LABORATORY REPORT

Eastern Analytical, Inc. ID#: 15250

Client: **GEI Consultants, Inc.** Client Designation: **Broad St 98217-2ADD**

QC Report

Parameter Name	Blank	LCS	LCS Dup	Units	Date of Analysis	Method
Naphthalene	< 40	1200 (63 %R)	860 (45 %R) (36 RPD)	µg/kg	1/5/99	8270
2-Methylnaphthalene	< 40	1600 (79 %R)	1100 (56 %R) (36 RPD)	µg/kg	1/5/99	8270
Acenaphthylene	< 40	910 (46 %R)	690 (36 %R) (28 RPD)	µg/kg	1/5/99	8270
Acenaphthene	< 40	1100 (58 %R)	850 (44 %R) (30 RPD)	µg/kg	1/5/99	8270
Fluorene	< 40	1300 (67 %R)	1100 (56 %R) (20 RPD)	µg/kg	1/5/99	8270
Phenanthrene	< 40	1300 (67 %R)	1200 (60 %R) (13 RPD)	µg/kg	1/5/99	8270
Anthracene	< 40	1300 (65 %R)	1100 (56 %R) (15 RPD)	µg/kg	1/5/99	8270
Fluoranthene	< 40	1300 (67 %R)	1200 (61 %R) (11 RPD)	µg/kg	1/5/99	8270
Pyrene	< 40	1500 (74 %R)	1300 (65 %R) (15 RPD)	µg/kg	1/5/99	8270
Benzo[a]anthracene	< 40	1500 (76 %R)	1300 (68 %R) (13 RPD)	µg/kg	1/5/99	8270
Chrysene	< 40	1500 (78 %R)	1400 (70 %R) (12 RPD)	µg/kg	1/5/99	8270
Benzo[b]fluoranthene	< 40	1500 (78 %R)	1500 (76 %R) (4 RPD)	µg/kg	1/5/99	8270
Benzo[k]fluoranthene	< 40	1400 (69 %R)	1100 (58 %R) (19 RPD)	µg/kg	1/5/99	8270
Benzo[a]pyrene	< 40	900 (46 %R)	790 (41 %R) (13 RPD)	µg/kg	1/5/99	8270
Indeno[1,2,3-cd]pyrene	< 40	1400 (71 %R)	1200 (64 %R) (12 RPD)	µg/kg	1/5/99	8270
Dibenz[a,h]anthracene	< 40	1400 (71 %R)	1200 (64 %R) (11 RPD)	µg/kg	1/5/99	8270
Benzo[g,h,i]perylene	< 40	1300 (65 %R)	1100 (59 %R) (11 RPD)	µg/kg	1/5/99	8270
p-Terphenyl-d14 (surr)	62 %R	72 %R	67 %R	µg/kg	1/5/99	8270

Approved By: Timothy Schaper Organics Supervisor Timothy Schaper (DCR)

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 15250

Client: **GEI Consultants, Inc.** Client Designation: **Broad St 98217-2ADD**

Polynuclear Aromatic Hydrocarbons QA/QC and Narrative Report

Matrix:	Solid	Aqueous	RPDUnits:
Units:	%	%	%
EPA Method:	8270	8270	
Naphthalene	30-160	30-160	
2-Methylnaphthalene	30-160	30-160	
Acenaphthylene	30-160	30-160	
Acenaphthene	31-137	46-118	36
Fluorene	30-160	30-160	
Phenanthrene	30-160	30-160	
Anthracene	30-160	30-160	
Fluoranthene	30-160	30-160	
Pyrene	35-142	26-127	19
Benzo[a]anthracene	30-160	30-160	
Chrysene	30-160	30-160	
Benzo[b]fluoranthene	30-160	30-160	
Benzo[k]fluoranthene	30-160	30-160	
Benzo[a]pyrene	30-160	30-160	
Indeno[1,2,3-cd]pyrene	30-160	30-160	
Dibenz[a,h]anthracene	30-160	30-160	
Benzo[g,h,i]perylene	30-160	30-160	
Surrogate (p-Terphenyl-d14)	18-137	33-141	

Samples were extracted and analyzed within holding time limits.
Instrumentation was tuned and calibrated in accordance with the method requirements.
The associated method blank(s) were free of contamination at the reporting limit.
Sample Surrogate Recoveries met the above stated criteria.
The associated matrix spike(s) and/or Laboratory Control Sample(s) met the above stated criteria.

Approved By: Timothy Schaper Organics Supervisor Timothy Schaper (SM)

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 15250

Client: **GEI Consultants, Inc.** Client Designation: **Broad St 98217-2ADD**

Sample ID:	TP22
Analytical Type:	Sample
Matrix:	soil
Date Sampled:	12/16/98
Date Received:	12/18/98
Units:	mg/kg
Date of Extraction/Prep:	12/18/98
Date of Analysis:	12/18/98
Analyst:	DJS
Method:	8100 Mod
Dilution Factor:	1
TPH (C9-C40)	180
p-Terphenyl d14 (TPH surr)	127 %R

Approved By: Timothy Schaper Organics Supervisor Timothy Schaper (DFA)

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 15250

Client: **GEI Consultants, Inc.** Client Designation: **Broad St 98217-2ADD**

Total Petroleum Hydrocarbons QA/QC and Narrative Report

Matrix:	Solid	Aqueous
Units:	%	%
EPA Method:	8100(MOD)	8100(MOD)
Total Petroleum Hydrocarbons	30-160	30-160
Surrogate (p-Terphenyl-d14)	18-137	33-141

Samples were extracted and analyzed within holding time limits.

Instrumentation was calibrated in accordance with the method requirements.

The associated blank(s) were free of contamination at the reporting limits.

Surrogate recoveries met the above stated criteria.

The associated matrix spike(s) and/or laboratory Control Samples(s) met the above stated criteria.

Exceptions are noted below:

Approved By: Timothy Schaper Organics Supervisor Timothy Schaper (TM)

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 15250

Client: **GEI Consultants, Inc.** Client Designation: **Broad St 98217-2ADD**

QC Report

Parameter Name	Blank	LCS	LCS Dup	Units	Date of Analysis	Method
TPH (C9-C40)	< 50	150 (74 %R)	120 (64 %R) (17 RPD)	mg/kg	12/18/98	8100 Mod
p-Terphenyl d14 (TPH surr)	52%R	131%R	119%R	mg/kg	12/18/98	8100 Mod

Approved By: Timothy Schaper Organics Supervisor Timothy Schaper (bm)

eastern analytical, inc.
25 Chenell Drive / Concord, NH 03301 / TEL (603) 228-0525 / 1-800-287-0525
FAX (603) 228-4591 / E-Mail : front office@eailabs.com

15250

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

REQUESTED ANALYSES

ITEM # for lab use only	SAMPLE I.D.	SAMPLING DATE / TIME	MATRIX (A - Air, S - Soil, GW - Ground W., SW - Surface W., DW - Drinking W., WW - Waste W., ☐ Other)	G-Grab, C-Comp	☒ 8260B ☐ 524.2 ☐ 8260B plus 10 TICS	☐ 8260B-TCL (8240 list) ☐ 624	☐ 8021B ☐ 601 / 602	☐ 8021B-Halos (8010 list) ☐ 601	☐ 8021B-BTEX (8020 list) ☐ 602	☐ MA VPH ☐ ME GRO ☐ 8015B GRO	☐ MA EPH ☐ ME DRO ☐ 8015B DRO	TPH 8100 M ☒ LI ☐ LII ☐ LIII	☐ 8270 ☐ 625 ☐ ABN ☐ A ☐ BN ☒ PAH	☐ 8081/8082 ☐ 608 ☐ PCBs ☐ Pesticides	Dissolved Metals (list below)	Total Metals (list below)	TCLP Metals (list below)	☐ TSS ☐ TDS ☐ TS	☐ F ☐ Cl ☐ SO4 ☐ NO2 ☐ NO3	☐ pH ☐ Spec. Con. ☐ BOD	☐ T. Alk ☐ Carb. Alk ☐ Bi. Alk	☐ TKN ☐ NH3 ☐ T. Phos.	☐ COD ☐ TOC ☐ Phenols	☐ Oil & Grease ☐ TPH (list method below)	☐ CN ☐ Formaldehyde	☐ T. Coli ☐ E. Coli ☐ F. Coli ☐ F Strep					# Of Containers	NOTES
	TP21	12/16/98 8:15	S	G	1																										1	
	TP22	12/16/98 11:30	S	G	1							1	1																		2	
PRESERVATIVE : H-HCl ; N-HNO3 ; S-H2SO4 ; Na-NaOH																																

PROJECT MANAGER : Boyd Smith
COMPANY : GEI Consultants
ADDRESS : 53 Regional Dr.
CITY : Concord STATE NH ZIP 03301
PHONE : (603) 224-7979 EXT :
FAX : 603 224-7990
E-MAIL :
PROJECT NAME : Broad St
PROJECT # 98217-2ADD
STATE : ☒ NH ☐ MA ☐ ME ☐ VT OTHER
☐ Site historically contaminated ☐ Compliance Testing

NOTES : (i.e. Special Detection Limits, Billing Info. if different)

TPH, PAH one container

RESULTS NEEDED BY
(enter preferred date) : STD 10 days
(Guaranteed rapid turnaround needs pre-approval)

QA / QC Reporting Level
☐ A ☐ B ☐ C

Reporting Options :
☒ Hard Copy ☐ Fax
Electronic :
☐ E-Mail ☐ Disk

Quote # 2016/27/97GEI UH
P.O. # 9266
Sampler(s) : Brian Sankowskas

Relinquished by	Date	Time	Received by
Brian Sankowskas	12/18/98	8:15	[illegible]

FOR LAB USE ONLY
Adhered to EPA Protocol
☐ Yes ☐ No (see attached)
Cold ?
☐ Yes ☐ No

(WHITE : *Original* YELLOW : *Lab Files* PINK : *Project Manager*)

eastern analytical

professional laboratory services

Boyd Smith
GEI Consultants, Inc.
53 Regional Drive
Concord , NH 03301-8500

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 15071
Client Identification: Broad St. 98217-2ADD
Date Received: 12/4/98

Dear Mr. Smith :

Enclosed please find the laboratory report for the above identified project. All analyses were subjected to rigorous quality control measures to assure data accuracy.

The following standard abbreviations and conventions apply throughout all Eastern Analytical, Inc. reports:

< = "less than" followed by the detection limit
TNR = Testing Not Requested
ND = None Detected, no established detection limit
BRL = Below Reporting Limits

Sample Conditions:
Describes the integrity of samples received by Eastern Analytical, Inc. and any changes that occur while in the laboratory's custody. The number of samples received, form of delivery, condition upon receipt, and requested changes for analyses is detailed on a chart and corresponding narrative. Chain of Custody for the project is also included.

Analytical Deviation & QA/QC Documentation:
Description of analytical deviations due to missed holding times, sample loss or other problems experienced during analyses are noted.
Quality Assurance and Quality Control documentation not already reported directly on the final report is included. Problems that arose during analysis and corresponding resolutions to the problems encountered are addressed in the narrative.

If you have any questions regarding the results contained within, please feel free to directly contact me, the department supervisor, or the analytical chemist who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Wil Brunkhorst (MI)
William Brunkhorst, President

12/21/98
Date

Eastern Analytical, Inc. ID#: 15071 GEINH

Client: GEI Consultants, Inc. Client Designation: **Broad St. 98217-2ADD**

Sample condition upon receipt and while in Eastern Analytical, Inc. custody.

The following chart and narrative describes noted sample irregularities for the project.
Chain of Custody for these samples is attached.

Sample ID	Date Rec'd	Date Samp'd	Sample Matrix	% Dry Weight	Preservation	Condition	Temperature
B813	12/4/98	12/4/98	soil	89.2	Acc.	Satisfactory	On Ice

Abbreviations: **Acc. = Accceptable** **AtEPAP = Adhered to EPA Protocol** **NA = Not Applicable**

Narrative: The samples were properly preserved and the pH measured when applicable unless otherwise noted.

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 15071

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217-2ADD**

Sample ID:	B813
Analytical Type:	Sample
Matrix:	soil
Date Sampled:	12/4/98
Date Received:	12/4/98
Units:	µg/kg
Date of Extraction/Prep:	12/7/98
Date of Analysis:	12/14/98
Analyst:	DPR
Method:	8270
Dilution Factor:	1

Naphthalene	< 40
2-Methylnaphthalene	< 40
Acenaphthylene	< 40
Acenaphthene	< 40
Fluorene	< 40
Phenanthrene	< 40
Anthracene	< 40
Fluoranthene	< 40
Pyrene	< 40
Benzo[a]anthracene	< 40
Chrysene	< 40
Benzo[b]fluoranthene	< 40
Benzo[k]fluoranthene	< 40
Benzo[a]pyrene	< 40
Indeno[1,2,3-cd]pyrene	< 40
Dibenz[a,h]anthracene	< 40
Benzo[g,h,i]perylene	< 40
p-Terphenyl-d14 (surr)	69 %R

Approved By: Timothy Schaper Organics Supervisor Timothy O. Schaper 12/16/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 15071

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217-2ADD**

QC Report

Parameter Name	Blank	LCS	LCS Dup	Units	Date of Analysis	Method
Naphthalene	< 40	1000 (52 %R)	950 (48 %R) (8 RPD)	µg/kg	12/14/98	8270
2-Methylnaphthalene	< 40	1300 (65 %R)	1200 (60 %R) (9 RPD)	µg/kg	12/14/98	8270
Acenaphthylene	< 40	990 (50 %R)	890 (45 %R) (11 RPD)	µg/kg	12/14/98	8270
Acenaphthene	< 40	1200 (61 %R)	1100 (56 %R) (9 RPD)	µg/kg	12/14/98	8270
Fluorene	< 40	1500 (75 %R)	1400 (71 %R) (6 RPD)	µg/kg	12/14/98	8270
Phenanthrene	< 40	1600 (80 %R)	1600 (78 %R) (3 RPD)	µg/kg	12/14/98	8270
Anthracene	< 40	1600 (80 %R)	1500 (77 %R) (4 RPD)	µg/kg	12/14/98	8270
Fluoranthene	< 40	1600 (80 %R)	1600 (80 %R) (0 RPD)	µg/kg	12/14/98	8270
Pyrene	< 40	1700 (85 %R)	1800 (89 %R) (4 RPD)	µg/kg	12/14/98	8270
Benzo[a]anthracene	< 40	1700 (83 %R)	1800 (88 %R) (6 RPD)	µg/kg	12/14/98	8270
Chrysene	< 40	1700 (86 %R)	1700 (86 %R) (1 RPD)	µg/kg	12/14/98	8270
Benzo[b]fluoranthene	< 40	1700 (87 %R)	1700 (86 %R) (1 RPD)	µg/kg	12/14/98	8270
Benzo[k]fluoranthene	< 40	1500 (75 %R)	1500 (77 %R) (3 RPD)	µg/kg	12/14/98	8270
Benzo[a]pyrene	< 40	1600 (79 %R)	1600 (79 %R) (0 RPD)	µg/kg	12/14/98	8270
Indeno[1,2,3-cd]pyrene	< 40	1700 (83 %R)	1700 (85 %R) (3 RPD)	µg/kg	12/14/98	8270
Dibenz[a,h]anthracene	< 40	1500 (77 %R)	1600 (80 %R) (3 RPD)	µg/kg	12/14/98	8270
Benzo[g,h,i]perylene	< 40	1600 (82 %R)	1700 (84 %R) (2 RPD)	µg/kg	12/14/98	8270
p-Terphenyl-d14 (surr)	70 %R	83 %R	84 %R	µg/kg	12/14/98	8270

Approved By: Timothy Schaper Organics Supervisor Timothy P. Schaper 12/16/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 15071

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217-2ADD**

Polynuclear Aromatic Hydrocarbons QA/QC and Narrative Report

Matrix:	Solid	Aqueous	RPDUnits:
Units:	%	%	%
EPA Method:	8270	8270	
Naphthalene	30-160	30-160	
2-Methylnaphthalene	30-160	30-160	
Acenaphthylene	30-160	30-160	
Acenaphthene	31-137	46-118	36
Fluorene	30-160	30-160	
Phenanthrene	30-160	30-160	
Anthracene	30-160	30-160	
Fluoranthene	30-160	30-160	
Pyrene	35-142	26-127	19
Benzo[a]anthracene	30-160	30-160	
Chrysene	30-160	30-160	
Benzo[b]fluoranthene	30-160	30-160	
Benzo[k]fluoranthene	30-160	30-160	
Benzo[a]pyrene	30-160	30-160	
Indeno[1,2,3-cd]pyrene	30-160	30-160	
Dibenz[a,h]anthracene	30-160	30-160	
Benzo[g,h,i]perylene	30-160	30-160	
Surrogate (p-Terphenyl-d14)	18-137	33-141	

Samples were extracted and analyzed within holding time limits.
Instrumentation was tuned and calibrated in accordance with the method requirements.
The associated method blank(s) were free of contamination at the reporting limit.
Sample Surrogate Recoveries met the above stated criteria.
The associated matrix spike(s) and/or Laboratory Control Sample(s) met the above stated criteria.

Approved By: Timothy Schaper Organics Supervisor Timothy O. Schaper 12/16/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 15071

Client: GEI Consultants, Inc. Client Designation: **Broad St. 98217-2ADD**

Volatile Organic Compounds

Sample ID:	B813		B813
Matrix:	Soil		Soil
Date Received:	12/4/98		12/4/98
Units:	µg/kg		µg/kg
Date of Analysis:	12/8/98		12/8/98
Analyst:	JDS		JDS
EPA Method:	8260B		8260B
Dichlorodifluoromethane	< 100	1,3-Dichloropropane	< 10
Chloromethane	< 100	Tetrachloroethene	< 10
Vinyl chloride	< 20	Dibromochloromethane	< 10
Bromomethane	< 10	1,2-Dibromoethane	< 10
Chloroethane	< 100	Chlorobenzene	< 10
Trichlorofluoromethane	< 100	1,1,1,2-Tetrachloroethane	< 10
Diethyl ether	< 10	Ethylbenzene	< 10
Acetone	< 500	mp-Xylene	< 10
1,1-Dichloroethene	< 10	o-Xylene	< 10
Methylene chloride	< 10	Styrene	< 10
Carbon disulfide	< 10	Bromoform	< 10
Methyl-t-butyl ether(MTBE)	< 200	iso-Propylbenzene	< 10
trans-1,2-Dichloroethene	< 10	1,1,2,2-Tetrachloroethane	< 10
1,1-Dichloroethane	< 10	1,2,3-Trichloropropane	< 10
2-Butanone(MEK)	< 100	n-Propylbenzene	< 10
2,2-Dichloropropane	< 10	Bromobenzene	< 10
cis-1,2-Dichloroethene	< 10	1,3,5-Trimethylbenzene	< 10
Chloroform	< 10	2-Chlorotoluene	< 10
Bromochloromethane	< 10	4-Chlorotoluene	< 10
Tetrahydrofuran(THF)	< 100	tert-Butylbenzene	< 10
1,1,1-Trichloroethane	< 10	1,2,4-Trimethylbenzene	< 10
1,1-Dichloropropene	< 10	sec-Butylbenzene	< 10
Carbon tetrachloride	< 10	p-isoPropyltoluene	< 10
1,2-Dichloroethane	< 10	1,3-Dichlorobenzene	< 10
Benzene	< 10	1,4-Dichlorobenzene	< 10
Trichloroethene	< 10	n-Butylbenzene	< 10
1,2-Dichloropropane	< 10	1,2-Dichlorobenzene	< 10
Bromodichloromethane	< 10	1,2-Dibromo-3-chloropropane	< 10
Dibromomethane	< 10	1,2,4-Trichlorobenzene	< 10
4-Methyl-2-pentanone(MIBK)	< 100	Hexachlorobutadiene	< 10
cis-1,3-Dichloropropene	< 10	Naphthalene	< 10
Toluene	< 10	1,2,3-Trichlorobenzene	< 10
trans-1,3-Dichloropropene	< 10	Surrogate Recovery 1(%)	**96**
1,1,2-Trichloroethane	< 10	Surrogate Recovery 2(%)	**106**
2-Hexanone	< 100		

Approved By: Clifford Chase, Volatile Organics Supervisor _____ 12/9/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 15071

Client: GEI Consultants, Inc. Client Designation: **Broad St. 98217-2ADD**

Volatile Organic Compounds

Sample ID:	Blank	MS	MSD		Blank	MS	MSD
Matrix:	Soil	Soil	Soil		Soil	Soil	Soil
Units:	µg/kg	% Recov	% Recov		µg/kg	% Recov	% Recov
Date of Analysis:	12/8/98	12/8/98	12/8/98		12/8/98	12/8/98	12/8/98
Analyst:	JDS	JDS	JDS		JDS	JDS	JDS
EPA Method:	8260B	8260B	8260B		8260B	8260B	8260B
Dichlorodifluoromethane	< 100			1,3-Dichloropropane	< 10		
Chloromethane	< 100			Tetrachloroethene	< 10		
Vinyl chloride	< 20			Dibromochloromethane	< 10		
Bromomethane	< 10			1,2-Dibromoethane	< 10		
Chloroethane	< 100			Chlorobenzene	< 10	**113**	**112**
Trichlorofluoromethane	< 100			1,1,1,2-Tetrachloroethane	< 10		
Diethyl ether	< 10			Ethylbenzene	< 10		
Acetone	< 500			mp-Xylene	< 10		
1,1-Dichloroethene	< 10	**94**	**100**	o-Xylene	< 10		
Methylene chloride	< 10			Styrene	< 10		
Carbon disulfide	< 10			Bromoform	< 10		
Methyl-t-butyl ether(MTBE)	< 200			iso-Propylbenzene	< 10		
trans-1,2-Dichloroethene	< 10			1,1,2,2-Tetrachloroethane	< 10		
1,1-Dichloroethane	< 10			1,2,3-Trichloropropane	< 10		
2-Butanone(MEK)	< 100			n-Propylbenzene	< 10		
2,2-Dichloropropane	< 10			Bromobenzene	< 10		
cis-1,2-Dichloroethene	< 10			1,3,5-Trimethylbenzene	< 10		
Chloroform	< 10			2-Chlorotoluene	< 10		
Bromochloromethane	< 10			4-Chlorotoluene	< 10		
Tetrahydrofuran(THF)	< 100			tert-Butylbenzene	< 10		
1,1,1-Trichloroethane	< 10			1,2,4-Trimethylbenzene	< 10		
1,1-Dichloropropene	< 10			sec-Butylbenzene	< 10		
Carbon tetrachloride	< 10			p-isoPropyltoluene	< 10		
1,2-Dichloroethane	< 10			1,3-Dichlorobenzene	< 10		
Benzene	< 10	**109**	**111**	1,4-Dichlorobenzene	< 10		
Trichloroethene	< 10	**113**	**112**	n-Butylbenzene	< 10		
1,2-Dichloropropane	< 10			1,2-Dichlorobenzene	< 10		
Bromodichloromethane	< 10			1,2-Dibromo-3-chloropropane	< 10		
Dibromomethane	< 10			1,2,4-Trichlorobenzene	< 10		
4-Methyl-2-pentanone(MIBK)	< 100			Hexachlorobutadiene	< 10		
cis-1,3-Dichloropropene	< 10			Naphthalene	< 10		
Toluene	< 10	**111**	**108**	1,2,3-Trichlorobenzene	< 10		
trans-1,3-Dichloropropene	< 10			Surrogate Recovery 1(%)	**95**	**100**	**96**
1,1,2-Trichloroethane	< 10			Surrogate Recovery 2(%)	**105**	**101**	**97**
2-Hexanone	< 100						

Approved By: Clifford Chase, Volatile Organics Supervisor _____ 12/9/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 15071

Client: GEI Consultants, Inc. Client Designation: Broad St. 98217-2ADD

Volatile Organic Compounds

Matrix:	Solid	Aqueous
Units:	%	%
EPA Method:	8260B	8260B
Surrogate Recovery		
4-Bromofluorobenzene	74-121	86-115
1,2-Dichlorobenzene-D4	80-120	80-120
Matrix Spike Recovery		
1,1-Dichloroethene	59-172	61-145
Trichloroethene	62-137	71-120
Benzene	66-142	76-127
Toluene	59-139	76-125
Chlorobenzene	60-133	75-130

Samples were extracted and analyzed within holding time limits.

Instrumentation was calibrated in accordance with the method requirements.

The method blanks were free of contamination at the reporting limits.

Sample surrogate recoveries met the above stated criteria.

The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.

There were no exceptions in the analyses.

Approved By: Clifford Chase, Volatile Organics Supervisor 12/9/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 15071

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217-2ADD**

Sample ID:	B813
Analytical Type:	Sample
Matrix:	soil
Date Sampled:	12/4/98
Date Received:	12/4/98
Units:	mg/kg
Date of Extraction/Prep:	12/7/98
Date of Analysis:	12/10/98
Analyst:	DJS
Method:	8100 Mod
Dilution Factor:	1
TPH (C9-C40)	< 50
p-Terphenyl d14 (TPH surr)	73 %R

Approved By: Timothy Schaper Organics Supervisor Timothy D. Schaper 12/10/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 15071

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217-2ADD**

Total Petroleum Hydrocarbons QA/QC and Narrative Report

Matrix:	Solid	Aqueous
Units:	%	%
EPA Method:	8100(MOD)	8100(MOD)
Total Petroleum Hydrocarbons	30-160	30-160
Surrogate (p-Terphenyl-d14)	18-137	33-141

Samples were extracted and analyzed within holding time limits.

Instrumentation was calibrated in accordance with the method requirements.

The associated blank(s) were free of contamination at the reporting limits.

Surrogate recoveries met the above stated criteria.

The associated matrix spike(s) and/or laboratory Control Samples(s) met the above stated criteria.

Exceptions are noted below:

Approved By: Timothy Schaper Organics Supervisor Timothy P. Schaper 12/10/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 15071

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217-2ADD**

QC Report

Parameter Name	Blank	LCS	LCS Dup	Units	Date of Analysis	Method
TPH (C9-C40)	< 50	140 (71 %R)	150 (74 %R) (4 RPD)	mg/kg	12/10/98	8100 Mod
p-Terphenyl d14(TPH surr)	92%R	118%R	122%R		12/10/98	8100 Mod

Approved By: Timothy Schaper Organics Supervisor Timothy D. Schaper 12/10/98

eastern analytical, inc.
25 Chenell Drive / Concord, NH 03301 / TEL (603) 228-0525 / 1-800-287-0525
FAX (603) 228-4591 / E-Mail : front_office@eailabs.com

15071

CHAIN-OF-CUSTODY RECORD

Page ____ of ____

REQUESTED ANALYSES

ITEM # for lab use only	SAMPLE I.D.	SAMPLING DATE / TIME	MATRIX (A - Air, S - Soil, GW - Ground W., SW - Surface W., DW - Drinking W., WW - Waste W., ☐ Other)	G-Grab, C-Comp	☒ 8260B ☐ 524.2 ☐ 8260B plus 10 TICS	☐ 8260B-TCL (8240 list) ☐ 624	☐ 8021B ☐ 601 / 602	☐ 8021B-Halos (8010 list) ☐ 601	☐ 8021B-BTEX (8020 list) ☐ 602	☐ MA VPH ☐ ME GRO ☐ 8015B GRO	☐ MA EPH ☐ ME DRO ☐ 8015B DRO	TPH 8100 M ☒ LI ☐ LII ☐ LIII	☐ 8270 ☐ 625 ☐ ABN ☐ A ☐ BN ☒ PAH	☐ 8081/8082 ☐ 608 ☐ PCBs ☐ Pesticides	Dissolved Metals (list below)	Total Metals (list below)	TCLP Metals (list below)	☐ TSS ☐ TDS ☐ TS	☐ F ☐ Cl ☐ SO_4 ☐ NO_2 ☐ NO_3	☐ pH ☐ Spec. Con. ☐ BOD	☐ T. Alk ☐ Carb. Alk ☐ Bi. Alk	☐ TKN ☐ NH_3 ☐ T. Phos.	☐ COD ☐ TOC ☐ Phenols	☐ Oil & Grease ☐ TPH (list method below)	☐ CN ☐ Formaldehyde	☐ T. Coli ☐ E. Coli ☐ F. Coli ☐ F Strep					# Of Containers	NOTES
	B813	12/4/98 7:15	S	G	1							1	1																		2	
PRESERVATIVE : H-HCl ; N-HNO_3 ; S-H_2SO_4 ; Na-NaOH																																

PROJECT MANAGER : Boyd Smith
COMPANY : GEI Consultants
ADDRESS : 53 Regional Dr
CITY : Concord STATE NH ZIP 03301
PHONE : (603) 224-7979 EXT : ____
FAX : 224-7990
E-MAIL : ____
PROJECT NAME : BROAD ST.
PROJECT # 98217-2ADD
STATE : ☒ NH ☐ MA ☐ ME ☐ VT OTHER ____
☐ Site historically contaminated ☐ Compliance Testing

NOTES : (i.e. Special Detection Limits, Billing Info. if different)

RESULTS NEEDED BY
(enter preferred date) : STD 10 days
(Guaranteed rapid turnaround needs pre-approval)

QA / QC Reporting Level
☐ A ☐ B ☐ C

Reporting Options :
☒ Hard Copy ☐ Fax
Electronic :
☐ E-Mail ☐ Disk

Quote # Qcd 2/97 GEI WH
P.O. # 9266
Sampler(s) : Brian F. Jenkins

FOR LAB USE ONLY
Adhered to EPA Protocol
☐ Yes ☐ No (see attached)
Cold ?
☒ Yes ☐ No

Relinquished by	Date	Time	Received by
Brian Jenkins	12/4/98	11:45	[illegible]

(WHITE : *Original* YELLOW : *Lab Files* PINK : *Project Manager*)

98217

eastern analytical

professional laboratory services

Boyd Smith

GEI Consultants, Inc.

53 Regional Drive

Concord , NH 03301-8500

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 14780

Client Identification: Broad St. 98217-2ADD

Date Received: 11/13/98

RECEIVED DEC 4 1998 GEI CONSULTANTS, INC. CONCORD, NH

Dear Mr. Smith :

Enclosed please find the laboratory report for the above identified project. All analyses were subjected to rigorous quality control measures to assure data accuracy.

The following standard abbreviations and conventions apply throughout all Eastern Analytical, Inc. reports:

< = "less than" followed by the detection limit
TNR = Testing Not Requested
ND = None Detected, no established detection limit
BRL = Below Reporting Limits

Sample Conditions:
Describes the integrity of samples received by Eastern Analytical, Inc. and any changes that occur while in the laboratory's custody. The number of samples received, form of delivery, condition upon receipt, and requested changes for analyses is detailed on a chart and corresponding narrative. Chain of Custody for the project is also included.

Analytical Deviation & QA/QC Documentation:
Description of analytical deviations due to missed holding times, sample loss or other problems experienced during analyses are noted.
Quality Assurance and Quality Control documentation not already reported directly on the final report is included. Problems that arose during analysis and corresponding resolutions to the problems encountered are addressed in the narrative.

If you have any questions regarding the results contained within, please feel free to directly contact me, the department supervisor, or the analytical chemist who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Will Brunkhorst (WL) — 11/30/98

William Brunkhorst, President — Date

Eastern Analytical, Inc. ID#: 14780 GEINH

eastern analytical

professional laboratory services

Client: GEI Consultants, Inc. Client Designation: Broad St. 98217-2ADD

Sample condition upon receipt and while in Eastern Analytical, Inc. custody.

The following chart and narrative describes noted sample irregularities for the project.
Chain of Custody for these samples is attached.

Sample ID	Date Rec'd	Date Samp'd	Sample Matrix	% Dry Weight	Preservation	Condition	Temperature
B807	11/13/98	11/9/98	soil	85.6	Acc.	Satisfactory	On Ice

Abbreviations: Acc. = Accceptable AtEPAP = Adhered to EPA Protocol NA = Not Applicable

Narrative: The samples were properly preserved and the pH measured when applicable unless otherwise noted.

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14780

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217-2ADD**

Sample ID:	B807
Analytical Type:	Sample
Matrix:	soil
Date Sampled:	11/9/98
Date Received:	11/13/98
Units:	µg/kg
Date of Extraction/Prep:	11/16/98
Date of Analysis:	11/24/98
Analyst:	DPR
Method:	8270
Dilution Factor:	1

Naphthalene	60
2-Methylnaphthalene	< 50
Acenaphthylene	180
Acenaphthene	110
Fluorene	190
Phenanthrene	2000
Anthracene	540
Fluoranthene	2500
Pyrene	2100
Benzo[a]anthracene	1100
Chrysene	1100
Benzo[b]fluoranthene	1400
Benzo[k]fluoranthene	480
Benzo[a]pyrene	1100
Indeno[1,2,3-cd]pyrene	360
Dibenz[a,h]anthracene	120
Benzo[g,h,i]perylene	350
pTerphenyl-d14 (surr)	68 %R

Approved By: Timothy Schaper Organics Supervisor Timothy D. Schaper 11/30/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14780

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217-2ADD**

QC Report

Parameter Name	Blank	LCS	LCS Dup	Units	Date of Analysis	Method
Naphthalene	< 40	900 (45 %R)	1000 (53 %R) (15 RPD)	µg/kg	11/24/98	8270
2-Methylnaphthalene	< 40	1100 (57 %R)	1300 (67 %R) (17 RPD)	µg/kg	11/24/98	8270
Acenaphthylene	< 40	760 (38 %R)	870 (44 %R) (13 RPD)	µg/kg	11/24/98	8270
Acenaphthene	< 40	890 (45 %R)	1000 (52 %R) (15 RPD)	µg/kg	11/24/98	8270
Fluorene	< 40	990 (50 %R)	1100 (55 %R) (11 RPD)	µg/kg	11/24/98	8270
Phenanthrene	< 40	1200 (60 %R)	1200 (61 %R) (2 RPD)	µg/kg	11/24/98	8270
Anthracene	< 40	1200 (60 %R)	1200 (62 %R) (2 RPD)	µg/kg	11/24/98	8270
Fluoranthene	< 40	1200 (63 %R)	1200 (62 %R) (1 RPD)	µg/kg	11/24/98	8270
Pyrene	< 40	1300 (65 %R)	1300 (66 %R) (1 RPD)	µg/kg	11/24/98	8270
Benzo[a]anthracene	< 40	1300 (65 %R)	1300 (66 %R) (1 RPD)	µg/kg	11/24/98	8270
Chrysene	< 40	1300 (65 %R)	1300 (67 %R) (1 RPD)	µg/kg	11/24/98	8270
Benzo[b]fluoranthene	< 40	1300 (63 %R)	1300 (65 %R) (3 RPD)	µg/kg	11/24/98	8270
Benzo[k]fluoranthene	< 40	1300 (67 %R)	1300 (66 %R) (2 RPD)	µg/kg	11/24/98	8270
Benzo[a]pyrene	< 40	1300 (63 %R)	1300 (63 %R) (0 RPD)	µg/kg	11/24/98	8270
Indeno[1,2,3-cd]pyrene	< 40	1300 (65 %R)	1300 (65 %R) (0 RPD)	µg/kg	11/24/98	8270
Dibenz[a,h]anthracene	< 40	1300 (65 %R)	1300 (64 %R) (1 RPD)	µg/kg	11/24/98	8270
Benzo[g,h,i]perylene	< 40	1300 (64 %R)	1300 (64 %R) (0 RPD)	µg/kg	11/24/98	8270
pTerphenyl-d14 (surr)	58 %R	66 %R	68 %R	µg/kg	11/24/98	8270

Approved By: Timothy Schaper Organics Supervisor Timothy D. Schaper 11/30/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14780

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217-2ADD**

Polynuclear Aromatic Hydrocarbons QA/QC and Narrative Report

Matrix:	Solid	Aqueous	RPDUnits:
Units:	%	%	%
EPA Method:	8270	8270	
Naphthalene	30-160	30-160	
2-Methylnaphthalene	30-160	30-160	
Acenaphthylene	30-160	30-160	
Acenaphthene	31-137	46-118	36
Fluorene	30-160	30-160	
Phenanthrene	30-160	30-160	
Anthracene	30-160	30-160	
Fluoranthene	30-160	30-160	
Pyrene	35-142	26-127	19
Benzo[a]anthracene	30-160	30-160	
Chrysene	30-160	30-160	
Benzo[b]fluoranthene	30-160	30-160	
Benzo[k]fluoranthene	30-160	30-160	
Benzo[a]pyrene	30-160	30-160	
Indeno[1,2,3-cd]pyrene	30-160	30-160	
Dibenz[a,h]anthracene	30-160	30-160	
Benzo[g,h,i]perylene	30-160	30-160	
Surrogate (p-Terphenyl-d14)	18-137	33-141	

Samples were extracted and analyzed within holding time limits.
Instrumentation was tuned and calibrated in accordance with the method requirements.
The associated method blank(s) were free of contamination at the reporting limit.
Sample Surrogate Recoveries met the above stated criteria.
The associated matrix spike(s) and/or Laboratory Control Sample(s) met the above stated criteria.

Approved By: Timothy Schaper Organics Supervisor Timothy O. Schaper 11/30/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14780

Client: GEI Consultants, Inc. Client Designation: **Broad St. 98217-2ADD**

Volatile Organic Compounds

Sample ID:	B807		B807
Matrix:	Soil		Soil
Date Received:	11/13/98		11/13/98
Units:	µg/kg		µg/kg
Date of Analysis:	11/19/98		11/19/98
Analyst:	JDS		JDS
EPA Method:	8260B		8260B
Dichlorodifluoromethane	< 100	1,3-Dichloropropane	< 10
Chloromethane	< 100	Tetrachloroethene	< 10
Vinyl chloride	< 20	Dibromochloromethane	< 10
Bromomethane	< 10	1,2-Dibromoethane	< 10
Chloroethane	< 100	Chlorobenzene	< 10
Trichlorofluoromethane	< 100	1,1,1,2-Tetrachloroethane	< 10
Diethyl ether	< 10	Ethylbenzene	< 10
Acetone	< 500	mp-Xylene	< 10
1,1-Dichloroethene	< 10	o-Xylene	< 10
Methylene chloride	< 10	Styrene	< 10
Carbon disulfide	< 10	Bromoform	< 10
Methyl-t-butyl ether(MTBE)	< 200	iso-Propylbenzene	< 10
trans-1,2-Dichloroethene	< 10	1,1,2,2-Tetrachloroethane	< 10
1,1-Dichloroethane	< 10	1,2,3-Trichloropropane	< 10
2-Butanone(MEK)	< 100	n-Propylbenzene	< 10
2,2-Dichloropropane	< 10	Bromobenzene	< 10
cis-1,2-Dichloroethene	< 10	1,3,5-Trimethylbenzene	< 10
Chloroform	< 10	2-Chlorotoluene	< 10
Bromochloromethane	< 10	4-Chlorotoluene	< 10
Tetrahydrofuran(THF)	< 100	tert-Butylbenzene	< 10
1,1,1-Trichloroethane	< 10	1,2,4-Trimethylbenzene	< 10
1,1-Dichloropropene	< 10	sec-Butylbenzene	< 10
Carbon tetrachloride	< 10	p-isoPropyltoluene	< 10
1,2-Dichloroethane	< 10	1,3-Dichlorobenzene	< 10
Benzene	< 10	1,4-Dichlorobenzene	< 10
Trichloroethene	< 10	n-Butylbenzene	< 10
1,2-Dichloropropane	< 10	1,2-Dichlorobenzene	< 10
Bromodichloromethane	< 10	1,2-Dibromo-3-chloropropane	< 10
Dibromomethane	< 10	1,2,4-Trichlorobenzene	< 10
4-Methyl-2-pentanone(MIBK)	< 100	Hexachlorobutadiene	< 10
cis-1,3-Dichloropropene	< 10	Naphthalene	< 10
Toluene	< 10	1,2,3-Trichlorobenzene	< 10
trans-1,3-Dichloropropene	< 10	Surrogate Recovery 1(%)	**98**
1,1,2-Trichloroethane	< 10	Surrogate Recovery 2(%)	**103**
2-Hexanone	< 100		

Approved By: Clifford Chase, Volatile Organics Supervisor _____ 11/20/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14780

Client: GEI Consultants, Inc.

Client Designation: **Broad St. 98217-2ADD**

Volatile Organic Compounds

Sample ID:	Blank	MS	MSD		Blank	MS	MSD
Matrix:	Soil	Soil	Soil		Soil	Soil	Soil
Units:	µg/kg	% Recov	% Recov		µg/kg	% Recov	% Recov
Date of Analysis:	11/19/98	11/19/98	11/19/98		11/19/98	11/19/98	11/19/98
Analyst:	JDS	JDS	JDS		JDS	JDS	JDS
EPA Method:	8260B	8260B	8260B		8260B	8260B	8260B
Dichlorodifluoromethane	< 100			1,3-Dichloropropane	< 10		
Chloromethane	< 100			Tetrachloroethene	< 10		
Vinyl chloride	< 20			Dibromochloromethane	< 10		
Bromomethane	< 10			1,2-Dibromoethane	< 10		
Chloroethane	< 100			Chlorobenzene	< 10	**102**	**101**
Trichlorofluoromethane	< 100			1,1,1,2-Tetrachloroethane	< 10		
Diethyl ether	< 10			Ethylbenzene	< 10		
Acetone	< 500			mp-Xylene	< 10		
1,1-Dichloroethene	< 10	**79**	**70**	o-Xylene	< 10		
Methylene chloride	< 10			Styrene	< 10		
Carbon disulfide	< 10			Bromoform	< 10		
Methyl-t-butyl ether(MTBE)	< 200			iso-Propylbenzene	< 10		
trans-1,2-Dichloroethene	< 10			1,1,2,2-Tetrachloroethane	< 10		
1,1-Dichloroethane	< 10			1,2,3-Trichloropropane	< 10		
2-Butanone(MEK)	< 100			n-Propylbenzene	< 10		
2,2-Dichloropropane	< 10			Bromobenzene	< 10		
cis-1,2-Dichloroethene	< 10			1,3,5-Trimethylbenzene	< 10		
Chloroform	< 10			2-Chlorotoluene	< 10		
Bromochloromethane	< 10			4-Chlorotoluene	< 10		
Tetrahydrofuran(THF)	< 100			tert-Butylbenzene	< 10		
1,1,1-Trichloroethane	< 10			1,2,4-Trimethylbenzene	< 10		
1,1-Dichloropropene	< 10			sec-Butylbenzene	< 10		
Carbon tetrachloride	< 10			p-isoPropyltoluene	< 10		
1,2-Dichloroethane	< 10			1,3-Dichlorobenzene	< 10		
Benzene	< 10	**88**	**92**	1,4-Dichlorobenzene	< 10		
Trichloroethene	< 10	**97**	**96**	n-Butylbenzene	< 10		
1,2-Dichloropropane	< 10			1,2-Dichlorobenzene	< 10		
Bromodichloromethane	< 10			1,2-Dibromo-3-chloropropane	< 10		
Dibromomethane	< 10			1,2,4-Trichlorobenzene	< 10		
4-Methyl-2-pentanone(MIBK)	< 100			Hexachlorobutadiene	< 10		
cis-1,3-Dichloropropene	< 10			Naphthalene	< 10		
Toluene	< 10	**113**	**95**	1,2,3-Trichlorobenzene	< 10		
trans-1,3-Dichloropropene	< 10			Surrogate Recovery 1(%)	**92**	**91**	**94**
1,1,2-Trichloroethane	< 10			Surrogate Recovery 2(%)	**98**	**84**	**95**
2-Hexanone	< 100						

Approved By: Clifford Chase, Volatile Organics Supervisor _____ 11/20/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14780

Client: GEI Consultants, Inc. Client Designation: Broad St. 98217-2ADD

Volatile Organic Compounds

Matrix:	Solid	Aqueous
Units:	%	%
EPA Method:	8260B	8260B
Surrogate Recovery		
4-Bromofluorobenzene	74-121	86-115
1,2-Dichlorobenzene-D4	80-120	80-120
Matrix Spike Recovery		
1,1-Dichloroethene	59-172	61-145
Trichloroethene	62-137	71-120
Benzene	66-142	76-127
Toluene	59-139	76-125
Chlorobenzene	60-133	75-130

Samples were extracted and analyzed within holding time limits.

Instrumentation was calibrated in accordance with the method requirements.

The method blanks were free of contamination at the reporting limits.

Sample surrogate recoveries met the above stated criteria.

The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.

There were no exceptions in the analyses.

Approved By: Clifford Chase, Volatile Organics Supervisor 11/20/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14780

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217-2ADD**

Sample ID:	B807
Analytical Type:	Sample
Matrix:	soil
Date Sampled:	11/9/98
Date Received:	11/13/98
Units:	mg/kg
Date of Extraction/Prep:	11/16/98
Date of Analysis:	11/16/98
Analyst:	DJS
Method:	8100 Mod
Dilution Factor:	1
TPH (C9-C40)	90
p-Terphenyl d14 (TPH surr)	109 %R

Approved By: Timothy Schaper Organics Supervisor Timothy O. Schaper 11/13/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14780

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217-2ADD**

QC Report

Parameter Name	Blank	LCS	LCS Dup	Units	Date of Analysis	Method
TPH (C9-C40)	< 50	160 (81 %R)	160 (81 %R) (0 RPD)	mg/kg	11/16/98	8100 Mod
p-Terphenyl d14 (TPH surr)	89 %R	115 %R	109 %R	mg/kg	11/16/98	8100 Mod

Approved By: Timothy Schaper Organics Supervisor Timothy P. Schaper 11/13/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14780

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217-2ADD**

Total Petroleum Hydrocarbons QA/QC and Narrative Report

Matrix:	Solid	Aqueous
Units:	%	%
EPA Method:	8100(MOD)	8100(MOD)
Total Petroleum Hydrocarbons	30-160	30-160
Surrogate (p-Terphenyl-d14)	18-137	33-141

Samples were extracted and analyzed within holding time limits.

Instrumentation was calibrated in accordance with the method requirements.

The associated blank(s) were free of contamination at the reporting limits.

Surrogate recoveries met the above stated criteria.

The associated matrix spike(s) and/or laboratory Control Samples(s) met the above stated criteria.

Exceptions are noted below:

Approved By: Timothy Schaper Organics Supervisor Timothy P. Schaper 11/18/98

eastern analytical, inc.
25 Chenell Drive / Concord, NH 03301 / TEL (603) 228-0525 / 1-800-287-0525
FAX (603) 228-4591 / E-Mail : front_office@eailabs.com

14780

CHAIN-OF-CUSTODY RECORD

Page_____ of _____

REQUESTED ANALYSES

ITEM # for lab use only	SAMPLE I.D.	SAMPLING DATE / TIME	MATRIX (A - Air, S - Soil, GW - Ground W., SW - Surface W., DW - Drinking W., WW - Waste W., ☐ Other)	G-Grab, C-Comp	☒ 8260B ☐ 524.2 ☐ 8260B plus 10 TICs	☐ 8260B-TCL (8240 list) ☐ 624	☐ 8021B ☐ 601 / 602	☐ 8021B-Halos (8010 list) ☐ 601	☐ 8021B-BTEX (8020 list) ☐ 602	☐ MA VPH ☐ ME GRO ☐ 8015B GRO	☐ MA EPH ☐ ME DRO ☐ 8015B DRO	TPH 8100 M ☒ LI ☐ LII ☐ LIII	☐ 8270 ☐ 625 ☐ ABN ☐ A ☐ BN ☒ PAH	☐ 8081/8082 ☐ 608 ☐ PCBs ☐ Pesticides	Dissolved Metals (list below)	Total Metals (list below)	TCLP Metals (list below)	☐ TSS ☐ TDS ☐ TS	☐ F ☐ Cl ☐ SO_4 ☐ NO_2 ☐ NO_3	☐ pH ☐ Spec. Con. ☐ BOD	☐ T. Alk ☐ Carb. Alk ☐ Bi. Alk	☐ TKN ☐ NH_3 ☐ T. Phos.	☐ COD ☐ TOC ☐ Phenols	☐ Oil & Grease ☐ TPH (list method below)	☐ CN ☐ Formaldehyde	☐ T. Coli ☐ E. Coli ☐ F. Coli ☐ F. Strep	# Of Containers	NOTES
	B807	11/9/98 4:15	S	1	1							1	1														2	
PRESERVATIVE : H-HCl ; N-HNO_3 ; S-H_2SO_4 ; Na-NaOH																												

PROJECT MANAGER : Boyd Smith
COMPANY : GEI Consultants
ADDRESS : 53 Regional Dr.
CITY Concord STATE NH ZIP 03301
PHONE : (603) 224-7979 EXT : _____
FAX : 224-7990
E-MAIL : _____
PROJECT NAME : Broad St.
PROJECT # 98217-2ADD
STATE : ☒ NH ☐ MA ☐ ME ☐ VT OTHER _____
☐ Site historically contaminated ☐ Compliance Testing

NOTES : (i.e. Special Detection Limits, Billing Info. if different)

RESULTS NEEDED BY
(enter preferred date) : STD (10 days)
(Guaranteed rapid turnaround needs pre-approval)

QA / QC Reporting Level
☐ A ☐ B ☐ C

Reporting Options :
☐ Hard Copy ☐ Fax
Electronic :
☐ E-Mail ☐ Disk

FOR LAB USE ONLY
Adhered to EPA Protocol
☐ Yes ☐ No (see attached)
Cold ?
☒ Yes ☐ No

Quote # Q06/27/98 EI
P.O. # 9266
Sampler(s) : Brian F Jankowski

Relinquished by	Date	Time	Received by
Brian Jankowski	11/12/98	4:30	R. Van Eck
R. Van Eck	11/13/98	13:00	[illegible]

(WHITE : *Original* YELLOW : *Lab Files* PINK : *Project Manager*)

eastern analytical

professional laboratory services

Boyd Smith

GEI Consultants, Inc.

53 Regional Drive

Concord , NH 03301-8500

RECEIVED
NOV 23 1998
GEI CONSULTANTS, INC.
CONCORD, NH

Subject: Laboratory Report

Eastern Analytical, Inc. ID:	14570
Client Identification:	Broad St 98217-2ADD
Date Received:	10/30/98

Dear Mr. Smith :

Enclosed please find the laboratory report for the above identified project. All analyses were subjected to rigorous quality control measures to assure data accuracy.

The following standard abbreviations and conventions apply throughout all Eastern Analytical, Inc. reports:

< = "less than" followed by the detection limit
TNR = Testing Not Requested
ND = None Detected, no established detection limit
BRL = Below Reporting Limits

Sample Conditions:
Describes the integrity of samples received by Eastern Analytical, Inc. and any changes that occur while in the laboratory's custody. The number of samples received, form of delivery, condition upon receipt, and requested changes for analyses is detailed on a chart and corresponding narrative. Chain of Custody for the project is also included.

Analytical Deviation & QA/QC Documentation:
Description of analytical deviations due to missed holding times, sample loss or other problems experienced during analyses are noted.
Quality Assurance and Quality Control documentation not already reported directly on the final report is included. Problems that arose during analysis and corresponding resolutions to the problems encountered are addressed in the narrative.

If you have any questions regarding the results contained within, please feel free to directly contact me, the department supervisor, or the analytical chemist who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

William Brunkhorst (ND) — 11/19/98

William Brunkhorst, President — Date

Eastern Analytical, Inc. ID#: 14570 GEINH

Client: GEI Consultants, Inc. Client Designation: **Broad St 98217-2ADD**

Sample condition upon receipt and while in Eastern Analytical, Inc. custody.

The following chart and narrative describes noted sample irregularities for the project.
Chain of Custody for these samples is attached.

Sample ID	Date Rec'd	Date Samp'd	Sample Matrix	% Dry Weight	Preservation	Condition	Temperature
B809	10/30/98	10/27/98	soil	76.8	Acc.	Satisfactory	On Ice

Abbreviations: Acc. = Accceptable AtEPAP = Adhered to EPA Protocol NA = Not Applicable

Narrative: The samples were properly preserved and the pH measured when applicable unless otherwise noted.

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14570

Client: **GEI Consultants, Inc.** Client Designation: **Broad St 98217-2ADD**

Sample ID:	B809	B815	B818
Analytical Type:	Sample	Sample	Sample
Matrix:	soil	soil	soil
Date Sampled:	10/27/98	10/28/98	10/30/98
Date Received:	10/30/98	10/30/98	10/30/98
Units:	µg/kg	µg/kg	µg/kg
Date of Extraction/Prep:	11/2/98	11/2/98	11/2/98
Date of Analysis:	11/5/98	11/5/98	11/5/98
Analyst:	DPR	DPR	DPR
Method:	8270	8270	8270
Dilution Factor:	1	1	1
Naphthalene	< 50	< 50	< 40
2-Methylnaphthalene	< 50	< 50	< 40
Acenaphthylene	< 50	< 50	< 40
Acenaphthene	< 50	< 50	< 40
Fluorene	< 50	< 50	< 40
Phenanthrene	< 50	< 50	< 40
Anthracene	< 50	< 50	< 40
Fluoranthene	< 50	< 50	50
Pyrene	< 50	< 50	50
Benzo[a]anthracene	< 50	< 50	< 40
Chrysene	< 50	< 50	< 40
Benzo[b]fluoranthene	< 50	< 50	40
Benzo[k]fluoranthene	< 50	< 50	< 40
Benzo[a]pyrene	< 50	< 50	< 40
Indeno[1,2,3-cd]pyrene	< 50	< 50	< 40
Dibenz[a,h]anthracene	< 50	< 50	< 40
Benzo[g,h,i]perylene	< 50	< 50	< 40
p-Terphenyl-d14 (surr)	69 %R	40 %R	51 %R

Approved By: Timothy Schaper Organics Supervisor Timothy D. Schaper 11/13/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14570

Client: **GEI Consultants, Inc.** Client Designation: **Broad St 98217-2ADD**

Polynuclear Aromatic Hydrocarbons QA/QC and Narrative Report

Matrix:	Solid	Aqueous	RPDUnits:
Units:	%	%	%
EPA Method:	8270	8270	
Naphthalene	30-160	30-160	
2-Methylnaphthalene	30-160	30-160	
Acenaphthylene	30-160	30-160	
Acenaphthene	31-137	46-118	36
Fluorene	30-160	30-160	
Phenanthrene	30-160	30-160	
Anthracene	30-160	30-160	
Fluoranthene	30-160	30-160	
Pyrene	35-142	26-127	19
Benzo[a]anthracene	30-160	30-160	
Chrysene	30-160	30-160	
Benzo[b]fluoranthene	30-160	30-160	
Benzo[k]fluoranthene	30-160	30-160	
Benzo[a]pyrene	30-160	30-160	
Indeno[1,2,3-cd]pyrene	30-160	30-160	
Dibenz[a,h]anthracene	30-160	30-160	
Benzo[g,h,i]perylene	30-160	30-160	
Surrogate (p-Terphenyl-d14)	18-137	33-141	

Samples were extracted and analyzed within holding time limits.
Instrumentation was tuned and calibrated in accordance with the method requirements.
The associated method blank(s) were free of contamination at the reporting limit.
Sample Surrogate Recoveries met the above stated criteria.
The associated matrix spike(s) and/or Laboratory Control Sample(s) met the above stated criteria.

LCS and LCS Duplicate failed Benzo(a)pyrene recoveries (low).
LCS Acenaphthylene recovery (low).

Approved By: Timothy Schaper Organics Supervisor Timothy P. Schaper 11/13/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14570

Client: **GEI Consultants, Inc.** Client Designation: **Broad St 98217-2ADD**

QC Report

Parameter Name	Blank	LCS	LCS Dup	Units	Date of Analysis	Method
Naphthalene	< 40	870 (44 %R)	820 (42 %R) (6 RPD)	µg/kg	11/5/98	8270
2-Methylnaphthalene	< 40	1100 (55 %R)	1100 (53 %R) (5 RPD)	µg/kg	11/5/98	8270
Acenaphthylene	< 40	530 (27 %R)	660 (33 %R) (21 RPD)	µg/kg	11/5/98	8270
Acenaphthene	< 40	820 (41 %R)	870 (44 %R) (6 RPD)	µg/kg	11/5/98	8270
Fluorene	< 40	1000 (50 %R)	1100 (57 %R) (11 RPD)	µg/kg	11/5/98	8270
Phenanthrene	< 40	1200 (58 %R)	1400 (70 %R) (17 RPD)	µg/kg	11/5/98	8270
Anthracene	< 40	1100 (54 %R)	1300 (65 %R) (18 RPD)	µg/kg	11/5/98	8270
Fluoranthene	< 40	1200 (61 %R)	1400 (70 %R) (13 RPD)	µg/kg	11/5/98	8270
Pyrene	< 40	1200 (59 %R)	1400 (69 %R) (16 RPD)	µg/kg	11/5/98	8270
Benzo[a]anthracene	< 40	1200 (62 %R)	1400 (71 %R) (11 RPD)	µg/kg	11/5/98	8270
Chrysene	< 40	1300 (64 %R)	1400 (73 %R) (13 RPD)	µg/kg	11/5/98	8270
Benzo[b]fluoranthene	< 40	1300 (64 %R)	1400 (72 %R) (11 RPD)	µg/kg	11/5/98	8270
Benzo[k]fluoranthene	< 40	1300 (66 %R)	1500 (77 %R) (14 RPD)	µg/kg	11/5/98	8270
Benzo[a]pyrene	< 40	350 (18 %R)	560 (29 %R) (47 RPD)	µg/kg	11/5/98	8270
Indeno[1,2,3-cd]pyrene	< 40	970 (49 %R)	1100 (56 %R) (14 RPD)	µg/kg	11/5/98	8270
Dibenz[a,h]anthracene	< 40	1000 (51 %R)	1100 (58 %R) (12 RPD)	µg/kg	11/5/98	8270
Benzo[g,h,i]perylene	< 40	830 (41 %R)	980 (50 %R) (17 RPD)	µg/kg	11/5/98	8270
p-Terphenyl-d14 (surr)	55 %R	61 %R	68 %R	µg/kg	11/5/98	8270

Approved By: Timothy Schaper Organics Supervisor Timothy D. Schaper 11/13/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14570

Client: GEI Consultants, Inc.

Client Designation: **Broad St 98217-2ADD**

Volatile Organic Compounds

Sample ID:	B809	B815	B818		B809	B815	B818
Matrix:	Soil	Soil	Soil		Soil	Soil	Soi
Date Received:	10/30/98	10/30/98	10/30/98		10/30/98	10/30/98	10/30/98
Units:	µg/kg	µg/kg	µg/kg		µg/kg	µg/kg	µg/kg
Date of Analysis:	11/4/98	11/4/98	11/4/98		11/4/98	11/4/98	11/4/98
Analyst:	JDS	JDS	JDS		JDS	JDS	JDS
EPA Method:	8260B	8260B	8260B		8260B	8260B	8260B
Dichlorodifluoromethane	< 100	< 100	< 100	1,3-Dichloropropane	< 10	< 10	< 10
Chloromethane	< 100	< 100	< 100	Tetrachloroethene	< 10	< 10	< 10
Vinyl chloride	< 20	< 20	< 20	Dibromochloromethane	< 10	< 10	< 10
Bromomethane	< 10	< 10	< 10	1,2-Dibromoethane	< 10	< 10	< 10
Chloroethane	< 100	< 100	< 100	Chlorobenzene	< 10	< 10	< 10
Trichlorofluoromethane	< 100	< 100	< 100	1,1,1,2-Tetrachloroethane	< 10	< 10	< 10
Diethyl ether	< 10	< 10	< 10	Ethylbenzene	< 10	< 10	< 10
Acetone	< 500	< 500	< 500	mp-Xylene	< 10	< 10	< 10
1,1-Dichloroethene	< 10	< 10	< 10	o-Xylene	< 10	< 10	< 10
Methylene chloride	< 10	< 10	< 10	Styrene	< 10	< 10	< 10
Carbon disulfide	< 10	< 10	< 10	Bromoform	< 10	< 10	< 10
Methyl-t-butyl ether(MTBE)	< 200	< 200	< 200	iso-Propylbenzene	< 10	< 10	< 10
trans-1,2-Dichloroethene	< 10	< 10	< 10	1,1,2,2-Tetrachloroethane	< 10	< 10	< 10
1,1-Dichloroethane	< 10	< 10	< 10	1,2,3-Trichloropropane	< 10	< 10	< 10
2-Butanone(MEK)	< 100	< 100	< 100	n-Propylbenzene	< 10	< 10	< 10
2,2-Dichloropropane	< 10	< 10	< 10	Bromobenzene	< 10	< 10	< 10
cis-1,2-Dichloroethene	< 10	< 10	< 10	1,3,5-Trimethylbenzene	< 10	< 10	< 10
Chloroform	< 10	< 10	< 10	2-Chlorotoluene	< 10	< 10	< 10
Bromochloromethane	< 10	< 10	< 10	4-Chlorotoluene	< 10	< 10	< 10
Tetrahydrofuran(THF)	< 100	< 100	< 100	tert-Butylbenzene	< 10	< 10	< 10
1,1,1-Trichloroethane	< 10	< 10	< 10	1,2,4-Trimethylbenzene	< 10	< 10	< 10
1,1-Dichloropropene	< 10	< 10	< 10	sec-Butylbenzene	< 10	< 10	< 10
Carbon tetrachloride	< 10	< 10	< 10	p-isoPropyltoluene	< 10	< 10	< 10
1,2-Dichloroethane	< 10	< 10	< 10	1,3-Dichlorobenzene	< 10	< 10	< 10
Benzene	< 10	< 10	< 10	1,4-Dichlorobenzene	< 10	< 10	< 10
Trichloroethene	< 10	< 10	< 10	n-Butylbenzene	< 10	< 10	< 10
1,2-Dichloropropane	< 10	< 10	< 10	1,2-Dichlorobenzene	< 10	< 10	< 10
Bromodichloromethane	< 10	< 10	< 10	1,2-Dibromo-3-chloropropane	< 10	< 10	< 10
Dibromomethane	< 10	< 10	< 10	1,2,4-Trichlorobenzene	< 10	< 10	< 10
4-Methyl-2-pentanone(MIBK)	< 100	< 100	< 100	Hexachlorobutadiene	< 10	< 10	< 10
cis-1,3-Dichloropropene	< 10	< 10	< 10	Naphthalene	< 10	< 10	< 10
Toluene	< 10	< 10	< 10	1,2,3-Trichlorobenzene	< 10	< 10	< 10
trans-1,3-Dichloropropene	< 10	< 10	< 10	Surrogate Recovery 1(%)	**104**	**104**	**103**
1,1,2-Trichloroethane	< 10	< 10	< 10	Surrogate Recovery 2(%)	**96**	**102**	**102**
2-Hexanone	< 100	< 100	< 100				

Approved By: Clifford Chase, Volatile Organics Supervisor _____ 11/6/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14570

Client: GEI Consultants, Inc. Client Designation: **Broad St 98217-2ADD**

Volatile Organic Compounds

Sample ID:	Blank	MS	MSD		Blank	MS	MSD
Matrix:	Soil	Soil	Soil		Soil	Soil	Soil
Units:	µg/kg	% Recov	% Recov		µg/kg	% Recov	% Recov
Date of Analysis:	11/4/98	11/4/98	11/4/98		11/4/98	11/4/98	11/4/98
Analyst:	JDS	JDS	JDS		JDS	JDS	JDS
EPA Method:	8260B	8260B	8260B		8260B	8260B	8260B
Dichlorodifluoromethane	< 100			1,3-Dichloropropane	< 10		
Chloromethane	< 100			Tetrachloroethene	< 10		
Vinyl chloride	< 20			Dibromochloromethane	< 10		
Bromomethane	< 10			1,2-Dibromoethane	< 10		
Chloroethane	< 100			Chlorobenzene	< 10	**122**	**114**
Trichlorofluoromethane	< 100			1,1,1,2-Tetrachloroethane	< 10		
Diethyl ether	< 10			Ethylbenzene	< 10		
Acetone	< 500			mp-Xylene	< 10		
1,1-Dichloroethene	< 10	**91**	**92**	o-Xylene	< 10		
Methylene chloride	< 10			Styrene	< 10		
Carbon disulfide	< 10			Bromoform	< 10		
Methyl-t-butyl ether(MTBE)	< 200			iso-Propylbenzene	< 10		
trans-1,2-Dichloroethene	< 10			1,1,2,2-Tetrachloroethane	< 10		
1,1-Dichloroethane	< 10			1,2,3-Trichloropropane	< 10		
2-Butanone(MEK)	< 100			n-Propylbenzene	< 10		
2,2-Dichloropropane	< 10			Bromobenzene	< 10		
cis-1,2-Dichloroethene	< 10			1,3,5-Trimethylbenzene	< 10		
Chloroform	< 10			2-Chlorotoluene	< 10		
Bromochloromethane	< 10			4-Chlorotoluene	< 10		
Tetrahydrofuran(THF)	< 100			tert-Butylbenzene	< 10		
1,1,1-Trichloroethane	< 10			1,2,4-Trimethylbenzene	< 10		
1,1-Dichloropropene	< 10			sec-Butylbenzene	< 10		
Carbon tetrachloride	< 10			p-isoPropyltoluene	< 10		
1,2-Dichloroethane	< 10			1,3-Dichlorobenzene	< 10		
Benzene	< 10	**102**	**104**	1,4-Dichlorobenzene	< 10		
Trichloroethene	< 10	**122**	**123**	n-Butylbenzene	< 10		
1,2-Dichloropropane	< 10			1,2-Dichlorobenzene	< 10		
Bromodichloromethane	< 10			1,2-Dibromo-3-chloropropane	< 10		
Dibromomethane	< 10			1,2,4-Trichlorobenzene	< 10		
4-Methyl-2-pentanone(MIBK)	< 100			Hexachlorobutadiene	< 10		
cis-1,3-Dichloropropene	< 10			Naphthalene	< 10		
Toluene	< 10	**117**	**112**	1,2,3-Trichlorobenzene	< 10		
trans-1,3-Dichloropropene	< 10			Surrogate Recovery 1(%)	**102**	**106**	**107**
1,1,2-Trichloroethane	< 10			Surrogate Recovery 2(%)	**104**	**97**	**108**
2-Hexanone	< 100						

Approved By: Clifford Chase, Volatile Organics Supervisor _____ 11/6/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14570

Client: GEI Consultants, Inc. Client Designation: Broad St 98217-2ADD

Volatile Organic Compounds

Matrix:	Solid	Aqueous
Units:	%	%
EPA Method:	8260B	8260B
Surrogate Recovery		
4-Bromofluorobenzene	74-121	86-115
1,2-Dichlorobenzene-D4	80-120	80-120
Matrix Spike Recovery		
1,1-Dichloroethene	59-172	61-145
Trichloroethene	62-137	71-120
Benzene	66-142	76-127
Toluene	59-139	76-125
Chlorobenzene	60-133	75-130

Samples were extracted and analyzed within holding time limits.

Instrumentation was calibrated in accordance with the method requirements.

The method blanks were free of contamination at the reporting limits.

Sample surrogate recoveries met the above stated criteria.

The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.

There were no exceptions in the analyses.

Approved By: Clifford Chase, Volatile Organics Supervisor 11/6/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14570

Client: **GEI Consultants, Inc.** Client Designation: **Broad St 98217-2ADD**

Sample ID:	B809	B815	B818
Analytical Type:	Sample	Sample	Sample
Matrix:	soil	soil	soil
Date Sampled:	10/27/98	10/28/98	10/30/98
Date Received:	10/30/98	10/30/98	10/30/98
Units:	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	11/2/98	11/2/98	11/2/98
Date of Analysis:	11/2/98	11/2/98	11/2/98
Analyst:	DJS	DJS	DJS
Method:	8100 Mod	8100 Mod	8100 Mod
Dilution Factor:	1	1	1
TPH (C9-C40)	< 50	< 50	< 50
p-Terphenyl d14 (TPH surr)	88 %R	52 %R	71 %R

Approved By: Timothy Schaper Organics Supervisor Timothy P Schaper 11/3/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14570

Client: **GEI Consultants, Inc.** Client Designation: **Broad St 98217-2ADD**

Total Petroleum Hydrocarbons QA/QC and Narrative Report

Matrix:	Solid	Aqueous
Units:	%	%
EPA Method:	8100(MOD)	8100(MOD)
Total Petroleum Hydrocarbons	30-160	30-160
Surrogate (p-Terphenyl-d14)	18-137	33-141

Samples were extracted and analyzed within holding time limits.

Instrumentation was calibrated in accordance with the method requirements.

The associated blank(s) were free of contamination at the reporting limits.

Surrogate recoveries met the above stated criteria.

The associated matrix spike(s) and/or laboratory Control Samples(s) met the above stated criteria.

Exceptions are noted below:

Approved By: Timothy Schaper Organics Supervisor Timothy D. Schaper 11/3/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14570

Client: **GEI Consultants, Inc.** Client Designation: **Broad St 98217-2ADD**

QC Report

Parameter Name	Blank	LCS	LCS Dup	Units	Date of Analysis	Method
TPH (C9-C40)	< 50	130 (63 %R)	140 (70 %R) (9 RPD)	mg/kg	11/2/98	8100 Mod
p-Terphenyl d14 (TPH surr)	80 %R	121 %R	137 %R	mg/kg	11/2/98	8100 Mod

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14570

Client: **GEI Consultants, Inc.** Client Designation: **Broad St 98217-2ADD**

Sample ID:	B809
Analytical Type:	Sample
Matrix:	soil
Date Sampled:	10/27/98
Date Received:	10/30/98
Units:	µg/kg
Date of Extraction/Prep:	11/2/98
Date of Analysis:	11/3/98
Analyst:	NZ
Method:	8082
Dilution Factor:	1
PCB-1016	< 100
PCB-1221	< 100
PCB-1232	< 100
PCB-1242	< 100
PCB-1248	< 100
PCB-1254	< 100
PCB-1260	< 100
TMX (surr)	103 %R
DCB (surr)	82 %R

Approved By: Timothy Schaper Organics Supervisor Timothy D. Schaper 11/10/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14570

Client: **GEI Consultants, Inc.** Client Designation: **Broad St 98217-2ADD**

Pesticides QA/QC and Narrative Report

Matrix:	Aqueous	Solid
Units:	%	%
EPA Method:	8081A/8082	8081A/8082
Aldrin	30-150	30-150
alpha-BHC	30-150	30-150
beta-BHC	30-150	30-150
gamma-BHC	30-150	30-150
delta-BHC	30-150	30-150
Chlordane	30-150	30-150
4,4'-DDT	30-150	30-150
4,4'-DDE	30-150	30-150
4,4'-DDD	30-150	30-150
Dieldrin	30-150	30-150
Endosulfan I	30-150	30-150
Endosulfan II	30-150	30-150
Endosulfan Sulfate	30-150	30-150
Endrin	30-150	30-150
Endrin Aldehyde	30-150	30-150
Endrin Ketone	30-150	30-150
Heptachlor	30-150	30-150
Heptachlor Epoxide	30-150	30-150
Methoxychlor	30-150	30-150
Toxaphene		
Aroclors 1242-1260	30-150	30-150
TMX(Surr)	30-150	30-150
DCB(Surr)	30-150	30-150

Samples were extracted and analyzed within holding time limits.
Instrumentation was tuned and calibrated in accordance with the method requirements.
The associated method blank(s) were free of contamination at the reporting limit.
Sample surrogate recoveries met the above stated criteria.
The associated matrix spike(s) and/or Laboratory Control Sample(s) met the above stated criteria.
Other exceptions to the analyses are noted on the sample results sheet.

Exceptions: None

Approved By: Timothy Schaper Organics Supervisor Timothy D. Schaper 11/10/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14570

Client: **GEI Consultants, Inc.** Client Designation: **Broad St 98217-2ADD**

QC Report

Parameter Name	Blank	LCS	LCS Dup	Units	Date of Analysis	Method
PCB-1016	< 100	< 100 (%R N/A)	< 100 (%R N/A) (RPD N/A)	µg/kg	11/3/98	8082/8081A
PCB-1221	< 100	< 100 (%R N/A)	< 100 (%R N/A) (RPD N/A)	µg/kg	11/3/98	8082/8081A
PCB-1232	< 100	< 100 (%R N/A)	< 100 (%R N/A) (RPD N/A)	µg/kg	11/3/98	8082/8081A
PCB-1242	< 100	< 100 (%R N/A)	< 100 (%R N/A) (RPD N/A)	µg/kg	11/3/98	8082/8081A
PCB-1248	< 100	< 100 (%R N/A)	< 100 (%R N/A) (RPD N/A)	µg/kg	11/3/98	8082/8081A
PCB-1254	< 100	< 100 (%R N/A)	< 100 (%R N/A) (RPD N/A)	µg/kg	11/3/98	8082/8081A
PCB-1260	< 100	100 (33 %R)	100 (43 %R) (26 RPD)	µg/kg	11/3/98	8082/8081A
TMX (surr)	52 %R	66 %R	56 %R	µg/kg	11/3/98	8082/8081A
DCB (surr)	58 %R	78 %R	65 %R	µg/kg	11/3/98	8082/8081A

Approved By: Timothy Schaper Organics Supervisor Timothy P. Schaper 11/10/98

eastern analytical, inc.
25 Chenell Drive / Concord, NH 03301 / TEL (603) 228-0525 / 1-800-287-0525
FAX (603) 228-4591 / E-Mail : front_office@eailabs.com

14570

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

REQUESTED ANALYSES

ITEM # for lab use only	SAMPLE I.D.	SAMPLING DATE / TIME	MATRIX (A - Air, S - Soil, GW - Ground W., SW - Surface W., DW - Drinking W., WW - Waste W., ☐ Other)	G-Grab, C-Comp	☒ 8260B ☐ 524.2 ☐ 8260B plus 10 TICs	☐ 8260B-TCL (8240 list) ☐ 624	☐ 8021B ☐ 601 / 602	☐ 8021B-Halos (8010 list) ☐ 601	☐ 8021B-BTEX (8020 list) ☐ 602	☐ MA VPH ☐ ME GRO ☐ 8015B GRO	☐ MA EPH ☐ ME DRO ☐ 8015B DRO	TPH 8100 M ☐ LI ☒ LII ☐ LIII	☐ 8270 ☐ 625 ☐ ABN ☐ A ☐ BN ☒ PAH	☐ 8081/8082 ☐ 608 ☒ PCBs ☐ Pesticides	Dissolved Metals (list below)	Total Metals (list below)	TCLP Metals (list below)	☐ TSS ☐ TDS ☐ TS	☐ F ☐ Cl ☐ SO_4 ☐ NO_2 ☐ NO_3	☐ pH ☐ Spec. Con. ☐ BOD	☐ T. Alk ☐ Carb. Alk ☐ Bi. Alk	☐ TKN ☐ NH_3 ☐ T. Phos.	☐ COD ☐ TOC ☐ Phenols	☐ Oil & Grease ☐ TPH (list method below)	☐ CN ☐ Formaldehyde	☐ T. Coli ☐ E. Coli ☐ F. Coli ☐ F. Strep	# Of Containers	NOTES
1	B809	10/27/98 9:30	S	G	/							/	/	/													2	Hold on PCB test
2	B815	10/28/98 11:30	S	G	/							/	/														2	
3	B818	10/30/98 11:00	S	G	/							/	/														2	

PRESERVATIVE : H-HCl ; N-HNO_3 ; S-H_2SO_4 ; Na-NaOH

PROJECT MANAGER : Boyd Smith
COMPANY : GEI Consultants
ADDRESS : 53 Regional Dr.
CITY : Concord STATE NH ZIP 03301
PHONE : (603) 224-7979 EXT :
FAX : 603-224-7990
E-MAIL :
PROJECT NAME : BROAD ST.
PROJECT # 98217-2ADD
STATE : ☒ NH ☐ MA ☐ ME ☐ VT OTHER
☐ Site historically contaminated ☐ Compliance Testing

NOTES : (i.e. Special Detection Limits, Billing Info. if different)

CHANGE To Level I
per Brian 10/30 p.c.
~~Hold PCB analysis~~
~~Customer will call~~
Run PCB. No longer in Question
SAK 10/30

RESULTS NEEDED BY
(enter preferred date) STD 10 days
(Guaranteed rapid turnaround needs pre-approval)

QA / QC Reporting Level
☐ A ☐ B ☐ C

Reporting Options :
☒ Hard Copy ☐ Fax
Electronic :
☐ E-Mail ☐ Disk

Quote # Q06/27/97 GEI NH
P.O. # 7266
Sampler(s) : Brian F. Jankowskas

FOR LAB USE ONLY
Adhered to EPA Protocol
☐ Yes ☐ No (see attached)
Cold ?
☒ Yes ☐ No

Relinquished by	Date	Time	Received by
Brian F. Jankowskas	10/30/98	12:15	Kelly 10/30/98 1225

(WHITE : *Original* YELLOW : *Lab Files* PINK : *Project Manager*)

eastern analytical

professional laboratory services

Boyd Smith
GEI Consultants, Inc.
53 Regional Drive
Concord , NH 03301-8500

RECEIVED
NOV 9 1998
GEI CONSULTANTS, INC.
CONCORD, NH

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 14476
Client Identification: Broad St 98217-2ADD
Date Received: 10/23/98

Dear Mr. Smith :

Enclosed please find the laboratory report for the above identified project. All analyses were subjected to rigorous quality control measures to assure data accuracy.

The following standard abbreviations and conventions apply throughout all Eastern Analytical, Inc. reports:

- < = "less than" followed by the detection limit
- TNR = Testing Not Requested
- ND = None Detected, no established detection limit
- BRL = Below Reporting Limits

Sample Conditions:
Describes the integrity of samples received by Eastern Analytical, Inc. and any changes that occur while in the laboratory's custody. The number of samples received, form of delivery, condition upon receipt, and requested changes for analyses is detailed on a chart and corresponding narrative. Chain of Custody for the project is also included.

Analytical Deviation & QA/QC Documentation:
Description of analytical deviations due to missed holding times, sample loss or other problems experienced during analyses are noted.
Quality Assurance and Quality Control documentation not already reported directly on the final report is included. Problems that arose during analysis and corresponding resolutions to the problems encountered are addressed in the narrative.

If you have any questions regarding the results contained within, please feel free to directly contact me, the department supervisor, or the analytical chemist who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

William Brunkhorst, President

11/5/98
Date

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14476

Client: GEI Consultants, Inc. Client Designation: **Broad St 98217-2ADD**

Volatile Organic Compounds

Sample ID:	B812	B801/B802		B812	B801/B802
Matrix:	Soil	Soil		Soil	Soil
Date Received:	10/23/98	10/23/98		10/23/98	10/23/98
Units:	µg/kg	µg/kg		µg/kg	µg/kg
Date of Analysis:	10/25/98	10/28/98		10/25/98	10/28/98
Analyst:	JDS	JDS		JDS	JDS
EPA Method:	8260B	8260B*		8260B	8260B*
Dichlorodifluoromethane	< 100	< 100	1,3-Dichloropropane	< 10	< 10
Chloromethane	< 100	< 100	Tetrachloroethene	< 10	< 10
Vinyl chloride	< 20	< 20	Dibromochloromethane	< 10	< 10
Bromomethane	< 10	< 10	1,2-Dibromoethane	< 10	< 10
Chloroethane	< 100	< 100	Chlorobenzene	< 10	< 10
Trichlorofluoromethane	< 100	< 100	1,1,1,2-Tetrachloroethane	< 10	< 10
Diethyl ether	< 10	< 10	Ethylbenzene	< 10	< 10
Acetone	< 500	< 500	mp-Xylene	< 10	< 10
1,1-Dichloroethene	< 10	< 10	o-Xylene	< 10	< 10
Methylene chloride	< 10	< 10	Styrene	< 10	< 10
Carbon disulfide	< 10	< 10	Bromoform	< 10	< 10
Methyl-t-butyl ether(MTBE)	< 200	< 200	iso-Propylbenzene	< 10	< 10
trans-1,2-Dichloroethene	< 10	< 10	1,1,2,2-Tetrachloroethane	< 10	< 10
1,1-Dichloroethane	< 10	< 10	1,2,3-Trichloropropane	< 10	< 10
2-Butanone(MEK)	< 100	< 100	n-Propylbenzene	< 10	< 10
2,2-Dichloropropane	< 10	< 10	Bromobenzene	< 10	< 10
cis-1,2-Dichloroethene	< 10	< 10	1,3,5-Trimethylbenzene	< 10	< 10
Chloroform	< 10	< 10	2-Chlorotoluene	< 10	< 10
Bromochloromethane	< 10	< 10	4-Chlorotoluene	< 10	< 10
Tetrahydrofuran(THF)	< 100	< 100	tert-Butylbenzene	< 10	< 10
1,1,1-Trichloroethane	< 10	< 10	1,2,4-Trimethylbenzene	< 10	< 10
1,1-Dichloropropene	< 10	< 10	sec-Butylbenzene	< 10	< 10
Carbon tetrachloride	< 10	< 10	p-isoPropyltoluene	< 10	< 10
1,2-Dichloroethane	< 10	< 10	1,3-Dichlorobenzene	< 10	< 10
Benzene	< 10	< 10	1,4-Dichlorobenzene	< 10	< 10
Trichloroethene	< 10	< 10	n-Butylbenzene	< 10	< 10
1,2-Dichloropropane	< 10	< 10	1,2-Dichlorobenzene	< 10	< 10
Bromodichloromethane	< 10	< 10	1,2-Dibromo-3-chloropropane	< 10	< 10
Dibromomethane	< 10	< 10	1,2,4-Trichlorobenzene	< 10	< 10
4-Methyl-2-pentanone(MIBK)	< 100	< 100	Hexachlorobutadiene	< 10	< 10
cis-1,3-Dichloropropene	< 10	< 10	Naphthalene	< 10	< 10
Toluene	< 10	< 10	1,2,3-Trichlorobenzene	< 10	< 10
trans-1,3-Dichloropropene	< 10	< 10			
1,1,2-Trichloroethane	< 10	< 10			
2-Hexanone	< 100	< 100			

*Reanalysis of the sample confirms that low surrogate recovery of 4-bromofluorobenzene (62%) is probably due to matrix interference.

Approved By: Clifford Chase, Volatile Organics Supervisor 11/3/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14476

Client: **GEI Consultants, Inc.** Client Designation: **Broad St 98217-2ADD**

Sample ID:	B812	B801/B802
Analytical Type:	Sample	Sample
Matrix:	soil	soil
Date Sampled:	10/20/98	10/22/98
Date Received:	10/23/98	10/23/98
Units:	mg/kg	mg/kg
Date of Extraction/Prep:	10/26/98	10/26/98
Date of Analysis:	10/27/98	10/27/98
Analyst:	DJS	DJS
Method:	8100 Mod	8100 Mod
Dilution Factor:	1	1
TPH (C9-C40)	< 50	< 50

Approved By: Timothy Schaper Organics Supervisor Timothy O. Schaper 10/27/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14476

Client: **GEI Consultants, Inc.** Client Designation: **Broad St 98217-2ADD**

Sample ID:	B812	B801/B802
Analytical Type:	Sample	Sample
Matrix:	soil	soil
Date Sampled:	10/20/98	10/22/98
Date Received:	10/23/98	10/23/98
Units:	µg/kg	µg/kg
Date of Extraction/Prep:	10/26/98	10/26/98
Date of Analysis:	10/30/98	10/30/98
Analyst:	DPR	DPR
Method:	8270	8270
Dilution Factor:	1	1
Naphthalene	< 70	< 50
2-Methylnaphthalene	< 70	< 50
Acenaphthylene	< 70	< 50
Acenaphthene	< 70	< 50
Fluorene	< 70	< 50
Phenanthrene	< 70	< 50
Anthracene	< 70	< 50
Fluoranthene	< 70	< 50
Pyrene	< 70	< 50
Benzo[a]anthracene	< 70	< 50
Chrysene	< 70	< 50
Benzo[b]fluoranthene	< 70	< 50
Benzo[k]fluoranthene	< 70	< 50
Benzo[a]pyrene	< 70	< 50
Indeno[1,2,3-cd]pyrene	< 70	< 50
Dibenz[a,h]anthracene	< 70	< 50
Benzo[g,h,i]perylene	< 70	< 50

Approved By: Timothy Schaper Organics Supervisor Timothy P. Schaper 11/2/98

eastern analytical, inc.
25 Chenell Drive / Concord, NH 03301 / TEL (603) 228-0525 / 1-800-287-0525
FAX (603) 228-4591 / E-Mail : front_office@eailabs.com

14476

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

REQUESTED ANALYSES

ITEM # for lab use only	SAMPLE I.D.	SAMPLING DATE / TIME	MATRIX (A - Air, S - Soil, GW - Ground W., SW - Surface W., DW - Drinking W., WW - Waste W., ☐ Other)	G-Grab, C-Comp	☒ 8260B ☐ 524.2 ☐ 8260B plus 10 TICS	☐ 8260B-TCL (8240 list) ☐ 624	☐ 8021B ☐ 601 / 602	☐ 8021B-Halos (8010 list) ☐ 601	☐ 8021B-BTEX (8020 list) ☐ 602	☐ MA VPH ☐ ME GRO ☐ 8015B GRO	☐ MA EPH ☐ ME DRO ☐ 8015B DRO	TPH 8100 M ☒ LI ☐ LII ☐ LIII	☒ 8270 ☐ 625 ☐ ABN ☐ A ☐ BN ☐ PAH	☐ 8081/8082 PCBs ☐ 608 ☐ Pesticides	Dissolved Metals (list below)	Total Metals (list below)	TCLP Metals (list below)	☐ TSS ☐ TDS ☐ TS	☐ F ☐ Cl ☐ SO_4 ☐ NO_2 ☐ NO_3	☐ pH ☐ Spec. Con. ☐ BOD	☐ T. Alk ☐ Carb. Alk ☐ Bi. Alk	☐ TKN ☐ NH_3 ☐ T. Phos.	☐ COD ☐ TOC ☐ Phenols	☐ Oil & Grease ☐ TPH (list method below)	☐ CN ☐ Formaldehyde	☐ T. Coli ☐ E. Coli ☐ F. Coli ☐ F Strep					# Of Containers	NOTES
1	B812	10/20/98 11:30	S	G	1							1	1																		2	
2	B801/B802	10/22/98 4:00	S	C	1							1	1																		2	

PRESERVATIVE : H-HCl ; N-HNO_3 ; S-H_2SO_4 ; Na-NaOH

PROJECT MANAGER : Boyd Smith
COMPANY : GEF Consultants
ADDRESS : 53 Regional Dr.
CITY : Concord STATE NH ZIP 03301
PHONE : (603) 224-7779 EXT : 111
FAX : 224-7990
E-MAIL :
PROJECT NAME : BROAD ST
PROJECT # 98217-2ADD
STATE : ☒ NH ☐ MA ☐ ME ☐ VT OTHER
☐ Site historically contaminated ☐ Compliance Testing

NOTES : (i.e. Special Detection Limits, Billing Info. if different)

① 8270 needs PAH's only per p.c. w/ Brian
10/23 - SBK

RESULTS NEEDED BY (enter preferred date) : STD 10 days
(Guaranteed rapid turnaround needs pre-approval)

QA / QC Reporting Level ☒ A ☒ B ☐ C

Reporting Options : ☒ Hard Copy ☐ Fax
Electronic : ☐ E-Mail ☐ Disk

Quote # 30/27/97 GEF Wp
P.O. #
Sampler(s) : Brian F. Santarsiero
Brian Santarsiero 10/23/98 1:00 [illegible]

Relinquished by	Date	Time	Received by
Relinquished by	Date	Time	Received by
Relinquished by	Date	Time	Received by

FOR LAB USE ONLY
Adhered to EPA Protocol ☐ Yes ☐ No (see attached)
Cold ? ☒ Yes ☐ No

(WHITE : *Original* YELLOW : *Lab Files* PINK : *Project Manager*)

eastern analytical

professional laboratory services

Boyd Smith
GEI Consultants, Inc.
53 Regional Drive
Concord , NH 03301-8500

RECEIVED
NOV 9 1998
GEI CONSULTANTS, INC.
CONCORD, NH

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 14381
Client Identification: Broad St. 98217
Date Received: 10/16/98

Dear Mr. Smith :

Enclosed please find the laboratory report for the above identified project. All analyses were subjected to rigorous quality control measures to assure data accuracy.

The following standard abbreviations and conventions apply throughout all Eastern Analytical, Inc. reports:

< = "less than" followed by the detection limit
TNR = Testing Not Requested
ND = None Detected, no established detection limit
BRL = Below Reporting Limits

Sample Conditions:
Describes the integrity of samples received by Eastern Analytical, Inc. and any changes that occur while in the laboratory's custody. The number of samples received, form of delivery, condition upon receipt, and requested changes for analyses is detailed on a chart and corresponding narrative. Chain of Custody for the project is also included.

Analytical Deviation & QA/QC Documentation:
Description of analytical deviations due to missed holding times, sample loss or other problems experienced during analyses are noted.
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If you have any questions regarding the results contained within, please feel free to directly contact me, the department supervisor, or the analytical chemist who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

William Brunkhorst, President

11/4/98
Date

Eastern Analytical, Inc. ID#: 14381 GEINH

Client: GEI Consultants, Inc. Client Designation: **Broad St. 98217**

Sample condition upon receipt and while in Eastern Analytical, Inc. custody.

The following chart and narrative describes noted sample irregularities for the project. Chain of Custody for these samples is attached.

Sample ID	Date Rec'd	Date Samp'd	Sample Matrix	% Dry Weight	Preservation	Condition	Temperature
Nashua	10/16/98	10/16/98	soil	89.2	NA	Satisfactory	On Ice

Abbreviations: **Acc. = Accceptable** **AtEPAP = Adhered to EPA Protocol** **NA = Not Applicable**

Narrative: The samples were properly preserved and the pH measured when applicable unless otherwise noted.

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14381

Client: GEI Consultants, Inc. Client Designation: **Broad St. 98217**

Volatile Organic Compounds

Sample ID:	Nashua River		Nashua River
Matrix:	Soil		Soil
Date Received:	10/16/98		10/16/98
Units:	µg/kg		µg/kg
Date of Analysis:	10/23/98		10/23/98
Analyst:	JDS		JDS
EPA Method:	8260B		8260B
Dichlorodifluoromethane	< 100	1,3-Dichloropropane	< 10
Chloromethane	< 100	Tetrachloroethene	< 10
Vinyl chloride	< 20	Dibromochloromethane	< 10
Bromomethane	< 10	1,2-Dibromoethane	< 10
Chloroethane	< 100	Chlorobenzene	< 10
Trichlorofluoromethane	< 100	1,1,1,2-Tetrachloroethane	< 10
Diethyl ether	< 10	Ethylbenzene	< 10
Acetone	< 500	mp-Xylene	< 10
1,1-Dichloroethene	< 10	o-Xylene	< 10
Methylene chloride	< 10	Styrene	< 10
Carbon disulfide	< 10	Bromoform	< 10
Methyl-t-butyl ether(MTBE)	< 200	iso-Propylbenzene	< 10
trans-1,2-Dichloroethene	< 10	1,1,2,2-Tetrachloroethane	< 10
1,1-Dichloroethane	< 10	1,2,3-Trichloropropane	< 10
2-Butanone(MEK)	< 100	n-Propylbenzene	< 10
2,2-Dichloropropane	< 10	Bromobenzene	< 10
cis-1,2-Dichloroethene	< 10	1,3,5-Trimethylbenzene	< 10
Chloroform	< 10	2-Chlorotoluene	< 10
Bromochloromethane	< 10	4-Chlorotoluene	< 10
Tetrahydrofuran(THF)	< 100	tert-Butylbenzene	< 10
1,1,1-Trichloroethane	< 10	1,2,4-Trimethylbenzene	< 10
1,1-Dichloropropene	< 10	sec-Butylbenzene	< 10
Carbon tetrachloride	< 10	p-isoPropyltoluene	< 10
1,2-Dichloroethane	< 10	1,3-Dichlorobenzene	< 10
Benzene	< 10	1,4-Dichlorobenzene	< 10
Trichloroethene	< 10	n-Butylbenzene	< 10
1,2-Dichloropropane	< 10	1,2-Dichlorobenzene	< 10
Bromodichloromethane	< 10	1,2-Dibromo-3-chloropropane	< 10
Dibromomethane	< 10	1,2,4-Trichlorobenzene	< 10
4-Methyl-2-pentanone(MIBK)	< 100	Hexachlorobutadiene	< 10
cis-1,3-Dichloropropene	< 10	Naphthalene	< 10
Toluene	< 10	1,2,3-Trichlorobenzene	< 10
trans-1,3-Dichloropropene	< 10	Surrogate Recovery 1(%)	**108**
1,1,2-Trichloroethane	< 10	Surrogate Recovery 2(%)	**105**
2-Hexanone	< 100		

Approved By: Clifford Chase, Volatile Organics Supervisor _____ 10/29/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14381

Client: GEI Consultants, Inc. Client Designation: **Broad St. 98217**

Volatile Organic Compounds

Sample ID:	Blank	MS	MSD
Matrix:	Soil	Soil	Soil
Units:	µg/kg	% Recov	% Recov
Date of Analysis:	10/22/98	10/23/98	10/23/98
Analyst:	JDS	JDS	JDS
EPA Method:	8260B	8260B	8260B
Dichlorodifluoromethane	< 100		
Chloromethane	< 100		
Vinyl chloride	< 20		
Bromomethane	< 10		
Chloroethane	< 100		
Trichlorofluoromethane	< 100		
Diethyl ether	< 10		
Acetone	< 500		
1,1-Dichloroethene	< 10	**92**	**88**
Methylene chloride	< 10		
Carbon disulfide	< 10		
Methyl-t-butyl ether(MTBE)	< 200		
trans-1,2-Dichloroethene	< 10		
1,1-Dichloroethane	< 10		
2-Butanone(MEK)	< 100		
2,2-Dichloropropane	< 10		
cis-1,2-Dichloroethene	< 10		
Chloroform	< 10		
Bromochloromethane	< 10		
Tetrahydrofuran(THF)	< 100		
1,1,1-Trichloroethane	< 10		
1,1-Dichloropropene	< 10		
Carbon tetrachloride	< 10		
1,2-Dichloroethane	< 10		
Benzene	< 10	**100**	**100**
Trichloroethene	< 10	**114**	**118**
1,2-Dichloropropane	< 10		
Bromodichloromethane	< 10		
Dibromomethane	< 10		
4-Methyl-2-pentanone(MIBK)	< 100		
cis-1,3-Dichloropropene	< 10		
Toluene	< 10	**104**	**110**
trans-1,3-Dichloropropene	< 10		
1,1,2-Trichloroethane	< 10		
2-Hexanone	< 100		

	Blank	MS	MSD
	Soil	Soil	Soil
	µg/kg	% Recov	% Recov
	10/22/98	10/23/98	10/23/98
	JDS	JDS	JDS
	8260B	8260B	8260B
1,3-Dichloropropane	< 10		
Tetrachloroethene	< 10		
Dibromochloromethane	< 10		
1,2-Dibromoethane	< 10		
Chlorobenzene	< 10	**108**	**117**
1,1,1,2-Tetrachloroethane	< 10		
Ethylbenzene	< 10		
mp-Xylene	< 10		
o-Xylene	< 10		
Styrene	< 10		
Bromoform	< 10		
iso-Propylbenzene	< 10		
1,1,2,2-Tetrachloroethane	< 10		
1,2,3-Trichloropropane	< 10		
n-Propylbenzene	< 10		
Bromobenzene	< 10		
1,3,5-Trimethylbenzene	< 10		
2-Chlorotoluene	< 10		
4-Chlorotoluene	< 10		
tert-Butylbenzene	< 10		
1,2,4-Trimethylbenzene	< 10		
sec-Butylbenzene	< 10		
p-isoPropyltoluene	< 10		
1,3-Dichlorobenzene	< 10		
1,4-Dichlorobenzene	< 10		
n-Butylbenzene	< 10		
1,2-Dichlorobenzene	< 10		
1,2-Dibromo-3-chloropropane	< 10		
1,2,4-Trichlorobenzene	< 10		
Hexachlorobutadiene	< 10		
Naphthalene	< 10		
1,2,3-Trichlorobenzene	< 10		
Surrogate Recovery 1(%)	**105**	**109**	**103**
Surrogate Recovery 2(%)	**105**	**100**	**110**

Approved By: Clifford Chase, Volatile Organics Supervisor 10/29/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14381

Client: GEI Consultants, Inc. Client Designation: Broad St. 98217

Volatile Organic Compounds

Matrix:	Solid	Aqueous
Units:	%	%
EPA Method:	8260B	8260B
Surrogate Recovery		
4-Bromofluorobenzene	74-121	86-115
1,2-Dichlorobenzene-D4	80-120	80-120
Matrix Spike Recovery		
1,1-Dichloroethene	59-172	61-145
Trichloroethene	62-137	71-120
Benzene	66-142	76-127
Toluene	59-139	76-125
Chlorobenzene	60-133	75-130

Samples were extracted and analyzed within holding time limits.

Instrumentation was calibrated in accordance with the method requirements.

The method blanks were free of contamination at the reporting limits.

Sample surrogate recoveries met the above stated criteria.

The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.

There were no exceptions in the analyses.

Approved By: Clifford Chase, Volatile Organics Supervisor 10/29/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14381

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217**

Sample ID: Nashua River

Analytical Type:	Sample
Matrix:	soil
Date Sampled:	10/16/98
Date Received:	10/16/98
Units:	µg/kg
Date of Extraction/Prep:	10/19/98
Date of Analysis:	10/21/98
Analyst:	DPR
Method:	8270
Dilution Factor:	1

Phenol	< 200
2-Chlorophenol	< 200
2,4-Dichlorophenol	< 200
2,4,5-Trichlorophenol	< 200
2,4,6-Trichlorophenol	< 200
Pentachlorophenol	< 200
2-Nitrophenol	< 200
4-Nitrophenol	< 200
2,4-Dinitrophenol	< 800
2-Methylphenol	< 200
4-Methylphenol	< 200
2,4-Dimethylphenol	< 200
4-Chloro-3-methylphenol	< 200
4,6-Dinitro-2-methylphenol	< 800
Benzoic Acid	< 800
2-Fluorophenol (surr)	33 %R
Phenol-d6 (surr)	46 %R
2,4,6-Tribromophenol (surr)	67 %R

Approved By: Timothy Schaper Organics Supervisor Timothy R. Schaper 10/30/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14381

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217**

Sample ID: Nashua River

Analytical Type:	Sample
Matrix:	soil
Date Sampled:	10/16/98
Date Received:	10/16/98
Units:	µg/kg
Date of Extraction/Prep:	10/19/98
Date of Analysis:	10/21/98
Analyst:	DPR
Method:	8270
Dilution Factor:	1

N-Nitrosodimethylamine	< 200
n-Nitroso-di-n-propylamine	< 200
n-Nitrosodiphenylamine	< 200
bis(2-Chloroethyl)ether	< 200
bis(2-chloroisopropyl)ether	< 200
bis(2-Chloroethoxy)methane	< 200
1,3-Dichlorobenzene	< 200
1,4-Dichlorobenzene	< 200
1,2-Dichlorobenzene	< 200
1,2,4-Trichlorobenzene	< 200
2-Chloronaphthalene	< 200
4-Chlorophenyl-phenylether	< 200
4-Bromophenyl-phenylether	< 200
Hexachloroethane	< 200
Hexachlorobutadiene	< 200
Hexachlorocyclopentadiene	< 200
Hexachlorobenzene	< 200
4-Chloroaniline	< 200
2-Nitroaniline	< 200
3-Nitroaniline	< 200
4-Nitroaniline	< 200
Benzyl alcohol	< 200
Nitrobenzene	< 200
Isophorone	< 200
2,4-Dinitrotoluene	< 200
2,6-Dinitrotoluene	< 200
Benzidine	< 400
3,3'-Dichlorobenzidine	< 200
Pyridine	< 200
Azobenzene	< 200
Dimethylphthalate	< 200
Diethylphthalate	< 200
Di-n-butylphthalate	< 200
Butylbenzylphthalate	< 200
bis(2-Ethylhexyl)phthalate	< 200
Di-n-octylphthalate	< 200
Dibenzofuran	< 200

Approved By: Timothy Schaper Organics Supervisor Timothy D. Schaper 10/30/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14381

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217**

Sample ID: Nashua River

Analytical Type:	Sample
Matrix:	soil
Date Sampled:	10/16/98
Date Received:	10/16/98
Units:	µg/kg
Date of Extraction/Prep:	10/19/98
Date of Analysis:	10/21/98
Analyst:	DPR
Method:	8270
Dilution Factor:	1

Naphthalene	< 200
2-Methylnaphthalene	< 200
Acenaphthylene	< 200
Acenaphthene	< 200
Fluorene	< 200
Phenanthrene	< 200
Anthracene	< 200
Fluoranthene	< 200
Pyrene	< 200
Benzo[a]anthracene	< 200
Chrysene	< 200
Benzo[b]fluoranthene	< 200
Benzo[k]fluoranthene	< 200
Benzo[a]pyrene	< 200
Indeno[1,2,3-cd]pyrene	< 200
Dibenz[a,h]anthracene	< 200
Benzo[g,h,i]perylene	< 200
Nitrobenzene-d5 (surr)	35 %R
2-Fluorobiphenyl (surr)	23 %R
p-Terphenyl-d14 (surr)	73 %R

Sample, Nashua River, exceeded 2-Fluorobiphenyl surrogate recovery limits (low).
All other QC criteria for the sample and the batch was within control limits.

Approved By: Timothy Schaper Organics Supervisor Timothy P. Schaper 10/30/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14381

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217**

QC Report

Parameter Name	Blank	LCS	LCS Dup	Units	Date of Analysis	Method
Phenol	< 200	2300 (71 %R)	2400 (73 %R) (4 RPD)	µg/kg	10/21/98	8270
2-Chlorophenol	< 200	2100 (64 %R)	2200 (67 %R) (4 RPD)	µg/kg	10/21/98	8270
2,4-Dichlorophenol	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
2,4,5-Trichlorophenol	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
2,4,6-Trichlorophenol	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Pentachlorophenol	< 200	2200 (65 %R)	2600 (78 %R) (19 RPD)	µg/kg	10/21/98	8270
2-Nitrophenol	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
4-Nitrophenol	< 200	1400 (43 %R)	2100 (62 %R) (37 RPD)	µg/kg	10/21/98	8270
2,4-Dinitrophenol	< 800	< 800 (%R N/A)	< 800 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
2-Methylphenol	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
4-Methylphenol	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
2,4-Dimethylphenol	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
4-Chloro-3-methylphenol	< 200	2500 (75 %R)	2600 (78 %R) (4 RPD)	µg/kg	10/21/98	8270
4,6-Dinitro-2-methylphenol	< 800	< 800 (%R N/A)	< 800 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Benzoic Acid	< 800	< 800 (%R N/A)	< 800 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
2-Fluorophenol (surr)	37 %R	46 %R	46 %R	µg/kg	10/21/98	8270
Phenol-d6 (surr)	57 %R	67 %R	64 %R	µg/kg	10/21/98	8270
2,4,6-Tribromophenol (surr)	48 %R	66 %R	65 %R	µg/kg	10/21/98	8270

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14381

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217**

QC Report

Parameter Name	Blank	LCS	LCS Dup	Units	Date of Analysis	Method
N-Nitrosodimethylamine	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
n-Nitroso-di-n-propylamine	< 200	1300 (76 %R)	1200 (74 %R) (2 RPD)	µg/kg	10/21/98	8270
n-Nitrosodiphenylamine	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
bis(2-Chloroethyl)ether	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
bis(2-chloroisopropyl)ether	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
bis(2-Chloroethoxy)methane	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
1,3-Dichlorobenzene	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
1,4-Dichlorobenzene	< 200	1000 (60 %R)	1000 (59 %R) (1 RPD)	µg/kg	10/21/98	8270
1,2-Dichlorobenzene	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
1,2,4-Trichlorobenzene	< 200	1000 (58 %R)	1000 (58 %R) (0 RPD)	µg/kg	10/21/98	8270
2-Chloronaphthalene	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
4-Chlorophenyl-phenylether	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
4-Bromophenyl-phenylether	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Hexachloroethane	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Hexachlorobutadiene	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Hexachlorocyclopentadiene	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Hexachlorobenzene	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
4-Chloroaniline	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
2-Nitroaniline	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
3-Nitroaniline	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
4-Nitroaniline	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Benzyl alcohol	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Nitrobenzene	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Isophorone	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
2,4-Dinitrotoluene	< 200	1000 (62 %R)	1000 (61 %R) (1 RPD)	µg/kg	10/21/98	8270
2,6-Dinitrotoluene	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Benzidine	< 400	< 400 (%R N/A)	< 400 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
3,3'-Dichlorobenzidine	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Pyridine	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Azobenzene	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Dimethylphthalate	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Diethylphthalate	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Di-n-butylphthalate	< 200	1400 (85 %R)	1400 (86 %R) (1 RPD)	µg/kg	10/21/98	8270
Butylbenzylphthalate	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
bis(2-Ethylhexyl)phthalate	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Di-n-octylphthalate	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Dibenzofuran	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14381

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217**

QC Report

Parameter Name	Blank	LCS	LCS Dup	Units	Date of Analysis	Method
Naphthalene	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
2-Methylnaphthalene	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Acenaphthylene	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Acenaphthene	< 200	900 (57 %R)	1000 (57 %R) (0 RPD)	µg/kg	10/21/98	8270
Fluorene	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Phenanthrene	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Anthracene	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Fluoranthene	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Pyrene	< 200	1000 (63 %R)	1000 (63 %R) (0 RPD)	µg/kg	10/21/98	8270
Benzo[a]anthracene	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Chrysene	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Benzo[b]fluoranthene	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Benzo[k]fluoranthene	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Benzo[a]pyrene	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Indeno[1,2,3-cd]pyrene	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Dibenz[a,h]anthracene	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Benzo[g,h,i]perylene	< 200	< 200 (%R N/A)	< 200 (%R N/A) (RPD N/A)	µg/kg	10/21/98	8270
Nitrobenzene-d5 (surr)	53 %R	66 %R	68 %R	µg/kg	10/21/98	8270
2-Fluorobiphenyl (surr)	49 %R	58 %R	59 %R	µg/kg	10/21/98	8270
p-Terphenyl-d14 (surr)	65 %R	68 %R	70 %R	µg/kg	10/21/98	8270

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14381

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217**

Acids and Base/Neutral Extractable Compounds QA/QC and Narrative Report

Matrix:	Aqueous		Solid	
Units:	%		%	
EPA Method:	625/8270	RPD	8270	RPD
Acid Extractables Spikes:				
Phenol	12-110	42	26-90	35
2-Chlorophenol	27-123	40	25-102	50
4-Chloro-3-methylphenol	23-97	42	26-103	33
4-Nitrophenol	10-80	50	11-114	50
Pentachlorophenol	9-103	31	17-109	36
Acid Extractables Surrogates:				
2-Fluorophenol	21-110		25-121	
Phenol-d5	10-94		24-113	
2,4,6-Tribromophenol	10-123		19-122	
Base/Neutral Extractables Spikes:				
N-Nitroso-di-n-propylamine	41-116	38	41-126	23
1,4-Dichlorobenzene	36-97	28	28-104	27
1,2,4-Trichlorobenzene	39-98	28	38-107	23
2,4-Dinitrotoluene	24-96	38	28-89	47
Acenaphthene	46-118	31	31-137	19
Pyrene	26-127	31	34-142	36
Base/Neutral Extractables Surrogates:				
Nitrobenzene-d5	35-114		23-120	
2-Fluorobiphenyl	43-116		30-115	
p-Terphenyl-d14	33-141		8-137	

Samples were extracted and analyzed within holding time limits.
Instrumentation was tuned and calibrated in accordance with the method requirements..
The associated method blank(s) were free of contamination at the reporting limit.
The associated matrix spike(s) and/or (LCS) Laboratory Control Sample(s) met the above stated criteria. (Exceptions noted below)

Exceptions to the analyses are noted on the sample results sheet.
References:
Surrogate Quality Control limits as stated in SW846,3rd Edition, Update II, Method 8270B, 9/94.
Spike Quality Control limits as stated in CLP SOW for Organics Analysis OLMO 1.0 - OLMO 1.8, 8/91.

Approved By: Timothy Schaper Organics Supervisor Timothy D. Schaper 10/30/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14381

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217**

Sample ID:	Nashua River
Analytical Type:	Sample
Matrix:	soil
Date Sampled:	10/16/98
Date Received:	10/16/98
Units:	µg/kg
Date of Extraction/Prep:	10/19/98
Date of Analysis:	10/28/98
Analyst:	NZ
Method:	8082/8081A
Dilution Factor:	1
PCB-1016	< 100
PCB-1221	< 100
PCB-1232	< 100
PCB-1242	< 100
PCB-1254	< 100
PCB-1260	< 100
Aldrin	< 10
alpha-BHC	< 10
beta-BHC	< 10
gamma-BHC	< 10
delta-BHC	< 10
Chlordane	< 100
4,4'-DDT	< 10
4,4'-DDE	< 10
4,4'-DDD	< 10
Dieldrin	< 10
Endosulfan I	< 10
Endosulfan II	< 10
Endosulfan Sulfate	< 10
Endrin	< 10
Endrin Aldehyde	< 10
Heptachlor	< 10
Heptachlor Epoxide	< 10
Methoxychlor	< 10
Toxaphene	< 100
TMX (surr)	67 %R
DCB (surr)	67 %R

Approved By: Timothy Schaper Organics Supervisor Timothy D. Schaper 10/29/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14381

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217**

Pesticides QA/QC and Narrative Report

Matrix:	Aqueous	Solid
Units:	%	%
EPA Method:	8081A/8082	8081A/8082
Aldrin	30-150	30-150
alpha-BHC	30-150	30-150
beta-BHC	30-150	30-150
gamma-BHC	30-150	30-150
delta-BHC	30-150	30-150
Chlordane	30-150	30-150
4,4'-DDT	30-150	30-150
4,4'-DDE	30-150	30-150
4,4'-DDD	30-150	30-150
Dieldrin	30-150	30-150
Endosulfan I	30-150	30-150
Endosulfan II	30-150	30-150
Endosulfan Sulfate	30-150	30-150
Endrin	30-150	30-150
Endrin Aldehyde	30-150	30-150
Endrin Ketone	30-150	30-150
Heptachlor	30-150	30-150
Heptachlor Epoxide	30-150	30-150
Methoxychlor	30-150	30-150
Toxaphene		
Aroclors 1242-1260	30-150	30-150
TMX(Surr)	30-150	30-150
DCB(Surr)	30-150	30-150

Samples were extracted and analyzed within holding time limits.
Instrumentation was tuned and calibrated in accordance with the method requirements.
The associated method blank(s) were free of contamination at the reporting limit.
Sample surrogate recoveries met the above stated criteria.
The associated matrix spike(s) and/or Laboratory Control Sample(s) met the above stated criteria.
Other exceptions to the analyses are noted on the sample results sheet.

Approved By: Timothy Schaper Organics Supervisor Timothy D Schaper 10/29/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14381

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217**

QC Report

Parameter Name	Blank	LCS	LCS Dup	Units	Date of Analysis	Method
PCB-1016	< 100	< 100 (%R N/A)	< 100 (%R N/A) (RPD N/A)	µg/kg	10/28/98	8082
PCB-1221	< 100	< 100 (%R N/A)	< 100 (%R N/A) (RPD N/A)	µg/kg	10/28/98	8082
PCB-1232	< 100	< 100 (%R N/A)	< 100 (%R N/A) (RPD N/A)	µg/kg	10/28/98	8082
PCB-1242	< 100	< 100 (%R N/A)	< 100 (%R N/A) (RPD N/A)	µg/kg	10/28/98	8082
PCB-1254	< 100	< 100 (%R N/A)	< 100 (%R N/A) (RPD N/A)	µg/kg	10/28/98	8082
PCB-1260	< 100	< 100 (%R N/A)	< 100 (%R N/A) (RPD N/A)	µg/kg	10/28/98	8082
Aldrin	< 10	30 (86 %R)	30 (83 %R) (4 RPD)	µg/kg	10/28/98	8081A
alpha-BHC	< 10	30 (83 %R)	30 (83 %R) (0 RPD)	µg/kg	10/28/98	8081A
beta-BHC	< 10	30 (93 %R)	30 (84 %R) (10 RPD)	µg/kg	10/28/98	8081A
gamma-BHC	< 10	30 (83 %R)	30 (85 %R) (2 RPD)	µg/kg	10/28/98	8081A
delta-BHC	< 10	20 (73 %R)	20 (71 %R) (3 RPD)	µg/kg	10/28/98	8081A
Chlordane	< 100	30 (82 %R)	30 (80 %R) (2 RPD)	µg/kg	10/28/98	8081A
4,4'-DDT	< 10	30 (84 %R)	30 (83 %R) (1 RPD)	µg/kg	10/28/98	8081A
4,4'-DDE	< 10	30 (86 %R)	30 (83 %R) (4 RPD)	µg/kg	10/28/98	8081A
4,4'-DDD	< 10	30 (92 %R)	30 (91 %R) (1 RPD)	µg/kg	10/28/98	8081A
Dieldrin	< 10	30 (84 %R)	30 (83 %R) (1 RPD)	µg/kg	10/28/98	8081A
Endosulfan I	< 10	30 (86 %R)	30 (85 %R) (1 RPD)	µg/kg	10/28/98	8081A
Endosulfan II	< 10	30 (92 %R)	30 (88 %R) (4 RPD)	µg/kg	10/28/98	8081A
Endosulfan Sulfate	< 10	30 (83 %R)	30 (81 %R) (2 RPD)	µg/kg	10/28/98	8081A
Endrin	< 10	30 (90 %R)	30 (88 %R) (2 RPD)	µg/kg	10/28/98	8081A
Endrin Aldehyde	< 10	30 (97 %R)	30 (94 %R) (3 RPD)	µg/kg	10/28/98	8081A
Heptachlor	< 10	30 (86 %R)	30 (86 %R) (0 RPD)	µg/kg	10/28/98	8081A
Heptachlor Epoxide	< 10	30 (94 %R)	30 (96 %R) (2 RPD)	µg/kg	10/28/98	8081A
Methoxychlor	< 10	30 (100%R)	30 (97 %R) (4 RPD)	µg/kg	10/28/98	8081A
Toxaphene	< 100	< 100 (%R N/A)	< 100 (%R N/A) (RPD N/A)	µg/kg	10/28/98	8081A
TMX (surr)	105 %R	79 %R	79 %R	µg/kg	10/28/98	8081A
DCB (surr)	113 %R	106 %R	98 %R	µg/kg	10/28/98	8081A

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14381

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217**

Sample ID:	Nashua River
Analytical Type:	Sample
Matrix:	soil
Date Sampled:	10/16/98
Date Received:	10/16/98
Units:	mg/kg
Date of Extraction/Prep:	10/20/98
Date of Analysis:	10/20/98
Analyst:	DJS
Method:	8100 Mod
Dilution Factor:	1
TPH (C9-C40)	< 50
p-Terphenyl d14 (TPH surr)	87 %R

Approved By: Timothy Schaper Organics Supervisor Timothy P. Schaper 10/21/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14381

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217**

Total Petroleum Hydrocarbons QA/QC and Narrative Report

Matrix:	Solid	Aqueous
Units:	%	%
EPA Method:	8100(MOD)	8100(MOD)
Total Petroleum Hydrocarbons	30-160	30-160
Surrogate (p-Terphenyl-d14)	18-137	33-141

Samples were extracted and analyzed within holding time limits.

Instrumentation was calibrated in accordance with the method requirements.

The associated blank(s) were free of contamination at the reporting limits.

Surrogate recoveries met the above stated criteria.

The associated matrix spike(s) and/or laboratory Control Samples(s) met the above stated criteria.

Exceptions are noted below:

No Exceptions.

Approved By: Timothy Schaper Organics Supervisor Timothy C. Schaper 10/21/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14381

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217**

QC Report

Parameter Name	Blank	LCS	LCS Dup	Units	Date of Analysis	Method
TPH (C9-C40)	< 50	150 (77 %R)	140 (71 %R) (7 RPD)	mg/kg	10/20/98	8100 Mod
p-Terphenyl d14 (TPH surr)	103 %R	117 %R	112 %R	mg/kg	10/20/98	8100 Mod

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14381

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217**

Sample ID: Nashua River

Analytical Type: Sample
Matrix: soil
Date Sampled: 10/16/98
Date Received: 10/16/98

		Units	Date of Analysis	Method	Analyst
Arsenic	22	mg/kg	10/23/98	6010B	RTW
Barium	17	mg/kg	10/23/98	6010B	RTW
Cadmium	< 0.2	mg/kg	10/23/98	6010B	RTW
Chromium	16	mg/kg	10/23/98	6010B	RTW
Lead	25	mg/kg	10/23/98	6010B	RTW
Mercury	< 0.2	mg/kg	10/26/98	7471	DS
Selenium	< 2	mg/kg	10/23/98	6010B	RTW
Silver	< 0.2	mg/kg	10/23/98	6010B	RTW

Approved By: Tim Wilson Metals Supervisor _____

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14381

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217**

QC Report

Parameter Name	Blank	LCS	Units	Date of Analysis	Method
Arsenic	< 0.01	0.98 (98 %R)	mg/kg	10/23/98	6010B
Barium	< 0.05	0.49 (99 %R)	mg/kg	10/23/98	6010B
Cadmium	< 0.001	1.00 (100 %R)	mg/kg	10/23/98	6010B
Chromium	< 0.002	0.48 (97 %R)	mg/kg	10/23/98	6010B
Lead	< 0.01	0.98 (98 %R)	mg/kg	10/23/98	6010B
Mercury	< 0.0002	0.0037 (100 %R)	mg/kg	10/26/98	7471
Selenium	< 0.05	0.95 (96 %R)	mg/kg	10/23/98	6010B
Silver	< 0.05	1.01 (101 %R)	mg/kg	10/23/98	6010B

Parameter Name	MS/MSD Parent	Matrix Spike	Matrix Spike Duplicate
Arsenic	3	37 (85 %R)	35 (83 %R) (2 RPD)
Barium	9	25 (80 %R)	25 (82 %R) (2 RPD)
Cadmium	< 0.2	33 (83 %R)	33 (84 %R) (1 RPD)
Chromium	4.6	21 (83 %R)	21 (84 %R) (1 RPD)
Lead	3	36 (84 %R)	36 (84 %R) (0 RPD)
Mercury	< 0.2	0.0018 (90%R	0.0019 (95 %R) (5 RPD)
Selenium	< 2	32 (82 %R)	33 (84 %R) (3 RPD)
Silver	< 0.2	36 (84 %R)	35 (83 %R) (4 RPD)

No Exceptions.

Approved By: Timothy Schaper Organics Supervisor _____

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14381

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217**

Metals QA/QC and Narrative Report

QA/QC:	LCS	MS	MSD
Matrix:	Soil	Soil	Soil
Units:	%	%	%
EPA Method:	6010B/7471	6010B/7471	6010B/7471
Aluminum	95-105	75-125	75-125
Antimony	95-105	75-125	75-125
Arsenic	95-105	75-125	75-125
Barium	95-105	75-125	75-125
Beryllium	95-105	75-125	75-125
Boron	95-105	75-125	75-125
Cadmium	95-105	75-125	75-125
Calcium	95-105	75-125	75-125
Chromium	95-105	75-125	75-125
Chromium IV	95-105	75-125	75-125
Cobalt	95-105	75-125	75-125
Copper	95-105	75-125	75-125
Iron	95-105	75-125	75-125
Lead	95-105	75-125	75-125
Magnesium	95-105	75-125	75-125
Manganese	95-105	75-125	75-125
Mercury	95-105	75-125	75-125
Molybdenum	95-105	75-125	75-125
Nickel	95-105	75-125	75-125
Phosphorus	95-105	75-125	75-125
Potassium	95-105	75-125	75-125
Selenium	95-105	75-125	75-125
Silicon	95-105	75-125	75-125
Silver	95-105	75-125	75-125
Sodium	95-105	75-125	75-125
Thallium	95-105	75-125	75-125
Tin	95-105	75-125	75-125
Titanium	95-105	75-125	75-125
Vanadium	95-105	75-125	75-125
Zinc	95-105	75-125	75-125

Samples were analyzed within holding time limits.
Instrumentation was calibrated in accordance with the methodrequirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/orLaboratory Control Samples met the above stated criteria.
There were no other exceptions in the analyses.

No Exceptions.

Approved By: Tim Wilson Metals Supervisor _____

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14381

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217**

Sample ID: Nashua River

Analytical Type: Sample
Matrix: soil
Date Sampled: 10/16/98
Date Received: 10/16/98

		Units	Date of Analysis	Method	Analyst
pH	7.5	SU	10/22/98	9045	MO
Ignitability	Pass	No Units	10/30/98	7.1.2	MOS
Reactive Cyanide	< 0.2	mg/kg	10/23/98	7.3.3.2	LO
Reactive Sulfide	< 10	mg/kg	10/23/98	7.3.4.2	LO

Approved By: Lorraine Olashaw Inorganics Supervisor Lorraine Olashaw 11/2/98

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14381 GEINH

Client: **GEI Consultants, Inc.**

Client Designation: **Broad St. 98217**

QC Data

Parameter Name	Blank	LCS	Dup Parent	Duplicate	Units	Date of Analysis	Method
pH	NA	8.0	7.5	7.6	SU	10/22/98	9045
Reactive Cyanide	< 0.2	1.7 (17 %R)	NA	NA	mg/kg	10/23/98	7.3.3.2
Reactive Sulfide	< 10	80 (84 %R)	NA	NA	mg/kg	10/23/98	7.3.4.2
Ignitability	Pass	79°F	Pass	Pass	No Units	10/30/98	7.1.2

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14381

Client: **GEI Consultants, Inc.** Client Designation: **Broad St. 98217**

Wet Chemistry QA/QC and Narrative Report

QA/QC:	LCS	RPD	
Matrix:	Aqueous	Aqueous	
Units:	% Rec. unless noted	%	Method
Corrosivity (pH)	5.93-6.06 SU	20	EPA 9045
Corrosivity (pH)	7.81-8.12 SU	20	EPA 9045
Ignitibility	79-83 deg. F	NA	EPA 7.1.2
Flashpoint (deg. F)	79-83 deg. F	20	EPA 1010
Reactive Cyanide	0-30	NA	EPA 7.3.3.2
Reactive Sulfide	0-80	NA	EPA 7.3.4.2

Samples were analyzed within holding time limits.

Instrumentation was calibrated in accordance with the methodrequirements.

The method blanks were free of contamination at the reporting limits.

The associated matrix spikes and/orLaboratory Control Samples met the above stated criteria.

There were no other exceptions in the analyses.

Approved By: Lorraine Olashaw Inorganics Supervisor Lorraine Olashaw 11/2/98

eastern analytical, inc. 25 Chenell Drive / Concord, NH 03301 / TEL (603) 228-0525 / 1-800-287-0525
FAX (603) 228-4591 / E-Mail : front_office@eailabs.com

14381

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

REQUESTED ANALYSES

ITEM # for lab use only	SAMPLE I.D.	SAMPLING DATE / TIME	MATRIX (A - Air, S - Soil, GW - Ground W., SW - Surface W., DW - Drinking W., WW - Waste W., ☐ Other)	G-Grab, C-Comp	☐ 8260B ☐ 524.2 ☐ 8260B plus 10 TICS	☐ 8260B-TCL (8240 list) ☐ 624	☐ 8021B ☐ 601 / 602	☐ 8021B-Halos (8010 list) ☐ 601	☐ 8021B-BTEX (8020 list) ☐ 602	☐ MA VPH ☐ ME GRO ☐ 8015B GRO	☐ MA EPH ☐ ME DRO ☐ 8015B DRO	TPH 8100 M ☐ LI ☐ LII ☐ LIII	☐ 8270 ☐ 625 ☐ ABN ☐ A ☐ BN ☐ PAH	☐ 8081/8082 ☐ 608 ☐ PCBs ☐ Pesticides	Dissolved Metals (list below)	Total Metals (list below)	TCLP Metals (list below)	☐ TSS ☐ TDS ☐ TS	☐ F ☐ Cl ☐ SO_4 ☐ NO_2 ☐ NO_3	☐ pH ☐ Spec. Con. ☐ BOD	☐ T. Alk ☐ Carb. Alk ☐ Bl. Alk	☐ TKN ☐ NH_3 ☐ T. Phos.	☐ COD ☐ TOC ☐ Phenols	☐ Oil & Grease ☐ TPH (list method below)	☐ CN ☐ Formaldehyde	☐ T. Coli ☐ E. Coli ☐ F. Coli ☐ F Strep	TABLE IV				# Of Containers	NOTES
	Nashua River	10/16/98, 8:00	S	C																							X				5	
PRESERVATIVE : H-HCl ; N-HNO_3 ; S-H_2SO_4 ; Na-NaOH																																

PROJECT MANAGER : Boyd Smith
COMPANY : GEI Consultants
ADDRESS : 53 Regional Dr.
CITY : Concord STATE NH ZIP 03301
PHONE : (603) 224-7779 EXT : _____
FAX : 224-7990
E-MAIL : _____
PROJECT NAME : Broad St.
PROJECT # 98217
STATE : ☒ NH ☐ MA ☐ ME ☐ VT OTHER _____
☐ Site historically contaminated ☐ Compliance Testing

NOTES : (i.e. Special Detection Limits, Billing Info. if different)

RESULTS NEEDED BY
(enter preferred date) : Std 10 days
(Guaranteed rapid turnaround needs pre-approval)

QA / QC Reporting Level
☐ A ☒ B ☐ C

Reporting Options :
☒ Hard Copy ☐ Fax
Electronic :
☐ E-Mail ☐ Disk

Quote # 2062797 GEI NH
P.O. # _____
Sampler(s) : Brian F. Tankersley

Relinquished by	Date	Time	Received by
Brian F. Tankersley	10/16/98	11:40	[illegible]

FOR LAB USE ONLY
Adhered to EPA Protocol
☐ Yes ☐ No (see attached)
Cold ?
☐ Yes ☐ No

(WHITE : *Original* YELLOW : *Lab Files* PINK : *Project Manager*)