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January 8, 2003  
Project 8367.001

Mr. Dan Carroll  
Pulte Home Corporation  
7031 Koll Center Parkway  
Pleasanton, California 94566

Subject: Results of Phase II Soil and Grab Groundwater Investigation  
1249 67<sup>th</sup> Street Property  
Emeryville, California

Dear Mr. Carroll:

Geomatrix Consultants, Inc. (Geomatrix), has prepared this letter documenting the results of the Phase II soil and grab groundwater investigation performed at the above-referenced property on behalf of Pulte Home Corporation (Pulte). The scope of work was developed based on the findings of site conditions identified during the Phase I environmental site assessment (Phase I) and performed in accordance with our October 18, 2002 Scope of Services. This letter report presents background information, the field sampling program, results of the investigation, and recommendations.

#### **BACKGROUND**

Geomatrix performed a Phase I for the subject property (Figure 1) in October 2002.<sup>1</sup> Based on information reviewed as part of the Phase I, the property has been used by Fabco Automotive Corporation (Fabco) since 1918 to develop and manufacture components for heavy-duty commercial trucks and vehicles. **Potential on-site environmental concerns identified during the Phase I include historical evidence of an unpaved area that was likely used for the storage of equipment and materials, a former paint spraying booth, evidence of a concrete sump, former underground storage tanks (USTs), and an area where cutting/lubricating oils are allowed to drip dry from metal shavings.** In addition, the property is located in an industrial area of Emeryville where groundwater underlying the site may be affected from off-site sources. Information collected from adjacent properties indicated that the depth to groundwater is approximately 8 to 10 feet below ground surface (bgs) and flows to the west-southwest. Based on the results of the Phase I, Geomatrix recommended a limited soil and grab groundwater sampling and analytical program to evaluate baseline environmental conditions at the property.

#### **FIELD SAMPLING PROGRAM**

The field sampling program consisted of the collection and analysis of grab groundwater samples from ten shallow soil borings (GMX-01 through GMX-10) and soil samples from six targeted borings (GMX-01, GMX-03, GMX-05, GMX-06, GMX-08, and GMX-09). The site

<sup>1</sup> Geomatrix Consultants, Inc., 2002, Final Environmental Site Assessment, November.

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layout and boring locations are shown on Figure 2. The borings were either located near potential source areas identified during the Phase I, located at upgradient and downgradient areas of the property, or located spatially to allow broad coverage over the entire property. All borings were advanced outside existing structures to minimize the impacts to current site operations.

Prior to initiating drilling activities, Geomatrix contacted the Alameda County Water District (ACWD) and Alameda County Public Works (ACPW) to confirm that boring permits were not necessary. Underground Service Alert was notified 48 hours prior to drilling and Cruz Brothers Locators of Milpitas, California, a private utility locator, was contracted to perform an underground utility clearance at each boring location.

Borings were advanced by Precision Sampling, Inc. (Precision), of Richmond, California, a state-licensed contractor, using a hydraulically driven, direct-push drilling rig with an Enviro-Core<sup>®</sup> continuous sampling system on November 8 and 12, 2002. A 1½-inch-outside-diameter steel drive casing lined with new, clean, butyrate soil liners was advanced to the desired depth. Precision cored through asphalt and concrete pavement at several locations to allow access for drilling equipment. Borings were advanced to a total depth ranging from 13 to 16 feet bgs to allow collection of shallow grab groundwater samples. A nearly continuous soil core was generated from each boring and logged by Geomatrix personnel according to the Unified Soil Classification System (USCS) as presented in the American Society of Testing Materials (ASTM) Standard D2488-90. Recovered soil was screened with an organic vapor meter (OVM) equipped with a photoionization detector (PID).

Soil samples were collected for chemical analysis from six borings at depths of 2 and 4.5 feet bgs. One additional soil sample was collected from boring GMX-04 at a depth of 8.5 feet bgs for chemical analysis based on visual observations and PID readings at the time of drilling. Soil samples were collected in clean, butyrate liners, sealed with Teflon<sup>®</sup> sheets, plastic end caps, and silicon tape. Samples were labeled and stored in an ice-cooled chest for delivery to the laboratory.

Grab groundwater samples were collected by placing a temporary well point constructed of 1-inch-diameter polyvinyl chloride (PVC) casing with 5 feet of screen into the borehole. The drive casing was then retracted approximately 5 to 10 feet from the bottom of the boring to allow groundwater to infiltrate into the temporary well point. Due to the predominantly fine-grained nature of soil encountered at a majority of the borings, infiltration of water into the temporary well point did not occur at 7 of the 10 locations. Therefore, grab groundwater samples were only collected from 3 locations. Grab groundwater samples were collected from the well casings using disposable bailers and decanted into sample bottles provided by the analytical laboratory. Sample bottles were labeled, sealed in plastic bags, and stored in an ice-cooled chest for delivery to the laboratory. Following the collection of soil and grab groundwater samples, the temporary well casings were removed and the boreholes were

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backfilled with cement grout from the total depth of the borehole to ground surface. The borehole locations were completed with asphalt, where appropriate, to match existing conditions.

Soil and grab groundwater samples were submitted for chemical analysis to STL San Francisco (Severn Trent Laboratories, Inc.) of Pleasanton, California, a state-certified analytical laboratory, under Geomatrix chain-of-custody procedures. Soil samples were analyzed for total extractable petroleum hydrocarbons, including total petroleum hydrocarbons quantified as diesel (TPHd) and as motor oil (TPHmo), using U.S. Environmental Protection Agency (EPA) Method 8015M, arsenic and leaking underground fuel tank (LUFT) metals<sup>2</sup> using EPA Method 6010B, and polynuclear aromatic hydrocarbons (PNAAs) using EPA Method 8270 selective ion monitoring (SIM). Grab groundwater samples were analyzed for volatile organic compounds (VOCs) using EPA Method 8260B.

Drilling and sampling equipment were steam cleaned prior to use at each location. Temporary well casings were disposed of as municipal waste. Equipment wash water and soil cuttings were stored in labeled 55-gallon drums at the property pending analytical results.

## RESULTS

### *Stratigraphy*

Based on the soil cores observed during drilling, soil is primarily sandy lean clay or clayey sand with varying layers of clayey sand with gravel to the maximum depth drilled. Soil immediately beneath the pavement/aggregate base in borings GMX-01 through GMX-04, GMX-06, and GMX-10 was observed to be "black" or "dark greenish gray", extending to depths between 2 and 8.5 feet bgs. Soil observed in borings GMX-05 and GMX-07 through GMX-09 was observed to be "dark greenish gray" from immediately beneath the pavement/aggregate base surface to depths of 13 feet bgs. OVM readings were measured at 21 to 25 parts per million (ppm) in the soil core interval between 1 and 2.5 feet bgs in boring GMX-01 and 25 and 27 ppm from the soil core interval between 7.5 and 9.0 feet bgs in boring GMX-04. Lithology and OVM reading are presented in the lithologic logs as Attachment A. Before groundwater samples were collected from borings GMX-04, GMX-08, and GMX-09, depth to groundwater was measured at 10.6, 5.5, and 6.3 feet bgs, respectively.

### *Soil Analysis*

Soil analytical results are summarized in Tables 1 and 2. Copies of the chain-of-custody records and analytical laboratory reports are presented in Attachment B. A total of thirteen soil samples were collected for analysis. Soil results were compared to the San Francisco Bay Area Regional Water Quality Control Board (RWQCB) Risk-Based Screening Levels (RBSLs) and naturally-occurring background concentrations from the Lawrence Berkeley

<sup>2</sup> LUFT metals include cadmium, chromium, lead, nickel, and zinc.

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National Laboratory (LBNL). The RBSLs are conservative screening levels that correspond to an acceptable risk level and reflect varying combinations of site characteristics including both residential and industrial land uses. Concentrations of compounds detected below corresponding RBSLs can be assumed to not pose a significant threat to human health and the environment. Conversely, exceedance of the corresponding RBSL does not necessarily indicate that adverse health effects will occur but suggests that additional evaluation of the potential risks is warranted.

TPHd was detected above laboratory sample quantitation limits (SQLs) in the soil samples collected from borings GMX-01, GMX-03 through GMX-06, and GMX-08. TPH quantified as motor oil was detected above SQLs in borings GMX-01, GMX-04, GMX-06 and GMX-08. Concentrations of TPHd ranged from non-detects to 200 milligrams per kilogram (mg/kg). TPHmo was detected at concentrations ranging from 66 to 350 mg/kg. Except for TPHd in soil sample from boring GMX-04 at 8.5 feet bgs, concentrations of TPHd and TPHmo are less than the residential surface soil RBSLs where groundwater is a current or potential source of drinking water. TPHd was detected at a concentration that slightly exceeds the RBSL of 100 mg/kg.

PAHs were detected above SQLs in borings GMX-01, GMX-03, and GMX-04. Total detectable PAH concentrations were low, with concentrations ranging from non-detects to a maximum of 628 (fluoranthene) micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ). Except for benzo(a)pyrene in one soil sample from GMX-01 at 2 feet bgs, PAHs were not detected at concentrations exceeding the corresponding residential surface soil RBSLs. Based on available soil data, the presence of benzo(a)pyrene at concentrations exceeding the RBSL is limited both laterally and vertically.

Arsenic was detected above SQLs in borings GMX-01, GMX-03, GMX-05, GMX-06, GMX-08 and GMX-09 to a maximum of 16 mg/kg. Cadmium, chromium, lead, nickel, and zinc were detected above SQLs in the thirteen soil samples analyzed. Concentrations of metals were less than either the residential RBSL or LBNL naturally-occurring background levels.

#### ***Grab Groundwater Analysis***

Grab groundwater analytical results are summarized in Table 3 and are presented in Figure 3. Trichloroethene (TCE) was detected in the grab groundwater samples from borings GMX-04, GMX-08, and GMX-09 at concentrations of 3.1, 1.3, and 62 micrograms per liter ( $\mu\text{g}/\text{l}$ ), respectively; cis-1, 2-dichloroethene was also detected in the samples from these borings at concentrations of 0.7, 0.5, and 2.6  $\mu\text{g}/\text{l}$ , respectively. Trans-1,2-dichloroethene was detected in the grab groundwater sample collected from boring GMX-09 at a concentration of 2.9  $\mu\text{g}/\text{l}$ . TCE and its degradation daughter products, cis-1,2-dichloroethene and trans-1,2-dichloroethene, are commonly associated with a variety of industries, such as manufacturing of parts/precision equipment facilities.

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To assess whether the chemicals detected in grab groundwater are present at concentrations of potential concern, the analytical results were compared to the RBSLs and the State of California maximum contaminant levels (MCLs) for drinking water (Table 3). As presented in Table 3, the concentrations of chemicals detected in grab groundwater are lower than the corresponding RBSLs and MCLs, except for the presence of TCE at a concentration of 62 µg/l in grab groundwater from boring GMX-09.


#### SUMMARY AND RECOMMENDATIONS


Based on the amount of data generated from the field sampling program, additional grab groundwater data are recommended to further characterize groundwater conditions underlying the property. Concentrations of chemicals in soil are similar and are lower than applicable screening criteria except for two soil samples. However, the exceedances were limited to one sample. Geomatrix recommends the collection of additional grab groundwater samples at the site for analysis for VOCs. Collection of these samples will be conducted by installing additional temporary well points that would be left in place until sufficient groundwater enters the well point for sample collection.

We appreciate the opportunity to continue to provide our environmental consulting services to Pulte. Please do not hesitate to call Robert Cheung or either of the undersigned if you have any questions or require additional information.

Sincerely,

GEOMATRIX CONSULTANTS, INC.

  
Elizabeth K. Wells, P.E.  
Senior Engineer

  
Ravi Arulanantham, Ph.D.  
Principal

EKW/RA/pp  
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Attachments: Table 1 Soil Sample Analytical Results for Total Extractable Petroleum Hydrocarbons and Metals  
Table 2 Soil Sample Analytical Results for PAHs  
Table 3 Grab Groundwater Sample Analytical Results for VOCs  
Figure 1 Site Location Map  
Figure 2 Site Layout and Boring Location Map  
Figure 3 Grab Groundwater Analytical Results  
Attachment A – Lithologic Logs  
Attachment B – Analytical Laboratory Reports and Chain-of-Custody Records

**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS FOR**  
**TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS AND METALS<sup>1</sup>**  
 1249 67th Street  
 Emeryville, California

Concentrations reported in milligrams per kilogram (mg/kg)

Sample Location	Sample Depth (feet bgs)	TPHd	TPHmo	Arsenic	Cadmium	Chromium	Lead	Nickel	Zinc
GMX-01	2	31	310	8	2.3	24	180	35	360
GMX-01	4.5	<1	<50	<1	1	16	3.3	9.8	18
GMX-03	2	<1	<50	1.8	1.1	16	11	15	20
GMX-03	4.5	1.2	<50	1.5	1.2	17	6.8	15	16
GMX-04	8.5	200	350	<1	1.8	28	5.3	24	27
GMX-05	2	2.1	<50	1.8	1.6	16	7.7	15	35
GMX-05	4.5	<1	<50	<1	1.2	17	4.3	26	20
GMX-06	2	5.8	66	2.4	1.6	19	11	22	36
GMX-06	4.5	<1	<50	2.7	0.97	13	12	14	29
GMX-08	2	52	160	16	2.4	18	32	28	69
GMX-08	4.5	<1	<50	<1	2.1	29	5.9	56	28
GMX-09	2	<1	<50	3.3	2.1	30	7.1	17	24
GMX-09	4.5	<1	<50	11	4	31	12	35	41
RWQCB RBSLs <sup>2</sup>		100	500	0.39	1.7	13 <sup>4</sup>	200	150	600
Background <sup>3</sup>		NA	NA	19.1	2.7	99.6	16.1	120	106

Notes:

- <sup>1</sup> Samples collected by Geomatrix Consultants, Inc., and analyzed by STL San Francisco of Pleasanton, California, for total extractable petroleum hydrocarbons using EPA Method 8015M, and for arsenic and leaking underground fuel tank (LUFT) metals using EPA Method 6010B.
- <sup>2</sup> San Francisco Bay Area Regional Water Quality Control Board (RWQCB), Risk-Based Screening Levels (RBSLs), December 2001. Residential surface soil RBSLs where groundwater is a current or potential source of drinking water.
- <sup>3</sup> Lawrence Berkeley National Laboratory Environmental Restoration Program, 1995. 500 samples were taken from 71 locations representing 5 geologic units at LBNL: Colluvian & Fill, Great Valley group, Moraga formation, Orinda formation, and San Pablo group. Concentrations listed are Upper 95% Tolerance Limits of data from 71 locations.

Abbreviations:

feet bgs = feet below ground surface

"<" = indicates constituent was not detected above the laboratory reporting limit indicated

TPHd = Total petroleum hydrocarbons quantified as diesel

TPHmo = Total petroleum hydrocarbons quantified as motor oil

TABLE 2

SOIL SAMPLE ANALYTICAL RESULTS FOR  
POLYNUCLEAR AROMATIC HYDROCARBONS<sup>1</sup>

1249 67th Street  
Emeryville, California

Concentrations reported in micrograms per kilogram (µg/kg)

Sample Location	Sample Depth (feet bgs)	Acenaph-thene	Acenaph-thylene	Anthra-cene	Dibenzo (a,h) anthracene	Benzo(a) anthracene	Benzo(b) fluor-anthene	Benzo(k) fluor-anthene	Benzo (g,h,i) perylene	Benzo(a) pyrene	Chrysene	Fluor-anthene	Fluorene	Indeno (1,2,3) pyrene	Naph-thalene	Phenan-threne	Pyrene
GMX-01	2	<50	<50	53	<50	200	190	140	160	190	200	470	<50	130	<50	330	360
GMX-01	4.5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-03	2	6.8	<5	26	<5	55	27	24	15	33	53	89	10	12	<5	110	110
GMX-03	4.5	<10	<10	24	<10	46	25	20	16	33	51	69	<10	13	<10	100	90
GMX-04	8.5	35	11	73	<5	<5	<5	<5	<5	<5	<5	<5	160	<5	<5	12	<5
GMX-05	2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-05	4.5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-06	2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-06	4.5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-08	2	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
GMX-08	4.5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-09	2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GMX-09	4.5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total PAHs	47.5	41.8	11	176	0	301	242	184	191	256	304	628	170	155	0	552	560
RWQCB RBSLs <sup>2</sup>		16,000	120,000	2900	110	380	380	380	5300	38	3800	40,000	5100	380	1700	11,000	55,000

Note:

<sup>1</sup> Samples collected by Geomatrix Consultants, Inc., and analyzed by STL San Francisco of Pleasanton, California, for polynuclear aromatic hydrocarbons (PAHs) using EPA Method 8270C SIM.

<sup>2</sup> San Francisco Bay Area Regional Water Quality Control Board (RWQCB), Risk-Based Screening Levels (RBSLs), December 2001. Residential surface soil RBSLs where groundwater is a current or potential source of drinking water.

Abbreviations:

feet bgs = feet below ground surface

"<" = indicates constituent was not detected above the laboratory reporting limit indicated

**TABLE 3**  
**GRAB GROUNDWATER SAMPLE ANALYTICAL RESULTS**  
**FOR VOLATILE ORGANIC COMPOUNDS<sup>1</sup>**

1249 67th Street  
 Emeryville, California

Concentrations reported in micrograms per liter (µg/l)

Boring/Sample ID	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Trichloroethene
GMX-01	NS <sup>2</sup>	NS	NS
GMX-02	NS	NS	NS
GMX-03	NS	NS	NS
GMX-04	0.7	<0.5	3.1
GMX-04 Dup <sup>3</sup>	0.69	<0.5	3.4
GMX-05	NS	NS	NS
GMX-06	NS	NS	NS
GMX-07	NS	NS	NS
GMX-08	0.5	<0.5	1.3
GMX-09	2.6	2.9	62
GMX-10	NS	NS	NS
SF RWQCB RBSL <sup>4</sup>	6	10	5
California MCL <sup>5</sup>	6	10	5

Notes:

<sup>1</sup> Samples collected by Geomatrix Consultants, Inc., and analyzed by STL San Francisco of Pleasanton, California, for volatile organic compounds (VOCs) using EPA Method 8260B. Only those analytes detected are shown; for a complete list of analytes, refer to the laboratory report (Attachment B).

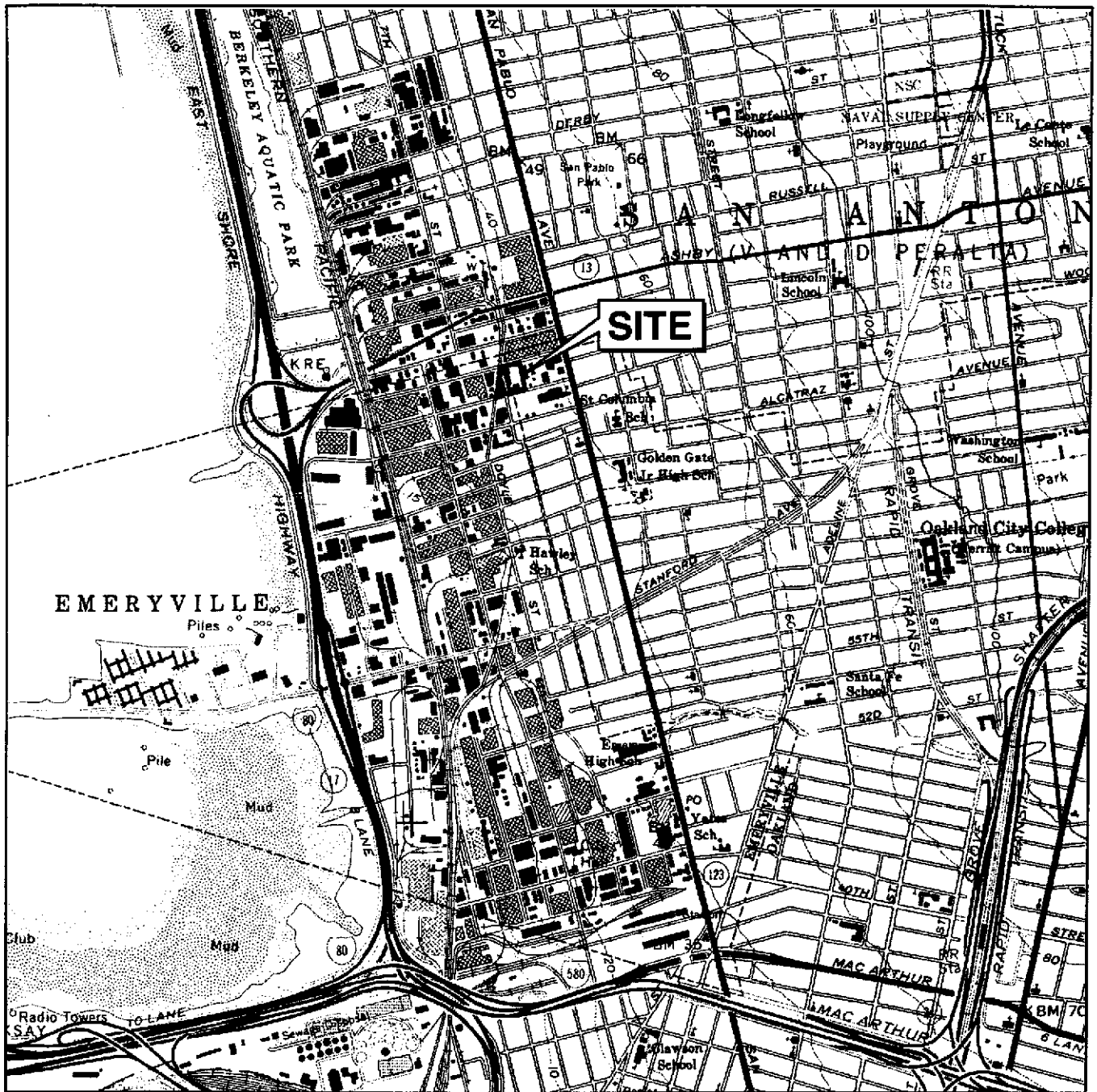
<sup>2</sup> NS = Not sampled; insufficient water in the temporary well point.

<sup>3</sup> Field duplicate of GMX-04.

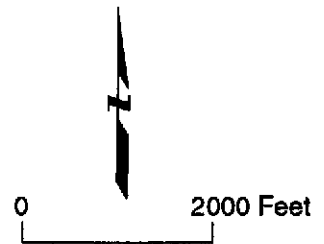
<sup>4</sup> San Francisco Regional Water Quality Control Board, Risk-Based Screening Levels (RBSL) in Groundwater, December 2001.

<sup>5</sup> State of California Drinking Water Maximum Contaminant Level (MCL).





Base map from the U.S. Geological Survey, Oakland West Quadrangle, 7.5 minute series (topographic), 1959 (photo revised 1980).



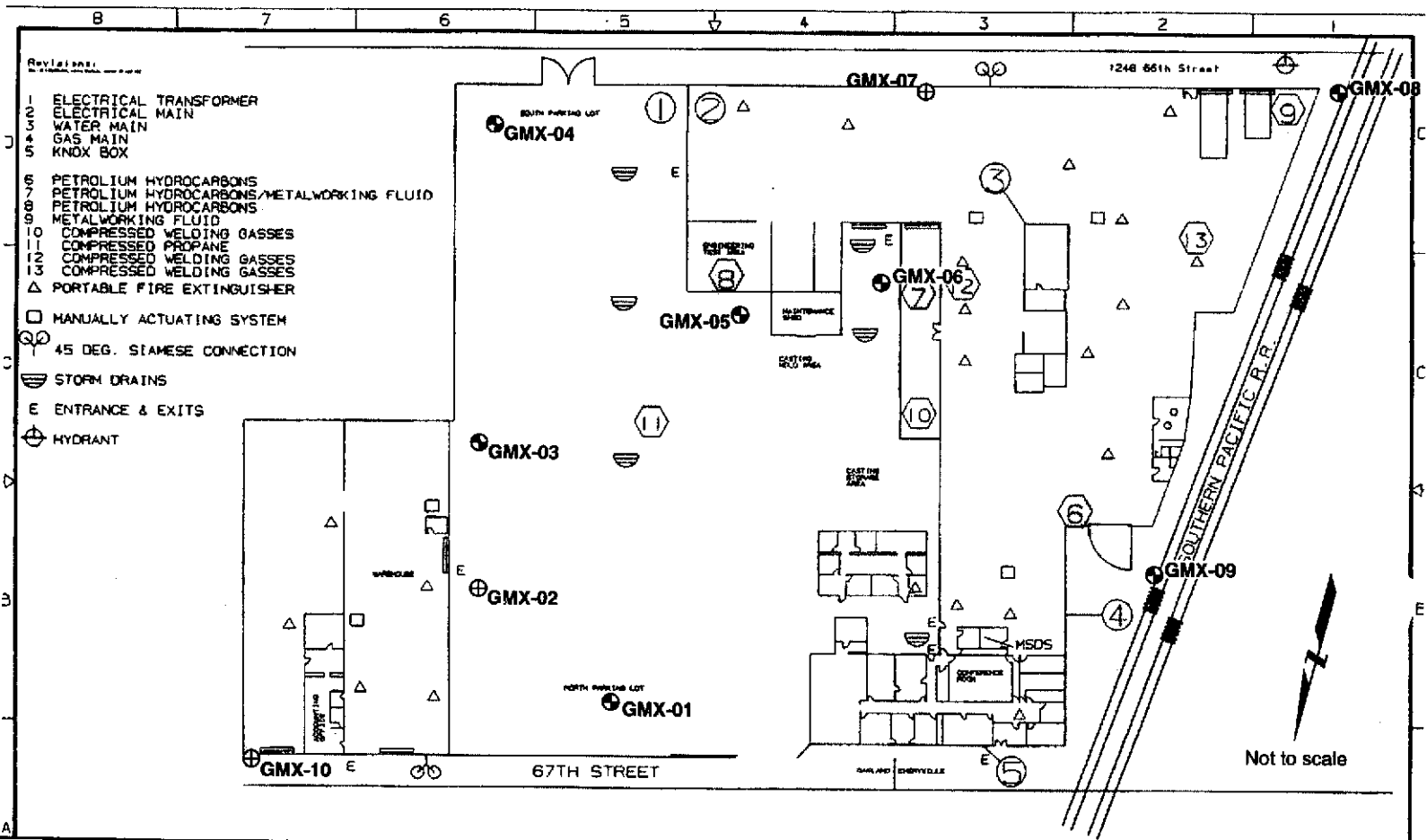
S:\8300\8367\8367.001\02\_1002\_phase1\_fig\_01(03).ai



**SITE LOCATION MAP**  
 Fabco Automotive Corporation  
 1249 67th Street  
 Emeryville, California

Project No.  
 8367.001

Figure  
 1



**EXPLANATION**

- ⊕ Soil and groundwater boring location
- ⊕ Boring location

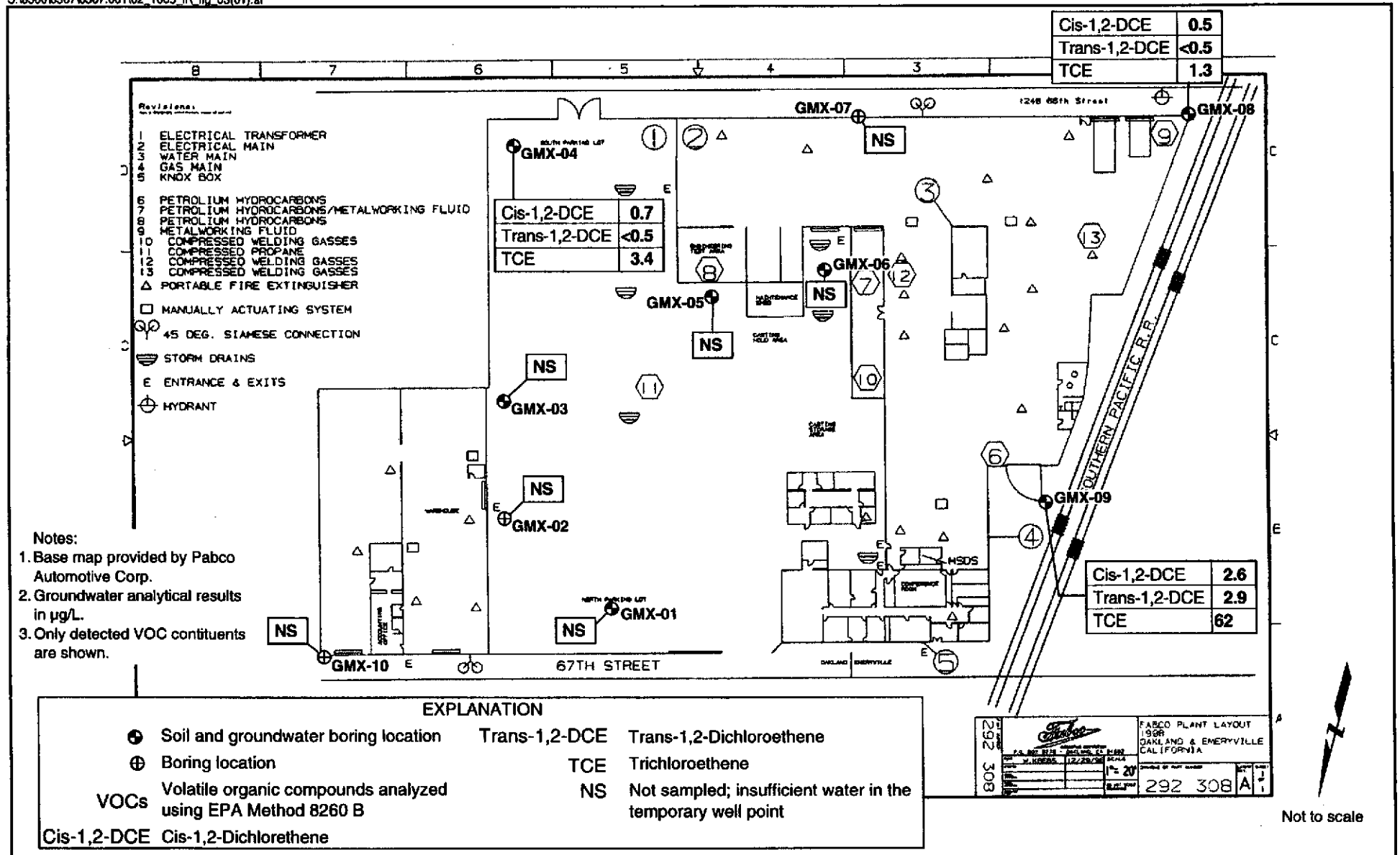
Base map provided by Pabco Automotive Corporation.

292 308	<i>John</i>		FABCO PLANT LAYOUT	
	P.A. 807 5011 - 12/29/06		1-998	
12/29/06		OAKLAND & EMERYVILLE		A
Scale 1" = 20'		CALIFORNIA		
292 308		292 308		



**SITE LAYOUT WITH SOIL AND GRAB GROUNDWATER BORING LOCATIONS**  
 Fabco Automotive Corporation  
 1249 67th Street  
 Emeryville, California

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Figure  
**2**



**GRAB GROUNDWATER ANALYTICAL RESULTS FOR VOCs**  
 November 8 and 12, 2002  
 Fabco Automotive Corporation, 1249 67th Street  
 Emeryville, California

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Figure  
**3**

Attachment A

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Lithologic Logs

PROJECT: 1249 67TH STREET  
Emeryville, California

## Boring Log Explanation

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.

24 HRS.

SAMPLING METHOD:

LOGGED BY:

HAMMER WEIGHT:

DROP:

RESPONSIBLE PROFESSIONAL:

REG. NO.

DEPTH (feet)	SAMPLES				OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.  Surface Elevation:  Notes	REMARKS
	Sample No.	Sample	Blows/ Foot				
1						<p>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)."</p> <p>2. Soil color described according to Munsell Color Chart.</p> <p>3. Dashed lines separating soil strata represent inferred boundaries between sampled intervals that may be abrupt or gradual transitions.</p> <p>4. Solid lines represent approximate boundaries observed within sample intervals.</p> <p>5. OVM = organic vapor meter, reading in volumetric parts per million.</p> <p>6. Odor, if noted is subjective and not necessarily indicative of specific compounds or concentrations.</p> <p>7. NA = Not applicable.</p> <p>8. ND = No data.</p> <p>Interval of recovered soil core collected with split-barrel sampler.</p> <p>Interval of no recovery.</p> <p>Sample collected for chemical analysis and sample identification.</p>	
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13	GMX-01-13.0						
14							
15							



PROJECT: 1249 67TH STREET Emeryville, California		<b>Log of Boring No. GMX-01</b>	
BORING LOCATION: North parking lot along 67th Street		ELEVATION AND DATUM: Not surveyed: datum is ground surface	
DRILLING CONTRACTOR: Precision Sampling Incorporated		DATE STARTED: 11/8/02	DATE FINISHED: 11/8/02
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 16.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: XD-1		DEPTH TO WATER (ft.)	FIRST 10.25
SAMPLING METHOD: Enviro-core sampling system [3' x 2.6"]		LOGGED BY: M. Goerz	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: E. Wells	REG. NO. C47968

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample Blows/ Foot				
					Surface Elevation: Not surveyed	
1	GMX-01-2.0	X		21	ASPHALTIC CONCRETE	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.
2				25	CLAYEY SAND with GRAVEL (SC): black (7.5YR 2.5/1), moist, 50% fine to coarse sand, 35% medium plasticity fines, 15% fine to coarse gravel	
3	GMX-01-4.5	X			SANDY LEAN CLAY (CL): black (7.5YR 2.5/1), moist, 60% fines, 40% fine sand, medium plasticity, soft	
4				0	CLAYEY SAND (SC): light olive brown (2.5Y 5/3), moist, 60% fine sand, 40% medium plasticity fines	
5				0	SANDY LEAN CLAY (CL): grayish brown (2.5Y 5/2), moist, 60% fines, 40% fine sand	
6				0		
7		X		0	CLAYEY SAND (SC): light olive brown (2.5Y 5/3), moist, 60% fine sand, 35% medium plasticity fines, 5% fine gravel	
8				0	60% fine to coarse sand, 30% medium plasticity fines, 10% fine to coarse gravel	
9				0		
10				0	wet, 70% fine to coarse sand, 25% medium plasticity fines, 5% fine gravel	
11				0	moist	
12				0	dark yellowish brown (10YR 4/6)	
13				0	65% fine to coarse sand, 25% medium plasticity fines, 10% fine to coarse gravel	
14				0		
15				0		

Attempt to collect grab groundwater sample GW-01 through 5 feet of 1-inch OD Sch. 40 PVC screen (0.01-inch slot size) placed in borehole from 11 to 16 feet bgs. Enviro-core drive casing retracted from bottom of boring to 7 feet bgs to maintain surface seal. No groundwater recovered.

PROJECT: 1249 67TH STREET  
Emeryville, California

### Log of Boring No. GMX-01 (cont'd)

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
16				0	CLAYEY SAND (SC): cont'd	Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a tremie pipe.
17				0	Bottom of boring at 16.0 feet	
18						
19						
20						
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24						
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33						



PROJECT: 1249 67TH STREET Emeryville, California		<b>Log of Boring No. GMX-02</b>	
BORING LOCATION: E side of north parking lot near warehouse bay doors		ELEVATION AND DATUM: Not surveyed: datum is ground surface	
DRILLING CONTRACTOR: Precision Sampling Incorporated		DATE STARTED: 11/8/02	DATE FINISHED: 11/8/02
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 13.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: XD-1		DEPTH TO WATER (ft.):	FIRST 10.25      COMPL. NA
SAMPLING METHOD: Enviro-core sampling system [3' x 2.6"]		LOGGED BY: M. Goerz	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: E. Wells	REG. NO. C47968

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
					Surface Elevation: Not surveyed	
					ASPHALTIC CONCRETE	
1				0	SANDY LEAN CLAY (CL): black (7.5YR 2.5/1), moist, 60% fines, 35% fine sand, 5% fine gravel, low plasticity, soft	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.
2				0	70% fines, 30% fine sand	
3						
4				0	grayish brown (10YR 5/2)	
5				0	black (2.5Y 2.5/1)	
6				0	60% fines, 35% fine sand, 5% fine gravel	
7				0	CLAYEY SAND with GRAVEL (SC): brown (10YR 5/3) mottled with yellowish brown (10YR 5/6) and dark gray (10YR 4/1), moist, 50% fine to coarse sand, 30% medium plasticity fines, 20% fine to coarse gravel, trace reddish brown brick fragments	
8				0		
9						
10				0	brown (10YR 5/3) mottled with yellowish brown (10YR 5/6)	
11				0	wet moist, 60% fine to coarse sand, 30% medium plasticity fines, 10% fine gravel	
12				0	wet 50% fine to coarse sand, 30% medium plasticity fines, 20% fine to coarse gravel	
13				0	Bottom of boring at 13.0 feet	
14						Attempt to collect grab groundwater sample GW-02 through 5 feet of 1-inch OD Sch. 40 PVC screen (0.01-inch slot size) placed in borehole from 8 to 13 feet bgs. Enviro-core drive casing retracted from bottom of boring to 7 feet bgs to maintain surface seal. No groundwater recovered.  Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a tremie pipe.
15						



PROJECT: 1249 67TH STREET  
Emeryville, California

## Log of Boring No. GMX-03

BORING LOCATION: East side of central parking lot

ELEVATION AND DATUM:  
Not surveyed; datum is ground surface

DRILLING CONTRACTOR: Precision Sampling Incorporated

DATE STARTED: 11/8/02  
DATE FINISHED: 11/8/02

DRILLING METHOD: Direct push

TOTAL DEPTH (ft.): 16.0  
MEASURING POINT: Ground surface

DRILLING EQUIPMENT: XD-1

DEPTH TO WATER (ft.):  
FIRST 14.0  
COMPL. NA

SAMPLING METHOD: Enviro-core sampling system [3' x 2.6"]

LOGGED BY:  
M. Goerz

HAMMER WEIGHT: NA

DROP: NA

RESPONSIBLE PROFESSIONAL:  
E. Wells

REG. NO.  
C47968

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
					Surface Elevation: Not surveyed	
1				0	ASPHALTIC CONCRETE	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.  Attempt to collect grab groundwater sample GW-03 through 5 feet of 1-inch OD Sch. 40 PVC screen (0.01-inch slot size) placed in borehole from 11 to 16 feet bgs. Enviro-core drive casing retracted from bottom of boring to 7 feet bgs to maintain surface seal. No groundwater recovered.
2				0	CLAYEY SAND with GRAVEL (SC): olive brown (2.5Y 4/3), moist, 60% fine to coarse sand, 20% fine to coarse gravel, 20% low plasticity fines	
3				0	SANDY LEAN CLAY (CL): black (N 2.5/0), moist, 70% fines, 30% fine sand, medium plasticity, soft	
4				0	dark greenish gray (5G 4/1), firm	
5				0	60% fines, 30% fine sand, 10% fine gravel	
6				0	CLAYEY SAND with GRAVEL (SC): light olive brown (2.5Y 5/3), moist, 60% fine to coarse sand, 20% fine to coarse gravel, 20% medium plasticity fines	
7				0	60% fine sand, 40% medium plasticity fines	
8				0	SANDY LEAN CLAY (CL): light olive brown (2.5Y 5/3), moist, 60% fines, 40% fine sand, medium plasticity, firm	
9				0	60% fines, 35% fine sand, 5% fine gravel	
10				0	CLAYEY SAND with GRAVEL (SC): grayish brown (2.5Y 5/3) mottled with light olive brown (2.5Y 5/6), moist, 50% fine to coarse sand, 30% medium plasticity fines, 20% fine to coarse sand	
11				0		
12				0		
13				0		
14				0	wet	
15				0		



PROJECT: 1249 67TH STREET  
Emeryville, California

### Log of Boring No. GMX-03 (cont'd)

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample Blows/ Foot	Foot			
16				0	CLAYEY SAND with GRAVEL (SC): cont'd wet	Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a tremie pipe.
17					Bottom of boring at 16.0 feet	
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						



PROJECT: 1249 67TH STREET Emeryville, California		<b>Log of Boring No. GMX-04</b>	
BORING LOCATION: Southeast corner of south parking lot		ELEVATION AND DATUM: Not surveyed: datum is ground surface	
DRILLING CONTRACTOR: Precision Sampling Incorporated		DATE STARTED: 11/8/02	DATE FINISHED: 11/8/02
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 16.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: XD-1		DEPTH TO WATER (ft.)	FIRST 13.0 COMPL. 10.6
SAMPLING METHOD: Enviro-core sampling system [3' x 2.6"]		LOGGED BY: M. Goerz	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: E. Wells	REG. NO. C47968

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
					Surface Elevation: Not surveyed	
1				0	ASPHALTIC CONCRETE	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.  Grab groundwater sample GMX-04 collected through 5 feet of 1-inch OD Sch. 40 PVC screen (0.01-inch slot size) placed in borehole from 11 to 16 feet bgs. Enviro-core drive casing retracted from bottom of boring to 10 feet bgs to maintain surface seal.
2				0	CLAYEY SAND with GRAVEL (SC): dark grayish brown (10YR 4/2), moist, 50% fine to coarse sand, 25% medium plasticity fines, 25% fine to coarse gravel	
3					SANDY LEAN CLAY (CL): black (N 2.5/0), moist, 70% fines, 30% fine sand, medium plasticity, soft	
4				0	light olive brown (2.5Y 5/3) mottled with dark yellowish brown (10YR 4/6), 60% fines, 30% fine to coarse sand, 10% fine to coarse gravel, firm	
5				0	60% fines, 35% fine to coarse sand, 5% fine gravel	
6					grayish brown (2.5Y 5/2), 60% fines, 40% fine sand	
7					grayish brown (2.5Y 5/2) mottled with black (N 2.5/0), odor	
8				25	dark greenish gray (10GY 4/1)	
9				27		
9				25		
9				0	brown (7.5YR 4/3) mottled with dark greenish gray (10GY 4/1)	
10				0	no odor	
10				0	CLAYEY SAND (SC): strong brown (7.5YR 4/6) mottled with dark greenish gray (10GY 4/1), moist, 60% fine sand, 40% medium plasticity fines, trace fine gravel	
11				0		
12						
13				0	CLAYEY SAND with GRAVEL (SC): dark yellowish brown (10YR 4/6), wet, 50% fine to coarse sand, 30% fine to coarse gravel, 20% medium plasticity fines	
14				0		
15						

GMX-04-8.5



PROJECT: 1249 67TH STREET  
Emeryville, California

Log of Boring No. GMX-04 (cont'd)

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
16		X			CLAYEY SAND with GRAVEL (SC): cont'd	Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a tremie pipe.
17					Bottom of boring at 16.0 feet	
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
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33						



PROJECT: 1249 67TH STREET Emeryville, California		<b>Log of Boring No. GMX-05</b>	
BORING LOCATION: South parking lot near engineering test area		ELEVATION AND DATUM: Not surveyed: datum is ground surface	
DRILLING CONTRACTOR: Precision Sampling Incorporated		DATE STARTED: 11/8/02	DATE FINISHED: 11/8/02
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 13.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: XD-1		DEPTH TO WATER (ft.): 11.0	FIRST 11.0
SAMPLING METHOD: Enviro-core sampling system [3' x 2.6"]		LOGGED BY: M. Goerz	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: E. Wells	REG. NO. C47968

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION	REMARKS
	Sample No.	Sample Blows/ Foot			NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	
					Surface Elevation: Not surveyed	
1				0	ASPHALTIC CONCRETE	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.           Attempt to collect grab groundwater sample GW-05 through 5 feet of 1-inch OD Sch. 40 PVC screen (0.01-inch slot size) placed in borehole from 8 to 13 feet bgs. Enviro-core drive casing retracted from bottom of boring to 7 feet bgs to maintain surface seal. No groundwater recovered.   Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a tremie pipe.
2	GMX-05-2.0			0	LEAN CLAY with SAND (CL): very dark gray (N 3/0) mottled with greenish gray (5G 5/1), moist, 80% fines, 20% fine sand, medium plasticity, soft	
3				0	very dark gray (N 3/0)	
4	GMX-05-4.5			0	SANDY LEAN CLAY with GRAVEL (CL): dark greenish gray (10Y 4/1) mottled with dark greenish gray (5G 4/1), moist, 50% fines, 30% fine to coarse sand, 20% fine to coarse gravel, nonplastic, firm	
5				0	SANDY LEAN CLAY (CL): dark greenish gray (10GY 4/1), moist, 70% fines, 30% fine sand, medium plasticity, firm	
6				0		
7				0		
8				0	60% fines, 30% fine to coarse sand, 10% fine to coarse gravel	
9				0	grayish brown (2.5Y 5/2) mottled with greenish gray (5G 5/1), 60% fines, 35% fine to coarse sand, 5% fine gravel	
10				0		
11				0	CLAYEY SAND with GRAVEL (SC): light olive brown (2.5Y 5/3) mottled with dark yellowish brown (10YR 4/6) and greenish gray (10Y 5/1), moist, 50% fine to coarse sand, 30% medium plasticity fines, 20% fine to coarse gravel	
12				0	wet, 60% fine to coarse sand, 25% medium plasticity fines, 15% fine gravel	
13				0	moist, 50% fine to coarse sand, 30% medium plasticity fines, 20% fine to coarse gravel	
14					Bottom of boring at 13.0 feet	



PROJECT: 1249 67TH STREET Emeryville, California		<b>Log of Boring No. GMX-06</b>	
BORING LOCATION: SW area of parking lot near entrance to S warehouse		ELEVATION AND DATUM: Not surveyed: datum is ground surface	
DRILLING CONTRACTOR: Precision Sampling Incorporated		DATE STARTED: 11/8/02	DATE FINISHED: 11/8/02
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 13.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: XD-1		DEPTH TO WATER (ft.): 9.5	FIRST 9.5
SAMPLING METHOD: Enviro-core sampling system [3' x 2.6"]		LOGGED BY: M. Goerz	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: E. Wells	REG. NO. C47968

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
					Surface Elevation: Not surveyed	
					CONCRETE	
1	GMX-06-2.0			0	CLAYEY SAND with GRAVEL (SC): greenish black (10Y 2.5 /1), moist, 60% fine to coarse sand, 20% fine to coarse gravel, 20% medium plasticity fines, trace wood fragments	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.
2				0	SANDY LEAN CLAY (CL): black (N 2.5/0), moist, 70% fines, 30% fine sand, medium plasticity, soft	
3				0	POORLY GRADED SAND with CLAY (SP-SC): greenish gray (10GY 5/1)	
4	GMX-06-4.5			0		
5				0		
6				0	dark greenish gray (5G 4/1), firm, odor	
7				0	dark greenish gray (5GY 4/1), 60% fines, 40% fine sand, trace fine gravel, odor	
8				0		
9				0	CLAYEY SAND with GRAVEL (SC): olive brown (2.5Y 4/3) mottled with dark yellowish brown (10YR 4/6), moist, 50% fine to coarse sand, 30% medium plasticity fines, 20% fine to coarse gravel	
10				0	wet	
11				0	moist, 60% fine to coarse gravel, 35% medium plasticity fines, 15% fine gravel	
12				0	50% fine to coarse sand, 35% medium plasticity fines, 15% fine to coarse gravel	
13				0	Bottom of boring at 13.0 feet	
14						Attempt to collect grab groundwater sample GW-06 through 5 feet of 1-inch OD Sch. 40 PVC screen (0.01-inch slot size) placed in borehole from 8 to 13 feet bgs. Enviro-core drive casing retracted from bottom of boring to 7 feet bgs to maintain surface seal. No groundwater recovered.
15						Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a tremie pipe.



PROJECT: 1249 67TH STREET Emeryville, California		<b>Log of Boring No. GMX-07</b>	
BORING LOCATION: South side of site along 66th Street		ELEVATION AND DATUM: Not surveyed: datum is ground surface	
DRILLING CONTRACTOR: Precision Sampling Incorporated		DATE STARTED: 11/12/02	DATE FINISHED: 11/12/02
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 15.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: XD-1		DEPTH TO WATER (ft.):	FIRST NA COMPL. NA
SAMPLING METHOD: Enviro-core sampling system [3' x 2.6"]		LOGGED BY: B. Mulholland	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: E. Wells	REG. NO. C47968

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
Surface Elevation: Not surveyed						
1					SANDY LEAN CLAY with GRAVEL (CL): dark greenish gray (10G 3/1), moist, 50% fines, 30% fine to coarse sand, 20% fine to coarse gravel	<p>OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.</p> <p>Attempt to collect grab groundwater sample GW-07 through 5 feet of 1-inch OD Sch. 40 PVC screen (0.01-inch slot size) placed in borehole from 10 to 15 feet bgs. Enviro-core drive casing retracted from bottom of boring to 7 feet bgs to maintain surface seal. No groundwater recovered.</p> <p>Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a tremie pipe.</p>
2				0		
3						
4						
5					SANDY LEAN CLAY (CL): reddish brown (5YR 4/3), moist, 70% fines, 30% fine sand, medium plasticity, firm	
6						
7				0		
8						
9					SANDY LEAN CLAY with GRAVEL (CL): reddish brown (5YR 4/3), moist, 50% fines, 30% fine to coarse sand, 20% fine to coarse gravel	
10						
11						
12				0		
13						
14					SANDY LEAN CLAY (CL): reddish brown (5YR 4/3), moist, 70% fines, 30% fine sand, medium plasticity, firm	
15				0	Bottom of boring at 15.0 feet	



PROJECT: 1249 67TH STREET Emeryville, California		<b>Log of Boring No. GMX-08</b>	
BORING LOCATION: Southwest coner of site along 66th Street		ELEVATION AND DATUM: Not surveyed: datum is ground surface	
DRILLING CONTRACTOR: Precision Sampling Incorporated		DATE STARTED: 11/12/02	DATE FINISHED: 11/12/02
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 15.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: XD-1		DEPTH TO WATER (ft.):	FIRST: 13.0 COMPL.: 5.5
SAMPLING METHOD: Enviro-core sampling system [3' x 2.6"]		LOGGED BY: B. Mulholland	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: E. Wells	REG. NO. C47968

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot			
Surface Elevation: Not surveyed						<p>OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.</p> <p>Grab groundwater sample GMX-08 collected through 5 feet of 1-inch OD Sch. 40 PVC screen (0.01-inch slot size) placed in borehole from 10 to 15 feet bgs. Enviro-core drive casing retracted from bottom of boring to 7 feet bgs to maintain surface seal.</p> <p>Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a tremie pipe.</p>
1					CLAYEY SAND with GRAVEL (SC): dark greenish gray (10G 3/1), moist, 50% fine to coarse sand, 35% medium plasticity fines, 15% fine to coarse gravel	
2				0		
3						
4					SANDY LEAN CLAY with GRAVEL (CL): dark greenish gray (10G 3/1), moist, 50% fines, 30% fine to coarse sand, 20% fine to coarse gravel, nonplastic, firm	
5						
6				0		
7				0		
8						
9						
10					SANDY LEAN CLAY (CL): reddish brown (5YR 4/3), moist, 70% fines, 30% fine sand, medium plasticity, firm	
11						
12				0		
13					wet	
14						
15					Bottom of boring at 15.0 feet	





PROJECT: 1249 67TH STREET Emeryville, California		<b>Log of Boring No. GMX-09</b>	
BORING LOCATION: Northwest side of site near railroad tracks		ELEVATION AND DATUM: Not surveyed: datum is ground surface	
DRILLING CONTRACTOR: Precision Sampling Incorporated		DATE STARTED: 11/12/02	DATE FINISHED: 11/12/02
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 15.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: XD-1		DEPTH TO WATER (ft.)	FIRST 14.0      COMPL. 6.25
SAMPLING METHOD: Enviro-core sampling system [3' x 2.6"]		LOGGED BY: B. Mulholland	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: E. Wells	REG. NO. C47968

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample Blows/ Foot				
0					Surface Elevation: Not surveyed	
1				0	CLAYEY SAND with GRAVEL (SC): dark greenish gray (10G 3/1), moist, 50% fine to coarse sand, 35% medium plasticity fines, 15% fine to coarse gravel	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.
2	GMX-09-2.0					
3					reddish brown (5YR 4/3)	Grab groundwater sample GMX-09 collected through 5 feet of 1-inch OD Sch. 40 PVC screen (0.01-inch slot size) placed in borehole from 10 to 15 feet bgs. Enviro-core drive casing retracted from bottom of boring to 7 feet bgs to maintain surface seal.
4	GMX-09-4.5			0		
5					SANDY LEAN CLAY with GRAVEL (CL): reddish brown (5YR 4/3), moist, 50% fines, 30% fine to coarse sand, 20% fine to coarse gravel, nonplastic, firm	
6						Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a tremie pipe.
7						
8						
9						
10				0		
11					SANDY LEAN CLAY (CL): reddish brown (5YR 4/3), moist, 70% fines, 30% fine sand, medium plasticity, firm	
12						
13						
14				0	wet	
15					Bottom of boring at 15.0 feet	



PROJECT: 1249 67TH STREET Emeryville, California		<b>Log of Boring No. GMX-10</b>	
BORING LOCATION: Northeast of site along 67th Street		ELEVATION AND DATUM: Not surveyed: datum is ground surface	
DRILLING CONTRACTOR: Precision Sampling Incorporated		DATE STARTED: 11/12/02	DATE FINISHED: 11/12/02
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 15.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: XD-1		DEPTH TO WATER (ft.): NA	FIRST NA
SAMPLING METHOD: Enviro-core sampling system [3' x 2.6"]		LOGGED BY: B. Mulholland	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: E. Wells	REG. NO. C47968

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample Blows/ Foot				
					Surface Elevation: Not surveyed	
1				0	CONCRETE	OVM = Thermo Environmental Instruments 580B PID calibrated with 100 ppm isobutylene standard.  Attempt to collect grab groundwater sample GW-10 through 5 feet of 1-inch OD Sch. 40 PVC screen (0.01-inch slot size) placed in borehole from 10 to 15 feet bgs. Enviro-core drive casing retracted from bottom of boring to 7 feet bgs to maintain surface seal. No groundwater recovered.  Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a tremie pipe.
2				0	SANDY LEAN CLAY (CL): brown (7.5YR 4/3), moist, 70% fines, 30% fine sand, medium plasticity, firm	
3						
4					SANDY LEAN CLAY with GRAVEL (CL): dark reddish brown (5YR 3/2), moist, 50% fines, 30% fine sand, 20% fine gravel	
5						
6				0		
7						
8						
9					SANDY LEAN CLAY (CL): reddish brown (5YR 4/3), moist, 70% fines, 30% fine sand, medium plasticity, firm	
10				0		
11						
12					60% fines, 40% fine sand, medium plasticity, soft	
13						
14						
15				0	Bottom of boring at 15.0 feet	

Attachment B

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Analytical Laboratory Reports  
and Chain-of-Custody Records

Submission#: 2002-11-0213

November 13, 2002

SEVERN

TRENT

LABORATORY

**Geomatrix Consultants**  
2101 Webster Street, 12th Floor  
Oakland, CA 94612  
Attn.: Robert Cheung  
Project#: 8367.000

STL San Francisco  
1220 Quarry Ln  
Pleasanton CA 94566

Tel.: (925) 484-1919  
Fax: (925) 484-1096  
www.stl-inc.com  
www.chromalab.com

CA DHS ELAP#:2496

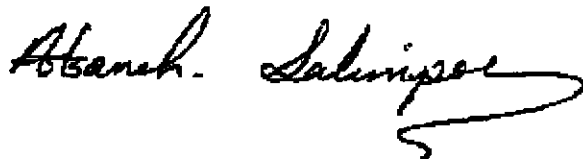
Attached is our report for your samples received on 11/08/2002 18:10  
This report has been reviewed and approved for release. Reproduction of this report  
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after  
12/23/2002 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  
Project Manager

Submission #: 2002-11-0213

Volatile Organic Compounds by 8260B (Low Level)

Geomatrix Consultants

Attn.: Robert Cheung  
2101 Webster Street, 12th Floor  
Oakland, CA 94612  
Phone: (510) 663-4299 Fax: (510) 663-4141

Project: 8367.000

Received: 11/08/2002 18:10

**SEVERN**  
**TRENT**  
**LABORATORY**

STL San Francisco  
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CA DHS ELAP# 2496

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
TRIP BLANK	11/08/2002	Water	1
GMX-04-1102	11/08/2002 14:00	Water	2
GMX-11-1102	11/08/2002 14:10	Water	3
EQB-1102	11/08/2002 14:30	Water	4

Submission #: 2002-11-0213

Volatile Organic Compounds by 8260B (Low Level)

Geomatrix Consultants

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Received: 11/08/2002 18:10

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CA DHS ELAP# 2496

Prep(s): 5030B Test(s): 8260B  
Sample ID: TRIP BLANK Lab ID: 2002-11-0213 - 1  
Sampled: 11/08/2002 Extracted: 11/12/2002 13:34  
Matrix: Water QC Batch#: 2002/11/12-01.07

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
MTBE	ND	5.0	ug/L	1.00	11/12/2002 13:34	
Acetone	ND	50	ug/L	1.00	11/12/2002 13:34	
Benzene	ND	0.50	ug/L	1.00	11/12/2002 13:34	
Bromodichloromethane	ND	0.50	ug/L	1.00	11/12/2002 13:34	
Bromobenzene	ND	1.0	ug/L	1.00	11/12/2002 13:34	
Bromochloromethane	ND	1.0	ug/L	1.00	11/12/2002 13:34	
Bromoform	ND	0.50	ug/L	1.00	11/12/2002 13:34	
Bromomethane	ND	1.0	ug/L	1.00	11/12/2002 13:34	
2-Butanone(MEK)	ND	50	ug/L	1.00	11/12/2002 13:34	
n-Butylbenzene	ND	1.0	ug/L	1.00	11/12/2002 13:34	
sec-Butylbenzene	ND	1.0	ug/L	1.00	11/12/2002 13:34	
tert-Butylbenzene	ND	1.0	ug/L	1.00	11/12/2002 13:34	
Carbon disulfide	ND	5.0	ug/L	1.00	11/12/2002 13:34	
Carbon tetrachloride	ND	0.50	ug/L	1.00	11/12/2002 13:34	
Chlorobenzene	ND	0.50	ug/L	1.00	11/12/2002 13:34	
Chloroethane	ND	1.0	ug/L	1.00	11/12/2002 13:34	
2-Chloroethylvinyl ether	ND	5.0	ug/L	1.00	11/12/2002 13:34	
Chloroform	ND	1.0	ug/L	1.00	11/12/2002 13:34	
Chloromethane	ND	1.0	ug/L	1.00	11/12/2002 13:34	
2-Chlorotoluene	ND	0.50	ug/L	1.00	11/12/2002 13:34	
4-Chlorotoluene	ND	0.50	ug/L	1.00	11/12/2002 13:34	
Dibromochloromethane	ND	0.50	ug/L	1.00	11/12/2002 13:34	
1,2-Dichlorobenzene	ND	0.50	ug/L	1.00	11/12/2002 13:34	
1,3-Dichlorobenzene	ND	0.50	ug/L	1.00	11/12/2002 13:34	
1,4-Dichlorobenzene	ND	0.50	ug/L	1.00	11/12/2002 13:34	
1,3-Dichloropropane	ND	1.0	ug/L	1.00	11/12/2002 13:34	
2,2-Dichloropropane	ND	0.50	ug/L	1.00	11/12/2002 13:34	
1,1-Dichloropropene	ND	0.50	ug/L	1.00	11/12/2002 13:34	
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1.00	11/12/2002 13:34	
1,2-Dibromoethane	ND	0.50	ug/L	1.00	11/12/2002 13:34	
Dibromomethane	ND	0.50	ug/L	1.00	11/12/2002 13:34	
Dichlorodifluoromethane	ND	0.50	ug/L	1.00	11/12/2002 13:34	
1,1-Dichloroethane	ND	0.50	ug/L	1.00	11/12/2002 13:34	
1,2-Dichloroethane	ND	0.50	ug/L	1.00	11/12/2002 13:34	
1,1-Dichloroethene	ND	0.50	ug/L	1.00	11/12/2002 13:34	
cis-1,2-Dichloroethene	ND	0.50	ug/L	1.00	11/12/2002 13:34	

Submission #: 2002-11-0213

Volatile Organic Compounds by 8260B (Low Level)

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CA DHS ELAP# 2496

Prep(s): 5030B Test(s): 8260B  
Sample ID: TRIP BLANK Lab ID: 2002-11-0213 - 1  
Sampled: 11/08/2002 Extracted: 11/12/2002 13:34  
Matrix: Water QC Batch#: 2002/11/12-01.07

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
trans-1,2-Dichloroethene	ND	0.50	ug/L	1.00	11/12/2002 13:34	
1,2-Dichloropropane	ND	0.50	ug/L	1.00	11/12/2002 13:34	
cis-1,3-Dichloropropene	ND	0.50	ug/L	1.00	11/12/2002 13:34	
trans-1,3-Dichloropropene	ND	0.50	ug/L	1.00	11/12/2002 13:34	
Ethylbenzene	ND	0.50	ug/L	1.00	11/12/2002 13:34	
Hexachlorobutadiene	ND	1.0	ug/L	1.00	11/12/2002 13:34	
2-Hexanone	ND	50	ug/L	1.00	11/12/2002 13:34	
Isopropylbenzene	ND	0.50	ug/L	1.00	11/12/2002 13:34	
p-Isopropyltoluene	ND	1.0	ug/L	1.00	11/12/2002 13:34	
Methylene chloride	ND	5.0	ug/L	1.00	11/12/2002 13:34	
4-Methyl-2-pentanone (MIBK)	ND	50	ug/L	1.00	11/12/2002 13:34	
Naphthalene	ND	1.0	ug/L	1.00	11/12/2002 13:34	
n-Propylbenzene	ND	1.0	ug/L	1.00	11/12/2002 13:34	
Styrene	ND	0.50	ug/L	1.00	11/12/2002 13:34	
1,1,1,2-Tetrachloroethane	ND	0.50	ug/L	1.00	11/12/2002 13:34	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1.00	11/12/2002 13:34	
Tetrachloroethene	ND	0.50	ug/L	1.00	11/12/2002 13:34	
Toluene	ND	0.50	ug/L	1.00	11/12/2002 13:34	
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1.00	11/12/2002 13:34	
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1.00	11/12/2002 13:34	
1,1,1-Trichloroethane	ND	0.50	ug/L	1.00	11/12/2002 13:34	
1,1,2-Trichloroethane	ND	0.50	ug/L	1.00	11/12/2002 13:34	
Trichloroethene	ND	0.50	ug/L	1.00	11/12/2002 13:34	
Trichlorofluoromethane	ND	1.0	ug/L	1.00	11/12/2002 13:34	
Trichlorotrifluoroethane	ND	0.50	ug/L	1.00	11/12/2002 13:34	
1,2,4-Trimethylbenzene	ND	0.50	ug/L	1.00	11/12/2002 13:34	
1,3,5-Trimethylbenzene	ND	0.50	ug/L	1.00	11/12/2002 13:34	
Vinyl acetate	ND	25	ug/L	1.00	11/12/2002 13:34	
Vinyl chloride	ND	0.50	ug/L	1.00	11/12/2002 13:34	
Total xylenes	ND	1.0	ug/L	1.00	11/12/2002 13:34	
<b>Surrogates(s)</b>						
4-Bromofluorobenzene	102.8	86-115	%	1.00	11/12/2002 13:34	
1,2-Dichloroethane-d4	99.2	76-114	%	1.00	11/12/2002 13:34	
Toluene-d8	96.7	88-110	%	1.00	11/12/2002 13:34	

Submission #: 2002-11-0213

Volatile Organic Compounds by 8260B (Low Level)

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CA DHS ELAP# 2496

Prep(s): 5030B Test(s): 8260B  
Sample ID: GMX-04-1102 Lab ID: 2002-11-0213 - 2  
Sampled: 11/08/2002 14:00 Extracted: 11/12/2002 14:23  
Matrix: Water QC Batch#: 2002/11/12-01.07

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
MTBE	ND	5.0	ug/L	1.00	11/12/2002 14:23	
Acetone	ND	50	ug/L	1.00	11/12/2002 14:23	
Benzene	ND	0.50	ug/L	1.00	11/12/2002 14:23	
Bromodichloromethane	ND	0.50	ug/L	1.00	11/12/2002 14:23	
Bromobenzene	ND	1.0	ug/L	1.00	11/12/2002 14:23	
Bromochloromethane	ND	1.0	ug/L	1.00	11/12/2002 14:23	
Bromoform	ND	0.50	ug/L	1.00	11/12/2002 14:23	
Bromomethane	ND	1.0	ug/L	1.00	11/12/2002 14:23	
2-Butanone(MEK)	ND	50	ug/L	1.00	11/12/2002 14:23	
n-Butylbenzene	ND	1.0	ug/L	1.00	11/12/2002 14:23	
sec-Butylbenzene	ND	1.0	ug/L	1.00	11/12/2002 14:23	
tert-Butylbenzene	ND	1.0	ug/L	1.00	11/12/2002 14:23	
Carbon disulfide	ND	5.0	ug/L	1.00	11/12/2002 14:23	
Carbon tetrachloride	ND	0.50	ug/L	1.00	11/12/2002 14:23	
Chlorobenzene	ND	0.50	ug/L	1.00	11/12/2002 14:23	
Chloroethane	ND	1.0	ug/L	1.00	11/12/2002 14:23	
2-Chloroethylvinyl ether	ND	5.0	ug/L	1.00	11/12/2002 14:23	
Chloroform	ND	1.0	ug/L	1.00	11/12/2002 14:23	
Chloromethane	ND	1.0	ug/L	1.00	11/12/2002 14:23	
2-Chlorotoluene	ND	0.50	ug/L	1.00	11/12/2002 14:23	
4-Chlorotoluene	ND	0.50	ug/L	1.00	11/12/2002 14:23	
Dibromochloromethane	ND	0.50	ug/L	1.00	11/12/2002 14:23	
1,2-Dichlorobenzene	ND	0.50	ug/L	1.00	11/12/2002 14:23	
1,3-Dichlorobenzene	ND	0.50	ug/L	1.00	11/12/2002 14:23	
1,4-Dichlorobenzene	ND	0.50	ug/L	1.00	11/12/2002 14:23	
1,3-Dichloropropane	ND	1.0	ug/L	1.00	11/12/2002 14:23	
2,2-Dichloropropane	ND	0.50	ug/L	1.00	11/12/2002 14:23	
1,1-Dichloropropene	ND	0.50	ug/L	1.00	11/12/2002 14:23	
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1.00	11/12/2002 14:23	
1,2-Dibromoethane	ND	0.50	ug/L	1.00	11/12/2002 14:23	
Dibromomethane	ND	0.50	ug/L	1.00	11/12/2002 14:23	
Dichlorodifluoromethane	ND	0.50	ug/L	1.00	11/12/2002 14:23	
1,1-Dichloroethane	ND	0.50	ug/L	1.00	11/12/2002 14:23	
1,2-Dichloroethane	ND	0.50	ug/L	1.00	11/12/2002 14:23	
1,1-Dichloroethene	ND	0.50	ug/L	1.00	11/12/2002 14:23	
cis-1,2-Dichloroethene	0.70	0.50	ug/L	1.00	11/12/2002 14:23	



Submission #: 2002-11-0213

Volatile Organic Compounds by 8260B (Low Level)

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CA DHS ELAP# 2496

Prep(s): 5030B Test(s): 8260B  
Sample ID: GMX-04-1102 Lab ID: 2002-11-0213 - 2  
Sampled: 11/08/2002 14:00 Extracted: 11/12/2002 14:23  
Matrix: Water QC Batch#: 2002/11/12-01.07

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
trans-1,2-Dichloroethene	ND	0.50	ug/L	1.00	11/12/2002 14:23	
1,2-Dichloropropane	ND	0.50	ug/L	1.00	11/12/2002 14:23	
cis-1,3-Dichloropropene	ND	0.50	ug/L	1.00	11/12/2002 14:23	
trans-1,3-Dichloropropene	ND	0.50	ug/L	1.00	11/12/2002 14:23	
Ethylbenzene	ND	0.50	ug/L	1.00	11/12/2002 14:23	
Hexachlorobutadiene	ND	1.0	ug/L	1.00	11/12/2002 14:23	
2-Hexanone	ND	50	ug/L	1.00	11/12/2002 14:23	
Isopropylbenzene	ND	0.50	ug/L	1.00	11/12/2002 14:23	
p-Isopropyltoluene	ND	1.0	ug/L	1.00	11/12/2002 14:23	
Methylene chloride	ND	5.0	ug/L	1.00	11/12/2002 14:23	
4-Methyl-2-pentanone (MIBK)	ND	50	ug/L	1.00	11/12/2002 14:23	
Naphthalene	ND	1.0	ug/L	1.00	11/12/2002 14:23	
n-Propylbenzene	ND	1.0	ug/L	1.00	11/12/2002 14:23	
Styrene	ND	0.50	ug/L	1.00	11/12/2002 14:23	
1,1,1,2-Tetrachloroethane	ND	0.50	ug/L	1.00	11/12/2002 14:23	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1.00	11/12/2002 14:23	
Tetrachloroethene	ND	0.50	ug/L	1.00	11/12/2002 14:23	
Toluene	ND	0.50	ug/L	1.00	11/12/2002 14:23	
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1.00	11/12/2002 14:23	
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1.00	11/12/2002 14:23	
1,1,1-Trichloroethane	ND	0.50	ug/L	1.00	11/12/2002 14:23	
1,1,2-Trichloroethane	ND	0.50	ug/L	1.00	11/12/2002 14:23	
Trichloroethene	3.1	0.50	ug/L	1.00	11/12/2002 14:23	
Trichlorofluoromethane	ND	1.0	ug/L	1.00	11/12/2002 14:23	
Trichlorotrifluoroethane	ND	0.50	ug/L	1.00	11/12/2002 14:23	
1,2,4-Trimethylbenzene	ND	0.50	ug/L	1.00	11/12/2002 14:23	
1,3,5-Trimethylbenzene	ND	0.50	ug/L	1.00	11/12/2002 14:23	
Vinyl acetate	ND	25	ug/L	1.00	11/12/2002 14:23	
Vinyl chloride	ND	0.50	ug/L	1.00	11/12/2002 14:23	
Total xylenes	ND	1.0	ug/L	1.00	11/12/2002 14:23	
<b>Surrogates(s)</b>						
4-Bromofluorobenzene	96.0	86-115	%	1.00	11/12/2002 14:23	
1,2-Dichloroethane-d4	98.5	76-114	%	1.00	11/12/2002 14:23	
Toluene-d8	97.2	88-110	%	1.00	11/12/2002 14:23	

Submission #: 2002-11-0213

Volatile Organic Compounds by 8260B (Low Level)

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CA DHS ELAP# 2496

Prep(s): 5030B Test(s): 8260B  
Sample ID: GMX-11-1102 Lab ID: 2002-11-0213 - 3  
Sampled: 11/08/2002 14:10 Extracted: 11/12/2002 14:47  
Matrix: Water QC Batch#: 2002/11/12-01.07

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
MTBE	ND	5.0	ug/L	1.00	11/12/2002 14:47	
Acetone	ND	50	ug/L	1.00	11/12/2002 14:47	
Benzene	ND	0.50	ug/L	1.00	11/12/2002 14:47	
Bromodichloromethane	ND	0.50	ug/L	1.00	11/12/2002 14:47	
Bromobenzene	ND	1.0	ug/L	1.00	11/12/2002 14:47	
Bromochloromethane	ND	1.0	ug/L	1.00	11/12/2002 14:47	
Bromoform	ND	0.50	ug/L	1.00	11/12/2002 14:47	
Bromomethane	ND	1.0	ug/L	1.00	11/12/2002 14:47	
2-Butanone(MEK)	ND	50	ug/L	1.00	11/12/2002 14:47	
n-Butylbenzene	ND	1.0	ug/L	1.00	11/12/2002 14:47	
sec-Butylbenzene	ND	1.0	ug/L	1.00	11/12/2002 14:47	
tert-Butylbenzene	ND	1.0	ug/L	1.00	11/12/2002 14:47	
Carbon disulfide	ND	5.0	ug/L	1.00	11/12/2002 14:47	
Carbon tetrachloride	ND	0.50	ug/L	1.00	11/12/2002 14:47	
Chlorobenzene	ND	0.50	ug/L	1.00	11/12/2002 14:47	
Chloroethane	ND	1.0	ug/L	1.00	11/12/2002 14:47	
2-Chloroethylvinyl ether	ND	5.0	ug/L	1.00	11/12/2002 14:47	
Chloroform	ND	1.0	ug/L	1.00	11/12/2002 14:47	
Chloromethane	ND	1.0	ug/L	1.00	11/12/2002 14:47	
2-Chlorotoluene	ND	0.50	ug/L	1.00	11/12/2002 14:47	
4-Chlorotoluene	ND	0.50	ug/L	1.00	11/12/2002 14:47	
Dibromochloromethane	ND	0.50	ug/L	1.00	11/12/2002 14:47	
1,2-Dichlorobenzene	ND	0.50	ug/L	1.00	11/12/2002 14:47	
1,3-Dichlorobenzene	ND	0.50	ug/L	1.00	11/12/2002 14:47	
1,4-Dichlorobenzene	ND	0.50	ug/L	1.00	11/12/2002 14:47	
1,3-Dichloropropane	ND	1.0	ug/L	1.00	11/12/2002 14:47	
2,2-Dichloropropane	ND	0.50	ug/L	1.00	11/12/2002 14:47	
1,1-Dichloropropene	ND	0.50	ug/L	1.00	11/12/2002 14:47	
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1.00	11/12/2002 14:47	
1,2-Dibromoethane	ND	0.50	ug/L	1.00	11/12/2002 14:47	
Dibromomethane	ND	0.50	ug/L	1.00	11/12/2002 14:47	
Dichlorodifluoromethane	ND	0.50	ug/L	1.00	11/12/2002 14:47	
1,1-Dichloroethane	ND	0.50	ug/L	1.00	11/12/2002 14:47	
1,2-Dichloroethane	ND	0.50	ug/L	1.00	11/12/2002 14:47	
1,1-Dichloroethene	ND	0.50	ug/L	1.00	11/12/2002 14:47	
cis-1,2-Dichloroethene	0.69	0.50	ug/L	1.00	11/12/2002 14:47	

Submission #: 2002-11-0213

Volatile Organic Compounds by 8260B (Low Level)

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CA DHS ELAP# 2496

Prep(s): 5030B Test(s): 8260B  
 Sample ID: GMX-11-1102 Lab ID: 2002-11-0213 - 3  
 Sampled: 11/08/2002 14:10 Extracted: 11/12/2002 14:47  
 Matrix: Water QC Batch#: 2002/11/12-01.07

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
trans-1,2-Dichloroethene	ND	0.50	ug/L	1.00	11/12/2002 14:47	
1,2-Dichloropropane	ND	0.50	ug/L	1.00	11/12/2002 14:47	
cis-1,3-Dichloropropene	ND	0.50	ug/L	1.00	11/12/2002 14:47	
trans-1,3-Dichloropropene	ND	0.50	ug/L	1.00	11/12/2002 14:47	
Ethylbenzene	ND	0.50	ug/L	1.00	11/12/2002 14:47	
Hexachlorobutadiene	ND	1.0	ug/L	1.00	11/12/2002 14:47	
2-Hexanone	ND	50	ug/L	1.00	11/12/2002 14:47	
Isopropylbenzene	ND	0.50	ug/L	1.00	11/12/2002 14:47	
p-Isopropyltoluene	ND	1.0	ug/L	1.00	11/12/2002 14:47	
Methylene chloride	ND	5.0	ug/L	1.00	11/12/2002 14:47	
4-Methyl-2-pentanone (MIBK)	ND	50	ug/L	1.00	11/12/2002 14:47	
Naphthalene	ND	1.0	ug/L	1.00	11/12/2002 14:47	
n-Propylbenzene	ND	1.0	ug/L	1.00	11/12/2002 14:47	
Styrene	ND	0.50	ug/L	1.00	11/12/2002 14:47	
1,1,1,2-Tetrachloroethane	ND	0.50	ug/L	1.00	11/12/2002 14:47	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1.00	11/12/2002 14:47	
Tetrachloroethene	ND	0.50	ug/L	1.00	11/12/2002 14:47	
Toluene	ND	0.50	ug/L	1.00	11/12/2002 14:47	
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1.00	11/12/2002 14:47	
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1.00	11/12/2002 14:47	
1,1,1-Trichloroethane	ND	0.50	ug/L	1.00	11/12/2002 14:47	
1,1,2-Trichloroethane	ND	0.50	ug/L	1.00	11/12/2002 14:47	
Trichloroethene	3.4	0.50	ug/L	1.00	11/12/2002 14:47	
Trichlorofluoromethane	ND	1.0	ug/L	1.00	11/12/2002 14:47	
Trichlorotrifluoroethane	ND	0.50	ug/L	1.00	11/12/2002 14:47	
1,2,4-Trimethylbenzene	ND	0.50	ug/L	1.00	11/12/2002 14:47	
1,3,5-Trimethylbenzene	ND	0.50	ug/L	1.00	11/12/2002 14:47	
Vinyl acetate	ND	25	ug/L	1.00	11/12/2002 14:47	
Vinyl chloride	ND	0.50	ug/L	1.00	11/12/2002 14:47	
Total xylenes	ND	1.0	ug/L	1.00	11/12/2002 14:47	
<b>Surrogates(s)</b>						
4-Bromofluorobenzene	96.9	86-115	%	1.00	11/12/2002 14:47	
1,2-Dichloroethane-d4	102.1	76-114	%	1.00	11/12/2002 14:47	
Toluene-d8	100.7	88-110	%	1.00	11/12/2002 14:47	

Submission #: 2002-11-0213

Volatile Organic Compounds by 8260B (Low Level)

Geomatrix Consultants

Attn.: Robert Cheung  
2101 Webster Street, 12th Floor  
Oakland, CA 94612  
Phone: (510) 663-4299 Fax: (510) 663-4141

Project: 8367.000

Received: 11/08/2002 18:10

SEVERN  
TRENT  
LABORATORY

STL San Francisco  
1220 Quarry Lane  
Pleasanton, CA 94566

Tel: (925) 484-1919  
Fax: (925) 484-1096  
www.stl-inc.com  
www.chromalab.com

CA DHS ELAP# 2496

Prep(s): 5030B Test(s): 8260B  
Sample ID: EQB-1102 Lab ID: 2002-11-0213 - 4  
Sampled: 11/08/2002 14:30 Extracted: 11/12/2002 13:58  
Matrix: Water QC Batch#: 2002/11/12-01.07

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
MTBE	ND	5.0	ug/L	1.00	11/12/2002 13:58	
Acetone	ND	50	ug/L	1.00	11/12/2002 13:58	
Benzene	ND	0.50	ug/L	1.00	11/12/2002 13:58	
Bromodichloromethane	ND	0.50	ug/L	1.00	11/12/2002 13:58	
Bromobenzene	ND	1.0	ug/L	1.00	11/12/2002 13:58	
Bromochloromethane	ND	1.0	ug/L	1.00	11/12/2002 13:58	
Bromoform	ND	0.50	ug/L	1.00	11/12/2002 13:58	
Bromomethane	ND	1.0	ug/L	1.00	11/12/2002 13:58	
2-Butanone(MEK)	ND	50	ug/L	1.00	11/12/2002 13:58	
n-Butylbenzene	ND	1.0	ug/L	1.00	11/12/2002 13:58	
sec-Butylbenzene	ND	1.0	ug/L	1.00	11/12/2002 13:58	
tert-Butylbenzene	ND	1.0	ug/L	1.00	11/12/2002 13:58	
Carbon disulfide	ND	5.0	ug/L	1.00	11/12/2002 13:58	
Carbon tetrachloride	ND	0.50	ug/L	1.00	11/12/2002 13:58	
Chlorobenzene	ND	0.50	ug/L	1.00	11/12/2002 13:58	
Chloroethane	ND	1.0	ug/L	1.00	11/12/2002 13:58	
2-Chloroethylvinyl ether	ND	5.0	ug/L	1.00	11/12/2002 13:58	
Chloroform	1.3	1.0	ug/L	1.00	11/12/2002 13:58	
Chloromethane	ND	1.0	ug/L	1.00	11/12/2002 13:58	
2-Chlorotoluene	ND	0.50	ug/L	1.00	11/12/2002 13:58	
4-Chlorotoluene	ND	0.50	ug/L	1.00	11/12/2002 13:58	
Dibromochloromethane	ND	0.50	ug/L	1.00	11/12/2002 13:58	
1,2-Dichlorobenzene	ND	0.50	ug/L	1.00	11/12/2002 13:58	
1,3-Dichlorobenzene	ND	0.50	ug/L	1.00	11/12/2002 13:58	
1,4-Dichlorobenzene	ND	0.50	ug/L	1.00	11/12/2002 13:58	
1,3-Dichloropropane	ND	1.0	ug/L	1.00	11/12/2002 13:58	
2,2-Dichloropropane	ND	0.50	ug/L	1.00	11/12/2002 13:58	
1,1-Dichloropropene	ND	0.50	ug/L	1.00	11/12/2002 13:58	
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1.00	11/12/2002 13:58	
1,2-Dibromoethane	ND	0.50	ug/L	1.00	11/12/2002 13:58	
Dibromomethane	ND	0.50	ug/L	1.00	11/12/2002 13:58	
Dichlorodifluoromethane	ND	0.50	ug/L	1.00	11/12/2002 13:58	
1,1-Dichloroethane	ND	0.50	ug/L	1.00	11/12/2002 13:58	
1,2-Dichloroethane	ND	0.50	ug/L	1.00	11/12/2002 13:58	
1,1-Dichloroethene	ND	0.50	ug/L	1.00	11/12/2002 13:58	
cis-1,2-Dichloroethene	ND	0.50	ug/L	1.00	11/12/2002 13:58	

Submission #: 2002-11-0213

Volatile Organic Compounds by 8260B (Low Level)

Geomatrix Consultants

Attn.: Robert Cheung  
 2101 Webster Street, 12th Floor  
 Oakland, CA 94612  
 Phone: (510) 663-4299 Fax: (510) 663-4141

Project: 8367.000

Received: 11/08/2002 18:10

**SEVERN**  
**TRENT**  
**LABORATORY**

STL San Francisco  
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 Pleasanton, CA 94566

Tel: (925) 484-1919  
 Fax: (925) 484-1096  
 www.stl-inc.com  
 www.chromalab.com

CA DHS ELAP# 2496

Prep(s):	5030B	Test(s):	8260B
Sample ID:	EQB-1102	Lab ID:	2002-11-0213 - 4
Sampled:	11/08/2002 14:30	Extracted:	11/12/2002 13:58
Matrix:	Water	QC Batch#:	2002/11/12-01.07

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
trans-1,2-Dichloroethene	ND	0.50	ug/L	1.00	11/12/2002 13:58	
1,2-Dichloropropane	ND	0.50	ug/L	1.00	11/12/2002 13:58	
cis-1,3-Dichloropropene	ND	0.50	ug/L	1.00	11/12/2002 13:58	
trans-1,3-Dichloropropene	ND	0.50	ug/L	1.00	11/12/2002 13:58	
Ethylbenzene	ND	0.50	ug/L	1.00	11/12/2002 13:58	
Hexachlorobutadiene	ND	1.0	ug/L	1.00	11/12/2002 13:58	
2-Hexanone	ND	50	ug/L	1.00	11/12/2002 13:58	
Isopropylbenzene	ND	0.50	ug/L	1.00	11/12/2002 13:58	
p-Isopropyltoluene	ND	1.0	ug/L	1.00	11/12/2002 13:58	
Methylene chloride	ND	5.0	ug/L	1.00	11/12/2002 13:58	
4-Methyl-2-pentanone (MIBK)	ND	50	ug/L	1.00	11/12/2002 13:58	
Naphthalene	ND	1.0	ug/L	1.00	11/12/2002 13:58	
n-Propylbenzene	ND	1.0	ug/L	1.00	11/12/2002 13:58	
Styrene	ND	0.50	ug/L	1.00	11/12/2002 13:58	
1,1,1,2-Tetrachloroethane	ND	0.50	ug/L	1.00	11/12/2002 13:58	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1.00	11/12/2002 13:58	
Tetrachloroethene	ND	0.50	ug/L	1.00	11/12/2002 13:58	
Toluene	ND	0.50	ug/L	1.00	11/12/2002 13:58	
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1.00	11/12/2002 13:58	
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1.00	11/12/2002 13:58	
1,1,1-Trichloroethane	ND	0.50	ug/L	1.00	11/12/2002 13:58	
1,1,2-Trichloroethane	ND	0.50	ug/L	1.00	11/12/2002 13:58	
Trichloroethene	ND	0.50	ug/L	1.00	11/12/2002 13:58	
Trichlorofluoromethane	ND	1.0	ug/L	1.00	11/12/2002 13:58	
Trichlorotrifluoroethane	ND	0.50	ug/L	1.00	11/12/2002 13:58	
1,2,4-Trimethylbenzene	ND	0.50	ug/L	1.00	11/12/2002 13:58	
1,3,5-Trimethylbenzene	ND	0.50	ug/L	1.00	11/12/2002 13:58	
Vinyl acetate	ND	25	ug/L	1.00	11/12/2002 13:58	
Vinyl chloride	ND	0.50	ug/L	1.00	11/12/2002 13:58	
Total xylenes	ND	1.0	ug/L	1.00	11/12/2002 13:58	
<b>Surrogates(s)</b>						
4-Bromofluorobenzene	97.0	86-115	%	1.00	11/12/2002 13:58	
1,2-Dichloroethane-d4	104.8	76-114	%	1.00	11/12/2002 13:58	
Toluene-d8	98.8	88-110	%	1.00	11/12/2002 13:58	

Submission #: 2002-11-0213

Volatile Organic Compounds by 8260B (Low Level)

Geomatrix Consultants

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Oakland, CA 94612  
Phone: (510) 663-4299 Fax: (510) 663-4141

Project: 8367.000

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www.stl-inc.com  
www.chromalab.com

CA DHS ELAP# 2496

Batch QC Report

Prep(s): 5030B

Method Blank

MB: 2002/11/12-01.07-005

Water

Test(s): 8260B

QC Batch # 2002/11/12-01.07

Date Extracted: 11/12/2002 12:43

Compound	Conc.	RL	Unit	Analyzed	Flag
MTBE	ND	5.0	ug/L	11/12/2002 12:43	
Acetone	ND	50	ug/L	11/12/2002 12:43	
Benzene	ND	0.5	ug/L	11/12/2002 12:43	
Bromodichloromethane	ND	0.5	ug/L	11/12/2002 12:43	
Bromobenzene	ND	1.0	ug/L	11/12/2002 12:43	
Bromochloromethane	ND	1.0	ug/L	11/12/2002 12:43	
Bromoform	ND	0.5	ug/L	11/12/2002 12:43	
Bromomethane	ND	1.0	ug/L	11/12/2002 12:43	
2-Butanone(MEK)	ND	50	ug/L	11/12/2002 12:43	
n-Butylbenzene	ND	1.0	ug/L	11/12/2002 12:43	
sec-Butylbenzene	ND	1.0	ug/L	11/12/2002 12:43	
tert-Butylbenzene	ND	1.0	ug/L	11/12/2002 12:43	
Carbon disulfide	ND	5.0	ug/L	11/12/2002 12:43	
Carbon tetrachloride	ND	0.5	ug/L	11/12/2002 12:43	
Chlorobenzene	ND	0.5	ug/L	11/12/2002 12:43	
Chloroethane	ND	1.0	ug/L	11/12/2002 12:43	
2-Chloroethylvinyl ether	ND	5.0	ug/L	11/12/2002 12:43	
Chloroform	ND	1.0	ug/L	11/12/2002 12:43	
Chloromethane	ND	1.0	ug/L	11/12/2002 12:43	
2-Chlorotoluene	ND	0.5	ug/L	11/12/2002 12:43	
4-Chlorotoluene	ND	0.5	ug/L	11/12/2002 12:43	
Dibromochloromethane	ND	0.5	ug/L	11/12/2002 12:43	
1,2-Dichlorobenzene	ND	0.5	ug/L	11/12/2002 12:43	
1,3-Dichlorobenzene	ND	0.5	ug/L	11/12/2002 12:43	
1,4-Dichlorobenzene	ND	0.5	ug/L	11/12/2002 12:43	
1,3-Dichloropropane	ND	1.0	ug/L	11/12/2002 12:43	
2,2-Dichloropropane	ND	0.5	ug/L	11/12/2002 12:43	
1,1-Dichloropropene	ND	0.5	ug/L	11/12/2002 12:43	
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	11/12/2002 12:43	
1,2-Dibromoethane	ND	0.5	ug/L	11/12/2002 12:43	
Dibromomethane	ND	0.5	ug/L	11/12/2002 12:43	
Dichlorodifluoromethane	ND	0.5	ug/L	11/12/2002 12:43	
1,1-Dichloroethane	ND	0.5	ug/L	11/12/2002 12:43	
1,2-Dichloroethane	ND	0.5	ug/L	11/12/2002 12:43	
1,1-Dichloroethene	ND	0.5	ug/L	11/12/2002 12:43	
cis-1,2-Dichloroethene	ND	0.5	ug/L	11/12/2002 12:43	

Submission #: 2002-11-0213

Volatile Organic Compounds by 8260B (Low Level)

Geomatrix Consultants

Attn.: Robert Cheung  
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Oakland, CA 94612  
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Project: 8367.000

Received: 11/08/2002 18:10

SEVERN

TRENT

LABORATORY

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Fax: (925) 484-1096  
www.stl-inc.com  
www.chromalab.com

CA DHS ELAP# 2496

Batch QC Report

Prep(s): 5030B

Method Blank

MB: 2002/11/12-01.07-005

Water

Test(s): 8260B

QC Batch # 2002/11/12-01.07

Date Extracted: 11/12/2002 12:43

Compound	Conc.	RL	Unit	Analyzed	Flag
trans-1,2-Dichloroethene	ND	0.5	ug/L	11/12/2002 12:43	
1,2-Dichloropropane	ND	0.5	ug/L	11/12/2002 12:43	
cis-1,3-Dichloropropene	ND	0.5	ug/L	11/12/2002 12:43	
trans-1,3-Dichloropropene	ND	0.5	ug/L	11/12/2002 12:43	
Ethylbenzene	ND	0.5	ug/L	11/12/2002 12:43	
Hexachlorobutadiene	ND	1.0	ug/L	11/12/2002 12:43	
2-Hexanone	ND	50	ug/L	11/12/2002 12:43	
Isopropylbenzene	ND	0.5	ug/L	11/12/2002 12:43	
p-Isopropyltoluene	ND	1.0	ug/L	11/12/2002 12:43	
Methylene chloride	ND	5.0	ug/L	11/12/2002 12:43	
4-Methyl-2-pentanone (MIBK)	ND	50	ug/L	11/12/2002 12:43	
Naphthalene	ND	1.0	ug/L	11/12/2002 12:43	
n-Propylbenzene	ND	1.0	ug/L	11/12/2002 12:43	
Styrene	ND	0.5	ug/L	11/12/2002 12:43	
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L	11/12/2002 12:43	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	11/12/2002 12:43	
Tetrachloroethene	ND	0.5	ug/L	11/12/2002 12:43	
Toluene	ND	0.5	ug/L	11/12/2002 12:43	
1,2,3-Trichlorobenzene	ND	1.0	ug/L	11/12/2002 12:43	
1,2,4-Trichlorobenzene	ND	1.0	ug/L	11/12/2002 12:43	
1,1,1-Trichloroethane	ND	0.5	ug/L	11/12/2002 12:43	
1,1,2-Trichloroethane	ND	0.5	ug/L	11/12/2002 12:43	
Trichloroethene	ND	0.5	ug/L	11/12/2002 12:43	
Trichlorofluoromethane	ND	1.0	ug/L	11/12/2002 12:43	
Trichlorotrifluoroethane	ND	0.5	ug/L	11/12/2002 12:43	
1,2,4-Trimethylbenzene	ND	0.5	ug/L	11/12/2002 12:43	
1,3,5-Trimethylbenzene	ND	0.5	ug/L	11/12/2002 12:43	
Vinyl acetate	ND	25	ug/L	11/12/2002 12:43	
Vinyl chloride	ND	0.5	ug/L	11/12/2002 12:43	
Total xylenes	ND	1.0	ug/L	11/12/2002 12:43	
<b>Surrogates(s)</b>					
4-Bromofluorobenzene	94.1	86-115	%	11/12/2002 12:43	
1,2-Dichloroethane-d4	98.1	76-114	%	11/12/2002 12:43	
Toluene-d8	100.1	88-110	%	11/12/2002 12:43	

Submission #: 2002-11-0213

Volatile Organic Compounds by 8260B (Low Level)

Geomatrix Consultants

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**LABORATORY**

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Fax: (925) 484-1096  
www.stl-inc.com  
www.chromalab.com

CA DHS ELAP# 2496

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike

Water

QC Batch # 2002/11/12-01.07

LCS 2002/11/12-01.07-003  
LCSD 2002/11/12-01.07-004

Extracted: 11/12/2002  
Extracted: 11/12/2002

Analyzed: 11/12/2002 11:55  
Analyzed: 11/12/2002 12:19

Compound	Conc. ug/L		Exp. Conc.	Recovery		RPD	Ctrl. Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	19.1	20.0	20.0	95.5	100.0	4.6	69-129	20		
Chlorobenzene	19.6	21.2	20.0	98.0	106.0	7.8	61-121	20		
1,1-Dichloroethene	18.9	19.7	20.0	94.5	98.5	4.1	65-125	20		
Toluene	19.6	21.5	20.0	98.0	107.5	9.2	70-130	20		
Trichloroethene	17.3	18.4	20.0	86.5	92.0	6.2	74-134	20		
<b>Surrogates(s)</b>										
4-Bromofluorobenzene	463	465	500	92.6	93.0		86-115			
1,2-Dichloroethane-d4	457	482	500	91.4	96.4		76-114			
Toluene-d8	469	486	500	93.8	97.2		88-110			



2002-11-0213

70105

Chain-of Custody Record

015729

Date: 11-8-02

Page 1 of 1

Project No.: 8367.000

ANALYSES

REMARKS

Samplers (Signature):  
*Judd Loan*  
*M-L*

Date	Time	Sample Number	EPA Method 8021 (Full Scan)	EPA Method 8021 (Hal. VOCs only)	EPA Method 8021 (BETX only)	EPA Method 8260 B	EPA Method 8270 (Full Scan)	EPA Method 8270 SIM (PAHS only)	Method 8015m (Gasoline)	Method 8015m (Diesel)	Method 8015m (Motor Oil)	Silica Gel Cleanup							Soil (S), Water (W) Vapor (V), or Other (o)	Filtered	Preserved	Cooled	No. of Containers	Additional Comments
11-8-02	-	Trip Blank				X													W	N	Y	Y	2	
	14:00	GMX-04-1102				X													W	N	Y	Y	3	
	14:10	GMX-11-1102				X													W	N	Y	Y	3	
	14:30	EQB-1102				X													W	N	Y	Y	3	
<b>RUSH</b>																								

Laboratory: STL San Francisco

Turnaround Time: 12 HRS  
*Standard* 11/08/02

Results to: Robert Cheung

Total No. of Containers: 11

Relinquished by (Signature):  
*M-L*  
 Printed Name: Mark Guertz  
 Company: Geomatrix

Date: 11/8/02  
 Time: 1630  
 Relinquished by (Signature):  
 Printed Name: Steve Bickham  
 Company: 11-8 1910

Date: 11-8  
 Time: 1810  
 Relinquished by (Signature):  
 Printed Name:  
 Company:

Date: 11/8/02  
 Time: 1810  
 Method of Shipment: Lab Courier  
 Laboratory Comments and Log No.: World Courier

Received by: Steve Bickham  
 Printed Name:  
 Company: World courier

Date: 11-8  
 Time: 1630  
 Received by:  
 Printed Name:  
 Company:

Date: 11/8/02  
 Time: 1810  
 Received by: Denise Harrington  
 Printed Name: D Harrington  
 Company: STL-SF

Date: 11/8/02  
 Time: 1810  
 2.8°C  
  
 Geomatrix Consultants  
 2101 Webster Street, 12th Floor • Oakland, CA 94612  
 Phone: 510-663-4100 Fax: 510-663-4141



STL San Francisco

### Sample Receipt Checklist

Submission #: 2002- 11 - 0213

Checklist completed by: (Initials) CA Date: 11 / 11 /02

Courier name:  STL San Francisco  Client World

- Custody seals intact on shipping container/samples Yes \_\_\_ No \_\_\_ Not Present
- Chain of custody present? Yes  No \_\_\_
- Chain of custody signed when relinquished and received? Yes  No \_\_\_
- Chain of custody agrees with sample labels? Yes  No \_\_\_
- Samples in proper container/bottle? Yes  No \_\_\_
- Sample containers intact? Yes  No \_\_\_
- Sufficient sample volume for indicated test? Yes  No \_\_\_
- All samples received within holding time? Yes  No \_\_\_
- Container/Temp Blank temperature in compliance (4° C ± 2)? Temp: 2.8°C Yes  No \_\_\_
- Water - VOA vials have zero headspace? No VOA vials submitted \_\_\_ Yes  No \_\_\_

(if bubble is present, refer to approximate bubble size and itemize in comments as S (small - O), M (medium - O) or L (large - O))

Water - pH acceptable upon receipt?  Yes  No  
 pH adjusted- Preservative used:  HNO<sub>3</sub>  HCl  H<sub>2</sub>SO<sub>4</sub>  NaOH  ZnOAc

For any item check-listed "No", provided detail of discrepancy in comment section below:

Comments: \_\_\_\_\_  
\_\_\_\_\_

#### Project Management [Routing for instruction of indicated discrepancy(ies)]

Project Manager: (initials) \_\_\_\_\_ Date: \_\_\_\_\_ / \_\_\_\_\_ /02

Client contacted:  Yes  No

Summary of discussion: \_\_\_\_\_  
\_\_\_\_\_

Corrective Action (per PM/Client): \_\_\_\_\_  
\_\_\_\_\_

Submission#: 2002-11-0214

November 19, 2002

SEVERN

TRENT

LABORATORY

**Geomatrix Consultants**

2101 Webster Street, 12th Floor  
Oakland, CA 94612

Attn.: Robert Cheung

Project#: 8367.001

STL San Francisco  
1220 Quarry Ln  
Pleasanton CA 94566

Tel.: (925) 484-1919  
Fax: (925) 484-1096  
www.stl-inc.com  
www.chromalab.com

CA DHS ELAP#:2496

Attached is our report for your samples received on 11/08/2002 18:10  
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  
12/23/2002 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  
Project Manager

Submission #: 2002-11-0214

Metals

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Project: 8367.001

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CA DHS ELAP# 2496

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
GMX-01-2.0	11/08/2002 08:15	Soil	1
GMX-05-2.0	11/08/2002 10:55	Soil	3
GMX-03-2.0	11/08/2002 13:55	Soil	6
GMX-06-2.0	11/08/2002 15:10	Soil	8

Submission #: 2002-11-0214

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CA DHS ELAP# 2496

Prep(s): 3050B Test(s): 6010B  
Sample ID: GMX-01-2.0 Lab ID: 2002-11-0214 - 1  
Sampled: 11/08/2002 08:15 Extracted: 11/12/2002 06:20  
Matrix: Soil QC Batch#: 2002/11/12-01.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Arsenic	8.0	1.0	mg/Kg	1.00	11/12/2002 10:54	
Cadmium	2.3	0.50	mg/Kg	1.00	11/12/2002 10:54	
Chromium	24	1.0	mg/Kg	1.00	11/12/2002 10:54	
Lead	180	1.0	mg/Kg	1.00	11/12/2002 10:54	
Nickel	35	1.0	mg/Kg	1.00	11/12/2002 10:54	
Zinc	360	1.0	mg/Kg	1.00	11/12/2002 10:54	

Submission #: 2002-11-0214

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CA DHS ELAP# 2496

Prep(s): 3050B Test(s): 6010B  
Sample ID: GMX-05-2.0 Lab ID: 2002-11-0214 - 3  
Sampled: 11/08/2002 10:55 Extracted: 11/13/2002 06:28  
Matrix: Soil QC Batch#: 2002/11/12-05.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Arsenic	1.8	1.0	mg/Kg	1.00	11/13/2002 16:11	
Cadmium	1.6	0.50	mg/Kg	1.00	11/13/2002 16:11	
Chromium	16	1.0	mg/Kg	1.00	11/13/2002 16:11	
Lead	7.7	1.0	mg/Kg	1.00	11/13/2002 16:11	
Nickel	15	1.0	mg/Kg	1.00	11/13/2002 16:11	
Zinc	35	1.0	mg/Kg	1.00	11/13/2002 16:11	

Submission #: 2002-11-0214

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Project: 8367.001

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CA DHS ELAP# 2496

Prep(s): 3050B                      Test(s): 6010B  
Sample ID: **GMX-03-2.0**              Lab ID: 2002-11-0214 - 6  
Sampled: 11/08/2002 13:55          Extracted: 11/13/2002 06:28  
Matrix: Soil                              QC Batch#: 2002/11/12-05.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Arsenic	1.8	1.0	mg/Kg	1.00	11/13/2002 16:15	
Cadmium	1.1	0.50	mg/Kg	1.00	11/13/2002 16:15	
Chromium	16	1.0	mg/Kg	1.00	11/13/2002 16:15	
Lead	11	1.0	mg/Kg	1.00	11/13/2002 16:15	
Nickel	15	1.0	mg/Kg	1.00	11/13/2002 16:15	
Zinc	20	1.0	mg/Kg	1.00	11/13/2002 16:15	

Submission #: 2002-11-0214

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CA DHS ELAP# 2496

Prep(s): 3050B Test(s): 6010B  
Sample ID: GMX-06-2.0 Lab ID: 2002-11-0214 - 8  
Sampled: 11/08/2002 15:10 Extracted: 11/13/2002 06:28  
Matrix: Soil QC Batch#: 2002/11/12-05.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Arsenic	2.4	1.0	mg/Kg	1.00	11/13/2002 16:34	
Cadmium	1.6	0.50	mg/Kg	1.00	11/13/2002 16:34	
Chromium	19	1.0	mg/Kg	1.00	11/13/2002 16:34	
Lead	11	1.0	mg/Kg	1.00	11/13/2002 16:34	
Nickel	22	1.0	mg/Kg	1.00	11/13/2002 16:34	
Zinc	36	1.0	mg/Kg	1.00	11/13/2002 16:34	



Submission #: 2002-11-0214

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Project: 8367.001

Received: 11/08/2002 18:10

CA DHS ELAP# 2496

Batch QC Report

Prep(s): 3050B

Method Blank

Soil

Test(s): 6010B

QC Batch # 2002/11/12-01.15

MB: 2002/11/12-01.15-011

Date Extracted: 11/12/2002 06:20

Compound	Conc.	RL	Unit	Analyzed	Flag
Arsenic	ND	1.0	mg/Kg	11/14/2002 08:11	
Cadmium	ND	0.50	mg/Kg	11/14/2002 08:11	
Chromium	ND	1.0	mg/Kg	11/14/2002 08:11	
Lead	ND	1.0	mg/Kg	11/14/2002 08:11	
Nickel	ND	1.0	mg/Kg	11/14/2002 08:11	
Zinc	ND	1.0	mg/Kg	11/14/2002 08:11	

Submission #: 2002-11-0214

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CA DHS ELAP# 2496

Batch QC Report

Prep(s): 3050B

Method Blank

MB: 2002/11/12-05.15-028

Soil

Test(s): 6010B

QC Batch # 2002/11/12-05.15

Date Extracted: 11/13/2002 06:28

Compound	Conc.	RL	Unit	Analyzed	Flag
Arsenic	ND	1.0	mg/Kg	11/13/2002 15:59	
Cadmium	ND	0.50	mg/Kg	11/13/2002 15:59	
Chromium	ND	1.0	mg/Kg	11/13/2002 15:59	
Lead	ND	1.0	mg/Kg	11/13/2002 15:59	
Nickel	ND	1.0	mg/Kg	11/13/2002 15:59	
Zinc	ND	1.0	mg/Kg	11/13/2002 15:59	

Submission #: 2002-11-0214

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CA DHS ELAP# 2496

Batch QC Report

Prep(s): 3050B

Test(s): 6010B

Laboratory Control Spike

Soil

QC Batch # 2002/11/12-01.15

LCS 2002/11/12-01.15-012

Extracted: 11/12/2002

Analyzed: 11/14/2002 08:15

LCSD 2002/11/12-01.15-013

Extracted: 11/12/2002

Analyzed: 11/14/2002 08:19

Compound	Conc. mg/Kg		Exp.Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Arsenic	110	108	100.0	110.0	108.0	1.8	80-120	20		
Cadmium	98.5	99.5	100.0	98.5	99.5	1.0	80-120	20		
Chromium	101	102	100.0	101.0	102.0	1.0	80-120	20		
Lead	100.0	99.8	100.0	100.0	99.8	0.2	80-120	20		
Nickel	97.6	98.6	100.0	97.6	98.6	1.0	80-120	20		
Zinc	98.9	99.9	100.0	98.9	99.9	1.0	80-120	20		

Submission #: 2002-11-0214

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CA DHS ELAP# 2496

Batch QC Report

Prep(s): 3050B

Test(s): 6010B

Laboratory Control Spike

Soil

QC Batch # 2002/11/12-05.15

LCS 2002/11/12-05.15-029

Extracted: 11/13/2002

Analyzed: 11/13/2002 16:03

LCSD 2002/11/12-05.15-030

Extracted: 11/13/2002

Analyzed: 11/13/2002 16:07

Compound	Conc. mg/Kg		Exp. Conc.	Recovery		RPD	Ctrl. Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Arsenic	107	106	100.0	107.0	106.0	0.9	80-120	20		
Cadmium	93.6	94.8	100.0	93.6	94.8	1.3	80-120	20		
Chromium	97.4	97.3	100.0	97.4	97.3	0.1	80-120	20		
Lead	101	100	100.0	101.0	100.0	1.0	80-120	20		
Nickel	98.3	99.7	100.0	98.3	99.7	1.4	80-120	20		
Zinc	97.8	99.1	100.0	97.8	99.1	1.3	80-120	20		

Submission #: 2002-11-0214

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CA DHS ELAP# 2496

Batch QC Report

Prep(s): 3050B

Test(s): 6010B

Matrix Spike ( MS / MSD )

Soil

QC Batch # 2002/11/12-01.15

UST1768-SD2 >> MS

Lab ID: 2002-11-0195 - 001

MS: 2002/11/12-01.15-015

Extracted: 11/12/2002

Analyzed: 11/14/2002 08:26

Dilution: 1.00

MSD: 2002/11/12-01.15-016

Extracted: 11/12/2002

Analyzed: 11/14/2002 08:29

Dilution: 1.00

Compound	Conc. mg/Kg			Spk. Level mg/Kg	Recovery			Limits %		Flags	
	MS	MSD	Sample		MS	MSD	RPD	Rec.	RPD	MS	MSD
Arsenic	92.6	95.1	2.09	101	89.6	91.2	1.8	75-125	20		
Cadmium	84.5	87.1	2.02	101	81.7	83.4	2.1	75-125	20	mso	mso
Chromium	113	114	43.5	101	68.8	69.1	0.4	75-125	20		
Lead	87.7	89.4	9.95	101	77.0	77.9	1.2	75-125	20		
Nickel	124	130	51.4	101	71.9	77.1	7.0	75-125	20	mso	
Zinc	110	113	30.3	101	78.9	81.1	2.7	75-125	20		

Submission #: 2002-11-0214

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CA DHS ELAP# 2496

Batch QC Report

Prep(s): 3050B

Test(s): 6010B

Matrix Spike ( MS / MSD )

Soil

QC Batch # 2002/11/12-05.15

MRBF-02-0.0 >> MS

Lab ID: 2002-11-0229 - 002

MS: 2002/11/12-05.15-054

Extracted: 11/13/2002

Analyzed: 11/13/2002 17:55

Dilution: 1.00

MSD: 2002/11/12-05.15-055

Extracted: 11/13/2002

Analyzed: 11/13/2002 17:58

Dilution: 1.00

Compound	Conc. mg/Kg			Spk. Level	Recovery			Limits %		Flags	
	MS	MSD	Sample		mg/Kg	MS	MSD	RPD	Rec.	RPD	MS
Arsenic	69.8	66.2	2.12	102	66.4	63.4	4.6	75-125	20	mso	mso
Cadmium	62.0	59.2	4.84	102	56.0	53.8	4.0	75-125	20	mso	mso
Chromium	69.8	66.2	7.55	102	61.0	58.1	4.9	75-125	20	mso	mso
Lead	62.8	59.0	1.28	102	60.3	57.1	5.5	75-125	20	mso	mso
Nickel	74.0	70.8	13.3	102	59.5	56.9	4.5	75-125	20	mso	mso
Zinc	93.4	97.0	37.8	102	54.5	58.6	7.3	75-125	20	mso	mso

Submission #: 2002-11-0214

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CA DHS ELAP# 2496

---

Legend and Notes

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Result Flag

mso

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

Submission #: 2002-11-0214

PNA analysis by 8270C/SIM GC/MS

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CA DHS ELAP# 2496

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
GMX-01-2.0	11/08/2002 08:15	Soil	1
GMX-05-2.0	11/08/2002 10:55	Soil	3
GMX-03-2.0	11/08/2002 13:55	Soil	6
GMX-06-2.0	11/08/2002 15:10	Soil	8



Submission #: 2002-11-0214

PNA analysis by 8270C/SIM GC/MS

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CA DHS ELAP# 2496

Prep(s): 3550B/8270C-SIM Test(s): 8270C-SIM  
Sample ID: GMX-01-2.0 Lab ID: 2002-11-0214 - 1  
Sampled: 11/08/2002 08:15 Extracted: 11/12/2002 09:01  
Matrix: Soil QC Batch#: 2002/11/12-01.40

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Naphthalene	ND	50	ug/Kg	10.00	11/12/2002 21:05	
Acenaphthylene	ND	50	ug/Kg	10.00	11/12/2002 21:05	
Acenaphthene	ND	50	ug/Kg	10.00	11/12/2002 21:05	
Fluorene	ND	50	ug/Kg	10.00	11/12/2002 21:05	
Phenanthrene	330	50	ug/Kg	10.00	11/12/2002 21:05	
Anthracene	53	50	ug/Kg	10.00	11/12/2002 21:05	
Fluoranthene	470	50	ug/Kg	10.00	11/12/2002 21:05	
Pyrene	360	50	ug/Kg	10.00	11/12/2002 21:05	
Benzo(a)anthracene	200	50	ug/Kg	10.00	11/12/2002 21:05	
Chrysene	200	50	ug/Kg	10.00	11/12/2002 21:05	
Benzo(b)fluoranthene	190	50	ug/Kg	10.00	11/12/2002 21:05	
Benzo(k)fluoranthene	140	50	ug/Kg	10.00	11/12/2002 21:05	
Benzo(a)pyrene	190	50	ug/Kg	10.00	11/12/2002 21:05	
Indeno(1,2,3-c,d)pyrene	130	50	ug/Kg	10.00	11/12/2002 21:05	
Dibenzo(a,h)anthracene	ND	50	ug/Kg	10.00	11/12/2002 21:05	
Benzo(g,h,i)perylene	160	50	ug/Kg	10.00	11/12/2002 21:05	
<b>Surrogates(s)</b>						
2-Fluorobiphenyl	85.2	30-115	%	10.00	11/12/2002 21:05	
p-Terphenyl-d14	94.4	18-137	%	10.00	11/12/2002 21:05	

Submission #: 2002-11-0214

PNA analysis by 8270C/SIM GC/MS

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CA DHS ELAP# 2496

Prep(s): 3550B/8270C-SIM      Test(s): 8270C-SIM  
Sample ID: GMX-05-2.0      Lab ID: 2002-11-0214 - 3  
Sampled: 11/08/2002 10:55      Extracted: 11/12/2002 09:01  
Matrix: Soil      QC Batch#: 2002/11/12-01.40

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Naphthalene	ND	5.0	ug/Kg	1.00	11/12/2002 18:24	
Acenaphthylene	ND	5.0	ug/Kg	1.00	11/12/2002 18:24	
Acenaphthene	ND	5.0	ug/Kg	1.00	11/12/2002 18:24	
Fluorene	ND	5.0	ug/Kg	1.00	11/12/2002 18:24	
Phenanthrene	ND	5.0	ug/Kg	1.00	11/12/2002 18:24	
Anthracene	ND	5.0	ug/Kg	1.00	11/12/2002 18:24	
Fluoranthene	ND	5.0	ug/Kg	1.00	11/12/2002 18:24	
Pyrene	ND	5.0	ug/Kg	1.00	11/12/2002 18:24	
Benzo(a)anthracene	ND	5.0	ug/Kg	1.00	11/12/2002 18:24	
Chrysene	ND	5.0	ug/Kg	1.00	11/12/2002 18:24	
Benzo(b)fluoranthene	ND	5.0	ug/Kg	1.00	11/12/2002 18:24	
Benzo(k)fluoranthene	ND	5.0	ug/Kg	1.00	11/12/2002 18:24	
Benzo(a)pyrene	ND	5.0	ug/Kg	1.00	11/12/2002 18:24	
Indeno(1,2,3-c,d)pyrene	ND	5.0	ug/Kg	1.00	11/12/2002 18:24	
Dibenzo(a,h)anthracene	ND	5.0	ug/Kg	1.00	11/12/2002 18:24	
Benzo(g,h,i)perylene	ND	5.0	ug/Kg	1.00	11/12/2002 18:24	
<b>Surrogates(s)</b>						
2-Fluorobiphenyl	76.7	30-115	%	1.00	11/12/2002 18:24	
p-Terphenyl-d14	96.4	18-137	%	1.00	11/12/2002 18:24	

Submission #: 2002-11-0214

PNA analysis by 8270C/SIM GC/MS

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CA DHS ELAP# 2496

Prep(s): 3550B/8270C-SIM      Test(s): 8270C-SIM  
Sample ID: GMX-03-2.0      Lab ID: 2002-11-0214 - 6  
Sampled: 11/08/2002 13:55      Extracted: 11/12/2002 09:01  
Matrix: Soil      QC Batch#: 2002/11/12-01.40

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Naphthalene	ND	5.0	ug/Kg	1.00	11/12/2002 20:11	
Acenaphthylene	ND	5.0	ug/Kg	1.00	11/12/2002 20:11	
Acenaphthene	6.8	5.0	ug/Kg	1.00	11/12/2002 20:11	
Fluorene	10	5.0	ug/Kg	1.00	11/12/2002 20:11	
Phenanthrene	110	5.0	ug/Kg	1.00	11/12/2002 20:11	
Anthracene	26	5.0	ug/Kg	1.00	11/12/2002 20:11	
Fluoranthene	89	5.0	ug/Kg	1.00	11/12/2002 20:11	
Pyrene	110	5.0	ug/Kg	1.00	11/12/2002 20:11	
Benzo(a)anthracene	55	5.0	ug/Kg	1.00	11/12/2002 20:11	
Chrysene	53	5.0	ug/Kg	1.00	11/12/2002 20:11	
Benzo(b)fluoranthene	27	5.0	ug/Kg	1.00	11/12/2002 20:11	
Benzo(k)fluoranthene	24	5.0	ug/Kg	1.00	11/12/2002 20:11	
Benzo(a)pyrene	33	5.0	ug/Kg	1.00	11/12/2002 20:11	
Indeno(1,2,3-c,d)pyrene	12	5.0	ug/Kg	1.00	11/12/2002 20:11	
Dibenzo(a,h)anthracene	ND	5.0	ug/Kg	1.00	11/12/2002 20:11	
Benzo(g,h,i)perylene	15	5.0	ug/Kg	1.00	11/12/2002 20:11	
<b>Surrogates(s)</b>						
2-Fluorobiphenyl	77.6	30-115	%	1.00	11/12/2002 20:11	
p-Terphenyl-d14	94.5	18-137	%	1.00	11/12/2002 20:11	

Submission #: 2002-11-0214

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CA DHS ELAP# 2496

Prep(s): 3550B/8270C-SIM      Test(s): 8270C-SIM  
Sample ID: GMX-06-2.0      Lab ID: 2002-11-0214 - 8  
Sampled: 11/08/2002 15:10      Extracted: 11/12/2002 09:01  
Matrix: Soil      QC Batch#: 2002/11/12-01.40

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Naphthalene	ND	5.0	ug/Kg	1.00	11/12/2002 19:44	
Acenaphthylene	ND	5.0	ug/Kg	1.00	11/12/2002 19:44	
Acenaphthene	ND	5.0	ug/Kg	1.00	11/12/2002 19:44	
Fluorene	ND	5.0	ug/Kg	1.00	11/12/2002 19:44	
Phenanthrene	ND	5.0	ug/Kg	1.00	11/12/2002 19:44	
Anthracene	ND	5.0	ug/Kg	1.00	11/12/2002 19:44	
Fluoranthene	ND	5.0	ug/Kg	1.00	11/12/2002 19:44	
Pyrene	ND	5.0	ug/Kg	1.00	11/12/2002 19:44	
Benzo(a)anthracene	ND	5.0	ug/Kg	1.00	11/12/2002 19:44	
Chrysene	ND	5.0	ug/Kg	1.00	11/12/2002 19:44	
Benzo(b)fluoranthene	ND	5.0	ug/Kg	1.00	11/12/2002 19:44	
Benzo(k)fluoranthene	ND	5.0	ug/Kg	1.00	11/12/2002 19:44	
Benzo(a)pyrene	ND	5.0	ug/Kg	1.00	11/12/2002 19:44	
Indeno(1,2,3-c,d)pyrene	ND	5.0	ug/Kg	1.00	11/12/2002 19:44	
Dibenzo(a,h)anthracene	ND	5.0	ug/Kg	1.00	11/12/2002 19:44	
Benzo(g,h,i)perylene	ND	5.0	ug/Kg	1.00	11/12/2002 19:44	
<b>Surrogates(s)</b>						
2-Fluorobiphenyl	78.9	30-115	%	1.00	11/12/2002 19:44	
p-Terphenyl-d14	90.5	18-137	%	1.00	11/12/2002 19:44	

Submission #: 2002-11-0214

PNA analysis by 8270C/SIM GC/MS

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CA DHS ELAP# 2496

Batch QC Report

Prep(s): 3550B/8270C-SIM

Method Blank

MB: 2002/11/12-01.40-018

Soil

Test(s): 8270C-SIM

QC Batch # 2002/11/12-01.40

Date Extracted: 11/12/2002 09:01

Compound	Conc.	RL	Unit	Analyzed	Flag
Naphthalene	ND	5.0	ug/Kg	11/12/2002 17:04	
Acenaphthylene	ND	5.0	ug/Kg	11/12/2002 17:04	
Acenaphthene	ND	5.0	ug/Kg	11/12/2002 17:04	
Fluorene	ND	5.0	ug/Kg	11/12/2002 17:04	
Phenanthrene	ND	5.0	ug/Kg	11/12/2002 17:04	
Anthracene	ND	5.0	ug/Kg	11/12/2002 17:04	
Fluoranthene	ND	5.0	ug/Kg	11/12/2002 17:04	
Pyrene	ND	5.0	ug/Kg	11/12/2002 17:04	
Benzo(a)anthracene	ND	5.0	ug/Kg	11/12/2002 17:04	
Chrysene	ND	5.0	ug/Kg	11/12/2002 17:04	
Benzo(b)fluoranthene	ND	5.0	ug/Kg	11/12/2002 17:04	
Benzo(k)fluoranthene	ND	5.0	ug/Kg	11/12/2002 17:04	
Benzo(a)pyrene	ND	5.0	ug/Kg	11/12/2002 17:04	
Indeno(1,2,3-c,d)pyrene	ND	5.0	ug/Kg	11/12/2002 17:04	
Dibenzo(a,h)anthracene	ND	5.0	ug/Kg	11/12/2002 17:04	
Benzo(g,h,i)perylene	ND	5.0	ug/Kg	11/12/2002 17:04	
<b>Surrogates(s)</b>					
2-Fluorobiphenyl	77.8	30-115	%	11/12/2002 17:04	
p-Terphenyl-d14	94.7	18-137	%	11/12/2002 17:04	

Submission #: 2002-11-0214

PNA analysis by 8270C/SIM GC/MS

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CA DHS ELAP# 2496

**Batch QC Report**

Prep(s): 3550B/8270C-SIM

Test(s): 8270C-SIM

**Laboratory Control Spike**

**Soil**

**QC Batch # 2002/11/12-01.40**

LCS 2002/11/12-01.40-019

Extracted: 11/12/2002

Analyzed: 11/12/2002 17:31

LCSD 2002/11/12-01.40-020

Extracted: 11/12/2002

Analyzed: 11/12/2002 17:58

Compound	Conc. ug/Kg		Exp.Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Acenaphthene	254	252	332	76.5	76.1	0.5	50-150	30		
Phenanthrene	261	260	332	78.6	78.5	0.1	50-150	30		
Pyrene	310	239	332	93.4	72.2	25.6	50-150	30		
Chrysene	262	260	332	78.9	78.5	0.5	50-150	30		
Benzo(a)pyrene	276	281	332	83.1	84.9	2.1	50-150	30		
<b>Surrogates(s)</b>										
2-Fluorobiphenyl	7.67	7.63	10	76.7	76.3		30-115			
p-Terphenyl-d14	9.29	7.59	10	92.9	75.9		18-137			

Submission #: 2002-11-0214

PNA analysis by 8270C/SIM GC/MS

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CA DHS ELAP# 2496

Batch QC Report

Prep(s): 3550B/8270C-SIM

Test(s): 8270C-SIM

Matrix Spike ( MS / MSD )

Soil

QC Batch # 2002/11/12-01.40

GMX-05-2.0 >> MS

Lab ID: 2002-11-0214 - 003

MS: 2002/11/12-01.40-022

Extracted: 11/12/2002

Analyzed: 11/12/2002 18:51

Dilution: 1.00

MSD: 2002/11/12-01.40-023

Extracted: 11/12/2002

Analyzed: 11/12/2002 19:18

Dilution: 1.00

Compound	Conc. ug/Kg			Spk.Level ug/Kg	Recovery			Limits %		Flags	
	MS	MSD	Sample		MS	MSD	RPD	Rec.	RPD	MS	MSD
Acenaphthene	252	250	ND	333	75.7	75.3	0.5	50-150	30		
Phenanthrene	258	259	ND	333	77.5	78.0	0.6	50-150	30		
Pyrene	282	274	ND	333	84.7	82.5	2.6	50-150	30		
Chrysene	259	256	ND	333	77.8	77.1	0.9	50-150	30		
Benzo(a)pyrene	308	306	ND	333	92.5	92.2	0.3	50-150	30		
<b>Surrogate(s)</b>											
2-Fluorobiphenyl	7.32	6.34		10	73.2	63.4		30-115			
p-Terphenyl-d14	8.68	8.35		10	86.8	83.5		18-137			

Submission #: 2002-11-0214

PNA analysis by 8270C/SIM GC/MS

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CA DHS ELAP# 2496

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
GMX-01-4.5	11/08/2002 08:20	Soil	2
GMX-05-4.5	11/08/2002 11:00	Soil	4
GMX-04-8.5	11/08/2002 13:15	Soil	5
GMX-03-4.5	11/08/2002 14:05	Soil	7
GMX-06-4.5	11/08/2002 15:15	Soil	9



Submission #: 2002-11-0214

PNA analysis by 8270C/SIM GC/MS

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Project: 8367.001

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CA DHS ELAP# 2496

Prep(s): 3550B/8270C-SIM Test(s): 8270C-SIM  
Sample ID: GMX-01-4.5 Lab ID: 2002-11-0214 - 2  
Sampled: 11/08/2002 08:20 Extracted: 11/13/2002 18:13  
Matrix: Soil QC Batch#: 2002/11/13-01.40

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Naphthalene	ND	5.0	ug/Kg	1.00	11/18/2002 17:31	
Acenaphthylene	ND	5.0	ug/Kg	1.00	11/18/2002 17:31	
Acenaphthene	ND	5.0	ug/Kg	1.00	11/18/2002 17:31	
Fluorene	ND	5.0	ug/Kg	1.00	11/18/2002 17:31	
Phenanthrene	ND	5.0	ug/Kg	1.00	11/18/2002 17:31	
Anthracene	ND	5.0	ug/Kg	1.00	11/18/2002 17:31	
Fluoranthene	ND	5.0	ug/Kg	1.00	11/18/2002 17:31	
Pyrene	ND	5.0	ug/Kg	1.00	11/18/2002 17:31	
Benzo(a)anthracene	ND	5.0	ug/Kg	1.00	11/18/2002 17:31	
Chrysene	ND	5.0	ug/Kg	1.00	11/18/2002 17:31	
Benzo(b)fluoranthene	ND	5.0	ug/Kg	1.00	11/18/2002 17:31	
Benzo(k)fluoranthene	ND	5.0	ug/Kg	1.00	11/18/2002 17:31	
Benzo(a)pyrene	ND	5.0	ug/Kg	1.00	11/18/2002 17:31	
Indeno(1,2,3-c,d)pyrene	ND	5.0	ug/Kg	1.00	11/18/2002 17:31	
Dibenzo(a,h)anthracene	ND	5.0	ug/Kg	1.00	11/18/2002 17:31	
Benzo(g,h,i)perylene	ND	5.0	ug/Kg	1.00	11/18/2002 17:31	
<b>Surrogates(s)</b>						
2-Fluorobiphenyl	67.4	30-115	%	1.00	11/18/2002 17:31	
p-Terphenyl-d14	86.7	18-137	%	1.00	11/18/2002 17:31	

Submission #: 2002-11-0214

PNA analysis by 8270C/SIM GC/MS

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CA DHS ELAP# 2496

Prep(s): 3550B/8270C-SIM      Test(s): 8270C-SIM  
Sample ID: GMX-05-4.5      Lab ID: 2002-11-0214 - 4  
Sampled: 11/08/2002 11:00      Extracted: 11/13/2002 18:13  
Matrix: Soil      QC Batch#: 2002/11/13-01.40

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Naphthalene	ND	5.0	ug/Kg	1.00	11/18/2002 17:05	
Acenaphthylene	ND	5.0	ug/Kg	1.00	11/18/2002 17:05	
Acenaphthene	ND	5.0	ug/Kg	1.00	11/18/2002 17:05	
Fluorene	ND	5.0	ug/Kg	1.00	11/18/2002 17:05	
Phenanthrene	ND	5.0	ug/Kg	1.00	11/18/2002 17:05	
Anthracene	ND	5.0	ug/Kg	1.00	11/18/2002 17:05	
Fluoranthene	ND	5.0	ug/Kg	1.00	11/18/2002 17:05	
Pyrene	ND	5.0	ug/Kg	1.00	11/18/2002 17:05	
Benzo(a)anthracene	ND	5.0	ug/Kg	1.00	11/18/2002 17:05	
Chrysene	ND	5.0	ug/Kg	1.00	11/18/2002 17:05	
Benzo(b)fluoranthene	ND	5.0	ug/Kg	1.00	11/18/2002 17:05	
Benzo(k)fluoranthene	ND	5.0	ug/Kg	1.00	11/18/2002 17:05	
Benzo(a)pyrene	ND	5.0	ug/Kg	1.00	11/18/2002 17:05	
Indeno(1,2,3-c,d)pyrene	ND	5.0	ug/Kg	1.00	11/18/2002 17:05	
Dibenzo(a,h)anthracene	ND	5.0	ug/Kg	1.00	11/18/2002 17:05	
Benzo(g,h,i)perylene	ND	5.0	ug/Kg	1.00	11/18/2002 17:05	
<b>Surrogates(s)</b>						
2-Fluorobiphenyl	48.6	30-115	%	1.00	11/18/2002 17:05	
p-Terphenyl-d14	65.2	18-137	%	1.00	11/18/2002 17:05	

Submission #: 2002-11-0214

PNA analysis by 8270C/SIM GC/MS

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CA DHS ELAP# 2496

Prep(s): 3550B/8270C-SIM      Test(s): 8270C-SIM  
Sample ID: **GMX-04-8.5**      Lab ID: 2002-11-0214 - 5  
Sampled: 11/08/2002 13:15      Extracted: 11/13/2002 18:13  
Matrix: Soil      QC Batch#: 2002/11/13-01.40  
Analysis Flag: . ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Naphthalene	ND	5.0	ug/Kg	1.00	11/18/2002 18:51	
Acenaphthylene	10	5.0	ug/Kg	1.00	11/18/2002 18:51	
Acenaphthene	30	5.0	ug/Kg	1.00	11/18/2002 18:51	
Fluorene	140	5.0	ug/Kg	1.00	11/18/2002 18:51	
Phenanthrene	5.9	5.0	ug/Kg	1.00	11/18/2002 18:51	
Anthracene	53	5.0	ug/Kg	1.00	11/18/2002 18:51	
Fluoranthene	ND	5.0	ug/Kg	1.00	11/18/2002 18:51	
Pyrene	ND	5.0	ug/Kg	1.00	11/18/2002 18:51	
Benzo(a)anthracene	ND	5.0	ug/Kg	1.00	11/18/2002 18:51	
Chrysene	ND	5.0	ug/Kg	1.00	11/18/2002 18:51	
Benzo(b)fluoranthene	ND	5.0	ug/Kg	1.00	11/18/2002 18:51	
Benzo(k)fluoranthene	ND	5.0	ug/Kg	1.00	11/18/2002 18:51	
Benzo(a)pyrene	ND	5.0	ug/Kg	1.00	11/18/2002 18:51	
Indeno(1,2,3-c,d)pyrene	ND	5.0	ug/Kg	1.00	11/18/2002 18:51	
Dibenzo(a,h)anthracene	ND	5.0	ug/Kg	1.00	11/18/2002 18:51	
Benzo(g,h,i)perylene	ND	5.0	ug/Kg	1.00	11/18/2002 18:51	
<b>Surrogates(s)</b>						
2-Fluorobiphenyl	59.4	30-115	%	1.00	11/18/2002 18:51	
p-Terphenyl-d14	73.4	18-137	%	1.00	11/18/2002 18:51	

Submission #: 2002-11-0214

PNA analysis by 8270C/SIM GC/MS

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CA DHS ELAP# 2496

Prep(s): 3550B/8270C-SIM Test(s): 8270C-SIM  
Sample ID: GMX-03-4.5 Lab ID: 2002-11-0214 - 7  
Sampled: 11/08/2002 14:05 Extracted: 11/13/2002 18:13  
Matrix: Soil QC Batch#: 2002/11/13-01.40

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Naphthalene	ND	10	ug/Kg	2.00	11/18/2002 21:05	
Acenaphthylene	ND	10	ug/Kg	2.00	11/18/2002 21:05	
Acenaphthene	ND	10	ug/Kg	2.00	11/18/2002 21:05	
Fluorene	ND	10	ug/Kg	2.00	11/18/2002 21:05	
Phenanthrene	100	10	ug/Kg	2.00	11/18/2002 21:05	
Anthracene	24	10	ug/Kg	2.00	11/18/2002 21:05	
Fluoranthene	69	10	ug/Kg	2.00	11/18/2002 21:05	
Pyrene	90	10	ug/Kg	2.00	11/18/2002 21:05	
Benzo(a)anthracene	46	10	ug/Kg	2.00	11/18/2002 21:05	
Chrysene	51	10	ug/Kg	2.00	11/18/2002 21:05	
Benzo(b)fluoranthene	25	10	ug/Kg	2.00	11/18/2002 21:05	
Benzo(k)fluoranthene	20	10	ug/Kg	2.00	11/18/2002 21:05	
Benzo(a)pyrene	33	10	ug/Kg	2.00	11/18/2002 21:05	
Indeno(1,2,3-c,d)pyrene	13	10	ug/Kg	2.00	11/18/2002 21:05	
Dibenzo(a,h)anthracene	ND	10	ug/Kg	2.00	11/18/2002 21:05	
Benzo(g,h,i)perylene	16	10	ug/Kg	2.00	11/18/2002 21:05	
<b>Surrogates(s)</b>						
2-Fluorobiphenyl	47.4	30-115	%	2.00	11/18/2002 21:05	
p-Terphenyl-d14	95.5	18-137	%	2.00	11/18/2002 21:05	

Submission #: 2002-11-0214

PNA analysis by 8270C/SIM GC/MS

Geomatrix Consultants

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Project: 8367.001

Received: 11/08/2002 18:10

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CA DHS ELAP# 2496

Prep(s): 3550B/8270C-SIM      Test(s): 8270C-SIM  
Sample ID: GMX-06-4.5      Lab ID: 2002-11-0214 - 9  
Sampled: 11/08/2002 15:15      Extracted: 11/13/2002 18:13  
Matrix: Soil      QC Batch#: 2002/11/13-01.40

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Naphthalene	ND	5.0	ug/Kg	1.00	11/18/2002 19:18	
Acenaphthylene	ND	5.0	ug/Kg	1.00	11/18/2002 19:18	
Acenaphthene	ND	5.0	ug/Kg	1.00	11/18/2002 19:18	
Fluorene	ND	5.0	ug/Kg	1.00	11/18/2002 19:18	
Phenanthrene	ND	5.0	ug/Kg	1.00	11/18/2002 19:18	
Anthracene	ND	5.0	ug/Kg	1.00	11/18/2002 19:18	
Fluoranthene	ND	5.0	ug/Kg	1.00	11/18/2002 19:18	
Pyrene	ND	5.0	ug/Kg	1.00	11/18/2002 19:18	
Benzo(a)anthracene	ND	5.0	ug/Kg	1.00	11/18/2002 19:18	
Chrysene	ND	5.0	ug/Kg	1.00	11/18/2002 19:18	
Benzo(b)fluoranthene	ND	5.0	ug/Kg	1.00	11/18/2002 19:18	
Benzo(k)fluoranthene	ND	5.0	ug/Kg	1.00	11/18/2002 19:18	
Benzo(a)pyrene	ND	5.0	ug/Kg	1.00	11/18/2002 19:18	
Indeno(1,2,3-c,d)pyrene	ND	5.0	ug/Kg	1.00	11/18/2002 19:18	
Dibenzo(a,h)anthracene	ND	5.0	ug/Kg	1.00	11/18/2002 19:18	
Benzo(g,h,i)perylene	ND	5.0	ug/Kg	1.00	11/18/2002 19:18	
<b>Surrogates(s)</b>						
2-Fluorobiphenyl	60.5	30-115	%	1.00	11/18/2002 19:18	
p-Terphenyl-d14	82.4	18-137	%	1.00	11/18/2002 19:18	

Submission #: 2002-11-0214

PNA analysis by 8270C/SIM GC/MS

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CA DHS ELAP# 2496

Batch QC Report

Prep(s): 3550B/8270C-SIM

Method Blank

MB: 2002/11/13-01.40-012

Soil

Test(s): 8270C-SIM

QC Batch # 2002/11/13-01.40

Date Extracted: 11/13/2002 18:13

Compound	Conc.	RL	Unit	Analyzed	Flag
Naphthalene	ND	5.0	ug/Kg	11/18/2002 15:42	
Acenaphthylene	ND	5.0	ug/Kg	11/18/2002 15:42	
Acenaphthene	ND	5.0	ug/Kg	11/18/2002 15:42	
Fluorene	ND	5.0	ug/Kg	11/18/2002 15:42	
Phenanthrene	ND	5.0	ug/Kg	11/18/2002 15:42	
Anthracene	ND	5.0	ug/Kg	11/18/2002 15:42	
Fluoranthene	ND	5.0	ug/Kg	11/18/2002 15:42	
Pyrene	ND	5.0	ug/Kg	11/18/2002 15:42	
Benzo(a)anthracene	ND	5.0	ug/Kg	11/18/2002 15:42	
Chrysene	ND	5.0	ug/Kg	11/18/2002 15:42	
Benzo(b)fluoranthene	ND	5.0	ug/Kg	11/18/2002 15:42	
Benzo(k)fluoranthene	ND	5.0	ug/Kg	11/18/2002 15:42	
Benzo(a)pyrene	ND	5.0	ug/Kg	11/18/2002 15:42	
Indeno(1,2,3-c,d)pyrene	ND	5.0	ug/Kg	11/18/2002 15:42	
Dibenzo(a,h)anthracene	ND	5.0	ug/Kg	11/18/2002 15:42	
Benzo(g,h,i)perylene	ND	5.0	ug/Kg	11/18/2002 15:42	
<b>Surrogates(s)</b>					
2-Fluorobiphenyl	61.8	30-115	%	11/18/2002 15:42	
p-Terphenyl-d14	69.9	18-137	%	11/18/2002 15:42	

Submission #: 2002-11-0214

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CA DHS ELAP# 2496

Batch QC Report

Prep(s): 3550B/8270C-SIM

Test(s): 8270C-SIM

Laboratory Control Spike

Soil

QC Batch # 2002/11/13-01.40

LCS 2002/11/13-01.40-013

Extracted: 11/13/2002

Analyzed: 11/18/2002 16:09

LCSD 2002/11/13-01.40-014

Extracted: 11/13/2002

Analyzed: 11/18/2002 16:38

Compound	Conc. ug/Kg		Exp.Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Acenaphthene	192	200	333	57.7	60.1	4.1	50-150	30		
Phenanthrene	187	196	333	56.2	58.9	4.7	50-150	30		
Pyrene	193	215	333	58.0	64.6	10.8	50-150	30		
Chrysene	191	212	333	57.4	63.7	10.4	50-150	30		
Benzo(a)pyrene	186	204	333	55.9	61.3	9.2	50-150	30		
<b>Surrogates(s)</b>										
2-Fluorobiphenyl	5.90	6.20	10	59.0	62.0		30-115			
p-Terphenyl-d14	6.36	7.09	10	63.6	70.9		18-137			

Submission #: 2002-11-0214

PNA analysis by 8270C/SIM GC/MS

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CA DHS ELAP# 2496

**Batch QC Report**

Prep(s): 3550B/8270C-SIM

Test(s): 8270C-SIM

**Matrix Spike ( MS / MSD )**

**Soil**

**QC Batch # 2002/11/13-01.40**

GMX-01-4.5 >> MS

Lab ID: 2002-11-0214 - 002

MS: 2002/11/13-01.40-017

Extracted: 11/13/2002

Analyzed: 11/18/2002 17:58

Dilution: 1.00

MSD: 2002/11/13-01.40-018

Extracted: 11/13/2002

Analyzed: 11/18/2002 18:25

Dilution: 1.00

Compound	Conc. ug/Kg			Spk.Level	Recovery			Limits %		Flags	
	MS	MSD	Sample		ug/Kg	MS	MSD	RPD	Rec.	RPD	MS
Acenaphthene	189	163	ND	333	56.8	49.2	14.3	50-150	30		msr
Phenanthrene	193	165	ND	333	58.0	49.8	15.2	50-150	30		msr
Pyrene	194	160	ND	333	58.3	48.3	18.8	50-150	30		msr
Chrysene	211	198	ND	333	63.4	59.8	5.8	50-150	30		
Benzo(a)pyrene	190	187	ND	333	57.1	56.5	1.1	50-150	30		
<b>Surrogate(s)</b>											
2-Fluorobiphenyl	4.60	3.17		10	46.0	31.7		30-115			
p-Terphenyl-d14	6.72	6.24		10	67.2	62.4		18-137			



Submission #: 2002-11-0214

PNA analysis by 8270C/SIM GC/MS

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CA DHS ELAP# 2496

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Legend and Notes

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Analysis Flag

Result Flag

msr

Analyte MS/MSD recoveries were lower than QC limit.  
Analyte MS/MSD were reanalyzed to confirm matrix interference.

Submission #: 2002-11-0214

Metals

Geomatrix Consultants

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CA DHS ELAP# 2496

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
GMX-01-4.5	11/08/2002 08:20	Soil	2
GMX-05-4.5	11/08/2002 11:00	Soil	4
GMX-04-8.5	11/08/2002 13:15	Soil	5
GMX-03-4.5	11/08/2002 14:05	Soil	7
GMX-06-4.5	11/08/2002 15:15	Soil	9

Submission #: 2002-11-0214

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Project: 8367.001

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CA DHS ELAP# 2496

Prep(s): 3050B Test(s): 6010B  
Sample ID: GMX-01-4.5 Lab ID: 2002-11-0214 - 2  
Sampled: 11/08/2002 08:20 Extracted: 11/14/2002 06:45  
Matrix: Soil QC Batch#: 2002/11/14-01.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Arsenic	ND	1.0	mg/Kg	1.00	11/15/2002 13:23	
Cadmium	1.0	0.50	mg/Kg	1.00	11/15/2002 13:23	
Chromium	16	1.0	mg/Kg	1.00	11/15/2002 13:23	
Lead	3.3	1.0	mg/Kg	1.00	11/15/2002 13:23	
Nickel	9.8	1.0	mg/Kg	1.00	11/15/2002 13:23	
Zinc	18	1.0	mg/Kg	1.00	11/15/2002 13:23	

Submission #: 2002-11-0214

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Project: 8367.001

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CA DHS ELAP# 2496

Prep(s): 3050B Test(s): 6010B  
Sample ID: GMX-05-4.5 Lab ID: 2002-11-0214 - 4  
Sampled: 11/08/2002 11:00 Extracted: 11/14/2002 06:45  
Matrix: Soil QC Batch#: 2002/11/14-01.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Arsenic	ND	1.0	mg/Kg	1.00	11/15/2002 13:33	
Cadmium	1.2	0.50	mg/Kg	1.00	11/15/2002 13:33	
Chromium	17	1.0	mg/Kg	1.00	11/15/2002 13:33	
Lead	4.3	1.0	mg/Kg	1.00	11/15/2002 13:33	
Nickel	26	1.0	mg/Kg	1.00	11/15/2002 13:33	
Zinc	20	1.0	mg/Kg	1.00	11/15/2002 13:33	

Submission #: 2002-11-0214

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CA DHS ELAP# 2496

Prep(s): 3050B Test(s): 6010B  
Sample ID: GMX-04-8.5 Lab ID: 2002-11-0214 - 5  
Sampled: 11/08/2002 13:15 Extracted: 11/14/2002 06:45  
Matrix: Soil QC Batch#: 2002/11/14-01.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Arsenic	ND	1.0	mg/Kg	1.00	11/15/2002 13:36	
Cadmium	1.8	0.50	mg/Kg	1.00	11/15/2002 13:36	
Chromium	28	1.0	mg/Kg	1.00	11/15/2002 13:36	
Lead	5.3	1.0	mg/Kg	1.00	11/15/2002 13:36	
Nickel	24	1.0	mg/Kg	1.00	11/15/2002 13:36	
Zinc	27	1.0	mg/Kg	1.00	11/15/2002 13:36	

Submission #: 2002-11-0214

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CA DHS ELAP# 2496

Prep(s): 3050B Test(s): 6010B  
Sample ID: GMX-03-4.5 Lab ID: 2002-11-0214 - 7  
Sampled: 11/08/2002 14:05 Extracted: 11/14/2002 06:45  
Matrix: Soil QC Batch#: 2002/11/14-01.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Arsenic	1.5	1.0	mg/Kg	1.00	11/15/2002 13:40	
Cadmium	1.2	0.50	mg/Kg	1.00	11/15/2002 13:40	
Chromium	17	1.0	mg/Kg	1.00	11/15/2002 13:40	
Lead	6.8	1.0	mg/Kg	1.00	11/15/2002 13:40	
Nickel	15	1.0	mg/Kg	1.00	11/15/2002 13:40	
Zinc	16	1.0	mg/Kg	1.00	11/15/2002 13:40	

Submission #: 2002-11-0214

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CA DHS ELAP# 2496

Prep(s): 3050B Test(s): 6010B  
Sample ID: GMX-06-4.5 Lab ID: 2002-11-0214 - 9  
Sampled: 11/08/2002 15:15 Extracted: 11/14/2002 06:45  
Matrix: Soil QC Batch#: 2002/11/14-01.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Arsenic	2.7	1.0	mg/Kg	1.00	11/15/2002 13:43	
Cadmium	0.97	0.50	rng/Kg	1.00	11/15/2002 13:43	
Chromium	13	1.0	mg/Kg	1.00	11/15/2002 13:43	
Lead	12	1.0	mg/Kg	1.00	11/15/2002 13:43	
Nickel	14	1.0	mg/Kg	1.00	11/15/2002 13:43	
Zinc	29	1.0	mg/Kg	1.00	11/15/2002 13:43	

Submission #: 2002-11-0214

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CA DHS ELAP# 2496

Batch QC Report

Prep(s): 3050B

Method Blank

MB: 2002/11/14-01.15-047

Soil

Test(s): 6010B

QC Batch # 2002/11/14-01.15

Date Extracted: 11/14/2002 06:45

Compound	Conc.	RL	Unit	Analyzed	Flag
Arsenic	ND	1.0	mg/Kg	11/15/2002 12:33	
Cadmium	ND	0.50	mg/Kg	11/15/2002 12:33	
Chromium	ND	1.0	mg/Kg	11/15/2002 12:33	
Lead	ND	1.0	mg/Kg	11/15/2002 12:33	
Nickel	ND	1.0	mg/Kg	11/15/2002 12:33	
Zinc	ND	1.0	mg/Kg	11/15/2002 12:33	



Submission #: 2002-11-0214

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CA DHS ELAP# 2496

Batch QC Report

Prep(s): 3050B

Test(s): 6010B

Laboratory Control Spike

Soil

QC Batch # 2002/11/14-01.15

LCS 2002/11/14-01.15-048

Extracted: 11/14/2002

Analyzed: 11/15/2002 12:37

LCSD 2002/11/14-01.15-049

Extracted: 11/14/2002

Analyzed: 11/15/2002 12:41

Compound	Conc. mg/Kg		Exp.Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Arsenic	108	105	100.0	108.0	105.0	2.8	80-120	20		
Cadmium	96.4	94.1	100.0	96.4	94.1	2.4	80-120	20		
Chromium	97.9	95.8	100.0	97.9	95.8	2.2	80-120	20		
Lead	100	97.4	100.0	100.0	97.4	2.6	80-120	20		
Nickel	99.1	96.6	100.0	99.1	96.6	2.6	80-120	20		
Zinc	100	97.6	100.0	100.0	97.6	2.4	80-120	20		

Submission #: 2002-11-0214

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Project: 8367.001

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CA DHS ELAP# 2496

Batch QC Report

Prep(s): 3050B

Test(s): 6010B

Matrix Spike ( MS / MSD )

Soil

QC Batch # 2002/11/14-01.15

GMX-01-4.5 >> MS

Lab ID: 2002-11-0214 - 002

MS: 2002/11/14-01.15-061

Extracted: 11/14/2002

Analyzed: 11/15/2002 13:27

Dilution: 1.00

MSD: 2002/11/14-01.15-062

Extracted: 11/14/2002

Analyzed: 11/15/2002 13:30

Dilution: 1.00

Compound	Conc. mg/Kg			Spk.Level mg/Kg	Recovery			Limits %		Flags	
	MS	MSD	Sample		MS	MSD	RPD	Rec.	RPD	MS	MSD
Arsenic	84.7	85.5	ND	96.2	88.0	85.5	2.9	75-125	20		
Cadmium	76.4	78.8	0.997	96.2	78.4	77.8	0.8	75-125	20		
Chromium	91.2	94.8	16.0	96.2	78.2	78.8	0.8	75-125	20		
Lead	82.5	83.0	3.31	96.2	82.3	79.7	3.2	75-125	20		
Nickel	87.8	89.0	9.79	96.2	81.1	79.2	2.4	75-125	20		
Zinc	93.0	96.1	17.7	96.2	78.3	78.4	0.1	75-125	20		

Submission #: 2002-11-0214

Total Extractable Petroleum Hydrocarbons (TEPH)

Geomatrix Consultants

Attn.: Robert Cheung  
2101 Webster Street, 12th Floor  
Oakland, CA 94612  
Phone: (510) 663-4299 Fax: (510) 663-4141

Project: 8367.001

Received: 11/08/2002 18:10

SEVERN

TRENT

LABORATORY

STL San Francisco  
1220 Quarry Lane  
Pleasanton, CA 94566

Tel: (925) 484-1919  
Fax: (925) 484-1096  
www.stl-inc.com  
www.chromalab.com

CA DHS ELAP# 2496

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
GMX-01-2.0	11/08/2002 08:15	Soil	1
GMX-05-2.0	11/08/2002 10:55	Soil	3
GMX-03-2.0	11/08/2002 13:55	Soil	6
GMX-06-2.0	11/08/2002 15:10	Soil	8

Submission #: 2002-11-0214

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CA DHS ELAP# 2496

Prep(s): 3550/8015M Test(s): 8015M  
Sample ID: GMX-01-2.0 Lab ID: 2002-11-0214 - 1  
Sampled: 11/08/2002 08:15 Extracted: 11/11/2002 11:39  
Matrix: Soil QC Batch#: 2002/11/11-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	31	2.0	mg/Kg	2.00	11/13/2002 15:38	ndp
Motor Oil	310	100	mg/Kg	2.00	11/13/2002 15:38	
<b>Surrogates(s)</b> o-Terphenyl	88.7	60-130	%	2.00	11/13/2002 15:38	

Submission #: 2002-11-0214

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CA DHS ELAP# 2496

Prep(s): 3550/8015M      Test(s): 8015M  
Sample ID: **GMX-05-2.0**      Lab ID: 2002-11-0214 - 3  
Sampled: 11/08/2002 10:55      Extracted: 11/11/2002 11:39  
Matrix: Soil      QC Batch#: 2002/11/11-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	2.1	1.0	mg/Kg	1.00	11/12/2002 22:02	ndp
Motor Oil	ND	50	mg/Kg	1.00	11/12/2002 22:02	
<b>Surrogates(s)</b> o-Terphenyl	80.1	60-130	%	1.00	11/12/2002 22:02	

Submission #: 2002-11-0214

Total Extractable Petroleum Hydrocarbons (TEPH)

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CA DHS ELAP# 2496

Prep(s): 3550/8015M Test(s): 8015M  
Sample ID: GMX-03-2.0 Lab ID: 2002-11-0214 - 6  
Sampled: 11/08/2002 13:55 Extracted: 11/11/2002 11:39  
Matrix: Soil QC Batch#: 2002/11/11-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	11/12/2002 20:09	
Motor Oil	ND	50	mg/Kg	1.00	11/12/2002 20:09	
<b>Surrogates(s)</b>						
o-Terphenyl	78.2	60-130	%	1.00	11/12/2002 20:09	

Submission #: 2002-11-0214

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www.chromalab.com

CA DHS ELAP# 2496

Prep(s): 3550/8015M                      Test(s): 8015M  
Sample ID: GMX-06-2.0                      Lab ID: 2002-11-0214 - 8  
Sampled: 11/08/2002 15:10                      Extracted: 11/11/2002 11:39  
Matrix: Soil                                      QC Batch#: 2002/11/11-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	5.8	1.0	mg/Kg	1.00	11/12/2002 23:17	ndp
Motor Oil	66	50	mg/Kg	1.00	11/12/2002 23:17	
<b>Surrogates(s)</b>						
o-Terphenyl	81.6	60-130	%	1.00	11/12/2002 23:17	

Submission #: 2002-11-0214

Total Extractable Petroleum Hydrocarbons (TEPH)

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Project: 8367.001

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www.chromalab.com

CA DHS ELAP# 2496

**Batch QC Report**

Prep(s): 3550/8015M  
Method Blank

Soil

Test(s): 8015M  
QC Batch # 2002/11/11-02.10

MB: 2002/11/11-02.10-001

Date Extracted: 11/11/2002 11:39

Compound	Conc.	RL	Unit	Analyzed	Flag
Diesel	ND	1	mg/Kg	11/12/2002 07:11	
Motor Oil	ND	50	mg/Kg	11/12/2002 07:11	
<b>Surrogates(s)</b>					
o-Terphenyl	87.8	60-130	%	11/12/2002 07:11	



Submission #: 2002-11-0214

SEVERN

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Total Extractable Petroleum Hydrocarbons (TEPH)

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Project: 8367.001

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CA DHS ELAP# 2496

Batch QC Report

Prep(s): 3550/8015M

Test(s): 8015M

Laboratory Control Spike

Soil

QC Batch # 2002/11/11-02.10

LCS 2002/11/11-02.10-002

Extracted: 11/11/2002

Analyzed: 11/12/2002 05:56

LCSD 2002/11/11-02.10-003

Extracted: 11/11/2002

Analyzed: 11/12/2002 06:33

Compound	Conc. mg/Kg		Exp.Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Diesel	39.6	39.8	41.5	95.4	95.9	0.5	60-130	25		
Surrogates(s) o-Terphenyl	18.6	18.8	20.0	93.1	94.0		60-130	0		

Submission #: 2002-11-0214

Total Extractable Petroleum Hydrocarbons (TEPH)

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Project: 8367.001

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CA DHS ELAP# 2496

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Legend and Notes

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**Result Flag**

ndp

Hydrocarbon reported does not match the pattern of our Diesel standard

Submission #: 2002-11-0214

Total Extractable Petroleum Hydrocarbons (TEPH)

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Project: 8367.001

Received: 11/08/2002 18:10

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CA DHS ELAP# 2496

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
GMX-01-4.5	11/08/2002 08:20	Soil	2
GMX-05-4.5	11/08/2002 11:00	Soil	4
GMX-04-8.5	11/08/2002 13:15	Soil	5
GMX-03-4.5	11/08/2002 14:05	Soil	7
GMX-06-4.5	11/08/2002 15:15	Soil	9

Submission #: 2002-11-0214

Total Extractable Petroleum Hydrocarbons (TEPH)

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Project: 8367.001

Received: 11/08/2002 18:10

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www.chromalab.com

CA DHS ELAP# 2496

Prep(s): 3550/8015M Test(s): 8015M  
Sample ID: **GMX-01-4.5** Lab ID: 2002-11-0214 - 2  
Sampled: 11/08/2002 08:20 Extracted: 11/13/2002 14:15  
Matrix: Soil QC Batch#: 2002/11/13-04.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	11/14/2002 05:24	
Motor Oil	ND	50	mg/Kg	1.00	11/14/2002 05:24	
<b>Surrogates(s)</b> o-Terphenyl	90.3	60-130	%	1.00	11/14/2002 05:24	

Submission #: 2002-11-0214

Total Extractable Petroleum Hydrocarbons (TEPH)

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Project: 8367.001

Received: 11/08/2002 18:10

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www.chromalab.com

CA DHS ELAP# 2496

Prep(s): 3550/8015M Test(s): 8015M  
Sample ID: GMX-05-4.5 Lab ID: 2002-11-0214 - 4  
Sampled: 11/08/2002 11:00 Extracted: 11/13/2002 14:15  
Matrix: Soil QC Batch#: 2002/11/13-04.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	11/14/2002 06:01	
Motor Oil	ND	50	mg/Kg	1.00	11/14/2002 06:01	
<b>Surrogates(s)</b> o-Terphenyl	89.2	60-130	%	1.00	11/14/2002 06:01	

Submission #: 2002-11-0214

Total Extractable Petroleum Hydrocarbons (TEPH)

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Project: 8367.001

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Fax: (925) 484-1096  
www.stl-inc.com  
www.chromalab.com

CA DHS ELAP# 2496

Prep(s): 3550/8015M Test(s): 8015M  
Sample ID: **GMX-04-8.5** Lab ID: 2002-11-0214 - 5  
Sampled: 11/08/2002 13:15 Extracted: 11/13/2002 14:15  
Matrix: Soil QC Batch#: 2002/11/13-04.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	200	1.0	mg/Kg	1.00	11/14/2002 06:38	ndp
Motor Oil	350	50	mg/Kg	1.00	11/14/2002 06:38	
<b>Surrogates(s)</b> o-Terphenyl	88.9	60-130	%	1.00	11/14/2002 06:38	

Submission #: 2002-11-0214

Total Extractable Petroleum Hydrocarbons (TEPH)

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Pleasanton, CA 94566

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www.chromalab.com

CA DHS ELAP# 2496

Prep(s): 3550/8015M Test(s): 8015M  
Sample ID: GMX-03-4.5 Lab ID: 2002-11-0214 - 7  
Sampled: 11/08/2002 14:05 Extracted: 11/13/2002 14:15  
Matrix: Soil QC Batch#: 2002/11/13-04.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	1.2	1.0	mg/Kg	1.00	11/14/2002 05:44	ndp
Motor Oil	ND	50	mg/Kg	1.00	11/14/2002 05:44	
<b>Surrogates(s)</b>						
o-Terphenyl	75.1	60-130	%	1.00	11/14/2002 05:44	

Submission #: 2002-11-0214

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CA DHS ELAP# 2496

Prep(s): 3550/8015M                      Test(s): 8015M  
Sample ID: GMX-06-4.5                      Lab ID: 2002-11-0214 - 9  
Sampled: 11/08/2002 15:15                      Extracted: 11/13/2002 14:15  
Matrix: Soil                                      QC Batch#: 2002/11/13-04.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	11/14/2002 06:25	
Motor Oil	ND	50	mg/Kg	1.00	11/14/2002 06:25	
<i>Surrogates(s)</i> o-Terphenyl	65.2	60-130	%	1.00	11/14/2002 06:25	



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CA DHS ELAP# 2496

**Batch QC Report**

Prep(s): 3550/8015M  
Method Blank

Soil

Test(s): 8015M  
QC Batch # 2002/11/13-04.10

MB: 2002/11/13-04.10-001

Date Extracted: 11/13/2002 14:15

Compound	Conc.	RL	Unit	Analyzed	Flag
Diesel	ND	1	mg/Kg	11/13/2002 20:37	
Motor Oil	ND	50	mg/Kg	11/13/2002 20:37	
<i>Surrogates(s)</i> o-Terphenyl	87.2	60-130	%	11/13/2002 20:37	

Submission #: 2002-11-0214

Total Extractable Petroleum Hydrocarbons (TEPH)

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CA DHS ELAP# 2496

**Batch QC Report**

Prep(s): 3550/8015M

Test(s): 8015M

Laboratory Control Spike

Soil

QC Batch # 2002/11/13-04.10

LCS 2002/11/13-04.10-002

Extracted: 11/13/2002

Analyzed: 11/13/2002 19:22

LCSD 2002/11/13-04.10-003

Extracted: 11/13/2002

Analyzed: 11/13/2002 20:00

Compound	Conc. mg/Kg		Exp. Conc.	Recovery		RPD	Ctrl. Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Diesel	34.8	34.9	41.6	83.7	83.7	0.0	60-130	25		
Surrogates(s) o-Terphenyl	19.2	19.2	20.0	95.8	96.0		60-130	0		

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CA DHS ELAP# 2496

---

Legend and Notes

---

**Result Flag**

ndp

Hydrocarbon reported does not match the pattern of our Diesel standard


2002-11-0214

70106

**Chain-of Custody Record** 015728 Date: 11/8/02 Page 1 of 1

Project No.: 8367.001			ANALYSES													REMARKS												
Samplers (Signature): <i>M ~</i>			EPA Method 8021 (Full Scan)	EPA Method 8021 (Hal. VOCs 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	LEAD METALS	ARSENIC	CADMIUM	COPPER	CHROMIUM	COBALT	IRON	NICKEL	SILICA	ZINC	Soil (S), Water (W), Vapor (V), or Other (o)	Filtered	Preserved	Cooled	No. of Containers	Additional Comments
Date	Time	Sample Number																										
11/8/02	0815	GMX-01-2.0					X		X	X		X										S	-	-	-	-		
	0930	GMX-01-4.5												X								S	-	-	-	-		
	1055	GMX-05-2.0					X		X	X		X										S	-	-	-	-		
	1100	GMX-05-4.5												X								S	-	-	-	-		
	1315	GMX-04-8.5												X								S	-	-	-	-		
	1355	GMX-03-2.0					X		X	X		X										S	-	-	-	-		
	1405	GMX-03-4.5												X								S	-	-	-	-		
	1510	GMX-06-2.0					X		X	X		X										S	-	-	-	-		
	1515	GMX-06-4.5												X								S	-	-	-	-		
RUSH																												

Laboratory: **STL SAN FRANCISCO** Turnaround Time: **72 HR FR: 11/08/02** Results to: **ROBERT CHEN** Total No. of Containers: **9**

Relinquished by (Signature): <i>M ~</i>	Date: 11/8/02	Relinquished by (Signature): <b>Steve Bickham</b>	Date: 11-8 1810	Relinquished by (Signature):	Date:	Method of Shipment: <b>LAB COURIER</b>
Printed Name: <b>Matt Goetz</b>	Time: 16:20	Company: <b>Geomatrix</b>	Company:	Printed Name:	Time:	Laboratory Comments and Log No.: <b>World Courier</b>
Received by: <b>Steve Bickham</b>	Date: 11-8	Received by:	Date:	Received by: <i>D. Harrington</i>	Date: 11/8/02	<b>2.80c</b>
Printed Name:	Time: 16:30	Company:	Company:	Printed Name: <b>D. Harrington</b>	Time: 1810	 <b>Geomatrix Consultants</b>
Company: <b>World Courier</b>				Company: <b>STL-SF</b>		2101 Webster Street, 12th Floor • Oakland, CA 94612 Phone: 510-863-4100 Fax: 510-863-4141

### Sample Receipt Checklist

Submission #: 2002- 11 - 0214

Checklist completed by: (initials) DSH Date: 11/11/02

Courier name:  STL San Francisco  Client World

- |  |   |
|--|---|
| Custody seals intact on shipping container/samples         | Yes ___ No ___ Not Present <input checked="" type="checkbox"/>            |
| Chain of custody present?                                  | Yes <input checked="" type="checkbox"/> No ___                            |
| Chain of custody signed when relinquished and received?    | Yes <input checked="" type="checkbox"/> No ___                            |
| Chain of custody agrees with sample labels?                | Yes <input checked="" type="checkbox"/> No ___                            |
| Samples in proper container/bottle?                        | Yes <input checked="" type="checkbox"/> No ___                            |
| Sample containers intact?                                  | Yes <input checked="" type="checkbox"/> No ___                            |
| Sufficient sample volume for indicated test?               | Yes <input checked="" type="checkbox"/> No ___                            |
| All samples received within holding time?                  | Yes <input checked="" type="checkbox"/> No ___                            |
| Container/Temp Blank temperature in compliance (4° C ± 2)? | Temp: <u>28</u> °C Yes <input checked="" type="checkbox"/> No ___         |
| Water - VOA vials have zero headspace?                     | No VOA vials submitted <input checked="" type="checkbox"/> Yes ___ No ___ |

(if bubble is present, refer to approximate bubble size and itemize in comments as S (small ~O), M (medium ~ O) or L (large ~ O))

- Water - pH acceptable upon receipt?  Yes  No
- pH adjusted- Preservative used:  HNO<sub>3</sub>  HCl  H<sub>2</sub>SO<sub>4</sub>  NaOH  ZnOAc

For any item check-listed "No", provided detail of discrepancy in comment section below:

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### Project Management [Routing for instruction of indicated discrepancy(ies)]

Project Manager: (initials) \_\_\_\_\_ Date: \_\_\_\_\_/\_\_\_\_\_/02

Client contacted:  Yes  No

Summary of discussion: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Corrective Action (per PM/Client): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Submission#: 2002-11-0304

November 19, 2002

SEVERN

TRENT

LABORATORY

**Geomatrix Consultants**

2101 Webster Street, 12th Floor  
Oakland, CA 94612

Attn.: Robert Cheung

Project#: 8367.000 Task 2

STL San Francisco  
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Tel.: (925) 484-1919  
Fax: (925) 484-1096  
www.stl-inc.com  
www.chromalab.com

CA DHS ELAP#:2496

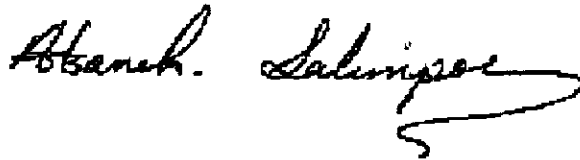
Attached is our report for your samples received on 11/13/2002 18:38  
This report has been reviewed and approved for release. Reproduction of this report  
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after  
12/28/2002 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  
Project Manager

Submission #: 2002-11-0304

Metals

Geomatrix Consultants

Attn.: Robert Cheung

2101 Webster Street, 12th Floor

Oakland, CA 94612

Phone: (510) 663-4299 Fax: (510) 663-4141

Project: 8367.000 Task 2

Received: 11/13/2002 18:38

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CA DHS ELAP# 2496

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
GMX-09-2.0	11/12/2002 07:55	Soil	1
GMX-09-4.5	11/12/2002 08:05	Soil	2
GMX-08-2.0	11/12/2002 09:05	Soil	3
GMX-08-4.5	11/12/2002 09:15	Soil	4

Submission #: 2002-11-0304

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LABORATORY

Metals

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www.chromalab.com

CA DHS ELAP# 2496

Prep(s): 3050B Test(s): 6010B  
Sample ID: GMX-09-2.0 Lab ID: 2002-11-0304 - 1  
Sampled: 11/12/2002 07:55 Extracted: 11/14/2002 11:28  
Matrix: Soil QC Batch#: 2002/11/14-04.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Arsenic	3.3	1.0	mg/Kg	1.00	11/15/2002 10:17	
Cadmium	2.1	0.50	mg/Kg	1.00	11/15/2002 10:17	
Chromium	30	1.0	mg/Kg	1.00	11/15/2002 10:17	
Lead	7.1	1.0	mg/Kg	1.00	11/15/2002 10:17	
Nickel	17	1.0	mg/Kg	1.00	11/15/2002 10:17	
Zinc	24	1.0	mg/Kg	1.00	11/15/2002 10:17	



Submission #: 2002-11-0304

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Project: 8367.000 Task 2

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CA DHS ELAP# 2496

Prep(s): 3050B Test(s): 6010B  
Sample ID: GMX-09-4.5 Lab ID: 2002-11-0304 - 2  
Sampled: 11/12/2002 08:05 Extracted: 11/14/2002 11:28  
Matrix: Soil QC Batch#: 2002/11/14-04.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Arsenic	11	1.0	mg/Kg	1.00	11/15/2002 10:27	
Cadmium	4.0	0.50	mg/Kg	1.00	11/15/2002 10:27	
Chromium	31	1.0	mg/Kg	1.00	11/15/2002 10:27	
Lead	12	1.0	mg/Kg	1.00	11/15/2002 10:27	
Nickel	35	1.0	mg/Kg	1.00	11/15/2002 10:27	
Zinc	41	1.0	mg/Kg	1.00	11/15/2002 10:27	

Submission #: 2002-11-0304

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Project: 8367.000 Task 2

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CA DHS ELAP# 2496

Prep(s): 3050B Test(s): 6010B  
Sample ID: GMX-08-2.0 Lab ID: 2002-11-0304 - 3  
Sampled: 11/12/2002 09:05 Extracted: 11/14/2002 11:28  
Matrix: Soil QC Batch#: 2002/11/14-04.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Arsenic	16	1.0	mg/Kg	1.00	11/15/2002 10:30	
Cadmium	2.4	0.50	mg/Kg	1.00	11/15/2002 10:30	
Chromium	18	1.0	mg/Kg	1.00	11/15/2002 10:30	
Lead	32	1.0	mg/Kg	1.00	11/15/2002 10:30	
Nickel	28	1.0	mg/Kg	1.00	11/15/2002 10:30	
Zinc	69	1.0	mg/Kg	1.00	11/15/2002 10:30	

Submission #: 2002-11-0304

Metals

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CA DHS ELAP# 2496

Prep(s): 3050B Test(s): 6010B  
Sample ID: GMX-08-4.5 Lab ID: 2002-11-0304 - 4  
Sampled: 11/12/2002 09:15 Extracted: 11/14/2002 11:28  
Matrix: Soil QC Batch#: 2002/11/14-04.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Arsenic	ND	1.0	mg/Kg	1.00	11/15/2002 10:34	
Cadmium	2.1	0.50	mg/Kg	1.00	11/15/2002 10:34	
Chromium	29	1.0	mg/Kg	1.00	11/15/2002 10:34	
Lead	5.9	1.0	mg/Kg	1.00	11/15/2002 10:34	
Nickel	56	1.0	mg/Kg	1.00	11/15/2002 10:34	
Zinc	28	1.0	mg/Kg	1.00	11/15/2002 10:34	

Submission #: 2002-11-0304

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Project: 8367.000 Task 2

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CA DHS ELAP# 2496

Batch QC Report

Prep(s): 3050B

Method Blank

MB: 2002/11/14-04.15-011

Soil

Test(s): 6010B

QC Batch # 2002/11/14-04.15

Date Extracted: 11/14/2002 11:28

Compound	Conc.	RL	Unit	Analyzed	Flag
Arsenic	ND	1.0	mg/Kg	11/15/2002 10:06	
Cadmium	ND	0.50	mg/Kg	11/15/2002 10:06	
Chromium	ND	1.0	mg/Kg	11/15/2002 10:06	
Lead	ND	1.0	mg/Kg	11/15/2002 10:06	
Nickel	ND	1.0	mg/Kg	11/15/2002 10:06	
Zinc	ND	1.0	mg/Kg	11/15/2002 10:06	

Submission #: 2002-11-0304

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Project: 8367.000 Task 2

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CA DHS ELAP# 2496

Batch QC Report

Prep(s): 3050B

Test(s): 6010B

Laboratory Control Spike

Soil

QC Batch # 2002/11/14-04.15

LCS 2002/11/14-04.15-012

Extracted: 11/14/2002

Analyzed: 11/15/2002 10:10

LCSD 2002/11/14-04.15-013

Extracted: 11/14/2002

Analyzed: 11/15/2002 10:13

Compound	Conc. mg/Kg		Exp.Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Arsenic	112	113	100.0	112.0	113.0	0.9	80-120	20		
Cadmium	100.0	100	100.0	100.0	100.0	0.0	80-120	20		
Chromium	102	103	100.0	102.0	103.0	1.0	80-120	20		
Lead	105	105	100.0	105.0	105.0	0.0	80-120	20		
Nickel	103	104	100.0	103.0	104.0	1.0	80-120	20		
Zinc	104	104	100.0	104.0	104.0	0.0	80-120	20		

Submission #: 2002-11-0304

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Metals

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CA DHS ELAP# 2496

Batch QC Report

Prep(s): 3050B

Test(s): 6010B

Matrix Spike ( MS / MSD )

Soil

QC Batch # 2002/11/14-04.15

GMX-09-2.0 >> MS

Lab ID: 2002-11-0304 - 001

MS: 2002/11/14-04.15-015

Extracted: 11/14/2002

Analyzed: 11/15/2002 10:20

Dilution: 1.00

MSD: 2002/11/14-04.15-016

Extracted: 11/14/2002

Analyzed: 11/15/2002 10:23

Dilution: 1.00

Compound	Conc. mg/Kg			Spk.Level mg/Kg	Recovery			Limits %		Flags	
	MS	MSD	Sample		MS	MSD	RPD	Rec.	RPD	MS	MSD
Arsenic	91.7	87.8	3.31	101	87.5	86.2	1.5	75-125	20		
Cadmium	82.9	81.0	2.08	101	80.0	80.5	0.6	75-125	20		
Chromium	117	110	29.8	101	86.3	81.8	5.4	75-125	20		
Lead	90.8	87.6	7.09	101	82.9	82.2	0.8	75-125	20		
Nickel	102	97.5	17.2	101	84.0	81.9	2.5	75-125	20		
Zinc	107	103	23.9	101	82.3	80.7	2.0	75-125	20		

Submission #: 2002-11-0304

Volatile Organic Compounds by 8260B (Low Level)

Geomatrix Consultants

Attn.: Robert Cheung  
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Project: 8367.000 Task 2

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www.chromalab.com

CA DHS ELAP# 2496

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
GMX-09-1102	11/12/2002 13:20	Water	5
GMX-08-1102	11/12/2002 13:20	Water	6

Submission #: 2002-11-0304

Volatile Organic Compounds by 8260B (Low Level)

Geomatrix Consultants  
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Project: 8367.000 Task 2

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CA DHS ELAP# 2496

Prep(s): 5030B Test(s): 8260B  
Sample ID: GMX-09-1102 Lab ID: 2002-11-0304 - 5  
Sampled: 11/12/2002 13:20 Extracted: 11/14/2002 18:54  
Matrix: Water QC Batch#: 2002/11/14-01.07

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
MTBE	ND	5.0	ug/L	1.00	11/14/2002 18:54	
Acetone	ND	50	ug/L	1.00	11/14/2002 18:54	
Benzene	ND	0.50	ug/L	1.00	11/14/2002 18:54	
Bromodichloromethane	ND	0.50	ug/L	1.00	11/14/2002 18:54	
Bromobenzene	ND	1.0	ug/L	1.00	11/14/2002 18:54	
Bromochloromethane	ND	1.0	ug/L	1.00	11/14/2002 18:54	
Bromoform	ND	0.50	ug/L	1.00	11/14/2002 18:54	
Bromomethane	ND	1.0	ug/L	1.00	11/14/2002 18:54	
2-Butanone(MEK)	ND	50	ug/L	1.00	11/14/2002 18:54	
n-Butylbenzene	ND	1.0	ug/L	1.00	11/14/2002 18:54	
sec-Butylbenzene	ND	1.0	ug/L	1.00	11/14/2002 18:54	
tert-Butylbenzene	ND	1.0	ug/L	1.00	11/14/2002 18:54	
Carbon disulfide	ND	5.0	ug/L	1.00	11/14/2002 18:54	
Carbon tetrachloride	ND	0.50	ug/L	1.00	11/14/2002 18:54	
Chlorobenzene	ND	0.50	ug/L	1.00	11/14/2002 18:54	
Chloroethane	ND	1.0	ug/L	1.00	11/14/2002 18:54	
2-Chloroethylvinyl ether	ND	5.0	ug/L	1.00	11/14/2002 18:54	
Chloroform	ND	1.0	ug/L	1.00	11/14/2002 18:54	
Chloromethane	ND	1.0	ug/L	1.00	11/14/2002 18:54	
2-Chlorotoluene	ND	0.50	ug/L	1.00	11/14/2002 18:54	
4-Chlorotoluene	ND	0.50	ug/L	1.00	11/14/2002 18:54	
Dibromochloromethane	ND	0.50	ug/L	1.00	11/14/2002 18:54	
1,2-Dichlorobenzene	ND	0.50	ug/L	1.00	11/14/2002 18:54	
1,3-Dichlorobenzene	ND	0.50	ug/L	1.00	11/14/2002 18:54	
1,4-Dichlorobenzene	ND	0.50	ug/L	1.00	11/14/2002 18:54	
1,3-Dichloropropane	ND	1.0	ug/L	1.00	11/14/2002 18:54	
2,2-Dichloropropane	ND	0.50	ug/L	1.00	11/14/2002 18:54	
1,1-Dichloropropene	ND	0.50	ug/L	1.00	11/14/2002 18:54	
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1.00	11/14/2002 18:54	
1,2-Dibromoethane	ND	0.50	ug/L	1.00	11/14/2002 18:54	
Dibromomethane	ND	0.50	ug/L	1.00	11/14/2002 18:54	
Dichlorodifluoromethane	ND	0.50	ug/L	1.00	11/14/2002 18:54	
1,1-Dichloroethane	ND	0.50	ug/L	1.00	11/14/2002 18:54	
1,2-Dichloroethane	ND	0.50	ug/L	1.00	11/14/2002 18:54	
1,1-Dichloroethene	ND	0.50	ug/L	1.00	11/14/2002 18:54	
cis-1,2-Dichloroethene	2.6	0.50	ug/L	1.00	11/14/2002 18:54	



Submission #: 2002-11-0304

Volatile Organic Compounds by 8260B (Low Level)

Geomatrix Consultants

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Project: 8367.000 Task 2

Received: 11/13/2002 18:38

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 www.chromalab.com

CA DHS ELAP# 2496

Prep(s): 5030B Test(s): 8260B  
 Sample ID: GMX-09-1102 Lab ID: 2002-11-0304 - 5  
 Sampled: 11/12/2002 13:20 Extracted: 11/14/2002 18:54  
 Matrix: Water QC Batch#: 2002/11/14-01.07

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
trans-1,2-Dichloroethene	2.9	0.50	ug/L	1.00	11/14/2002 18:54	
1,2-Dichloropropane	ND	0.50	ug/L	1.00	11/14/2002 18:54	
cis-1,3-Dichloropropene	ND	0.50	ug/L	1.00	11/14/2002 18:54	
trans-1,3-Dichloropropene	ND	0.50	ug/L	1.00	11/14/2002 18:54	
Ethylbenzene	ND	0.50	ug/L	1.00	11/14/2002 18:54	
Hexachlorobutadiene	ND	1.0	ug/L	1.00	11/14/2002 18:54	
2-Hexanone	ND	50	ug/L	1.00	11/14/2002 18:54	
Isopropylbenzene	ND	0.50	ug/L	1.00	11/14/2002 18:54	
p-Isopropyltoluene	ND	1.0	ug/L	1.00	11/14/2002 18:54	
Methylene chloride	ND	5.0	ug/L	1.00	11/14/2002 18:54	
4-Methyl-2-pentanone (MIBK)	ND	50	ug/L	1.00	11/14/2002 18:54	
Naphthalene	ND	1.0	ug/L	1.00	11/14/2002 18:54	
n-Propylbenzene	ND	1.0	ug/L	1.00	11/14/2002 18:54	
Styrene	ND	0.50	ug/L	1.00	11/14/2002 18:54	
1,1,1,2-Tetrachloroethane	ND	0.50	ug/L	1.00	11/14/2002 18:54	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1.00	11/14/2002 18:54	
Tetrachloroethene	ND	0.50	ug/L	1.00	11/14/2002 18:54	
Toluene	ND	0.50	ug/L	1.00	11/14/2002 18:54	
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1.00	11/14/2002 18:54	
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1.00	11/14/2002 18:54	
1,1,1-Trichloroethane	ND	0.50	ug/L	1.00	11/14/2002 18:54	
1,1,2-Trichloroethane	ND	0.50	ug/L	1.00	11/14/2002 18:54	
Trichloroethene	62	0.50	ug/L	1.00	11/14/2002 18:54	
Trichlorofluoromethane	ND	1.0	ug/L	1.00	11/14/2002 18:54	
Trichlorotrifluoroethane	ND	0.50	ug/L	1.00	11/14/2002 18:54	
1,2,4-Trimethylbenzene	ND	0.50	ug/L	1.00	11/14/2002 18:54	
1,3,5-Trimethylbenzene	ND	0.50	ug/L	1.00	11/14/2002 18:54	
Vinyl acetate	ND	25	ug/L	1.00	11/14/2002 18:54	
Vinyl chloride	ND	0.50	ug/L	1.00	11/14/2002 18:54	
Total xylenes	ND	1.0	ug/L	1.00	11/14/2002 18:54	
<b>Surrogates(s)</b>						
4-Bromofluorobenzene	100.5	86-115	%	1.00	11/14/2002 18:54	
1,2-Dichloroethane-d4	92.9	76-114	%	1.00	11/14/2002 18:54	
Toluene-d8	98.1	88-110	%	1.00	11/14/2002 18:54	

Submission #: 2002-11-0304

Volatile Organic Compounds by 8260B (Low Level)

Geomatrix Consultants

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Project: 8367.000 Task 2

Received: 11/13/2002 18:38

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CA DHS ELAP# 2496

Prep(s): 5030B Test(s): 8260B  
Sample ID: GMX-08-1102 Lab ID: 2002-11-0304 - 6  
Sampled: 11/12/2002 13:20 Extracted: 11/14/2002 19:18  
Matrix: Water QC Batch#: 2002/11/14-01.07

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
MTBE	ND	5.0	ug/L	1.00	11/14/2002 19:18	
Acetone	ND	50	ug/L	1.00	11/14/2002 19:18	
Benzene	ND	0.50	ug/L	1.00	11/14/2002 19:18	
Bromodichloromethane	ND	0.50	ug/L	1.00	11/14/2002 19:18	
Bromobenzene	ND	1.0	ug/L	1.00	11/14/2002 19:18	
Bromochloromethane	ND	1.0	ug/L	1.00	11/14/2002 19:18	
Bromoform	ND	0.50	ug/L	1.00	11/14/2002 19:18	
Bromomethane	ND	1.0	ug/L	1.00	11/14/2002 19:18	
2-Butanone(MEK)	ND	50	ug/L	1.00	11/14/2002 19:18	
n-Butylbenzene	ND	1.0	ug/L	1.00	11/14/2002 19:18	
sec-Butylbenzene	ND	1.0	ug/L	1.00	11/14/2002 19:18	
tert-Butylbenzene	ND	1.0	ug/L	1.00	11/14/2002 19:18	
Carbon disulfide	ND	5.0	ug/L	1.00	11/14/2002 19:18	
Carbon tetrachloride	ND	0.50	ug/L	1.00	11/14/2002 19:18	
Chlorobenzene	ND	0.50	ug/L	1.00	11/14/2002 19:18	
Chloroethane	ND	1.0	ug/L	1.00	11/14/2002 19:18	
2-Chloroethylvinyl ether	ND	5.0	ug/L	1.00	11/14/2002 19:18	
Chloroform	ND	1.0	ug/L	1.00	11/14/2002 19:18	
Chloromethane	ND	1.0	ug/L	1.00	11/14/2002 19:18	
2-Chlorotoluene	ND	0.50	ug/L	1.00	11/14/2002 19:18	
4-Chlorotoluene	ND	0.50	ug/L	1.00	11/14/2002 19:18	
Dibromochloromethane	ND	0.50	ug/L	1.00	11/14/2002 19:18	
1,2-Dichlorobenzene	ND	0.50	ug/L	1.00	11/14/2002 19:18	
1,3-Dichlorobenzene	ND	0.50	ug/L	1.00	11/14/2002 19:18	
1,4-Dichlorobenzene	ND	0.50	ug/L	1.00	11/14/2002 19:18	
1,3-Dichloropropane	ND	1.0	ug/L	1.00	11/14/2002 19:18	
2,2-Dichloropropane	ND	0.50	ug/L	1.00	11/14/2002 19:18	
1,1-Dichloropropene	ND	0.50	ug/L	1.00	11/14/2002 19:18	
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1.00	11/14/2002 19:18	
1,2-Dibromoethane	ND	0.50	ug/L	1.00	11/14/2002 19:18	
Dibromomethane	ND	0.50	ug/L	1.00	11/14/2002 19:18	
Dichlorodifluoromethane	ND	0.50	ug/L	1.00	11/14/2002 19:18	
1,1-Dichloroethane	ND	0.50	ug/L	1.00	11/14/2002 19:18	
1,2-Dichloroethane	ND	0.50	ug/L	1.00	11/14/2002 19:18	
1,1-Dichloroethene	ND	0.50	ug/L	1.00	11/14/2002 19:18	
cis-1,2-Dichloroethene	0.50	0.50	ug/L	1.00	11/14/2002 19:18	

Submission #: 2002-11-0304

Volatile Organic Compounds by 8260B (Low Level)

Geomatrix Consultants

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Project: 8367.000 Task 2

Received: 11/13/2002 18:38

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CA DHS ELAP# 2496

Prep(s): 5030B Test(s): 8260B  
Sample ID: GMX-08-1102 Lab ID: 2002-11-0304 - 6  
Sampled: 11/12/2002 13:20 Extracted: 11/14/2002 19:18  
Matrix: Water QC Batch#: 2002/11/14-01.07

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
trans-1,2-Dichloroethene	ND	0.50	ug/L	1.00	11/14/2002 19:18	
1,2-Dichloropropane	ND	0.50	ug/L	1.00	11/14/2002 19:18	
cis-1,3-Dichloropropene	ND	0.50	ug/L	1.00	11/14/2002 19:18	
trans-1,3-Dichloropropene	ND	0.50	ug/L	1.00	11/14/2002 19:18	
Ethylbenzene	ND	0.50	ug/L	1.00	11/14/2002 19:18	
Hexachlorobutadiene	ND	1.0	ug/L	1.00	11/14/2002 19:18	
2-Hexanone	ND	50	ug/L	1.00	11/14/2002 19:18	
Isopropylbenzene	ND	0.50	ug/L	1.00	11/14/2002 19:18	
p-Isopropyltoluene	ND	1.0	ug/L	1.00	11/14/2002 19:18	
Methylene chloride	ND	5.0	ug/L	1.00	11/14/2002 19:18	
4-Methyl-2-pentanone (MIBK)	ND	50	ug/L	1.00	11/14/2002 19:18	
Naphthalene	ND	1.0	ug/L	1.00	11/14/2002 19:18	
n-Propylbenzene	ND	1.0	ug/L	1.00	11/14/2002 19:18	
Styrene	ND	0.50	ug/L	1.00	11/14/2002 19:18	
1,1,1,2-Tetrachloroethane	ND	0.50	ug/L	1.00	11/14/2002 19:18	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1.00	11/14/2002 19:18	
Tetrachloroethene	ND	0.50	ug/L	1.00	11/14/2002 19:18	
Toluene	ND	0.50	ug/L	1.00	11/14/2002 19:18	
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1.00	11/14/2002 19:18	
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1.00	11/14/2002 19:18	
1,1,1-Trichloroethane	ND	0.50	ug/L	1.00	11/14/2002 19:18	
1,1,2-Trichloroethane	ND	0.50	ug/L	1.00	11/14/2002 19:18	
Trichloroethene	1.3	0.50	ug/L	1.00	11/14/2002 19:18	
Trichlorofluoromethane	ND	1.0	ug/L	1.00	11/14/2002 19:18	
Trichlorotrifluoroethane	ND	0.50	ug/L	1.00	11/14/2002 19:18	
1,2,4-Trimethylbenzene	ND	0.50	ug/L	1.00	11/14/2002 19:18	
1,3,5-Trimethylbenzene	ND	0.50	ug/L	1.00	11/14/2002 19:18	
Vinyl acetate	ND	25	ug/L	1.00	11/14/2002 19:18	
Vinyl chloride	ND	0.50	ug/L	1.00	11/14/2002 19:18	
Total xylenes	ND	1.0	ug/L	1.00	11/14/2002 19:18	
<b>Surrogates(s)</b>						
4-Bromofluorobenzene	98.0	86-115	%	1.00	11/14/2002 19:18	
1,2-Dichloroethane-d4	94.9	76-114	%	1.00	11/14/2002 19:18	
Toluene-d8	101.9	88-110	%	1.00	11/14/2002 19:18	

Submission #: 2002-11-0304

Volatile Organic Compounds by 8260B (Low Level)

Geomatrix Consultants

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Project: 8367.000 Task 2

Received: 11/13/2002 18:38

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CA DHS ELAP# 2496

**Batch QC Report**

Prep(s): 5030B

Method Blank

MB: 2002/11/14-01.07-005

Water

Test(s): 8260B

QC Batch # 2002/11/14-01.07

Date Extracted: 11/14/2002 12:59

Compound	Conc.	RL	Unit	Analyzed	Flag
MTBE	ND	5.0	ug/L	11/14/2002 12:59	
Acetone	ND	50	ug/L	11/14/2002 12:59	
Benzene	ND	0.5	ug/L	11/14/2002 12:59	
Bromodichloromethane	ND	0.5	ug/L	11/14/2002 12:59	
Bromobenzene	ND	1.0	ug/L	11/14/2002 12:59	
Bromochloromethane	ND	1.0	ug/L	11/14/2002 12:59	
Bromoform	ND	0.5	ug/L	11/14/2002 12:59	
Bromomethane	ND	1.0	ug/L	11/14/2002 12:59	
2-Butanone(MEK)	ND	50	ug/L	11/14/2002 12:59	
n-Butylbenzene	ND	1.0	ug/L	11/14/2002 12:59	
sec-Butylbenzene	ND	1.0	ug/L	11/14/2002 12:59	
tert-Butylbenzene	ND	1.0	ug/L	11/14/2002 12:59	
Carbon disulfide	ND	5.0	ug/L	11/14/2002 12:59	
Carbon tetrachloride	ND	0.5	ug/L	11/14/2002 12:59	
Chlorobenzene	ND	0.5	ug/L	11/14/2002 12:59	
Chloroethane	ND	1.0	ug/L	11/14/2002 12:59	
2-Chloroethylvinyl ether	ND	5.0	ug/L	11/14/2002 12:59	
Chloroform	ND	1.0	ug/L	11/14/2002 12:59	
Chloromethane	ND	1.0	ug/L	11/14/2002 12:59	
2-Chlorotoluene	ND	0.5	ug/L	11/14/2002 12:59	
4-Chlorotoluene	ND	0.5	ug/L	11/14/2002 12:59	
Dibromochloromethane	ND	0.5	ug/L	11/14/2002 12:59	
1,2-Dichlorobenzene	ND	0.5	ug/L	11/14/2002 12:59	
1,3-Dichlorobenzene	ND	0.5	ug/L	11/14/2002 12:59	
1,4-Dichlorobenzene	ND	0.5	ug/L	11/14/2002 12:59	
1,3-Dichloropropane	ND	1.0	ug/L	11/14/2002 12:59	
2,2-Dichloropropane	ND	0.5	ug/L	11/14/2002 12:59	
1,1-Dichloropropene	ND	0.5	ug/L	11/14/2002 12:59	
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	11/14/2002 12:59	
1,2-Dibromoethane	ND	0.5	ug/L	11/14/2002 12:59	
Dibromomethane	ND	0.5	ug/L	11/14/2002 12:59	
Dichlorodifluoromethane	ND	0.5	ug/L	11/14/2002 12:59	
1,1-Dichloroethane	ND	0.5	ug/L	11/14/2002 12:59	
1,2-Dichloroethane	ND	0.5	ug/L	11/14/2002 12:59	
1,1-Dichloroethene	ND	0.5	ug/L	11/14/2002 12:59	
cis-1,2-Dichloroethene	ND	0.5	ug/L	11/14/2002 12:59	

Submission #: 2002-11-0304

Volatile Organic Compounds by 8260B (Low Level)

Geomatrix Consultants

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Project: 8367.000 Task 2

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CA DHS ELAP# 2496

Batch QC Report

Prep(s): 5030B

Method Blank

MB: 2002/11/14-01.07-005

Water

Test(s): 8260B

QC Batch # 2002/11/14-01.07

Date Extracted: 11/14/2002 12:59

Compound	Conc.	RL	Unit	Analyzed	Flag
trans-1,2-Dichloroethene	ND	0.5	ug/L	11/14/2002 12:59	
1,2-Dichloropropane	ND	0.5	ug/L	11/14/2002 12:59	
cis-1,3-Dichloropropene	ND	0.5	ug/L	11/14/2002 12:59	
trans-1,3-Dichloropropene	ND	0.5	ug/L	11/14/2002 12:59	
Ethylbenzene	ND	0.5	ug/L	11/14/2002 12:59	
Hexachlorobutadiene	ND	1.0	ug/L	11/14/2002 12:59	
2-Hexanone	ND	50	ug/L	11/14/2002 12:59	
Isopropylbenzene	ND	0.5	ug/L	11/14/2002 12:59	
p-Isopropyltoluene	ND	1.0	ug/L	11/14/2002 12:59	
Methylene chloride	ND	5.0	ug/L	11/14/2002 12:59	
4-Methyl-2-pentanone (MIBK)	ND	50	ug/L	11/14/2002 12:59	
Naphthalene	ND	1.0	ug/L	11/14/2002 12:59	
n-Propylbenzene	ND	1.0	ug/L	11/14/2002 12:59	
Styrene	ND	0.5	ug/L	11/14/2002 12:59	
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L	11/14/2002 12:59	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	11/14/2002 12:59	
Tetrachloroethene	ND	0.5	ug/L	11/14/2002 12:59	
Toluene	ND	0.5	ug/L	11/14/2002 12:59	
1,2,3-Trichlorobenzene	ND	1.0	ug/L	11/14/2002 12:59	
1,2,4-Trichlorobenzene	ND	1.0	ug/L	11/14/2002 12:59	
1,1,1-Trichloroethane	ND	0.5	ug/L	11/14/2002 12:59	
1,1,2-Trichloroethane	ND	0.5	ug/L	11/14/2002 12:59	
Trichloroethene	ND	0.5	ug/L	11/14/2002 12:59	
Trichlorofluoromethane	ND	1.0	ug/L	11/14/2002 12:59	
Trichlorotrifluoroethane	ND	0.5	ug/L	11/14/2002 12:59	
1,2,4-Trimethylbenzene	ND	0.5	ug/L	11/14/2002 12:59	
1,3,5-Trimethylbenzene	ND	0.5	ug/L	11/14/2002 12:59	
Vinyl acetate	ND	25	ug/L	11/14/2002 12:59	
Vinyl chloride	ND	0.5	ug/L	11/14/2002 12:59	
Total xylenes	ND	1.0	ug/L	11/14/2002 12:59	
<b>Surrogates(s)</b>					
4-Bromofluorobenzene	100.2	86-115	%	11/14/2002 12:59	
1,2-Dichloroethane-d4	94.6	76-114	%	11/14/2002 12:59	
Toluene-d8	100.2	88-110	%	11/14/2002 12:59	

Submission #: 2002-11-0304

Volatile Organic Compounds by 8260B (Low Level)

Geomatrix Consultants

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CA DHS ELAP# 2496

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike

Water

QC Batch # 2002/11/14-01.07

LCS 2002/11/14-01.07-006

Extracted: 11/14/2002

Analyzed: 11/14/2002 13:23

LCSD 2002/11/14-01.07-004

Extracted: 11/14/2002

Analyzed: 11/14/2002 12:35

Compound	Conc. ug/L		Exp.Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	17.9	19.8	20.0	89.5	99.0	10.1	69-129	20		
Chlorobenzene	18.8	20.4	20.0	94.0	102.0	6.2	61-121	20		
1,1-Dichloroethene	20.0	22.3	20.0	100.0	111.5	10.9	65-125	20		
Toluene	19.6	21.2	20.0	98.0	106.0	7.8	70-130	20		
Trichloroethene	16.6	18.4	20.0	83.0	92.0	10.3	74-134	20		
<b>Surrogates(s)</b>										
4-Bromofluorobenzene	489	483	500	97.8	96.6		86-115			
1,2-Dichloroethane-d4	485	493	500	97.0	98.6		76-114			
Toluene-d8	496	486	500	99.2	97.2		88-110			

Submission #: 2002-11-0304

PNA analysis by 8270C/SIM GC/MS

Geomatrix Consultants

Attn.: Robert Cheung

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Project: 8367.000 Task 2

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CA DHS ELAP# 2496

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
GMX-09-2.0	11/12/2002 07:55	Soil	1
GMX-09-4.5	11/12/2002 08:05	Soil	2
GMX-08-2.0	11/12/2002 09:05	Soil	3
GMX-08-4.5	11/12/2002 09:15	Soil	4

Submission #: 2002-11-0304

PNA analysis by 8270C/SIM GC/MS

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CA DHS ELAP# 2496

Prep(s): 3550B/8270C-SIM      Test(s): 8270C-SIM  
Sample ID: GMX-09-2.0      Lab ID: 2002-11-0304 - 1  
Sampled: 11/12/2002 07:55      Extracted: 11/13/2002 18:13  
Matrix: Soil      QC Batch#: 2002/11/13-01.40

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Naphthalene	ND	5.0	ug/Kg	1.00	11/18/2002 20:11	
Acenaphthylene	ND	5.0	ug/Kg	1.00	11/18/2002 20:11	
Acenaphthene	ND	5.0	ug/Kg	1.00	11/18/2002 20:11	
Fluorene	ND	5.0	ug/Kg	1.00	11/18/2002 20:11	
Phenanthrene	ND	5.0	ug/Kg	1.00	11/18/2002 20:11	
Anthracene	ND	5.0	ug/Kg	1.00	11/18/2002 20:11	
Fluoranthene	ND	5.0	ug/Kg	1.00	11/18/2002 20:11	
Pyrene	ND	5.0	ug/Kg	1.00	11/18/2002 20:11	
Benzo(a)anthracene	ND	5.0	ug/Kg	1.00	11/18/2002 20:11	
Chrysene	ND	5.0	ug/Kg	1.00	11/18/2002 20:11	
Benzo(b)fluoranthene	ND	5.0	ug/Kg	1.00	11/18/2002 20:11	
Benzo(k)fluoranthene	ND	5.0	ug/Kg	1.00	11/18/2002 20:11	
Benzo(a)pyrene	ND	5.0	ug/Kg	1.00	11/18/2002 20:11	
Indeno(1,2,3-c,d)pyrene	ND	5.0	ug/Kg	1.00	11/18/2002 20:11	
Dibenzo(a,h)anthracene	ND	5.0	ug/Kg	1.00	11/18/2002 20:11	
Benzo(g,h,i)perylene	ND	5.0	ug/Kg	1.00	11/18/2002 20:11	
<b>Surrogates(s)</b>						
2-Fluorobiphenyl	52.2	30-115	%	1.00	11/18/2002 20:11	
p-Terphenyl-d14	73.2	18-137	%	1.00	11/18/2002 20:11	



Submission #: 2002-11-0304

PNA analysis by 8270C/SIM GC/MS

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Project: 8367.000 Task 2

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www.chromalab.com

CA DHS ELAP# 2496

Prep(s): 3550B/8270C-SIM Test(s): 8270C-SIM  
Sample ID: GMX-09-4.5 Lab ID: 2002-11-0304 - 2  
Sampled: 11/12/2002 08:05 Extracted: 11/13/2002 18:13  
Matrix: Soil QC Batch#: 2002/11/13-01.40

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Naphthalene	ND	5.0	ug/Kg	1.00	11/18/2002 19:45	
Acenaphthylene	ND	5.0	ug/Kg	1.00	11/18/2002 19:45	
Acenaphthene	ND	5.0	ug/Kg	1.00	11/18/2002 19:45	
Fluorene	ND	5.0	ug/Kg	1.00	11/18/2002 19:45	
Phenanthrene	ND	5.0	ug/Kg	1.00	11/18/2002 19:45	
Anthracene	ND	5.0	ug/Kg	1.00	11/18/2002 19:45	
Fluoranthene	ND	5.0	ug/Kg	1.00	11/18/2002 19:45	
Pyrene	ND	5.0	ug/Kg	1.00	11/18/2002 19:45	
Benzo(a)anthracene	ND	5.0	ug/Kg	1.00	11/18/2002 19:45	
Chrysene	ND	5.0	ug/Kg	1.00	11/18/2002 19:45	
Benzo(b)fluoranthene	ND	5.0	ug/Kg	1.00	11/18/2002 19:45	
Benzo(k)fluoranthene	ND	5.0	ug/Kg	1.00	11/18/2002 19:45	
Benzo(a)pyrene	ND	5.0	ug/Kg	1.00	11/18/2002 19:45	
Indeno(1,2,3-c,d)pyrene	ND	5.0	ug/Kg	1.00	11/18/2002 19:45	
Dibenzo(a,h)anthracene	ND	5.0	ug/Kg	1.00	11/18/2002 19:45	
Benzo(g,h,i)perylene	ND	5.0	ug/Kg	1.00	11/18/2002 19:45	
<b>Surrogates(s)</b>						
2-Fluorobiphenyl	61.7	30-115	%	1.00	11/18/2002 19:45	
p-Terphenyl-d14	68.4	18-137	%	1.00	11/18/2002 19:45	

Submission #: 2002-11-0304

PNA analysis by 8270C/SIM GC/MS

Geomatrix Consultants

Attn.: Robert Cheung  
2101 Webster Street, 12th Floor  
Oakland, CA 94612  
Phone: (510) 663-4299 Fax: (510) 663-4141

Project: 8367.000 Task 2

Received: 11/13/2002 18:38

SEVERN

TRENT

LABORATORY

STL San Francisco  
1220 Quarry Lane  
Pleasanton, CA 94566

Tel: (925) 484-1919  
Fax: (925) 484-1096  
www.stl-inc.com  
www.chromalab.com

CA DHS ELAP# 2496

Prep(s): 3550B/8270C-SIM Test(s): 8270C-SIM  
Sample ID: GMX-08-2.0 Lab ID: 2002-11-0304 - 3  
Sampled: 11/12/2002 09:05 Extracted: 11/13/2002 18:13  
Matrix: Soil QC Batch#: 2002/11/13-01.40  
Analysis Flag: Irn ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Naphthalene	ND	25	ug/Kg	5.00	11/18/2002 21:32	
Acenaphthylene	ND	25	ug/Kg	5.00	11/18/2002 21:32	
Acenaphthene	ND	25	ug/Kg	5.00	11/18/2002 21:32	
Fluorene	ND	25	ug/Kg	5.00	11/18/2002 21:32	
Phenanthrene	ND	25	ug/Kg	5.00	11/18/2002 21:32	
Anthracene	ND	25	ug/Kg	5.00	11/18/2002 21:32	
Fluoranthene	ND	25	ug/Kg	5.00	11/18/2002 21:32	
Pyrene	ND	25	ug/Kg	5.00	11/18/2002 21:32	
Benzo(a)anthracene	ND	25	ug/Kg	5.00	11/18/2002 21:32	
Chrysene	ND	25	ug/Kg	5.00	11/18/2002 21:32	
Benzo(b)fluoranthene	ND	25	ug/Kg	5.00	11/18/2002 21:32	
Benzo(k)fluoranthene	ND	25	ug/Kg	5.00	11/18/2002 21:32	
Benzo(a)pyrene	ND	25	ug/Kg	5.00	11/18/2002 21:32	
Indeno(1,2,3-c,d)pyrene	ND	25	ug/Kg	5.00	11/18/2002 21:32	
Dibenzo(a,h)anthracene	ND	25	ug/Kg	5.00	11/18/2002 21:32	
Benzo(g,h,i)perylene	ND	25	ug/Kg	5.00	11/18/2002 21:32	
<b>Surrogates(s)</b>						
2-Fluorobiphenyl	70.9	30-115	%	5.00	11/18/2002 21:32	
p-Terphenyl-d14	104.9	18-137	%	5.00	11/18/2002 21:32	

Submission #: 2002-11-0304

PNA analysis by 8270C/SIM GC/MS

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www.chromalab.com

CA DHS ELAP# 2496

Prep(s): 3550B/8270C-SIM Test(s): 8270C-SIM  
Sample ID: GMX-08-4.5 Lab ID: 2002-11-0304 - 4  
Sampled: 11/12/2002 09:15 Extracted: 11/13/2002 18:13  
Matrix: Soil QC Batch#: 2002/11/13-01.40

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Naphthalene	ND	5.0	ug/Kg	1.00	11/18/2002 20:38	
Acenaphthylene	ND	5.0	ug/Kg	1.00	11/18/2002 20:38	
Acenaphthene	ND	5.0	ug/Kg	1.00	11/18/2002 20:38	
Fluorene	ND	5.0	ug/Kg	1.00	11/18/2002 20:38	
Phenanthrene	ND	5.0	ug/Kg	1.00	11/18/2002 20:38	
Anthracene	ND	5.0	ug/Kg	1.00	11/18/2002 20:38	
Fluoranthene	ND	5.0	ug/Kg	1.00	11/18/2002 20:38	
Pyrene	ND	5.0	ug/Kg	1.00	11/18/2002 20:38	
Benzo(a)anthracene	ND	5.0	ug/Kg	1.00	11/18/2002 20:38	
Chrysene	ND	5.0	ug/Kg	1.00	11/18/2002 20:38	
Benzo(b)fluoranthene	ND	5.0	ug/Kg	1.00	11/18/2002 20:38	
Benzo(k)fluoranthene	ND	5.0	ug/Kg	1.00	11/18/2002 20:38	
Benzo(a)pyrene	ND	5.0	ug/Kg	1.00	11/18/2002 20:38	
Indeno(1,2,3-c,d)pyrene	ND	5.0	ug/Kg	1.00	11/18/2002 20:38	
Dibenzo(a,h)anthracene	ND	5.0	ug/Kg	1.00	11/18/2002 20:38	
Benzo(g,h,i)perylene	ND	5.0	ug/Kg	1.00	11/18/2002 20:38	
<b>Surrogates(s)</b>						
2-Fluorobiphenyl	60.2	30-115	%	1.00	11/18/2002 20:38	
p-Terphenyl-d14	71.9	18-137	%	1.00	11/18/2002 20:38	

Submission #: 2002-11-0304

PNA analysis by 8270C/SIM GC/MS

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Project: 8367.000 Task 2

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CA DHS ELAP# 2496

**Batch QC Report**

Prep(s): 3550B/8270C-SIM

Method Blank

MB: 2002/11/13-01.40-012

Soil

Test(s): 8270C-SIM

QC Batch # 2002/11/13-01.40

Date Extracted: 11/13/2002 18:13

Compound	Conc.	RL	Unit	Analyzed	Flag
Naphthalene	ND	5.0	ug/Kg	11/18/2002 15:42	
Acenaphthylene	ND	5.0	ug/Kg	11/18/2002 15:42	
Acenaphthene	ND	5.0	ug/Kg	11/18/2002 15:42	
Fluorene	ND	5.0	ug/Kg	11/18/2002 15:42	
Phenanthrene	ND	5.0	ug/Kg	11/18/2002 15:42	
Anthracene	ND	5.0	ug/Kg	11/18/2002 15:42	
Fluoranthene	ND	5.0	ug/Kg	11/18/2002 15:42	
Pyrene	ND	5.0	ug/Kg	11/18/2002 15:42	
Benzo(a)anthracene	ND	5.0	ug/Kg	11/18/2002 15:42	
Chrysene	ND	5.0	ug/Kg	11/18/2002 15:42	
Benzo(b)fluoranthene	ND	5.0	ug/Kg	11/18/2002 15:42	
Benzo(k)fluoranthene	ND	5.0	ug/Kg	11/18/2002 15:42	
Benzo(a)pyrene	ND	5.0	ug/Kg	11/18/2002 15:42	
Indeno(1,2,3-c,d)pyrene	ND	5.0	ug/Kg	11/18/2002 15:42	
Dibenzo(a,h)anthracene	ND	5.0	ug/Kg	11/18/2002 15:42	
Benzo(g,h,i)perylene	ND	5.0	ug/Kg	11/18/2002 15:42	
<b>Surrogates(s)</b>					
2-Fluorobiphenyl	61.8	30-115	%	11/18/2002 15:42	
p-Terphenyl-d14	69.9	18-137	%	11/18/2002 15:42	

Submission #: 2002-11-0304

PNA analysis by 8270C/SIM GC/MS

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Project: 8367.000 Task 2

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CA DHS ELAP# 2496

### Batch QC Report

Prep(s): 3550B/8270C-SIM

Test(s): 8270C-SIM

Laboratory Control Spike

Soil

QC Batch # 2002/11/13-01.40

LCS 2002/11/13-01.40-013

Extracted: 11/13/2002

Analyzed: 11/18/2002 16:09

LCSD 2002/11/13-01.40-014

Extracted: 11/13/2002

Analyzed: 11/18/2002 16:38

Compound	Conc. ug/Kg		Exp.Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Acenaphthene	192	200	333	57.7	60.1	4.1	50-150	30		
Phenanthrene	187	196	333	56.2	58.9	4.7	50-150	30		
Pyrene	193	215	333	58.0	64.6	10.8	50-150	30		
Chrysene	191	212	333	57.4	63.7	10.4	50-150	30		
Benzo(a)pyrene	186	204	333	55.9	61.3	9.2	50-150	30		
<b>Surrogates(s)</b>										
2-Fluorobiphenyl	5.90	6.20	10	59.0	62.0		30-115			
p-Terphenyl-d14	6.36	7.09	10	63.6	70.9		18-137			

Submission #: 2002-11-0304

PNA analysis by 8270C/SIM GC/MS

Geomatrix Consultants

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Project: 8367.000 Task 2

Received: 11/13/2002 18:38

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CA DHS ELAP# 2496

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**Legend and Notes**

---

**Analysis Flag**

Im

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

Submission #: 2002-11-0304

Total Extractable Petroleum Hydrocarbons (TEPH)

Geomatrix Consultants

Attn.: Robert Cheung  
2101 Webster Street, 12th Floor  
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Project: 8367.000 Task 2

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CA DHS ELAP# 2496

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
GMX-09-2.0	11/12/2002 07:55	Soil	1
GMX-09-4.5	11/12/2002 08:05	Soil	2
GMX-08-2.0	11/12/2002 09:05	Soil	3
GMX-08-4.5	11/12/2002 09:15	Soil	4

Submission #: 2002-11-0304

Total Extractable Petroleum Hydrocarbons (TEPH)

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Project: 8367.000 Task 2

Received: 11/13/2002 18:38

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www.stl-inc.com  
www.chromalab.com

CA DHS ELAP# 2496

Prep(s): 3550/8015M Test(s): 8015M  
Sample ID: GMX-09-2.0 Lab ID: 2002-11-0304 - 1  
Sampled: 11/12/2002 07:55 Extracted: 11/13/2002 14:15  
Matrix: Soil QC Batch#: 2002/11/13-04.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	11/14/2002 09:28	
Motor Oil	ND	50	mg/Kg	1.00	11/14/2002 09:28	
<b>Surrogates(s)</b> o-Terphenyl	79.3	60-130	%	1.00	11/14/2002 09:28	



Submission #: 2002-11-0304

Total Extractable Petroleum Hydrocarbons (TEPH)

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Project: 8367.000 Task 2

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CA DHS ELAP# 2496

Prep(s): 3550/8015M Test(s): 8015M  
Sample ID: GMX-09-4.5 Lab ID: 2002-11-0304 - 2  
Sampled: 11/12/2002 08:05 Extracted: 11/13/2002 14:15  
Matrix: Soil QC Batch#: 2002/11/13-04.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	11/14/2002 08:51	
Motor Oil	ND	50	mg/Kg	1.00	11/14/2002 08:51	
<b>Surrogates(s)</b> o-Terphenyl	81.8	60-130	%	1.00	11/14/2002 08:51	

Submission #: 2002-11-0304

SEVERN

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LABORATORY

Total Extractable Petroleum Hydrocarbons (TEPH)

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Project: 8367.000 Task 2

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CA DHS ELAP# 2496

Prep(s): 3550/8015M Test(s): 8015M  
Sample ID: **GMX-08-2.0** Lab ID: 2002-11-0304 - 3  
Sampled: 11/12/2002 09:05 Extracted: 11/13/2002 14:15  
Matrix: Soil QC Batch#: 2002/11/13-04.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	52	1.0	mg/Kg	1.00	11/14/2002 13:12	ndp
Motor Oil	160	50	mg/Kg	1.00	11/14/2002 13:12	
<b>Surrogates(s)</b> o-Terphenyl	87.7	60-130	%	1.00	11/14/2002 13:12	

Submission #: 2002-11-0304

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Total Extractable Petroleum Hydrocarbons (TEPH)

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CA DHS ELAP# 2496

Prep(s): 3550/8015M Test(s): 8015M  
Sample ID: GMX-08-4.5 Lab ID: 2002-11-0304 - 4  
Sampled: 11/12/2002 09:15 Extracted: 11/13/2002 14:15  
Matrix: Soil QC Batch#: 2002/11/13-04.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	11/14/2002 08:51	
Motor Oil	ND	50	mg/Kg	1.00	11/14/2002 08:51	
<b>Surrogates(s)</b> o-Terphenyl	84.2	60-130	%	1.00	11/14/2002 08:51	

Submission #: 2002-11-0304

Total Extractable Petroleum Hydrocarbons (TEPH)

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CA DHS ELAP# 2496

Batch QC Report

Prep(s): 3550/8015M

Method Blank

MB: 2002/11/13-04.10-001

Soil

Test(s): 8015M

QC Batch # 2002/11/13-04.10

Date Extracted: 11/13/2002 14:15

Compound	Conc.	RL	Unit	Analyzed	Flag
Diesel	ND	1	mg/Kg	11/13/2002 20:37	
Motor Oil	ND	50	mg/Kg	11/13/2002 20:37	
<b>Surrogates(s)</b> o-Terphenyl	87.2	60-130	%	11/13/2002 20:37	

Submission #: 2002-11-0304

Total Extractable Petroleum Hydrocarbons (TEPH)

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CA DHS ELAP# 2496

**Batch QC Report**

Prep(s): 3550/8015M

Test(s): 8015M

Laboratory Control Spike

Soil

QC Batch # 2002/11/13-04.10

LCS 2002/11/13-04.10-002

Extracted: 11/13/2002

Analyzed: 11/13/2002 19:22

LCSD 2002/11/13-04.10-003

Extracted: 11/13/2002

Analyzed: 11/13/2002 20:00

Compound	Conc. mg/Kg		Exp. Conc.	Recovery		RPD	Ctrl. Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Diesel	34.8	34.9	41.6	83.7	83.7	0.0	60-130	25		
<i>Surrogates(s)</i> o-Terphenyl	19.2	19.2	20.0	95.8	96.0		60-130	0		

Submission #: 2002-11-0304

Total Extractable Petroleum Hydrocarbons (TEPH)

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www.chromalab.com

CA DHS ELAP# 2496

---

Legend and Notes

---

**Result Flag**

ndp

Hydrocarbon reported does not match the pattern of our Diesel standard

Project No.: # 8367.000 Task 2			ANALYSES										REMARKS								
Samplers (Signature):			EPA Method 8021 (Full Scan)	EPA Method 8021 (Hal. VOCs only)	EPA Method 8021 (BETX only)	VOCs EPA Method 8260 B	EPA Method 8270 (Full Scan)	EPA Method 8270 SIM (PAHS only)	SIMS	Method 8015m (Gasoline)	Method 8015m (Diesel)	Method 8015m (Motor Oil)	Silica Gel Cleanup	LUFT Metals Arsenic (6010b)	HOLD	Soil (S), Water (W) Vapor (V), or Other (o)	Filtered	Preserved	Cooled	No. of Containers	Additional Comments
Date	Time	Sample Number																			
11/12/02	0755	GMX-09-2.0					X	X	X	X	X		X	X	S			✓	1	<b>RUSH</b>	
	0805	GMX-09-4.5					X	X	X	X	X		X	X	S			✓	1		
	0905	GMX-08-2.0					X	X	X	X	X		X	X	S			✓	1		
	0915	GMX-08-4.5					X	X	X	X	X		X	X	S			✓	1		
	1320	GMX-09-1102				X									W	✓	✓	3			
↓	1335	GMX-08-1102				X									W	✓	✓	3			
no holds and 48 hr per client AS 11/13/02																					

Laboratory: <b>STL-Chromo Lab</b>		Turnaround Time: <b>Standard 48 hr</b>		Results to: <b>Robert Cheng</b>		Total No. of Containers: <b>10</b>	
Relinquished by (Signature): <i>Brendan J. Mulholland</i>	Date: 11/13/02	Relinquished by (Signature):	Date:	Relinquished by (Signature):	Date:	Method of Shipment: <b>2nd courier pickup E warehouse</b>	
Printed Name: <b>Brendan J. Mulholland</b>	Time:	Printed Name:	Time:	Printed Name:	Time:	Laboratory Comments and Log No.:	
Company: <b>Geomatrix Consultants</b>	0705	Company:		Company:			
Received by:	Date:	Received by:	Date:	Received by: <i>Dee Harrington</i>	Date: 11/13/02	3.0°C	
Printed Name:	Time:	Printed Name:	Time:	Printed Name: <b>D. Harrington</b>	Time: 1838	<b>Geomatrix Consultants</b> 2101 Webster Street, 12th Floor • Oakland, CA 94612 Phone: 510-663-4100 Fax: 510-663-4141	
Company:		Company:		Company: <b>STL-SF</b>			

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12th Floor  
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(510) 663-4100 • FAX (510) 663-4141



## Transmittal

20 2521

Sent Via:  Messenger  U.S. Mail  Overnight Mail

**Date:** May 16, 2003

**To:** Mr. Barney M. Chan  
Alameda County Health Care  
Services Agency – Environmental  
Health Services Department  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

**From:** Robert Cheung

**cc:** Mr. Dennis O'Keefe, Pulte Homes  
(w/o enclosures)  
7031 Koll Center Parkway, Suite 150  
Pleasanton, CA 94566

**Project Number:** 8367.001

**Project Name:** Fabco – 1249 67<sup>th</sup> Street, Emeryville, CA

**Item Description**

Phase I Environmental Site Assessment, Phase II Soil and Grab  
Groundwater Investigation, and Additional Phase II Grab  
Groundwater Investigation

### Remarks

Barney:

Per our phone conversation, attached please find copies of the above-mentioned documents. Please call if you have any questions or need further information.

Thank you.

Regards,

Robert

I:\Project\8000s\8367.001\Transmittal to BChan.doc