2	89.2	1.1	75-125	20		
Cobalt	90.8	91.8	8.31	100.0	100.0	82.5	83.5	1.2	75-125	20		
Copper	102	103	14.7	100.0	100.0	87.3	88.3	1.1	75-125	20		
Lead	100	104	22.3	100.0	100.0	77.7	81.7	5.0	75-125	20		
Molybdenum	78.7	79.7	ND	100.0	100.0	78.7	79.7	1.3	75-125	20		
Nickel	105	106	22.6	100.0	100.0	82.4	83.4	1.2	75-125	20		
Selenium	82.9	83.0	ND	100.0	100.0	82.9	83.0	0.1	75-125	20		
Silver	86.4	86.4	ND	100.0	100.0	86.4	86.4	0.0	75-125	20		
Thallium	77.3	78.0	ND	100.0	100.0	77.3	78.0	0.9	75-125	20		
Vanadium	102	103	16.8	100.0	100.0	85.2	86.2	1.2	75-125	20		
Zinc	124	125	44.0	100.0	100.0	80.0	81.0	1.2	75-125	20		

*Antimony —**3050B  
geomatrix*

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 7471A  
3050B**Batch QC Report**

CAM 17 Metals

**Matrix Spike ( MS / MSD )****Soil****QC Batch # 2000/03/21-02.15**

Sample ID: GMX33B-1.0

Lab Sample ID: 2000-03-0373-004

MS: 2000/03/21-02.15-038 Extracted: 03/21/2000 15:32 Analyzed: 03/21/2000 19:02 Dilution: 1.0

MSD: 2000/03/21-02.15-039 Extracted: 03/21/2000 15:32 Analyzed: 03/21/2000 19:06 Dilution: 1.0

Compound	Conc. [ mg/Kg ]			Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Antimony	48.8	51.3	ND	100.0	100.0	48.8	51.3	5.0	75-125	20	mso	mso
Arsenic	83.5	84.8	5.15	100.0	100.0	78.3	79.6	1.6	75-125	20		
Barium	253	234	318	100.0	100.0	-65.0	-84.0	-25.5	75-125	20	mso	mso
Beryllium	80.4	80.8	ND	100.0	100.0	80.4	80.8	0.5	75-125	20		
Cadmium	76.0	76.8	ND	100.0	100.0	76.0	76.8	1.0	75-125	20		
Chromium	118	117	32.3	100.0	100.0	85.7	84.7	1.2	75-125	20		
Cobalt	88.9	89.6	10.2	100.0	100.0	78.7	79.4	0.9	75-125	20		
Copper	133	133	41.5	100.0	100.0	91.5	91.5	0.0	75-125	20		
Lead	90.3	91.7	13.8	100.0	100.0	76.5	77.9	1.8	75-125	20		
Molybdenum	76.3	77.3	ND	100.0	100.0	76.3	77.3	1.3	75-125	20		
Nickel	112	113	31.4	100.0	100.0	80.6	81.6	1.2	75-125	20		
Selenium	77.2	78.2	ND	100.0	100.0	77.2	78.2	1.3	75-125	20		
Silver	82.4	83.1	ND	100.0	100.0	82.4	83.1	0.8	75-125	20		
Thallium	69.9	69.6	ND	100.0	100.0	69.9	69.6	0.4	75-125	20	mso	mso
Vanadium	136	140	48.6	100.0	100.0	87.4	91.4	4.5	75-125	20		
Zinc	134	135	97.8	100.0	100.0	36.2	37.2	2.7	75-125	20	mso	mso

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 7471A  
3050B**Batch QC Report**

## CAM 17 Metals

Matrix Spike ( MS / MSD )	Soil		QC Batch # 2000/03/21-02.15	
Sample ID: GMX33B-7.0			Lab Sample ID: 2000-03-0373-006	
MS: 2000/03/21-02.15-044 Extracted: 03/21/2000 15:32 Analyzed: 03/21/2000 19:38 Dilution: 1.0				
MSD: 2000/03/21-02.15-045 Extracted: 03/21/2000 15:32 Analyzed: 03/21/2000 19:42 Dilution: 1.0				

Compound	Conc. [ mg/Kg ]			Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Antimony	66.1	70.2	ND	100.0	100.0	66.1	70.2	6.0	75-125	20	mso	mso
Arsenic	90.8	96.6	1.12	100.0	100.0	89.7	95.5	6.3	75-125	20		
Barium	198	216	107	100.0	100.0	91.0	109.0	18.0	75-125	20		
Beryllium	90.8	94.9	ND	100.0	100.0	90.8	94.9	4.4	75-125	20		
Cadmium	85.5	91.2	ND	100.0	100.0	85.5	91.2	6.5	75-125	20		
Chromium	122	129	29.2	100.0	100.0	92.8	99.8	7.3	75-125	20		
Cobalt	93.9	98.3	6.96	100.0	100.0	86.9	91.3	4.9	75-125	20		
Copper	106	110	12.3	100.0	100.0	93.7	97.7	4.2	75-125	20		
Lead	88.7	95.2	4.72	100.0	100.0	84.0	90.5	7.4	75-125	20		
Molybdenum	87.8	88.8	ND	100.0	100.0	87.8	88.8	1.1	75-125	20		
Nickel	116	125	31.6	100.0	100.0	84.4	93.4	10.1	75-125	20		
Selenium	88.8	91.8	ND	100.0	100.0	88.8	91.8	3.3	75-125	20		
Silver	92.3	93.2	ND	100.0	100.0	92.3	93.2	1.0	75-125	20		
Thallium	80.3	80.3	ND	100.0	100.0	80.3	80.3	0.0	75-125	20		
Vanadium	112	114	21.2	100.0	100.0	90.8	92.8	2.2	75-125	20		
Zinc	113	128	29.6	100.0	100.0	83.4	98.4	16.5	75-125	20		

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 7471A  
3050B

## Batch QC Report

CAM 17 Metals

Matrix Spike ( MS / MSD )

Soil

QC Batch # 2000/03/21-02.16

Sample ID: GMX36C-4.5

Lab Sample ID: 2000-03-0371-020

MS: 2000/03/21-02.16-024 Extracted: 03/21/2000 15:37 Analyzed: 03/22/2000 11:11 Dilution: 1.0

MSD: 2000/03/21-02.16-025 Extracted: 03/21/2000 15:37 Analyzed: 03/22/2000 11:12 Dilution: 1.0

Compound	Conc. [ mg/Kg ]				Exp.Conc. [ mg/Kg ]				Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD	[%]	Recovery	RPD		MS	MSD		
Mercury	0.561	0.570	0.0989	0.500	0.500	92.8	94.6	1.9	85-115	20					

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 7471A  
3050B

## Batch QC Report

CAM 17 Metals

Matrix Spike ( MS / MSD )

Soil

QC Batch # 2000/03/21-02.16

Sample ID: GMX33B-1.0

Lab Sample ID: 2000-03-0373-004

MS: 2000/03/21-02.16-036 Extracted: 03/21/2000 15:37 Analyzed: 03/22/2000 11:26 Dilution: 1.0

MSD: 2000/03/21-02.16-037 Extracted: 03/21/2000 15:37 Analyzed: 03/22/2000 11:27 Dilution: 1.0

Compound	Conc. [ mg/Kg ]			Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Mercury	0.571	0.569	0.114	0.500	0.500	91.4	91.0	0.4	85-115	20		

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 7471A  
3050B

## Batch QC Report

### CAM 17 Metals

#### Matrix Spike ( MS / MSD )

Soil

QC Batch # 2000/03/21-02.16

Sample ID: GMX33B-7.0

Lab Sample ID: 2000-03-0373-006

MS: 2000/03/21-02.16-040 Extracted: 03/21/2000 15:37 Analyzed: 03/22/2000 11:31 Dilution: 1.0

MSD: 2000/03/21-02.16-041 Extracted: 03/21/2000 15:37 Analyzed: 03/22/2000 11:32 Dilution: 1.0

Compound	Conc. [ mg/Kg ]			Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Mercury	0.466	0.456	ND	0.500	0.500	93.2	91.2	2.2	85-115	20		

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 7471A  
3050B

## Batch QC Report

CAM 17 Metals

### Matrix Spike ( MS / MSD )

Soil

QC Batch # 2000/03/22-02.16

Sample ID: GMX34B-7.0

Lab Sample ID: 2000-03-0373-009

MS: 2000/03/22-02.16-050 Extracted: 03/22/2000 08:23 Analyzed: 03/22/2000 11:43 Dilution: 1.0

MSD: 2000/03/22-02.16-051 Extracted: 03/22/2000 08:23 Analyzed: 03/22/2000 11:44 Dilution: 1.0

Compound	Conc. [ mg/Kg ]			Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Mercury	0.500	0.499	ND	0.500	0.500	100.0	99.8	0.2	85-115	20		

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Test Method: 7471A  
6010B

Attn.: Ann Holbrow

Prep Method: 7471A  
3050B**Batch QC Report**

## CAM 17 Metals

**Matrix Spike ( MS / MSD )****Soil****QC Batch # 2000/03/22-03.15**

Sample ID: GMX34B-7.0

Lab Sample ID: 2000-03-0373-009

MS: 2000/03/22-03.15-096 Extracted: 03/22/2000 08:20 Analyzed: 03/22/2000 17:34 Dilution: 1.0

MSD: 2000/03/22-03.15-097 Extracted: 03/22/2000 08:20 Analyzed: 03/22/2000 17:38 Dilution: 1.0

Compound	Conc. [ mg/Kg ]			Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD	Ctrl. Limits [%]	Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD			MS	MSD
Antimony	56.0	58.2	ND	100.0	100.0	56.0	58.2	3.9	75-125	20	
Arsenic	85.8	88.2	1.43	100.0	100.0	84.4	86.8	2.8	75-125	20	
Barium	193	203	116	100.0	100.0	77.0	87.0	12.2	75-125	20	
Beryllium	84.6	85.6	ND	100.0	100.0	84.6	85.6	1.2	75-125	20	
Cadmium	81.1	83.2	ND	100.0	100.0	81.1	83.2	2.6	75-125	20	
Chromium	115	117	27.2	100.0	100.0	87.8	89.8	2.3	75-125	20	
Cobalt	88.4	91.4	7.02	100.0	100.0	81.4	84.4	3.6	75-125	20	
Copper	98.6	101	13.1	100.0	100.0	85.5	87.9	2.8	75-125	20	
Lead	85.7	88.3	5.05	100.0	100.0	80.7	83.3	3.2	75-125	20	
Molybdenum	77.4	80.0	ND	100.0	100.0	77.4	80.0	3.3	75-125	20	
Nickel	118	121	36.1	100.0	100.0	81.9	84.9	3.6	75-125	20	
Selenium	81.3	83.6	ND	100.0	100.0	81.3	83.6	2.8	75-125	20	
Silver	82.2	84.5	ND	100.0	100.0	82.2	84.5	2.8	75-125	20	
Thallium	71.5	74.8	ND	100.0	100.0	71.5	74.8	4.5	75-125	20	
Vanadium	104	106	20.1	100.0	100.0	83.9	85.9	2.4	75-125	20	
Zinc	117	119	32.4	100.0	100.0	84.6	86.6	2.3	75-125	20	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-03-0373

To: Geomatrix Consultants

Attn:Ann Holbrow

Test Method: 6010B

7471A

Prep Method: 3050B

7471A

## Legend & Notes

CAM 17 Metals

### QC Compound Flags

mso

MS/MSD spike recoveries were out of QC limits due to matrix interference. Precision and Accuracy were verified by LCS/LCSD.

CHROMALAB

Change request received by:

Date Requested: 03/21/17

SAMPLE STATUS CHANGE FORM				Requested by
Submission#	Client Samp.ID	Old Status Description	Description of Changes	(Client's name)
		8081- 8082- New	Please Spike Sample GMX33 B-1.D <del>GMX33B-1D</del> GMX 33B-7.D <b>RUSH</b> <del>DO NOT SPIKE</del>	
Changes were done in lims by(login): _____ On: ___ / ___ / ___				
CC: <input type="checkbox"/> Lab.Director <input type="checkbox"/> Dept.manager <input type="checkbox"/> Analyst <input type="checkbox"/> Proj.Manager				

**FAX**

from **Geomatrix Consultants, Inc.**  
2101 Webster Street, 12th Floor, Oakland, CA 94612  
[www.geomatrix.com](http://www.geomatrix.com)



Date: March 23, 2000

Number of pages  
including cover sheet: \_\_\_\_\_

1

The information in this telecopy is intended for the named recipient(s) only. It may contain privileged and confidential matter. If you have received this telecopy in error, please notify the sender immediately. Thank you.

**To:** Ms. Afsaneh Salimpour

Chromalab

**From:** Tom Gavigan

Geomatrix Consultants

Fax Phone: **925-484-1096**Fax Phone: **510-663-4141**Phone: **925-484-1919**Phone: **510-663-4100**

cc:

Direct dial: **510-663-4192**Email: **Tgavigan@Geomatrix.com**Project No.: **6262.000.0**Project Name: **Canterbury Residential Development****REMARKS:**

Hard copy to follow    Urgent    For your review    Reply ASAP    Please comment

Afsaneh:

Geomatrix submitted 72 soil samples in three coolers under seven Geomatrix chain of custody forms (0989, 0975, 0985, 003794, 003800, 003792, 003795). 24 soil samples were selected for analysis; the remaining soil samples were placed on hold pending results of the 24 samples.

- I just received Submission #2000-03-0371 for pesticides – Thank you.
- I failed to mention in my last facsimile that we are also missing metals results from submission #2000-03-0373 – specifically three samples from boring GMX-35C and one sample from GMX-34B.
- I also wanted to point out that sample GMX40C-3.0 should be GMX40C-8.0.

Please let me know when I can expect the remaining metals analyses.

Thank you!

Oakland, CA • San Leandro, CA • Fresno, CA • Sacramento, CA • Costa Mesa, CA • Austin, TX • Houston, TX  
Minneapolis, MN • Detroit, MI • Buffalo, NY • Chicago, IL • Niagara Falls, ON • Kitchener-Waterloo, ON

**FAX**

from **Geomatrix Consultants, Inc.**  
 2101 Webster Street, 12th Floor, Oakland, CA 94612  
[www.geomatrix.com](http://www.geomatrix.com)



Date: March 23, 2000

Number of pages  
including cover sheet:

1

The information in this telecopy is intended for the named recipient(s) only. It may contain privileged and confidential matter. If you have received this telecopy in error, please notify the sender immediately. Thank you.

**To:** Ms. Afsaneh Salimpour  
**Chromalab**

**From:** Tom Gavigan  
**Geomatrix Consultants**

Fax Phone: **925-484-1096**Fax Phone: **510-663-4141**Phone: **925-484-1919**Phone: **510-663-4100**

cc:

Direct dial: **510-663-4192**Email: [Tgavigan@Geomatrix.com](mailto:Tgavigan@Geomatrix.com)Project No.: **6262.000.0**Project Name: **Canterbury Residential Development****REMARKS:**

Hard copy to follow    Urgent    For your review    Reply ASAP    Please comment

Afsaneh:

Geomatrix submitted 72 soil samples in three coolers under seven Geomatrix chain of custody forms (0989, 0975, 0985, 003794, 003800, 003792, 003795). 24 soil samples were selected for analysis; the remaining soil samples were placed on hold pending results of the 24 samples. We received the following lab reports as PDF files via email yesterday.

PCBs: Submission # 2000-03-0371 (12 total samples from borings GMX36C, GMX37C, GMX38C, GMX39C, three samples from each boring)  
 Submission #2000-03-0373 (9 total samples from borings GMX33B, GMX34B, GMX35C; three samples from each boring)  
 Submission #2000-03-0372 (3 total samples from boring GMX40C; three sample from each boring)

Pesticides: Submission #2000-03-0373 (9 total samples from borings GMX33B, GMX34B, GMX35C; three samples from each boring)  
 Submission #2000-03-0372 (3 total samples from boring GMX40C; three sample from each boring)

Metals: Submission # 2000-03-0371 (12 total samples from borings GMX36C, GMX37C, GMX38C, GMX39C; three samples from each boring)  
 Submission #2000-03-0373 (5 total samples from borings GMX33B, GMX34B; three samples from 33B and 2 samples from 34B )  
 Submission #2000-03-0372 (3 total samples from boring GMX40C; three sample from each boring)

- It appears that we are missing Submission #2000-03-0371 for pesticides.
- I also wanted to point out that sample GMX40C-3.0 should be GMX40C-8.0.

Please let me know when I can expect the missing submission.

Thank you!

Oakland, CA • San Leandro, CA • Fresno, CA • Sacramento, CA • Costa Mesa, CA • Austin, TX • Houston, TX  
 Minneapolis, MN • Detroit, MI • Buffalo, NY • Chicago, IL • Niagara Falls, ON • Kitchener-Waterloo, ON

chromalab

2000-03-03 T3

51094

CHAIN-OF-CUSTODY RECORD					Nº 0989	Date: 3/20/00	Page 1 of 3									
Project No.: 6262		ANALYSES					REMARKS									
Samplers (Signatures): <i>Bryan Tamm</i> <i>Tim Aug</i>		EPA Method 8010	EPA Method 8020	EPA Method 8020 (BTX only)	EPA Method 8240	EPA Method 8270	TPH as gasoline	TPH as diesel	Notes: T.H.P. 23-methyl Lube 2000x Pesticides / PCPs (8231/8023)	161C	MS/M.S.	Cooled	Soil (S), Water (W), or Vapor (V)	Acidified	Number of containers	Additional Comments
✓	3/20/00 0826	Gmx33C - 1.0										X	S N 1			1 1/2" x 6" stainless steel liner
✓	3/20/00 0828	Gmx33C - 4.0										X	S N 1			
✓	0831	Gmx33C - 7.0										X	S N 1			
✓	0856	Gmx33B - 1.0										X	S N 1			
✓	0859	Gmx33B - 4.0										X	S N 1			
✓	0903	Gmx33B - 7.0										X	S N 1			
✓	0945	Gmx34B - 1.0										X	S N 1			
✓	0952	Gmx34B - 4.0										X	S N 1			
✓	0956	Gmx34B - 7.0										X	S N 1			
✓	1016	Gmx34C - 1.0										X	S N 1			
✓	1021	Gmx34C - 4.0										X	S N 1			
✓	1037	Gmx34C - 7.0										X	S N 1			
					Turnaround time: 24-hr TAT	Results to: Ann Holbrow			Total No. of containers: 12					<b>RUSH</b>		
Relinquished by (signature): <i>Tim Aug</i>		Date: 3/20/00	Relinquished by (signature):			Date:	Relinquished by (signature):			Date:	Method of Shipment: Pickup at Warehouse					
Printed Name: Tom Gavigan		Time: 1715	Printed Name:			Time:	Printed Name:			Time:	Laboratory Comments and Log No.:					
Company: GEOMATRIX			Company:				Company:									
Received by (signature):		Date:	Received by (signature):			Date:	Received by (signature):			Date:						
Printed Name:		Time:	Printed Name:			Time:	Printed Name:			Time:						
Company:			Company:				Company:									

Chromakab

WTD-03-0373

51096

## **CHAIN-OF-CUSTODY RECORD**

Nº 0975

Date: 3/20/00

Page 2 of 3

2000-03-0573

J/09/96

CHAIN-OF-CUSTODY RECORD				No 0985		Date: 3/20/00	Page 3 of 3									
Project No.: 6262		ANALYSES				REMARKS										
Samplers (Signatures): <i>Bryan J. ... Tom Gavagan</i>		EPA Method 8010	EPA Method 8020	EPA Method 8020 (BTEX only)	EPA Method 8240	EPA Method 8270	TPH as gasoline	TPH as diesel	Title 24 metals (6000 ppm max) PerkinElmer / PCBS (3/20/00 - 3/20/00)	Hold	MS/MS	Cooled	Soil (S), Water (W), or Vapor (V)	Acidified	Number of containers	Additional Comments
Date	Time	Sample Number														
✓ 3/20/00	1439	GMX34A-1.0										X	S	N	1	1 1/2" x 6" stainless steel liner
✓	1444	GMX34A-4.0										X	S	N	1	
✓	1449	GMX34A-7.0										X	S	N	1	
✓	1505	GMX33A-1.0										X	S	N	1	
✓	1511	GMX33A-4.0										X	S	N	1	
✓	1515	GMX33A-7.0										X	S	N	1	
<i>REUSED</i>																
				Turnaround time: 24 hours		Results to: Ann Holbrook		Total No. of containers:		6						
Relinquished by (signature): <i>Bryan J. ...</i>		Date: 3/20/00	Relinquished by (signature):		Date:	Relinquished by (signature):		Date:	Method of Shipment: PICK UP AT WAREHOUSE		Laboratory Comments and Log No.:					
Printed Name: Tom GAVAGAN		Time: 1715	Printed Name:		Time:	Printed Name:		Time:								
Company: GEOMATRIX			Company:			Company:										
Received by (signature):		Date:	Received by (signature):		Date:	Received by (signature):		Date:								
Printed Name:		Time:	Printed Name:		Time:	Printed Name:		Time:								
Company:			Company:			Company:										



## **ATTACHMENT D**

---

**Laboratory Analytical Results – TPHmo, PAHs, and VOCs**

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Charlene Jensen, 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

March 28, 2000

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

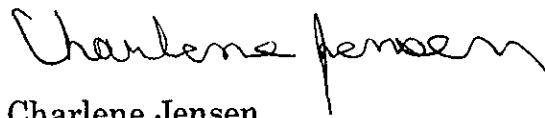
Dear Ms. Holbrow:

Included are the results from the testing of material submitted on March 21, 2000 from your 6262 project. 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 Jensen  
Chemist

Enclosures  
GMC0328R.DOC

## FRIEDMAN &amp; BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on March 21, 2000 by Friedman & Bruya, Inc. from the Geomatrix Consultants, Inc. 6262 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Geomatrix Consultants</u>	<u>Laboratory ID</u>	<u>Geomatrix Consultants</u>
003118-01	GMX33A-1.5	003118-37	GMX39A-1.5
003118-02	GMX33A-4.0	003118-38	GMX39A-5.0
003118-03	GMX33A-8.5	003118-39	GMX39A-8.5
003118-04	GMX38B-5.0	003118-40	GMX37A-1.5
003118-05	GMX38B-1.5	003118-41	GMX37A-5.0
003118-06	GMX38B-8.5	003118-42	GMX37A-10.0
003118-07	GMX38C-1.5	003118-43	GMX33C-1.5
003118-08	GMX38C-5.0	003118-44	GMX33C-4.5
003118-09	GMX38C-8.5	003118-45	GMX33C-7.5
003118-10	GMX37B-1.5	003118-46	GMX33B-1.5
003118-11	GMX37B-5.0	003118-47	GMX33B-4.5
003118-12	GMX37B-8.5	003118-48	GMX33B-7.5
003118-13	GMX37C-1.5	003118-49	GMX34B-1.5
003118-14	GMX37C-5.0	003118-50	GMX34B-4.5
003118-15	GMX37C-8.5	003118-51	GMX34B-7.5
003118-16	GMX36B-1.5	003118-52	GMX34C-1.5
003118-17	GMX36B-5.0	003118-53	GMX34C-4.5
003118-18	GMX36B-8.5	003118-54	GMX34C-7.5
003118-19	GMX36C-1.5	003118-55	GMX35C-1.5
003118-20	GMX36C-5.0	003118-56	GMX35C-4.5
003118-21	GMX36C-8.5	003118-57	GMX35C-7.5
003118-22	GMX39C-1.5	003118-58	GMX35B-1.5
003118-23	GMX39C-5.0	003118-59	GMX35B-4.5
003118-24	GMX39C-8.5	003118-60	GMX35B-7.5
003118-25	GMX39B-1.5	003118-61	GMX36A-1.5
003118-26	GMX39B-5.0	003118-62	GMX36A-4.5
003118-27	GMX39B-8.5	003118-63	GMX36A-7.5
003118-28	GMX40C-1.5	003118-64	GMX35A-1.5
003118-29	GMX40C-5.0	003118-65	GMX35A-4.5
003118-30	GMX40C-8.5	003118-66	GMX35A-7.5
003118-31	GMX40B-1.5	003118-67	GMX34A-1.5
003118-32	GMX40B-5.0	003118-68	GMX34A-4.5
003118-33	GMX40B-8.5	003118-69	GMX34A-7.5
003118-34	GMX40A-1.5	003118-70	GMX33A-1.5
003118-35	GMX40A-5.0	003118-71	GMX33A-4.5
003118-36	GMX40A-8.5	003118-72	GMX33A-7.5

For analysis by method 8260B an internal standard was outside of normal acceptance criteria in several samples due to matrix interference. Results and/or reporting limits for affected analytes are reported as estimates. All other quality control requirements were within acceptable limits.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/28/00

Date Received: 03/21/00

Project: 6262

Date Extracted: 03/21/00

Date Analyzed: 03/22/00

**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)**

<u>Sample ID</u> Laboratory ID	<u>Motor Oil Range</u>	<u>Surrogate</u> (% Recovery)
GMX38C-1.5 003118-07	410	99
GMX38C-5.0 003118-08	<50	92
GMX38C-8.5 003118-09	<50	91
GMX37C-1.5 003118-13	410	119
GMX37C-5.0 003118-14	<50	92
GMX37C-8.5 003118-15	<50	94
GMX36C-1.5 003118-19	240	136
GMX36C-5.0 003118-20	<50	92
GMX36C-8.5 003118-21	<50	97
GMX39C-1.5 003118-22	370	130
GMX39C-5.0 003118-23	<50	92
GMX39C-8.5 003118-24	<50	92

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/28/00

Date Received: 03/21/00

Project: 6262

Date Extracted: 03/21/00

Date Analyzed: 03/22/00

**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)**

<u>Sample ID</u> Laboratory ID	<u>Motor Oil Range</u>	<u>Surrogate</u> (% Recovery)
GMX40C-1.5 003118-28	340	96
GMX40C-5.0 003118-29	<50	92
GMX40C-8.5 003118-30	<50	99
GMX33B-1.5 003118-46	<50	102
GMX33B-4.5 003118-47	<50	99
GMX33B-7.5 003118-48	<50	91
GMX34B-1.5 003118-49	760	108
GMX34B-4.5 003118-50	<50	89
GMX34B-7.5 003118-51	<50	98
GMX35C-1.5 003118-55	210	115
GMX35C-4.5 003118-56	<50	100
GMX35C-7.5 003118-57	<50	105
Method Blank	<50	95
Method Blank	<50	90

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/28/00

Date Received: 03/21/00

Project: 6262

Date Extracted: 03/24/00

Date Analyzed: 03/24/00

**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  $\mu\text{g/g}$  (ppm)

<u>Sample ID</u> Laboratory ID	<u>Motor Oil Range</u>	<u>Surrogate</u> (% Recovery)
GMX39B-1.5 003118-25	150	109
GMX40B-1.5 003118-31	370	114
GMX40A-1.5 003118-34	75	113
Method Blank	<50	108

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX38C-1.5  
 Date Received: 03/21/00  
 Date Extracted: 03/21/00  
 Date Analyzed: 03/22/00  
 Matrix: Soil  
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
 Project: 6262  
 Lab ID: 003118-07  
 Data File: 032140.D  
 Instrument: 5972 -Ins  
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	110	50	150
1,2-Dichloroethane-d4	103	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	117	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	73 lc	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5
2,2-Dichloropropane	<5	Bromobenzene	<5
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	<5
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5
1,1-Dichloropropene	<5	tert-Butylbenzene	<5
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	6
Benzene	<5	sec-Butylbenzene	<5
Trichloroethene	<5	p-Isopropyltoluene	<5
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5
Dibromomethane	<5	1,2-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5
Toluene	<5	Hexachlorobutadiene	<5
trans-1,3-Dichloropropene	<5	Naphthalene	11
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5
2-Hexanone	<50		
1,3-Dichloropropane	<5		

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: GMX38C-5.0  
 Date Received: 03/21/00  
 Date Extracted: 03/21/00  
 Date Analyzed: 03/22/00  
 Matrix: Soil  
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
 Project: 6262  
 Lab ID: 003118-08  
 Data File: 032141.D  
 Instrument: 5972 -Ins  
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	109	50	150
1,2-Dichloroethane-d4	104	50	150
Toluene-d8	102	50	150
4-Bromofluorobenzene	115	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	86 lc	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5
2,2-Dichloropropane	<5	Bromobenzene	<5
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	<5
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5
1,1-Dichloropropene	<5	tert-Butylbenzene	<5
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	<5
Benzene	<5	sec-Butylbenzene	<5
Trichloroethene	<5	p-Isopropyltoluene	<5
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5
Dibromomethane	<5	1,2-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5
Toluene	<5	Hexachlorobutadiene	<5
trans-1,3-Dichloropropene	<5	Naphthalene	<5
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5
2-Hexanone	<50		
1,3-Dichloropropane	<5		

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: GMX38C-8.5  
 Date Received: 03/21/00  
 Date Extracted: 03/21/00  
 Date Analyzed: 03/21/00  
 Matrix: Soil  
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
 Project: 6262  
 Lab ID: 003118-09  
 Data File: 032112.D  
 Instrument: 5972 -Ins  
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	102	50	150
1,2-Dichloroethane-d4	94	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	55 lc	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5
2,2-Dichloropropane	<5	Bromobenzene	<5
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	<5
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5
1,1-Dichloropropene	<5	tert-Butylbenzene	<5
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	<5
Benzene	<5	sec-Butylbenzene	<5
Trichloroethene	<5	p-Isopropyltoluene	<5
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5
Dibromomethane	<5	1,2-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5
Toluene	<5	Hexachlorobutadiene	<5
trans-1,3-Dichloropropene	<5	Naphthalene	<5
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5
2-Hexanone	<50		
1,3-Dichloropropane	<5		

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: GMX37C-1.5  
 Date Received: 03/21/00  
 Date Extracted: 03/21/00  
 Date Analyzed: 03/22/00  
 Matrix: Soil  
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
 Project: 6262  
 Lab ID: 003118-13  
 Data File: 032143.D  
 Instrument: 5972 -Ins  
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	111	50	150
1,2-Dichloroethane-d4	111	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	114	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	79 lc	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5
2,2-Dichloropropane	<5	Bromobenzene	<5
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	<5
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5
1,1-Dichloropropene	<5	tert-Butylbenzene	<5
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	<5
Benzene	<5	sec-Butylbenzene	<5
Trichloroethene	<5	p-Isopropyltoluene	<5
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5
Dibromomethane	<5	1,2-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5
Toluene	<5	Hexachlorobutadiene	<5
trans-1,3-Dichloropropene	<5	Naphthalene	<5
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5
2-Hexanone	<50		
1,3-Dichloropropane	<5		

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: GMX37C-5.0  
 Date Received: 03/21/00  
 Date Extracted: 03/21/00  
 Date Analyzed: 03/21/00  
 Matrix: Soil  
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
 Project: 6262  
 Lab ID: 003118-14  
 Data File: 032114.D  
 Instrument: 5972 -Ins  
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	112	50	150
1,2-Dichloroethane-d4	111	50	150
Toluene-d8	104	50	150
4-Bromofluorobenzene	108	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	60 lc	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5
2,2-Dichloropropane	<5	Bromobenzene	<5
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	<5
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5
1,1-Dichloropropene	<5	tert-Butylbenzene	<5
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	<5
Benzene	<5	sec-Butylbenzene	<5
Trichloroethene	<5	p-Isopropyltoluene	<5
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5
Dibromomethane	<5	1,2-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5
Toluene	<5	Hexachlorobutadiene	<5
trans-1,3-Dichloropropene	<5	Naphthalene	<5
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5
2-Hexanone	<50		
1,3-Dichloropropane	<5		

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:	GMX37C-8.5	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/21/00	Lab ID:	003118-15
Date Analyzed:	03/21/00	Data File:	032115.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	105	50	150
1,2-Dichloroethane-d4	108	50	150
Toluene-d8	103	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5
2,2-Dichloropropane	<5	Bromobenzene	<5
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	<5
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5
1,1-Dichloropropene	<5	tert-Butylbenzene	<5
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	<5
Benzene	<5	sec-Butylbenzene	<5
Trichloroethene	<5	p-Isopropyltoluene	<5
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5
Dibromomethane	<5	1,2-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5
Toluene	<5	Hexachlorobutadiene	<5
trans-1,3-Dichloropropene	<5	Naphthalene	<5
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5
2-Hexanone	<50		
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX36C-1.5	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/21/00	Lab ID:	003118-19
Date Analyzed:	03/21/00	Data File:	032116.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	111	50	150
1,2-Dichloroethane-d4	108	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	116 I	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	59 lc	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5 I
2,2-Dichloropropane	<5	Bromobenzene	<5 I
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	<5 I
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5 I
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5 I
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5 I
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5 I
1,1-Dichloropropene	<5	tert-Butylbenzene	<5 I
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	<5 I
Benzene	<5	sec-Butylbenzene	<5 I
Trichloroethene	<5	p-Isopropyltoluene	<5 I
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5 I
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5 I
Dibromomethane	<5	1,2-Dichlorobenzene	<5 I
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5 I
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5 I
Toluene	<5	Hexachlorobutadiene	<5 I
trans-1,3-Dichloropropene	<5	Naphthalene	<5 I
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5 I
2-Hexanone	<50		
1,3-Dichloropropane	<5		

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

I - The internal standard associated with the analyte is out of control limits. The reporting limit or reported concentration is an estimate.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX36C-5.0  
 Date Received: 03/21/00  
 Date Extracted: 03/21/00  
 Date Analyzed: 03/21/00  
 Matrix: Soil  
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
 Project: 6262  
 Lab ID: 003118-20  
 Data File: 032117.D  
 Instrument: 5972 -Ins  
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	114	50	150
1,2-Dichloroethane-d4	109	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	114 I	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	70 lc	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5 I
2,2-Dichloropropane	<5	Bromobenzene	<5 I
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	<5 I
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5 I
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5 I
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5 I
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5 I
1,1-Dichloropropene	<5	tert-Butylbenzene	<5 I
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	<5 I
Benzene	<5	sec-Butylbenzene	<5 I
Trichloroethene	<5	p-Isopropyltoluene	<5 I
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5 I
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5 I
Dibromomethane	<5	1,2-Dichlorobenzene	<5 I
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5 I
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5 I
Toluene	<5	Hexachlorobutadiene	<5 I
trans-1,3-Dichloropropene	<5	Naphthalene	<5 I
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5 I
2-Hexanone	<50		
1,3-Dichloropropane	<5		

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

I - The internal standard associated with the analyte is out of control limits. The reporting limit or reported concentration is an estimate.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX36C-8.5  
 Date Received: 03/21/00  
 Date Extracted: 03/21/00  
 Date Analyzed: 03/21/00  
 Matrix: Soil  
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
 Project: 6262  
 Lab ID: 003118-21  
 Data File: 032118.D  
 Instrument: 5972 -Ins  
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	108	50	150
1,2-Dichloroethane-d4	102	50	150
Toluene-d8	103	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	74 lc	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5
2,2-Dichloropropane	<5	Bromobenzene	<5
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	<5
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5
1,1-Dichloropropene	<5	tert-Butylbenzene	<5
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	<5
Benzene	<5	sec-Butylbenzene	<5
Trichloroethene	<5	p-Isopropyltoluene	<5
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5
Dibromomethane	<5	1,2-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5
Toluene	<5	Hexachlorobutadiene	<5
trans-1,3-Dichloropropene	<5	Naphthalene	<5
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5
2-Hexanone	<50		
1,3-Dichloropropane	<5		

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: GMX39C-1.5  
 Date Received: 03/21/00  
 Date Extracted: 03/21/00  
 Date Analyzed: 03/21/00  
 Matrix: Soil  
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
 Project: 6262  
 Lab ID: 003118-22  
 Data File: 032119.D  
 Instrument: 5972 -Ins  
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	109	50	150
1,2-Dichloroethane-d4	109	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	109	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5
2,2-Dichloropropane	<5	Bromobenzene	<5
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	<5
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5
1,1-Dichloropropene	<5	tert-Butylbenzene	<5
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	<5
Benzene	<5	sec-Butylbenzene	<5
Trichloroethene	<5	p-Isopropyltoluene	<5
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5
Dibromomethane	<5	1,2-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5
Toluene	<5	Hexachlorobutadiene	<5
trans-1,3-Dichloropropene	<5	Naphthalene	<5
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5
2-Hexanone	<50		
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX39C-5.0  
 Date Received: 03/21/00  
 Date Extracted: 03/21/00  
 Date Analyzed: 03/21/00  
 Matrix: Soil  
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
 Project: 6262  
 Lab ID: 003118-23  
 Data File: 032120.D  
 Instrument: 5972 -Ins  
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	110	50	150
1,2-Dichloroethane-d4	110	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	109	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	56 lc	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5
2,2-Dichloropropane	<5	Bromobenzene	<5
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	<5
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5
1,1-Dichloropropene	<5	tert-Butylbenzene	<5
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	<5
Benzene	<5	sec-Butylbenzene	<5
Trichloroethene	<5	p-Isopropyltoluene	<5
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5
Dibromomethane	<5	1,2-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5
Toluene	<5	Hexachlorobutadiene	<5
trans-1,3-Dichloropropene	<5	Naphthalene	<5
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5
2-Hexanone	<50		
1,3-Dichloropropane	<5		

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: GMX39C-8.5  
 Date Received: 03/21/00  
 Date Extracted: 03/21/00  
 Date Analyzed: 03/21/00  
 Matrix: Soil  
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
 Project: 6262  
 Lab ID: 003118-24  
 Data File: 032121.D  
 Instrument: 5972 -Ins  
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	112	50	150
1,2-Dichloroethane-d4	110	50	150
Toluene-d8	104	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	60 lc	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5
2,2-Dichloropropane	<5	Bromobenzene	<5
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	<5
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5
1,1-Dichloropropene	<5	tert-Butylbenzene	<5
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	<5
Benzene	<5	sec-Butylbenzene	<5
Trichloroethene	<5	p-Isopropyltoluene	<5
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5
Dibromomethane	<5	1,2-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5
Toluene	<5	Hexachlorobutadiene	<5
trans-1,3-Dichloropropene	<5	Naphthalene	<5
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5
2-Hexanone	<50		
1,3-Dichloropropane	<5		

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: GMX40C-1.5  
 Date Received: 03/21/00  
 Date Extracted: 03/21/00  
 Date Analyzed: 03/22/00  
 Matrix: Soil  
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
 Project: 6262  
 Lab ID: 003118-28  
 Data File: 032149.D  
 Instrument: 5972 -Ins  
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	116	50	150
1,2-Dichloroethane-d4	112	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	120 I	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	120 lc	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5 I
2,2-Dichloropropane	<5	Bromobenzene	<5 I
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	13 I
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5 I
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5 I
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5 I
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5 I
1,1-Dichloropropene	<5	tert-Butylbenzene	<5 I
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	22 I
Benzene	<5	sec-Butylbenzene	<5 I
Trichloroethene	<5	p-Isopropyltoluene	<5 I
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5 I
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5 I
Dibromomethane	<5	1,2-Dichlorobenzene	<5 I
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5 I
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5 I
Toluene	<5	Hexachlorobutadiene	<5 I
trans-1,3-Dichloropropene	<5	Naphthalene	11 I
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5 I
2-Hexanone	<50		
1,3-Dichloropropane	<5		

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

I - The internal standard associated with the analyte is out of control limits. The reporting limit or reported concentration is an estimate.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX40C-5.0  
 Date Received: 03/21/00  
 Date Extracted: 03/21/00  
 Date Analyzed: 03/22/00  
 Matrix: Soil  
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
 Project: 6262  
 Lab ID: 003118-29  
 Data File: 032129.D  
 Instrument: 5972 -Ins  
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	108	50	150
1,2-Dichloroethane-d4	109	50	150
Toluene-d8	103	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5
2,2-Dichloropropane	<5	Bromobenzene	<5
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	<5
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5
1,1-Dichloropropene	<5	tert-Butylbenzene	<5
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	<5
Benzene	<5	sec-Butylbenzene	<5
Trichloroethene	<5	p-Isopropyltoluene	<5
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5
Dibromomethane	<5	1,2-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5
Toluene	<5	Hexachlorobutadiene	<5
trans-1,3-Dichloropropene	<5	Naphthalene	<5
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5
2-Hexanone	<50		
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	GMX40C-8.5	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/21/00	Lab ID:	003118-30
Date Analyzed:	03/22/00	Data File:	032130.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	110	50	150
1,2-Dichloroethane-d4	109	50	150
Toluene-d8	103	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	54 lc	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5
2,2-Dichloropropane	<5	Bromobenzene	<5
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	<5
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5
1,1-Dichloropropene	<5	tert-Butylbenzene	<5
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	<5
Benzene	<5	sec-Butylbenzene	<5
Trichloroethene	<5	p-Isopropyltoluene	<5
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5
Dibromomethane	<5	1,2-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5
Toluene	<5	Hexachlorobutadiene	<5
trans-1,3-Dichloropropene	<5	Naphthalene	<5
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5
2-Hexanone	<50		
1,3-Dichloropropane	<5		

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: GMX33B-1.5  
 Date Received: 03/21/00  
 Date Extracted: 03/21/00  
 Date Analyzed: 03/22/00  
 Matrix: Soil  
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
 Project: 6262  
 Lab ID: 003118-46  
 Data File: 032131.D  
 Instrument: 5972 -Ins  
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	112	50	150
1,2-Dichloroethane-d4	110	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	111	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	55 lc	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5
2,2-Dichloropropane	<5	Bromobenzene	<5
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	<5
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5
1,1-Dichloropropene	<5	tert-Butylbenzene	<5
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	<5
Benzene	<5	sec-Butylbenzene	<5
Trichloroethene	<5	p-Isopropyltoluene	<5
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5
Dibromomethane	<5	1,2-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5
Toluene	<5	Hexachlorobutadiene	<5
trans-1,3-Dichloropropene	<5	Naphthalene	<5
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5
2-Hexanone	<50		
1,3-Dichloropropane	<5		

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: GMX33B-4.5  
 Date Received: 03/21/00  
 Date Extracted: 03/21/00  
 Date Analyzed: 03/22/00  
 Matrix: Soil  
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
 Project: 6262  
 Lab ID: 003118-47  
 Data File: 032132.D  
 Instrument: 5972 -Ins  
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	109	50	150
1,2-Dichloroethane-d4	108	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	102	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5
2,2-Dichloropropane	<5	Bromobenzene	<5
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	<5
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5
1,1-Dichloropropene	<5	tert-Butylbenzene	<5
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	<5
Benzene	<5	sec-Butylbenzene	<5
Trichloroethene	<5	p-Isopropyltoluene	<5
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5
Dibromomethane	<5	1,2-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5
Toluene	<5	Hexachlorobutadiene	<5
trans-1,3-Dichloropropene	<5	Naphthalene	<5
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5
2-Hexanone	<50		
1,3-Dichloropropane	<5		

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX33B-7.5  
 Date Received: 03/21/00  
 Date Extracted: 03/21/00  
 Date Analyzed: 03/22/00  
 Matrix: Soil  
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
 Project: 6262  
 Lab ID: 003118-48  
 Data File: 032133.D  
 Instrument: 5972 -Ins  
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	112	50	150
1,2-Dichloroethane-d4	114	50	150
Toluene-d8	103	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5
2,2-Dichloropropane	<5	Bromobenzene	<5
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	<5
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5
1,1-Dichloropropene	<5	tert-Butylbenzene	<5
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	<5
Benzene	<5	sec-Butylbenzene	<5
Trichloroethene	<5	p-Isopropyltoluene	<5
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5
Dibromomethane	<5	1,2-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5
Toluene	<5	Hexachlorobutadiene	<5
trans-1,3-Dichloropropene	<5	Naphthalene	<5
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5
2-Hexanone	<50		
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX34B-1.5  
 Date Received: 08/21/00  
 Date Extracted: 03/21/00  
 Date Analyzed: 03/22/00  
 Matrix: Soil  
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
 Project: 6262  
 Lab ID: 003118-49  
 Data File: 032134.D  
 Instrument: 5972 -Ins  
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	116	50	150
1,2-Dichloroethane-d4	114	50	150
Toluene-d8	97	50	150
4-Bromofluorobenzene	116 I	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	55 lc	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5 I
2,2-Dichloropropane	<5	Bromobenzene	<5 I
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	<5 I
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5 I
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5 I
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5 I
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5 I
1,1-Dichloropropene	<5	tert-Butylbenzene	<5 I
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	<5 I
Benzene	<5	sec-Butylbenzene	<5 I
Trichloroethene	<5	p-Isopropyltoluene	<5 I
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5 I
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5 I
Dibromomethane	<5	1,2-Dichlorobenzene	<5 I
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5 I
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5 I
Toluene	<5	Hexachlorobutadiene	<5 I
trans-1,3-Dichloropropene	<5	Naphthalene	<5 I
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5 I
2-Hexanone	<50		
1,3-Dichloropropane	<5		

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

I - The internal standard associated with the analyte is out of control limits. The reporting limit or reported concentration is an estimate.

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX34B-4.5  
 Date Received: 03/21/00  
 Date Extracted: 03/21/00  
 Date Analyzed: 03/22/00  
 Matrix: Soil  
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
 Project: 6262  
 Lab ID: 003118-50  
 Data File: 032135.D  
 Instrument: 5972 -Ins  
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	113	50	150
1,2-Dichloroethane-d4	111	50	150
Toluene-d8	104	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	54 lc	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5
2,2-Dichloropropane	<5	Bromobenzene	<5
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	<5
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5
1,1-Dichloropropene	<5	tert-Butylbenzene	<5
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	<5
Benzene	<5	sec-Butylbenzene	<5
Trichloroethene	<5	p-Isopropyltoluene	<5
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5
Dibromomethane	<5	1,2-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5
Toluene	<5	Hexachlorobutadiene	<5
trans-1,3-Dichloropropene	<5	Naphthalene	<5
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5
2-Hexanone	<50		
1,3-Dichloropropane	<5		

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:	GMX34B-7.5	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/21/00	Lab ID:	003118-51
Date Analyzed:	03/22/00	Data File:	032136.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	110	50	150
1,2-Dichloroethane-d4	110	50	150
Toluene-d8	102	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	51 lc	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5
2,2-Dichloropropane	<5	Bromobenzene	<5
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	<5
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5
1,1-Dichloropropene	<5	tert-Butylbenzene	<5
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	<5
Benzene	<5	sec-Butylbenzene	<5
Trichloroethene	<5	p-Isopropyltoluene	<5
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5
Dibromomethane	<5	1,2-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5
Toluene	<5	Hexachlorobutadiene	<5
trans-1,3-Dichloropropene	<5	Naphthalene	<5
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5
2-Hexanone	<50		
1,3-Dichloropropane	<5		

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: GMX35C-1.5  
 Date Received: 03/21/00  
 Date Extracted: 03/21/00  
 Date Analyzed: 03/22/00  
 Matrix: Soil  
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
 Project: 6262  
 Lab ID: 003118-55  
 Data File: 032137.D  
 Instrument: 5972 -Ins  
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	109	50	150
1,2-Dichloroethane-d4	108	50	150
Toluene-d8	105	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5
2,2-Dichloropropane	<5	Bromobenzene	<5
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	<5
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5
1,1-Dichloropropene	<5	tert-Butylbenzene	<5
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	<5
Benzene	<5	sec-Butylbenzene	<5
Trichloroethene	<5	p-Isopropyltoluene	<5
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5
Dibromomethane	<5	1,2-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5
Toluene	<5	Hexachlorobutadiene	<5
trans-1,3-Dichloropropene	<5	Naphthalene	<5
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5
2-Hexanone	<50		
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX35C-4.5  
 Date Received: 03/21/00  
 Date Extracted: 03/21/00  
 Date Analyzed: 03/22/00  
 Matrix: Soil  
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
 Project: 6262  
 Lab ID: 003118-56  
 Data File: 032138.D  
 Instrument: 5972 -Ins  
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	111	50	150
1,2-Dichloroethane-d4	109	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	104 I	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5 I
2,2-Dichloropropane	<5	Bromobenzene	<5 I
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	<5 I
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5 I
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5 I
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5 I
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5 I
1,1-Dichloropropene	<5	tert-Butylbenzene	<5 I
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	<5 I
Benzene	<5	sec-Butylbenzene	<5 I
Trichloroethene	<5	p-Isopropyltoluene	<5 I
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5 I
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5 I
Dibromomethane	<5	1,2-Dichlorobenzene	<5 I
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5 I
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5 I
Toluene	<5	Hexachlorobutadiene	<5 I
trans-1,3-Dichloropropene	<5	Naphthalene	<5 I
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5 I
2-Hexanone	<50		
1,3-Dichloropropane	<5		

I - The internal standard associated with the analyte is out of control limits. The reporting limit or reported concentration is an estimate.

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: GMX35C-7.5  
 Date Received: 03/21/00  
 Date Extracted: 03/21/00  
 Date Analyzed: 03/22/00  
 Matrix: Soil  
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
 Project: 6262  
 Lab ID: 003118-57  
 Data File: 032139.D  
 Instrument: 5972 -Ins  
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	107	50	150
1,2-Dichloroethane-d4	104	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5
2,2-Dichloropropane	<5	Bromobenzene	<5
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	<5
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5
1,1-Dichloropropene	<5	tert-Butylbenzene	<5
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	<5
Benzene	<5	sec-Butylbenzene	<5
Trichloroethene	<5	p-Isopropyltoluene	<5
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5
Dibromomethane	<5	1,2-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5
Toluene	<5	Hexachlorobutadiene	<5
trans-1,3-Dichloropropene	<5	Naphthalene	<5
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5
2-Hexanone	<50		
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	Method Blank	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/21/00	Lab ID:	00-216 mb2
Date Analyzed:	03/21/00	Data File:	032107.D
Matrix:	Soil	Instrument:	5972 -Ins
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	102	50	150
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	93	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5
2,2-Dichloropropane	<5	Bromobenzene	<5
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	<5
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5
1,1-Dichloropropene	<5	tert-Butylbenzene	<5
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	<5
Benzene	<5	sec-Butylbenzene	<5
Trichloroethene	<5	p-Isopropyltoluene	<5
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5
Dibromomethane	<5	1,2-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5
Toluene	<5	Hexachlorobutadiene	<5
trans-1,3-Dichloropropene	<5	Naphthalene	<5
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5
2-Hexanone	<50		
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID: Method Blank  
 Date Received: 03/21/00  
 Date Extracted: 03/21/00  
 Date Analyzed: 03/21/00  
 Matrix: Soil  
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
 Project: 6262  
 Lab ID: 00-219 mb  
 Data File: 032109.D  
 Instrument: 5972 -Ins  
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Dibromofluoromethane	103	50	150
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/kg (ppb)	Compounds:	Concentration ug/kg (ppb)
Dichlorodifluoromethane	<5	Tetrachloroethene	<5
Chloromethane	<5	Dibromochloromethane	<5
Vinyl chloride	<5	1,2-Dibromoethane (EDB)	<5
Bromomethane	<5	Chlorobenzene	<5
Chloroethane	<5	Ethylbenzene	<5
Trichlorofluoromethane	<5	1,1,1,2-Tetrachloroethane	<5
Acetone	<50	m,p-Xylene	<5
1,1-Dichloroethene	<5	o-Xylene	<5
Methylene chloride	<50	Styrene	<5
Methyl t-butyl ether (MTBE)	<5	Isopropylbenzene	<5
trans-1,2-Dichloroethene	<5	Bromoform	<5
1,1-Dichloroethane	<5	n-Propylbenzene	<5
2,2-Dichloropropane	<5	Bromobenzene	<5
cis-1,2-Dichloroethene	<5	1,3,5-Trimethylbenzene	<5
Chloroform	<5	1,1,2,2-Tetrachloroethane	<5
2-Butanone (MEK)	<50	1,2,3-Trichloropropane	<5
1,2-Dichloroethane (EDC)	<5	2-Chlorotoluene	<5
1,1,1-Trichloroethane	<5	4-Chlorotoluene	<5
1,1-Dichloropropene	<5	tert-Butylbenzene	<5
Carbon Tetrachloride	<5	1,2,4-Trimethylbenzene	<5
Benzene	<5	sec-Butylbenzene	<5
Trichloroethene	<5	p-Isopropyltoluene	<5
1,2-Dichloropropane	<5	1,3-Dichlorobenzene	<5
Bromodichloromethane	<5	1,4-Dichlorobenzene	<5
Dibromomethane	<5	1,2-Dichlorobenzene	<5
4-Methyl-2-pentanone	<50	1,2-Dibromo-3-chloropropane	<5
cis-1,3-Dichloropropene	<5	1,2,4-Trichlorobenzene	<5
Toluene	<5	Hexachlorobutadiene	<5
trans-1,3-Dichloropropene	<5	Naphthalene	<5
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<5
2-Hexanone	<50		
1,3-Dichloropropane	<5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX38C-1.5	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/21/00	Lab ID:	003118-07 1/10
Date Analyzed:	03/22/00	Data File:	032131.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	95	50	150
Benzo(a)anthracene-d12	115	50	150

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	53
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.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID: GMX38C-5.0  
Date Received: 03/21/00  
Date Extracted: 03/21/00  
Date Analyzed: 03/21/00  
Matrix: Soil  
Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
Project: 6262  
Lab ID: 003118-08  
Data File: 032114.D  
Instrument: GCMS#2  
Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	67	50	150
Benzo(a)anthracene-d12	91	50	150

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:	GMX38C-8.5	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/21/00	Lab ID:	003118-09
Date Analyzed:	03/21/00	Data File:	032115.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	69	50	150
Benzo(a)anthracene-d12	89	50	150

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: GMX37C-1.5  
Date Received: 03/21/00  
Date Extracted: 03/21/00  
Date Analyzed: 03/22/00  
Matrix: Soil  
Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
Project: 6262  
Lab ID: 003118-13 1/10  
Data File: 032132.D  
Instrument: GCMS#2  
Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	96	50	150
Benzo(a)anthracene-d12	109	50	150

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.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX37C-5.0	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/21/00	Lab ID:	003118-14
Date Analyzed:	03/21/00	Data File:	032116.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	70	50	150
Benzo(a)anthracene-d12	91	50	150

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:	GMX37C-8.5	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/21/00	Lab ID:	003118-15
Date Analyzed:	03/21/00	Data File:	032117.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	67	50	150
Benzo(a)anthracene-d12	89	50	150

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:	GMX36C-1.5	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/21/00	Lab ID:	003118-19 1/100
Date Analyzed:	03/22/00	Data File:	032204.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	0 vo	50	150
Benzo(a)anthracene-d12	110	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<500
Acenaphthylene	<500
Acenaphthene	<500
Fluorene	<500
Phenanthrene	<500
Anthracene	<500
Fluoranthene	<500
Pyrene	<500
Benz(a)anthracene	<500
Chrysene	<500
Benzo(b)fluoranthene	<500
Benzo(k)fluoranthene	<500
Benzo(a)pyrene	<500
Indeno(1,2,3-cd)pyrene	<500
Dibenzo(a,h)anthracene	<500
Benzo(g,h,i)perylene	<500

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.

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX36C-5.0	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/21/00	Lab ID:	003118-20
Date Analyzed:	03/21/00	Data File:	032118.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	70	50	150
Benzo(a)anthracene-d12	87	50	150

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:	GMX36C-8.5	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/21/00	Lab ID:	003118-21
Date Analyzed:	03/21/00	Data File:	032119.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	70	50	150
Benzo(a)anthracene-d12	90	50	150

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: GMX39C-1.5  
Date Received: 03/21/00  
Date Extracted: 03/21/00  
Date Analyzed: 03/22/00  
Matrix: Soil  
Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
Project: 6262  
Lab ID: 003118-22 1/10  
Data File: 032134.D  
Instrument: GCMS#2  
Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	100	50	150
Benzo(a)anthracene-d12	112	50	150

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.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX39C-5.0	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/21/00	Lab ID:	003118-23
Date Analyzed:	03/21/00	Data File:	032120.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	67	50	150
Benzo(a)anthracene-d12	88	50	150

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: GMX39C-8.5  
Date Received: 03/21/00  
Date Extracted: 03/21/00  
Date Analyzed: 03/21/00  
Matrix: Soil  
Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
Project: 6262  
Lab ID: 003118-24  
Data File: 032124.D  
Instrument: GCMS#2  
Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	66	50	150
Benzo(a)anthracene-d12	90	50	150

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:	GMX39B-1.5	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/24/00	Lab ID:	003118-25 1/10
Date Analyzed:	03/24/00	Data File:	032406.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	99	50	150
Benzo(a)anthracene-d12	109	50	150

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.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID: GMX40C-1.5  
Date Received: 03/21/00  
Date Extracted: 03/21/00  
Date Analyzed: 03/22/00  
Matrix: Soil  
Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
Project: 6262  
Lab ID: 003118-28 1/10  
Data File: 032135.D  
Instrument: GCMS#2  
Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	96	50	150
Benzo(a)anthracene-d12	126	50	150

Compounds:	Concentration ug/kg (ppb)
Naphthalene	<50
Acenaphthylene	<50
Acenaphthene	<50
Fluorene	61
Phenanthrene	370
Anthracene	55
Fluoranthene	71
Pyrene	410
Benz(a)anthracene	170
Chrysene	340
Benzo(b)fluoranthene	77
Benzo(k)fluoranthene	<50
Benzo(a)pyrene	140
Indeno(1,2,3-cd)pyrene	<50
Dibenzo(a,h)anthracene	<50
Benzo(g,h,i)perylene	120

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.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX40C-5.0	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/21/00	Lab ID:	003118-29
Date Analyzed:	03/21/00	Data File:	032125.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	76	50	150
Benzo(a)anthracene-d12	102	50	150

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:	GMX40C-8.5	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/21/00	Lab ID:	003118-30
Date Analyzed:	03/21/00	Data File:	032126.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	75	50	150
Benzo(a)anthracene-d12	98	50	150

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:	GMX40B-1.5	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/24/00	Lab ID:	003118-31 1/10
Date Analyzed:	03/24/00	Data File:	032407.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	104	50	150
Benzo(a)anthracene-d12	115	50	150

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.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX40A-1.5	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/24/00	Lab ID:	003118-34 1/10
Date Analyzed:	03/24/00	Data File:	032408.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	109	50	150
Benzo(a)anthracene-d12	114	50	150

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.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID: GMX33B-1.5  
Date Received: 03/21/00  
Date Extracted: 03/21/00  
Date Analyzed: 03/22/00  
Matrix: Soil  
Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
Project: 6262  
Lab ID: 003118-46 qc 1/10  
Data File: 032138.D  
Instrument: GCMS#2  
Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	89	50	150
Benzo(a)anthracene-d12	105	50	150

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.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX33B-4.5	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/21/00	Lab ID:	003118-47
Date Analyzed:	03/22/00	Data File:	032203.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	77	50	150
Benzo(a)anthracene-d12	110	50	150

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:	GMX33B-7.5	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/21/00	Lab ID:	003118-48 qc
Date Analyzed:	03/22/00	Data File:	032140.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	70	50	150
Benzo(a)anthracene-d12	104	50	150

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:	GMX34B-1.5	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/21/00	Lab ID:	003118-49 1/10
Date Analyzed:	03/22/00	Data File:	032136.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	92	50	150
Benzo(a)anthracene-d12	105	50	150

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	58

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.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID: GMX34B-4.5  
Date Received: 03/21/00  
Date Extracted: 03/21/00  
Date Analyzed: 03/21/00  
Matrix: Soil  
Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
Project: 6262  
Lab ID: 003118-50  
Data File: 032127.D  
Instrument: GCMS#2  
Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	72	50	150
Benzo(a)anthracene-d12	102	50	150

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:	GMX34B-7.5	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/21/00	Lab ID:	003118-51
Date Analyzed:	03/21/00	Data File:	032128.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	73	50	150
Benzo(a)anthracene-d12	102	50	150

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 &amp; BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

## Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID: GMX35C-1.5  
Date Received: 03/21/00  
Date Extracted: 03/21/00  
Date Analyzed: 03/22/00  
Matrix: Soil  
Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
Project: 6262  
Lab ID: 003118-55 1/10  
Data File: 032137.D  
Instrument: GCMS#2  
Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	101	50	150
Benzo(a)anthracene-d12	114	50	150

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.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID:	GMX35C-7.5	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/21/00	Lab ID:	003118-57
Date Analyzed:	03/22/00	Data File:	032130.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	71	50	150
Benzo(a)anthracene-d12	100	50	150

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:	GMX35C-4.5	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/21/00	Lab ID:	003118-56
Date Analyzed:	03/22/00	Data File:	032129.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	71	50	150
Benzo(a)anthracene-d12	102	50	150

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:	Method Blank	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/21/00	Lab ID:	mb 00-223
Date Analyzed:	03/21/00	Data File:	032112.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	69	50	150
Benzo(a)anthracene-d12	95	50	150

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:	Method Blank	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/21/00	Lab ID:	mb 00-224
Date Analyzed:	03/21/00	Data File:	032113.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	69	50	150
Benzo(a)anthracene-d12	92	50	150

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:	Method Blank	Client:	Geomatrix Consultants, Inc.
Date Received:	03/21/00	Project:	6262
Date Extracted:	03/24/00	Lab ID:	mb2 00-224
Date Analyzed:	03/24/00	Data File:	032405.D
Matrix:	Soil	Instrument:	GCMS#2
Units:	ug/kg (ppb)	Operator:	YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	69	50	150
Benzo(a)anthracene-d12	99	50	150

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

Date of Report: 03/28/00

Date Received: 03/21/00

Project: 6262

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

Laboratory Code: 003118-48 (Duplicate) Silica gel

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Motor Oil	µg/g (ppm)	<50	<50	nm	0-20

Laboratory Code: 003118-48 (Matrix Spike) Silica gel

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	Relative Percent Difference
Motor Oil	µg/g (ppm)	500	<50	93	90	41-170	3

Laboratory Code: Laboratory Control Sample Silica gel

Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	Relative Percent Difference
Motor Oil	µg/g (ppm)	500	88	92	59-138	4

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/28/00

Date Received: 03/21/00

Project: 6262

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

Laboratory Code: 003118-47 (Duplicate) Silica gel

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Motor Oil	µg/g (ppm)	<50	<50	nm	0-20

Laboratory Code: 003118-47 (Matrix Spike) Silica gel

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	Relative Percent Difference
Motor Oil	µg/g (ppm)	500	<50	95	103	41-170	8

Laboratory Code: 003118-46 (Matrix Spike) Silica gel

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	Relative Percent Difference
Motor Oil	µg/g (ppm)	500	<50	107	90	41-170	17

Laboratory Code: Laboratory Control Sample Silica gel

Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	Relative Percent Difference
Motor Oil	µg/g (ppm)	500	93	94	59-138	1

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/28/00

Date Received: 03/21/00

Project: 6262

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

Laboratory Code: 003118-20 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
1,1-Dichloroethene	µg/kg (ppb)	<5	<5	nm	0-20
Benzene	µg/kg (ppb)	<5	<5	nm	0-20
Trichloroethene	µg/kg (ppb)	<5	<5	nm	0-20
Toluene	µg/kg (ppb)	<5	<5	nm	0-20
Chlorobenzene	µg/kg (ppb)	<5	<5	nm	0-20
Methyl t-butyl ether (MTBE)	µg/kg (ppb)	<5	<5	nm	0-20

Laboratory Code: 003118-46 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	RPD
1,1-Dichloroethene	µg/kg (ppb)	50	<5	110	93	50-150	17
Benzene	µg/kg (ppb)	50	<5	103	90	50-150	14
Trichloroethene	µg/kg (ppb)	50	<5	91	83	50-150	10
Toluene	µg/kg (ppb)	50	<5	92	84	50-150	9
Chlorobenzene	µg/kg (ppb)	50	<5	88	79	50-150	11
Methyl t-butyl ether (MTBE)	µg/kg (ppb)	50	<5	97	97	50-150	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	RPD
1,1-Dichloroethene	µg/kg (ppb)	50	90	99	50-150	10
Benzene	µg/kg (ppb)	50	89	95	50-150	6
Trichloroethene	µg/kg (ppb)	50	86	92	50-150	7
Toluene	µg/kg (ppb)	50	80	86	50-150	8
Chlorobenzene	µg/kg (ppb)	50	84	91	50-150	8
Methyl t-butyl ether (MTBE)	µg/kg (ppb)	50	109	114	65-135	4

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

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 03/28/00

Date Received: 03/21/00

Project: 6262

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

Laboratory Code: 003118-47 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
1,1-Dichloroethene	µg/kg (ppb)	<5	<5	nm	0-20
Benzene	µg/kg (ppb)	<5	<5	nm	0-20
Trichloroethene	µg/kg (ppb)	<5	<5	nm	0-20
Toluene	µg/kg (ppb)	<5	<5	nm	0-20
Chlorobenzene	µg/kg (ppb)	<5	<5	nm	0-20
Methyl t-butyl ether (MTBE)	µg/kg (ppb)	<5	<5	nm	0-20

Laboratory Code: 003118-47 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	RPD
1,1-Dichloroethene	µg/kg (ppb)	50	<5	112	98	50-150	13
Benzene	µg/kg (ppb)	50	<5	99	99	50-150	0
Trichloroethene	µg/kg (ppb)	50	<5	92	93	50-150	1
Toluene	µg/kg (ppb)	50	<5	94	93	50-150	1
Chlorobenzene	µg/kg (ppb)	50	<5	91	95	50-150	4
Methyl t-butyl ether (MTBE)	µg/kg (ppb)	50	<5	96	108	50-150	12

Laboratory Code: 003118-48 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	RPD
1,1-Dichloroethene	µg/kg (ppb)	50	<5	117	122	50-150	4
Benzene	µg/kg (ppb)	50	<5	113	113	50-150	0
Trichloroethene	µg/kg (ppb)	50	<5	105	106	50-150	1
Toluene	µg/kg (ppb)	50	<5	106	106	50-150	0
Chlorobenzene	µg/kg (ppb)	50	<5	102	98	50-150	3
Methyl t-butyl ether (MTBE)	µg/kg (ppb)	50	<5	79	82	50-150	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	RPD
1,1-Dichloroethene	µg/kg (ppb)	50	95	106	50-150	10
Benzene	µg/kg (ppb)	50	95	100	50-150	6
Trichloroethene	µg/kg (ppb)	50	92	97	50-150	4
Toluene	µg/kg (ppb)	50	86	90	50-150	5
Chlorobenzene	µg/kg (ppb)	50	91	94	50-150	3
Methyl t-butyl ether (MTBE)	µg/kg (ppb)	50	113	114	65-135	1

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/28/00

Date Received: 03/21/00

Project: 6262

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

Laboratory Code: 003118-46 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD	Acceptance Criteria
Naphthalene	µg/kg (ppb)	<50	<50	nm	0-20
Acenaphthylene	µg/kg (ppb)	<50	<50	nm	0-20
Acenaphthene	µg/kg (ppb)	<50	<50	nm	0-20
Fluorene	µg/kg (ppb)	<50	<50	nm	0-20
Phenanthrene	µg/kg (ppb)	<50	<50	nm	0-20
Anthracene	µg/kg (ppb)	<50	<50	nm	0-20
Fluoranthene	µg/kg (ppb)	<50	<50	nm	0-20
Pyrene	µg/kg (ppb)	<50	<50	nm	0-20
Benz(a)anthracene	µg/kg (ppb)	<50	<50	nm	0-20
Chrysene	µg/kg (ppb)	<50	<50	nm	0-20
Benzo(b)fluoranthene	µg/kg (ppb)	<50	<50	nm	0-20
Benzo(k)fluoranthene	µg/kg (ppb)	<50	<50	nm	0-20
Benzo(a)pyrene	µg/kg (ppb)	<50	<50	nm	0-20
Indeno(1,2,3-cd)pyrene	µg/kg (ppb)	<50	<50	nm	0-20
Dibenzo(a,h)anthracene	µg/kg (ppb)	<50	<50	nm	0-20
Benzo(g,h,i)perylene	µg/kg (ppb)	<50	<50	nm	0-20

Laboratory Code: 003118-46 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	RPD
Naphthalene	µg/kg (ppb)	170	<50	92	97	54-110	5
Acenaphthylene	µg/kg (ppb)	170	<50	94	98	58-114	4
Acenaphthene	µg/kg (ppb)	170	<50	90	93	58-112	3
Fluorene	µg/kg (ppb)	170	<50	87	93	59-113	7
Phenanthrene	µg/kg (ppb)	170	<50	93	93	62-110	0
Anthracene	µg/kg (ppb)	170	<50	83	94	61-111	12
Fluoranthene	µg/kg (ppb)	170	<50	95	103	63-114	8
Pyrene	µg/kg (ppb)	170	<50	99	108	59-110	9
Benz(a)anthracene	µg/kg (ppb)	170	<50	98	102	60-116	4
Chrysene	µg/kg (ppb)	170	<50	91	99	57-118	8
Benzo(b)fluoranthene	µg/kg (ppb)	170	<50	104	112	52-133	7
Benzo(k)fluoranthene	µg/kg (ppb)	170	<50	110	111	57-130	1
Benzo(a)pyrene	µg/kg (ppb)	170	<50	116	120	52-132	3
Indeno(1,2,3-cd)pyrene	µg/kg (ppb)	170	<50	87	94	54-112	8
Dibenzo(a,h)anthracene	µg/kg (ppb)	170	<50	85	91	50-121	7
Benzo(g,h,i)perylene	µg/kg (ppb)	170	<50	82	86	40-114	5

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/28/00

Date Received: 03/21/00

Project: 6262

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	RPD
Naphthalene	µg/kg (ppb)	170	88	85	51-124	2
Acenaphthylene	µg/kg (ppb)	170	88	85	52-125	2
Acenaphthene	µg/kg (ppb)	170	83	86	57-122	4
Fluorene	µg/kg (ppb)	170	86	87	55-126	2
Phenanthrene	µg/kg (ppb)	170	77	81	59-126	5
Anthracene	µg/kg (ppb)	170	77	80	45-134	4
Fluoranthene	µg/kg (ppb)	170	80	87	56-132	8
Pyrene	µg/kg (ppb)	170	84	88	54-125	5
Benz(a)anthracene	µg/kg (ppb)	170	78	85	51-130	8
Chrysene	µg/kg (ppb)	170	74	80	57-125	8
Benzo(b)fluoranthene	µg/kg (ppb)	170	98	107	54-135	8
Benzo(k)fluoranthene	µg/kg (ppb)	170	100	108	52-141	7
Benzo(a)pyrene	µg/kg (ppb)	170	91	98	38-140	7
Indeno(1,2,3-cd)pyrene	µg/kg (ppb)	170	95	108	58-122	13
Dibenzo(a,h)anthracene	µg/kg (ppb)	170	92	108	58-130	16
Benzo(g,h,i)perylene	µg/kg (ppb)	170	98	109	54-124	11

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 03/28/00

Date Received: 03/21/00

Project: 6262

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

Laboratory Code: 003118-48 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD	Acceptance Criteria
Naphthalene	µg/kg (ppb)	<5	<5	nm	0-20
Acenaphthylene	µg/kg (ppb)	<5	<5	nm	0-20
Acenaphthene	µg/kg (ppb)	<5	<5	nm	0-20
Fluorene	µg/kg (ppb)	<5	<5	nm	0-20
Phenanthrene	µg/kg (ppb)	<5	<5	nm	0-20
Anthracene	µg/kg (ppb)	<5	<5	nm	0-20
Fluoranthene	µg/kg (ppb)	<5	<5	nm	0-20
Pyrene	µg/kg (ppb)	<5	<5	nm	0-20
Benz(a)anthracene	µg/kg (ppb)	<5	<5	nm	0-20
Chrysene	µg/kg (ppb)	<5	<5	nm	0-20
Benzo(b)fluoranthene	µg/kg (ppb)	<5	<5	nm	0-20
Benzo(k)fluoranthene	µg/kg (ppb)	<5	<5	nm	0-20
Benzo(a)pyrene	µg/kg (ppb)	<5	<5	nm	0-20
Indeno(1,2,3-cd)pyrene	µg/kg (ppb)	<5	<5	nm	0-20
Dibenzo(a,h)anthracene	µg/kg (ppb)	<5	<5	nm	0-20
Benzo(g,h,i)perylene	µg/kg (ppb)	<5	<5	nm	0-20

Laboratory Code: 003118-47 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	RPD
Naphthalene	µg/kg (ppb)	170	<5	88	87	54-110	1
Acenaphthylene	µg/kg (ppb)	170	<5	90	91	58-114	2
Acenaphthene	µg/kg (ppb)	170	<5	86	86	58-112	0
Fluorene	µg/kg (ppb)	170	<5	90	91	59-113	1
Phenanthrene	µg/kg (ppb)	170	<5	80	83	62-110	3
Anthracene	µg/kg (ppb)	170	<5	78	82	61-111	5
Fluoranthene	µg/kg (ppb)	170	<5	86	90	63-114	4
Pyrene	µg/kg (ppb)	170	<5	86	93	59-110	7
Benz(a)anthracene	µg/kg (ppb)	170	<5	89	87	60-116	1
Chrysene	µg/kg (ppb)	170	<5	80	81	57-118	2
Benzo(b)fluoranthene	µg/kg (ppb)	170	<5	107	112	52-133	5
Benzo(k)fluoranthene	µg/kg (ppb)	170	<5	97	94	57-130	3
Benzo(a)pyrene	µg/kg (ppb)	170	<5	99	100	52-132	1
Indeno(1,2,3-cd)pyrene	µg/kg (ppb)	170	<5	93	95	54-112	3
Dibenzo(a,h)anthracene	µg/kg (ppb)	170	<5	93	95	50-121	3
Benzo(g,h,i)perylene	µg/kg (ppb)	170	<5	84	88	40-114	4

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/28/00

Date Received: 03/21/00

Project: 6262

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

Laboratory Code: 003118-48 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	RPD
Naphthalene	µg/kg (ppb)	170	<5	88	85	54-110	3
Acenaphthylene	µg/kg (ppb)	170	<5	91	91	58-114	0
Acenaphthene	µg/kg (ppb)	170	<5	87	88	58-112	1
Fluorene	µg/kg (ppb)	170	<5	91	92	59-113	0
Phenanthrene	µg/kg (ppb)	170	<5	84	85	62-110	2
Anthracene	µg/kg (ppb)	170	<5	83	84	61-111	1
Fluoranthene	µg/kg (ppb)	170	<5	90	90	63-114	0
Pyrene	µg/kg (ppb)	170	<5	91	93	59-110	2
Benz(a)anthracene	µg/kg (ppb)	170	<5	83	82	60-116	1
Chrysene	µg/kg (ppb)	170	<5	83	82	57-118	1
Benzo(b)fluoranthene	µg/kg (ppb)	170	<5	112	108	52-133	3
Benzo(k)fluoranthene	µg/kg (ppb)	170	<5	95	105	57-130	10
Benzo(a)pyrene	µg/kg (ppb)	170	<5	102	102	52-132	0
Indeno(1,2,3-cd)pyrene	µg/kg (ppb)	170	<5	94	94	54-112	0
Dibenzo(a,h)anthracene	µg/kg (ppb)	170	<5	94	95	50-121	1
Benzo(g,h,i)perylene	µg/kg (ppb)	170	<5	88	86	40-114	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	RPD
Naphthalene	µg/kg (ppb)	170	87	85	51-124	2
Acenaphthylene	µg/kg (ppb)	170	87	86	52-125	1
Acenaphthene	µg/kg (ppb)	170	88	85	57-122	3
Fluorene	µg/kg (ppb)	170	89	87	55-126	2
Phenanthrene	µg/kg (ppb)	170	83	84	59-126	1
Anthracene	µg/kg (ppb)	170	84	83	45-134	2
Fluoranthene	µg/kg (ppb)	170	85	87	56-132	2
Pyrene	µg/kg (ppb)	170	87	88	54-125	2
Benz(a)anthracene	µg/kg (ppb)	170	82	83	51-130	1
Chrysene	µg/kg (ppb)	170	78	80	57-125	2
Benzo(b)fluoranthene	µg/kg (ppb)	170	110	113	54-135	2
Benzo(k)fluoranthene	µg/kg (ppb)	170	100	101	52-141	2
Benzo(a)pyrene	µg/kg (ppb)	170	96	99	38-140	3
Indeno(1,2,3-cd)pyrene	µg/kg (ppb)	170	106	107	58-122	1
Dibenzo(a,h)anthracene	µg/kg (ppb)	170	102	104	58-130	2
Benzo(g,h,i)perylene	µg/kg (ppb)	170	107	111	54-124	3

# Chain-of-Custody Record

Project No. (26)

Sample No. (Signature)

James M. Curran

003839

Date

6/26/00

Page

1 of 2

CJ 321.00 1017 BJ

## ANALYSES

Date	Time	Sample Number	EPA Method 8C2* (Full Scan)	EPA Method 8C2* (HAI VOCs Only)	EPA Method 8C2* (BTEX only)	EPA Method 8260	EPA Method 8270 (Full Scan)	EPA Method 8270 SIM (PAHS Only)	Method 8015M (Gasoline)	Method 8015M (Diesel)	Method 8015M (Motor Oil)	Silica Gel Cleanup	PAHs (327C SIM's)	HOLD	NH <sub>3</sub> /NH <sub>4</sub> D	Soil (S), Water (W) Vapor (V), or Other (O)	Filtered	Preserved	Cooled	No of Containers	Additional Comments
6/26/00	5:30a	CNX38A-1.5											X	X	S		X	1	1 2" x 6" ss liner	01	
	5:35a	CNX38A-4.0											X		S		X	1	1 15/16" x 6" ss liner	02	
06/26	6:45a	CNX38A-8.5											X		S		X	1	1 15/16" x 6" ss liner	03	
	7:45a	CNX38B-5.0											X		S		X	1	1 15/16" x 6" ss liner	04	
06/26	8:05a	CNX38B-1.5											X		S		X	1	1 2" x 6" ss liner	05	
	8:13a	CNX38B-8.5											X	X	S		X	1	1 15/16" x 6" ss liner	06	
06/26	8:45a	CNX38C-1.5	X										X	X	S		X	1	1 2" x 6" ss liner	07	
	9:15a	CNX38C-5.0	X										X	X	S		X	1	1 15/16" x 6" ss liner	08	
06/26	9:45a	CNX38C-8.5	X										X	X	S		X	1	1 15/16" x 6" ss liner	09	
	10:00a	CNX37B-1.5											X	X	S		X	1	1 2" x 6" ss liner	10	
10/15	CNX37B-5.0												X		S		X	1	1 15/16" x 6" ss liner	11	
	10:20a	CNX37B-8.5											X		S		X	1	1 15/16" x 6" ss liner	12	
10/35	CNX37C-1.5												X		S		X	1	1 2" x 6" ss liner	13	
	10:45a	CNX37C-5.0											X	X	S		X	1	1 15/16" x 6" ss liner	14	
10/50	CNX37C-8.5												X	X	S		X	1	1 15/16" x 6" ss liner	15	

## Laboratory

## Turnaround Time

Friedman &amp; Brugge

24 hours, 1st sh. (PAHs)

Relinquished by (Signature)

James M. Curran

Printed Name

Jim Curran

Company

Geometrics

Received by

Kate Trafton

Printed Name

Kate Trafton

Company

7/1/00

Relinquished by (Signature)

Printed Name

Company

Received by

Printed Name

Company

9:30A

Results to:

Ann Holbrook

Total No. of Containers

15

Method of Shipment:

Fed Ex 8136 2240 0644

Laboratory Comments and Log No:


**Geometrics Consultants**

 2101 Webster Street, 12th Floor • Oakland, CA 94612  
 Phone 510-663-4100 • Fax 510-663-4141

# Chain-of-Custody Record

Project No. 000

Sample No. (Signature)

Jane M. Canta.

003799

Date 3/26/00

Page 2 of 2

## REMARKS

Additional Comments

Date	Time	Sample Number	EPA Method 8C2 (Full Scan)	EPA Method 8C2 (Hal VOCs only)	EPA Method 8C2 (BTEX only)	EPA Method 826C	EPA Method 827C (Full Scan)	EPA Method 827C SIM (PAHS only)	Method 8015M (Gasoline)	Method 8015M (Diesel)	Method 8015M (Motor Oil)	Silica Gel Clearcut	PALIS (B37L SIM)	140LD	MIS/140D	Soil (S) Water (W) Vapor (V) or Other (O)	Filtered	Preserved	Cooled	No of Containers	
3/26/00	1100	C.MX303-1.5											X			S		X	1	12" x 6" ss liner	16
	1110	C.MX303-5.0											X			S		X	1	1 5/8" x 6" ss liner	17
	1120	C.MX303-3.5											X			S		X	1	1 5/8" x 6" ss liner	18
	1135	C.MX303-C-1.5	X				X	X	X							S		X	1	12" x 6" ss liner	19
	1205	C.MX303-C-5.0	X				X	X	X							S		X	1	1 5/8" x 6" ss liner	20
	1215	C.MX303-C-8.5	X				X	X	X							S		X	1	1 5/8" x 6" ss liner	21
	1225	C.MX303-C-1.5	X				X	X	X							S		X	1	12" x 6" ss liner	22
	1235	C.MX303-C-5.0	X				X	X	X							S		X	1	1 5/8" x 6" ss liner	23
	1240	C.MX303-C-8.5	X				X	X	1							S		X	1	1 5/8" x 6" ss liner	24

Laboratory	Turnaround Time:	Results to:	Total No. of Containers
Friedman & Birger	24 hr / 48 hr (PALIS)	Ann Hotalien	9

Relinquished by (Signature): <i>Jane M. Canta</i>	Date: 3/26/00	Relinquished by (Signature):	Date: Relinquished by (Signature):	Date: Relinquished by (Signature):	Date: Method of Shipment:
Printed Name: <i>Jane M. Canta</i>	Time: 1015	Printed Name:	Printed Name:	Printed Name:	Ted EX 8136 2240 0644
Company: <i>Friedman &amp; Birger</i>	Time: 1015	Company:	Company:	Company:	Laboratory Comments and Log No.:
Received by: <i>Kate Trafton</i>	Date: 3/21	Received by:	Received by:	Received by:	
Printed Name: <i>Kate Trafton</i>	Time: 930	Printed Name:	Printed Name:	Printed Name:	
Company: <i>FBI</i>	Time: 930	Company:	Company:	Company:	

 Geometrix Consultants

2101 Webster Street, 12th Floor • Oakland CA 94612  
Phone 510 663-4100 • Fax 510 663 4141

## Chain-of-Custody Record

003793

Date: 3/20/00

Page 1 of 2

Project No. 6262

Samplers (Signature)

James M. Carlson  
Suzan Tamm

## ANALYSES

## REMARKS

## Additional Comments

Please fax results to  
Ann Holbrook (510) 663-4141  
as soon as available

Date	Time	Sample Number	EPA Method 8021 (Full Scan)	EPA Method 8021 (Hal VOCs only)	EPA Method 8021 (BTEX only)	EPA Method 8260	EPA Method 8270 (Full Scan)	EPA Method 8270 SIM (PAHS only)	Method 8015M (Gasoline)	Method 8015M (Motor Oil)	Method 8015M (Diesel)	PAHs (8220 SIM)	Silica Gel Cleanup	HOLD	Soil (S), Water (W) Vapor (V), or Other (O)	Filtered	Preserved	Cooled	No. of Containers		
3/20/00	1300	GMX39B-15							✓	✓	✓					S		X	1	1 2" x 6" ss liner	25
	1306	GMX39B-5.0														S		X	1	1 1 5/8" x 6" ss liner	26
6	1316	GMX39B-8.5														S		X	1	1 1 5/8" x 6" ss liner	27
	1327	GMX40C-15				Y			X	X	X					S		X	1	1 2" x 6" ss liner	28
	1332	GMX40C-5.0				Y			X	X	X					S		X	1	1 1 5/8" x 6" ss liner	29
	1341	GMX40C-8.5				X			X	X	X					S		X	1	1 1 5/8" x 6" ss liner	30
	1356	GMX40B-15							✓	✓	✓	*				S		X	1	1 2" x 6" ss liner	31
	1403	GMX40B-5.0														S		X	1	1 1 5/8" x 6" ss liner	32
	1410	GMX40B-8.5														S		X	1	1 1 5/8" x 6" ss liner	33
	1431	GMX40A-15							✓	✓	✓					S		X	1	1 2" x 6" ss liner	34
	1435	GMX40A-5.0														S		X	1	1 1 5/8" x 6" ss liner	35
	1440	GMX40A-8.5														S		X	1	1 1 5/8" x 6" ss liner	36
	1445	GMX39A-1.5														S		X	1	1 2" x 6" ss liner	37
	150	GMX39A-5.0														S		X	1	1 1 5/8" x 6" ss liner	38
	150	GMX39A-8.5														S		X	1	1 1 5/8" x 6" ss liner	39

## Laboratory:

Friedman &amp; Bruylants

Turnaround Time:

24 hr / 48 hours (PAHs)

Results to:

Ann Holbrook

Total No. of Containers

15

Relinquished by (Signature):

James M. Carlson

Date: 3/20/00

Time: 1620

Company: Geometrix

Signature: Jim Carlson

Received by:

Kate Trafton

Date: 21 March

Time: 1006

Company: FBI

Relinquished by (Signature):

Printed Name:

Company:

Received by:

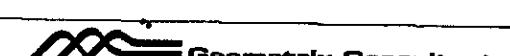
Printed Name:

Company:

Method of Shipment:

Fed Ex: 8136 2240 0641

Laboratory Comments and Log No.:



2101 Webster Street, 12th Floor • Oakland, CA 94612  
Phone: 510-663-4100 • Fax: 510-663-4141

003118

4 of 7

CJ 03/21/00 *BST*

Chain-of-Custody Record			003802			Date: 03/20/00	Page 2 of 2												
Project No 6262	Samplers (Signature) <i>Jane M Carlson</i>		ANALYSES			REMARKS													
Date	Time	Sample Number	EPA Method 8021 (Full Scan)	EPA Method 8021 (Hal. VOCs only)	EPA Method 8021 (BTEX only)	EPA Method 8260	EPA Method 8270 (Full Scan)	EPA Method 8270 SIM (PAHS only)	Method 8015M (Gasoline)	Method 8015M (Diesel)	Method 8015M (Motor Oil)	Silica Gel Cleanup	PAHS (8270 SIM) HOLD	Soil (S), Water (W) Vapor (V), or Other (O)	Filtered	Preserved	Cooled	No. of Containers	Additional Comments
3/20/00	1510	Gmx37A-1.5											X	S		X	1	1 2" x 6" ss line	40
4	1515	Gmx37A-5.0											X	S		X	1	1 5 $\frac{1}{2}$ " x 6" ss liner	41
	1540	Gmx37A-10.0											X	S		X	1	1 5 $\frac{1}{2}$ " x 6" ss line	42
<i>Jane M Carlson 3/20/00</i>																			
Laboratory: Friedman & Brungs			Turnaround Time: 24 hours / 48 hours (PAHS)			Results to: Ann Holbrook			Total No. of Containers			3							
Relinquished by (Signature): <i>Jane M Carlson</i>			Date: 3/20/00			Relinquished by (Signature):			Date: Relinquished by (Signature):			Date: Relinquished by (Signature):			Method of Shipment:				
Printed Name: Jim Carlson			Time: 1620			Printed Name:			Printed Name:			Printed Name:			Fed Ex: 5136 2240 0644				
Company: Geomatrix						Company:			Company:			Company:			Laboratory Comments and Log No.:				
Received by: Kate Trafton			Date: 21mar			Received by:			Received by:			Received by:			..				
Printed Name: Kate Trafton			Time: 1020			Printed Name:			Printed Name:			Printed Name:							
Company: FB						Company:			Company:			Company:							
 Geomatrix Consultants 2101 Webster Street, 12th Floor • Oakland, CA 94612 Phone: 510-663-4100 • Fax: 510-663-4141																			

## CHAIN-OF-CUSTODY RECORD

Nº 0988

Date 3/27/00

Page 1 of 3

Project No. 6262

Samplers (Signatures)

## ANALYSES

## REMARKS

Additional Comments

Please perform silica gel cleanup prior to TPH motor oil analysis.

	Date	Time	Sample Number
43✓	3/26/00	0835	Gmx33C-1.5
44✓	3/26/00	0827	Gmx33C-4.5
45✓		0830	Gmx33C-7.5
46✓		0855	Gmx33B-1.5
47✓		0858	Gmx33B-4.5
48✓		0903	Gmx33B-7.5
49✓		0946	Gmx34B-1.5
50✓		0953	Gmx34B-4.5
51✓		0957	Gmx34B-7.5
52✓		1017	Gmx34C-1.5
53✓		1032	Gmx34C-4.5
54✓		1028	Gmx34C-7.5

EPA Method 8010	EPA Method 8020	EPA Method 8020 (BTEX only)	EPA Method 8240	EPA Method 8270	TPH as gasoline	TPH as diesel

PANIS  
(24270 ± 1%)  
VOCs + MTBE  
Method 8240  
TPH Motor Oil  
Method 8270

MS / MSD

Cooled  
Soil (S), Water (W),  
or Vapor (V)  
Acidified

Number of containers

X	S	N	I	1½" x 6" stainless steel liner
X	S	N	I	
X	S	N	I	
X	S	N	I	
X	S	N	I	
X	S	N	I	
X	S	N	I	
X	S	N	I	
X	S	N	I	
X	S	N	I	
X	S	N	I	
X	S	N	I	
X	S	N	I	
X	S	N	I	

Turnaround time:  
24 hrs / 48 hrs (AVG)Results to:  
Ann Hobarrow

Total No. of containers: 12

Relinquished by (signature):

Date: 3/26/00

Time: 1700

Printed Name:

Printed Name: Tom Gavigan

Company:

Company: Geomatix

Received by (signature):

Date: 3/26/00

Time: 10AM

Printed Name:

Printed Name: Kate Traffan

Company:

Company: FB;

Relinquished by (signature):

Printed Name:

Company:

Received by (signature):

Printed Name:

Company:

Method of Shipment:

Time:

Tracking No.  
Federal Express 8136 2240 0644

Time:

Laboratory Comments and Log No.:



F+B 003118

CJ 3-21-00

BI 6 of 7

CHAIN-OF-CUSTODY RECORD				Nº 0986	Date: 3/20/00	Page 2 of 3										
Project No.: 6262		ANALYSES				REMARKS										
Samplers (Signatures): <i>Brian Tamm</i> <i>Tom Gavigan</i>		EPA Method 8010	EPA Method 8020	EPA Method 8020 (BTEX only)	EPA Method 8240	EPA Method 8270	TPH as gasoline	TPH as diesel	PATHS (8270 Silms) VOCs + MEAS METHODS 8260 TPH Motor oil Method 8254	Hold	MS/MS	Cooled	Soil (S), Water (W), or Vapor (V)	Additized	Number of containers	Additional Comments: Please perform silica gel cleanup prior to TPH motor oil analysis 1½" x 6" stainless steel liner
55✓	3/20/00	1153	GMX35C - 1.5									X	S N	1		
56✓		1159	GMX35C - 4.5									X	S N	1		
57✓		1203	GMX35C - 7.5									X	S N	1		
58✓		1221	GMX35B - 1.5									X	S N	1		
59✓		1226	GMX35B - 4.5									X	S N	1		
60✓		1228	GMX35B - 7.5									X	S N	1		
61✓		1311	GMX36A - 1.5									X	S N	1		
62✓		1318	GMX36A - 4.5									X	S N	1		
63✓		1322	GMX36A - 7.5									X	S N	1		
64✓		1352	GMX35A - 1.5									X	S N	1		
65✓		1356	GMX35A - 4.5									X	S N	1		
66✓		1401	GMX35A - 7.5									X	S N	1		
				Turnaround time: 24 hours / 48 hours (PATHS)		Results to: ANN Holbrow		Total No. of containers:		12						
Relinquished by (signature): <i>Tom Gavigan</i>		Date: 3/20/00	Relinquished by (signature):	Date:	Relinquished by (signature):	Date:	Method of Shipment: Tracking No. Federal Express 8136 27460 06444									
Printed Name: TOM GAVIGAN		Time: 1700	Printed Name:	Time:	Printed Name:	Time:	Laboratory Comments and Log No.:									
Company: GEOMATRIX			Company:		Company:											
Received by (signature): <i>Kate Trafton</i>		Date:	Received by (signature):	Date:	Received by (signature):	Date:										
Printed Name: Kate Trafton		Time:	Printed Name:	Time:	Printed Name:	Time:										
Company: FBI			Company:		Company:											



-00-318

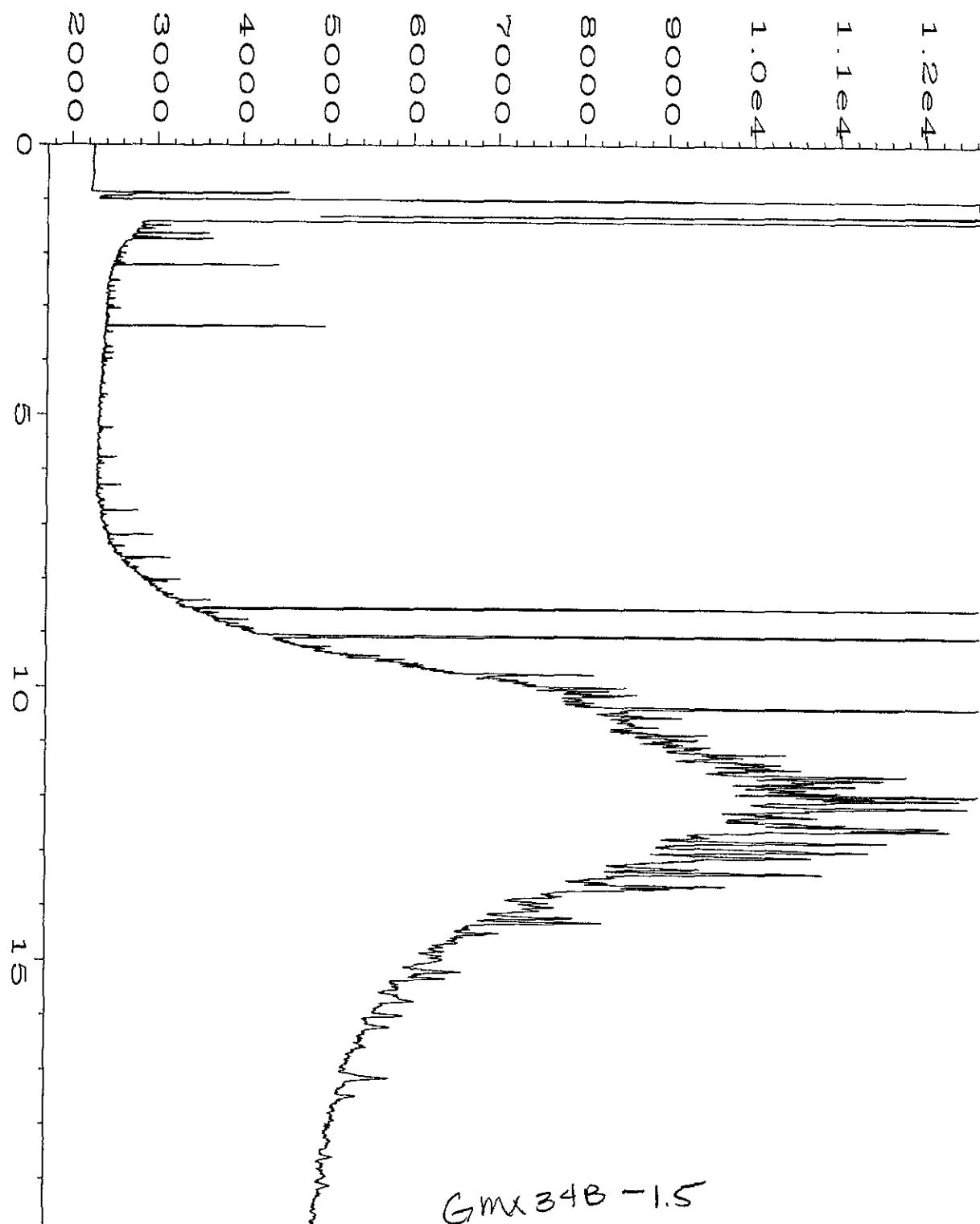
CJ 3-21-00 BI 797

**CHAIN-OF-CUSTODY RECORD**

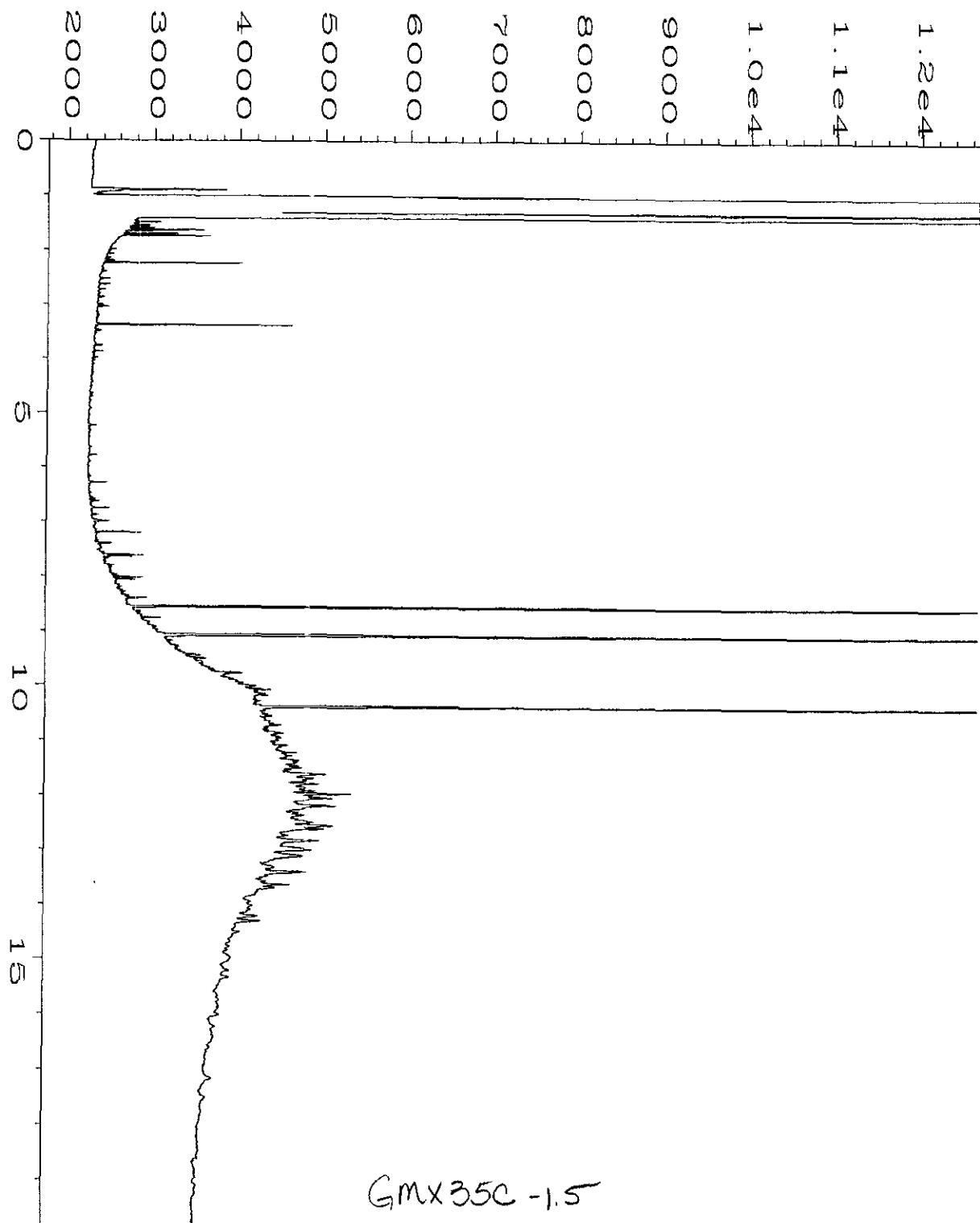
Nº 0987

Date 3/28/22

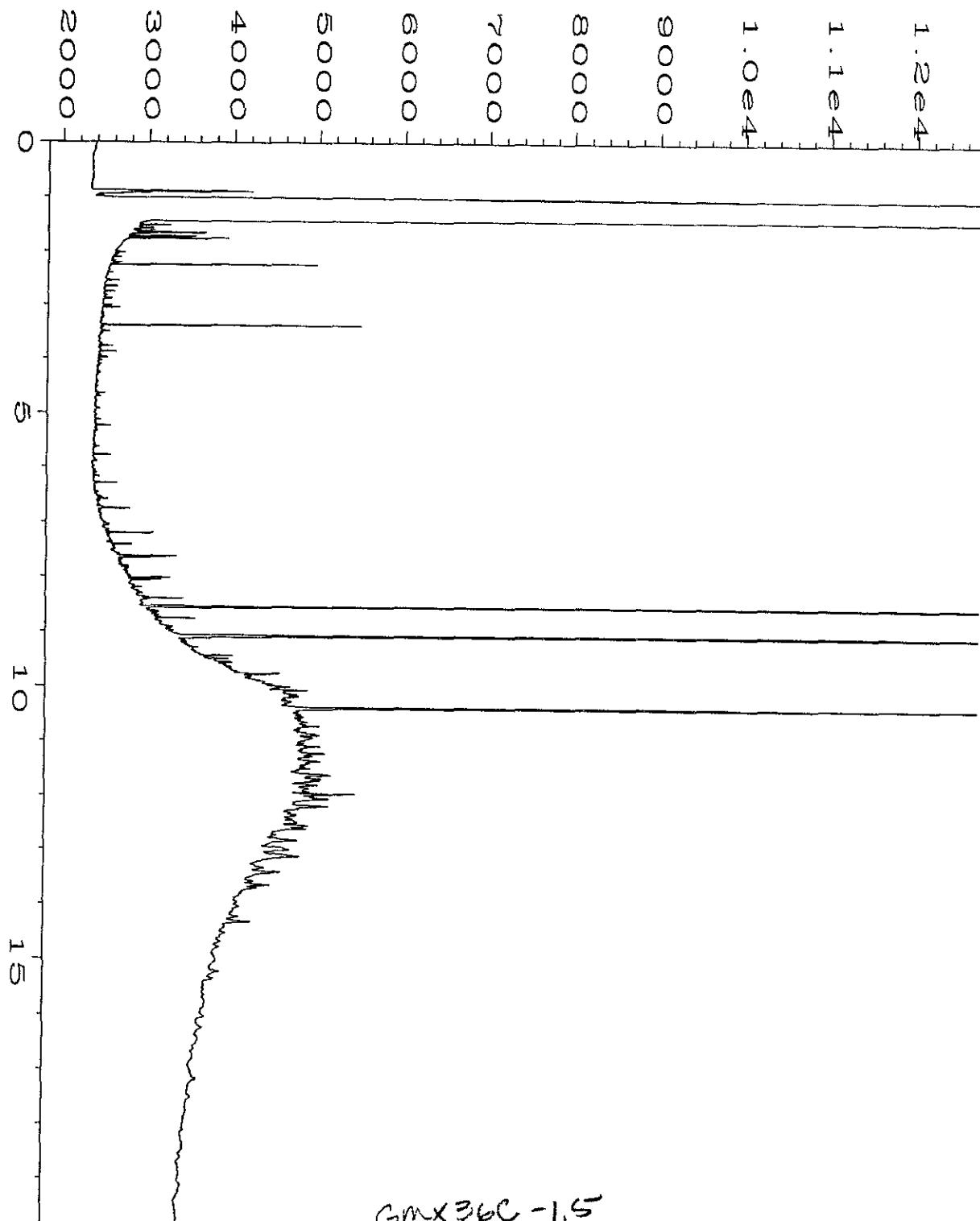
Page 3 of 3



Data File Name : C:\HPCHEM\4\DATA\03-22-00\017F0501.D  
Operator : jeb Page Number : 1  
Instrument : GC4 Vial Number : 17  
Sample Name : 003118-49 sg Injection Number : 1  
Run Time Bar Code:  
Acquired on : 22 Mar 00 05:23 PM Sequence Line : 5  
Report Created on: 23 Mar 00 08:47 AM Instrument Method: TPHD.MTH  
Analysis Method : TPHD.MTH

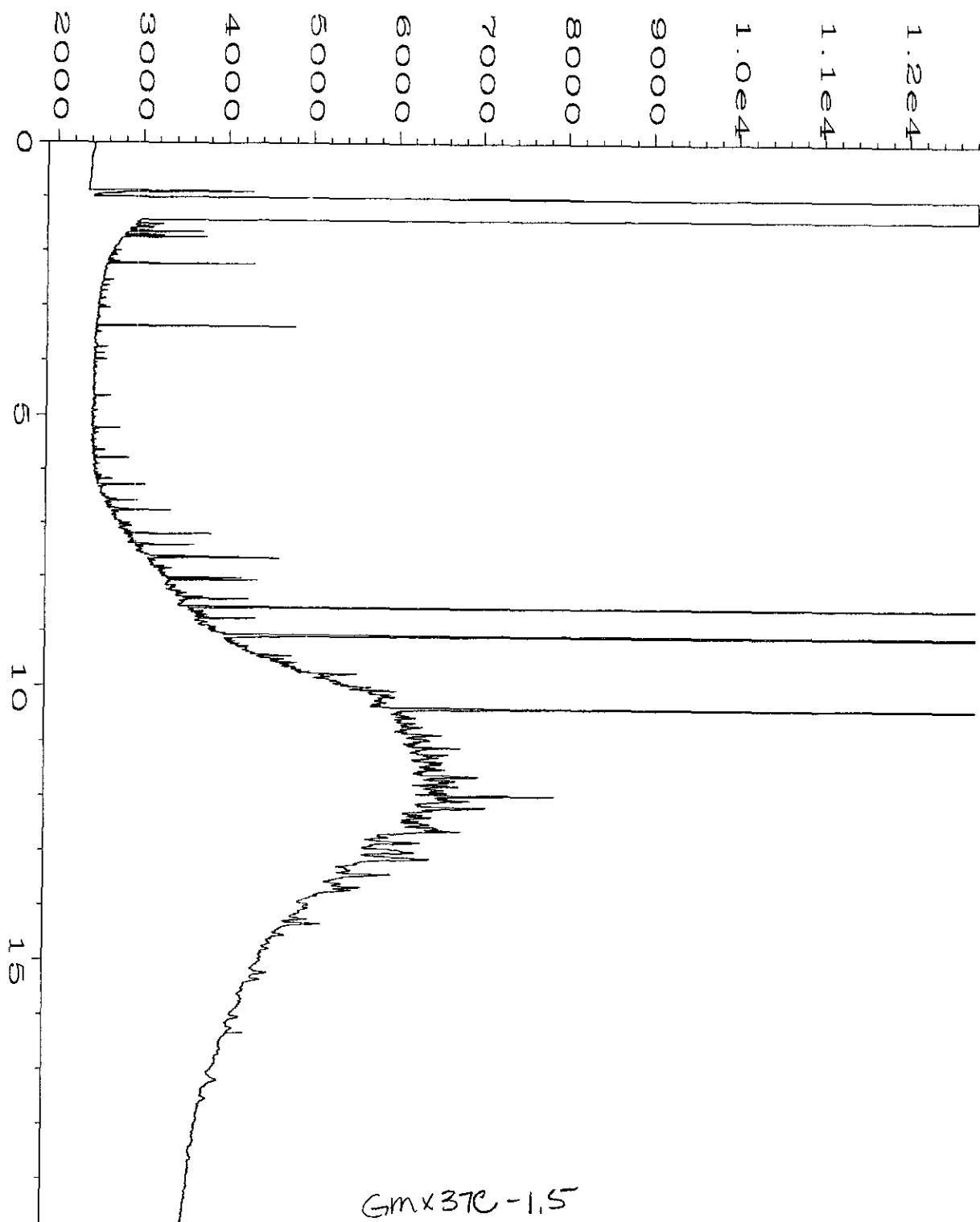


Data File Name : C:\HPCHEM\4\DATA\03-22-00\016F0501.D  
Operator : jeb Page Number : 1  
Instrument : GC4 Vial Number : 16  
Sample Name : 003118-55 sg Injection Number : 1  
Run Time Bar Code:  
Acquired on : 22 Mar 00 04:56 PM Sequence Line : 5  
Report Created on: 23 Mar 00 08:46 AM Instrument Method: TPHD.MTH  
Analysis Method : TPHD.MTH

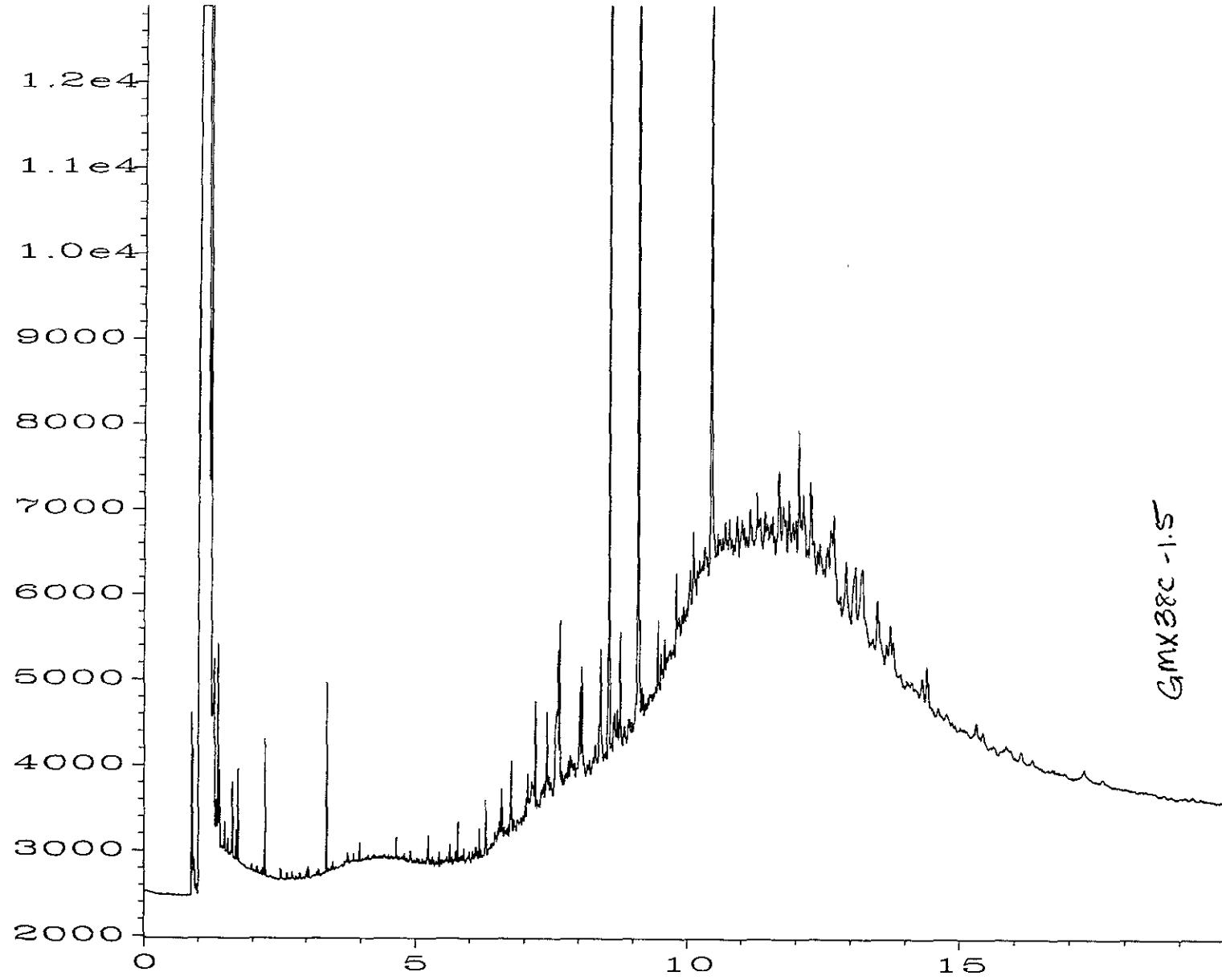


GMX36C -1.5

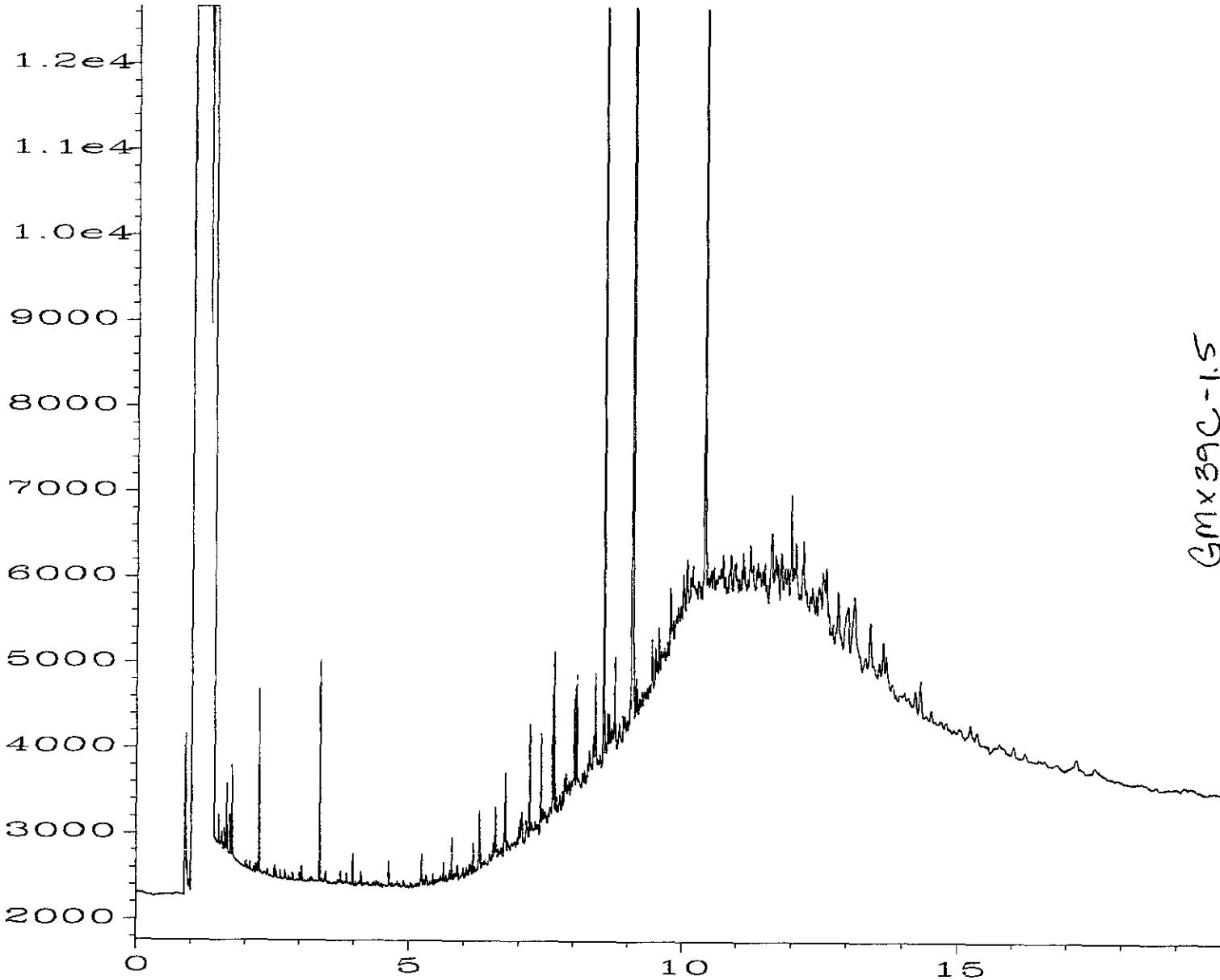
Data File Name : C:\HPCHEM\4\DATA\03-22-00\013F0501.D  
Operator : jeb Page Number : 1  
Instrument : GC4 Vial Number : 13  
Sample Name : 003118-19 sg Injection Number : 1  
Run Time Bar Code:  
Acquired on : 22 Mar 00 03:22 PM Sequence Line : 5  
Report Created on: 23 Mar 00 08:36 AM Instrument Method: TPHD.MTH  
Analysis Method : TPHD.MTH



Data File Name : C:\HPCHEM\4\DATA\03-22-00\012F0501.D  
Operator : jeb Page Number : 1  
Instrument : GC4 Vial Number : 12  
Sample Name : 003118-13 sg Injection Number : 1  
Run Time Bar Code:  
Acquired on : 22 Mar 00 02:57 PM Sequence Line : 5  
Report Created on: 23 Mar 00 08:35 AM Instrument Method: TPHD.MTH  
Analysis Method : TPHD.MTH

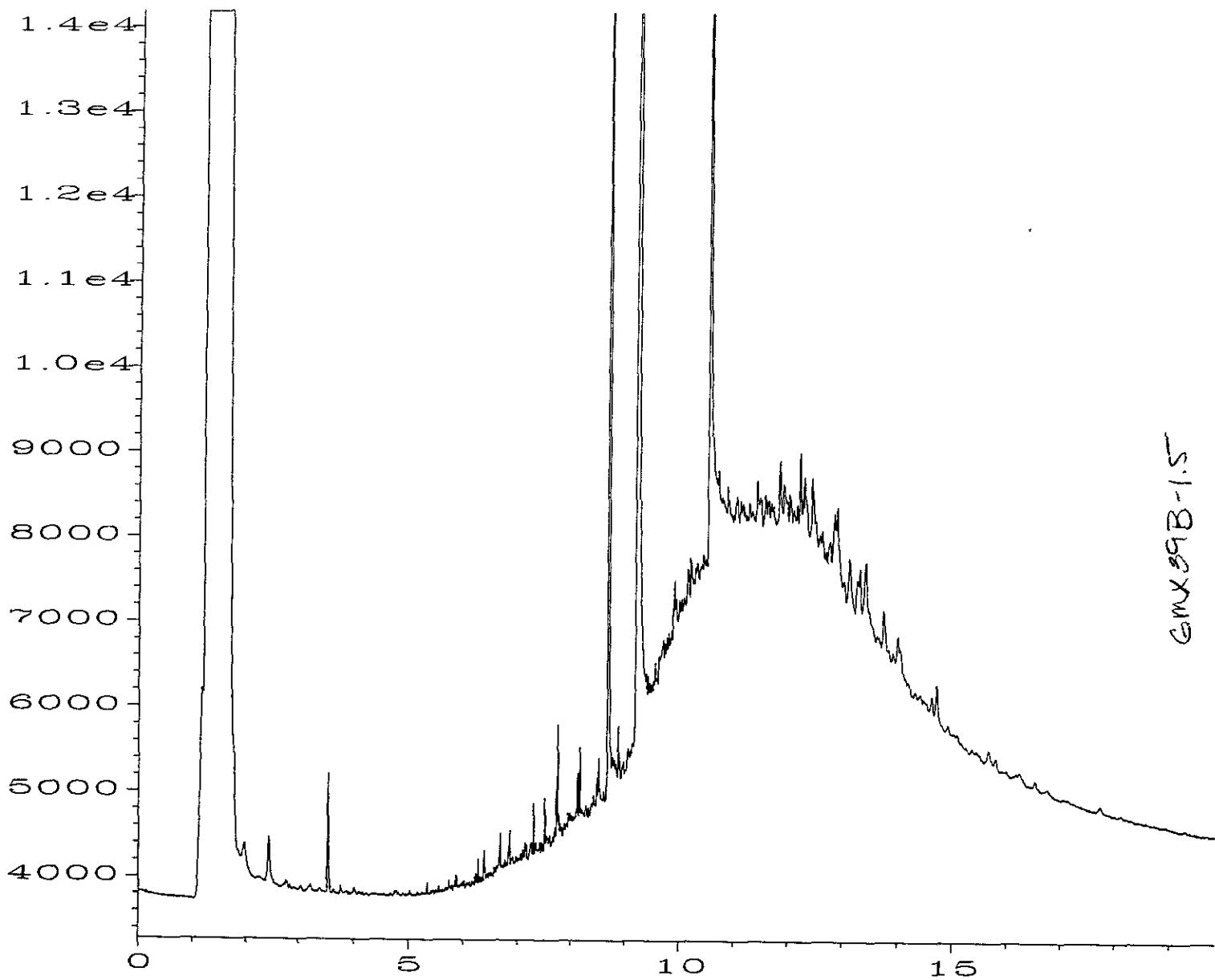


Data File Name : C:\HPCHEM\4\DATA\03-22-00\011F0501.D  
Operator : jeb  
Instrument : GC4  
Sample Name : 003118-07 sq  
Run Time Bar Code:  
Acquired on : 22 Mar 00 02:32 PM  
Report Created on: 23 Mar 00 08:33 AM  
Page Number : 1  
Vial Number : 11  
Injection Number : 1  
Sequence Line : 5  
Instrument Method: TPHD.MTH  
Analysis Method : TPHD.MTH

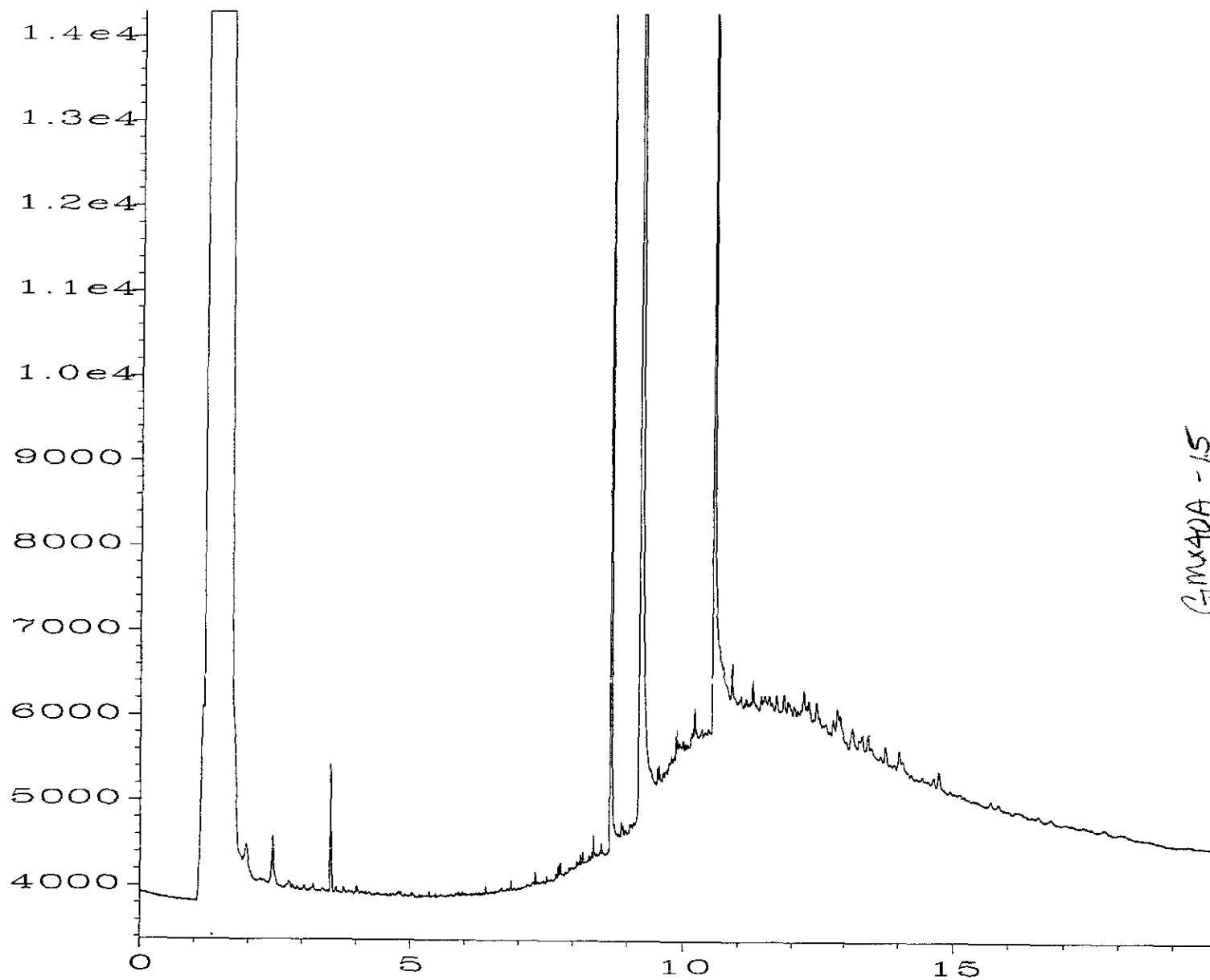


G<sub>M</sub> x 39C - 1.5

Data File Name : C:\HPCHEM\4\DATA\03-22-00\014F0501.D  
Operator : jeb  
Instrument : GC4  
Sample Name : 003118-22 sq  
Run Time Bar Code:  
Acquired on : 22 Mar 00 03:49 PM  
Report Created on: 23 Mar 00 08:43 AM  
Page Number : 1  
Vial Number : 14  
Injection Number : 1  
Sequence Line : 5  
Instrument Method: TPHD.MTH  
Analysis Method : TPHD.MTH

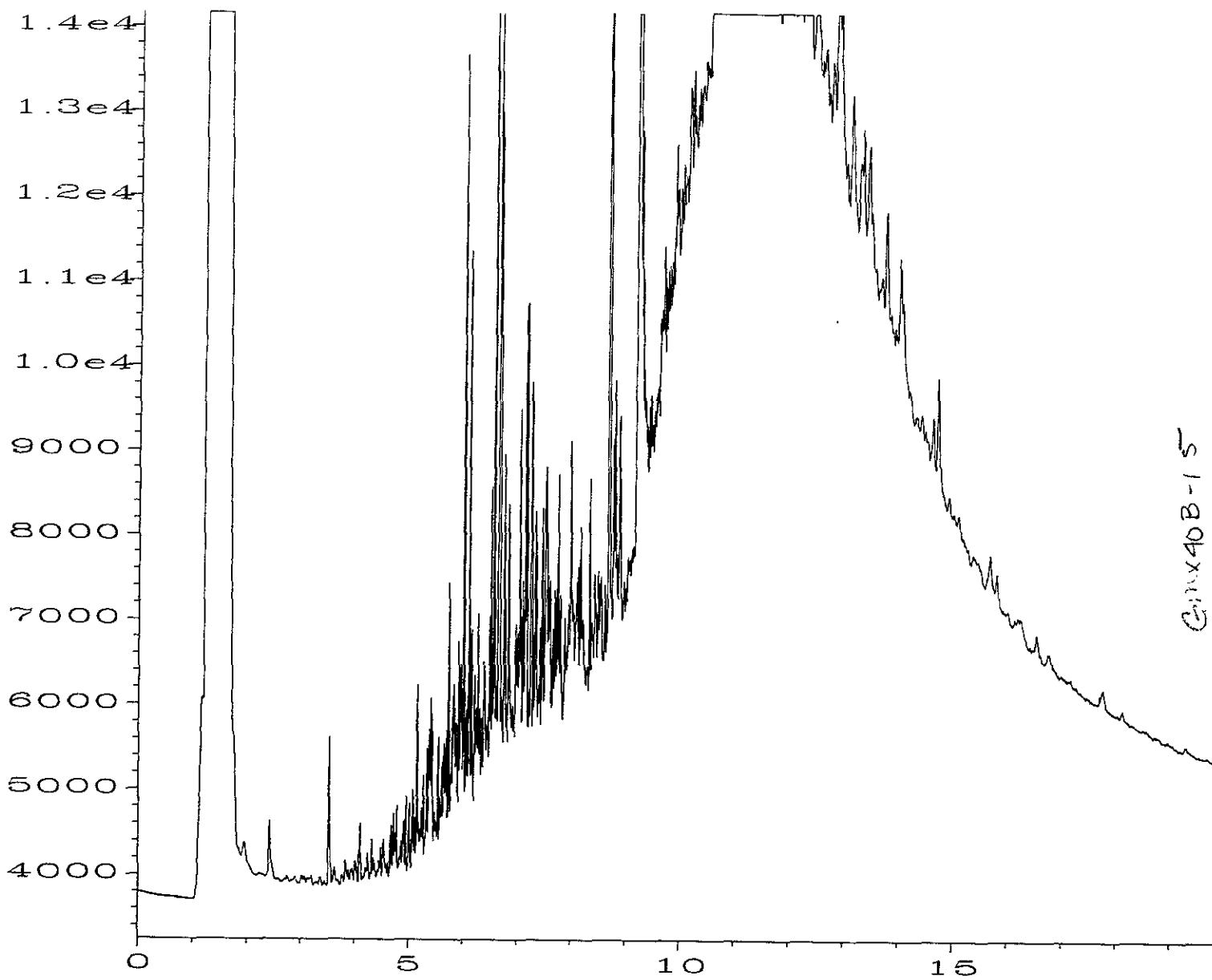


Data File Name : H:\HPCHEM\6\DATA\03-23-00\055F1201.D  
Operator : SO  
Instrument : GC #6  
Sample Name : 003118-25 W/SG  
Run Time Bar Code :  
Acquired on : 24 Mar 00 10:33 AM  
Report Created on : 05 May 17 08:52 PM  
Page Number : 1  
Vial Number : 55  
Injection Number : 1  
Sequence Line : 12  
Instrument Method: TPHD.MTH  
Analysis Method : TPHD.MTH

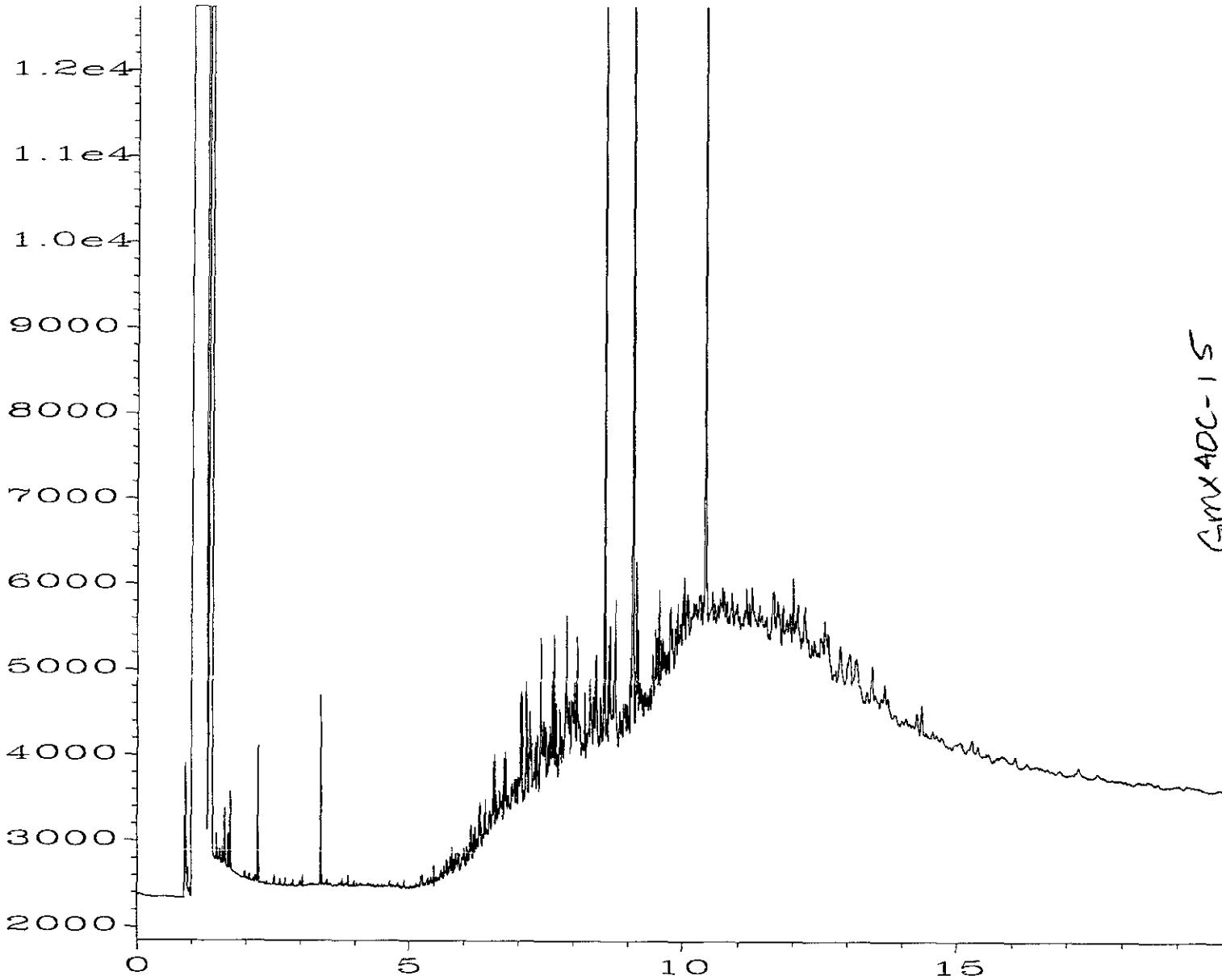


G<sub>1</sub>Mx40A - 15

Data File Name : H:\HPCHEM\6\DATA\03-23-00\057F1201.D  
Operator : SO  
Instrument : GC #6  
Sample Name : 003118-34 W/SG  
Run Time Bar Code:  
Acquired on : 24 Mar 00 11:23 AM  
Report Created on: 05 May 17 08:54 PM  
Page Number : 1  
Vial Number : 57  
Injection Number : 1  
Sequence Line : 12  
Instrument Method: TPHD.MTH  
Analysis Method : TPHD.MTH

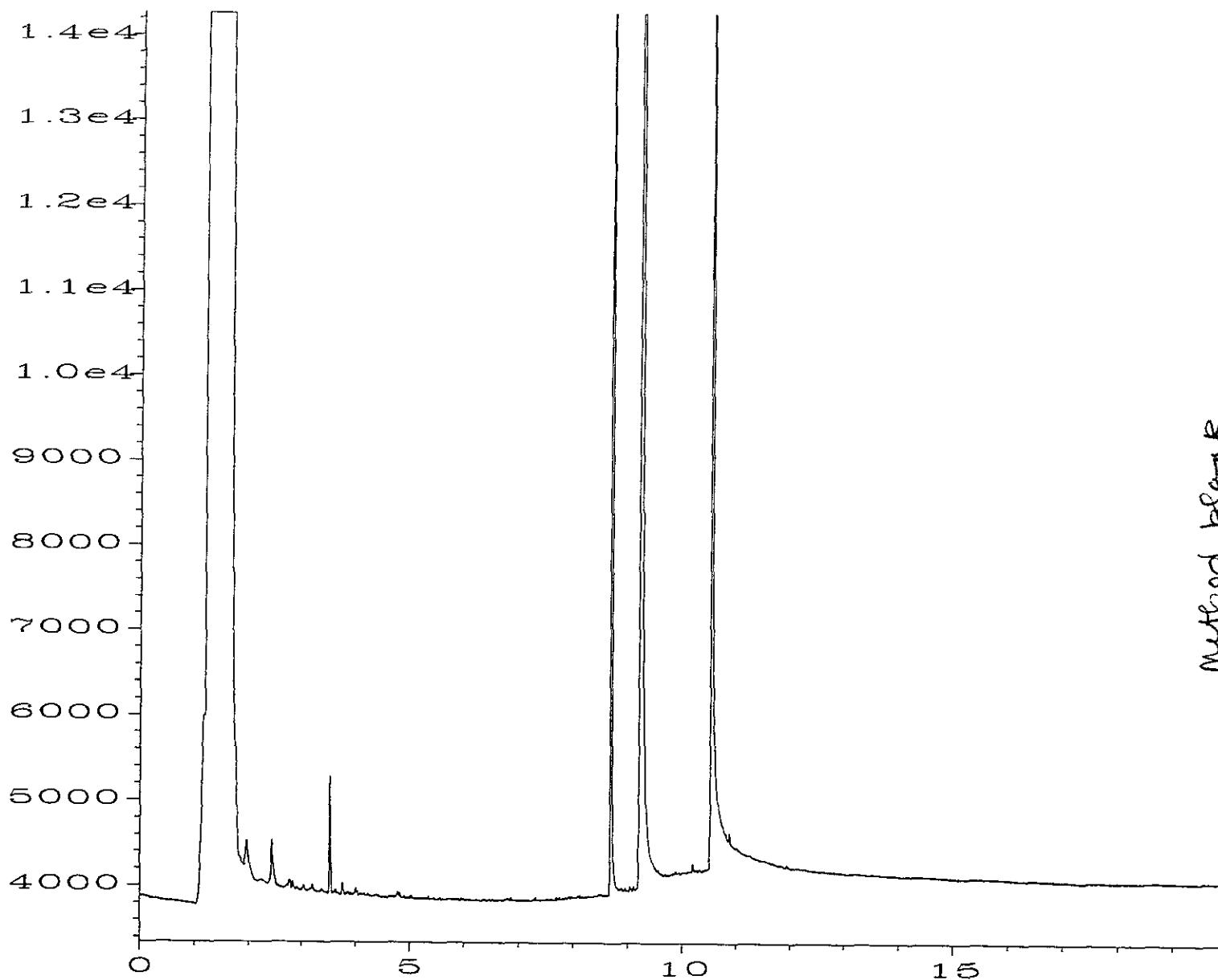


Data File Name : H:\HPCHEM\6\DATA\03-23-00\056F1201.D  
Operator : SO  
Instrument : GC #6  
Sample Name : 003118-31 W/SG  
Run Time Bar Code:  
Acquired on : 24 Mar 00 10:58 AM  
Report Created on: 05 May 17 08:53 PM  
Page Number : 1  
Vial Number : 56  
Injection Number : 1  
Sequence Line : 12  
Instrument Method: TPHD.MTH  
Analysis Method : TPHD.MTH

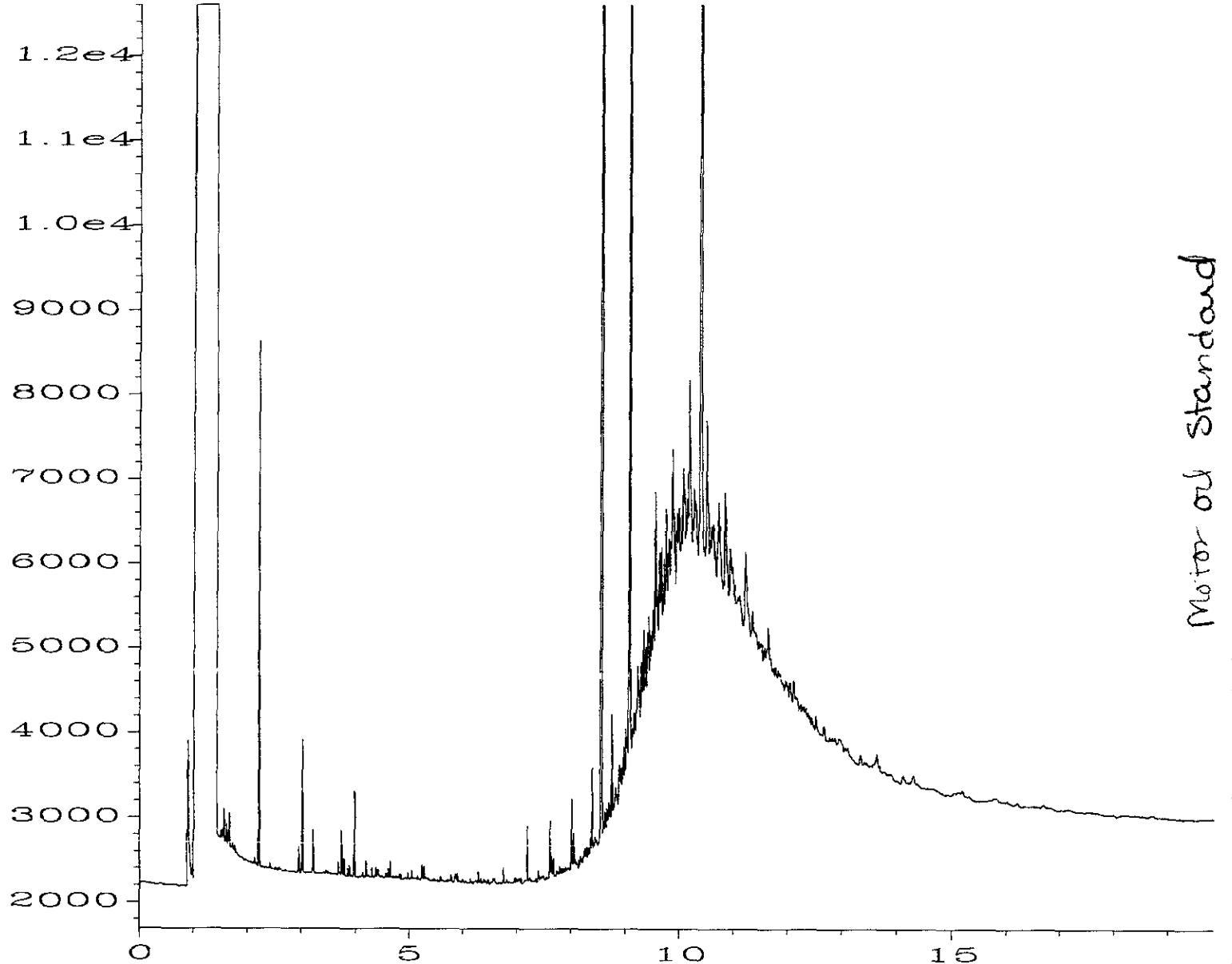


G<sub>m</sub>X ADC - 15

Data File Name : C:\HPCHEM\4\DATA\03-22-00\015F0501.D  
Operator : jeb  
Instrument : GC4  
Sample Name : 003118-28 sq  
Run Time Bar Code:  
Acquired on : 22 Mar 00 04:32 PM  
Report Created on: 23 Mar 00 08:45 AM  
Page Number : 1  
Vial Number : 15  
Injection Number : 1  
Sequence Line : 5  
Instrument Method: TPHD.MTH  
Analysis Method : TPHD.MTH



Data File Name : H:\HPCHEM\6\DATA\03-23-00\054F1201.D  
Operator : SO  
Instrument : GC #6  
Sample Name : 00-226 MB3 W/SG  
Run Time Bar Code:  
Acquired on : 24 Mar 00 10:07 AM  
Report Created on: 05 May 17 08:56 PM  
Page Number : 1  
Vial Number : 54  
Injection Number : 1  
Sequence Line : 12  
Instrument Method: TPHD.MTH  
Analysis Method : TPHD.MTH



Data File Name : C:\HPCHEM\4\DATA\03-22-00\007F0801.D  
Operator : jeb  
Instrument : GC4  
Sample Name : 8-175 500 ppm mo  
Run Time Bar Code:  
Acquired on : 22 Mar 00 06:46 PM  
Report Created on: 23 Mar 00 11:25 AM  
Page Number : 1  
Vial Number : 7  
Injection Number : 1  
Sequence Line : 8  
Instrument Method: TPHD.MTH  
Analysis Method : TPHD.MTH

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Charlene Jensen, 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

March 31, 2000

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

Dear Ms. Holbrow:

Included are the results from the additional testing of material submitted on March 21, 2000 from your 6262 project. Sample GMX40C-1.5 was reextracted for analysis of PNAs by method 8270. As requested, soil was taken from the opposite end of the sample tube than that used for the initial analysis.

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 Jensen*

Charlene Jensen  
Chemist

Enclosures  
GMC0331R.DOC

## FRIEDMAN &amp; BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

## Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID: GMX40C-1.5  
 Date Received: 03/21/00  
 Date Extracted: 03/29/00  
 Date Analyzed: 03/27/00  
 Matrix: Soil  
 Units: ug/kg (ppb)

Client: Geomatrix Consultants, Inc.  
 Project: 6262  
 Lab ID: 003118-28 rx 1/10  
 Data File: 032906.D  
 Instrument: GCMS#2  
 Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracene-d10	117	50	150
Benzo(a)anthracene-d12	121	50	150

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.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PNA Compounds By EPA Method 8270C SIM

Client Sample ID: Method Blank  
Date Received: 03/21/00  
Date Extracted: 03/29/00  
Date Analyzed: 03/29/00  
Matrix: Soil  
Units: ug/kg (ppb)

Client: ClientID  
Project: 6262  
Lab ID: 00-223 mb2  
Data File: 032905.D  
Instrument: GCMS#2  
Operator: YA

Surrogates:	% Recovery	Lower Limit	Upper Limit
Anthracone-d10	66	50	150
Benzo(a)anthracene-d12	93	50	150

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**

Date of Report: 03/31/00

Date Received: 03/21/00

Project: 6262

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

Laboratory Code: 003118-46 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD	Acceptance Criteria
Naphthalene	µg/kg (ppb)	<50	<50	nm	0-20
Acenaphthylene	µg/kg (ppb)	<50	<50	nm	0-20
Acenaphthene	µg/kg (ppb)	<50	<50	nm	0-20
Fluorene	µg/kg (ppb)	<50	<50	nm	0-20
Phenanthrene	µg/kg (ppb)	<50	<50	nm	0-20
Anthracene	µg/kg (ppb)	<50	<50	nm	0-20
Fluoranthene	µg/kg (ppb)	<50	<50	nm	0-20
Pyrene	µg/kg (ppb)	<50	<50	nm	0-20
Benz(a)anthracene	µg/kg (ppb)	<50	<50	nm	0-20
Chrysene	µg/kg (ppb)	<50	<50	nm	0-20
Benzo(b)fluoranthene	µg/kg (ppb)	<50	<50	nm	0-20
Benzo(k)fluoranthene	µg/kg (ppb)	<50	<50	nm	0-20
Benzo(a)pyrene	µg/kg (ppb)	<50	<50	nm	0-20
Indeno(1,2,3-cd)pyrene	µg/kg (ppb)	<50	<50	nm	0-20
Dibenzo(a,h)anthracene	µg/kg (ppb)	<50	<50	nm	0-20
Benzo(g,h,i)perylene	µg/kg (ppb)	<50	<50	nm	0-20

Laboratory Code: 003118-46 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	RPD
Naphthalene	µg/kg (ppb)	170	<50	92	97	54-110	5
Acenaphthylene	µg/kg (ppb)	170	<50	94	98	58-114	4
Acenaphthene	µg/kg (ppb)	170	<50	90	93	58-112	3
Fluorene	µg/kg (ppb)	170	<50	87	93	59-113	7
Phenanthrene	µg/kg (ppb)	170	<50	93	93	62-110	0
Anthracene	µg/kg (ppb)	170	<50	88	94	61-111	12
Fluoranthene	µg/kg (ppb)	170	<50	95	103	68-114	8
Pyrene	µg/kg (ppb)	170	<50	99	108	59-110	9
Benz(a)anthracene	µg/kg (ppb)	170	<50	98	102	60-116	4
Chrysene	µg/kg (ppb)	170	<50	91	99	57-118	8
Benzo(b)fluoranthene	µg/kg (ppb)	170	<50	104	112	52-133	7
Benzo(k)fluoranthene	µg/kg (ppb)	170	<50	110	111	57-130	1
Benzo(a)pyrene	µg/kg (ppb)	170	<50	116	120	52-132	3
Indeno(1,2,3-cd)pyrene	µg/kg (ppb)	170	<50	87	94	54-112	8
Dibenzo(a,h)anthracene	µg/kg (ppb)	170	<50	85	91	50-121	7
Benzo(g,h,i)perylene	µg/kg (ppb)	170	<50	82	86	40-114	5

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/31/00

Date Received: 03/21/00

Project: 6262

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	RPD
Naphthalene	µg/kg (ppb)	170	83	85	51-124	2
Acenaphthylene	µg/kg (ppb)	170	83	85	52-125	2
Acenaphthene	µg/kg (ppb)	170	83	86	57-122	4
Fluorene	µg/kg (ppb)	170	86	87	55-126	2
Phenanthrene	µg/kg (ppb)	170	77	81	59-126	5
Anthracene	µg/kg (ppb)	170	77	80	45-184	4
Fluoranthene	µg/kg (ppb)	170	80	87	56-132	8
Pyrene	µg/kg (ppb)	170	84	88	54-125	5
Benz(a)anthracene	µg/kg (ppb)	170	78	85	51-130	8
Chrysene	µg/kg (ppb)	170	74	80	57-125	8
Benzo(b)fluoranthene	µg/kg (ppb)	170	98	107	54-135	8
Benzo(k)fluoranthene	µg/kg (ppb)	170	100	108	52-141	7
Benzo(a)pyrene	µg/kg (ppb)	170	91	98	38-140	7
Indeno(1,2,3-cd)pyrene	µg/kg (ppb)	170	95	108	58-122	13
Dihenzo(a,h)anthracene	µg/kg (ppb)	170	92	108	58-130	16
Benzo(g,h,i)perylene	µg/kg (ppb)	170	98	109	54-124	11



## **ATTACHMENT E**

---

**Results of Quality Assurance/Quality Control**

## ATTACHMENT E

### RESULTS OF QUALITY ASSURANCE/QUALITY CONTROL

Canterbury Residential Development  
Hayward, California

#### Quality Assurance/Quality Control (QA/QC)

The parameters used to evaluate data quality are as follows:

- Accuracy: The agreement of a measurement with an accepted reference or true value. Accuracy was assessed using the laboratory method blanks, laboratory control samples, and matrix spike samples. Laboratory method blanks test for false positive results. For laboratory control samples, a known quantity of a chemical is added by the laboratory to deionized water, which is then analyzed. For matrix spike samples, a known quantity of a chemical is added to a site-specific sample designated on the chain-of-custody. In addition, the laboratory adds surrogates (chemicals with similar characteristics that are unlikely to be detected in environmental media) to each sample to test the accuracy of the measurements for these surrogate compounds. The accuracy goal for each analyte is specified by the laboratory on the laboratory data sheets (Attachments C and D).
- Precision: A measurement of the degree of agreement of replicate data, which is quantitatively assessed based on the relative percent difference or standard deviation. Precision was assessed using matrix spike/matrix spike duplicate samples, laboratory control/duplicate samples, and site-specific duplicate samples selected by the laboratory. The precision goal for these samples was set at 20%.
- Completeness: The amount of valid data obtained from a prescribed measurement system throughout the project, as compared with that expected and required to meet the project goals.

Documentation of calculations for accuracy (percent recovery) and precision (relative percent difference) are presented in the laboratory data sheets for the appropriate QA/QC sample (Attachment C and D).

#### *Accuracy*

For all method blank samples, all analytes concentrations were below method reporting limits, indicating that the laboratory results represented the contents of the sample. Although not reported in the method blank, detections of methylene chloride were identified by the laboratory as laboratory contamination and not representative of contents of the sample. At least two method blanks were run for each analysis method.

Surrogates were run in every sample analyzed. Surrogate recoveries were within analyte-specific control limits with the following exceptions:

- Recoveries of one of two PCB surrogates was below control limits for four samples (GMX40C-1.5, GMX37C-1.0, GMX36C-1.0, and GMX33B-1.0). As the other PCB surrogate was within control limits, the results were considered acceptable.
- Recovery of one of two PAH surrogates was below control limits for one sample (GMX36C-1.5). In addition, this sample was diluted because of interfering compounds, which can affect the surrogate recoveries. As the other PAH surrogate was within control limits, these analytical results are considered acceptable.

For VOCs, one of the internal surrogates was outside the control limits for five samples (GMX36C-1.5, GMX36C-5.0, GMX40C-1.5, GMX34B-1.5, and GMX35C-4.5). As stated by the laboratory, the reporting limit or reported concentration for chemicals related to this internal standard is an estimate. However, this is not considered to significantly affect the conclusions from this assessment.

Laboratory control samples, matrix spike samples, and laboratory duplicates were also used to evaluate the accuracy of the analytical results. At least two laboratory control samples and two duplicate samples (TPHmo, VOC, and PAH analyses only) were run for each analysis. At least three matrix spike samples were run for each analysis. The accuracy of these results were within the analyte-specific control limits with the following exceptions:

- One of three matrix spike recoveries was below control limits (GMX33B-1.0). As laboratory control samples were within acceptance limits, the variation was attributed to matrix interference for this sample.
- For the metals matrix spike recoveries, recoveries of antimony, barium, vanadium, zinc, and thallium were outside control limits in one or more of the three samples analyzed. However, the laboratory control samples were within control limits for these analytes verifying the accuracy of these results.

### ***Precision***

To evaluate precision, at least three matrix spike/matrix spike duplicate samples and at least two laboratory control samples were analyzed using each analysis method as discussed previously. The relative percent difference for these samples was within analyte-specific control limits.

### ***Completeness***

Data generated during the project were evaluated for completeness, that is, the amount of data meeting project QA/QC goals. Data generated for this project were considered complete.