

Golder Associates Inc.

540 North Commercial Street, Suite 250
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MAG 910224

April 26, 2006

Our Ref.: 053-6859

United States Environmental Protection Agency
1 Congress Street Suite 1100 (CMP)
Boston, MA 02214

Attention: Mr. Victor Alvarez

**RE: REMEDIATION GENERAL PERMIT
NOTICE OF INTENT
CANDIA ROAD WIDENING PROJECT
NHDOT PROJECT # 12328**

Dear Mr. Alvarez

Please find attached a copy of the laboratory data to support the Remediation General Permit Notice of Intent that was submitted to you on March 29, 2006.

Please contact the undersigned if you have any questions regarding this submittal at (603) 668-0880. Golder appreciates your timely review of this submittal.

Sincerely,

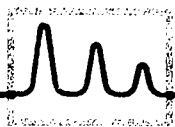
GOLDER ASSOCIATES INC.

Peter M. King, P.E., LSP, LEP
Senior Consultant and Principal

PMK/djp

Attachments





eastern analytical

professional laboratory services

Peter King

Golder Associates, Inc.

540 N. Commercial Street, Suite 250

Manchester, NH 03101

GOLDER ASSOC.

MAR 8 2006

Subject: Laboratory Report

RECEIVED

Eastern Analytical, Inc. ID: 53234

Client Identification: Candia Rd | 053-6859

Date Received: 2/24/2006

Dear Mr. King :

Enclosed please find the complete laboratory report for the above identified project. All work performed by Eastern Analytical, Inc. (EAI) and all subcontracted laboratories is enclosed. This report replaces the previous partial report for this project. Please dispose of any previous report packages.

All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by EAI were collected in accordance with approved EPA procedures. EAI certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.eailabs.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply throughout all EAI reports:

<: Solid samples are reported on a dry weight basis, unless otherwise noted
"less than" followed by the detection limit
TNR: Testing Not Requested
ND: None Detected, no established detection limit
RL: Reporting Limits
%R: % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269) and Vermont (VT1012).

This report package contains the following information: Sample Conditions summary, Analytical Results/Data and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

QA/QC Documentation:

Quality Control Samples associated with this project are included in this report. At a minimum, a Method Blank and Laboratory Control Sample (LCS) are reported. Matrix Spikes and Duplicates are reported where applicable. Deviations are narrated on the QC pages.

If you have any questions regarding the results contained within, please feel free to directly contact me, or the chemist(s) 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,



Lorraine Olashaw, Lab Director

5-29-06

Date

42

of pages (excluding cover letter)



SAMPLE CONDITIONS PAGE

Eastern Analytical, Inc. ID#: **53234**

Client: **Golder Associates, Inc.**

Client Designation: **Candia Rd | 053-6859**

Temperature upon receipt (°C): **2.9**

Received on ice or cold packs (Yes/No): **Y**

Lab ID	SampleID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
53234.01	Inf-01	2/24/06	2/23/06	aqueous		Adheres to Sample Acceptance Policy
53234.02	Trip Blank	2/24/06	2/20/06	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitability, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.

All results contained in this report relate only to the above listed samples.

References include:

- 1) EPA 600/4-79-020, 1983
- 2) Standard Methods for Examination of Water and Wastewater : Inorganics, 19th Edition, 1995; Microbiology, 20th Edition, 1998
- 3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
- 4) Hach Water Analysis Handbook, 2nd edition, 1992



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 53234

Client: Golder Associates, Inc.

Client Designation: Candia Rd | 053-6859

Sample ID: Inf-01 Trip Blank

Lab Sample ID:	53234.01	53234.02
Matrix:	aqueous	aqueous
Date Sampled:	2/23/06	2/20/06
Date Received:	2/24/06	2/24/06
Units:	ug/l	ug/l
Date of Analysis:	2/27/06	2/27/06
Analyst:	BAM	BAM
Method:	8260B	8260B
Dilution Factor:	1	1

Dichlorodifluoromethane	< 5	< 5
Chloromethane	< 5	< 5
Vinyl chloride	< 2	< 2
Bromomethane	< 2	< 2
Chloroethane	< 5	< 5
Trichlorofluoromethane	< 5	< 5
Diethyl Ether	< 5	< 5
Acetone	< 10	< 10
1,1-Dichloroethene	< 1	< 1
tert-Butyl Alcohol (TBA)	< 30	< 30
Methylene chloride	< 5	< 5
Carbon disulfide	< 5	< 5
Methyl-t-butyl ether(MTBE)	< 5	< 5
Ethyl-t-butyl ether(ETBE)	< 5	< 5
Isopropyl ether(DIPE)	< 5	< 5
tert-amyl methyl ether(TAME)	< 5	< 5
trans-1,2-Dichloroethene	< 2	< 2
1,1-Dichloroethane	< 2	< 2
2,2-Dichloropropane	< 2	< 2
cis-1,2-Dichloroethene	< 2	< 2
2-Butanone(MEK)	< 10	< 10
Bromochloromethane	< 2	< 2
Tetrahydrofuran(THF)	< 10	< 10
Chloroform	< 2	< 2
1,1,1-Trichloroethane	< 2	< 2
Carbon tetrachloride	< 2	< 2
1,1-Dichloropropene	< 2	< 2
Benzene	< 1	< 1
1,2-Dichloroethane	< 2	< 2
Trichloroethene	< 2	< 2
1,2-Dichloropropane	< 2	< 2
Dibromomethane	< 2	< 2
Bromodichloromethane	< 2	< 2
4-Methyl-2-pentanone(MIBK)	< 10	< 10
cis-1,3-Dichloropropene	< 2	< 2
Toluene	< 1	< 1
trans-1,3-Dichloropropene	< 2	< 2
1,1,2-Trichloroethane	< 2	< 2
2-Hexanone	< 10	< 10
Tetrachloroethene	< 2	< 2
1,3-Dichloropropane	< 2	< 2
Dibromochloromethane	< 2	< 2
1,2-Dibromoethane	< 2	< 2
Chlorobenzene	< 2	< 2
1,1,1,2-Tetrachloroethane	< 2	< 2
Ethylbenzene	< 1	< 1



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 53234

Client: Golder Associates, Inc.

Client Designation: Candia Rd | 053-6859

Sample ID: Inf-01 Trip Blank

Lab Sample ID: 53234.01 53234.02

Matrix: aqueous aqueous

Date Sampled: 2/23/06 2/20/06

Date Received: 2/24/06 2/24/06

Units: ug/l ug/l

Date of Analysis: 2/27/06 2/27/06

Analyst: BAM BAM

Method: 8260B 8260B

Dilution Factor: 1 1

mp-Xylene < 1 < 1

o-Xylene < 1 < 1

Styrene < 1 < 1

Bromoform < 2 < 2

IsoPropylbenzene < 1 < 1

Bromobenzene < 2 < 2

1,1,2,2-Tetrachloroethane < 2 < 2

1,2,3-Trichloropropane < 2 < 2

n-Propylbenzene < 1 < 1

2-Chlorotoluene < 2 < 2

4-Chlorotoluene < 2 < 2

1,3,5-Trimethylbenzene < 1 < 1

tert-Butylbenzene < 1 < 1

1,2,4-Trimethylbenzene < 1 < 1

sec-Butylbenzene < 1 < 1

1,3-Dichlorobenzene < 1 < 1

p-Isopropyltoluene < 1 < 1

1,4-Dichlorobenzene < 1 < 1

1,2-Dichlorobenzene < 1 < 1

n-Butylbenzene < 1 < 1

1,2-Dibromo-3-chloropropane < 2 < 2

1,2,4-Trichlorobenzene < 1 < 1

Hexachlorobutadiene < 1 < 1

Naphthalene < 5 < 5

1,2,3-Trichlorobenzene < 1 < 1

4-Bromofluorobenzene (surr) 93 %R 91 %R

1,2-Dichlorobenzene-d4 (surr) 106 %R 106 %R



LABORATORY REPORT

Eastern Analytical, Inc. ID#:53234

Batch ID:

Client: Golder Associates, Inc.

Client Designation: Candia Rd | 053-6859

QC Report

Parameter Name	Date of Analysis				
	Blank	LCS	LCS Dup	Units	Method
Dichlorodifluoromethane	< 5			ug/l 2/27/06	8260B
Chloromethane	< 5			ug/l 2/27/06	8260B
Vinyl chloride	< 2			ug/l 2/27/06	8260B
Bromomethane	< 2			ug/l 2/27/06	8260B
Chloroethane	< 5			ug/l 2/27/06	8260B
Trichlorofluoromethane	< 5			ug/l 2/27/06	8260B
Diethyl Ether	< 5			ug/l 2/27/06	8260B
Acetone	< 10			ug/l 2/27/06	8260B
1,1-Dichloroethene	< 1	20 (100 %R)	20 (98 %R) (2 RPD)	ug/l 2/27/06	8260B
tert-Butyl Alcohol (TBA)	< 30			ug/l 2/27/06	8260B
Methylene chloride	< 5			ug/l 2/27/06	8260B
Carbon disulfide	< 5			ug/l 2/27/06	8260B
Methyl-t-butyl ether(MTBE)	< 5			ug/l 2/27/06	8260B
Ethyl-t-butyl ether(ETBE)	< 5			ug/l 2/27/06	8260B
Isopropyl ether(DIPE)	< 5			ug/l 2/27/06	8260B
tert-amyl methyl ether(TAME)	< 5			ug/l 2/27/06	8260B
trans-1,2-Dichloroethene	< 2			ug/l 2/27/06	8260B
1,1-Dichloroethane	< 2			ug/l 2/27/06	8260B
2,2-Dichloropropane	< 2			ug/l 2/27/06	8260B
cis-1,2-Dichloroethene	< 2			ug/l 2/27/06	8260B
2-Butanone(MEK)	< 10			ug/l 2/27/06	8260B
Bromochloromethane	< 2			ug/l 2/27/06	8260B
Tetrahydrofuran(THF)	< 10			ug/l 2/27/06	8260B
Chloroform	< 2			ug/l 2/27/06	8260B
1,1,1-Trichloroethane	< 2			ug/l 2/27/06	8260B
Carbon tetrachloride	< 2			ug/l 2/27/06	8260B
1,1-Dichloropropene	< 2			ug/l 2/27/06	8260B
Benzene	< 1	21 (104 %R)	21 (104 %R) (0 RPD)	ug/l 2/27/06	8260B
1,2-Dichloroethane	< 2			ug/l 2/27/06	8260B
Trichloroethene	< 2	20 (102 %R)	21 (103 %R) (1 RPD)	ug/l 2/27/06	8260B
1,2-Dichloropropane	< 2			ug/l 2/27/06	8260B
Dibromomethane	< 2			ug/l 2/27/06	8260B
Bromodichloromethane	< 2			ug/l 2/27/06	8260B
4-Methyl-2-pentanone(MIBK)	< 10			ug/l 2/27/06	8260B
cis-1,3-Dichloropropene	< 2			ug/l 2/27/06	8260B
Toluene	< 1	21 (105 %R)	21 (106 %R) (1 RPD)	ug/l 2/27/06	8260B
trans-1,3-Dichloropropene	< 2			ug/l 2/27/06	8260B
1,1,2-Trichloroethane	< 2			ug/l 2/27/06	8260B
2-Hexanone	< 10			ug/l 2/27/06	8260B
Tetrachloroethene	< 2			ug/l 2/27/06	8260B
1,3-Dichloropropane	< 2			ug/l 2/27/06	8260B
Dibromochloromethane	< 2			ug/l 2/27/06	8260B
1,2-Dibromoethane	< 2			ug/l 2/27/06	8260B
Chlorobenzene	< 2	21 (107 %R)	22 (109 %R) (2 RPD)	ug/l 2/27/06	8260B



LABORATORY REPORT

Eastern Analytical, Inc. ID#:53234

Batch ID:

Client: Golder Associates, Inc.

Client Designation: Candia Rd | 053-6859

QC Report

Parameter Name	Blank	LCS	LCS Dup	Date of Analysis	
				Units	Method
1,1,1,2-Tetrachloroethane	< 2			ug/l 2/27/06	8260B
Ethylbenzene	< 1			ug/l 2/27/06	8260B
mp-Xylene	< 1			ug/l 2/27/06	8260B
o-Xylene	< 1			ug/l 2/27/06	8260B
Styrene	< 1			ug/l 2/27/06	8260B
Bromoform	< 2			ug/l 2/27/06	8260B
IsoPropylbenzene	< 1			ug/l 2/27/06	8260B
Bromobenzene	< 2			ug/l 2/27/06	8260B
1,1,2,2-Tetrachloroethane	< 2			ug/l 2/27/06	8260B
1,2,3-Trichloropropane	< 2			ug/l 2/27/06	8260B
n-Propylbenzene	< 1			ug/l 2/27/06	8260B
2-Chlorotoluene	< 2			ug/l 2/27/06	8260B
4-Chlorotoluene	< 2			ug/l 2/27/06	8260B
1,3,5-Trimethylbenzene	< 1			ug/l 2/27/06	8260B
tert-Butylbenzene	< 1			ug/l 2/27/06	8260B
1,2,4-Trimethylbenzene	< 1			ug/l 2/27/06	8260B
sec-Butylbenzene	< 1			ug/l 2/27/06	8260B
1,3-Dichlorobenzene	< 1			ug/l 2/27/06	8260B
p-Isopropyltoluene	< 1			ug/l 2/27/06	8260B
1,4-Dichlorobenzene	< 1			ug/l 2/27/06	8260B
1,2-Dichlorobenzene	< 1			ug/l 2/27/06	8260B
n-Butylbenzene	< 1			ug/l 2/27/06	8260B
1,2-Dibromo-3-chloropropane	< 2			ug/l 2/27/06	8260B
1,2,4-Trichlorobenzene	< 1			ug/l 2/27/06	8260B
Hexachlorobutadiene	< 1			ug/l 2/27/06	8260B
Naphthalene	< 5			ug/l 2/27/06	8260B
1,2,3-Trichlorobenzene	< 1			ug/l 2/27/06	8260B
4-Bromofluorobenzene (surr)	94 %R	103 %R	103 %R	% Rec 2/27/06	8260B
1,2-Dichlorobenzene-d4 (surr)	105 %R	100 %R	100 %R	% Rec 2/27/06	8260B



LABORATORY REPORT

Eastern Analytical, Inc. ID#:53234

Batch ID:

Client: **Golder Associates, Inc.**

Client Designation: **Candia Rd | 053-6859**

Volatile Organic Compounds QC limits and Narrative Summary

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, unless noted.



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 53234

Client: **Golder Associates, Inc.**

Client Designation: **Candia Rd | 053-6859**

Sample ID: Inf-01

Lab Sample ID: 53234.01
Matrix: aqueous
Date Sampled: 2/23/06
Date Received: 2/24/06
Units: ug/l
Date of Extraction/Preparation 2/28/06
Date of Analysis: 3/11/06
Analyst: BML
Method: 8270C
Dilution Factor: 1

Phenol	< 1
2-Chlorophenol	< 1
2,4-Dichlorophenol	< 1
2,4,5-Trichlorophenol	< 1
2,4,6-Trichlorophenol	< 1
Pentachlorophenol	< 5
2-Nitrophenol	< 1
4-Nitrophenol	< 5
2,4-Dinitrophenol	< 5
2-Methylphenol	< 1
3/4-Methylphenol	< 1
2,4-Dimethylphenol	< 1
4-Chloro-3-methylphenol	< 1
4,6-Dinitro-2-methylphenol	< 5
Benzoic Acid	< 5
2-Fluorophenol (surr)	49 %R
Phenol-D5 (surr)	36 %R
2,4,6-Tribromophenol (surr)	85 %R



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 53234

Client: **Golder Associates, Inc.**

Client Designation: **Candia Rd | 053-6859**

Sample ID: Inf-01

Lab Sample ID: 53234.01

Matrix: aqueous

Date Sampled: 2/23/06

Date Received: 2/24/06

Units: ug/l

Date of Extraction/Preparation 2/28/06

Date of Analysis: 3/11/06

Analyst: BML

Method: 8270C

Dilution Factor: 1

N-Nitrosodimethylamine	< 1
n-Nitroso-di-n-propylamine	< 1
n-Nitrosodiphenylamine	< 1
bis(2-Chloroethyl)ether	< 1
bis(2-chloroisopropyl)ether	< 1
bis(2-Chloroethoxy)methane	< 1
1,3-Dichlorobenzene	< 1
1,4-Dichlorobenzene	< 1
1,2-Dichlorobenzene	< 1
1,2,4-Trichlorobenzene	< 1
2-Chloronaphthalene	< 1
4-Chlorophenyl-phenylether	< 1
4-Bromophenyl-phenylether	< 1
Hexachloroethane	< 1
Hexachlorobutadiene	< 1
Hexachlorocyclopentadiene	< 5
Hexachlorobenzene	< 1
4-Chloroaniline	< 1
2-Nitroaniline	< 5
3-Nitroaniline	< 1
4-Nitroaniline	< 1
Benzyl alcohol	< 1
Nitrobenzene	< 1
Isophorone	< 1
2,4-Dinitrotoluene	< 1
2,6-Dinitrotoluene	< 1
Benzidine	< 5
3,3'-Dichlorobenzidine	< 1
Pyridine	< 5
Azobenzene	< 1
Carbazole	< 1
Dimethylphthalate	< 1
Diethylphthalate	< 1
Di-n-butylphthalate	< 5
Butylbenzylphthalate	< 1
bis(2-Ethylhexyl)phthalate	< 5
Di-n-octylphthalate	< 1
Dibenzofuran	< 1



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 53234

Client: **Golder Associates, Inc.**

Client Designation: **Candia Rd | 053-6859**

Sample ID: Inf-01

Lab Sample ID: 53234.01

Matrix: aqueous

Date Sampled: 2/23/06

Date Received: 2/24/06

Units: ug/l

Date of Extraction/Preparation 2/28/06

Date of Analysis: 3/11/06

Analyst: BML

Method: 8270C

Dilution Factor: 1

Naphthalene < 1

2-Methylnaphthalene < 1

Acenaphthylene < 1

Acenaphthene < 1

Fluorene < 1

Phenanthrene < 1

Anthracene < 1

Fluoranthene < 1

Pyrene < 1

Benzo[a]anthracene < 1

Chrysene < 1

Benzo[b]fluoranthene < 1

Benzo[k]fluoranthene < 1

Benzo[a]pyrene < 1

Indeno[1,2,3-cd]pyrene < 1

Dibenz[a,h]anthracene < 1

Benzo[g,h,i]perylene < 1

Nitrobenzene-D5 (surr) **63 %R**

2-Fluorobiphenyl (surr) **59 %R**

p-Terphenyl-D14 (surr) **80 %R**



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 53234

Client: Golder Associates, Inc.

Client Designation: Candia Rd | 053-6859

Sample ID: Inf-01

Lab Sample ID: 53234.01

Matrix: aqueous

Date Sampled: 2/23/06

Date Received: 2/24/06

Units: ug/l

Date of Extraction/Prep: 2/28/06

Date of Analysis: 3/8/06

Analyst: BML

Method: 8270C SIM

Dilution Factor: 1

Benzo[a]anthracene	< 0.1
Chrysene	< 0.1
Benzo[b]fluoranthene	< 0.1
Benzo[k]fluoranthene	< 0.1
Benzo[a]pyrene	< 0.1
Indeno[1,2,3-cd]pyrene	< 0.1
Dibenz[a,h]anthracene	< 0.1
Benzo[g,h,i]perylene	< 0.1
p-Terphenyl-D14 (surr)	104 %R

SIM Technique was employed to provide low level quantitation for these compounds.



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 53234

Batch ID: 732370-59718/A022806AcidC1

Client: Golder Associates, Inc.

Client Designation: Candia Rd | 053-6859

QC Report

Parameter Name	Blank	LCS	LCSD	Units	Limits	RPD	Method
Phenol	< 1	20 (40 %R)	*	ug/l	12 - 110	42	8270C
2-Chlorophenol	< 1	37 (74 %R)	*	ug/l	27 - 123	40	8270C
2,4-Dichlorophenol	< 1			ug/l			8270C
2,4,5-Trichlorophenol	< 1			ug/l			8270C
2,4,6-Trichlorophenol	< 1			ug/l			8270C
Pentachlorophenol	< 5	* 56 (111 %R)	*	ug/l	9 - 103	50	8270C
2-Nitrophenol	< 1			ug/l			8270C
4-Nitrophenol	< 5	22 (45 %R)	*	ug/l	10 - 80	50	8270C
2,4-Dinitrophenol	< 5			ug/l			8270C
2-Methylphenol	< 1			ug/l			8270C
3/4-Methylphenol	< 1			ug/l			8270C
2,4-Dimethylphenol	< 1			ug/l			8270C
4-Chloro-3-methylphenol	< 1	41 (81 %R)	*	ug/l	23 - 97	42	8270C
4,6-Dinitro-2-methylphenol	< 5			ug/l			8270C
Benzoic Acid	< 5			ug/l			8270C
2-Fluorophenol (surr)	43 %R	52 %R	*	% Rec	21 - 110		8270C
Phenol-D5 (surr)	35 %R	38 %R	*	% Rec	10 - 94		8270C
2,4,6-Tribromophenol (surr)	76 %R	87 %R	*	% Rec	10 - 123		8270C



LABORATORY REPORT

Eastern Analytical, Inc. ID#:

53234 Batch ID: 732370-59718/A022806AcidC1

Client: Golder Associates, Inc.

Client Designation: Candia Rd | 053-6859

QC Report

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Units	Limits	RPD	Method
Phenol	53234.01	< 1	19 (39 %R)	20 (39 %R) (0 RPD)	ug/l	12 - 110	42	8270C
2-Chlorophenol	53234.01	< 1	36 (71 %R)	36 (73 %R) (3 RPD)	ug/l	27 - 123	40	8270C
2,4-Dichlorophenol	53234.01	< 1			ug/l			8270C
2,4,5-Trichlorophenol	53234.01	< 1			ug/l			8270C
2,4,6-Trichlorophenol	53234.01	< 1			ug/l			8270C
Pentachlorophenol	53234.01	< 5	30 (60 %R)	29 (57 %R) (5 RPD)	ug/l	9 - 103	50	8270C
2-Nitrophenol	53234.01	< 1			ug/l			8270C
4-Nitrophenol	53234.01	< 5	23 (46 %R)	23 (46 %R) (0 RPD)	ug/l	10 - 80	50	8270C
2,4-Dinitrophenol	53234.01	< 5			ug/l			8270C
2-Methylphenol	53234.01	< 1			ug/l			8270C
3/4-Methylphenol	53234.01	< 1			ug/l			8270C
2,4-Dimethylphenol	53234.01	< 1			ug/l			8270C
4-Chloro-3-methylphenol	53234.01	< 1	42 (83 %R)	41 (83 %R) (0 RPD)	ug/l	23 - 97	42	8270C
4,6-Dinitro-2-methylphenol	53234.01	< 5			ug/l			8270C
Benzoic Acid	53234.01	< 5			ug/l			8270C
2-Fluorophenol (surr)	53234.01	49 %R	50 %R	50 %R	% Rec	21 - 110		8270C
Phenol-D5 (surr)	53234.01	36 %R	37 %R	37 %R	% Rec	10 - 94		8270C
2,4,6-Tribromophenol (surr)	53234.01	85 %R	84 %R	84 %R	% Rec	10 - 123		8270C



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 53234

Batch ID: 732370-59804/A022806BaseN1

Client: Golder Associates, Inc.

Client Designation: Candia Rd | 053-6859

QC Report

Parameter Name	Blank	LCS	LCSD	Units	Limits	RPD	Method
N-Nitrosodimethylamine	< 1			ug/l			8270C
n-Nitroso-di-n-propylamine	< 1	20 (79 %R)	*	ug/l	41 - 116	38	8270C
n-Nitrosodiphenylamine	< 1			ug/l			8270C
bis(2-Chloroethyl)ether	< 1			ug/l			8270C
bis(2-chloroisopropyl)ether	< 1			ug/l			8270C
bis(2-Chloroethoxy)methane	< 1			ug/l			8270C
1,3-Dichlorobenzene	< 1			ug/l			8270C
1,4-Dichlorobenzene	< 1	11 (46 %R)	*	ug/l	36 - 97	28	8270C
1,2-Dichlorobenzene	< 1			ug/l			8270C
1,2,4-Trichlorobenzene	< 1	12 (48 %R)	*	ug/l	39 - 98	28	8270C
2-Chloronaphthalene	< 1			ug/l			8270C
4-Chlorophenyl-phenylether	< 1			ug/l			8270C
4-Bromophenyl-phenylether	< 1			ug/l			8270C
Hexachloroethane	< 1			ug/l			8270C
Hexachlorobutadiene	< 1			ug/l			8270C
Hexachlorocyclopentadiene	< 5			ug/l			8270C
Hexachlorobenzene	< 1			ug/l			8270C
4-Chloroaniline	< 1			ug/l			8270C
2-Nitroaniline	< 5			ug/l			8270C
3-Nitroaniline	< 1			ug/l			8270C
4-Nitroaniline	< 1			ug/l			8270C
Benzyl alcohol	< 1			ug/l			8270C
Nitrobenzene	< 1			ug/l			8270C
Isophorone	< 1			ug/l			8270C
2,4-Dinitrotoluene	< 1	21 (85 %R)	*	ug/l	24 - 96	38	8270C
2,6-Dinitrotoluene	< 1			ug/l			8270C
Benzidine	< 5			ug/l			8270C
3,3'-Dichlorobenzidine	< 1			ug/l			8270C
Pyridine	< 5			ug/l			8270C
Azobenzene	< 1			ug/l			8270C
Carbazole	< 1			ug/l			8270C
Dimethylphthalate	< 1			ug/l			8270C
Diethylphthalate	< 1			ug/l			8270C
Di-n-butylphthalate	< 5	22 (%R)		ug/l			8270C
Butylbenzylphthalate	< 1			ug/l			8270C
bis(2-Ethylhexyl)phthalate	< 5			ug/l			8270C
Di-n-octylphthalate	< 1			ug/l			8270C
Dibenzofuran	< 1			ug/l			8270C
Naphthalene	< 1			ug/l			8270C
2-Methylnaphthalene	< 1			ug/l			8270C
Acenaphthylene	< 1			ug/l			8270C
Acenaphthene	< 1	16 (62 %R)	*	ug/l	46 - 118	31	8270C
Fluorene	< 1			ug/l			8270C
Phenanthrene	< 1			ug/l			8270C
Anthracene	< 1			ug/l			8270C



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 53234

Batch ID: 732370-59804/A022806BaseN1

Client: Golder Associates, Inc.

Client Designation: Candia Rd | 053-6859

QC Report

Parameter Name	Blank	LCS	LCSD	Units	Limits	RPD	Method
Fluoranthene	< 1			ug/l			8270C
Pyrene	< 1	21 (84 %R)	*	ug/l	26 - 127	31	8270C
Benzo[a]anthracene	< 1			ug/l			8270C
Chrysene	< 1			ug/l			8270C
Benzo[b]fluoranthene	< 1			ug/l			8270C
Benzo[k]fluoranthene	< 1			ug/l			8270C
Benzo[a]pyrene	< 1			ug/l			8270C
Indeno[1,2,3-cd]pyrene	< 1			ug/l			8270C
Dibenz[a,h]anthracene	< 1			ug/l			8270C
Benzo[g,h,i]perylene	< 1			ug/l			8270C
Nitrobenzene-D5 (surr)	82 %R	73 %R	*	% Rec	35 - 114		8270C
2-Fluorobiphenyl (surr)	64 %R	61 %R	*	% Rec	43 - 116		8270C
p-Terphenyl-D14 (surr)	82 %R	82 %R	*	% Rec	33 - 141		8270C



LABORATORY REPORT

Eastern Analytical, Inc. ID#:

53234 Batch ID: 732370-59804/A022806BaseN1

Client: Golder Associates, Inc.

Client Designation: Candia Rd | 053-6859

QC Report

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Units	Limits	RPD	Method
N-Nitrosodimethylamine	53234.01	< 1			ug/l			8270C
n-Nitroso-di-n-propylamine	53234.01	< 1	18 (73 %R)	19 (75 %R) (3 RPD)	ug/l	41 - 116	38	8270C
n-Nitrosodiphenylamine	53234.01	< 1			ug/l			8270C
bis(2-Chloroethyl)ether	53234.01	< 1			ug/l			8270C
bis(2-chloroisopropyl)ether	53234.01	< 1			ug/l			8270C
bis(2-Chloroethoxy)methane	53234.01	< 1			ug/l			8270C
1,3-Dichlorobenzene	53234.01	< 1			ug/l			8270C
1,4-Dichlorobenzene	53234.01	< 1	15 (59 %R)	15 (59 %R) (0 RPD)	ug/l	36 - 97	28	8270C
1,2-Dichlorobenzene	53234.01	< 1			ug/l			8270C
1,2,4-Trichlorobenzene	53234.01	< 1	15 (62 %R)	15 (60 %R) (3 RPD)	ug/l	39 - 98	28	8270C
2-Chloronaphthalene	53234.01	< 1			ug/l			8270C
4-Chlorophenyl-phenylether	53234.01	< 1			ug/l			8270C
4-Bromophenyl-phenylether	53234.01	< 1			ug/l			8270C
Hexachloroethane	53234.01	< 1			ug/l			8270C
Hexachlorobutadiene	53234.01	< 1			ug/l			8270C
Hexachlorocyclopentadiene	53234.01	< 5			ug/l			8270C
Hexachlorobenzene	53234.01	< 1			ug/l			8270C
4-Chloroaniline	53234.01	< 1			ug/l			8270C
2-Nitroaniline	53234.01	< 5			ug/l			8270C
3-Nitroaniline	53234.01	< 1			ug/l			8270C
4-Nitroaniline	53234.01	< 1			ug/l			8270C
Benzyl alcohol	53234.01	< 1			ug/l			8270C
Nitrobenzene	53234.01	< 1			ug/l			8270C
Isophorone	53234.01	< 1			ug/l			8270C
2,4-Dinitrotoluene	53234.01	< 1	20 (80 %R)	21 (84 %R) (5 RPD)	ug/l	24 - 96	38	8270C
2,6-Dinitrotoluene	53234.01	< 1			ug/l			8270C
Benzidine	53234.01	< 5			ug/l			8270C
3,3'-Dichlorobenzidine	53234.01	< 1			ug/l			8270C
Pyridine	53234.01	< 5			ug/l			8270C
Azobenzene	53234.01	< 1			ug/l			8270C
Carbazole	53234.01	< 1			ug/l			8270C
Dimethylphthalate	53234.01	< 1			ug/l			8270C
Diethylphthalate	53234.01	< 1			ug/l			8270C
Di-n-butylphthalate	53234.01	< 5	24 (%R)	24 (%R) (RPD)	ug/l			8270C
Butylbenzylphthalate	53234.01	< 1			ug/l			8270C
bis(2-Ethylhexyl)phthalate	53234.01	< 5			ug/l			8270C
Di-n-octylphthalate	53234.01	< 1			ug/l			8270C
Dibenzofuran	53234.01	< 1			ug/l			8270C
Naphthalene	53234.01	< 1			ug/l			8270C
2-Methylnaphthalene	53234.01	< 1			ug/l			8270C
Acenaphthylene	53234.01	< 1			ug/l			8270C
Acenaphthene	53234.01	< 1	16 (63 %R)	16 (63 %R) (0 RPD)	ug/l	46 - 118	31	8270C
Fluorene	53234.01	< 1			ug/l			8270C
Phenanthrene	53234.01	< 1			ug/l			8270C
Anthracene	53234.01	< 1			ug/l			8270C



LABORATORY REPORT

Eastern Analytical, Inc. ID#:

53234 Batch ID: 732370-59804/A022806BaseN1

Client: **Golder Associates, Inc.**

Client Designation: **Candia Rd | 053-6859**

QC Report

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Units	Limits	RPD	Method
Fluoranthene	53234.01	< 1			ug/l			8270C
Pyrene	53234.01	< 1	21 (84 %R)	23 (90 %R) (7 RPD)	ug/l	26 - 127	31	8270C
Benzo[a]anthracene	53234.01	< 0.1			ug/l			8270C
Chrysene	53234.01	< 0.1			ug/l			8270C
Benzo[b]fluoranthene	53234.01	< 0.1			ug/l			8270C
Benzo[k]fluoranthene	53234.01	< 0.1			ug/l			8270C
Benzo[a]pyrene	53234.01	< 0.1			ug/l			8270C
Indeno[1,2,3-cd]pyrene	53234.01	< 0.1			ug/l			8270C
Dibenz[a,h]anthracene	53234.01	< 0.1			ug/l			8270C
Benzo[g,h,i]perylene	53234.01	< 0.1			ug/l			8270C
Nitrobenzene-D5 (surr)	53234.01	63 %R	68 %R	69 %R	% Rec	35 - 114		8270C
2-Fluorobiphenyl (surr)	53234.01	59 %R	61 %R	61 %R	% Rec	43 - 116		8270C
p-Terphenyl-D14 (surr)	53234.01	104 %R	80 %R	86 %R	% Rec	33 - 141		8270C



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 53234

Batch ID: 732370-59863/A022806ABNSI2

Client: Golder Associates, Inc.

Client Designation: Candia Rd | 053-6859

QC Report

Parameter Name	Blank	LCS	LCSD	Units	Limits	RPD	Method
Benzo[a]anthracene	< 0.1			ug/l			8270C SIM
Chrysene	< 0.1			ug/l			8270C SIM
Benzo[b]fluoranthene	< 0.1			ug/l			8270C SIM
Benzo[k]fluoranthene	< 0.1			ug/l			8270C SIM
Benzo[a]pyrene	< 0.1			ug/l			8270C SIM
Indeno[1,2,3-cd]pyrene	< 0.1			ug/l			8270C SIM
Dibenz[a,h]anthracene	< 0.1			ug/l			8270C SIM
Benzo[g,h,i]perylene	< 0.1			ug/l			8270C SIM
p-Terphenyl-D14 (surr)	104 %R			% Rec			8270C SIM



LABORATORY REPORT

Eastern Analytical, Inc. ID#:53234

Batch ID: 732370-59718/A022806AcidC1

Client: Golder Associates, Inc.

Client Designation: Candia Rd | 053-6859

Acid 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
Pentachlorophenol	9-103	50	17-109	47
4-Nitrophenol	10-80	50	11-114	50
4-Chloro-3-methylphenol	23-97	42	26-103	33

Base/Neutral Extractables Spikes:

N-Nitroso-di-n-propylamine	41-116	38	41-126	38
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	35-142	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 Surrogates:

Nitrobenzene-d5	35-114	23-120
2-Fluorobiphenyl	43-116	30-115
p-Terphenyl-d14	33-141	18-137

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 (MS) matrix spike(s) and/or (LCS) Laboratory Control Sample(s) met the above stated criteria.

There were no exceptions in the analyses, unless noted.

DOR: Diluted out of calibration range.

MI: Matrix interference.

"LCS": Pentachlorophenol deviated above the QA/QC recovery limit.



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 53234

Client: **Golder Associates, Inc.**

Client Designation: **Candia Rd | 053-6859**

Sample ID: Inf-01

Lab Sample ID: 53234.01

Matrix: aqueous

Date Sampled: 2/23/06

Date Received: 2/24/06

TPH(SGTHEM) < 5

Units	Analysis		Method	Analyst
	Date	Time		
mg/L	2/24/06	17:00	1664A	MDM



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 53234

Batch ID: 732366-67460/A022406TPH161

Client: Golder Associates, Inc.

Client Designation: Candia Rd | 053-6859

QC Report

Parameter Name	Blank	LCS	LCSD	Units	Limits	RPD	Method
TPH(SGTHEM)	< 5	18 (89 %R)	19 (96 %R) (8 RPD)	mg/L	64 - 132	34	1664A



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 53234

Client: Golder Associates, Inc.

Client Designation: Candia Rd | 053-6859

Sample ID: Inf-01

Lab Sample ID: 53234.01

Matrix: aqueous

Date Sampled: 2/23/06

Date Received: 2/24/06

Units: ug/l

Date of Extraction/Preparation 2/27/06

Date of Analysis: 2/28/06

Analyst: MDM

Method: 608

Dilution Factor: 1

PCB-1016 < 0.5

PCB-1221 < 0.5

PCB-1232 < 0.5

PCB-1242 < 0.5

PCB-1248 < 0.5

PCB-1254 < 0.5

PCB-1260 < 0.5

TMX (surr) 71 %R

DCB (surr) 91 %R



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 53234

Client: Golder Associates, Inc.

Client Designation: Candia Rd | 053-6859

QC Report

Parameter Name	Date of Analysis					Method
	Blank	LCS	LCS Dup	Units		
PCB-1016	< 0.5	0.7 (68 %R)	0.7 (72 %R) (6 RPD)	ug/l	2/28/06	608
PCB-1221	< 0.5	< 0.5 (%R N/A)	< 0.5 (%R N/A) (RPD N/A)	ug/l	2/28/06	608
PCB-1232	< 0.5	< 0.5 (%R N/A)	< 0.5 (%R N/A) (RPD N/A)	ug/l	2/28/06	608
PCB-1242	< 0.5	< 0.5 (%R N/A)	< 0.5 (%R N/A) (RPD N/A)	ug/l	2/28/06	608
PCB-1248	< 0.5	< 0.5 (%R N/A)	< 0.5 (%R N/A) (RPD N/A)	ug/l	2/28/06	608
PCB-1254	< 0.5	< 0.5 (%R N/A)	< 0.5 (%R N/A) (RPD N/A)	ug/l	2/28/06	608
PCB-1260	< 0.5	0.8 (82 %R)	0.8 (84 %R) (2 RPD)	ug/l	2/28/06	608
TMX (surr)	62 %R	62 %R	68 %R	% Rec	2/28/06	608
DCB (surr)	96 %R	94 %R	96 %R	% Rec	2/28/06	608



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 53234

Client: Golder Associates, Inc.

Client Designation: Candia Rd | 053-6859

PCB / Pesticides QA/QC and Narrative Report

Matrix:	Aqueous
Units:	%
EPA Method:	608

Aldrin	30-150
alpha-BHC	30-150
beta-BHC	30-150
gamma-BHC	30-150
delta-BHC	30-150
Chlordane	30-150
4,4'-DDT	30-150
4,4'-DDE	30-150
4,4'-DDD	30-150
Dieldrin	30-150
Endosulfan I	30-150
Endosulfan II	30-150
Endosulfan Sulfate	30-150
Endrin	30-150
Endrin Aldehyde	30-150
Endrin Ketone	30-150
Heptachlor	30-150
Heptachlor Epoxide	30-150
Methoxychlor	30-150
Toxaphene	
Aroclors 1242-1260	30-150
TMX(Surr)	30-150
DCB(Surr)	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.

All samples met the above stated criteria for surrogate recovery.

The associated Matrix Spike(s) and/or Laboratory Control Sample (LCS)(s) met the above stated criteria.

There were no exceptions in the analyses, unless noted.



LABORATORY REPORT

Eastern Analytical, Inc. ID#: **53234**

Client: **Golder Associates, Inc.**

Client Designation: **Candia Rd | 053-6859**

Sample ID: Inf-01

Lab Sample ID: 53234.01

Matrix: aqueous

Date Sampled: 2/23/06

Date Received: 2/24/06

Solids Suspended 7

Cyanide Total < 0.01

Total Residual Chlorine < 0.05

Units	Analysis		Method	Analyst
	Date	Time		
mg/L	2/28/06	11:00	160.2	SEL
mg/L	3/03/06	16:00	335.2	AAB
mg/L	2/24/06	16:30	330.5	NZ



LABORATORY REPORT

Eastern Analytical, Inc. ID#: **53234**

Client: **Golder Associates, Inc.**

Client Designation: **Candia Rd | 053-6859**

QC Report

Parameter Name	Blank	LCS	LCS Dup	Parent ID	Dup Parent	Duplicate
Solids Suspended	< 5	64 (102 %R)	NA	53234.01	7	10 (35 RPD)
Cyanide Total	< 0.01	0.26 (102 %R)	0.27 (108 %R) (6 RPD)		NA	NA
Total Residual Chlorine	< 0.05	0.05 (100 %R)	NA	53234.01	< 0.05	< 0.05 (RPD N/A)
TPH(SGTHEM)	< 5	18 (89 %R)	19 (96 %R) (8 RPD)		NA	NA

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	Matrix Spike Duplicate	Date of Analysis Units	Method
Solids Suspended		NA	NA	NA	mg/L 2/28/06	160.2
Cyanide Total	53234.01	< 0.01	0.20 (98 %R)	0.21 (104 %R) (6 RPD)	mg/L 3/3/06	335.2
Total Residual Chlorine		NA	NA	NA	mg/L 2/24/06	330.5
TPH(SGTHEM)		NA	NA	NA	mg/L 2/24/06	1664A



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 53234

Client: **Golder Associates, Inc.**

Client Designation: **Candia Rd | 053-6859**

Wet Chemistry QA/QC and Narrative Report

QA/QC:	LCS	MS/MSD	Duplicates	
Matrix:	Aqueous	Aqueous	Aqueous	
Units:	% Recovery	% Recovery	RPD	Method
Fluoride	90-110	85-120	20	EPA 300.0
Chloride	90-110	90-110	20	EPA 300.0
Nitrate	90-110	90-110	20	EPA 300.0
Sulfate	90-110	89-120	20	EPA 300.0
Bromide	90-110	80-120	20	EPA 300.0
Chloride	90-110	80-120	20	EPA 325.2
Nitrite	90-110	80-120	20	EPA 353.2
Nitrate	90-110	80-120	20	EPA 353.2
Alkalinity, Total	90-110	80-120	20	EPA 310.1/SM2320B
Alkalinity (all forms)	90-110	80-120	20	SM2320B
Ortho Phosphate	90-110	80-120	20	EPA 365.3
Total Phosphorus	85-115	80-120	20	EPA 365.3
Ammonia	90-110	80-120	20	EPA 350.3
TKN	90-110	80-120	20	EPA 351.4
Cyanide, Total	85-115	80-120	20	EPA 335.2/SM4500CN-E
Cyanide, Weak & Dissociable	85-115	80-120	20	SM 4500CN-I
BOD	84-115	75-125	20	EPA 405.1/SM5210B
CBOD	84-115	75-125	20	SM 5210B
COD	85-115	80-120	20	HACH 8000
TOC/DOC	90-110	80-120	20	SM5310C
Oil & Grease	78-114	78-114	18	EPA 1664A
Total Petroleum Hydrocarbons	64-132	64-132	34	EPA 1664A
Phenols, Total	85-115	80-120	20	EPA 420.1
MBAS	80-120	80-120	20	EPA 425.1
Specific Conductance	90-110	NA	20	EPA 120.1/SM2510B
pH	5.93-6.06 SU	NA	20	EPA 150.1
pH	7.81-8.12 SU	NA	20	EPA 150.1
Solids, Total	90-110*	NA	20	EPA 160.3/SM2540G
Solids, Suspended	90-110*	NA	20	EPA 160.2/SM2540D
Solids, Dissolved	90-110*	NA	20	EPA 160.1/SM2540C
Sulfide	80-120	NA	20	EPA 376.2
Sulfite	80-120	NA	20	EPA 377.1
Residual Chlorine	80-120	NA	20	EPA 330.5/SM4500Cl-G
Turbidity	90-110	NA	20	EPA 180.1
Ferrous Iron	90-110	80-120	20	Hach 8146

* or manufacturer's limits

Samples were analyzed within holding times unless noted on the sample results page.

Instrumentation was calibrated in accordance with the method requirements.

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

The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria unless otherwise stated.

Exceptions are noted on the QC results page.



LABORATORY REPORT

Eastern Analytical, Inc. ID#: **53234**

Client: **Golder Associates, Inc.**

Client Designation: **Candia Rd | 053-6859**

Sample ID: Inf-01

Lab Sample ID: 53234.01

Matrix: aqueous

Date Sampled: 2/23/06

Date Received: 2/24/06

Antimony	< 0.001
Arsenic	< 0.001
Cadmium	< 0.001
Chromium	< 0.001
Chromium (III)	< 0.01
Copper	0.003
Iron	0.11
Lead	< 0.001
Mercury	< 0.0001
Nickel	0.003
Selenium	< 0.001
Silver	< 0.001
Zinc	0.030
Chromium (VI)	< 0.01

Units	Date of Analysis	Method	Analyst
mg/L	3/1/06	200.8	DS
mg/L	3/1/06	200.8	DS
mg/L	3/1/06	200.8	DS
mg/L	3/1/06	200.8	DS
mg/L	3/1/06	200.8	DS
mg/L	3/1/06	200.8	DS
mg/L	3/1/06	200.8	DS
mg/L	3/1/06	200.8	DS
mg/L	3/1/06	200.8	DS
mg/L	3/1/06	200.8	DS
mg/L	3/1/06	200.8	DS
mg/L	3/1/06	200.8	DS
mg/L	2/24/06	7196A	DS



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 53234

Client: Golder Associates, Inc.

Client Designation: Candia Rd | 053-6859

QC Report

Parameter Name				Date of Analysis	
	Blank	LCS	LCS Dup	Units	Method
Antimony	< 0.001	1.0 (103 %R)		mg/L	3/1/06 200.8
Arsenic	< 0.001	1.0 (100 %R)		mg/L	3/1/06 200.8
Cadmium	< 0.001	1.0 (101 %R)		mg/L	3/1/06 200.8
Chromium	< 0.001	1.1 (105 %R)		mg/L	3/1/06 200.8
Copper	< 0.001	1.0 (101 %R)		mg/L	3/1/06 200.8
Iron	< 0.05	11 (103 %R)		mg/L	3/1/06 200.8
Lead	< 0.001	0.92 (92 %R)		mg/L	3/1/06 200.8
Mercury	< 0.0001	0.001 (104 %R)		mg/L	3/1/06 200.8
Nickel	< 0.001	1.0 (101 %R)		mg/L	3/1/06 200.8
Selenium	< 0.001	0.98 (98 %R)		mg/L	3/1/06 200.8
Silver	< 0.001	0.090 (90 %R)		mg/L	3/1/06 200.8
Zinc	< 0.005	0.94 (94 %R)		mg/L	3/1/06 200.8

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	Matrix Spike Duplicate
Antimony	53256.05	< 0.001	1.1 (108 %R)	1.0 (102 %R) (6 RPD)
Arsenic	53256.05	0.012	1.1 (105 %R)	1.0 (99 %R) (6 RPD)
Cadmium	53256.05	< 0.001	1.1 (105 %R)	0.97 (97 %R) (8 RPD)
Chromium	53256.05	< 0.001	1.1 (106 %R)	1.0 (100 %R) (6 RPD)
Copper	53256.05	0.020	1.1 (104 %R)	0.99 (97 %R) (7 RPD)
Iron	53256.05	0.12	100 (91 %R)	99 (90 %R) (1 RPD)
Lead	53256.05	< 0.001	0.84 (84 %R)	0.89 (88 %R) (5 RPD)
Mercury	53256.05	< 0.0001	0.011 (107 %R)	0.010 (103 %R) (4 RPD)
Nickel	53256.05	0.001	1.0 (101 %R)	0.97 (96 %R) (5 RPD)
Selenium	53256.05	< 0.001	1.0 (103 %R)	0.98 (98 %R) (5 RPD)
Silver	53256.05	< 0.001	0.99 (99 %R)	0.92 (92 %R) (7 RPD)
Zinc	53256.05	0.11	1.1 (98 %R)	1.0 (93 %R) (5 RPD)



LABORATORY REPORT

Eastern Analytical, Inc. ID#:53234

Batch ID:

Client: Golder Associates, Inc.

Client Designation: Candia Rd | 053-6859

Metals QA/QC and Narrative Report

QA/QC:	LCS	MS	MSD
Matrix:	Aqueous	Aqueous	Aqueous
Units:	%	%	%
EPA Method:	200.7/200.8	200.7/200.8	200.7/200.8
Aluminum	85-115	70-130	70-130
Antimony	85-115	70-130	70-130
Arsenic	85-115	70-130	70-130
Barium	85-115	70-130	70-130
Beryllium	85-115	70-130	70-130
Boron	85-115	70-130	70-130
Cadmium	85-115	70-130	70-130
Calcium	85-115	70-130	70-130
Chromium	85-115	70-130	70-130
Cobalt	85-115	70-130	70-130
Copper	85-115	70-130	70-130
Iron	85-115	70-130	70-130
Lead	85-115	70-130	70-130
Magnesium	85-115	70-130	70-130
Manganese	85-115	70-130	70-130
Mercury	85-115	70-130	70-130
Molybdenum	85-115	70-130	70-130
Nickel	85-115	70-130	70-130
Phosphorus	85-115	70-130	70-130
Potassium	85-115	70-130	70-130
Selenium	85-115	70-130	70-130
Silicon	85-115	70-130	70-130
Silver	85-115	70-130	70-130
Sodium	85-115	70-130	70-130
Thallium	85-115	70-130	70-130
Tin	85-115	70-130	70-130
Titanium	85-115	70-130	70-130
Vanadium	85-115	70-130	70-130
Zinc	85-115	70-130	70-130

Samples were 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.

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

There were no exceptions in the analyses, unless noted below.



Thursday, March 09, 2006

Eastern Analytical
25 Chenell Dr
Concord NH 03301

Attention: Front Office

Sample ID#: AH04214

This laboratory is in compliance with the QA/QC procedure outlined in EPA 600/4-79-019, Handbook for Analytical Quality in Water and Waste Water, March 1979, and SW846 QA/QC requirements of procedures used.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

A handwritten signature in cursive script that reads "Phyllis Shiller".

Phyllis Shiller
Laboratory Director

CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007
NY Lab Registration #11301
RI Lab Registration #63
NH Lab Registration #213693-A,B
ME Lab Registration #CT-007
NJ Lab Registration #CT-003
PA Lab Registration #68-03530



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 09, 2006

FOR: Attn: Front Office
Eastern Analytical
25 Chennell Drive
Concord, NH 03301

Sample Information

Matrix: WATER
Location Code: EASTANAL
Rush Request:
P.O.#: 19334

Custody Information

Collected by:
Received by: LP
Analyzed by: see "By" below

Date

02/23/06
02/28/06

Time

10:00
10:40

Laboratory Data

SDG I.D.: GAH04214
Phoenix I.D.: AH04214

Client ID: 53234 INF-01

Parameter	Result	RL	Units	Date	Time	By	Reference
Ethylene Dibromide	< 0.02	0.02	ug/L	03/07/06		JRB	504
1,4-dioxane	< 1.0	1.0	ug/L	03/02/06		R/J	SW8260MOD

Comments:

ND=Not detected BDL = Below Detection Limit RL=Reporting Limit

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

Phyllis Shiller, Laboratory Director
March 09, 2006

CHAIN-OF-CUSTODY RECORD

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Sample ID Date Sampled Matrix aParameters

Sample Notes

Inf-01 2/23/2006 10:00 aqueous SubEDB504

Inf-01 2/23/2006 10:00 aqueous 1-4 Dioxane Low Level (5ppb) Vocs 8260B-SIM

101214
6/27/05 LP

EAI SRB# 53234 Project State: NH

Results Needed by: Preferred date

Notes about project

Standard
TAT

Eastern Analytical Inc. PO Number 19334

Report To: Front Office

Invoice To: Front Office

Samples Collected by:

Chen Johnson 3/27/06 1530 JCS

Relinquished by: 2/28/06 1646 JCS

Company Phoenix Environmental Labs

Address 587 East Middle Turnpike

Address Manchester, CT 06040

Account #

Phone # (860)645-1102

Fax Number 860 645-0823

QC Deliverables

☐ A ☐ A+ ☒ B ☐ B+ ☐ C ☐ DE

Eastern Analytical, Inc. 25 Chenell Dr. Concord, NH 03301

Phone: (603)228-0525 1-800-287-0525

Fax: (603)228-4591

Relinquished by Date/Time Received by

March 22, 2006

Ms. Pam Gagnon
Eastern Analytical, Inc.
25 Chenell drive
Concord, NH 03301

**RE: Analytical Results Case Narrative
Project #53234
Analytics # 55926**

Dear Ms. Gagnon

Enclosed please find the analytical results for samples collected from the above-mentioned project. The attached Cover Page lists the sample IDs, Lab tracking numbers and collection dates for the samples included in this deliverable.

Samples were analyzed for Pentachlorophenol using EPA Method 8151A.

Unless otherwise noted in the Non-conformance Summary listed below, all of the quality control (QC) criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for these analyses were within acceptable limits.

This Level II package has been assembled in the following order:

Case Narrative/Non-Conformance Summary
Sample Log Sheet - Cover Page
HERB Form 1 Sample Data Results for Samples and Method Blanks
HERB Form 3 MS/MSD and LCS/LCSD Results
Chain of Custody (COC) Forms

QC NON CONFORMANCE SUMMARY

Sample Receipt:

No QC deviations.

Chlorinated Herbicides by 8151A:

No extra sample was provided for MS/MSD analysis. Laboratory Control samples were used to assess accuracy and precision.

If you have any questions or I can be of further assistance please do not hesitate to contact me.

Sincerely,
ANALYTICS Environmental Laboratory, LLC



Stephen L. Knollmeyer
Laboratory Director

Ms. Pam Gagnon
Eastern Analytical, Inc.
25 Chenell Drive
Concord, NH 03301

Report Number: 55926

Revision: Rev. 0

Re: 53234

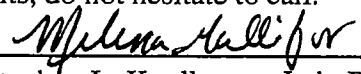
Enclosed are the results of the analyses on your sample(s). Samples were received on 27 February 2006 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

<u>Lab Number</u>	<u>Sample Date</u>	<u>Station Location</u>	<u>Analysis</u>	<u>Comments</u>
55926-1	02/23/06	Inf-01	EPA 8151 Chlorinated Herbicides	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, North Carolina, New York, Virginia, Pennsylvania and is validated by the U.S. Army Corps of Engineers (MRD) and U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature 
Stephen L. Knollmeyer Lab. Director

Date 03/10/06

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

Ms. Pam Gagnon
Eastern Analytical, Inc.
25 Chenell Drive
Concord, NH 03301

March 17, 2006

SAMPLE DATA

Lab Sample ID: B03026HW
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1.1
Collection Date: 01/03/00
Lab Receipt Date: 01/03/00
Extraction Date: 01/03/00
Analysis Date: 03/07/06

CLIENT SAMPLE ID

Project Name:
Project Number: 53234
Client Sample ID: LAB QC

ANALYTICAL RESULTS CHLORINATED HERBICIDES

COMPOUND	Quantitation Limit µg/L	Results µg/L
----------	----------------------------	-----------------

Pentachlorophenol	1	U
-------------------	---	---

Surrogate Standard Recovery

2,4-Dichlorophenylacetic acid 85 %

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: Samples were analyzed according to Test Methods for Evaluating Solid Waste, SW-846 Method 8151.

COMMENTS:

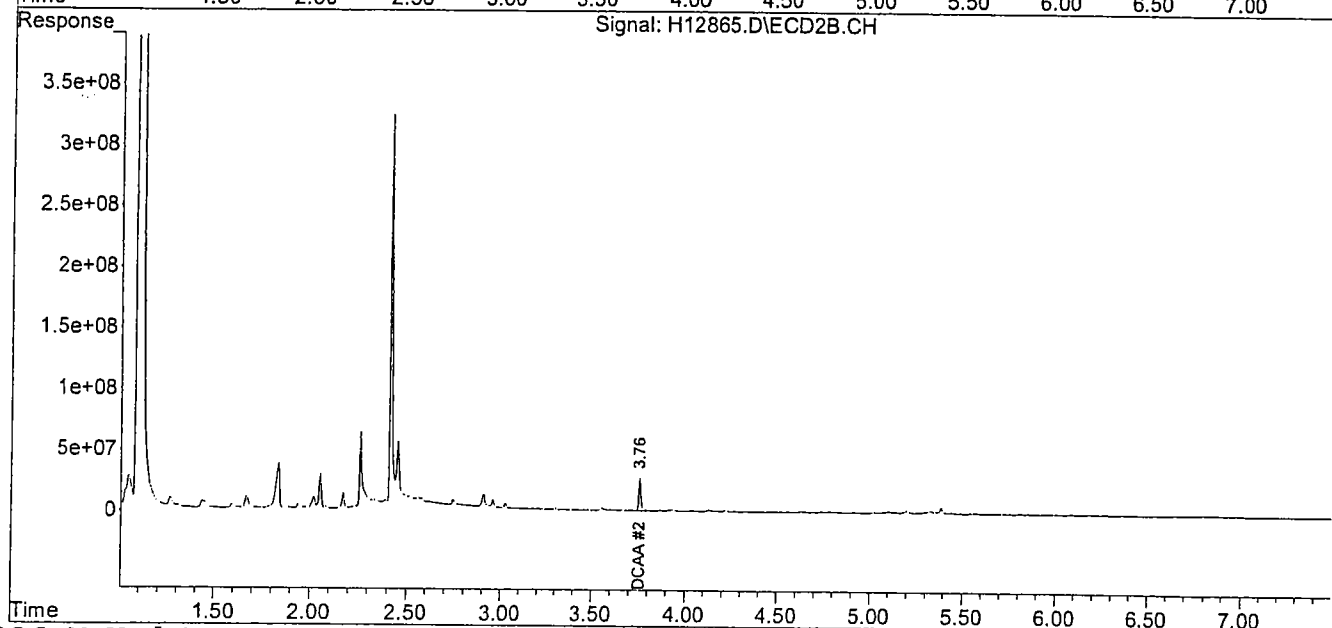
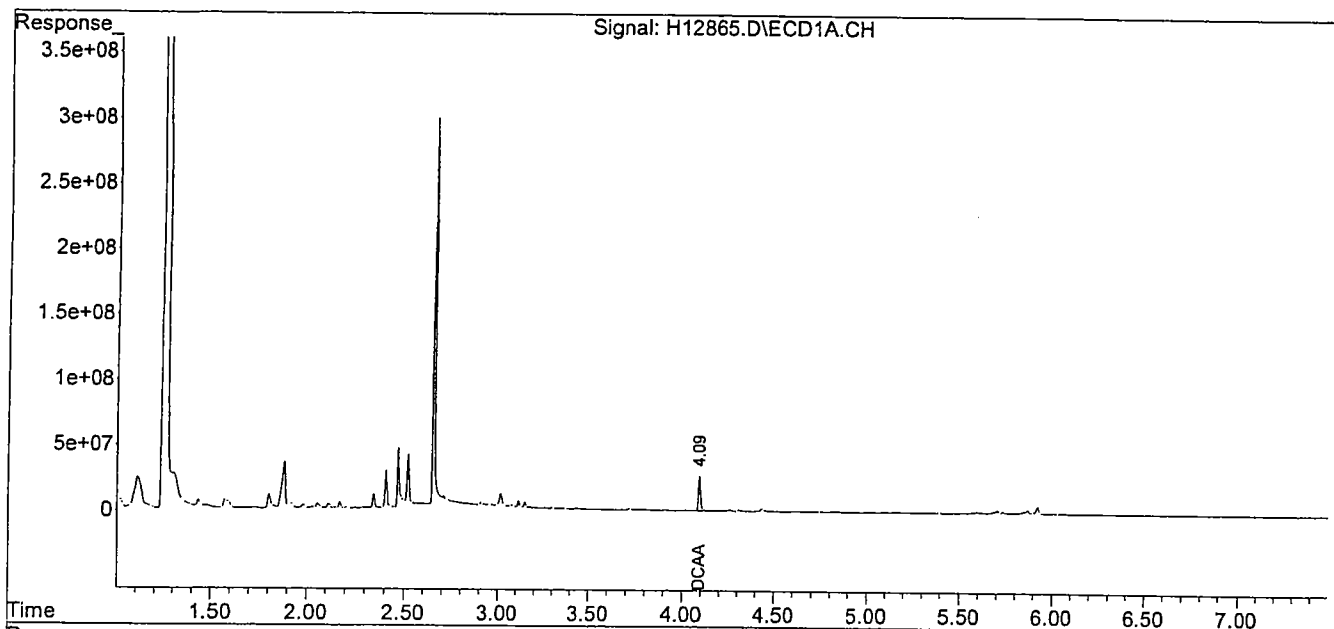
Authorized signature

Melina Hall

Data Path : C:\MSDCHEM\1\DATA\030706-H\
Data File : H12865.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Mar 2006 3:44 pm
Operator :
Sample : B03026HW
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Mar 08 12:00:47 2006
Quant Method : C:\MSDCHEM\1\METHODS\H02226.M
Quant Title : Herbicide Dual-Widebore
QLast Update : Wed Mar 08 12:00:33 2006
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-5
Signal #1 Info : 0.53 mm id., 1um Signal #2 Info : 0.53 mm 1.5um film



Ms. Pam Gagnon
Eastern Analytical, Inc.
25 Chenell Drive
Concord, NH 03301

March 10, 2006

SAMPLE DATA

Lab Sample ID: 55926-1
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1
Collection Date: 02/23/06
Lab Receipt Date: 02/27/06
Extraction Date: 03/02/06
Analysis Date: 03/07/06

CLIENT SAMPLE ID

Project Name:
Project Number: 53234
Client Sample ID: Inf-01

ANALYTICAL RESULTS CHLORINATED HERBICIDES

COMPOUND	Quantitation Limit µg/L	Results µg/L
Pentachlorophenol	1	U

Surrogate Standard Recovery

2,4-Dichlorophenylacetic acid 72 %

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: Samples were analyzed according to Test Methods for Evaluating Solid Waste, SW-846 Method 8151.

COMMENTS:

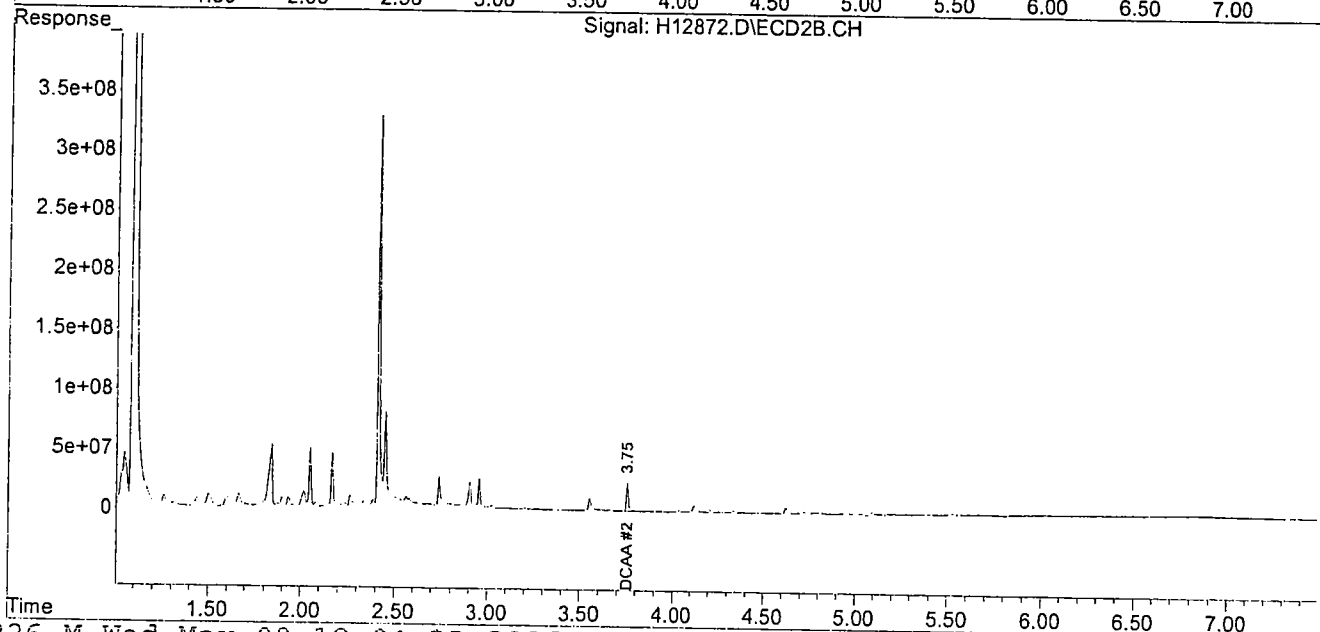
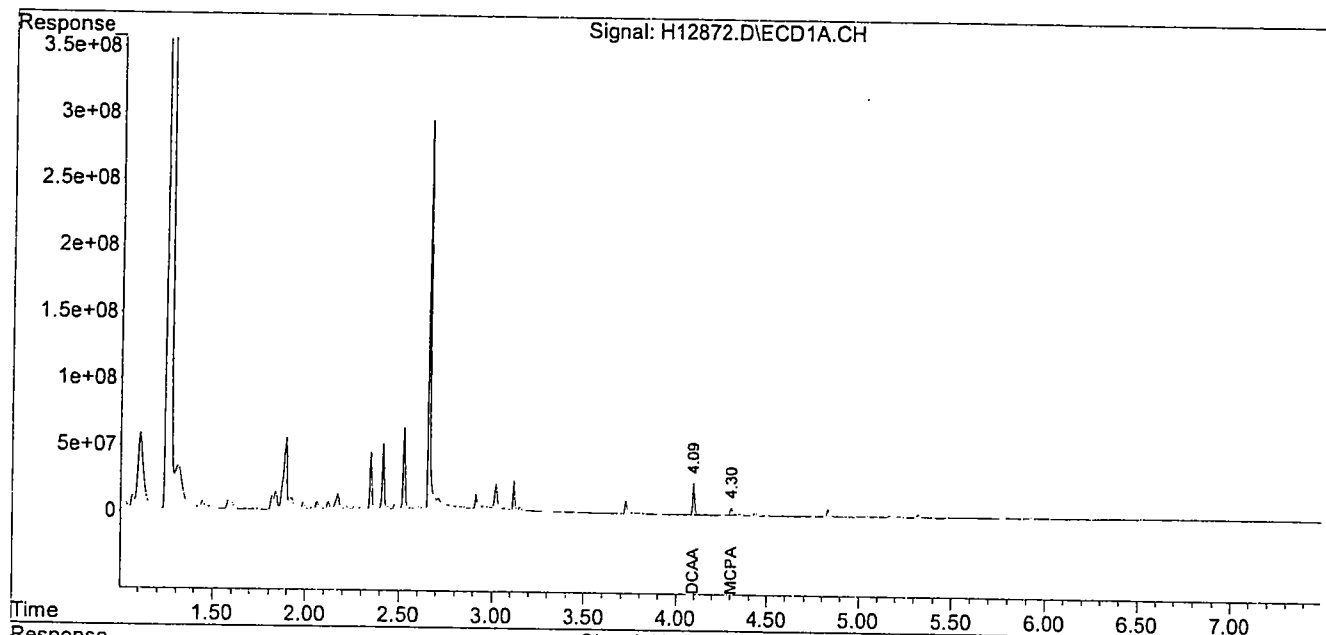
Authorized signature

M. M. Tell

Data Path : C:\MSDCHEM\1\DATA\030706-H\
Data File : H12872.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Mar 2006 5:03 pm
Operator :
Sample : 55926-1
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Mar 08 12:04:32 2006
Quant Method : C:\MSDCHEM\1\METHODS\H02226.M
Quant Title : Herbicide Dual-Widebore
QLast Update : Wed Mar 08 12:00:33 2006
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-5
Signal #1 Info : 0.53 mm id., 1um Signal #2 Info : 0.53 mm 1.5um film



**HERBICIDE AQUEOUS
LABORATORY CONTROL SPIKE/DUPLICATE
PERCENT RECOVERY**

Project #: 53234 Quote #: NA SDG#: 55926
Instrument ID: E Site ID: Location:
GC Columns: RTX-CLPesticides I
 RTX-CLPesticides II ID: 0.53(mm)

Laboratory Control Spike/Duplicate Sample ID: L03026HW/LD03026HW

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMT (ug/L)	LCS CONC. (ug/L)	LCS REC		LCSD CONC. (ug/L)	LCSD REC		RPD	#	QC LIMITS	
				%	#		%	#			RPD	% REC
Pentachlorophenol	2.5	U	2.4	95		2.4	95		0		25	40-140
Pentachlorophenol #2	2.5	U	2.4	94		2.4	95		0		25	50-115

Column to be used to flag recovery and RPD values with an asterisk

*Values outside of QC limits

RPD: 0 out of 2 outside limits

Spike Recovery: 0 out of 4 outside limits

Comments:

CHAIN-OF-CUSTODY RECORD

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sample ID Date Sampled Matrix aParameters

Sample Notes

1f-01 2/23/2006 10:00 aqueous Pentachlorophenol Water Subcontract

55926-1

6/6

EAI SRB# 53234 Project State: NH

Results Needed by: Preferred date

Notes about project

Standard
TAT

Company Analytics Environmental Labs

Address 195 Commerce Way

Address Portsmouth, NH 03801

Account #

Phone # 436-5111

F x Number 430-2151

QC Deliverables

☐ A ☐ A+ ☒ B ☐ B+ ☐ C ☐ DE

E stern Analytical, Inc. 25 Chenell Dr. Concord, NH 03301

Phone: (603)228-0525

1-800-287-0525

Fax: (603)228-4591

Eastern Analytical Inc. PO Number 19335

Report To: Front Office

Invoice To: Front Office

Samples Collected by:

Relinquished by

Date/Time

Received by

Relinquished by

Date/Time

Received by

Relinquished by

Date/Time

Received by

CHAIN-OF-CUSTODY RECORD
REQUESTED ANALYSIS

53234

Item # For Lab Use Only	SAMPLE I.D.	SAMPLING DATE/TIME	MATRIX A-As 5-500 GW-Gravel Water SW-Surface Water DM-Dumping Water WH-Water Wash Other	VOC	SVOC	TCMP METALS	INORGANICS	OTHER	NOTES
Inf-01	2/23/06 1000	SW	☐ NH5242 ☐ 5242 ☐ 5242 BTEX ☐ 5242 MTBE ONLY ☐ 8021B ☐ 8021B AROMATICS ☐ 8021B HALOS ☐ 424 ☐ 401/402 ☐ 401 ☐ 402 ☐ METHANE ☐ METHYLENE/ETHYLENE ☐ MEGRD ☐ MHGRD ☐ HAVPH ☐ 80270C ☐ 625 ☐ SYTHS ☐ ABR ☐ A ☐ B ☐ C ☐ PAH ☐ TPN Level 1 ☐ TPN FINGERPRINT ☐ MEDRO ☐ MHDRD ☐ MAEPH ☐ 8081A/8082 ☐ 608 ☐ PEST ☐ PCB ☐ Oil & Grease 1664 ☐ TPN 1664 ☐ TCLP 1311 ☐ ABR ☐ METALS ☐ VOC ☐ PEST ☐ SW-METALS ☐ DISSOLVED METALS (LIST BELOW) ☒ TOXIC METALS (LIST BELOW) ☐ TS ☐ TDS ☐ TDS ☐ TS ☐ TS ☐ BA ☐ OF ☐ SO ₄ ☐ NO ₃ ☐ NO ₂ ☐ NO ₂ /NO ₃ ☐ pH ☐ Spec. Cond. ☐ TURBIDITY ☐ BOD ☐ CBOD ☐ T. ALK ☐ BICARB. ALK ☐ CAL. ALK ☐ TKN ☐ NH ₃ ☐ T. PHOS. ☐ ORTHO PHOS. ☐ T. RES. CHLORINE ☐ COD ☐ PHENOLS ☐ TOD ☒ Total Chloride ☐ Total Sulfide ☐ Reactive Chloride ☐ Reactive Sulfide ☐ Fluoride ☐ Cyanide ☐ T. COUFORM ☐ DE. COU ☐ F. COUFORM ☐ F. SHIP ☐ ENTEROCOCCI ☐ Sub EDBFCH ☐ 1-4 Dioxane LL ☐ 8260B-15M ☐ Pentachlorophenol	☐ DB RCA METALS ☐ FE, MN ☐ 13 PP METALS OTHER METALS DISSOLVED METALS FIELD FILTERED? ☐ YES ☒ NO NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)	RESULTS NEEDED BY (DATE RETURNED AND) Std 5 day (QUANTITIES AND TOLERANCES NEED PA-APPENDIX) QA/QC REPORTING LEVEL ☐ QA ☐ QB ☐ QC ☐ QA Data Enhancement Package* REPORTING OPTIONS ☒ Hard Copy ☐ FAX ☐ ELECTRONIC QUOTE # 1004046 PO # SAMPLE(S) Jess Alexander RELINQUISHED BY Jess Alexander DATE 2006.02.24 10:55 AM RECEIVED BY [Signature] DATE 2006.02.24 14:33 RECEIVED BY [Signature] RELINQUISHED BY [Signature] DATE 2006.02.24 14:33 RECEIVED BY [Signature]	For Lab Use Only Analyzed to EPA Method ☐ CHL ☐ CHL (for filtered) Time 2:17 Initials [Signature] Contain the limit? ☐ YES ☐ NO			


eastern analytical, inc.
 professional laboratory services

 25 CHENELL DRIVE | CONCORD, NH 03301 | TEL: 603.228.0525 | FAX: 603.228.4591 | E-MAIL: CUSTOMER_SERVICE@EALABS.COM | WWW.EALABS.COM
 (WHITE: ORIGINAL GREEN: PROJECT MANAGER)

RELINQUISHED BY: DATE: TIME: RECEIVED BY:

 PROJECT MANAGER **Pete King**
 COMPANY **Goldber Associates**
 ADDRESS **520 N. Commercial St.**
 CITY **Manchester** STATE **NH** ZIP **03101**
 PHONE **603-668-0880**
 FAX **603-668-1199**
 E-MAIL **pete.king@golber.com**
 SITE NAME **Contaminated**
 PROJECT # **053-0859**
 STATE ☒ NH ☐ MA ☐ DE ☐ VT ☐ OTHER
 SITE INVESTIGATION ☐ SITE REMEDIATION
 WASTE CHARACTERIZATION/PROFILE ☐ SITE HISTORICAL CONTAMINATED

 Sb, As, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn
 Cr (III), Cr (VI)